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PACKAGING LINE DATA

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A.1. DIRECT LABOR (DLR)

DLR = (HE*PT*WR)

WR = $20.00

	Number of Hourly Employees		Total Production Time	Direct Labor	
Production Day (DMU)	**HE** *(observed)*	**HE** *(upper bound)*	**PT** *(Hours)*	**DLR** *(observed)*	**DLR** *(upper bound)*
1	4.00	4.50	9.86	**788.80**	**887.40**
2	5.50	6.00	12.25	**1347.50**	**1470.00**
3	3.00	3.50	11.50	**690.00**	**805.00**
4	5.00	5.50	12.25	**1225.00**	**1347.50**
5	5.50	6.00	10.83	**1191.30**	**1299.60**
6	3.50	4.00	13.08	**915.60**	**1046.40**
7	5.00	5.50	14.42	**1442.00**	**1586.20**
8	3.50	5.50	11.25	**787.50**	**1237.50**
9	3.50	4.00	12.00	**840.00**	**960.00**
10	5.00	5.50	13.16	**1316.00**	**1447.60**
11	4.00	4.50	12.66	**1012.80**	**1139.40**
12	6.00	6.50	12.66	**1519.20**	**1645.80**
13	4.00	4.50	12.25	**980.00**	**1102.50**
14	6.00	6.50	15.07	**1808.40**	**1959.10**
15	7.00	7.50	13.16	**1842.40**	**1974.00**
16	8.00	8.50	13.16	**2105.60**	**2237.20**
17	6.50	7.00	12.91	**1678.30**	**1807.40**
18	6.00	6.50	12.83	**1539.60**	**1667.90**
19	3.00	3.50	6.58	**394.80**	**460.60**
20	7.50	8.00	11.83	**1774.50**	**1892.80**
21	6.00	6.50	14.41	**1729.20**	**1873.30**
22	6.00	6.50	14.17	**1700.40**	**1842.10**
23	4.50	5.00	12.33	**1109.70**	**1233.00**
24	7.50	8.00	11.41	**1711.50**	**1825.60**
25	5.00	5.50	12.49	**1249.00**	**1373.90**
26	5.00	5.50	12.16	**1216.00**	**1337.60**
27	5.00	5.50	12.66	**1266.00**	**1392.60**
28	6.00	6.50	11.66	**1399.20**	**1515.80**
29	6.00	6.50	12.08	**1449.60**	**1570.40**
30	6.50	7.00	12.08	**1570.40**	**1691.20**
31	6.00	6.50	12.91	**1549.20**	**1678.30**
32	5.00	5.50	12.24	**1224.00**	**1346.40**
33	6.00	6.50	11.49	**1378.80**	**1493.70**
34	6.50	7.00	12.49	**1623.70**	**1748.60**
35	7.00	7.50	13.16	**1842.40**	**1974.00**
36	5.50	6.00	12.83	**1411.30**	**1539.60**
37	6.00	6.50	12.74	**1528.80**	**1656.20**
38	6.00	6.50	14.66	**1759.20**	**1905.80**
39	6.50	7.00	13.16	**1710.80**	**1842.40**
40	7.00	7.50	12.49	**1748.60**	**1873.50**
41	7.50	8.00	13.16	**1974.00**	**2105.60**
42	7.00	7.50	13.16	**1842.40**	**1974.00**
43	8.00	8.50	14.33	**2292.80**	**2436.10**
44	8.50	9.00	16.99	**2888.30**	**3058.20**
45	8.00	8.50	14.41	**2305.60**	**2449.70**
46	10.50	11.00	13.91	**2921.10**	**3060.20**
47	4.00	4.50	10.67	**853.60**	**960.30**
48	4.50	5.00	10.29	**926.10**	**1029.00**

A.2. REWORK (RWK)

RWK = PMIS + PMUL

	Preprint Misses		Preprint Multiples	Rework	
Production Day (DMU)	**PMIS** *(observed)*	**PMIS** *(upper bound)*	**PMUL**	**RWK** *(observed)*	**RWK** *(upper bound)*
1	325	975	176	**501**	**1151**
2	2222	6666	3357	**5579**	**10023**
3	4522	13566	1284	**5806**	**14850**
4	3067	9201	2887	**5954**	**12088**
5	1997	5991	2496	**4493**	**8487**
6	1123	3369	526	**1649**	**3895**
7	3485	10455	3570	**7055**	**14025**
8	107	321	2602	**2709**	**2923**
9	756	2268	803	**1559**	**3071**
10	2589	7767	2293	**4882**	**10060**
11	1869	5607	1405	**3274**	**7012**
12	2882	8646	3598	**6480**	**12244**
13	1921	5763	2501	**4422**	**8264**
14	6296	18888	10962	**17258**	**29850**
15	7563	22689	8380	**15943**	**31069**
16	5051	15153	8477	**13528**	**23630**
17	3893	11679	4659	**8552**	**16338**
18	4019	12057	4717	**8736**	**16774**
19	1762	5286	1538	**3300**	**6824**
20	5028	15084	7131	**12159**	**22215**
21	4784	14352	4513	**9297**	**18865**
22	5754	17262	7765	**13519**	**25027**
23	1535	4605	1614	**3149**	**6219**
24	7304	21912	6658	**13962**	**28570**
25	1591	4773	3476	**5067**	**8249**
26	2169	6507	2743	**4912**	**9250**
27	4749	14247	4542	**9291**	**18789**
28	4925	14775	8635	**13560**	**23410**
29	2794	8382	3797	**6591**	**12179**
30	6050	18150	7363	**13413**	**25513**
31	5408	16224	5052	**10460**	**21276**
32	3781	11343	6843	**10624**	**18186**
33	4682	14046	4212	**8894**	**18258**
34	4160	12480	5241	**9401**	**17721**
35	13479	40437	3010	**16489**	**43447**
36	6244	18732	8726	**14970**	**27458**
37	7303	21909	2877	**10180**	**24786**
38	5319	15957	10448	**15767**	**26405**
39	4538	13614	4375	**8913**	**17989**
40	4685	14055	3052	**7737**	**17107**
41	7673	23019	11602	**19275**	**34621**
42	7381	22143	5731	**13112**	**27874**
43	5898	17694	7495	**13393**	**25189**
44	3389	10167	10065	**13454**	**20232**
45	3933	11799	9282	**13215**	**21081**
46	4886	14658	7883	**12769**	**22541**
47	969	2907	8370	**9339**	**11277**
48	967	2901	2615	**3582**	**5516**

A.3. RAW MATERIAL (RML)

A.3.a: REJECTS (REJ)

$$\mathbf{REJ = (N_{MUL} \times MUL) + UON}$$

$N_{MUL} = 2$ *(observed value)* and $N_{MUL} = 3$ *(upper bound)*

	NNSS Multiples		**Unopened NNSS**	**Rejected NNSS**	
Production Day (DMU)	**NMUL (=2)** x **MUL** *(observed)*	**NMUL (=3)** x **MUL** *(upper bound)*	**UON**	**REJ** *(observed)*	**REJ** *(upper bound)*
1	1080	1620	2935	4015	4555
2	2082	3123	4311	6393	7434
3	1712	2568	4291	6003	6859
4	3174	4761	4168	7342	8929
5	1002	1503	6109	7111	7612
6	444	666	5352	5796	6018
7	266	399	5163	5429	5562
8	376	564	3433	3809	3997
9	1174	1761	4133	5307	5894
10	1154	1731	7485	8639	9216
11	664	996	9147	9811	10143
12	1196	1794	5093	6289	6887
13	532	798	8258	8790	9056
14	1340	2010	4896	6236	6906
15	1024	1536	3017	4041	4553
16	144	216	3650	3794	3866
17	452	678	5462	5914	6140
18	208	312	4462	4670	4774
19	448	672	3170	3618	3842
20	786	1179	12897	13683	14076
21	1772	2658	11820	13592	14478
22	1834	2751	16494	18328	19245
23	1440	2160	4733	6173	6893
24	418	627	2578	2996	3205
25	1566	2349	1146	2712	3495
26	2468	3702	1440	3908	5142
27	692	1038	1158	1850	2196
28	934	1401	7820	8754	9221
29	882	1323	1153	2035	2476
30	694	1041	1844	2538	2885
31	1142	1713	1221	2363	2934
32	2136	3204	1436	3572	4640
33	1852	2778	1402	3254	4180
34	1116	1674	1324	2440	2998
35	866	1299	912	1778	2211
36	1042	1563	1722	2764	3285
37	752	1128	1559	2311	2687
38	748	1122	5084	5832	6206
39	844	1266	3328	4172	4594
40	594	891	4986	5580	5877
41	812	1218	4260	5072	5478
42	1588	2382	4864	6452	7246
43	1500	2250	5352	6852	7602
44	1792	2688	7572	9364	10260
45	1208	1812	6672	7880	8484
46	2254	3381	3783	6037	7164
47	322	483	1914	2236	2397
48	100	150	2873	2973	3023

A.3.b: SCRAP (SCP)

$$\mathbf{SCP = F_{REJ} \times REJ}$$

F_{REJ} = 30% *(observed value)*

F_{REJ} = 50% *(upper bound)*

	Rejected NNSS		**Scrapped NNSS**	
Production Day (DMU)	**REJ** *(observed)*	**REJ** *(upper bound)*	**SCP** *(observed)*	**SCP** *(upper bound)*
1	4015	4555	1205	2278
2	6393	7434	1918	3717
3	6003	6859	1801	3430
4	7342	8929	2203	4465
5	7111	7612	2133	3806
6	5796	6018	1739	3009
7	5429	5562	1629	2781
8	3809	3997	1143	1999
9	5307	5894	1592	2947
10	8639	9216	2592	4608
11	9811	10143	2943	5072
12	6289	6887	1887	3444
13	8790	9056	2637	4528
14	6236	6906	1871	3453
15	4041	4553	1212	2277
16	3794	3866	1138	1933
17	5914	6140	1774	3070
18	4670	4774	1401	2387
19	3618	3842	1085	1921
20	13683	14076	4105	7038
21	13592	14478	4078	7239
22	18328	19245	5498	9623
23	6173	6893	1852	3447
24	2996	3205	899	1603
25	2712	3495	814	1748
26	3908	5142	1172	2571
27	1850	2196	555	1098
28	8754	9221	2626	4611
29	2035	2476	611	1238
30	2538	2885	761	1443
31	2363	2934	709	1467
32	3572	4640	1072	2320
33	3254	4180	976	2090
34	2440	2998	732	1499
35	1778	2211	533	1106
36	2764	3285	829	1643
37	2311	2687	693	1344
38	5832	6206	1750	3103
39	4172	4594	1252	2297
40	5580	5877	1674	2939
41	5072	5478	1522	2739
42	6452	7246	1936	3623
43	6852	7602	2056	3801
44	9364	10260	2809	5130
45	7880	8484	2364	4242
46	6037	7164	1811	3582
47	2236	2397	671	1199
48	2973	3023	892	1512

A.3.c: TRASH (TRA)

$$\mathbf{TRA = F_{PMOT} \times PMOT}$$

F_{PMOT} = 3% *(observed value)*

F_{PMOT} = 5% *(upper bound)*

	Preprint Insertion Machine Output	**Trashed NNSS**	
Production Day (DMU)	**PMOT**	**TRA** *(observed)*	**TRA** *(upper bound)*
1	14329	430	716
2	128199	3846	6410
3	140573	4217	7029
4	112678	3380	5634
5	139981	4199	6999
6	187883	5636	9394
7	148474	4454	7424
8	115228	3457	5761
9	154548	4636	7727
10	155799	4674	7790
11	154615	4638	7731
12	153955	4619	7698
13	152449	4573	7622
14	136428	4093	6821
15	114124	3424	5706
16	116061	3482	5803
17	110287	3309	5514
18	112712	3381	5636
19	80532	2416	4027
20	146440	4393	7322
21	173722	5212	8686
22	137288	4119	6864
23	163062	4892	8153
24	129618	3889	6481
25	172643	5179	8632
26	167829	5035	8391
27	165171	4955	8259
28	118580	3557	5929
29	149101	4473	7455
30	139845	4195	6992
31	151073	4532	7554
32	152240	4567	7612
33	129946	3898	6497
34	144577	4337	7229
35	120435	3613	6022
36	152890	4587	7645
37	153724	4612	7686
38	128779	3863	6439
39	133375	4001	6669
40	144287	4329	7214
41	139769	4193	6988
42	153799	4614	7690
43	130443	3913	6522
44	115396	3462	5770
45	125113	3753	6256
46	110201	3306	5510
47	174498	5235	8725
48	183429	5503	9171

RML= k_{RML} x (TRA + SCP)

		Trashed NNSS		Scrapped NNSS		Raw Material	
Production Day (DMU)	**k_{RML}**	**TRA** *(observed)*	**TRA** *(upper bound)*	**SCP** *(observed)*	**SCP** *(upper bound)*	**RML** *(observed)*	**RML** *(upper bound)*
1	0.49	430	716	1205	2278	**801**	**1467**
2	1.10	3846	6410	1918	3717	**6340**	**11140**
3	0.81	4217	7029	1801	3430	**4875**	**8471**
4	1.10	3380	5634	2203	4465	**6141**	**11108**
5	0.76	4199	6999	2133	3806	**4813**	**8212**
6	0.62	5636	9394	1739	3009	**4573**	**7690**
7	1.11	4454	7424	1629	2781	**6752**	**11327**
8	0.63	3457	5761	1143	1999	**2898**	**4889**
9	0.62	4636	7727	1592	2947	**3862**	**6618**
10	0.80	4674	7790	2592	4608	**5813**	**9918**
11	0.74	4638	7731	2943	5072	**5610**	**9474**
12	0.76	4619	7698	1887	3444	**4944**	**8467**
13	0.71	4573	7622	2637	4528	**5119**	**8627**
14	1.12	4093	6821	1871	3453	**6679**	**11507**
15	1.22	3424	5706	1212	2277	**5656**	**9739**
16	1.28	3482	5803	1138	1933	**5914**	**9902**
17	1.23	3309	5514	1774	3070	**6252**	**10559**
18	1.17	3381	5636	1401	2387	**5595**	**9386**
19	1.03	2416	4027	1085	1921	**3606**	**6126**
20	1.05	4393	7322	4105	7038	**8923**	**15078**
21	1.24	5212	8686	4078	7239	**11519**	**19747**
22	1.31	4119	6864	5498	9623	**12598**	**21598**
23	0.80	4892	8153	1852	3447	**5395**	**9280**
24	1.35	3889	6481	899	1603	**6463**	**10913**
25	0.80	5179	8632	814	1748	**4794**	**8304**
26	0.61	5035	8391	1172	2571	**3786**	**6687**
27	1.05	4955	8259	555	1098	**5786**	**9824**
28	1.12	3557	5929	2626	4611	**6926**	**11804**
29	1.08	4473	7455	611	1238	**5490**	**9388**
30	1.45	4195	6992	761	1443	**7187**	**12230**
31	1.21	4532	7554	709	1467	**6342**	**10915**
32	0.75	4567	7612	1072	2320	**4229**	**7449**
33	1.17	3898	6497	976	2090	**5703**	**10047**
34	1.30	4337	7229	732	1499	**6590**	**11346**
35	1.48	3613	6022	533	1106	**6137**	**10548**
36	1.09	4587	7645	829	1643	**5903**	**10123**
37	1.35	4612	7686	693	1344	**7162**	**12190**
38	1.29	3863	6439	1750	3103	**7241**	**12309**
39	1.47	4001	6669	1252	2297	**7722**	**13180**
40	1.38	4329	7214	1674	2939	**8284**	**14011**
41	1.62	4193	6988	1522	2739	**9258**	**15758**
42	1.62	4614	7690	1936	3623	**10610**	**18327**
43	1.50	3913	6522	2056	3801	**8953**	**15485**
44	1.46	3462	5770	2809	5130	**9156**	**15914**
45	1.40	3753	6256	2364	4242	**8564**	**14697**
46	1.32	3306	5510	1811	3582	**6755**	**12002**
47	0.61	5235	8725	671	1199	**3603**	**6053**
48	0.80	5503	9171	892	1512	**5116**	**8546**

A.4. PACKAGES (PCF)

A.4.a: PACKAGE PRODUCTION

CP =PMOT ***(observed value)***

CP=PMOT–Σ|$PMOT_z$-$PLOT_z$| ***(lower bound)***

	Preprint Insertion Machine Output	PMOT vs. PLOT	Package Production	
Production Day (DMU)	**PMOT**	**Σ|$PMOT_z$-$PLOT_z$|**	**CP** *(lower bound)*	**CP** *(observed)*
1	143239	64	143175	143239
2	128199	639	127560	128199
3	140573	31	140542	140573
4	112678	1156	111522	112678
5	139981	1121	138860	139981
6	187883	18425	169458	187883
7	148474	1470	147004	148474
8	115228	5590	109638	115228
9	154548	5207	149341	154548
10	155799	32185	123614	155799
11	154615	146	154469	154615
12	153955	929	153026	153955
13	152449	20767	131682	152449
14	136428	4826	131602	136428
15	114124	820	113304	114124
16	116061	713	115348	116061
17	110287	4831	105456	110287
18	112712	5204	107508	112712
19	80532	331	80201	80532
20	146440	1545	144895	146440
21	173722	2244	171478	173722
22	137288	6024	131264	137288
23	163062	6624	156438	163062
24	129618	576	129042	129618
25	172643	6298	166345	172643
26	167829	1136	166693	167829
27	165171	773	164398	165171
28	118580	188	118392	118580
29	149101	670	148431	149101
30	139845	2487	137358	139845
31	151073	224	150849	151073
32	152240	4447	147793	152240
33	129946	585	129361	129946
34	144577	1727	142850	144577
35	120435	66	120369	120435
36	152890	397	152493	152890
37	153724	146	153578	153724
38	128779	239	128540	128779
39	133375	276	133099	133375
40	144287	172	144115	144287
41	139769	91	139678	139769
42	153799	161	153638	153799
43	130443	117	130326	130443
44	115396	52	115344	115396
45	125113	50	125063	125113
46	110201	1139	109062	110201
47	174498	11308	163190	174498
48	183429	2976	180453	183429

A.4.b: INCOMPLETE PACKAGES

IP = PST / NoPT *(observed)*
IP = PST (*upper bound)*

	Preprint Shortages	**Preprint Types**	**Incomplete Packages**	
Production Day (DMU)	**PST**	**Number of Types (NoPT)**	**IP** *(observed)*	**IP** *(upper bound)*
1	3782	7	540	3782
2	7038	21	335	7038
3	2456	7	351	2456
4	13837	22	629	13837
5	10969	16	686	10969
6	2030	9	226	2030
7	6723	21	320	6723
8	650	12	54	650
9	0	9	0	0
10	521	10	52	521
11	0	15	0	0
12	10802	12	900	10802
13	0	8	0	0
14	18887	19	994	18887
15	9145	28	327	9145
16	32301	28	1154	32301
17	21532	32	673	21532
18	15263	25	611	15263
19	0	12	0	0
20	2496	21	119	2496
21	78070	20	3904	78070
22	46309	29	1597	46309
23	2766	10	277	2766
24	4096	29	141	4096
25	6675	13	513	6675
26	3741	8	468	3741
27	901	27	33	901
28	9365	26	360	9365
29	2164	17	127	2164
30	1298	33	39	1298
31	114	26	4	114
32	0	12	0	0
33	30547	23	1328	30547
34	9537	29	329	9537
35	0	35	0	0
36	2775	20	139	2775
37	10261	33	311	10261
38	2960	33	90	2960
39	3074	38	81	3074
40	5169	32	162	5169
41	29060	32	908	29060
42	5547	34	163	5547
43	0	34	0	0
44	0	36	0	0
45	0	25	0	0
46	0	29	0	0
47	0	10	0	0
48	0	11	0	0

A.4.c: PACKAGES

$$PP^{ob} = CP^{ob} - IP^{ob} \textit{ (observed)}$$
$$PP^{lb} = CP^{lb} - IP^{ub} \textit{ (lower bound)}$$

	Package Production		Incomplete Packages		Packages	
Production Day (DMU)	**CP** *(lower bound)*	**CP** (*observed)*	**IP** *(observed)*	**IP** *(upper bound)*	**PP** *(lower bound)*	**PP** *(observed)*
1	143175	143239	540	3782	**139393**	**142699**
2	127560	128199	335	7038	**120522**	**127864**
3	140542	140573	351	2456	**138086**	**140222**
4	111522	112678	629	13837	**97685**	**112049**
5	138860	139981	686	10969	**127891**	**139295**
6	169458	187883	226	2030	**167428**	**187657**
7	147004	148474	320	6723	**140281**	**148154**
8	109638	115228	54	650	**108988**	**115174**
9	149341	154548	0	0	**149341**	**154548**
10	123614	155799	52	521	**123093**	**155747**
11	154469	154615	0	0	**154469**	**154615**
12	153026	153955	900	10802	**142224**	**153055**
13	131682	152449	0	0	**131682**	**152449**
14	131602	136428	994	18887	**112715**	**135434**
15	113304	114124	327	9145	**104159**	**113797**
16	115348	116061	1154	32301	**83047**	**114907**
17	105456	110287	673	21532	**83924**	**109614**
18	107508	112712	611	15263	**92245**	**112101**
19	80201	80532	0	0	**80201**	**80532**
20	144895	146440	119	2496	**142399**	**146321**
21	171478	173722	3904	78070	**93408**	**169819**
22	131264	137288	1597	46309	**84955**	**135691**
23	156438	163062	277	2766	**153672**	**162785**
24	129042	129618	141	4096	**124946**	**129477**
25	166345	172643	513	6675	**159670**	**172130**
26	166693	167829	468	3741	**162952**	**167361**
27	164398	165171	33	901	**163497**	**165138**
28	118392	118580	360	9365	**109027**	**118220**
29	148431	149101	127	2164	**146267**	**148974**
30	137358	139845	39	1298	**136060**	**139806**
31	150849	151073	4	114	**150735**	**151069**
32	147793	152240	0	0	**147793**	**152240**
33	129361	129946	1328	30547	**98814**	**128618**
34	142850	144577	329	9537	**133313**	**144248**
35	120369	120435	0	0	**120369**	**120435**
36	152493	152890	139	2775	**149718**	**152751**
37	153578	153724	311	10261	**143317**	**153413**
38	128540	128779	90	2960	**125580**	**128689**
39	133099	133375	81	3074	**130025**	**133294**
40	144115	144287	162	5169	**138946**	**144125**
41	139678	139769	908	29060	**110618**	**138861**
42	153638	153799	163	5547	**148091**	**153636**
43	130326	130443	0	0	**130326**	**130443**
44	115344	115396	0	0	**115344**	**115396**
45	125063	125113	0	0	**125063**	**125113**
46	109062	110201	0	0	**109062**	**110201**
47	163190	174498	0	0	**163190**	**174498**
48	180453	183429	0	0	**180453**	**183429**

A.5. COMPLEXITY FACTOR (CF)

CF = ((TPZ / 14) x (APS / 4))0.39

	Total Production Zones	Average Package Size	Complexity Factor
Production Day (DMU)	**TPZ**	**APS**	**CF**
1	8	1.10	**0.49**
2	20	3.60	**1.10**
3	9	3.60	**0.81**
4	14	5.10	**1.10**
5	14	2.00	**0.76**
6	11	1.50	**0.62**
7	17	4.30	**1.11**
8	12	1.40	**0.63**
9	10	1.60	**0.62**
10	8	3.90	**0.80**
11	10	2.60	**0.74**
12	8	3.40	**0.76**
13	8	2.90	**0.71**
14	12	6.30	**1.12**
15	13	7.10	**1.22**
16	12	8.80	**1.28**
17	17	5.70	**1.23**
18	13	6.50	**1.17**
19	9	6.70	**1.03**
20	13	4.90	**1.05**
21	17	5.70	**1.24**
22	17	6.50	**1.31**
23	12	2.60	**0.80**
24	17	7.10	**1.35**
25	11	2.90	**0.80**
26	6	2.60	**0.61**
27	17	3.70	**1.05**
28	14	5.30	**1.12**
29	18	3.80	**1.08**
30	17	8.60	**1.45**
31	19	4.80	**1.21**
32	7	3.80	**0.75**
33	13	6.40	**1.17**
34	20	5.50	**1.30**
35	18	8.50	**1.48**
36	12	5.80	**1.09**
37	21	5.70	**1.35**
38	18	6.00	**1.29**
39	19	7.90	**1.47**
40	20	6.40	**1.38**
41	21	9.20	**1.62**
42	24	8.00	**1.62**
43	19	8.30	**1.50**
44	15	9.90	**1.46**
45	16	8.40	**1.40**
46	13	8.70	**1.32**
47	5	3.20	**0.61**
48	6	5.30	**0.80**

A.6. PACKAGES (PCF)

PCF

	Packages		**Complexity Factor**	**Packages x CF**	
Production Day (DMU)	**PP** *(lower bound)*	**PP** *(observed)*	**CF**	**PCF** *(lower bound)*	**PCF** *(observed)*
1	139393	142699	0.49	**67648**	**69252**
2	120522	127864	1.10	**132679**	**140761**
3	138086	140222	0.81	**111382**	**113105**
4	97685	112049	1.10	**106988**	**122720**
5	127891	139295	0.76	**96834**	**105469**
6	167428	187657	0.62	**104107**	**116686**
7	140281	148154	1.11	**156281**	**165052**
8	108988	115174	0.63	**68753**	**72655**
9	149341	154548	0.62	**92332**	**95551**
10	123093	155747	0.80	**97936**	**123917**
11	154469	154615	0.74	**114773**	**114882**
12	142224	153055	0.76	**107483**	**115669**
13	131682	152449	0.71	**93044**	**107717**
14	112715	135434	1.12	**126666**	**152197**
15	104159	113797	1.22	**126749**	**138477**
16	83047	114907	1.28	**106462**	**147305**
17	83924	109614	1.23	**103638**	**135362**
18	92245	112101	1.17	**108068**	**131330**
19	80201	80532	1.03	**82557**	**82898**
20	142399	146321	1.05	**149191**	**153300**
21	93408	169819	1.24	**115882**	**210677**
22	84955	135691	1.31	**110917**	**177158**
23	153672	162785	0.80	**123229**	**130537**
24	124946	129477	1.35	**168692**	**174809**
25	159670	172130	0.80	**128054**	**138046**
26	162952	167361	0.61	**99160**	**101843**
27	163497	165138	1.05	**171165**	**172883**
28	109027	118220	1.12	**121598**	**131850**
29	146267	148974	1.08	**158208**	**161136**
30	136060	139806	1.45	**197859**	**203306**
31	150735	151069	1.21	**181948**	**182351**
32	147793	152240	0.75	**110212**	**113528**
33	98814	128618	1.17	**115515**	**150356**
34	133313	144248	1.30	**173428**	**187654**
35	120369	120435	1.48	**177772**	**177869**
36	149718	152751	1.09	**163274**	**166582**
37	143317	153413	1.35	**192989**	**206585**
38	125580	128689	1.29	**161816**	**165823**
39	130025	133294	1.47	**190977**	**195778**
40	138946	144125	1.38	**191508**	**198647**
41	110618	138861	1.62	**179274**	**225046**
42	148091	153636	1.62	**239670**	**248644**
43	130326	130443	1.50	**195502**	**195677**
44	115344	115396	1.46	**168798**	**168874**
45	125063	125113	1.40	**175573**	**175644**
46	109062	110201	1.32	**143431**	**144929**
47	163190	174498	0.61	**100326**	**107278**
48	180453	183429	0.80	**144301**	**146680**

A.7. INPUT AND OUTPUT DATA

	Direct Labor		Rework		Raw Material		Packages x CF	
Prdn Day (DMU)	**DLR** *(observed)*	**DLR** *(upper bound)*	**RWK** *(observed)*	**RWK** *(upper bound)*	**RML** *(observed)*	**RML** *(upper bound)*	**PCF** *(lower bound)*	**PCF** *(observed)*
1	**788.80**	**887.40**	**501.00**	**1151.00**	**800.84**	**1467.04**	**67647.91**	**69252.19**
2	**1347.50**	**1470.00**	**5579.00**	**10023.00**	**6340.26**	**11139.65**	**132678.89**	**140761.31**
3	**690.00**	**805.00**	**5806.00**	**14850.00**	**4874.65**	**8471.10**	**111382.35**	**113105.40**
4	**1225.00**	**1347.50**	**5954.00**	**12088.00**	**6141.23**	**11108.24**	**106987.82**	**122719.80**
5	**1191.30**	**1299.60**	**4493.00**	**8487.00**	**4812.87**	**8211.84**	**96834.24**	**105469.25**
6	**915.60**	**1046.40**	**1649.00**	**3895.00**	**4572.68**	**7689.95**	**104106.89**	**116685.58**
7	**1442.00**	**1586.20**	**7055.00**	**14025.00**	**6752.04**	**11327.22**	**156280.91**	**165051.71**
8	**787.50**	**1237.50**	**2709.00**	**2923.00**	**2897.71**	**4888.74**	**68752.82**	**72655.02**
9	**840.00**	**960.00**	**1559.00**	**3071.00**	**3861.69**	**6618.13**	**92332.03**	**95551.33**
10	**1316.00**	**1447.60**	**4882.00**	**10060.00**	**5812.54**	**9918.36**	**97936.40**	**123916.80**
11	**1012.80**	**1139.40**	**3274.00**	**7012.00**	**5610.50**	**9473.67**	**114773.09**	**114881.57**
12	**1519.20**	**1645.80**	**6480.00**	**12244.00**	**4944.07**	**8467.35**	**107483.35**	**115668.57**
13	**980.00**	**1102.50**	**4422.00**	**8264.00**	**5119.43**	**8626.82**	**93043.74**	**107717.26**
14	**1808.40**	**1959.10**	**17258.00**	**29850.00**	**6679.28**	**11507.33**	**126666.10**	**152197.04**
15	**1842.40**	**1974.00**	**15943.00**	**31069.00**	**5655.94**	**9738.89**	**126748.61**	**138477.34**
16	**2105.60**	**2237.20**	**13528.00**	**23630.00**	**5913.64**	**9902.14**	**106461.77**	**147305.07**
17	**1678.30**	**1807.40**	**8552.00**	**16338.00**	**6251.86**	**10558.75**	**103637.54**	**135362.21**
18	**1539.60**	**1667.90**	**8736.00**	**16774.00**	**5595.36**	**9386.44**	**108067.81**	**131330.27**
19	**394.80**	**460.60**	**3300.00**	**6824.00**	**3606.40**	**6126.03**	**82557.08**	**82897.81**
20	**1774.50**	**1892.80**	**12159.00**	**22215.00**	**8923.01**	**15078.00**	**149190.76**	**153299.97**
21	**1729.20**	**1873.30**	**9297.00**	**18865.00**	**11518.68**	**19747.12**	**115881.89**	**210676.69**
22	**1700.40**	**1842.10**	**13519.00**	**25027.00**	**12598.32**	**21597.84**	**110917.14**	**177158.17**
23	**1109.70**	**1233.00**	**3149.00**	**6219.00**	**5395.01**	**9279.68**	**123229.13**	**130537.14**
24	**1711.50**	**1825.60**	**13962.00**	**28570.00**	**6462.91**	**10912.59**	**168691.70**	**174808.75**
25	**1249.00**	**1373.90**	**5067.00**	**8249.00**	**4794.31**	**8303.72**	**128053.69**	**138046.11**
26	**1216.00**	**1337.60**	**4912.00**	**9250.00**	**3786.43**	**6687.09**	**99160.18**	**101843.39**
27	**1266.00**	**1392.60**	**9291.00**	**18789.00**	**5785.64**	**9824.38**	**171165.09**	**172882.66**
28	**1399.20**	**1515.80**	**13560.00**	**23410.00**	**6925.63**	**11804.24**	**121597.53**	**131850.25**
29	**1449.60**	**1570.40**	**6591.00**	**12179.00**	**5490.21**	**9388.49**	**158208.10**	**161135.78**
30	**1570.40**	**1691.20**	**13413.00**	**25513.00**	**7187.29**	**12230.39**	**197858.77**	**203305.73**
31	**1549.20**	**1678.30**	**10460.00**	**21276.00**	**6341.72**	**10914.99**	**181948.01**	**182350.71**
32	**1224.00**	**1346.40**	**10624.00**	**18186.00**	**4229.10**	**7449.00**	**110211.81**	**113528.02**
33	**1378.80**	**1493.70**	**8894.00**	**18258.00**	**5703.26**	**10047.14**	**115514.63**	**150355.68**
34	**1623.70**	**1748.60**	**9401.00**	**17721.00**	**6590.10**	**11346.21**	**173428.20**	**187653.83**
35	**1842.40**	**1974.00**	**16489.00**	**43447.00**	**6136.75**	**10548.33**	**177771.81**	**177869.29**
36	**1411.30**	**1539.60**	**14970.00**	**27458.00**	**5903.33**	**10122.83**	**163273.79**	**166581.68**
37	**1528.80**	**1656.20**	**10180.00**	**24786.00**	**7161.78**	**12190.10**	**192989.42**	**206584.68**
38	**1759.20**	**1905.80**	**15767.00**	**26405.00**	**7240.73**	**12309.12**	**161816.04**	**165822.53**
39	**1710.80**	**1842.40**	**8913.00**	**17989.00**	**7721.69**	**13179.65**	**190976.66**	**195778.21**
40	**1748.60**	**1873.50**	**7737.00**	**17107.00**	**8283.60**	**14010.93**	**191508.37**	**198647.20**
41	**1974.00**	**2105.60**	**19275.00**	**34621.00**	**9257.77**	**15758.47**	**179273.62**	**225045.58**
42	**1842.40**	**1974.00**	**13112.00**	**27874.00**	**10610.30**	**18326.98**	**239670.48**	**248644.27**
43	**2292.80**	**2436.10**	**13393.00**	**25189.00**	**8953.34**	**15484.73**	**195501.71**	**195677.22**
44	**2888.30**	**3058.20**	**13454.00**	**20232.00**	**9155.78**	**15913.71**	**168797.70**	**168873.80**
45	**2305.60**	**2449.70**	**13215.00**	**21081.00**	**8564.35**	**14696.71**	**175573.43**	**175643.62**
46	**2921.10**	**3060.20**	**12769.00**	**22541.00**	**6754.61**	**12001.51**	**143430.57**	**144928.50**
47	**853.60**	**960.30**	**9339.00**	**11277.00**	**3602.50**	**6053.27**	**100325.71**	**107277.63**
48	**926.10**	**1029.00**	**3582.00**	**5516.00**	**5115.82**	**8546.36**	**144300.61**	**146680.39**

A.8. GLOBAL TARGETS

A.8.a Fuzzy Case

Global Targets = Sum of Efficient BCC Projections
Global Target Bounds = Sum of Individual Input/Output Bounds

Data Set 1-24

Output/Inputs	Global Targets	Global Target Bounds	*Bound Description*
PCF	**3449580**	**2672290**	*(lower)*
DLR	**26437**	**34748**	*(upper)*
RWK	**135123**	**333474**	*(upper)*
RML	**120013**	**241243**	*(upper)*

Data Set 25-48

Output/Inputs	Global Targets	Global Target Bounds	*Bound Description*
PCF	**4437142**	**3882356**	*(lower)*
DLR	**31220**	**43013**	*(upper)*
RWK	**206598**	**498354**	*(upper)*
RML	**143931**	**277138**	*(upper)*

Data Set 1-48

Output/Inputs	Global Targets	Global Target Bounds	*Bound Description*
PCF	**8311445**	**6554646**	*(lower)*
DLR	**54132**	**77761**	*(upper)*
RWK	**273518**	**831828**	*(upper)*
RML	**241759**	**518381**	*(upper)*

A.8.b Crisp Case

Global Targets = Sum of Individual Input/Output Bounds

Data Set 1-24

Output/Inputs	Global Targets
PCF	2672290
DLR	34748
RWK	333474
RML	241243

Data Set 25-48

Output/Inputs	Global Target Bounds
PCF	3882356
DLR	43013
RWK	498354
RML	277138

Data Set 1-48

Output/Inputs	Global Target Bounds
PCF	6554646
DLR	77761
RWK	831828
RML	518381

Appendix B

DESCRIPTIVE STATISTICS

B.1. DATA SET 1-24 ..... (page 217)
B.2. DATA SET 25-48 ..... (page 217)
B.3. DATA SET 1-48 ..... (page 217)

B.1. DESCRIPTIVE STATISTICS: DATA SET 1-24

Inputs/ Output	*Minimum*	*Maximum*	*Mean*	*Median*	*Standard Deviation*
DLR	**395**	**2106**	**1310**	**1332**	**434**
RWK	**501**	**17258**	**7240**	**5880**	**4736**
RML	**801**	**12598**	**5881**	**5633**	**2398**
PCF	**69252**	**210677**	**129062**	**127227**	**32895**

B.2. DESCRIPTIVE STATISTICS: DATA SET 25-48

Inputs/ Output	*Minimum*	*Maximum*	*Mean*	*Median*	*Standard Deviation*
DLR	**854**	**2921**	**1664**	**1560**	**512**
RWK	**3582**	**19275**	**11017**	**10542**	**3815**
RML	**3603**	**10610**	**6721**	**6672**	**1773**
PCF	**101843**	**248644**	**169459**	**170878**	**35519**

B.3. DESCRIPTIVE STATISTICS: DATA SET 1-48

Inputs/ Output	*Minimum*	*Maximum*	*Mean*	*Median*	*Standard Deviation*
DLR	**395**	**2921**	**1487**	**1484**	**507**
RWK	**501**	**19275**	**9129**	**9102**	**4696**
RML	**801**	**12598**	**6301**	**6025**	**2150**
PCF	**69252**	**248644**	**149260**	**146993**	**39747**

Appendix C

FUZZY GODEA RESULTS FOR DATA SET 1-24

C.1. FUZZY GODEA BASE MODEL RESULTS ..... (page 219)

C.2. FUZZY GODEA RESULTS - VARIATION 4 ..... (page 221)

C.3. FUZZY GODEA RESULTS - VARIATION 5 ..... (page 223)

C.4. FUZZY GODEA RESULTS - VARIATION 6 ..... (page 225)

C.5. FUZZY GODEA RESULTS - VARIATION 8 ..... (page 227)

C.6. FUZZY GODEA RESULTS - VARIATION 9 ..... (page 229)

C.1. FUZZY GODEA RESULTS: BASE MODEL- DATA SET 1-24

C.1.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
1	1.00 1.00 1.00 1.00	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	1.00 1.00 1.00 1.00	λ_1^{13}=0.33, λ_{11}^{13}=0.30, λ_{19}^{13}=0.16, λ_{21}^{13}=0.01, λ_{22}^{13}=0.20
2	1.00 1.00 1.00 1.00	λ_2^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	1.00 1.00 1.00 1.00	λ_{14}^{14}=1.00
3	1.00 1.00 1.00 1.00	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	1.00 1.00 1.00 1.00	λ_{15}^{15}=1.00
4	1.00 1.00 1.00 1.00	λ_1^{4}=0.43, λ_{11}^{4}=0.11, λ_{12}^{4}=0.07, λ_{21}^{4}=0.09, λ_{22}^{4}=0.30	**PCF** **DLR** **RWK** **RML**	**16**	1.00 1.00 1.00 1.00	λ_{16}^{16}=1.00
5	1.00 1.00 1.00 1.00	λ_5^{5}=1.00	**PCF** **DLR** **RWK** **RML**	**17**	1.00 1.00 1.00 1.00	λ_{17}^{17}=1.00
6	1.00 1.00 1.00 1.00	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	1.00 1.00 1.00 1.00	λ_1^{18}=0.26, λ_7^{18}=0.17, λ_{15}^{18}=0.05, λ_{16}^{18}=0.23, λ_{20}^{18}=0.29
7	1.00 1.00 1.00 1.00	λ_7^{7}=1.00	**PCF** **DLR** **RWK** **RML**	**19**	1.00 1.00 1.00 1.00	λ_{19}^{19}=1.00
8	1.00 1.00 1.00 1.00	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	1.00 1.00 1.00 1.00	λ_{20}^{20}=1.00
9	1.00 1.00 1.00 1.00	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	1.00 1.00 1.00 1.00	λ_{21}^{21}=1.00
10	1.00 1.00 1.00 1.00	λ_{10}^{10}=1.00	**PCF** **DLR** **RWK** **RML**	**22**	1.00 1.00 1.00 1.00	λ_{22}^{22}=1.00
11	1.00 1.00 1.00 1.00	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	1.00 1.00 1.00 1.00	λ_{23}^{23}=1.00
12	1.00 1.00 1.00 1.00	λ_{12}^{12}=1.00	**PCF** **DLR** **RWK** **RML**	**24**	1.00 1.00 1.00 1.00	λ_{24}^{24}=1.00

C.1.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**3449580.42**	3097486.42	*352094.00*	**0.55**
DLR	**26436.52**	31450.10	*-5013.58*	**0.40**
RWK	**135123.07**	173766.10	*-38643.03*	**0.81**
RML	**120013.14**	141140.94	*-21127.80*	**0.83**

C.2. FUZZY GODEA RESULTS: VARIATION 4 - DATA SET 1-24

C.2.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output/ Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
1	1.00 1.00 1.00 1.00	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	1.00 1.00 1.00 1.00	λ_1^{13}=0.29, λ_9^{13}=0.31, λ_{19}^{13}=0.14, λ_{21}^{13}=0.03, λ_{22}^{13}=0.23
2	1.00 1.00 1.00 1.00	λ_1^{2}=0.36, λ_{12}^{2}=0.19, λ_{21}^{2}=0.44	**PCF** **DLR** **RWK** **RML**	**14**	1.00 1.00 1.00 1.00	λ_{14}^{14}=1.00
3	1.00 1.00 1.00 1.00	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	1.00 1.00 1.00 1.00	λ_{15}^{15}=1.00
4	1.00 1.00 1.00 1.00	λ_1^{4}=0.43, λ_{11}^{4}=0.11, λ_{12}^{4}=0.07, λ_{21}^{4}=0.09, λ_{22}^{4}=0.30	**PCF** **DLR** **RWK** **RML**	**16**	1.00 1.00 1.00 1.00	λ_{16}^{16}=1.00
5	1.00 1.00 1.00 1.00	λ_5^{5}=1.00	**PCF** **DLR** **RWK** **RML**	**17**	1.00 1.00 1.00 1.00	λ_{17}^{17}=1.00
6	1.00 1.00 1.00 1.00	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	1.00 1.00 1.00 1.00	λ_1^{18}=0.01, λ_2^{18}=0.34, λ_{12}^{18}=0.36, λ_{15}^{18}=0.25, λ_{24}^{18}=0.04
7	1.00 1.00 1.00 1.00	λ_7^{7}=1.00	**PCF** **DLR** **RWK** **RML**	**19**	1.00 1.00 1.00 1.00	λ_{19}^{19}=1.00
8	1.00 1.00 1.00 1.00	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	1.00 1.00 1.00 1.00	λ_{20}^{20}=1.00
9	1.00 1.00 1.00 1.00	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	1.00 1.00 1.00 1.00	λ_{21}^{21}=1.00
10	1.00 1.00 1.00 1.00	λ_{10}^{10}=1.00	**PCF** **DLR** **RWK** **RML**	**22**	1.00 1.00 1.00 1.00	λ_{22}^{22}=1.00
11	1.00 1.00 1.00 1.00	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	1.00 1.00 1.00 1.00	λ_{23}^{23}=1.00
12	1.00 1.00 1.00 1.00	λ_{12}^{12}=1.00	**PCF** **DLR** **RWK** **RML**	**24**	1.00 1.00 1.00 1.00	λ_{24}^{24}=1.00

C.2.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Possible*
PCF	**2672290.00**	3097486.00	*425196.50*	***Increase***
DLR	**34747.90**	31450.10	*3297.80*	***Decrease***
RWK	**333474.00**	173766.10	*159707.90*	***Decrease***
RML	**241242.90**	141140.90	*100102.00*	***Decrease***

C.3. FUZZY GODEA RESULTS: VARIATION 5 - DATA SET 1-24

C.3.a. DEA REPRESENTATION

Prdn Day	*Slacks*	*Peers*	*Output /Inputs*	*Prdn Day*	*Slacks*	*Peers*
1	0 0 0 0	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	-16828 56 0 0	λ_3^{13}=0.42, λ_6^{13}=0.39, λ_7^{13}=0.19
2	-11085 49 0 183	λ_6^{2}=0.27, λ_{72}^{2}=0.73	**PCF** **DLR** **RWK** **RML**	**14**	-10841 396 10251 0	λ_3^{14}=0.04, λ_7^{14}=0.96
3	0 0 0 0	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	0 758 8116 0	λ_3^{15}=0.55, λ_7^{15}=0.24, λ_{24}^{15}=0.21
4	-25380 0 0 72	λ_3^{4}=0.18, λ_6^{4}=0.16, λ_7^{4}=0.66	**PCF** **DLR** **RWK** **RML**	**16**	0 870 6232 0	λ_1^{16}=0.05, λ_3^{16}=0.28, λ_7^{16}=0.54, λ_{24}^{16}=0.13
5	-9764 415 0 0	λ_3^{5}=0.66, λ_6^{5}=0.32, λ_7^{4}=0.02	**PCF** **DLR** **RWK** **RML**	**17**	-15850 437 1830 0	λ_3^{17}=0.27, λ_7^{17}=0.73
6	0 0 0 0	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	-1717 561 2451 0	λ_3^{18}=0.62, λ_7^{18}=0.38
7	0 0 0 0	λ_7^{7}=1.00	**PCF** **DLR** **RWK** **RML**	**19**	0 0 0 0	λ_{19}^{19}=1.00
8	-9044 249 00 0	λ_1^{8}=0.30, λ_3^{8}=0.09, λ_{19}^{8}=0.61	**PCF** **DLR** **RWK** **RML**	**20**	-20709 276 4664 1235	λ_7^{20}=0.80, λ_{21}^{20}=0.20
9	-7891 0 0 181	λ_1^{9}=0.21, λ_6^{9}=0.70, λ_{19}^{9}=0.09	**PCF** **DLR** **RWK** **RML**	**21**	0 0 0 0	λ_{21}^{21}=1.00
10	-19810 115 0 0	λ_3^{10}=0.05, λ_3^{10}=0.39, λ_3^{10}=0.56	**PCF** **DLR** **RWK** **RML**	**22**	-28943 0 4447 1558	λ_7^{22}=0.10, λ_{21}^{22}=0.90
11	-12395 0 0 516	λ_3^{11}=0.10, λ_6^{11}=0.68, λ_7^{11}=0..22	**PCF** **DLR** **RWK** **RML**	**23**	0 47 0 152	λ_6^{23}=0.73, λ_7^{23}=0.25, λ_{21}^{23}=0.02
12	0 785 652 0	λ_1^{12}=0.01, λ_3^{12}=0.93 λ_1^{12}=0.06	**PCF** **DLR** **RWK** **RML**	**24**	0 0 0 0	λ_{24}^{24}=1.00

C.3.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**3449580.42**	3287904.00	*161676.42*	**0.80**
DLR	**26436.52**	26436.52	*0.00*	**1.00**
RWK	**135123.07**	135123.07	*0.00*	**1.00**
RML	**120013.14**	137227.77	*-17214.63*	**0.86**

C.4. FUZZY GODEA RESULTS: VARIATION 6 - DATA SET 1-24

C.4.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
1	1.00 1.00 1.00 1.00	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	1.00 1.00 1.00 1.00	λ_1^{13}=0.32, λ_2^{13}=0.02, λ_{11}^{13}=0.31, λ_{19}^{13}=0.16, λ_{22}^{13}=0.19
2	1.00 1.00 1.00 1.00	λ_2^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	1.00 1.00 1.00 1.00	λ_{14}^{14}=1.00
3	1.00 1.00 1.00 1.00	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	1.00 1.00 1.00 1.00	λ_{15}^{15}=1.00
4	1.00 1.00 1.00 1.00	λ_1^{4}=0.33, λ_2^{4}=0.22, λ_9^{4}=0.13, λ_{22}^{4}=0.32	**PCF** **DLR** **RWK** **RML**	**16**	1.00 1.00 1.00 1.00	λ_{16}^{16}=1.00
5	1.00 1.00 1.00 1.00	λ_5^{5}=1.00	**PCF** **DLR** **RWK** **RML**	**17**	1.00 1.00 1.00 1.00	λ_{17}^{17}=1.00
6	1.00 1.00 1.00 1.00	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	1.00 1.00 1.00 1.00	λ_1^{18}=0.22, λ_2^{18}=0.27, λ_{14}^{18}=0.08, λ_{16}^{18}=0.33, λ_{22}^{18}=0.10
7	1.00 1.00 1.00 1.00	λ_7^{7}=1.00	**PCF** **DLR** **RWK** **RML**	**19**	1.00 1.00 1.00 1.00	λ_{19}^{19}=1.00
8	1.00 1.00 1.00 1.00	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	1.00 1.00 1.00 1.00	λ_{20}^{20}=1.00
9	1.00 1.00 1.00 1.00	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	1.00 1.00 1.00 1.00	λ_{21}^{21}=1.00
10	1.00 1.00 1.00 1.00	λ_{10}^{10}=1.00	**PCF** **DLR** **RWK** **RML**	**22**	1.00 1.00 1.00 1.00	λ_{22}^{22}=1.00
11	1.00 1.00 1.00 1.00	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	1.00 1.00 1.00 1.00	λ_{23}^{23}=1.00
12	1.00 1.00 1.00 1.00	λ_{12}^{12}=1.00	**PCF** **DLR** **RWK** **RML**	**24**	1.00 1.00 1.00 1.00	λ_{24}^{24}=1.00

C.4.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Deviations*	
PCF	**2672290.00**	3097486.00	*425196.30*	**PPCF**
DLR	**34747.90**	31450.10	*3297.80*	**NDLR**
RWK	**333474.00**	173766.10	*159707.90*	**NRWK**
RML	**241242.90**	141140.90	*100102.00*	**NRML**

C.5. FUZZY GODEA RESULTS: VARIATION 8 - DATA SET 1-24

C.5.a. DEA REPRESENTATION

Prdn Day	*Deviations*	*Peers*	*Output /Input*	*Prdn Day*	*Deviations*	*Peers*
1	0 0 0 0	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	0 0 0 0	λ_1^{13}=0.32, λ_2^{13}=0.02, λ_{11}^{13}=0.31, λ_{19}^{13}=0.16, λ_{22}^{13}=0.19
2	0 0 0 0	λ_2^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	0 0 0 0	λ_{14}^{14}=1.00
3	0 0 0 0	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	0 0 0 0	λ_{15}^{15}=1.00
4	0 0 0 0	λ_1^{4}=0.35, λ_2^{4}=0.20, λ_9^{4}=0.07, λ_{10}^{4}=0.07, λ_{22}^{4}=0.31	**PCF** **DLR** **RWK** **RML**	**16**	0 0 0 0	λ_{16}^{16}=1.00
5	0 0 0 0	λ_5^{5}=1.00	**PCF** **DLR** **RWK** **RML**	**17**	0 0 0 0	λ_{17}^{17}=1.00
6	0 0 0 0	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	0 0 0 0	λ_1^{18}=0.02, λ_2^{18}=0.10, λ_7^{18}=0.12, λ_{12}^{18}=0.53, λ_{14}^{18}=0.23
7	0 0 0 0	λ_7^{7}=1.00	**PCF** **DLR** **RWK** **RML**	**19**	0 0 0 0	λ_{19}^{19}=1.00
8	0 0 0 0	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	0 0 0 0	λ_{20}^{20}=1.00
9	0 0 0 0	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	0 0 0 0	λ_{21}^{21}=1.00
10	0 0 0 0	λ_{10}^{10}=1.00	**PCF** **DLR** **RWK** **RML**	**22**	0 0 0 0	λ_{22}^{22}=1.00
11	0 0 0 0	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	0 0 0 0	λ_{23}^{23}=1.00
12	0 0 0 0	λ_{12}^{12}=1.00	**PCF** **DLR** **RWK** **RML**	**24**	0 0 0 0	λ_{24}^{24}=1.00

C.5.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**3449580.42**	3097483.40	*352097.02*	**0.55**
DLR	**26436.52**	31448.28	*-5011.76*	**0.40**
RWK	**135123.07**	173801.50	*-38678.43*	**0.81**
RML	**120013.14**	141107.12	*-21093.98*	**0.83**

C.6. FUZZY GODEA RESULTS: VARIATION 9 - DATA SET 1-24

C.6.a. DEA REPRESENTATION

Prdn Day	*Deviations*	*Peers*	*Output /Inputs*	*Prdn Day*	*Deviations*	*Peers*
1	(+)45421.13 0 (+)3484.47 (+)3941.56	λ_3^1=0.56, λ_6^1=0.44	**PCF** **DLR** **RWK** **RML**	**13**	(-)16827.89 (-)56.45 0 0	λ_3^{13}=0.42, λ_6^{13}=0.39, λ_7^{13}=0.19
2	(+)14592.19 (-)21.21 (+)640.06 0	λ_3^2=0.06, λ_6^2=0.14, λ_6^2=0.80	**PCF** **DLR** **RWK** **RML**	**14**	(+)10841.44 (-)395.55 (-)10251.41 0	λ_3^{14}=0.04, λ_7^{14}=0.96
3	0 0 0 0	λ_3^3=1.00	**PCF** **DLR** **RWK** **RML**	**15**	(+)23254.42 (-)448.46 (-)8967.825 (+)976.11	λ_3^{15}=0.06, λ_7^{15}=0.94
4	(+)26383.89 0 (+)378.84 0	λ_3^4=0.23, λ_6^4=0.08, λ_7^4=0.69	**PCF** **DLR** **RWK** **RML**	**16**	0 (-)920.51 (-)6889.70 (+)197.02	λ_3^{16}=0.34, λ_7^{16}=0.65
5	(+)9764.04 (-)414.63 0 0	λ_3^5=0.66, λ_6^5=0.32, λ_7^5=0.02	**PCF** **DLR** **RWK** **RML**	**17**	(+)15849.80 (-)436.65 (-)1829.76 0	λ_3^{17}=0.27, λ_7^{17}=0.73
6	0 0 0 0	λ_6^6=1.00	**PCF** **DLR** **RWK** **RML**	**18**	(+)1716.76 (-)560.92 (-)2450.52 0	λ_3^{18}=0.62, λ_7^{18}=0.38,
7	0 0 0 0	λ_7^7=1.00	**PCF** **DLR** **RWK** **RML**	**19**	(+)30207.59 (+)295.20 (-)2506.00 (+)1268.25	λ_3^{19}=1.00
8	(+)41997.67 0 (+)1300.42 (+)1846.43	λ_3^8=0.57, λ_6^8=0.43	**PCF** **DLR** **RWK** **RML**	**20**	(+)11751.74 (-)332.50 (-)5104.00 (-)2170.97	λ_7^{20}=1.00
9	(+)19934.51 0 (+)1483.04 (+)812.18	λ_3^9=0.34, λ_6^9=0.66	**PCF** **DLR** **RWK** **RML**	**21**	(-)45624.97 (-)287.20 (-)2242.00 (-)4766.64	λ_7^{21}=1.00
10	(+)19809.67 (-)114.72 0 0	λ_3^{10}=0.04, λ_6^{10}=0.40, λ_7^{10}=0.56	**PCF** **DLR** **RWK** **RML**	**22**	(-)12106.46 (-)258.40 (-)6464.00 (-)5846.28	λ_7^{22}=1.00
11	(+)19550.46 0 (+)2701.34 0	λ_3^{11}=0.51, λ_6^{11}=0.08, λ_7^{11}=0.41	**PCF** **DLR** **RWK** **RML**	**23**	(+)4242.43 0 (+)591.48 0	λ_3^{23}=0.02, λ_6^{23}=0.61, λ_7^{23}=0.37
12	0 (-)792.10 (-)612.37 (+)23.22	λ_3^{12}=0.95, λ_7^{12}=0.05	**PCF** **DLR** **RWK** **RML**	**24**	(-)9757.03 (-)269.50 (-)6906.99 (+)289.13	λ_7^{24}=1.00

C.6.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**3449580.42**	3342314.34	*107266.08*	**0.86**
DLR	**26436.52**	26436.52	*0.00*	**1.00**
RWK	**135123.07**	135123.07	*0.00*	**1.00**
RML	**120013.14**	137712.69	*-17699.55*	**0.85**

Appendix D

FUZZY GODEA RESULTS FOR DATA SET 25-48

D.1. FUZZY GODEA BASE MODEL RESULTS ..... (page 232)

D.2. FUZZY GODEA RESULTS - VARIATION 4 ..... (page 234)

D.3. FUZZY GODEA RESULTS - VARIATION 5 ..... (page 236)

D.4. FUZZY GODEA RESULTS - VARIATION 6 ..... (page 238)

D.5. FUZZY GODEA RESULTS - VARIATION 8 ..... (page 240)

D.6. FUZZY GODEA RESULTS - VARIATION 9 ..... (page 242)

D.1. FUZZY GODEA RESULTS: BASE MODEL - DATA SET 25-48

D.1.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
25	1.00 1.00 1.00 1.00	λ_{25}^{25}=1.00	**PCF** **DLR** **RWK** **RML**	**37**	1.00 1.00 1.00 1.00	λ_{37}^{37}=1.00
26	1.00 1.00 1.00 1.00	λ_{26}^{26}=1.00	**PCF** **DLR** **RWK** **RML**	**38**	1.00 1.00 1.00 1.00	λ_{38}^{38}=1.00
27	1.00 1.00 1.00 1.00	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	1.00 1.00 1.00 1.00	λ_{25}^{39}=0.11, λ_{37}^{39}=0.28, λ_{40}^{39}=0.46, λ_{42}^{39}=0.09, λ_{46}^{39}=0.06
28	1.00 1.00 1.00 1.00	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	1.00 1.00 1.00 1.00	λ_{40}^{40}=1.00
29	1.00 1.00 1.00 1.00	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	1.00 1.00 1.00 1.00	λ_{41}^{41}=1.00
30	1.00 1.00 1.00 1.00	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	1.00 1.00 1.00 1.00	λ_{42}^{42}=1.00
31	1.00 1.00 1.00 1.00	λ_{29}^{31}=0.04, λ_{34}^{31}=0.32, λ_{35}^{31}=0.26, λ_{37}^{31}=0.23, λ_{48}^{31}=0.15	**PCF** **DLR** **RWK** **RML**	**43**	1.00 1.00 1.00 1.00	λ_{29}^{43}=0.04, λ_{33}^{43}=0.03, λ_{35}^{43}=0.15, λ_{42}^{43}=0.33, λ_{44}^{43}=0.46
32	1.00 1.00 1.00 1.00	λ_{32}^{32}=1.00	**PCF** **DLR** **RWK** **RML**	**44**	1.00 1.00 1.00 1.00	λ_{44}^{44}=1.00
33	1.00 1.00 1.00 1.00	λ_{25}^{33}=0.57, λ_{28}^{33}=0.19, λ_{30}^{33}=0.16, λ_{35}^{33}=0.07, λ_{44}^{33}=0.01	**PCF** **DLR** **RWK** **RML**	**45**	1.00 1.00 1.00 1.00	λ_{28}^{45}=0.04, λ_{38}^{45}=0.10, λ_{42}^{45}=0.19, λ_{44}^{45}=0.57, λ_{47}^{45}=0.10
34	1.00 1.00 1.00 1.00	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	1.00 1.00 1.00 1.00	λ_{46}^{46}=1.00
35	1.00 1.00 1.00 1.00	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	1.00 1.00 1.00 1.00	λ_{47}^{47}=1.00
36	1.00 1.00 1.00 1.00	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	1.00 1.00 1.00 1.00	λ_{48}^{48}=1.00

D.1.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**4437142.20**	4067006.78	*370135.42*	**0.33**
DLR	**31219.67**	39930.90	*-8711.23*	**0.26**
RWK	**206598.27**	264408.00	*-57809.73*	**0.80**
RML	**143930.90**	161295.82	*-17364.92*	**0.87**

D.2. FUZZY GODEA RESULTS: VARIATION 4 - DATA SET 25-48

D.2.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
25	1.00 1.00 1.00 1.00	λ_{25}^{25}=1.00	**PCF** **DLR** **RWK** **RML**	**37**	1.00 1.00 1.00 1.00	λ_{37}^{37}=1.00
26	1.00 1.00 1.00 1.00	λ_{26}^{26}=1.00	**PCF** **DLR** **RWK** **RML**	**38**	1.00 1.00 1.00 1.00	λ_{38}^{38}=1.00
27	1.00 1.00 1.00 1.00	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	1.00 1.00 1.00 1.00	λ_{25}^{39}=0.07, λ_{34}^{39}=0.34, λ_{40}^{39}=0.44, λ_{42}^{39}=0.13, λ_{46}^{39}=0.02
28	1.00 1.00 1.00 1.00	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	1.00 1.00 1.00 1.00	λ_{40}^{40}=1.00
29	1.00 1.00 1.00 1.00	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	1.00 1.00 1.00 1.00	λ_{41}^{41}=1.00
30	1.00 1.00 1.00 1.00	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	1.00 1.00 1.00 1.00	λ_{42}^{42}=1.00
31	1.00 1.00 1.00 1.00	λ_{29}^{31}=0.16, λ_{35}^{31}=0.27, λ_{37}^{31}=0.42, λ_{46}^{31}=0.02, λ_{48}^{31}=0.13	**PCF** **DLR** **RWK** **RML**	**43**	1.00 1.00 1.00 1.00	λ_{26}^{43}=0.01, λ_{30}^{43}=0.23, λ_{41}^{43}=0.03, λ_{42}^{43}=0.23, λ_{44}^{43}=0.50
32	1.00 1.00 1.00 1.00	λ_{32}^{32}=1.00	**PCF** **DLR** **RWK** **RML**	**44**	1.00 1.00 1.00 1.00	λ_{44}^{44}=1.00
33	1.00 1.00 1.00 1.00	λ_{25}^{33}=0.34, λ_{27}^{33}=0.39, λ_{28}^{33}=0.20, λ_{46}^{33}=0.06, λ_{47}^{33}=0.01	**PCF** **DLR** **RWK** **RML**	**45**	1.00 1.00 1.00 1.00	λ_{28}^{45}=0.16, λ_{30}^{45}=0.15, λ_{42}^{45}=0.10, λ_{44}^{45}=0.57, λ_{48}^{45}=0.02
34	1.00 1.00 1.00 1.00	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	1.00 1.00 1.00 1.00	λ_{46}^{46}=1.00
35	1.00 1.00 1.00 1.00	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	1.00 1.00 1.00 1.00	λ_{47}^{47}=1.00
36	1.00 1.00 1.00 1.00	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	1.00 1.00 1.00 1.00	λ_{48}^{48}=1.00

D.2.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Possible*
PCF	**3882356.00**	4067007.00	*184650.80*	***Increase***
DLR	**43013.10**	39930.90	*3082.20*	***Decrease***
RWK	**498354.00**	264408.00	*233946.00*	***Decrease***
RML	**277138.30**	161296.00	*115842.30*	***Decrease***

D.3. FUZZY GODEA RESULTS: VARIATION 5 - DATA SET 25-48

D.3.a. DEA REPRESENTATION

Prdn Day	*Slacks*	*Peers*	*Output /Inputs*	*Prdn Day*	*Slacks*	*Peers*
25	-263 338 262 0	λ_{47}^{25}=0.21, λ_{48}^{25}=0.79	**PCF** **DLR** **RWK** **RML**	**37**	0 0 0 0	λ_{37}^{37}=1.00
26	0 0 0 0	λ_{26}^{26}=1.00	**PCF** **DLR** **RWK** **RML**	**38**	-41725 223 5520 0	λ_{37}^{38}=0.98, λ_{42}^{38}=0.02
27	0 0 0 0	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	-5096 281 0 0	λ_{37}^{39}=0.27, λ_{42}^{39}=0.37, λ_{48}^{39}=0.36
28	-62784 0 4841 0	λ_{37}^{28}=0.66 λ_{42}^{28}=0.08, λ_{48}^{28}=0.26	**PCF** **DLR** **RWK** **RML**	**40**	0 0 0 0	λ_{40}^{40}=1.00
29	0 0 0 0	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	-7103 255 7313 0	λ_{37}^{41}=0.39, λ_{42}^{41}=0.61
30	-3590 39 3211 0	λ_{37}^{30}=0.01, λ_{42}^{30}=0.99	**PCF** **DLR** **RWK** **RML**	**42**	0 0 0 0	λ_{42}^{42}=1.00
31	-223 262 2925 0	λ_{37}^{31}=0.60, λ_{48}^{31}=0.40	**PCF** **DLR** **RWK** **RML**	**43**	-32758 601 1690 0	λ_{37}^{43}=0.48, λ_{42}^{43}=0.52
32	-10065 340 3669 0	λ_{47}^{32}=0.59, λ_{48}^{32}=0.41	**PCF** **DLR** **RWK** **RML**	**44**	-62031 1178 1579 0	λ_{37}^{44}=0.42, λ_{42}^{44}=0.58
33	-13525 280 3418 0	λ_{37}^{33}=0.29, λ_{48}^{33}=0.71	**PCF** **DLR** **RWK** **RML**	**45**	-48047 649 1843 0	λ_{37}^{45}=0.59, λ_{42}^{45}=0.41
34	-2192 263 1065 0	λ_{37}^{34}=0.72, λ_{48}^{34}=0.28	**PCF** **DLR** **RWK** **RML**	**46**	-49735 1512 3902 0	λ_{37}^{46}=0.80, λ_{48}^{46}=0.20
35	-2212 540 7725 0	λ_{27}^{35}=0.53, λ_{37}^{35}=0.33, λ_{48}^{35}=0.14	**PCF** **DLR** **RWK** **RML**	**47**	0 0 0 0	λ_{47}^{47}=1.00
36	-3156 253 8848 0	λ_{37}^{36}=0.38, λ_{48}^{36}=0.62	**PCF** **DLR** **RWK** **RML**	**48**	0 0 0 0	λ_{48}^{48}=1.00

D.3.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**4437142.20**	4411511.07	*25631.13*	**0.95**
DLR	**31219.67**	32916.04	*-1696.37*	**0.86**
RWK	**206598.27**	206598.27	*0.00*	**1.00**
RML	**143930.90**	161295.82	*-17364.92*	**0.87**

D.4. FUZZY GODEA RESULTS: VARIATION 6 - DATA SET 25-48

D.4.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
25	1.00 1.00 1.00 1.00	λ_{25}^{25}=1.00	**PCF** **DLR** **RWK** **RML**	**37**	1.00 1.00 1.00 1.00	λ_{37}^{37}=1.00
26	1.00 1.00 1.00 1.00	λ_{26}^{26}=1.00	**PCF** **DLR** **RWK** **RML**	**38**	1.00 1.00 1.00 1.00	λ_{38}^{38}=1.00
27	1.00 1.00 1.00 1.00	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	1.00 1.00 1.00 1.00	λ_{25}^{39}=0.11, λ_{37}^{39}=0.28, λ_{40}^{39}=0.47, λ_{42}^{39}=0.09, λ_{46}^{39}=0.05
28	1.00 1.00 1.00 1.00	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	1.00 1.00 1.00 1.00	λ_{40}^{40}=1.00
29	1.00 1.00 1.00 1.00	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	1.00 1.00 1.00 1.00	λ_{41}^{41}=1.00
30	1.00 1.00 1.00 1.00	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	1.00 1.00 1.00 1.00	λ_{42}^{42}=1.00
31	1.00 1.00 1.00 1.00	λ_{25}^{31}=0.24, λ_{30}^{31}=0.02, λ_{35}^{31}=0.23, λ_{37}^{31}=0.50, λ_{46}^{31}=0.01	**PCF** **DLR** **RWK** **RML**	**43**	1.00 1.00 1.00 1.00	λ_{28}^{43}=0.01, λ_{30}^{43}=0.25, λ_{35}^{43}=0.01, λ_{42}^{43}=0.23, λ_{44}^{43}=0.50
32	1.00 1.00 1.00 1.00	λ_{32}^{32}=1.00	**PCF** **DLR** **RWK** **RML**	**44**	1.00 1.00 1.00 1.00	λ_{44}^{44}=1.00
33	1.00 1.00 1.00 1.00	λ_{25}^{33}=0.26, λ_{26}^{33}=0.25, λ_{28}^{33}=0.14, λ_{30}^{33}=0.31, λ_{40}^{33}=0.04	**PCF** **DLR** **RWK** **RML**	**45**	1.00 1.00 1.00 1.00	λ_{25}^{45}=0.11, λ_{28}^{45}=0.13, λ_{41}^{45}=0.12, λ_{42}^{45}=0.10, λ_{44}^{45}=0.54
34	1.00 1.00 1.00 1.00	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	1.00 1.00 1.00 1.00	λ_{46}^{46}=1.00
35	1.00 1.00 1.00 1.00	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	1.00 1.00 1.00 1.00	λ_{47}^{47}=1.00
36	1.00 1.00 1.00 1.00	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	1.00 1.00 1.00 1.00	λ_{48}^{48}=1.00

D.4.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Deviations*	
PCF	**3882356.00**	4067007.00	*184650.80*	**PPCF**
DLR	**43013.10**	39930.90	*3082.20*	**NDLR**
RWK	**498354.00**	264408.00	*233946.00*	**NRWK**
RML	**277138.30**	161296.00	*115842.30*	**NRML**

D.5. FUZZY GODEA RESULTS: VARIATION 8 - DATA SET 25-48

D.5.a. DEA REPRESENTATION

Prdn Day	*Deviations*	*Peers*	*Output /Inputs*	*Prdn Day*	*Deviations*	*Peers*
25	0 0 0 0	$\lambda_{25}^{25}=1.00$	**PCF** **DLR** **RWK** **RML**	**37**	0 0 0 0	$\lambda_{37}^{37}=1.00$
26	0 0 0 0	$\lambda_{26}^{26}=1.00$	**PCF** **DLR** **RWK** **RML**	**38**	0 0 0 0	$\lambda_{38}^{38}=1.00$
27	0 0 0 0	$\lambda_{27}^{27}=1.00$	**PCF** **DLR** **RWK** **RML**	**39**	0 0 0 0	$\lambda_{25}^{39}=0.04$, $\lambda_{35}^{39}=0.07$, $\lambda_{37}^{39}=0.23$, $\lambda_{40}^{39}=0.64$, $\lambda_{46}^{39}=0.02$
28	0 0 0 0	$\lambda_{28}^{28}=1.00$	**PCF** **DLR** **RWK** **RML**	**40**	0 0 0 0	$\lambda_{40}^{40}=1.00$
29	0 0 0 0	$\lambda_{29}^{29}=1.00$	**PCF** **DLR** **RWK** **RML**	**41**	0 0 0 0	$\lambda_{41}^{41}=1.00$
30	0 0 0 0	$\lambda_{30}^{30}=1.00$	**PCF** **DLR** **RWK** **RML**	**42**	0 0 0 0	$\lambda_{42}^{42}=1.00$
31	0 0 0 0	$\lambda_{25}^{31}=0.24$, $\lambda_{30}^{31}=0.02$, $\lambda_{35}^{31}=0.23$, $\lambda_{37}^{31}=0.50$, $\lambda_{46}^{31}=0.01$	**PCF** **DLR** **RWK** **RML**	**43**	0 0 0 0	$\lambda_{41}^{43}=0.04$, $\lambda_{42}^{43}=0.33$, $\lambda_{44}^{43}=0.06$, $\lambda_{45}^{43}=0.37$, $\lambda_{46}^{43}=0.20$
32	0 0 0 0	$\lambda_{32}^{32}=1.00$	**PCF** **DLR** **RWK** **RML**	**44**	0 0 0 0	$\lambda_{44}^{44}=1.00$
33	0 0 0 0	$\lambda_{25}^{33}=0.26$, $\lambda_{26}^{33}=0.25$, $\lambda_{28}^{33}=0.14$, $\lambda_{30}^{33}=0.31$, $\lambda_{40}^{33}=0.04$	**PCF** **DLR** **RWK** **RML**	**45**	0 0 0 0	$\lambda_{25}^{45}=0.11$, $\lambda_{28}^{45}=0.13$, $\lambda_{41}^{45}=0.12$, $\lambda_{42}^{45}=0.10$, $\lambda_{44}^{45}=0.54$
34	0 0 0 0	$\lambda_{34}^{34}=1.00$	**PCF** **DLR** **RWK** **RML**	**46**	0 0 0 0	$\lambda_{46}^{46}=1.00$
35	0 0 0 0	$\lambda_{35}^{35}=1.00$	**PCF** **DLR** **RWK** **RML**	**47**	0 0 0 0	$\lambda_{47}^{47}=1.00$
36	0 0 0 0	$\lambda_{36}^{36}=1.00$	**PCF** **DLR** **RWK** **RML**	**48**	0 0 0 0	$\lambda_{48}^{48}=1.00$

D.5.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**4437142.20**	4067005.44	*370136.76*	**0.33**
DLR	**31219.67**	39930.89	*-8711.22*	**0.26**
RWK	**206598.27**	264406.75	*-57808.48*	**0.80**
RML	**143930.90**	161295.82	*-17364.92*	**0.87**

D.6. FUZZY GODEA RESULTS: VARIATION 9 - DATA SET 25-48

D.6.a. DEA REPRESENTATION

Prdn Day	*Deviations*	*Peers*	*Output /Inputs*	*Prdn Day*	*Deviations*	*Peers*
25	(+)9774.99 (-)308.10 (-)1236.46 0	λ_{27}^{25}=0.04, λ_{48}^{25}=0.96	**PCF** **DLR** **RWK** **RML**	**37**	0 0 0 0	λ_{37}^{37}=1.00
26	(+)50941.22 (-)210.72 0 (+)1485.435	λ_{27}^{26}=0.23, λ_{48}^{26}=0.77	**PCF** **DLR** **RWK** **RML**	**38**	(+)40762.15 (-)230.40 (-)5587.00 (-)78.95	λ_{37}^{38}=1.00
27	0 0 0 0	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	0 (-)290.72 (+)76.75 (-)928.99	λ_{37}^{39}=0.82, λ_{48}^{39}=0.18
28	(+)58114.26 0 (-)3818.41 (-)442.49	λ_{27}^{28}=0.49, λ_{37}^{28}=0.51	**PCF** **DLR** **RWK** **RML**	**40**	0 (-)299.66 (+)1568.75 (-)1392.92	λ_{37}^{40}=0.87, λ_{48}^{40}=0.13
29	0 (-)339.79 0 (+)6.35	λ_{27}^{29}=0.50, λ_{37}^{29}=0.02, λ_{48}^{29}=0.48,	**PCF** **DLR** **RWK** **RML**	**41**	(-)18460.90 (-)445.20 (-)9095.00 (-)2095.99	λ_{37}^{41}=1.00
30	(+)3278.95 (-)41.6 (-)3233.00 (-)25.51	λ_{37}^{30}=1.00,	**PCF** **DLR** **RWK** **RML**	**42**	(-)42059.10 (-)313.60 (-)2931.97 (-)3448.48	λ_{37}^{42}=1.00
31	(+)4150.50 (-)177.01 (-)809.77 0	λ_{27}^{31}=0.60, λ_{37}^{31}=0.40	**PCF** **DLR** **RWK** **RML**	**43**	(+)10907.46 (-)764.00 (-)3213.00 (-)1791.56	λ_{37}^{43}=1.00
32	(+)56116.94 0 (-)2038.44 (+)1473.77	λ_{27}^{32}=0.88, λ_{48}^{32}=0.12	**PCF** **DLR** **RWK** **RML**	**44**	(+)37710.88 (-)1359.50 (-)3274.00 (-)1994	λ_{37}^{44}=1.00
33	(+)20704.89 (-)136.44 0 (+)35.80	λ_{27}^{33}=0.93, λ_{48}^{33}=0.07	**PCF** **DLR** **RWK** **RML**	**45**	(+)30941.06 (-)776.80 (-)3035.00 (-)1402.57	λ_{37}^{45}=1.00
34	(+)3369.52 (-)226.20 0 (-)34.35	λ_{27}^{34}=0.33, λ_{37}^{34}=0.60, λ_{48}^{34}=0.07	**PCF** **DLR** **RWK** **RML**	**46**	(-)51684.48 (-)1470.06 (-)2852.04 0	λ_{27}^{46}=0.30, λ_{37}^{46}=0.70
35	(+)3612.14 (-)509.35 (-)6971.18 0	λ_{27}^{35}=0.74, λ_{37}^{35}=0.26	**PCF** **DLR** **RWK** **RML**	**47**	(+)39402.76 (+)72.5 (-)5757.00 (+)1513.32	λ_{48}^{47}=1.00
36	(-)9183.24 (-)122.82 (-)5602.97 0	λ_{27}^{36}=0.91, λ_{37}^{36}=0.09	**PCF** **DLR** **RWK** **RML**	**48**	0 0 0 0	λ_{48}^{48}=1.00

D.6.b. GLOBAL TARGETS

Output/Inputs	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**4437142.20**	4437142.20	*0.00*	**1.00**
DLR	**31219.67**	31981.44	*-761.77*	**0.94**
RWK	**206598.27**	206598.27	*0.00*	**1.00**
RML	**143930.90**	152525.58	*-8594.68*	**0.94**

Appendix E

FUZZY GODEA RESULTS FOR DATA SET 1-48

E.1. FUZZY GODEA BASE MODEL RESULTS ..... (page 245)

E.2. FUZZY GODEA RESULTS - VARIATION 4 ..... (page 248)

E.3. FUZZY GODEA RESULTS - VARIATION 5 ..... (page 251)

E.4. FUZZY GODEA RESULTS - VARIATION 6 ..... (page 254)

E.5. FUZZY GODEA RESULTS - VARIATION 8 ..... (page 257)

E.6. FUZZY GODEA RESULTS - VARIATION 9 ..... (page 260)

E.1. FUZZY GODEA RESULTS: BASE MODEL - DATA SET 1-48

E.1.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
1	1.00 1.00 1.00 1.00	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	1.00 1.00 1.00 1.00	λ_1^{13}=0.33, λ_{11}^{13}=0.30, λ_{19}^{13}=0.16, λ_{21}^{13}=0.01, λ_{22}^{13}=0.20
2	1.00 1.00 1.00 1.00	λ_1^{2}=0.47, λ_{21}^{2}=0.43, λ_{22}^{2}=0.03, λ_{30}^{2}=0.01, λ_{44}^{2}=0.06	**PCF** **DLR** **RWK** **RML**	**14**	1.00 1.00 1.00 1.00	λ_{14}^{14}=1.00
3	1.00 1.00 1.00 1.00	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	1.00 1.00 1.00 1.00	λ_{15}^{15}=1.00
4	1.00 1.00 1.00 1.00	λ_1^{4}=0.47, λ_{11}^{4}=0.10, λ_{21}^{4}=0.09, λ_{22}^{4}=0.32, λ_{46}^{4}=0.02	**PCF** **DLR** **RWK** **RML**	**16**	1.00 1.00 1.00 1.00	λ_1^{16}=0.11, λ_{14}^{16}=0.27, λ_{35}^{16}=0.26, λ_{46}^{16}=0.36
5	1.00 1.00 1.00 1.00	λ_6^{5}=0.21, λ_8^{5}=0.40, λ_{11}^{5}=0.21, λ_{22}^{5}=0.05, λ_{46}^{5}=0.13	**PCF** **DLR** **RWK** **RML**	**17**	1.00 1.00 1.00 1.00	λ_1^{17}=0.31, λ_6^{17}=0.01, λ_{20}^{17}=0.37, λ_{37}^{17}=0.09, λ_{44}^{17}=0.22
6	1.00 1.00 1.00 1.00	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	1.00 1.00 1.00 1.00	λ_{14}^{18}=0.21, λ_{22}^{18}=0.11, λ_{42}^{18}=0.09, λ_{44}^{18}=0.16
7	1.00 1.00 1.00 1.00	λ_1^{7}=0.19, λ_{22}^{7}=0.11, λ_{27}^{7}=0.17, λ_{40}^{7}=0.49, λ_{48}^{7}=0.04,	**PCF** **DLR** **RWK** **RML**	**19**	1.00 1.00 1.00 1.00	λ_{19}^{19}=1.00
8	1.00 1.00 1.00 1.00	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	1.00 1.00 1.00 1.00	λ_1^{20}=0.15, λ_{14}^{20}=0.17, λ_{22}^{20}=0.51, λ_{42}^{20}=0.02, λ_{46}^{20}=0.15
9	1.00 1.00 1.00 1.00	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	1.00 1.00 1.00 1.00	λ_{21}^{21}=1.00
10	1.00 1.00 1.00 1.00	λ_6^{10}=0.51, λ_8^{10}=0.14, λ_{11}^{10}=0.10,λ_{22}^{10}=0.07, λ_{44}^{10}=0.18	**PCF** **DLR** **RWK** **RML**	**22**	1.00 1.00 1.00 1.00	λ_{22}^{22}=1.00
11	1.00 1.00 1.00 1.00	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	1.00 1.00 1.00 1.00	λ_6^{23}=0.82, λ_{21}^{23}=0.05, λ_{39}^{23}=0.08, λ_{41}^{23}=0.01, λ_{44}^{23}=0.04
12	1.00 1.00 1.00 1.00	λ_1^{12}=0.51, λ_{16}^{12}=0.05, λ_{21}^{12}=0.05, λ_{22}^{12}=0.17, λ_{46}^{12}=0.22	**PCF** **DLR** **RWK** **RML**	**24**	1.00 1.00 1.00 1.00	λ_1^{24}=0.14, λ_7^{24}=0.11, λ_{16}^{24}=0.06, λ_{35}^{24}=0.36, λ_{41}^{24}=0.33

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
25	1.00 1.00 1.00 1.00	λ_1^{25}=0.37, λ_{21}^{25}=0.15, λ_{27}^{25}=0.03, λ_{29}^{25}=0.39, λ_{37}^{25}=0.06	**PCF** **DLR** **RWK** **RML**	**37**	1.00 1.00 1.00 1.00	λ_{37}^{37}=1.00
26	1.00 1.00 1.00 1.00	λ_1^{26}=0.66, λ_{16}^{26}=0.10, λ_{22}^{26}=0.17, λ_{46}^{26}=0.07	**PCF** **DLR** **RWK** **RML**	**38**	1.00 1.00 1.00 1.00	λ_{14}^{38}=0.64, λ_{22}^{38}=0.08, λ_{30}^{38}=0.25, λ_{46}^{38}=0.03
27	1.00 1.00 1.00 1.00	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	1.00 1.00 1.00 1.00	λ_{39}^{39}=1.00
28	1.00 1.00 1.00 1.00	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	1.00 1.00 1.00 1.00	λ_{40}^{40}=1.00
29	1.00 1.00 1.00 1.00	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	1.00 1.00 1.00 1.00	λ_{41}^{41}=1.00
30	1.00 1.00 1.00 1.00	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	1.00 1.00 1.00 1.00	λ_{42}^{42}=1.00
31	1.00 1.00 1.00 1.00	λ_1^{31}=0.04, λ_{35}^{31}=0.25, λ_{37}^{31}=0.52, λ_{46}^{31}=0.05, λ_{48}^{31}=0.16	**PCF** **DLR** **RWK** **RML**	**43**	1.00 1.00 1.00 1.00	λ_{21}^{43}=0.02, λ_{34}^{43}=0.20, λ_{41}^{43}=0.15, λ_{42}^{43}=0.17, λ_{44}^{43}=0.46
32	1.00 1.00 1.00 1.00	λ_1^{32}=0.03, λ_8^{32}=0.15, λ_{15}^{32}=0.38, λ_{47}^{32}=0.44	**PCF** **DLR** **RWK** **RML**	**44**	1.00 1.00 1.00 1.00	λ_{44}^{44}=1.00
33	1.00 1.00 1.00 1.00	λ_1^{33}=0.19, λ_{14}^{33}=0.07, λ_{22}^{33}=0.11, λ_{27}^{33}=0.56, λ_{46}^{33}=0.07	**PCF** **DLR** **RWK** **RML**	**45**	1.00 1.00 1.00 1.00	λ_1^{45}=0.02, λ_{16}^{45}=0.32, λ_{22}^{45}=0.09, λ_{42}^{45}=0.18, λ_{44}^{45}=0.39
34	1.00 1.00 1.00 1.00	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	1.00 1.00 1.00 1.00	λ_{46}^{46}=1.00
35	1.00 1.00 1.00 1.00	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	1.00 1.00 1.00 1.00	λ_{47}^{47}=1.00
36	1.00 1.00 1.00 1.00	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	1.00 1.00 1.00 1.00	λ_{48}^{48}=1.00

E.1.b. GLOBAL TARGETS

Input/Output	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**8311444.50**	7164430.69	*1147013.81*	**0.35**
DLR	**54131.76**	71381.11	*-17249.35*	**0.27**
RWK	**273517.66**	438163.38	*-164645.72*	**0.71**
RML	**241759.14**	298632.64	*-56873.50*	**0.79**

E.2. FUZZY GODEA RESULTS: VARIATION 4 - DATA SET 1-48

E.2.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
1	1.00 1.00 1.00 1.00	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	1.00 1.00 1.00 1.00	λ_3^{13}=0.17, λ_8^{13}=0.25, λ_{11}^{13}=0.48, λ_{12}^{13}=0.01, λ_{20}^{13}=0.09
2	1.00 1.00 1.00 1.00	λ_1^{2}=0.36, λ_{12}^{2}=0.20, λ_{21}^{2}=0.44	**PCF** **DLR** **RWK** **RML**	**14**	1.00 1.00 1.00 1.00	λ_{14}^{14}=1.00
3	1.00 1.00 1.00 1.00	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	1.00 1.00 1.00 1.00	λ_{15}^{15}=1.00
4	1.00 1.00 1.00 1.00	λ_1^{4}=0.48, λ_{11}^{4}=0.08, λ_{21}^{4}=0.09, λ_{22}^{4}=0.32, λ_{46}^{4}=0.02	**PCF** **DLR** **RWK** **RML**	**16**	1.00 1.00 1.00 1.00	λ_1^{16}=0.11, λ_{14}^{16}=0.27, λ_{35}^{16}=0.26, λ_{46}^{16}=0.36
5	1.00 1.00 1.00 1.00	λ_1^{5}=0.04, λ_8^{5}=0.42, λ_{11}^{5}=0.35, λ_{21}^{5}=0.07, λ_{46}^{5}=0.12	**PCF** **DLR** **RWK** **RML**	**17**	1.00 1.00 1.00 1.00	λ_1^{17}=0.37, λ_{16}^{17}=0.08, λ_{22}^{17}=0.23, λ_{42}^{17}=0.10, λ_{46}^{17}=0.22
6	1.00 1.00 1.00 1.00	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	1.00 1.00 1.00 1.00	λ_1^{18}=0.40, λ_{21}^{18}=0.07, λ_{22}^{18}=0.07, λ_{38}^{18}=0.31, λ_{44}^{18}=0.15
7	1.00 1.00 1.00 1.00	λ_1^{7}=0.29, λ_{21}^{7}=0.32, λ_{37}^{7}=0.30, λ_{40}^{7}=0.05, λ_{46}^{7}=0.04	**PCF** **DLR** **RWK** **RML**	**19**	1.00 1.00 1.00 1.00	λ_{19}^{19}=1.00
8	1.00 1.00 1.00 1.00	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	1.00 1.00 1.00 1.00	λ_8^{20}=0.17, λ_{14}^{20}=0.16, λ_{22}^{20}=0.45, λ_{42}^{20}=0.05, λ_{46}^{20}=0.17
9	1.00 1.00 1.00 1.00	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	1.00 1.00 1.00 1.00	λ_{21}^{21}=1.00
10	1.00 1.00 1.00 1.00	λ_1^{10}=0.21, λ_{11}^{10}=0.53, λ_{21}^{10}=0.11,λ_{22}^{10}=0.01, λ_{44}^{10}=0.14	**PCF** **DLR** **RWK** **RML**	**22**	1.00 1.00 1.00 1.00	λ_{22}^{22}=1.00
11	1.00 1.00 1.00 1.00	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	1.00 1.00 1.00 1.00	λ_1^{23}=0.08, λ_6^{23}=0.71, λ_{21}^{23}=0.10, λ_{40}^{23}=0.08, λ_{44}^{23}=0.03
12	1.00 1.00 1.00 1.00	λ_1^{12}=0.54, λ_{16}^{12}=0.07, λ_{22}^{12}=0.15, λ_{42}^{12}=0.01, λ_{44}^{12}=0.23	**PCF** **DLR** **RWK** **RML**	**24**	1.00 1.00 1.00 1.00	λ_1^{24}=0.13, λ_{16}^{24}=0.08, λ_{25}^{24}=0.11, λ_{35}^{24}=0.30, λ_{44}^{24}=0.38

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
25	1.00 1.00 1.00 1.00	λ_1^{25}=0.47, λ_{21}^{25}=0.14, λ_{34}^{25}=0.18, λ_{37}^{25}=0.10, λ_{40}^{25}=0.11	**PCF** **DLR** **RWK** **RML**	**37**	1.00 1.00 1.00 1.00	λ_{37}^{37}=1.00
26	1.00 1.00 1.00 1.00	λ_1^{26}=0.66, λ_{16}^{26}=0.10, λ_{22}^{26}=0.17, λ_{46}^{26}=0.07	**PCF** **DLR** **RWK** **RML**	**38**	1.00 1.00 1.00 1.00	λ_{14}^{38}=0.32, λ_{28}^{38}=0.13, λ_{41}^{38}=0.30, λ_{44}^{38}=0.10, λ_{47}^{38}=0.15
27	1.00 1.00 1.00 1.00	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	1.00 1.00 1.00 1.00	λ_1^{39}=0.02, λ_{21}^{39}=0.05, λ_{37}^{39}=0.40, λ_{40}^{39}=0.47, λ_{46}^{39}=0.06
28	1.00 1.00 1.00 1.00	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	1.00 1.00 1.00 1.00	λ_{40}^{40}=1.00
29	1.00 1.00 1.00 1.00	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	1.00 1.00 1.00 1.00	λ_{41}^{41}=1.00
30	1.00 1.00 1.00 1.00	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	1.00 1.00 1.00 1.00	λ_{42}^{42}=1.00
31	1.00 1.00 1.00 1.00	λ_1^{31}=0.14, λ_{16}^{31}=0.10, λ_{35}^{31}=0.04, λ_{37}^{31}=0.61, λ_{47}^{31}=0.11	**PCF** **DLR** **RWK** **RML**	**43**	1.00 1.00 1.00 1.00	λ_{21}^{43}=0.02, λ_{34}^{43}=0.20, λ_{41}^{43}=0.15, λ_{42}^{43}=0.17, λ_{44}^{43}=0.46
32	1.00 1.00 1.00 1.00	λ_1^{32}=0.03, λ_8^{32}=0.15, λ_{15}^{32}=0.38, λ_{47}^{32}=0.44	**PCF** **DLR** **RWK** **RML**	**44**	1.00 1.00 1.00 1.00	λ_{44}^{44}=1.00
33	1.00 1.00 1.00 1.00	λ_1^{33}=0.33, λ_3^{33}=0.10, λ_{15}^{33}=0.23, λ_{22}^{33}=0.01, λ_{42}^{33}=0.33	**PCF** **DLR** **RWK** **RML**	**45**	1.00 1.00 1.00 1.00	λ_1^{45}=0.02, λ_{16}^{45}=0.32, λ_{22}^{45}=0.09, λ_{42}^{45}=0.18, λ_{44}^{45}=0.39
34	1.00 1.00 1.00 1.00	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	1.00 1.00 1.00 1.00	λ_{46}^{46}=1.00
35	1.00 1.00 1.00 1.00	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	1.00 1.00 1.00 1.00	λ_{47}^{47}=1.00
36	1.00 1.00 1.00 1.00	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	1.00 1.00 1.00 1.00	λ_{48}^{48}=1.00

E.2.b. GLOBAL TARGETS

Input/Output	*Target*	*Achieved*	*Slack*	*Possible*
PCF	**6554645.90**	7164493.00	*-609847.10*	***Increase***
DLR	**77761.00**	71381.00	*6380.00*	***Decrease***
RWK	**831828.00**	438174.00	*393654.00*	***Decrease***
RML	**518381.24**	298628.90	*219752.34*	***Decrease***

E.3. FUZZY GODEA RESULTS: VARIATION 5 - DATA SET 1-48

E.3.a. DEA REPRESENTATION

Prdn Day	*Slacks*	*Peers*	*Output /Inputs*	*Prdn Day*	*Slacks*	*Peers*
1	0 0 0 0	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	-38963 54 840 4	λ_{48}^{13}=1.00
2	-5919 421 1997 1224	λ_{48}^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	-40260 422 8634 0	λ_{37}^{14}=0.76, λ_{48}^{14}=0.24
3	-5231 0 2349 4230	λ_{19}^{3}=0.44, λ_{48}^{3}=0.56	**PCF** **DLR** **RWK** **RML**	**15**	-8203 916 12361 540	λ_{48}^{15}=1.00
4	-45496 82 0 289	λ_{37}^{4}=0.36, λ_{48}^{4}=0.64	**PCF** **DLR** **RWK** **RML**	**16**	-14181 1046 8562 0	λ_{42}^{16}=0.15, λ_{48}^{16}=0.85
5	-35775 275 1127 0	λ_1^{5}=0.07, λ_{48}^{5}=0.93	**PCF** **DLR** **RWK** **RML**	**17**	-11318 752 4970 1136	λ_{48}^{17}=1.00
6	0 0 0 0	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	-15350 613 5154 480	λ_{48}^{18}=1.00
7	-13161 199 0 559	λ_{37}^{7}=0.53, λ_{48}^{7}=0.47	**PCF** **DLR** **RWK** **RML**	**19**	0 0 0 0	λ_{19}^{19}=1.00
8	-29058 0 598 0	λ_1^{8}=0.46, λ_{19}^{8}=0.14, λ_{48}^{8}=0.40	**PCF** **DLR** **RWK** **RML**	**20**	-4785 734 7321 3418	λ_{37}^{20}=0.19, λ_{48}^{20}=0.81
9	-1285 0 0 1463	λ_1^{9}=0.62, λ_6^{9}=0.05, λ_{48}^{9}=0.33 1	**PCF** **DLR** **RWK** **RML**	**21**	0 93 0 2815	λ_{40}^{21}=0.38, λ_{42}^{21}=0.43, λ_{48}^{21}=0.19
10	-22764 390 1300 697	λ_{48}^{10}=1.00	**PCF** **DLR** **RWK** **RML**	**22**	0 468 6580 6442	λ_{37}^{22}=0.51, λ_{48}^{22}=0.49
11	-27019 88 0 581	λ_6^{11}=0.16, λ_{48}^{11}=0.84	**PCF** **DLR** **RWK** **RML**	**23**	-9424 186 0 400	λ_6^{23}=0.22, λ_{48}^{23}=0.78
12	-27930 599 3021 0	λ_1^{12}=0.04, λ_{48}^{12}=0.96	**PCF** **DLR** **RWK** **RML**	**24**	-11314 389 6036 0	λ_{37}^{24}=0.66, λ_{48}^{24}=0.34

Prdn Day	*Slacks*	*Peers*	*Output /Inputs*	*Prdn Day*	*Slacks*	*Peers*
25	-2865 333 1715 0	λ_1^{25}=0.07, λ_{48}^{25}=0.93	**PCF** **DLR** **RWK** **RML**	**37**	0 0 0 0	λ_{37}^{37}=1.00
26	-20982 332 2279 0	λ_1^{26}=0.31, λ_{48}^{26}=0.39	**PCF** **DLR** **RWK** **RML**	**38**	-40762 230 5587 79	λ_{37}^{38}=1.00
27	0 0 0 0	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	296 0 838	λ_{37}^{39}=0.74, λ_{42}^{39}=0.05, λ_{48}^{39}=0.21
28	-14830 473 9978 1810	λ_{48}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	0 0 0 0	λ_{40}^{40}=1.00
29	0 332 1028 0	λ_1^{29}=0.07, λ_{37}^{29}=0.33, λ_{48}^{29}=0.60	**PCF** **DLR** **RWK** **RML**	**41**	0 308 7808 582	λ_{37}^{41}=0.56, λ_{42}^{41}=0.44
30	-3279 42 3233 26	λ_{37}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	0 0 0 0	λ_{42}^{42}=1.00
31	-223 262 2924 0	λ_{37}^{31}=0.60, λ_{48}^{31}=0.40	**PCF** **DLR** **RWK** **RML**	**43**	-10907 764 3213 1792	λ_{37}^{43}=1.00
32	-17241 326 7675 0	λ_1^{32}=0.21, λ_{48}^{32}=0.79	**PCF** **DLR** **RWK** **RML**	**44**	-37711 1360 3274 1994	λ_{37}^{44}=1.00
33	-13525 280 3417 0	λ_{37}^{33}=0.29, λ_{48}^{33}=0.71	**PCF** **DLR** **RWK** **RML**	**45**	0 1088 6443 2459	λ_{37}^{45}=0.48, λ_{48}^{45}=0.52
34	-2192 263 1065 0	λ_{37}^{34}=0.72, λ_{48}^{34}=028	**PCF** **DLR** **RWK** **RML**	**46**	-1752 1995 9187 1639	λ_{48}^{46}=1.00
35	0 585 9327 0	λ_1^{35}=0.02, λ_{37}^{35}=0.56, λ_{48}^{35}=0.42	**PCF** **DLR** **RWK** **RML**	**47**	-10399 0 6797 0	λ_1^{47}=0.33, λ_{19}^{47}=0.05, λ_{48}^{47}=0.62
36	-3156 253 8848 0	λ_{37}^{36}=0.38, λ_{48}^{36}=0.62	**PCF** **DLR** **RWK** **RML**	**48**	-2380 0 0 0	λ_{48}^{48}=1.00

E.3.b. GLOBAL TARGETS

Input/Output	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**8311444.50**	7711673.46	*599771.04*	**0.66**
DLR	**54131.76**	54131.76	*0.00*	**1.00**
RWK	**273517.66**	273517.66	*0.00*	**1.00**
RML	**241759.14**	265880.59	*-24121.45*	**0.91**

E.4. FUZZY GODEA RESULTS: VARIATION 6 - DATA SET 1-48

E.4.a. DEA REPRESENTATION

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
1	1.00 1.00 1.00 1.00	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	1.00 1.00 1.00 1.00	λ_1^{13}=0.32, λ_2^{13}=0.02, λ_{11}^{13}=0.31, λ_{19}^{13}=0.16, λ_{22}^{13}=0.19
2	1.00 1.00 1.00 1.00	λ_2^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	1.00 1.00 1.00 1.00	λ_{14}^{14}=1.00
3	1.00 1.00 1.00 1.00	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	1.00 1.00 1.00 1.00	λ_{15}^{15}=1.00
4	1.00 1.00 1.00 1.00	λ_1^{4}=0.35, λ_2^{4}=0.22, λ_5^{4}=0.06, λ_{11}^{4}=0.07, λ_{22}^{4}=0.30	**PCF** **DLR** **RWK** **RML**	**16**	1.00 1.00 1.00 1.00	λ_1^{16}=0.11, λ_{15}^{16}=0.30, λ_{35}^{16}=0.15, λ_{41}^{16}=0.10, λ_{46}^{16}=0.34
5	1.00 1.00 1.00 1.00	λ_1^{5}=0.17, λ_8^{5}=0.23, λ_{11}^{5}=0.42, λ_{22}^{5}=0.07, λ_{46}^{5}=0.11	**PCF** **DLR** **RWK** **RML**	**17**	1.00 1.00 1.00 1.00	λ_1^{17}=0.18, λ_2^{17}=0.33, λ_{28}^{17}=0.20, λ_{30}^{17}=0.02, λ_{44}^{17}=0.27
6	1.00 1.00 1.00 1.00	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	1.00 1.00 1.00 1.00	λ_1^{18}=0.44, λ_{22}^{18}=0.17, λ_{28}^{18}=0.04, λ_{41}^{18}=0.18, λ_{46}^{18}=0.17
7	1.00 1.00 1.00 1.00	λ_1^{7}=0.38, λ_{21}^{7}=0.21, λ_{40}^{7}=0.08, λ_{42}^{7}=0.30, λ_{46}^{7}=0.03	**PCF** **DLR** **RWK** **RML**	**19**	1.00 1.00 1.00 1.00	λ_{19}^{19}=1.00
8	1.00 1.00 1.00 1.00	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	1.00 1.00 1.00 1.00	λ_1^{20}=0.14, λ_{15}^{20}=0.21, λ_{22}^{20}=0.49, λ_{43}^{20}=0.03, λ_{44}^{20}=0.13
9	1.00 1.00 1.00 1.00	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	1.00 1.00 1.00 1.00	λ_{21}^{21}=1.00
10	1.00 1.00 1.00 1.00	λ_1^{10}=0.03, λ_2^{10}=0.20, λ_{11}^{10}=0.63,λ_{40}^{10}=0.02, λ_{46}^{10}=0.12	**PCF** **DLR** **RWK** **RML**	**22**	1.00 1.00 1.00 1.00	λ_{22}^{22}=1.00
11	1.00 1.00 1.00 1.00	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	1.00 1.00 1.00 1.00	λ_6^{23}=0.62, λ_9^{23}=0.16, λ_{21}^{23}=0.05, λ_{40}^{23}=0.15, λ_{46}^{23}=0.02
12	1.00 1.00 1.00 1.00	λ_1^{12}=0.52, λ_2^{12}=0.05, λ_{14}^{12}=0.05, λ_{22}^{12}=0.12, λ_{44}^{12}=0.26	**PCF** **DLR** **RWK** **RML**	**24**	1.00 1.00 1.00 1.00	λ_1^{24}=0.22, λ_{31}^{24}=0.03, λ_{35}^{24}=0.24, λ_{41}^{24}=0.47, λ_{46}^{24}=0.04

Prdn Day	*Efficiency (μ)*	*Peers*	*Output /Inputs*	*Prdn Day*	*Efficiency (μ)*	*Peers*
25	1.00 1.00 1.00 1.00	λ_1^{25}=0.37, λ_2^{25}=0.25, λ_{37}^{25}=0.22, λ_{40}^{25}=0.16,	**PCF** **DLR** **RWK** **RML**	**37**	1.00 1.00 1.00 1.00	λ_{37}^{37}=1.00
26	1.00 1.00 1.00 1.00	λ_1^{26}=0.63, λ_2^{26}=0.07, λ_{14}^{26}=0.07, λ_{22}^{26}=0.14 λ_{46}^{26}=0.09	**PCF** **DLR** **RWK** **RML**	**38**	1.00 1.00 1.00 1.00	λ_{15}^{38}=0.41, λ_{22}^{38}=0.11, λ_{36}^{38}=0.26, λ_{41}^{38}=0.16, λ_{45}^{38}=0.06
27	1.00 1.00 1.00 1.00	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	1.00 1.00 1.00 1.00	λ_2^{39}=0.05, λ_{21}^{39}=0.02, λ_{37}^{39}=0.39, λ_{40}^{39}=0.48, λ_{46}^{39}=0.06
28	1.00 1.00 1.00 1.00	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	1.00 1.00 1.00 1.00	λ_{40}^{40}=1.00
29	1.00 1.00 1.00 1.00	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	1.00 1.00 1.00 1.00	λ_{41}^{41}=1.00
30	1.00 1.00 1.00 1.00	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	1.00 1.00 1.00 1.00	λ_{42}^{42}=1.00
31	1.00 1.00 1.00 1.00	λ_1^{31}=0.16, λ_{35}^{31}=0.07, λ_{37}^{31}=0.58, λ_{41}^{31}=0.15, λ_{46}^{31}=0.04	**PCF** **DLR** **RWK** **RML**	**43**	1.00 1.00 1.00 1.00	λ_{21}^{43}=0.02, λ_{34}^{43}=0.20, λ_{41}^{43}=0.15, λ_{42}^{43}=0.17, λ_{44}^{43}=0.46
32	1.00 1.00 1.00 1.00	λ_1^{32}=0.07, λ_8^{32}=0.10, λ_{15}^{32}=0.36, λ_{28}^{32}=0.05, λ_{47}^{32}=0.42	**PCF** **DLR** **RWK** **RML**	**44**	1.00 1.00 1.00 1.00	λ_{44}^{44}=1.00
33	1.00 1.00 1.00 1.00	λ_1^{33}=0.46, λ_{21}^{33}=0.17, λ_{30}^{33}=0.01, λ_{41}^{33}=0.36	**PCF** **DLR** **RWK** **RML**	**45**	1.00 1.00 1.00 1.00	λ_2^{45}=0.04, λ_{15}^{45}=0.06, λ_{22}^{45}=0.08, λ_{30}^{45}=0.27, λ_{44}^{45}=0.55
34	1.00 1.00 1.00 1.00	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	1.00 1.00 1.00 1.00	λ_{46}^{46}=1.00
35	1.00 1.00 1.00 1.00	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	1.00 1.00 1.00 1.00	λ_{47}^{47}=1.00
36	1.00 1.00 1.00 1.00	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	1.00 1.00 1.00 1.00	λ_{11}^{48}=0.04, λ_{19}^{48}=0.01, λ_{48}^{48}=0.95

E.4.b. GLOBAL TARGETS

Input/Output	*Target*	*Achieved*	*Deviations*	
PCF	**6554645.90**	7162113.20	*607467.30*	**PPCF**
DLR	**77761.00**	71381.00	*6380.00*	**NDLR**
RWK	**831828.00**	438174.00	*393654.00*	**NRWK**
RML	**518381.24**	298628.94	*219752.30*	**NRML**

E.5. FUZZY GODEA RESULTS: VARIATION 8 - DATA SET 1-48

E.5.a. DEA REPRESENTATION

Prdn Day	*Deviations*	*Peers*	*Output /Input*	*Prdn Day*	*Deviations*	*Peers*
1	0 0 0 0	λ_1^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	0 0 0 0	λ_1^{13}=0.32, λ_2^{13}=0.02, λ_{11}^{13}=0.31, λ_{19}^{13}=0.16, λ_{22}^{13}=0.19
2	0 0 0 0	λ_2^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	0 0 0 0	λ_{14}^{14}=1.00
3	0 0 0 0	λ_3^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	0 0 0 0	λ_{15}^{15}=1.00
4	0 0 0 0	λ_1^{4}=0.35, λ_2^{4}=0.22, λ_5^{4}=0.06, λ_{11}^{4}=0.07, λ_{22}^{4}=0.30	**PCF** **DLR** **RWK** **RML**	**16**	0 0 0 0	λ_1^{16}=0.11, λ_{15}^{16}=0.30, λ_{35}^{16}=0.15, λ_{41}^{16}=0.10, λ_{46}^{16}=0.34
5	0 0 0 0	λ_1^{5}=0.17, λ_8^{5}=0.23, λ_{11}^{5}=0.42, λ_{22}^{5}=0.07, λ_{46}^{5}=0.11	**PCF** **DLR** **RWK** **RML**	**17**	0 0 0 0	λ_1^{17}=0.18, λ_2^{17}=0.33, λ_{28}^{17}=0.20, λ_{30}^{17}=0.02, λ_{44}^{17}=0.27
6	0 0 0 0	λ_6^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	0 0 0 0	λ_1^{18}=0.44, λ_{22}^{18}=0.17, λ_{28}^{18}=0.04, λ_{41}^{18}=0.18, λ_{46}^{18}=0.17
7	0 0 0 0	λ_1^{7}=0.20, λ_{19}^{7}=0.10, λ_{21}^{7}=0.10, λ_{40}^{7}=0.51, λ_{41}^{7}=0.09	**PCF** **DLR** **RWK** **RML**	**19**	0 0 0 0	λ_{19}^{19}=1.00
8	0 0 0 0	λ_8^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	0 0 0 0	λ_1^{20}=0.14, λ_{15}^{20}=0.21, λ_{22}^{20}=0.49, λ_{43}^{20}=0.03, λ_{44}^{20}=0.13
9	0 0 0 0	λ_9^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	0 0 0 0	λ_{21}^{21}=1.00
10	0 0 0 0	λ_1^{10}=0.03, λ_2^{10}=0.20, λ_{11}^{10}=0.63,λ_{40}^{10}=0.02, λ_{46}^{10}=0.12	**PCF** **DLR** **RWK** **RML**	**22**	0 0 0 0	λ_{22}^{22}=1.00
11	0 0 0 0	λ_{11}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	0 0 0 0	λ_6^{23}=0.77, λ_{21}^{23}=0.08, λ_{40}^{23}=0.04, λ_{46}^{23}=0.05 λ_{48}^{23}=0.06
12	0 0 0 0	λ_1^{12}=0.52, λ_2^{12}=0.05, λ_{14}^{12}=0.05, λ_{22}^{12}=0.12, λ_{44}^{12}=0.26	**PCF** **DLR** **RWK** **RML**	**24**	0 0 0 0	λ_2^{24}=0.16, λ_{19}^{24}=0.03, λ_{35}^{24}=0.72, λ_{42}^{24}=0.09,

Prdn Day	*Deviations*	*Peers*	*Output /Inputs*	*Prdn Day*	*Deviations*	*Peers*
25	0 0 0 0	λ_1^{25}=0.37, λ_2^{25}=0.25, λ_{37}^{25}=0.22, λ_{40}^{25}=0.16	**PCF** **DLR** **RWK** **RML**	**37**	0 0 0 0	λ_{37}^{37}=1.00
26	0 0 0 0	λ_1^{26}=0.63, λ_2^{26}=0.07, λ_{14}^{26}=0.07, λ_{22}^{26}=0.14 λ_{46}^{26}=0.09	**PCF** **DLR** **RWK** **RML**	**38**	0 0 0 0	λ_{15}^{38}=0.41, λ_{22}^{38}=0.11, λ_{36}^{38}=0.26, λ_{41}^{38}=0.16, λ_{45}^{38}=0.06
27	0 0 0 0	λ_{27}^{27}=1.00	**PCF** **DLR** **RWK** **RML**	**39**	0 0 0 0	λ_2^{39}=0.05, λ_{21}^{39}=0.02, λ_{37}^{39}=0.39, λ_{40}^{39}=0.48, λ_{46}^{39}=0.06
28	0 0 0 0	λ_{28}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	0 0 0 0	λ_{40}^{40}=1.00
29	0 0 0 0	λ_{29}^{29}=1.00	**PCF** **DLR** **RWK** **RML**	**41**	0 0 0 0	λ_{41}^{41}=1.00
30	0 0 0 0	λ_{30}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	0 0 0 0	λ_{42}^{42}=1.00
31	0 0 0 0	λ_1^{31}=0.16, λ_{35}^{31}=0.07, λ_{37}^{31}=0.58, λ_{41}^{31}=0.15, λ_{46}^{31}=0.04	**PCF** **DLR** **RWK** **RML**	**43**	0 0 0 0	λ_1^{43}=0.03, λ_{35}^{43}=0.15, λ_{42}^{43}=0.36, λ_{44}^{43}=0.45, λ_{46}^{43}=0.01
32	0 0 0 0	λ_1^{32}=0.07, λ_8^{32}=0.10, λ_{15}^{32}=0.36, λ_{28}^{32}=0.05, λ_{47}^{32}=0.42	**PCF** **DLR** **RWK** **RML**	**44**	0 0 0 0	λ_{44}^{44}=1.00
33	0 0 0 0	λ_1^{33}=0.46, λ_{21}^{33}=0.17, λ_{30}^{33}=0.01, λ_{41}^{33}=0.36	**PCF** **DLR** **RWK** **RML**	**45**	0 0 0 0	λ_2^{45}=0.04, λ_{15}^{45}=0.06, λ_{22}^{45}=0.08, λ_{30}^{45}=0.27, λ_{44}^{45}=0.55
34	0 0 0 0	λ_{34}^{34}=1.00	**PCF** **DLR** **RWK** **RML**	**46**	0 0 0 0	λ_{46}^{46}=1.00
35	0 0 0 0	λ_{35}^{35}=1.00	**PCF** **DLR** **RWK** **RML**	**47**	0 0 0 0	λ_{47}^{47}=1.00
36	0 0 0 0	λ_{36}^{36}=1.00	**PCF** **DLR** **RWK** **RML**	**48**	0 0 0 0	λ_1^{48}=0.02, λ_6^{48}=0.03, λ_{19}^{48}=0.02, λ_{21}^{48}=0.02, λ_{48}^{48}=0.91

E.5.b. GLOBAL TARGETS

Input/Output	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**8311444.50**	7162146.86	*1149297.64*	**0.35**
DLR	**54131.76**	71381.11	*-17249.35*	**0.27**
RWK	**273517.66**	438163.38	*-164645.72*	**0.71**
RML	**241759.14**	298632.64	*-56873.50*	**0.79**

E.6. FUZZY GODEA RESULTS: VARIATION 9 - DATA SET 1-48

E.6.a. DEA REPRESENTATION

Prdn Day	*Deviations*	*Peers*	*Output /Input*	*Prdn Day*	*Deviations*	*Peers*
1	(+)83909 (+)149 (+)3339 (+)4676	λ_{48}^{1}=1.00	**PCF** **DLR** **RWK** **RML**	**13**	(+)38963 (-)54 (-)840 (-)4	λ_{48}^{13}=1.00
2	(+)5919 (-)421 (-)1997 (-)1224	λ_{48}^{2}=1.00	**PCF** **DLR** **RWK** **RML**	**14**	0 (-)827 (-)13068 (-)1375	λ_{37}^{14}=0.09, λ_{48}^{14}=0.91
3	(+)33575 (+)236 (-)2224 (+)241	λ_{48}^{3}=1.00	**PCF** **DLR** **RWK** **RML**	**15**	(+)8203 (-)916 (-)12361 (-)540	λ_{48}^{15}=1.00
4	(+)23961 (-)299 (-)2372 (-)1025	λ_{48}^{4}=1.00	**PCF** **DLR** **RWK** **RML**	**16**	(+)101339 (-)263 (-)416 (+)4697	λ_{42}^{16}=1.00
5	(+)41211 (-)265 (-)911 (+)303	λ_{48}^{5}=1.00	**PCF** **DLR** **RWK** **RML**	**17**	(+)11318 (-)752 (-)4970 (-)1136	λ_{48}^{17}=1.00
6	(+)29995 (+)11 (+)1933 (+)543	λ_{48}^{6}=1.00	**PCF** **DLR** **RWK** **RML**	**18**	(+)15350 (-)613 (-)5154 (-)480	λ_{48}^{18}=1.00
7	0 (-)331 (-)1450 (-)1009	λ_{37}^{7}=0.31, λ_{48}^{7}=0.69	**PCF** **DLR** **RWK** **RML**	**19**	(+)63783 (+)531 (+)282 (+)1509	λ_{48}^{19}=1.00
8	(+)74025 (+)139 (+)873 (+)2218	λ_{48}^{8}=1.00	**PCF** **DLR** **RWK** **RML**	**20**	0 (-)782 (-)7848 (-)3581	λ_{37}^{20}=0.11, λ_{48}^{20}=0.89
9	(+)51129 (+)86 (+)2023 (+)1254	λ_{48}^{9}=1.00	**PCF** **DLR** **RWK** **RML**	**21**	(-)4092 (-)200 (+)883 (-)4357	λ_{37}^{21}=1.00
10	(+)22764 (-)390 (-)1300 (-)697	λ_{48}^{10}=1.00	**PCF** **DLR** **RWK** **RML**	**22**	(+)29427 (-)172 (-)3339 (-)5437	λ_{37}^{22}=1.00
11	(+)31799 (-)87 (+)308 (-)495	λ_{48}^{11}=1.00	**PCF** **DLR** **RWK** **RML**	**23**	(+)16143 (-)184 (+)433 (-)279	λ_{48}^{23}=1.00
12	(+)31012 (-)593 (-)2898 (+)172	λ_{48}^{12}=1.00	**PCF** **DLR** **RWK** **RML**	**24**	0 (-)502 (-)7282 (-)386	λ_{37}^{24}=0.47, λ_{48}^{24}=0.53

Prdn Day	*Deviations*	*Peers*	*Output /Inputs*	*Prdn Day*	*Deviations*	*Peers*
25	(+)8634 (-)323 (-)1485 (+)322	λ_{48}^{25}=1.00	**PCF** **DLR** **RWK** **RML**	**37**	0 0 0 0	λ_{37}^{37}=1.00
26	(+)44837 (-)290 (-)1330 (+)1329	λ_{48}^{26}=0.00	**PCF** **DLR** **RWK** **RML**	**38**	(+)40762 (-)230 (-)5587 (-)79	λ_{37}^{38}=1.00
27	0 0 (-)2520 (+)200	λ_{29}^{27}=0.21, λ_{37}^{27}=0.39, λ_{48}^{27}=0.40	**PCF** **DLR** **RWK** **RML**	**39**	0 (-)317 (+)214 (-)1051	λ_{37}^{39}=0.90, λ_{48}^{39}=0.10
28	(+)14830 (-)473 (-)9978 (-)1810	λ_{48}^{28}=1.00	**PCF** **DLR** **RWK** **RML**	**40**	0 (-)300 (+)1569 (-)1393	λ_{37}^{40}=0.87, λ_{48}^{40}=0.13
29	0 (-)378 (-)1417 (+)119	λ_{37}^{29}=0.24, λ_{48}^{29}=0.76	**PCF** **DLR** **RWK** **RML**	**41**	(-)18461 (-)445 (-)9095 (-)2096	λ_{37}^{41}=1.00
30	(+)3279 (-)42 (-)3233 (-)26	λ_{37}^{30}=1.00	**PCF** **DLR** **RWK** **RML**	**42**	(-)42060 (-)314 (-)2932 (-)3449	λ_{37}^{42}=1.00
31	(+)223 (-)262 (-)2925 0	λ_{37}^{31}=0.60, λ_{48}^{31}=0.40	**PCF** **DLR** **RWK** **RML**	**43**	0 (-)874 (-)4414 (-)2164	λ_{37}^{43}=0.82, λ_{48}^{43}=0.18
32	(+)33152 (-)298 (-)7042 (+)887	λ_{48}^{32}=1.00	**PCF** **DLR** **RWK** **RML**	**44**	0 (-)1739 (-)7428 (-)3282	λ_{37}^{44}=0.37, λ_{48}^{44}=0.63
33	(+)13525 (-)280 (-)3418 0	λ_{37}^{33}=0.29, λ_{48}^{33}=0.71	**PCF** **DLR** **RWK** **RML**	**45**	0 (-)1094 (-)6510 (-)2480	λ_{37}^{45}=0.47, λ_{48}^{45}=0.53
34	0 (-)285 (-)1306 (-)75	λ_{37}^{34}=0.68, λ_{48}^{34}=0.32	**PCF** **DLR** **RWK** **RML**	**46**	(+)1752 (-)1995 (-)9187 (-)1639	λ_{48}^{46}=1.00
35	(0) (-)603 (-)9472 (-)44	λ_{37}^{35}=0.52, λ_{48}^{35}=0.48	**PCF** **DLR** **RWK** **RML**	**47**	(+)39403 (+)73 (-)5757 (+)1513	λ_{48}^{47}=1.00
36	0 (-)285 (-)9196 (-)108	λ_{37}^{36}=0.33, λ_{48}^{36}=0.67	**PCF** **DLR** **RWK** **RML**	**48**	(+)2380 0 0 0	λ_{48}^{48}=1.00

E.6.b. GLOBAL TARGETS

Input/Output	*Target*	*Achieved*	*Slack*	*Effectiveness (μ)*
PCF	**8311444.50**	8013491.46	*297953.04*	**0.83**
DLR	**54131.76**	54131.76	*0.00*	**1.00**
RWK	**273517.66**	277370.00	*-3852.34*	**0.99**
RML	**241759.14**	272021.60	*-30262.46*	**0.89**

Appendix F

GLOBAL TARGET ACHIEVEMENT GRAPHS

F.1. DATA SET 1-24.....(page 264)
F.2. DATA SET 25-48.....(page 268)
F.3. DATA SET 1-48.....(page 272)

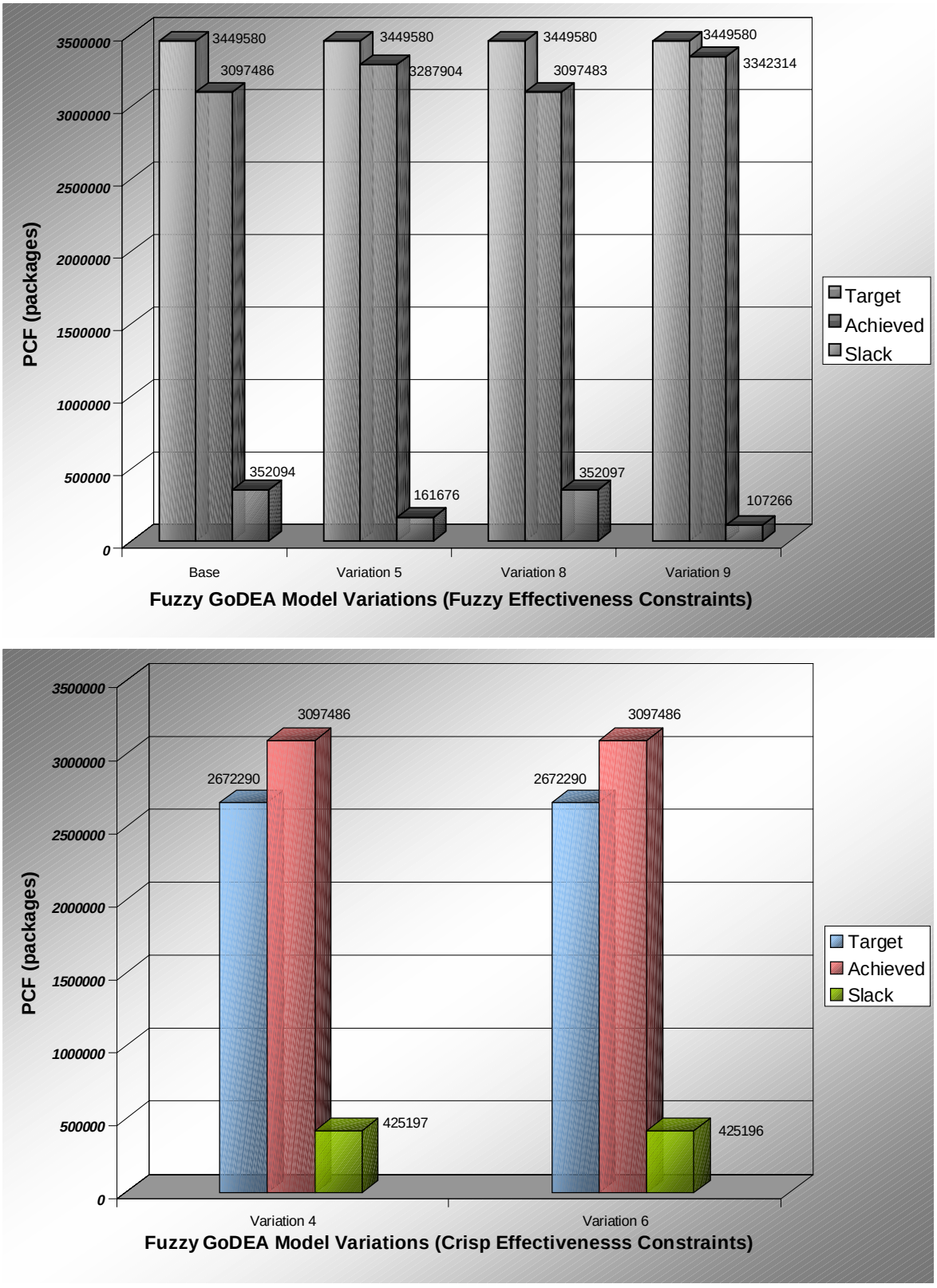
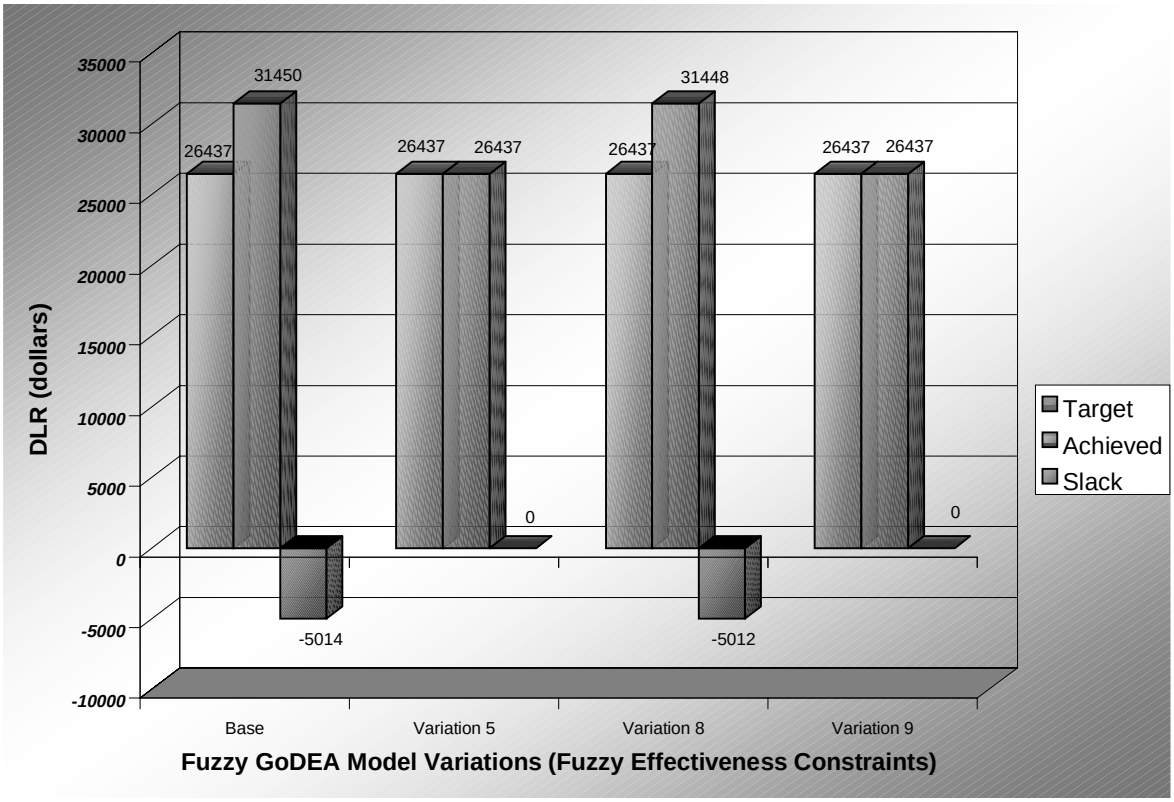


Figure F.1.a. PCF Global Target Achievement: Data Set 1-24



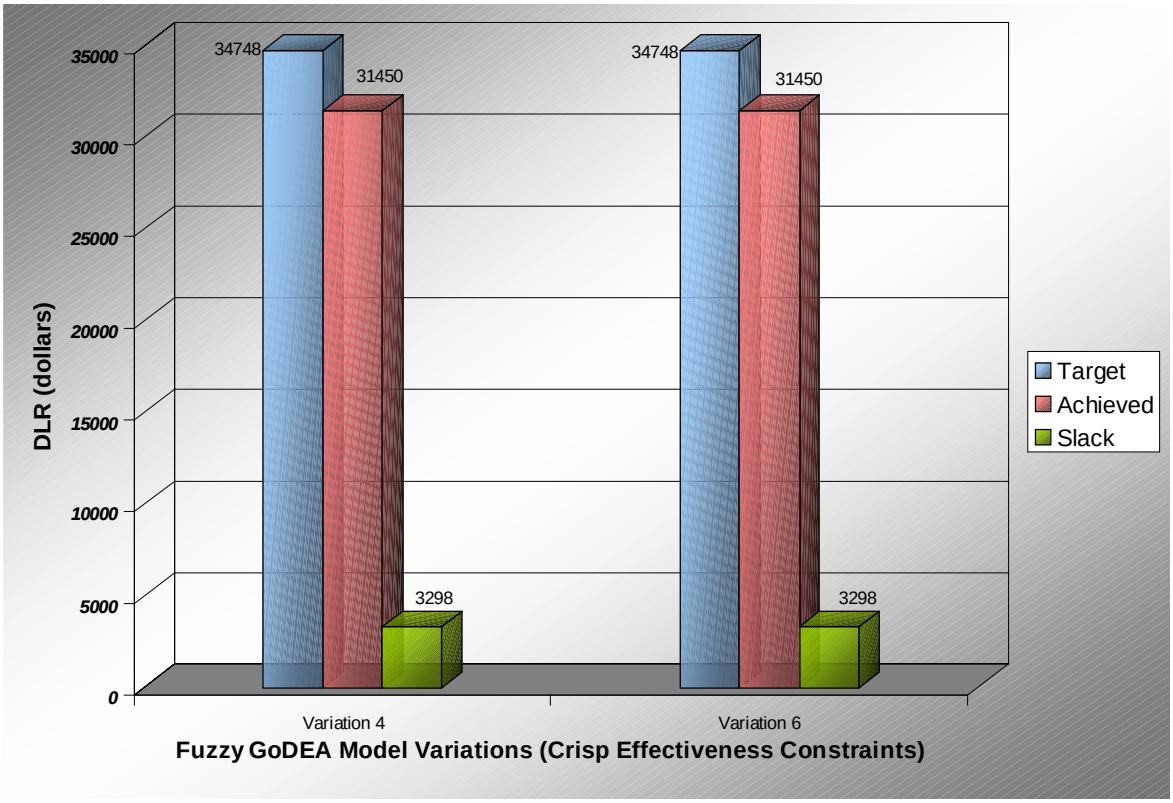


Figure F.1.b. DLR Global Target Achievement: Data Set 1-24

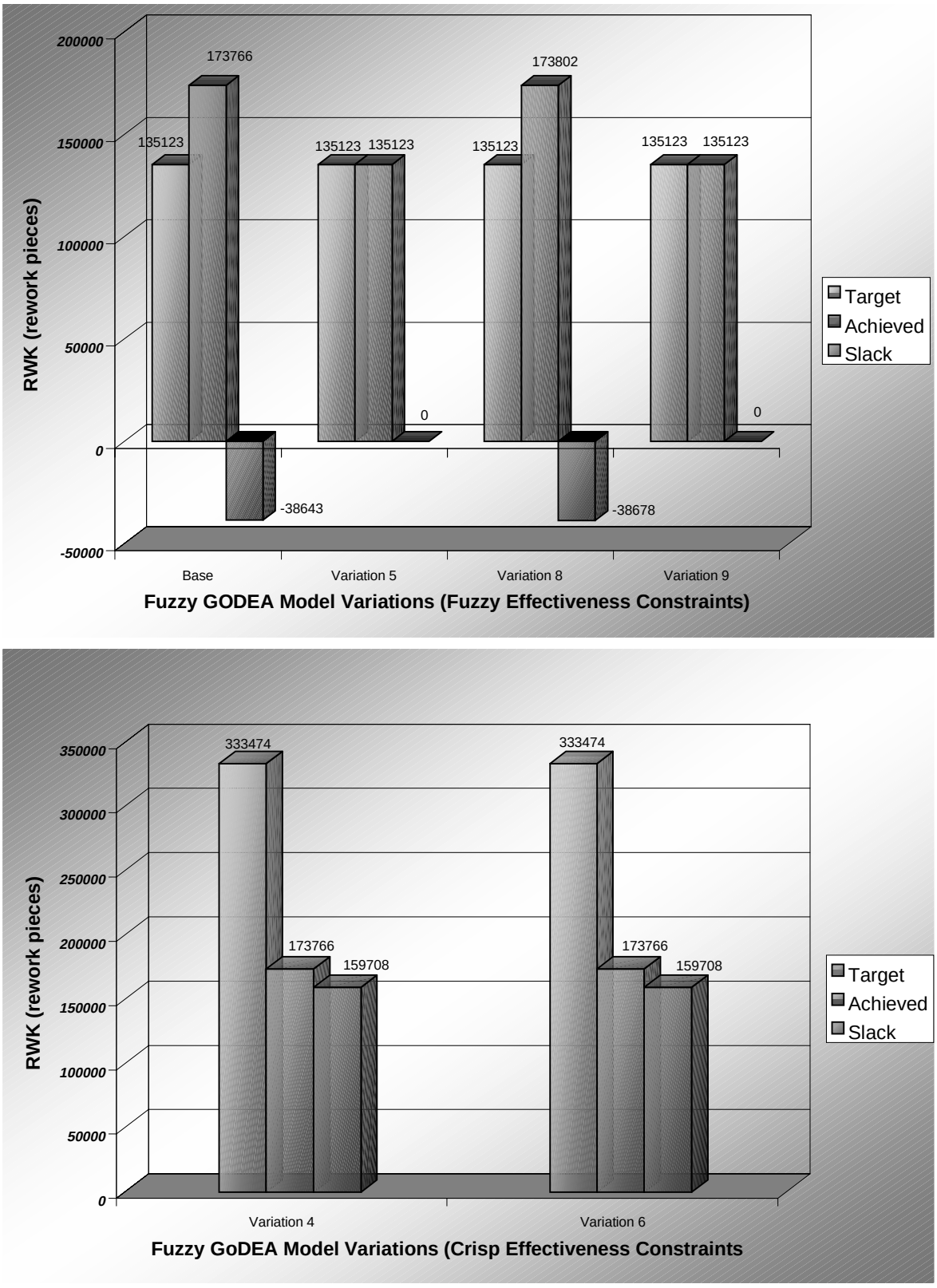
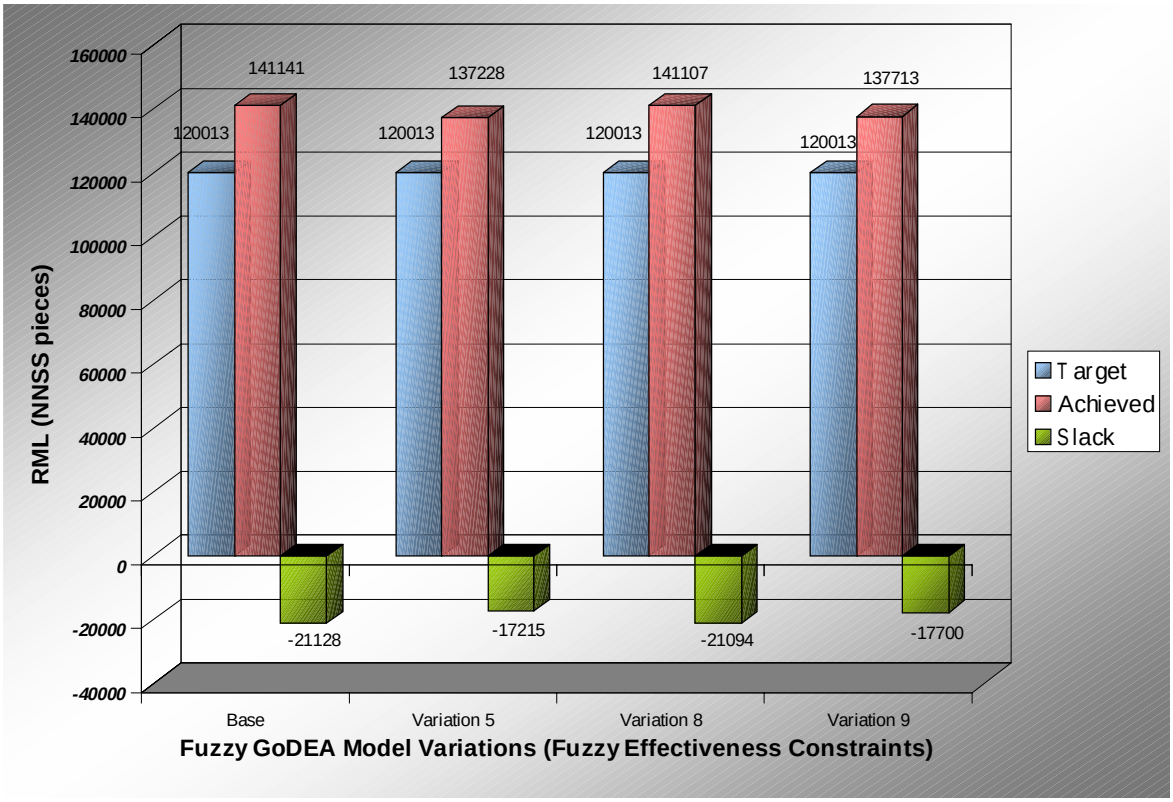


Figure F.1.c. RWK Global Target Achievement: Data Set 1-24



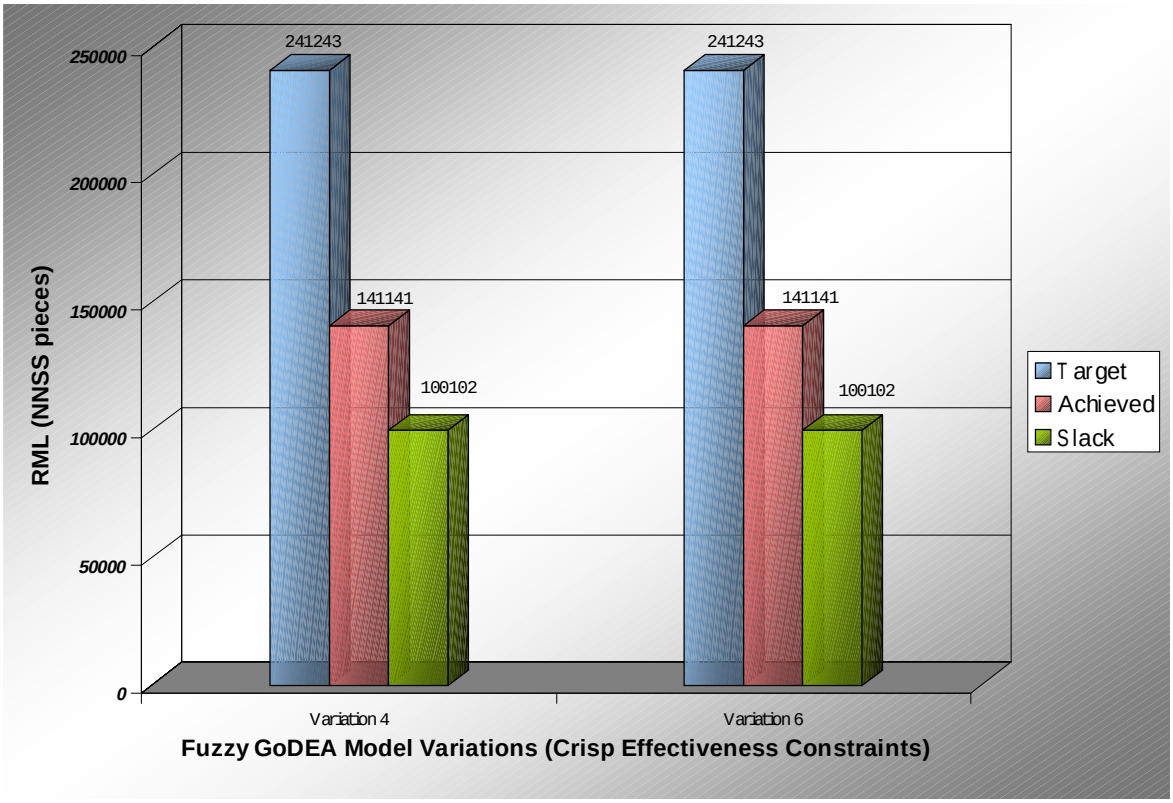
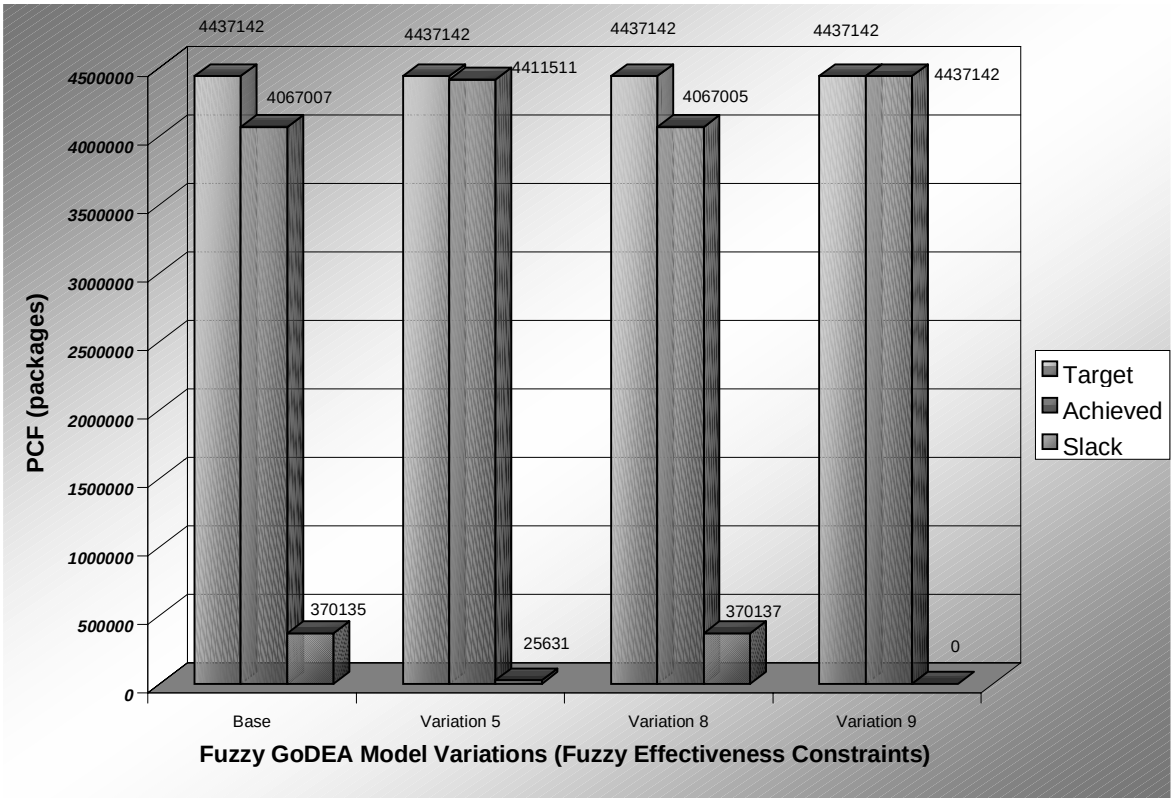


Figure F.1.d. RML Global Target Achievement: Data Set 1-24



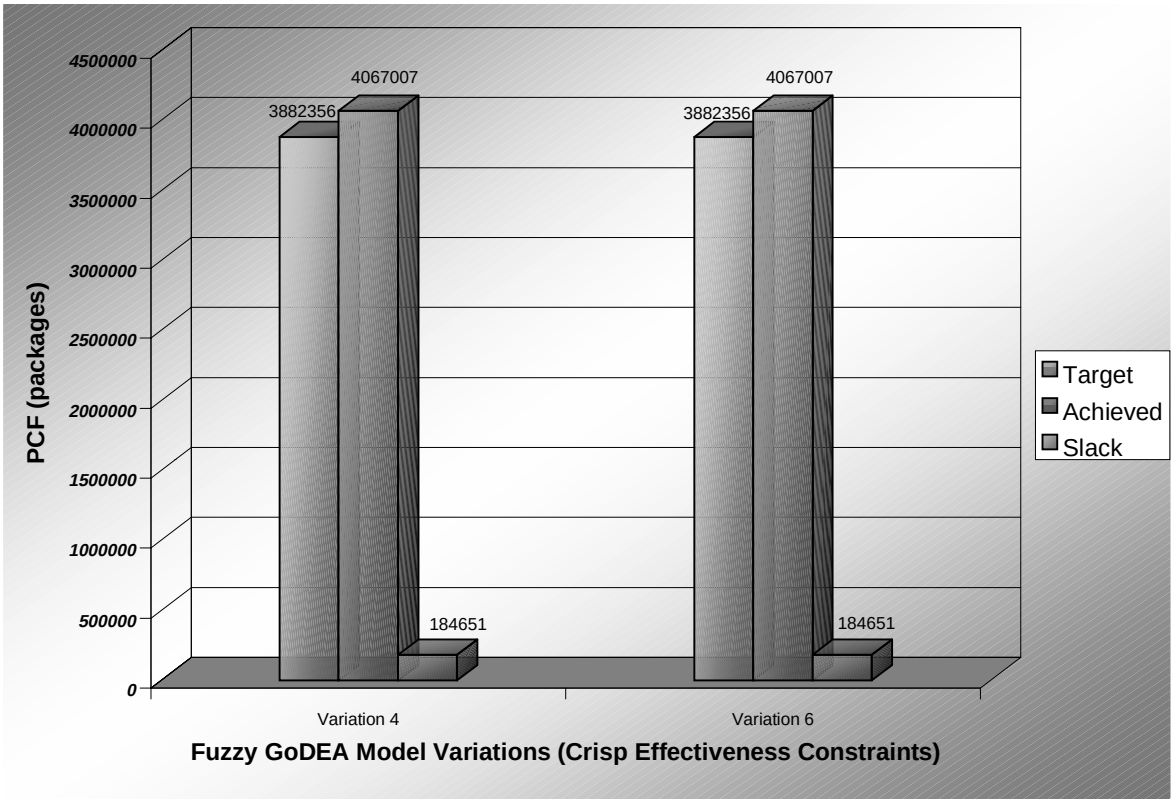
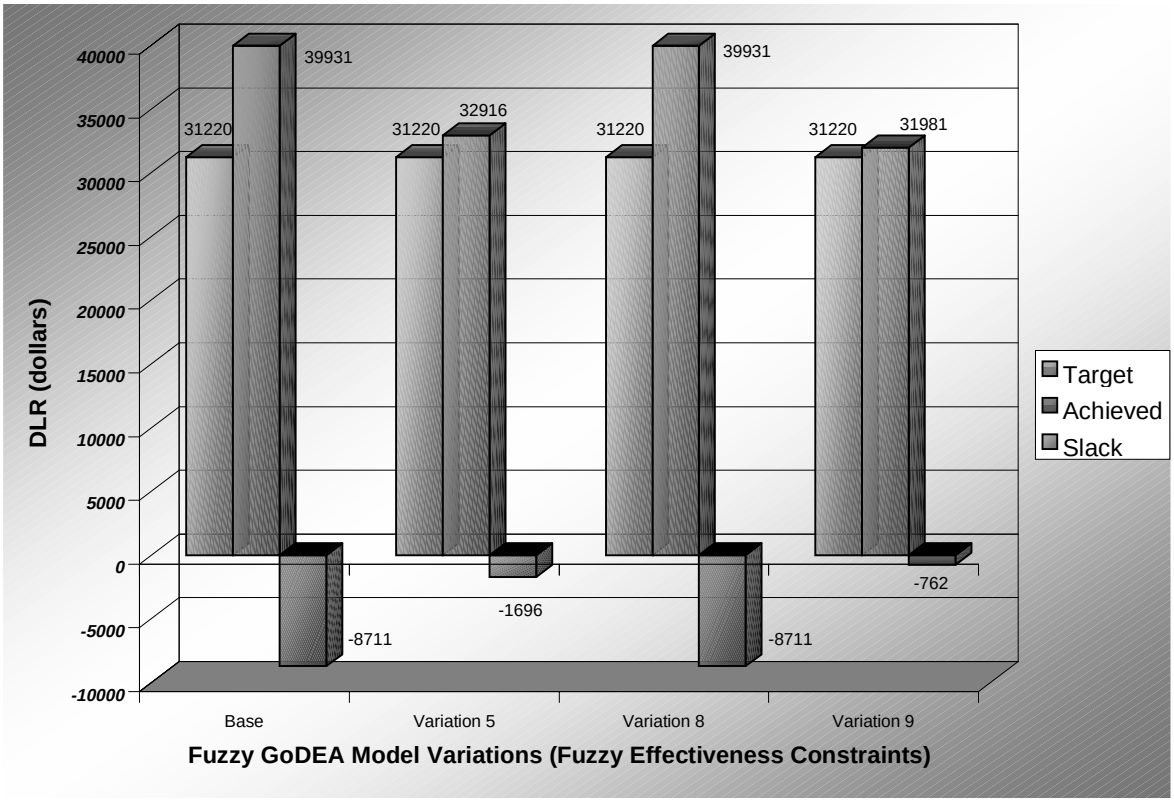


Figure F.2.a. PCF Global Target Achievement: Data Set 25-48



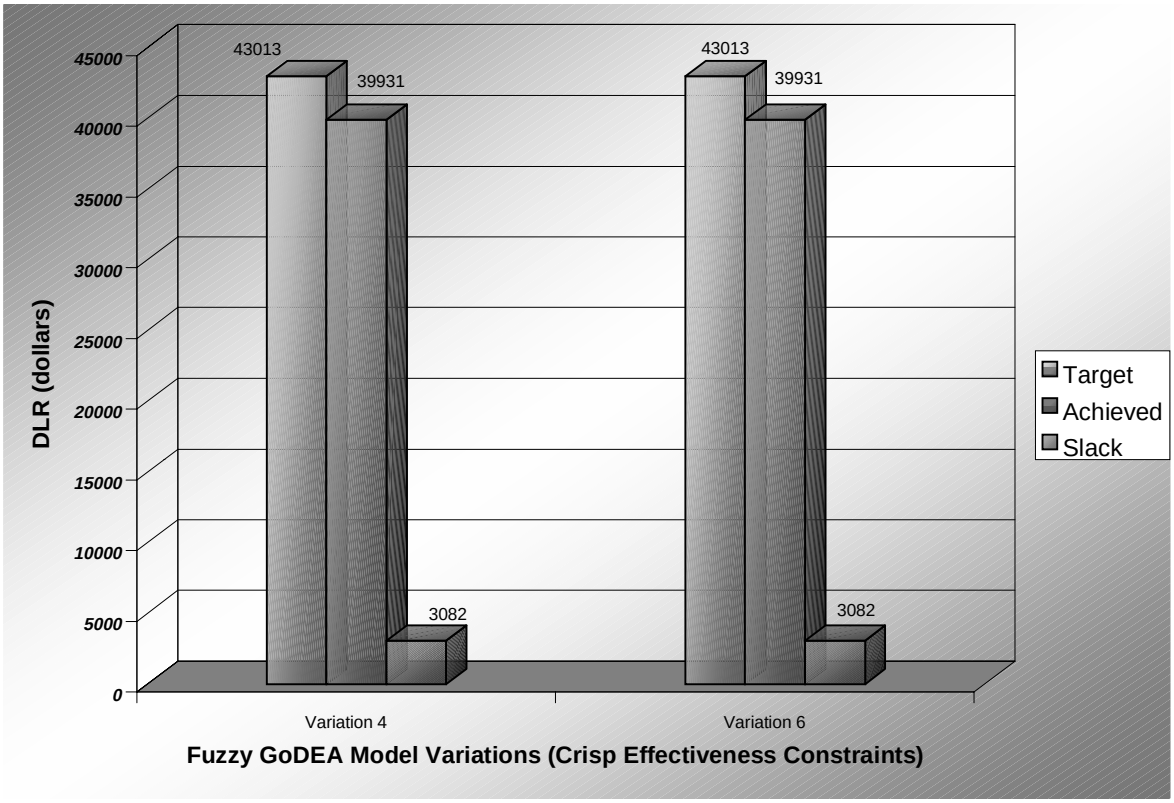
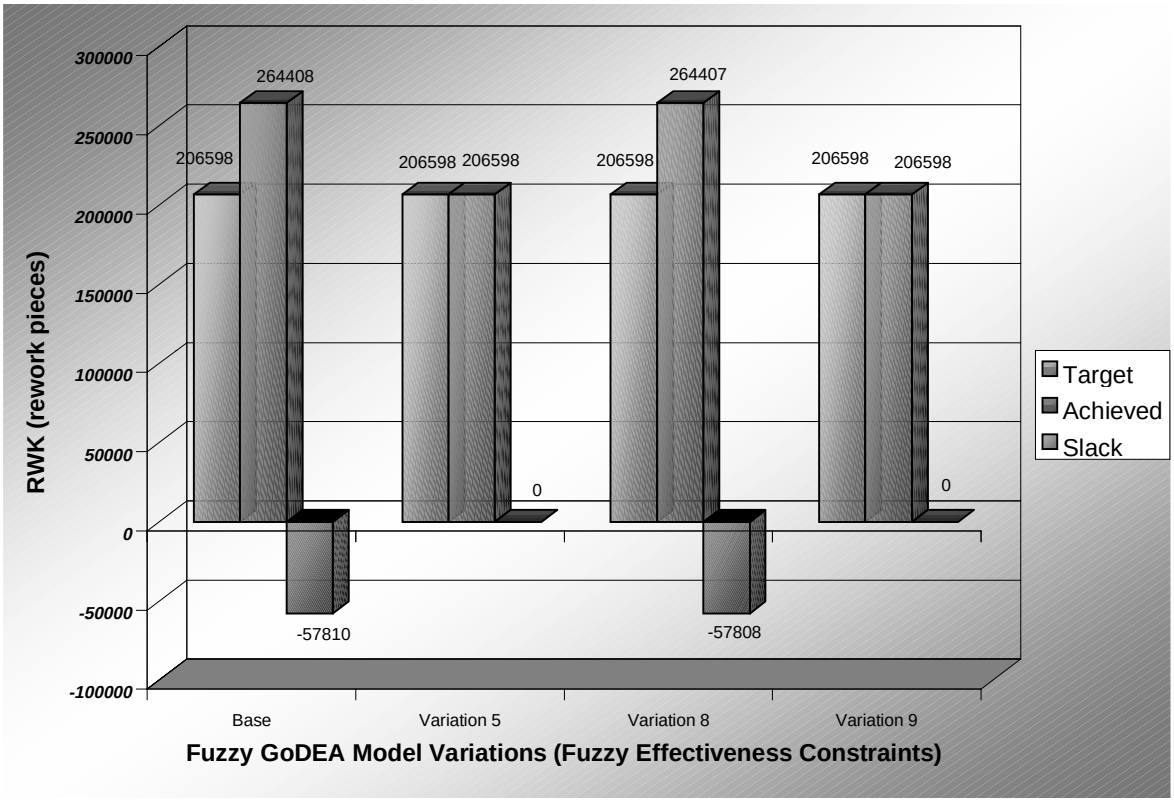


Figure F.2.b. DLR Global Target Achievement: Data Set 25-48



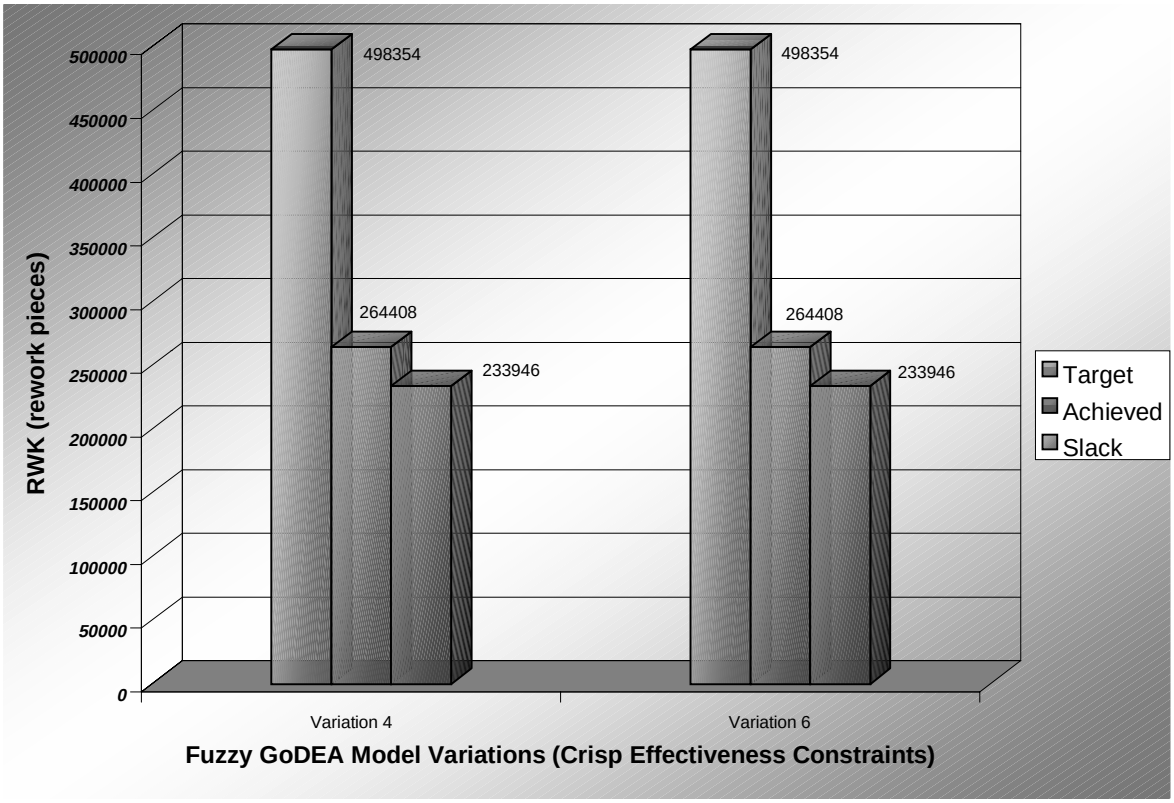


Figure F.2.c. RWK Global Target Achievement: Data Set 25-48

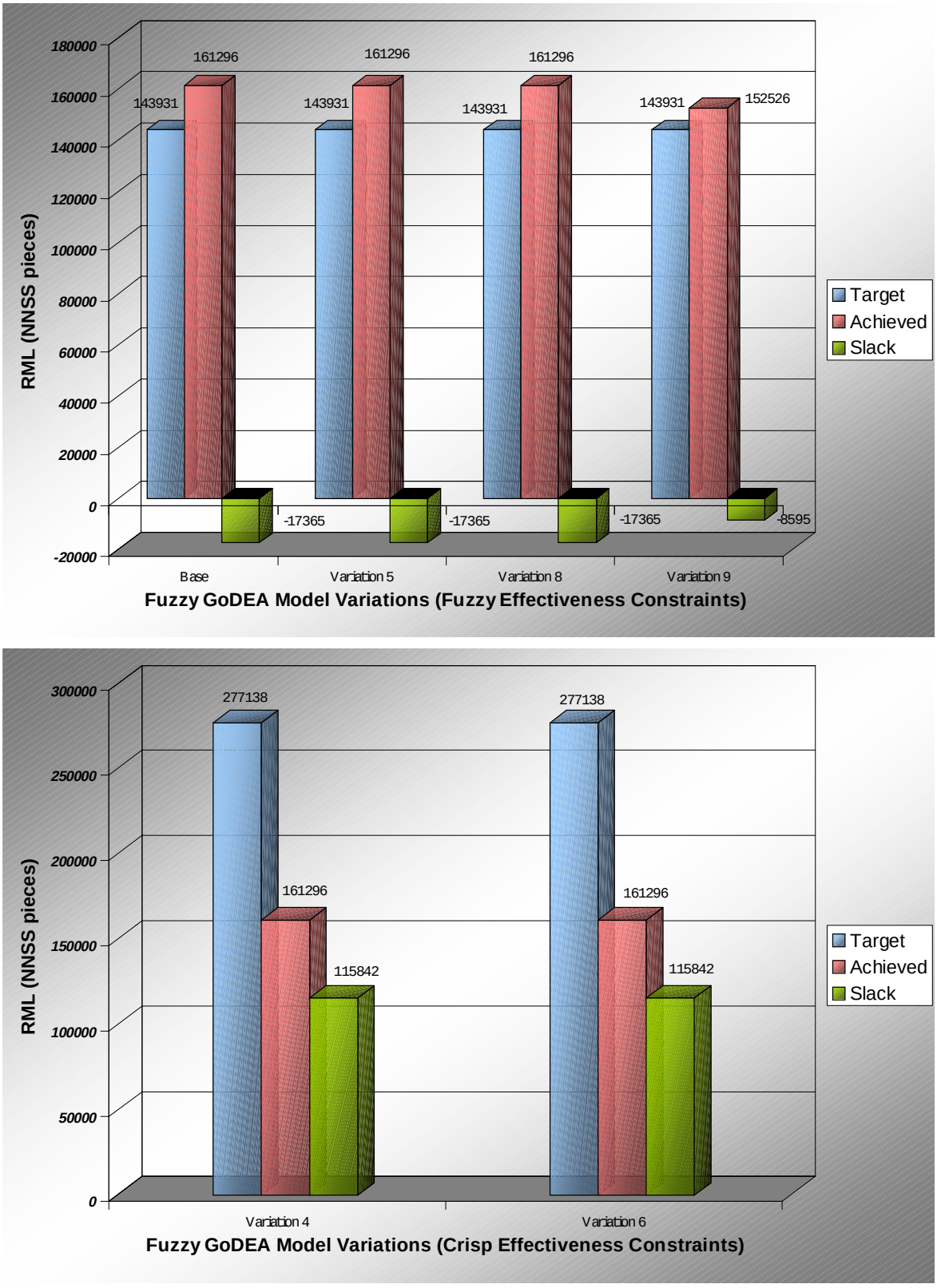
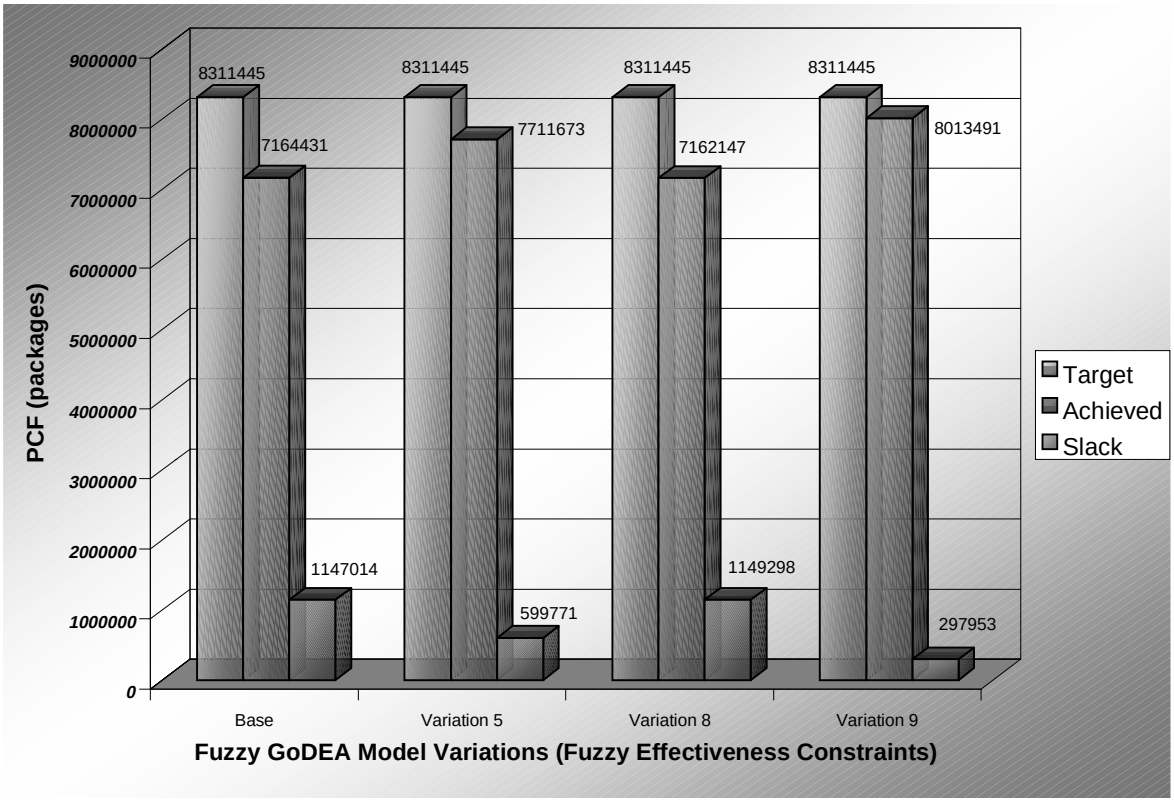


Figure F.2.d. RML Global Target Achievement: Data Set 25-48



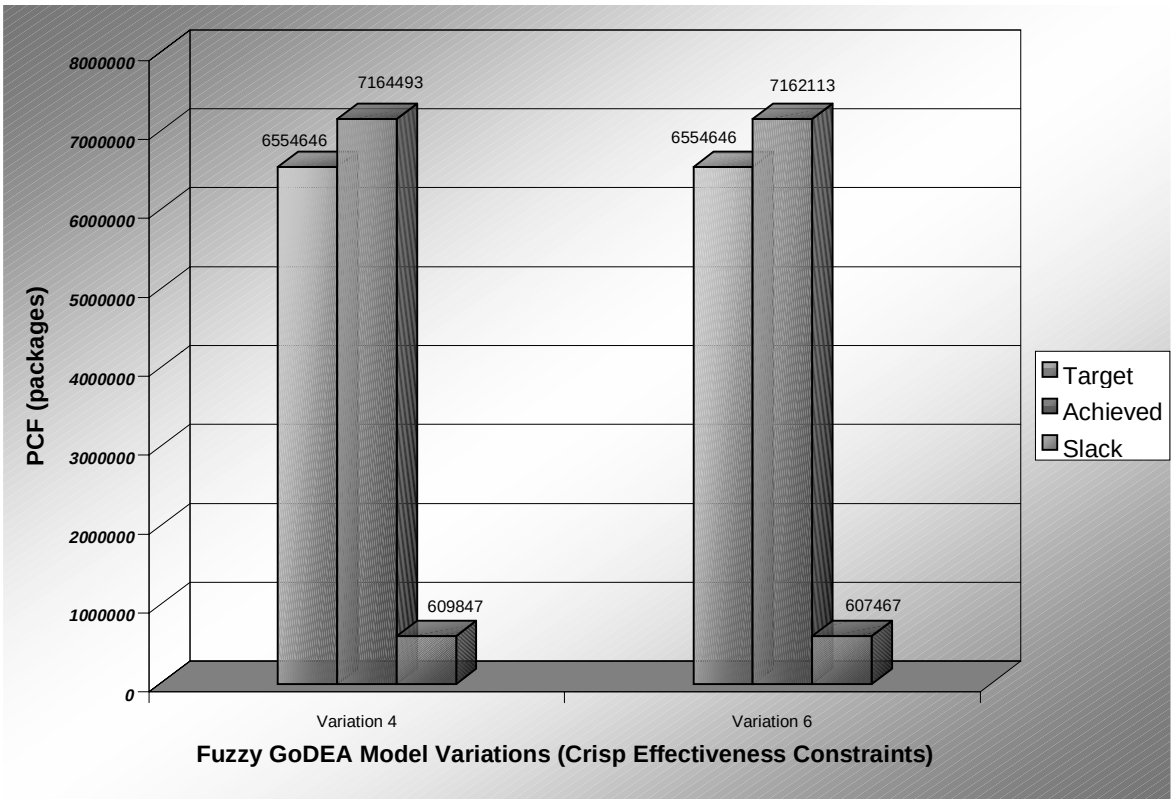


Figure F.3.a. PCF Global Target Achievement: Data Set 1-48

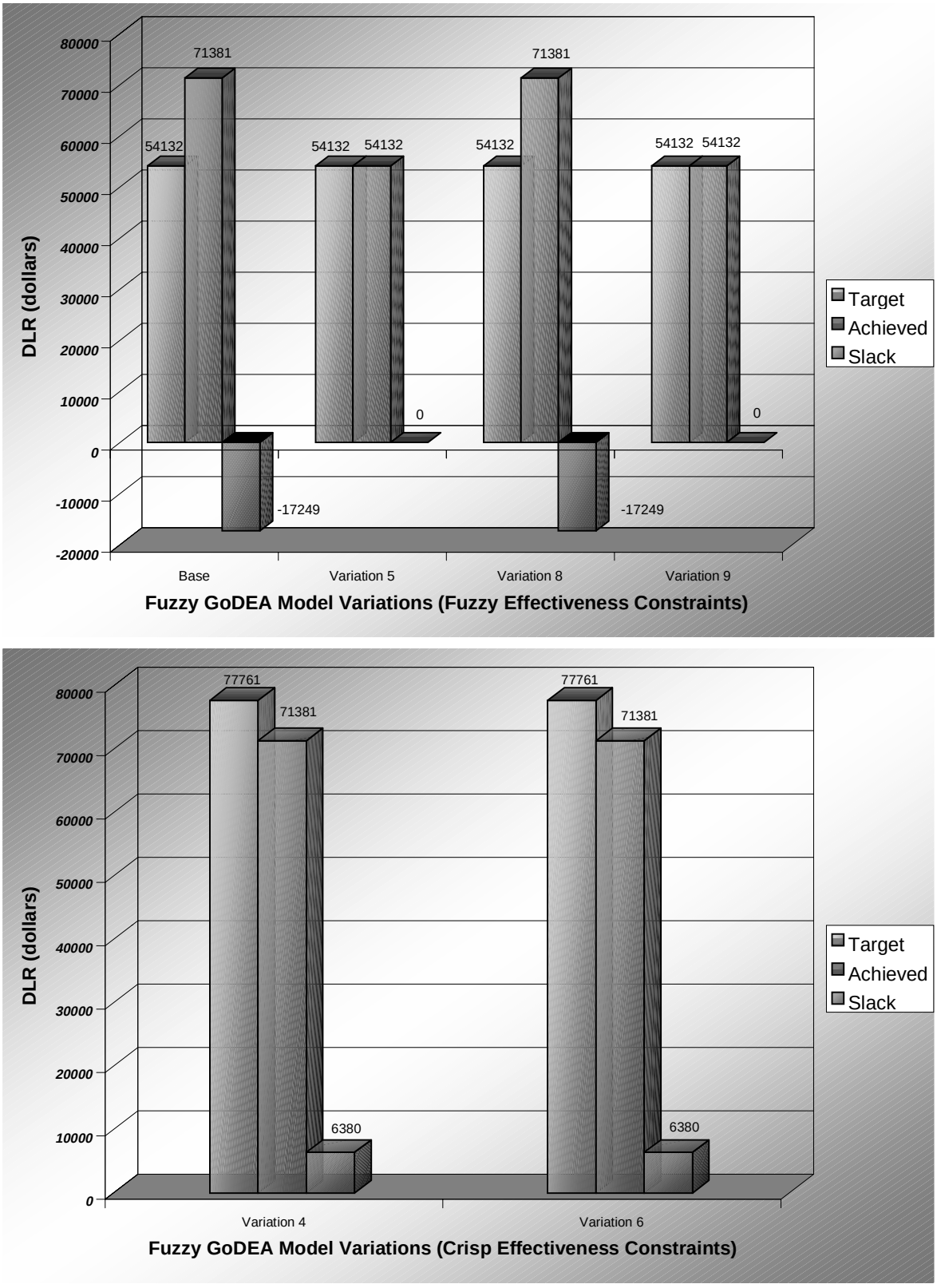
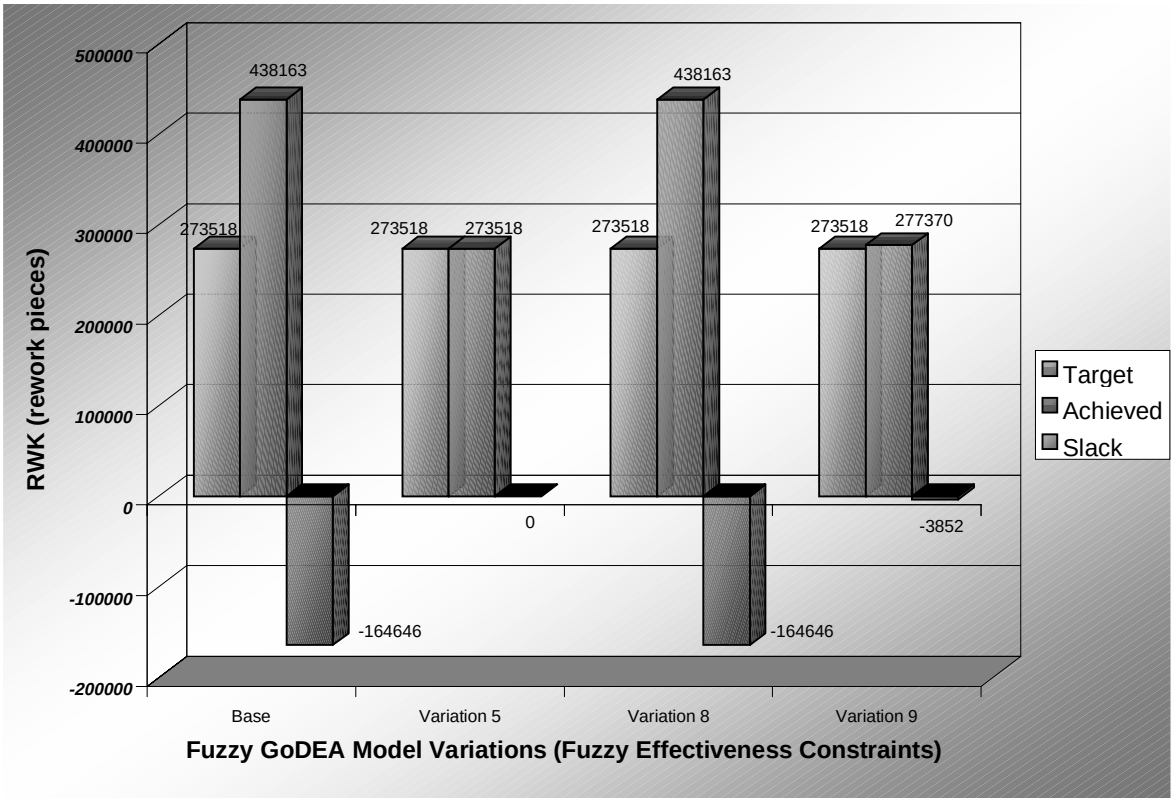


Figure F.3.b. DLR Global Target Achievement: Data Set 1-48



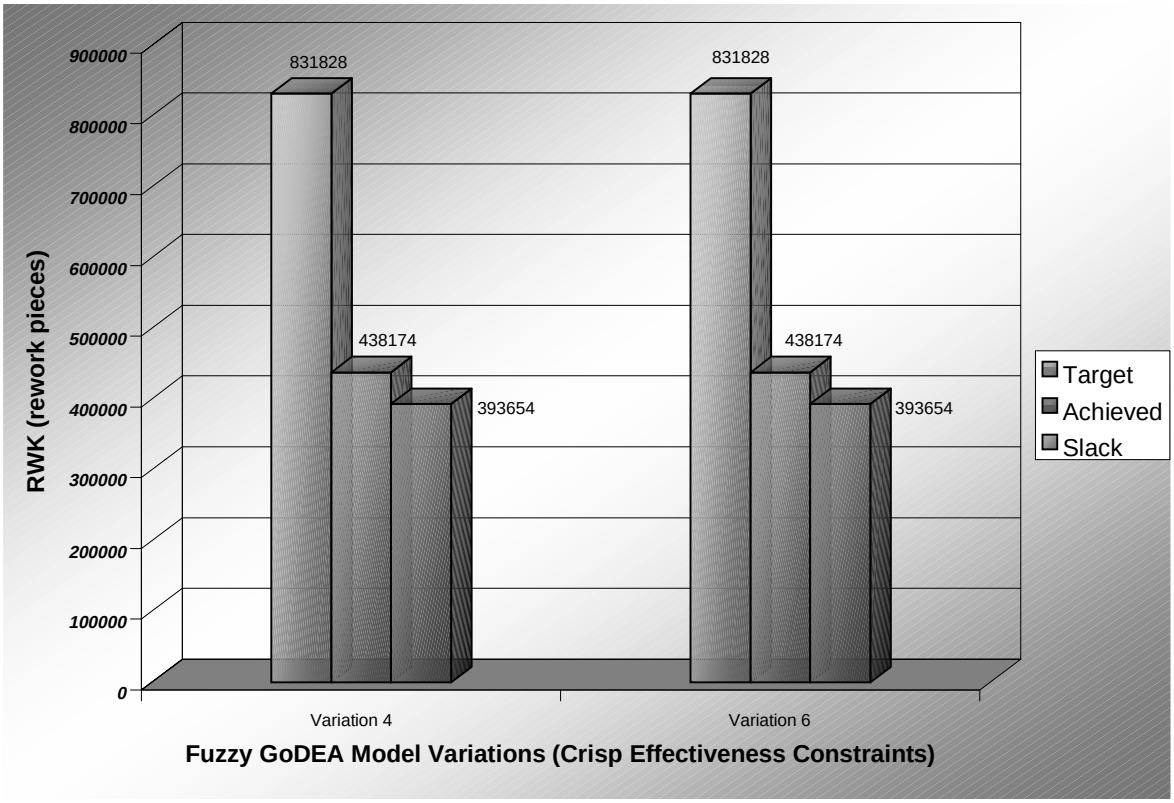


Figure F.3.c. RWK Global Target Achievement: Data Set 1-48

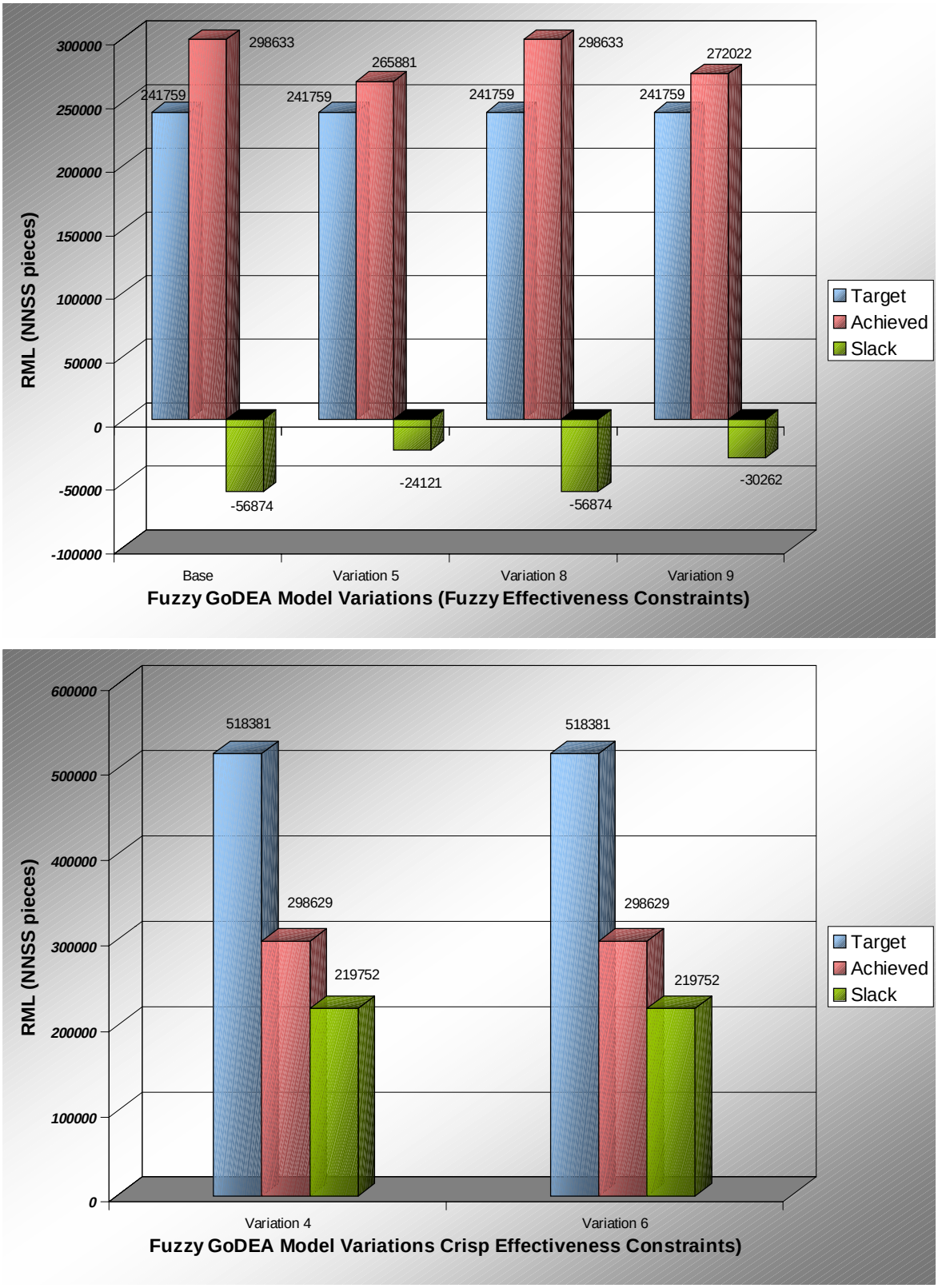


Figure F.3.d. RML Global Target Achievement: Data Set 1-48

Appendix G

CPLEX PROGRAM

G.1. SAMPLE CPLEX CODE .....(page 277)

G.1. SAMPLE CPLEX CODE

FUZZY GODEA BASE MODEL - Data Set 1-24

maximize

```
Mu_PCF1+Mu_DLR1+Mu_RWK1+Mu_RML1+Mu_PCF2+Mu_DLR2+Mu_RWK2+
Mu_RML2+Mu_PCF3+Mu_DLR3+Mu_RWK3+Mu_RML3+Mu_PCF4+Mu_DLR4+
Mu_RWK4+Mu_RML4+Mu_PCF5+Mu_DLR5+Mu_RWK5+Mu_RML5+Mu_PCF6+
Mu_DLR6+Mu_RWK6+Mu_RML6+Mu_PCF7+Mu_DLR7+Mu_RWK7+Mu_RML7+
Mu_PCF8+Mu_DLR8+Mu_RWK8+Mu_RML8+Mu_PCF9+Mu_DLR9+Mu_RWK9+
Mu_RML9+Mu_PCF10+Mu_DLR10+Mu_RWK10+Mu_RML10+Mu_PCF11+
Mu_DLR11+Mu_RWK11+Mu_RML11+Mu_PCF12+Mu_DLR12+Mu_RWK12+
Mu_RML12+Mu_PCF13+Mu_DLR13+Mu_RWK13+Mu_RML13+Mu_PCF14+
Mu_DLR14+Mu_RWK14+Mu_RML14+Mu_PCF15+Mu_DLR15+Mu_RWK15+
Mu_RML15+Mu_PCF16+Mu_DLR16+Mu_RWK16+Mu_RML16+Mu_PCF17+
Mu_DLR17+Mu_RWK17+Mu_RML17+Mu_PCF18+Mu_DLR18+Mu_RWK18+
Mu_RML18+Mu_PCF19+Mu_DLR19+Mu_RWK19+Mu_RML19+Mu_PCF20+
Mu_DLR20+Mu_RWK20+Mu_RML20+Mu_PCF21+Mu_DLR21+Mu_RWK21+
Mu_RML21+Mu_PCF22+Mu_DLR22+Mu_RWK22+Mu_RML22+Mu_PCF23+
Mu_DLR23+Mu_RWK23+Mu_RML23+Mu_PCF24+Mu_DLR24+Mu_RWK24+
Mu_RML24+Mu_PCF+Mu_DLR+Mu_RWK+Mu_RML
```

St

DMU1_PCF:

```
1604.28Mu_PCF1-69252.19Lam1_1-140761.31Lam2_1-
113105.4Lam3_1-122719.8Lam4_1-105469.25Lam5_1-
116685.58Lam6_1-165051.71Lam7_1-72655.02Lam8_1-
95551.33Lam9_1-123916.8Lam10_1-114881.57Lam11_1-
115668.57Lam12_1-107717.26Lam13_1-152197.04Lam14_1-
138477.34Lam15_1-147305.07Lam16_1-135362.21Lam17_1-
131330.27Lam18_1-82897.81Lam19_1-153299.97Lam20_1-
210676.69Lam21_1-177158.17Lam22_1-130537.14Lam23_1-
174808.75Lam24_1=-67647.91
```

DMU1_DLR:

```
98.60Mu_DLR1+788.80Lam1_1+1347.50Lam2_1+690.00Lam3_1+
1225.00Lam4_1+1191.30Lam5_1+915.60Lam6_1+1442.00Lam7_1+
787.50Lam8_1+840Lam9_1+1316Lam10_1+1012.80Lam11_1+
1519.20Lam12_1+980Lam13_1+1808.40Lam14_1+1842.40Lam15_1+
2105.60Lam16_1+1678.30Lam17_1+1539.60Lam18_1+394.80Lam19_1+
1774.50Lam20_1+1729.20Lam21_1+1700.40Lam22_1+1109.70Lam23_1
+1711.50Lam24_1=887.40
```

DMU1_RWK:

```
650Mu_RWK1+501Lam1_1+5579Lam2_1+5806Lam3_1+
5954Lam4_1+4493Lam5_1+1649Lam6_1+7055Lam7_1+
```

2709Lam8_1+1559Lam9_1+4882Lam10_1+3274Lam11_1+
6480Lam12_1+4422Lam13_1+17258Lam14_1+15943Lam15_1+
13528Lam16_1+8552Lam17_1+8736Lam18_1+3300Lam19_1+
12159Lam20_1+9297Lam21_1+13519Lam22_1+3149Lam23_1+
13962Lam24_1=1151

DMU1_RML:

666.19Mu_RML1+800.84Lam1_1+6340.26Lam2_1+4874.65Lam3_1+
6141.23Lam4_1+4812.87Lam5_1+4572.68Lam6_1+6752.04Lam7_1+
2897.71Lam8_1+3861.69Lam9_1+5812.54Lam10_1+5610.50Lam11_1+
4944.07Lam12_1+5119.43Lam13_1+6679.28Lam14_1+5655.94Lam15_1
+5913.64Lam16_1+6251.86Lam17_1+5595.36Lam18_1+3606.40Lam19_
1+8923.01Lam20_1+11518.68Lam21_1+12598.32Lam22_1+5395.01Lam
23_1+6462.91Lam24_1=1467.04

DMU2_PCF:

8082.42Mu_PCF2-69252.19Lam1_2-140761.31Lam2_2-
113105.4Lam3_2-122719.8Lam4_2-105469.25Lam5_2-
116685.58Lam6_2-165051.71Lam7_2-72655.02Lam8_2-
95551.33Lam9_2-123916.8Lam10_2-114881.57Lam11_2-
115668.57Lam12_2-107717.26Lam13_2-152197.04Lam14_2-
138477.34Lam15_2-147305.07Lam16_2-135362.21Lam17_2-
131330.27Lam18_2-82897.81Lam19_2-153299.97Lam20_2-
210676.69Lam21_2-177158.17Lam22_2-130537.14Lam23_2-
174808.75Lam24_2=-132678.89

DMU2_DLR:

122.50Mu_DLR2+788.80Lam1_2+1347.50Lam2_2+690.00Lam3_2+
1225.00Lam4_2+1191.30Lam5_2+915.60Lam6_2+1442.00Lam7_2+
787.50Lam8_2+840Lam9_2+1316Lam10_2+1012.80Lam11_2+
1519.20Lam12_2+980Lam13_2+1808.40Lam14_2+1842.40Lam15_2+
2105.60Lam16_2+1678.30Lam17_2+1539.60Lam18_2+394.80Lam19_2+
1774.50Lam20_2+1729.20Lam21_2+1700.40Lam22_2+1109.70Lam23_2
+1711.50Lam24_2=1470

DMU2_RWK:

4444Mu_RWK2+501Lam1_2+5579Lam2_2+5806Lam3_2+
5954Lam4_2+4493Lam5_2+1649Lam6_2+7055Lam7_2+
2709Lam8_2+1559Lam9_2+4882Lam10_2+3274Lam11_2+
6480Lam12_2+4422Lam13_2+17258Lam14_2+15943Lam15_2+
13528Lam16_2+8552Lam17_2+8736Lam18_2+3300Lam19_2+
12159Lam20_2+9297Lam21_2+13519Lam22_2+3149Lam23_2+
13962Lam24_2=10023

DMU2_RML:

4799.39Mu_RML2+800.84Lam1_2+6340.26Lam2_2+4874.65Lam3_2+
6141.23Lam4_2+4812.87Lam5_2+4572.68Lam6_2+6752.04Lam7_2+
2897.71Lam8_2+3861.69Lam9_2+5812.54Lam10_2+5610.50Lam11_2+
4944.07Lam12_2+5119.43Lam13_2+6679.28Lam14_2+5655.94Lam15_2
+5913.64Lam16_2+6251.86Lam17_2+5595.36Lam18_2+3606.40Lam19_

2+8923.01Lam20_2+11518.68Lam21_2+12598.32Lam22_2+5395.01Lam
23_2+6462.91Lam24_2=11139.65

DMU3_PCF:
1723.05Mu_PCF3-69252.19Lam1_3-140761.31Lam2_3-
113105.4Lam3_3-122719.8Lam4_3-105469.25Lam5_3-
116685.58Lam6_3-165051.71Lam7_3-72655.02Lam8_3-
95551.33Lam9_3-123916.8Lam10_3-114881.57Lam11_3-
115668.57Lam12_3-107717.26Lam13_3-152197.04Lam14_3-
138477.34Lam15_3-147305.07Lam16_3-135362.21Lam17_3-
131330.27Lam18_3-82897.81Lam19_3-153299.97Lam20_3-
210676.69Lam21_3-177158.17Lam22_3-130537.14Lam23_3-
174808.75Lam24_3=-111382.35
DMU3_DLR:
115.00Mu_DLR3+788.80Lam1_3+1347.50Lam2_3+690.00Lam3_3+
1225.00Lam4_3+1191.30Lam5_3+915.60Lam6_3+1442.00Lam7_3+
787.50Lam8_3+840Lam9_3+1316Lam10_3+1012.80Lam11_3+
1519.20Lam12_3+980Lam13_3+1808.40Lam14_3+1842.40Lam15_3+
2105.60Lam16_3+1678.30Lam17_3+1539.60Lam18_3+394.80Lam19_3+
1774.50Lam20_3+1729.20Lam21_3+1700.40Lam22_3+1109.70Lam23_3
+1711.50Lam24_3=805
DMU3_RWK:
9044.00Mu_RWK3+501Lam1_3+5579Lam2_3+5806Lam3_3+
5954Lam4_3+4493Lam5_3+1649Lam6_3+7055Lam7_3+
2709Lam8_3+1559Lam9_3+4882Lam10_3+3274Lam11_3+
6480Lam12_3+4422Lam13_3+17258Lam14_3+15943Lam15_3+
13528Lam16_3+8552Lam17_3+8736Lam18_3+3300Lam19_3+
12159Lam20_3+9297Lam21_3+13519Lam22_3+3149Lam23_3+
13962Lam24_3=14850
DMU3_RML:
3596.45Mu_RML3+800.84Lam1_3+6340.26Lam2_3+4874.65Lam3_3+
6141.23Lam4_3+4812.87Lam5_3+4572.68Lam6_3+6752.04Lam7_3+
2897.71Lam8_3+3861.69Lam9_3+5812.54Lam10_3+5610.50Lam11_3+
4944.07Lam12_3+5119.43Lam13_3+6679.28Lam14_3+5655.94Lam15_3
+5913.64Lam16_3+6251.86Lam17_3+5595.36Lam18_3+3606.40Lam19_
3+8923.01Lam20_3+11518.68Lam21_3+12598.32Lam22_3+5395.01Lam
23_3+6462.91Lam24_3=8471.10

DMU4_PCF:
15731.98Mu_PCF4-69252.19Lam1_4-140761.31Lam2_4-
113105.4Lam3_4-122719.8Lam4_4-105469.25Lam5_4-
116685.58Lam6_4-165051.71Lam7_4-72655.02Lam8_4-
95551.33Lam9_4-123916.8Lam10_4-114881.57Lam11_4-
115668.57Lam12_4-107717.26Lam13_4-152197.04Lam14_4-
138477.34Lam15_4-147305.07Lam16_4-135362.21Lam17_4-
131330.27Lam18_4-82897.81Lam19_4-153299.97Lam20_4-
210676.69Lam21_4-177158.17Lam22_4-130537.14Lam23_4-

174808.75Lam24_4=-106987.82

DMU4_DLR:

122.50Mu_DLR4+788.80Lam1_4+1347.50Lam2_4+690.00Lam3_4+
1225.00Lam4_4+1191.30Lam5_4+915.60Lam6_4+1442.00Lam7_4+
787.50Lam8_4+840Lam9_4+1316Lam10_4+1012.80Lam11_4+
1519.20Lam12_4+980Lam13_4+1808.40Lam14_4+1842.40Lam15_4+
2105.60Lam16_4+1678.30Lam17_4+1539.60Lam18_4+394.80Lam19_4+
1774.50Lam20_4+1729.20Lam21_4+1700.40Lam22_4+1109.70Lam23_4
+1711.50Lam24_4=1347.50

DMU4_RWK:

6134Mu_RWK4+501Lam1_4+5579Lam2_4+5806Lam3_4+
5954Lam4_4+4493Lam5_4+1649Lam6_4+7055Lam7_4+
2709Lam8_4+1559Lam9_4+4882Lam10_4+3274Lam11_4+
6480Lam12_4+4422Lam13_4+17258Lam14_4+15943Lam15_4+
13528Lam16_4+8552Lam17_4+8736Lam18_4+3300Lam19_4+
12159Lam20_4+9297Lam21_4+13519Lam22_4+3149Lam23_4+
13962Lam24_4=12088

DMU4_RML:

4967.01Mu_RML4+800.84Lam1_4+6340.26Lam2_4+4874.65Lam3_4+
6141.23Lam4_4+4812.87Lam5_4+4572.68Lam6_4+6752.04Lam7_4+
2897.71Lam8_4+3861.69Lam9_4+5812.54Lam10_4+5610.50Lam11_4+
4944.07Lam12_4+5119.43Lam13_4+6679.28Lam14_4+5655.94Lam15_4
+5913.64Lam16_4+6251.86Lam17_4+5595.36Lam18_4+3606.40Lam19_
4+8923.01Lam20_4+11518.68Lam21_4+12598.32Lam22_4+5395.01Lam
23_4+6462.91Lam24_4=11108.24

DMU5_PCF:

8635.01Mu_PCF5-69252.19Lam1_5-140761.31Lam2_5-
113105.4Lam3_5-122719.8Lam4_5-105469.25Lam5_5-
116685.58Lam6_5-165051.71Lam7_5-72655.02Lam8_5-
95551.33Lam9_5-123916.8Lam10_5-114881.57Lam11_5-
115668.57Lam12_5-107717.26Lam13_5-152197.04Lam14_5-
138477.34Lam15_5-147305.07Lam16_5-135362.21Lam17_5-
131330.27Lam18_5-82897.81Lam19_5-153299.97Lam20_5-
210676.69Lam21_5-177158.17Lam22_5-130537.14Lam23_5-
174808.75Lam24_5=-96834.82

DMU5_DLR:

108.30Mu_DLR5+788.80Lam1_5+1347.50Lam2_5+690.00Lam3_5+
1225.00Lam4_5+1191.30Lam5_5+915.60Lam6_5+1442.00Lam7_5+
787.50Lam8_5+840Lam9_5+1316Lam10_5+1012.80Lam11_5+
1519.20Lam12_5+980Lam13_5+1808.40Lam14_5+1842.40Lam15_5+
2105.60Lam16_5+1678.30Lam17_5+1539.60Lam18_5+394.80Lam19_5+
1774.50Lam20_5+1729.20Lam21_5+1700.40Lam22_5+1109.70Lam23_5
+1711.50Lam24_5=1299.60

DMU5_RWK:

3994.00Mu_RWK5+501Lam1_5+5579Lam2_5+5806Lam3_5+
5954Lam4_5+4493Lam5_5+1649Lam6_5+7055Lam7_5+

2709Lam8_5+1559Lam9_5+4882Lam10_5+3274Lam11_5+
6480Lam12_5+4422Lam13_5+17258Lam14_5+15943Lam15_5+
13528Lam16_5+8552Lam17_5+8736Lam18_5+3300Lam19_5+
12159Lam20_5+9297Lam21_5+13519Lam22_5+3149Lam23_5+
13962Lam24_5=8487.00

DMU5_RML:

3398.96Mu_RML5+800.84Lam1_5+6340.26Lam2_5+4874.65Lam3_5+
6141.23Lam4_5+4812.87Lam5_5+4572.68Lam6_5+6752.04Lam7_5+
2897.71Lam8_5+3861.69Lam9_5+5812.54Lam10_5+5610.50Lam11_5+
4944.07Lam12_5+5119.43Lam13_5+6679.28Lam14_5+5655.94Lam15_5
+5913.64Lam16_5+6251.86Lam17_5+5595.36Lam18_5+3606.40Lam19_
5+8923.01Lam20_5+11518.68Lam21_5+12598.32Lam22_5+5395.01Lam
23_5+6462.91Lam24_5=8211.84

DMU6_PCF:

12578.69Mu_PCF6-69252.19Lam1_6-140761.31Lam2_6-
113105.4Lam3_6-122719.8Lam4_6-105469.25Lam5_6-
116685.58Lam6_6-165051.71Lam7_6-72655.02Lam8_6-
95551.33Lam9_6-123916.8Lam10_6-114881.57Lam11_6-
115668.57Lam12_6-107717.26Lam13_6-152197.04Lam14_6-
138477.34Lam15_6-147305.07Lam16_6-135362.21Lam17_6-
131330.27Lam18_6-82897.81Lam19_6-
153299.97Lam20_6-210676.69Lam21_6-177158.17Lam22_6-
130537.14Lam23_6-174808.75Lam24_6=-104106.89

DMU6_DLR:

130.80Mu_DLR6+788.80Lam1_6+1347.50Lam2_6+690.00Lam3_6+
1225.00Lam4_6+1191.30Lam5_6+915.60Lam6_6+1442.00Lam7_6+
787.50Lam8_6+840Lam9_6+1316Lam10_6+1012.80Lam11_6+
1519.20Lam12_6+980Lam13_6+1808.40Lam14_6+1842.40Lam15_6+
2105.60Lam16_6+1678.30Lam17_6+1539.60Lam18_6+394.80Lam19_6+
1774.50Lam20_6+1729.20Lam21_6+1700.40Lam22_6+1109.70Lam23_6
+1711.50Lam24_6=1046.40

DMU6_RWK:

2246.00Mu_RWK6+501Lam1_6+5579Lam2_6+5806Lam3_6+
5954Lam4_6+4493Lam5_6+1649Lam6_6+7055Lam7_6+
2709Lam8_6+1559Lam9_6+4882Lam10_6+3274Lam11_6+
6480Lam12_6+4422Lam13_6+17258Lam14_6+15943Lam15_6+
13528Lam16_6+8552Lam17_6+8736Lam18_6+3300Lam19_6+
12159Lam20_6+9297Lam21_6+13519Lam22_6+3149Lam23_6+
13962Lam24_6=3895.00

DMU6_RML:

3117.27Mu_RML6+800.84Lam1_6+6340.26Lam2_6+4874.65Lam3_6+
6141.23Lam4_6+4812.87Lam5_6+4572.68Lam6_6+6752.04Lam7_6+
2897.71Lam8_6+3861.69Lam9_6+5812.54Lam10_6+5610.50Lam11_6+
4944.07Lam12_6+5119.43Lam13_6+6679.28Lam14_6+5655.94Lam15_6
+5913.64Lam16_6+6251.86Lam17_6+5595.36Lam18_6+3606.40Lam19_

6+8923.01Lam20_6+11518.68Lam21_6+12598.32Lam22_6+5395.01Lam
23_6+6462.91Lam24_6=7689.95

DMU7_PCF:
8770.80Mu_PCF7-69252.19Lam1_7-140761.31Lam2_7-
13105.4Lam3_7-122719.8Lam4_7-105469.25Lam5_7-
116685.58Lam6_7-165051.71Lam7_7-72655.02Lam8_7-
95551.33Lam9_7-123916.8Lam10_7-114881.57Lam11_7-
115668.57Lam12_7-107717.26Lam13_7-152197.04Lam14_7-
138477.34Lam15_7-147305.07Lam16_7-135362.21Lam17_7-
131330.27Lam18_7-82897.81Lam19_7-153299.97Lam20_7-
210676.69Lam21_7-177158.17Lam22_7-130537.14Lam23_7-
174808.75Lam24_7=-156280.91
DMU7_DLR:
144.20Mu_DLR7+788.80Lam1_7+1347.50Lam2_7+690.00Lam3_7+
1225.00Lam4_7+1191.30Lam5_7+915.60Lam6_7+1442.00Lam7_7+
787.50Lam8_7+840Lam9_7+1316Lam10_7+1012.80Lam11_7+
1519.20Lam12_7+980Lam13_7+1808.40Lam14_7+1842.40Lam15_7+
2105.60Lam16_7+1678.30Lam17_7+1539.60Lam18_7+394.80Lam19_7+
1774.50Lam20_7+1729.20Lam21_7+1700.40Lam22_7+1109.70Lam23_7
+1711.50Lam24_7=1586.20
DMU7_RWK:
6970.00Mu_RWK7+501Lam1_7+5579Lam2_7+5806Lam3_7+
5954Lam4_7+4493Lam5_7+1649Lam6_7+7055Lam7_7+
2709Lam8_7+1559Lam9_7+4882Lam10_7+3274Lam11_7+
6480Lam12_7+4422Lam13_7+17258Lam14_7+15943Lam15_7+
13528Lam16_7+8552Lam17_7+8736Lam18_7+3300Lam19_7+
12159Lam20_7+9297Lam21_7+13519Lam22_7+3149Lam23_7+
13962Lam24_7=14025.00
DMU7_RML:
4575.18Mu_RML7+800.84Lam1_7+6340.26Lam2_7+4874.65Lam3_7+
6141.23Lam4_7+4812.87Lam5_7+4572.68Lam6_7+6752.04Lam7_7+
2897.71Lam8_7+3861.69Lam9_7+5812.54Lam10_7+5610.50Lam11_7+
4944.07Lam12_7+5119.43Lam13_7+6679.28Lam14_7+5655.94Lam15_7
+5913.64Lam16_7+6251.86Lam17_7+5595.36Lam18_7+3606.40Lam19_
7+8923.01Lam20_7+11518.68Lam21_7+12598.32Lam22_7+5395.01Lam
23_7+6462.91Lam24_7=11327.22

DMU8_PCF:
3902.20Mu_PCF8-69252.19Lam1_8-140761.31Lam2_8-
113105.4Lam3_8-122719.8Lam4_8-105469.25Lam5_8-
116685.58Lam6_8-165051.71Lam7_8-72655.02Lam8_8-
95551.33Lam9_8-123916.8Lam10_8-114881.57Lam11_8-
115668.57Lam12_8-107717.26Lam13_8-152197.04Lam14_8-
138477.34Lam15_8-147305.07Lam16_8-135362.21Lam17_8-
131330.27Lam18_8-82897.81Lam19_8-153299.97Lam20_8-

210676.69Lam21_8-177158.17Lam22_8-130537.14Lam23_8-
174808.75Lam24_8=-68752.82

DMU8_DLR:

450.00Mu_DLR8+788.80Lam1_8+1347.50Lam2_8+690.00Lam3_8+
1225.00Lam4_8+1191.30Lam5_8+915.60Lam6_8+1442.00Lam7_8+
787.50Lam8_8+840Lam9_8+1316Lam10_8+1012.80Lam11_8+
1519.20Lam12_8+980Lam13_8+1808.40Lam14_8+1842.40Lam15_8+
2105.60Lam16_8+1678.30Lam17_8+1539.60Lam18_8+394.80Lam19_8+
1774.50Lam20_8+1729.20Lam21_8+1700.40Lam22_8+1109.70Lam23_8
+1711.50Lam24_8=1237.50

DMU8_RWK:

214.00Mu_RWK8+501Lam1_8+5579Lam2_8+5806Lam3_8+
5954Lam4_8+4493Lam5_8+1649Lam6_8+7055Lam7_8+
2709Lam8_8+1559Lam9_8+4882Lam10_8+3274Lam11_8+
6480Lam12_8+4422Lam13_8+17258Lam14_8+15943Lam15_8+
13528Lam16_8+8552Lam17_8+8736Lam18_8+3300Lam19_8+
12159Lam20_8+9297Lam21_8+13519Lam22_8+3149Lam23_8+
13962Lam24_8=2923.00

DMU8_RML:

1991.03Mu_RML8+800.84Lam1_8+6340.26Lam2_8+4874.65Lam3_8+
6141.23Lam4_8+4812.87Lam5_8+4572.68Lam6_8+6752.04Lam7_8+
2897.71Lam8_8+3861.69Lam9_8+5812.54Lam10_8+5610.50Lam11_8+
4944.07Lam12_8+5119.43Lam13_8+6679.28Lam14_8+5655.94Lam15_8
+5913.64Lam16_8+6251.86Lam17_8+5595.36Lam18_8+3606.40Lam19_
8+8923.01Lam20_8+11518.68Lam21_8+12598.32Lam22_8+5395.01Lam
23_8+6462.91Lam24_8=4888.74

DMU9_PCF:

3219.30Mu_PCF9-69252.19Lam1_9-140761.31Lam2_9-
113105.4Lam3_9-122719.8Lam4_9-105469.25Lam5_9-
116685.58Lam6_9-165051.71Lam7_9-72655.02Lam8_9-
95551.33Lam9_9-123916.8Lam10_9-114881.57Lam11_9-
115668.57Lam12_9-107717.26Lam13_9-152197.04Lam14_9-
138477.34Lam15_9-147305.07Lam16_9-135362.21Lam17_9-
131330.27Lam18_9-82897.81Lam19_9-153299.97Lam20_9-
210676.69Lam21_9-177158.17Lam22_9-130537.14Lam23_9-
174808.75Lam24_9=-92332.03

DMU9_DLR:

120.00Mu_DLR9+788.80Lam1_9+1347.50Lam2_9+690.00Lam3_9+1225.
00Lam4_9+1191.30Lam5_9+915.60Lam6_9+1442.00Lam7_9+
787.50Lam8_9+840Lam9_9+1316Lam10_9+1012.80Lam11_9+
1519.20Lam12_9+980Lam13_9+1808.40Lam14_9+1842.40Lam15_9+
2105.60Lam16_9+1678.30Lam17_9+1539.60Lam18_9+394.80Lam19_9+
1774.50Lam20_9+1729.20Lam21_9+1700.40Lam22_9+1109.70Lam23_9
+1711.50Lam24_9=960

DMU9_RWK:

1512.00Mu_RWK9+501Lam1_9+5579Lam2_9+5806Lam3_9+

5954Lam4_9+4493Lam5_9+1649Lam6_9+7055Lam7_9+
2709Lam8_9+1559Lam9_9+4882Lam10_9+3274Lam11_9+
6480Lam12_9+4422Lam13_9+17258Lam14_9+15943Lam15_9+
13528Lam16_9+8552Lam17_9+8736Lam18_9+3300Lam19_9+
12159Lam20_9+9297Lam21_9+13519Lam22_9+3149Lam23_9+
13962Lam24_9=3071.00

DMU9_RML:

2756.43Mu_RML9+800.84Lam1_9+6340.26Lam2_9+4874.65Lam3_9+
6141.23Lam4_9+4812.87Lam5_9+4572.68Lam6_9+6752.04Lam7_9+
2897.71Lam8_9+3861.69Lam9_9+5812.54Lam10_9+5610.50Lam11_9+
4944.07Lam12_9+5119.43Lam13_9+6679.28Lam14_9+5655.94Lam15_9
+5913.64Lam16_9+6251.86Lam17_9+5595.36Lam18_9+3606.40Lam19_
9+8923.01Lam20_9+11518.68Lam21_9+12598.32Lam22_9+5395.01Lam
23_9+6462.91Lam24_9=6618.13

DMU10_PCF:

5980.00Mu_PCF10-69252.19Lam1_10-140761.31Lam2_10-
113105.4Lam3_10-122719.8Lam4_10-105469.25Lam5_10-
116685.58Lam6_10-165051.71Lam7_10-72655.02Lam8_10-
95551.33Lam9_10-123916.8Lam10_10-114881.57Lam11_10-
115668.57Lam12_10-107717.26Lam13_10-152197.04Lam14_10-
138477.34Lam15_10-147305.07Lam16_10-135362.21Lam17_10-
131330.27Lam18_10-82897.81Lam19_10-153299.97Lam20_10-
210676.69Lam21_10-177158.17Lam22_10-130537.14Lam23_10-
174808.75Lam24_10=-97936.40

DMU10_DLR:

131.60Mu_DLR10+788.80Lam1_10+1347.50Lam2_10+690.00Lam3_10+
1225.00Lam4_10+1191.30Lam5_10+915.60Lam6_10+1442.00Lam7_10+
787.50Lam8_10+840Lam9_10+1316Lam10_10+1012.80Lam11_10+
1519.20Lam12_10+980Lam13_10+1808.40Lam14_10+1842.40Lam15_10
+2105.60Lam16_10+1678.30Lam17_10+1539.60Lam18_10+394.80Lam1
9_10+1774.50Lam20_10+1729.20Lam21_10+1700.40Lam22_10+1109.7
0Lam23_10+1711.50Lam24_10=1447.60

DMU10_RWK:

5178.00Mu_RWK10+501Lam1_10+5579Lam2_10+5806Lam3_10+
5954Lam4_10+4493Lam5_10+1649Lam6_10+7055Lam7_10+
2709Lam8_10+1559Lam9_10+4882Lam10_10+3274Lam11_10+
6480Lam12_10+4422Lam13_10+17258Lam14_10+15943Lam15_10+
13528Lam16_10+8552Lam17_10+8736Lam18_10+3300Lam19_10+
12159Lam20_10+9297Lam21_10+13519Lam22_10+3149Lam23_10+
13962Lam24_10=10060.00

DMU10_RML:

4105.82Mu_RML10+800.84Lam1_10+6340.26Lam2_10+4874.65Lam3_10
+6141.23Lam4_10+4812.87Lam5_10+4572.68Lam6_10+6752.04Lam7_1
0+2897.71Lam8_10+3861.69Lam9_10+5812.54Lam10_10+5610.50Lam1
1_10+4944.07Lam12_10+5119.43Lam13_10+6679.28Lam14_10+5655.9
4Lam15_10+5913.64Lam16_10+6251.86Lam17_10+5595.36Lam18_10+3

606.40Lam19_10+8923.01Lam20_10+11518.68Lam21_10+12598.32Lam
22_10+5395.01Lam23_10+6462.91Lam24_10=9918.36

DMU11_PCF:
108.48Mu_PCF11-69252.19Lam1_11-140761.31Lam2_11-
113105.4Lam3_11-122719.8Lam4_11-105469.25Lam5_11-
116685.58Lam6_11-165051.71Lam7_11-72655.02Lam8_11-
95551.33Lam9_11-123916.8Lam10_11-114881.57Lam11_11-
115668.57Lam12_11-107717.26Lam13_11-152197.04Lam14_11-
138477.34Lam15_11-147305.07Lam16_11-135362.21Lam17_11-
131330.27Lam18_11-82897.81Lam19_11-153299.97Lam20_11-
210676.69Lam21_11-177158.17Lam22_11-130537.14Lam23_11-
174808.75Lam24_11=-114773.09
DMU11_DLR:
126.60Mu_DLR11+788.80Lam1_11+1347.50Lam2_11+690.00Lam3_11+
1225.00Lam4_11+1191.30Lam5_11+915.60Lam6_11+1442.00Lam7_11+
787.50Lam8_11+840Lam9_11+1316Lam10_11+1012.80Lam11_11+
1519.20Lam12_11+980Lam13_11+1808.40Lam14_11+1842.40Lam15_11
+2105.60Lam16_11+1678.30Lam17_11+1539.60Lam18_11+394.80Lam1
9_11+1774.50Lam20_11+1729.20Lam21_11+1700.40Lam22_11+1109.7
0Lam23_11+1711.50Lam24_11=1139.40
DMU11_RWK:
3738.00Mu_RWK11+501Lam1_11+5579Lam2_11+5806Lam3_11+
5954Lam4_11+4493Lam5_11+1649Lam6_11+7055Lam7_11+
2709Lam8_11+1559Lam9_11+4882Lam10_11+3274Lam11_11+
6480Lam12_11+4422Lam13_11+17258Lam14_11+15943Lam15_11+
13528Lam16_11+8552Lam17_11+8736Lam18_11+3300Lam19_11+
12159Lam20_11+9297Lam21_11+13519Lam22_11+3149Lam23_11+
13962Lam24_11=7012.00
DMU11_RML:
3863.17Mu_RML11+800.84Lam1_11+6340.26Lam2_11+4874.65Lam3_11
+6141.23Lam4_11+4812.87Lam5_11+4572.68Lam6_11+6752.04Lam7_1
1+2897.71Lam8_11+3861.69Lam9_11+5812.54Lam10_11+5610.50Lam1
1_11+4944.07Lam12_11+5119.43Lam13_11+6679.28Lam14_11+5655.9
4Lam15_11+5913.64Lam16_11+6251.86Lam17_11+5595.36Lam18_11+3
606.40Lam19_11+8923.01Lam20_11+11518.68Lam21_11+12598.32Lam
22_11+5395.01Lam23_11+6462.91Lam24_11=9473.67

DMU12_PCF:
8185.22Mu_PCF12-69252.19Lam1_12-140761.31Lam2_12-
113105.4Lam3_12-122719.8Lam4_12-105469.25Lam5_12-
116685.58Lam6_12-165051.71Lam7_12-72655.02Lam8_12-
95551.33Lam9_12-123916.8Lam10_12-114881.57Lam11_12-
115668.57Lam12_12-107717.26Lam13_12-152197.04Lam14_12-
138477.34Lam15_12-147305.07Lam16_12-135362.21Lam17_12-
131330.27Lam18_12-82897.81Lam19_12-153299.97Lam20_12-
210676.69Lam21_12-177158.17Lam22_12-130537.14Lam23_12-

174808.75Lam24_12=-107483.35

DMU12_DLR:

126.60Mu_DLR12+788.80Lam1_12+1347.50Lam2_12+690.00Lam3_12+
1225.00Lam4_12+1191.30Lam5_12+915.60Lam6_12+1442.00Lam7_12+
787.50Lam8_12+840Lam9_12+1316Lam10_12+1012.80Lam11_12+
1519.20Lam12_12+980Lam13_12+1808.40Lam14_12+1842.40Lam15_12
+2105.60Lam16_12+1678.30Lam17_12+1539.60Lam18_12+394.80Lam1
9_12+1774.50Lam20_12+1729.20Lam21_12+1700.40Lam22_12+1109.7
0Lam23_12+1711.50Lam24_12=1645.80

DMU12_RWK:

5764.00Mu_RWK12+501Lam1_12+5579Lam2_12+5806Lam3_12+
5954Lam4_12+4493Lam5_12+1649Lam6_12+7055Lam7_12+
2709Lam8_12+1559Lam9_12+4882Lam10_12+3274Lam11_12+
6480Lam12_12+4422Lam13_12+17258Lam14_12+15943Lam15_12+
13528Lam16_12+8552Lam17_12+8736Lam18_12+3300Lam19_12+
12159Lam20_12+9297Lam21_12+13519Lam22_12+3149Lam23_12+
13962Lam24_12=12244.00

DMU12_RML:

3523.28Mu_RML12+800.84Lam1_12+6340.26Lam2_12+4874.65Lam3_12
+6141.23Lam4_12+4812.87Lam5_12+4572.68Lam6_12+6752.04Lam7_1
2+2897.71Lam8_12+3861.69Lam9_12+5812.54Lam10_12+5610.50Lam1
1_12+4944.07Lam12_12+5119.43Lam13_12+6679.28Lam14_12+5655.9
4Lam15_12+5913.64Lam16_12+6251.86Lam17_12+5595.36Lam18_12+3
606.40Lam19_12+8923.01Lam20_12+11518.68Lam21_12+12598.32Lam
22_12+5395.01Lam23_12+6462.91Lam24_12=8467.35

DMU13_PCF:

14673.52Mu_PCF13-69252.19Lam1_13-140761.31Lam2_13-
113105.4Lam3_13-122719.8Lam4_13-105469.25Lam5_13-
116685.58Lam6_13-165051.71Lam7_13-72655.02Lam8_13-
95551.33Lam9_13-123916.8Lam10_13-114881.57Lam11_13-
115668.57Lam12_13-107717.26Lam13_13-152197.04Lam14_13-
138477.34Lam15_13-147305.07Lam16_13-135362.21Lam17_13-
131330.27Lam18_13-82897.81Lam19_13-153299.97Lam20_13-
210676.69Lam21_13-177158.17Lam22_13-130537.14Lam23_13-
174808.75Lam24_13=-93043.74

DMU13_DLR:

122.50Mu_DLR13+788.80Lam1_13+1347.50Lam2_13+690.00Lam3_13+
1225.00Lam4_13+1191.30Lam5_13+915.60Lam6_13+1442.00Lam7_13+
787.50Lam8_13+840Lam9_13+1316Lam10_13+1012.80Lam11_13+
1519.20Lam12_13+980Lam13_13+1808.40Lam14_13+1842.40Lam15_13
+2105.60Lam16_13+1678.30Lam17_13+1539.60Lam18_13+394.80Lam1
9_13+1774.50Lam20_13+1729.20Lam21_13+1700.40Lam22_13+1109.7
0Lam23_13+1711.50Lam24_13=1102.50

DMU13_RWK:

3842.00Mu_RWK13+501Lam1_13+5579Lam2_13+5806Lam3_13+

5954Lam4_13+4493Lam5_13+1649Lam6_13+7055Lam7_13+2709Lam8_13
+1559Lam9_13+4882Lam10_13+3274Lam11_13+6480Lam12_13+4422Lam
13_13+17258Lam14_13+15943Lam15_13+13528Lam16_13+8552Lam17_1
3+8736Lam18_13+3300Lam19_13+12159Lam20_13+9297Lam21_13+1351
9Lam22_13+3149Lam23_13+13962Lam24_13=8264.00

DMU13_RML:

3507.39Mu_RML13+800.84Lam1_13+6340.26Lam2_13+4874.65Lam3_13
+6141.23Lam4_13+4812.87Lam5_13+4572.68Lam6_13+6752.04Lam7_1
3+2897.71Lam8_13+3861.69Lam9_13+5812.54Lam10_13+5610.50Lam1
1_13+4944.07Lam12_13+5119.43Lam13_13+6679.28Lam14_13+5655.9
4Lam15_13+5913.64Lam16_13+6251.86Lam17_13+5595.36Lam18_13+3
606.40Lam19_13+8923.01Lam20_13+11518.68Lam21_13+12598.32Lam
22_13+5395.01Lam23_13+6462.91Lam24_13=8626.82

DMU14_PCF:

25530.94Mu_PCF14-69252.19Lam1_14-140761.31Lam2_14-
113105.4Lam3_14-122719.8Lam4_14-105469.25Lam5_14-
116685.58Lam6_14-165051.71Lam7_14-72655.02Lam8_14-
95551.33Lam9_14-123916.8Lam10_14-114881.57Lam11_14-
115668.57Lam12_14-107717.26Lam13_14-152197.04Lam14_14-
138477.34Lam15_14-147305.07Lam16_14-135362.21Lam17_14-
131330.27Lam18_14-82897.81Lam19_14-153299.97Lam20_14-
210676.69Lam21_14-177158.17Lam22_14-130537.14Lam23_14-
174808.75Lam24_14=-126666.10

DMU14_DLR:

150.70Mu_DLR14+788.80Lam1_14+1347.50Lam2_14+690.00Lam3_14+
1225.00Lam4_14+1191.30Lam5_14+915.60Lam6_14+1442.00Lam7_14+
787.50Lam8_14+840Lam9_14+1316Lam10_14+1012.80Lam11_14+
1519.20Lam12_14+980Lam13_14+1808.40Lam14_14+1842.40Lam15_14
+2105.60Lam16_14+1678.30Lam17_14+1539.60Lam18_14+394.80Lam1
9_14+1774.50Lam20_14+1729.20Lam21_14+1700.40Lam22_14+1109.7
0Lam23_14+1711.50Lam24_14=1959.10

DMU14_RWK:

12592.00Mu_RWK14+501Lam1_14+5579Lam2_14+5806Lam3_14+
5954Lam4_14+4493Lam5_14+1649Lam6_14+7055Lam7_14+
2709Lam8_14+1559Lam9_14+4882Lam10_14+3274Lam11_14+
6480Lam12_14+4422Lam13_14+17258Lam14_14+15943Lam15_14+
13528Lam16_14+8552Lam17_14+8736Lam18_14+3300Lam19_14+
12159Lam20_14+9297Lam21_14+13519Lam22_14+3149Lam23_14+
13962Lam24_14=29850.00

DMU14_RML:

4828.05Mu_RML14+800.84Lam1_14+6340.26Lam2_14+4874.65Lam3_14
+6141.23Lam4_14+4812.87Lam5_14+4572.68Lam6_14+6752.04Lam7_1
4+2897.71Lam8_14+3861.69Lam9_14+5812.54Lam10_14+5610.50Lam1
1_14+4944.07Lam12_14+5119.43Lam13_14+6679.28Lam14_14+5655.9
4Lam15_14+5913.64Lam16_14+6251.86Lam17_14+5595.36Lam18_14+3

606.40Lam19_14+8923.01Lam20_14+11518.68Lam21_14+12598.32Lam
22_14+5395.01Lam23_14+6462.91Lam24_14=11507.33

DMU15_PCF:
11728.73Mu_PCF15-69252.19Lam1_15-140761.31Lam2_15-
113105.4Lam3_15-122719.8Lam4_15-105469.25Lam5_15-
116685.58Lam6_15-165051.71Lam7_15-72655.02Lam8_15-
95551.33Lam9_15-123916.8Lam10_15-114881.57Lam11_15-
115668.57Lam12_15-107717.26Lam13_15-152197.04Lam14_15-
138477.34Lam15_15-147305.07Lam16_15-135362.21Lam17_15-
131330.27Lam18_15-82897.81Lam19_15-153299.97Lam20_15-
210676.69Lam21_15-177158.17Lam22_15-130537.14Lam23_15-
174808.75Lam24_15=-126748.61
DMU15_DLR:
131.60Mu_DLR15+788.80Lam1_15+1347.50Lam2_15+690.00Lam3_15+
1225.00Lam4_15+1191.30Lam5_15+915.60Lam6_15+1442.00Lam7_15+
787.50Lam8_15+840Lam9_15+1316Lam10_15+1012.80Lam11_15+
1519.20Lam12_15+980Lam13_15+1808.40Lam14_15+1842.40Lam15_15
+2105.60Lam16_15+1678.30Lam17_15+1539.60Lam18_15+394.80Lam1
9_15+1774.50Lam20_15+1729.20Lam21_15+1700.40Lam22_15+1109.7
0Lam23_15+1711.50Lam24_15=1974.00
DMU15_RWK:15126.00Mu_RWK15+501Lam1_15+5579Lam2_15+5806Lam3_
15+5954Lam4_15+4493Lam5_15+1649Lam6_15+7055Lam7_15+
2709Lam8_15+1559Lam9_15+4882Lam10_15+3274Lam11_15+
6480Lam12_15+4422Lam13_15+17258Lam14_15+15943Lam15_15+
13528Lam16_15+8552Lam17_15+8736Lam18_15+3300Lam19_15+
12159Lam20_15+9297Lam21_15+13519Lam22_15+3149Lam23_15+
13962Lam24_15=31069.00
DMU15_RML:4082.95Mu_RML15+800.84Lam1_15+6340.26Lam2_15+4874
.65Lam3_15+6141.23Lam4_15+4812.87Lam5_15+4572.68Lam6_15+675
2.04Lam7_15+2897.71Lam8_15+3861.69Lam9_15+5812.54Lam10_15+5
610.50Lam11_15+4944.07Lam12_15+5119.43Lam13_15+6679.28Lam14
_15+5655.94Lam15_15+5913.64Lam16_15+6251.86Lam17_15+5595.36
Lam18_15+3606.40Lam19_15+8923.01Lam20_15+11518.68Lam21_15+1
2598.32Lam22_15+5395.01Lam23_15+6462.91Lam24_15=9738.89

DMU16_PCF:
40843.30Mu_PCF16-69252.19Lam1_16-140761.31Lam2_16-
113105.4Lam3_16-122719.8Lam4_16-105469.25Lam5_16-
116685.58Lam6_16-165051.71Lam7_16-72655.02Lam8_16-
95551.33Lam9_16-123916.8Lam10_16-114881.57Lam11_16-
115668.57Lam12_16-107717.26Lam13_16-152197.04Lam14_16-
138477.34Lam15_16-147305.07Lam16_16-135362.21Lam17_16-
131330.27Lam18_16-82897.81Lam19_16-153299.97Lam20_16-
210676.69Lam21_16-177158.17Lam22_16-130537.14Lam23_16-
174808.75Lam24_16=-106461.77
DMU16_DLR:

131.60Mu_DLR16+788.80Lam1_16+1347.50Lam2_16+690.00Lam3_16+1
225.00Lam4_16+1191.30Lam5_16+915.60Lam6_16+1442.00Lam7_16+7
87.50Lam8_16+840Lam9_16+1316Lam10_16+1012.80Lam11_16+1519.2
0Lam12_16+980Lam13_16+1808.40Lam14_16+1842.40Lam15_16+2105.
60Lam16_16+1678.30Lam17_16+1539.60Lam18_16+394.80Lam19_16+1
774.50Lam20_16+1729.20Lam21_16+1700.40Lam22_16+1109.70Lam23
_16+1711.50Lam24_16=2237.20

DMU16_RWK:

10102.00Mu_RWK16+501Lam1_16+5579Lam2_16+5806Lam3_16+
5954Lam4_16+4493Lam5_16+1649Lam6_16+7055Lam7_16+
2709Lam8_16+1559Lam9_16+4882Lam10_16+3274Lam11_16+
6480Lam12_16+4422Lam13_16+17258Lam14_16+15943Lam15_16+
13528Lam16_16+8552Lam17_16+8736Lam18_16+3300Lam19_16+
12159Lam20_16+9297Lam21_16+13519Lam22_16+3149Lam23_16+
13962Lam24_16=23630.00

DMU16_RML:

3988.51Mu_RML16+800.84Lam1_16+6340.26Lam2_16+4874.65Lam3_16
+6141.23Lam4_16+4812.87Lam5_16+4572.68Lam6_16+6752.04Lam7_1
6+2897.71Lam8_16+3861.69Lam9_16+5812.54Lam10_16+5610.50Lam1
1_16+4944.07Lam12_16+5119.43Lam13_16+6679.28Lam14_16+5655.9
4Lam15_16+5913.64Lam16_16+6251.86Lam17_16+5595.36Lam18_16+3
606.40Lam19_16+8923.01Lam20_16+11518.68Lam21_16+12598.32Lam
22_16+5395.01Lam23_16+6462.91Lam24_16=9902.14

DMU17_PCF:

31724.67Mu_PCF17-69252.19Lam1_17-140761.31Lam2_17-
113105.4Lam3_17-122719.8Lam4_17-105469.25Lam5_17-
116685.58Lam6_17-165051.71Lam7_17-72655.02Lam8_17-
95551.33Lam9_17-123916.8Lam10_17-114881.57Lam11_17-
115668.57Lam12_17-107717.26Lam13_17-152197.04Lam14_17-
138477.34Lam15_17-147305.07Lam16_17-135362.21Lam17_17-
131330.27Lam18_17-82897.81Lam19_17-153299.97Lam20_17-
210676.69Lam21_17-177158.17Lam22_17-130537.14Lam23_17-
174808.75Lam24_17=-103637.54

DMU17_DLR:

129.10Mu_DLR17+788.80Lam1_17+1347.50Lam2_17+690.00Lam3_17+
1225.00Lam4_17+1191.30Lam5_17+915.60Lam6_17+1442.00Lam7_17+
787.50Lam8_17+840Lam9_17+1316Lam10_17+1012.80Lam11_17+
1519.20Lam12_17+980Lam13_17+1808.40Lam14_17+1842.40Lam15_17
+2105.60Lam16_17+1678.30Lam17_17+1539.60Lam18_17+394.80Lam1
9_17+1774.50Lam20_17+1729.20Lam21_17+1700.40Lam22_17+1109.7
0Lam23_17+1711.50Lam24_17=1807.40

DMU17_RWK:

7786.00Mu_RWK17+501Lam1_17+5579Lam2_17+5806Lam3_17+5954Lam4
_17+4493Lam5_17+1649Lam6_17+7055Lam7_17+
2709Lam8_17+1559Lam9_17+4882Lam10_17+3274Lam11_17+
6480Lam12_17+4422Lam13_17+17258Lam14_17+15943Lam15_17+

13528Lam16_17+8552Lam17_17+8736Lam18_17+3300Lam19_17+
12159Lam20_17+9297Lam21_17+13519Lam22_17+3149Lam23_17+
13962Lam24_17=16338.00

DMU17_RML:

4306.89Mu_RML17+800.84Lam1_17+6340.26Lam2_17+4874.65Lam3_17
+6141.23Lam4_17+4812.87Lam5_17+4572.68Lam6_17+6752.04Lam7_1
7+2897.71Lam8_17+3861.69Lam9_17+5812.54Lam10_17+5610.50Lam1
1_17+4944.07Lam12_17+5119.43Lam13_17+6679.28Lam14_17+5655.9
4Lam15_17+5913.64Lam16_17+6251.86Lam17_17+5595.36Lam18_17+3
606.40Lam19_17+8923.01Lam20_17+11518.68Lam21_17+12598.32Lam
22_17+5395.01Lam23_17+6462.91Lam24_17=10558.75

DMU18_PCF:

23262.46Mu_PCF18-69252.19Lam1_18-140761.31Lam2_18-
113105.4Lam3_18-122719.8Lam4_18-105469.25Lam5_18-
116685.58Lam6_18-165051.71Lam7_18-72655.02Lam8_18-
95551.33Lam9_18-123916.8Lam10_18-114881.57Lam11_18-
115668.57Lam12_18-107717.26Lam13_18-152197.04Lam14_18-
138477.34Lam15_18-147305.07Lam16_18-135362.21Lam17_18-
131330.27Lam18_18-82897.81Lam19_18-153299.97Lam20_18-
210676.69Lam21_18-177158.17Lam22_18-130537.14Lam23_18-
174808.75Lam24_18=-108067.81

DMU18_DLR:

128.30Mu_DLR18+788.80Lam1_18+1347.50Lam2_18+690.00Lam3_18+
1225.00Lam4_18+1191.30Lam5_18+915.60Lam6_18+1442.00Lam7_18+
787.50Lam8_18+840Lam9_18+1316Lam10_18+1012.80Lam11_18+
1519.20Lam12_18+980Lam13_18+1808.40Lam14_18+1842.40Lam15_18
+2105.60Lam16_18+1678.30Lam17_18+1539.60Lam18_18+394.80Lam1
9_18+1774.50Lam20_18+1729.20Lam21_18+1700.40Lam22_18+1109.7
0Lam23_18+1711.50Lam24_18=1667.90

DMU18_RWK:

8038.00Mu_RWK18+501Lam1_18+5579Lam2_18+5806Lam3_18+
5954Lam4_18+4493Lam5_18+1649Lam6_18+7055Lam7_18+
2709Lam8_18+1559Lam9_18+4882Lam10_18+3274Lam11_18+
6480Lam12_18+4422Lam13_18+17258Lam14_18+15943Lam15_18+
13528Lam16_18+8552Lam17_18+8736Lam18_18+3300Lam19_18+
12159Lam20_18+9297Lam21_18+13519Lam22_18+3149Lam23_18+
13962Lam24_18=16774.00

DMU18_RML:

3791.08Mu_RML18+800.84Lam1_18+6340.26Lam2_18+4874.65Lam3_18
+6141.23Lam4_18+4812.87Lam5_18+4572.68Lam6_18+6752.04Lam7_1
8+2897.71Lam8_18+3861.69Lam9_18+5812.54Lam10_18+5610.50Lam1
1_18+4944.07Lam12_18+5119.43Lam13_18+6679.28Lam14_18+5655.9
4Lam15_18+5913.64Lam16_18+6251.86Lam17_18+5595.36Lam18_18+3
606.40Lam19_18+8923.01Lam20_18+11518.68Lam21_18+12598.32Lam
22_18+5395.01Lam23_18+6462.91Lam24_18=9386.44

DMU19_PCF:
340.73Mu_PCF19-69252.19Lam1_19-140761.31Lam2_19-
13105.4Lam3_19-122719.8Lam4_19-105469.25Lam5_19-
116685.58Lam6_19-165051.71Lam7_19-72655.02Lam8_19-
95551.33Lam9_19-123916.8Lam10_19-114881.57Lam11_19-
115668.57Lam12_19-107717.26Lam13_19-152197.04Lam14_19-
138477.34Lam15_19-147305.07Lam16_19-135362.21Lam17_19-
131330.27Lam18_19-82897.81Lam19_19-153299.97Lam20_19-
210676.69Lam21_19-177158.17Lam22_19-130537.14Lam23_19-
174808.75Lam24_19=-82557.08
DMU19_DLR:
65.80Mu_DLR19+788.80Lam1_19+1347.50Lam2_19+690.00Lam3_19+
1225.00Lam4_19+1191.30Lam5_19+915.60Lam6_19+1442.00Lam7_19+
787.50Lam8_19+840Lam9_19+1316Lam10_19+1012.80Lam11_19+
1519.20Lam12_19+980Lam13_19+1808.40Lam14_19+1842.40Lam15_19
+2105.60Lam16_19+1678.30Lam17_19+1539.60Lam18_19+394.80Lam1
9_19+1774.50Lam20_19+1729.20Lam21_19+1700.40Lam22_19+1109.7
0Lam23_19+1711.50Lam24_19=460.60
DMU19_RWK:
3524.00Mu_RWK19+501Lam1_19+5579Lam2_19+5806Lam3_19+
5954Lam4_19+4493Lam5_19+1649Lam6_19+7055Lam7_19+
2709Lam8_19+1559Lam9_19+4882Lam10_19+3274Lam11_19+
6480Lam12_19+4422Lam13_19+17258Lam14_19+15943Lam15_19+
13528Lam16_19+8552Lam17_19+8736Lam18_19+3300Lam19_19+
12159Lam20_19+9297Lam21_19+13519Lam22_19+3149Lam23_19+
13962Lam24_19=6824.00
DMU19_RML:
2519.63Mu_RML19+800.84Lam1_19+6340.26Lam2_19+4874.65Lam3_19
+6141.23Lam4_19+4812.87Lam5_19+4572.68Lam6_19+6752.04Lam7_1
9+2897.71Lam8_19+3861.69Lam9_19+5812.54Lam10_19+5610.50Lam1
1_19+4944.07Lam12_19+5119.43Lam13_19+6679.28Lam14_19+5655.9
4Lam15_19+5913.64Lam16_19+6251.86Lam17_19+5595.36Lam18_19+3
606.40Lam19_19+8923.01Lam20_19+11518.68Lam21_19+12598.32Lam
22_19+5395.01Lam23_19+6462.91Lam24_19=6126.03

DMU20_PCF:
4109.21Mu_PCF20-69252.19Lam1_20-140761.31Lam2_20-
113105.4Lam3_20-122719.8Lam4_20-105469.25Lam5_20-
116685.58Lam6_20-165051.71Lam7_20-72655.02Lam8_20-
95551.33Lam9_20-123916.8Lam10_20-114881.57Lam11_20-
115668.57Lam12_20-107717.26Lam13_20-152197.04Lam14_20-
138477.34Lam15_20-147305.07Lam16_20-135362.21Lam17_20-
131330.27Lam18_20-82897.81Lam19_20-153299.97Lam20_20-
210676.69Lam21_20-177158.17Lam22_20-130537.14Lam23_20-
174808.75Lam24_20=-149190.76
DMU20_DLR:
118.30Mu_DLR20+788.80Lam1_20+1347.50Lam2_20+690.00Lam3_20+

1225.00Lam4_20+1191.30Lam5_20+915.60Lam6_20+1442.00Lam7_20+
787.50Lam8_20+840Lam9_20+1316Lam10_20+1012.80Lam11_20+
1519.20Lam12_20+980Lam13_20+1808.40Lam14_20+1842.40Lam15_20
+2105.60Lam16_20+1678.30Lam17_20+1539.60Lam18_20+394.80Lam1
9_20+1774.50Lam20_20+1729.20Lam21_20+1700.40Lam22_20+1109.7
0Lam23_20+1711.50Lam24_20=1892.80

DMU20_RWK:

10056.00Mu_RWK20+501Lam1_20+5579Lam2_20+5806Lam3_20+5954Lam
4_20+4493Lam5_20+1649Lam6_20+7055Lam7_20+
2709Lam8_20+1559Lam9_20+4882Lam10_20+3274Lam11_20+
6480Lam12_20+4422Lam13_20+17258Lam14_20+15943Lam15_20+
13528Lam16_20+8552Lam17_20+8736Lam18_20+3300Lam19_20+
12159Lam20_20+9297Lam21_20+13519Lam22_20+3149Lam23_20+
13962Lam24_20=22215.00

DMU20_RML:

6155.00Mu_RML20+800.84Lam1_20+6340.26Lam2_20+4874.65Lam3_20
+6141.23Lam4_20+4812.87Lam5_20+4572.68Lam6_20+6752.04Lam7_2
0+2897.71Lam8_20+3861.69Lam9_20+5812.54Lam10_20+5610.50Lam1
1_20+4944.07Lam12_20+5119.43Lam13_20+6679.28Lam14_20+5655.9
4Lam15_20+5913.64Lam16_20+6251.86Lam17_20+5595.36Lam18_20+3
606.40Lam19_20+8923.01Lam20_20+11518.68Lam21_20+12598.32Lam
22_20+5395.01Lam23_20+6462.91Lam24_20=15078.00

DMU21_PCF:

94794.80Mu_PCF21-69252.19Lam1_21-140761.31Lam2_21-
113105.4Lam3_21-122719.8Lam4_21-105469.25Lam5_21-
116685.58Lam6_21-165051.71Lam7_21-72655.02Lam8_21-
95551.33Lam9_21-123916.8Lam10_21-114881.57Lam11_21-
115668.57Lam12_21-107717.26Lam13_21-152197.04Lam14_21-
138477.34Lam15_21-147305.07Lam16_21-135362.21Lam17_21-
131330.27Lam18_21-82897.81Lam19_21-153299.97Lam20_21-
210676.69Lam21_21-177158.17Lam22_21-130537.14Lam23_21-
174808.75Lam24_21=-115881.89

DMU21_DLR:

144.10Mu_DLR21+788.80Lam1_21+1347.50Lam2_21+690.00Lam3_21+
1225.00Lam4_21+1191.30Lam5_21+915.60Lam6_21+1442.00Lam7_21+
787.50Lam8_21+840Lam9_21+1316Lam10_21+1012.80Lam11_21+
1519.20Lam12_21+980Lam13_21+1808.40Lam14_21+1842.40Lam15_21
+2105.60Lam16_21+1678.30Lam17_21+1539.60Lam18_21+394.80Lam1
9_21+1774.50Lam20_21+1729.20Lam21_21+1700.40Lam22_21+1109.7
0Lam23_21+1711.50Lam24_21=1873.30

DMU21_RWK:

9568.00Mu_RWK21+501Lam1_21+5579Lam2_21+5806Lam3_21+5954Lam4
_21+4493Lam5_21+1649Lam6_21+7055Lam7_21+
2709Lam8_21+1559Lam9_21+4882Lam10_21+3274Lam11_21+
6480Lam12_21+4422Lam13_21+17258Lam14_21+15943Lam15_21+
13528Lam16_21+8552Lam17_21+8736Lam18_21+3300Lam19_21+

12159Lam20_21+9297Lam21_21+13519Lam22_21+3149Lam23_21+
13962Lam24_21=18865.00

DMU21_RML:

8228.44Mu_RML21+800.84Lam1_21+6340.26Lam2_21+4874.65Lam3_21
+6141.23Lam4_21+4812.87Lam5_21+4572.68Lam6_21+6752.04Lam7_2
1+2897.71Lam8_21+3861.69Lam9_21+5812.54Lam10_21+5610.50Lam1
1_21+4944.07Lam12_21+5119.43Lam13_21+6679.28Lam14_21+5655.9
4Lam15_21+5913.64Lam16_21+6251.86Lam17_21+5595.36Lam18_21+3
606.40Lam19_21+8923.01Lam20_21+11518.68Lam21_21+12598.32Lam
22_21+5395.01Lam23_21+6462.91Lam24_21=19747.12

DMU22_PCF:

66241.03Mu_PCF22-69252.19Lam1_22-140761.31Lam2_22-
113105.4Lam3_22-122719.8Lam4_22-105469.25Lam5_22-
116685.58Lam6_22-165051.71Lam7_22-72655.02Lam8_22-
95551.33Lam9_22-123916.8Lam10_22-114881.57Lam11_22-
115668.57Lam12_22-107717.26Lam13_22-152197.04Lam14_22-
138477.34Lam15_22-147305.07Lam16_22-135362.21Lam17_22-
131330.27Lam18_22-82897.81Lam19_22-153299.97Lam20_22-
210676.69Lam21_22-177158.17Lam22_22-130537.14Lam23_22-
174808.75Lam24_22=-110917.14

DMU22_DLR:

141.70Mu_DLR22+788.80Lam1_22+1347.50Lam2_22+690.00Lam3_22+
1225.00Lam4_22+1191.30Lam5_22+915.60Lam6_22+1442.00Lam7_22+
787.50Lam8_22+840Lam9_22+1316Lam10_22+1012.80Lam11_22+
1519.20Lam12_22+980Lam13_22+1808.40Lam14_22+1842.40Lam15_22
+2105.60Lam16_22+1678.30Lam17_22+1539.60Lam18_22+394.80Lam1
9_22+1774.50Lam20_22+1729.20Lam21_22+1700.40Lam22_22+1109.7
0Lam23_22+1711.50Lam24_22=1842.10

DMU22_RWK:

11508.00Mu_RWK22+501Lam1_22+5579Lam2_22+5806Lam3_22+
5954Lam4_22+4493Lam5_22+1649Lam6_22+7055Lam7_22+
2709Lam8_22+1559Lam9_22+4882Lam10_22+3274Lam11_22+
6480Lam12_22+4422Lam13_22+17258Lam14_22+15943Lam15_22+
13528Lam16_22+8552Lam17_22+8736Lam18_22+3300Lam19_22+
12159Lam20_22+9297Lam21_22+13519Lam22_22+3149Lam23_22+
13962Lam24_22=25027.00

DMU22_RML:

8999.52Mu_RML22+800.84Lam1_22+6340.26Lam2_22+4874.65Lam3_22
+6141.23Lam4_22+4812.87Lam5_22+4572.68Lam6_22+6752.04Lam7_2
2+2897.71Lam8_22+3861.69Lam9_22+5812.54Lam10_22+5610.50Lam1
1_22+4944.07Lam12_22+5119.43Lam13_22+6679.28Lam14_22+5655.9
4Lam15_22+5913.64Lam16_22+6251.86Lam17_22+5595.36Lam18_22+3
606.40Lam19_22+8923.01Lam20_22+11518.68Lam21_22+12598.32Lam
22_22+5395.01Lam23_22+6462.91Lam24_22=21597.84

DMU23_PCF:
7308.01Mu_PCF23-69252.19Lam1_23-140761.31Lam2_23-
113105.4Lam3_23-122719.8Lam4_23-105469.25Lam5_23-
116685.58Lam6_23-165051.71Lam7_23-72655.02Lam8_23-
95551.33Lam9_23-123916.8Lam10_23-114881.57Lam11_23-
115668.57Lam12_23-107717.26Lam13_23-152197.04Lam14_23-
138477.34Lam15_23-147305.07Lam16_23-135362.21Lam17_23-
131330.27Lam18_23-82897.81Lam19_23-153299.97Lam20_23-
210676.69Lam21_23-177158.17Lam22_23-130537.14Lam23_23-
174808.75Lam24_23=-123229.13
DMU23_DLR:
123.30Mu_DLR23+788.80Lam1_23+1347.50Lam2_23+690.00Lam3_23+
1225.00Lam4_23+1191.30Lam5_23+915.60Lam6_23+1442.00Lam7_23+
787.50Lam8_23+840Lam9_23+1316Lam10_23+1012.80Lam11_23+
1519.20Lam12_23+980Lam13_23+1808.40Lam14_23+1842.40Lam15_23
+2105.60Lam16_23+1678.30Lam17_23+1539.60Lam18_23+394.80Lam1
9_23+1774.50Lam20_23+1729.20Lam21_23+1700.40Lam22_23+1109.7
0Lam23_23+1711.50Lam24_23=1233.00
DMU23_RWK:
3070.00Mu_RWK23+501Lam1_23+5579Lam2_23+5806Lam3_23+
5954Lam4_23+4493Lam5_23+1649Lam6_23+7055Lam7_23+
2709Lam8_23+1559Lam9_23+4882Lam10_23+3274Lam11_23+
6480Lam12_23+4422Lam13_23+17258Lam14_23+15943Lam15_23+
13528Lam16_23+8552Lam17_23+8736Lam18_23+3300Lam19_23+
12159Lam20_23+9297Lam21_23+13519Lam22_23+3149Lam23_23+
13962Lam24_23=6219.00
DMU23_RML:
3884.67Mu_RML23+800.84Lam1_23+6340.26Lam2_23+4874.65Lam3_23
+6141.23Lam4_23+4812.87Lam5_23+4572.68Lam6_23+6752.04Lam7_2
3+2897.71Lam8_23+3861.69Lam9_23+5812.54Lam10_23+5610.50Lam1
1_23+4944.07Lam12_23+5119.43Lam13_23+6679.28Lam14_23+5655.9
4Lam15_23+5913.64Lam16_23+6251.86Lam17_23+5595.36Lam18_23+3
606.40Lam19_23+8923.01Lam20_23+11518.68Lam21_23+12598.32Lam
22_23+5395.01Lam23_23+6462.91Lam24_23=9279.68

DMU24_PCF:
6117.05Mu_PCF24-69252.19Lam1_24-140761.31Lam2_24-
113105.4Lam3_24-122719.8Lam4_24-105469.25Lam5_24-
116685.58Lam6_24-165051.71Lam7_24-72655.02Lam8_24-
95551.33Lam9_24-123916.8Lam10_24-114881.57Lam11_24-
115668.57Lam12_24-107717.26Lam13_24-152197.04Lam14_24-
138477.34Lam15_24-147305.07Lam16_24-135362.21Lam17_24-
131330.27Lam18_24-82897.81Lam19_24-153299.97Lam20_24-
210676.69Lam21_24-177158.17Lam22_24-130537.14Lam23_24-
174808.75Lam24_24=-168691.70
DMU24_DLR:
114.10Mu_DLR24+788.80Lam1_24+1347.50Lam2_24+690.00Lam3_24+

1225.00Lam4_24+1191.30Lam5_24+915.60Lam6_24+1442.00Lam7_24+
787.50Lam8_24+840Lam9_24+1316Lam10_24+1012.80Lam11_24+
1519.20Lam12_24+980Lam13_24+1808.40Lam14_24+1842.40Lam15_24
+2105.60Lam16_24+1678.30Lam17_24+1539.60Lam18_24+394.80Lam1
9_24+1774.50Lam20_24+1729.20Lam21_24+1700.40Lam22_24+1109.7
0Lam23_24+1711.50Lam24_24=1825.60

DMU24_RWK:

14608.00Mu_RWK24+501Lam1_24+5579Lam2_24+5806Lam3_24+
5954Lam4_24+4493Lam5_24+1649Lam6_24+7055Lam7_24+
2709Lam8_24+1559Lam9_24+4882Lam10_24+3274Lam11_24+
6480Lam12_24+4422Lam13_24+17258Lam14_24+15943Lam15_24+
13528Lam16_24+8552Lam17_24+8736Lam18_24+3300Lam19_24+
12159Lam20_24+9297Lam21_24+13519Lam22_24+3149Lam23_24+
13962Lam24_24=28570.00

DMU24_RML:

4449.68Mu_RML24+800.84Lam1_24+6340.26Lam2_24+4874.65Lam3_24
+6141.23Lam4_24+4812.87Lam5_24+4572.68Lam6_24+6752.04Lam7_2
4+2897.71Lam8_24+3861.69Lam9_24+5812.54Lam10_24+5610.50Lam1
1_24+4944.07Lam12_24+5119.43Lam13_24+6679.28Lam14_24+5655.9
4Lam15_24+5913.64Lam16_24+6251.86Lam17_24+5595.36Lam18_24+3
606.40Lam19_24+8923.01Lam20_24+11518.68Lam21_24+12598.32Lam
22_24+5395.01Lam23_24+6462.91Lam24_24=10912.59

GT_PCF:

777290.45Mu_PCF-69252.19Lam1_1-140761.31Lam2_1-
113105.4Lam3_1-122719.8Lam4_1-105469.25Lam5_1-
116685.58Lam6_1-165051.71Lam7_1-72655.02Lam8_1-
95551.33Lam9_1-123916.8Lam10_1-114881.57Lam11_1-
115668.57Lam12_1-107717.26Lam13_1-152197.04Lam14_1-
138477.34Lam15_1-147305.07Lam16_1-135362.21Lam17_1-
131330.27Lam18_1-82897.81Lam19_1-153299.97Lam20_1-
210676.69Lam21_1-177158.17Lam22_1-130537.14Lam23_1-
174808.75Lam24_1-
69252.19Lam1_2-140761.31Lam2_2-113105.4Lam3_2-
122719.8Lam4_2-105469.25Lam5_2-116685.58Lam6_2-
165051.71Lam7_2-72655.02Lam8_2-95551.33Lam9_2-
123916.8Lam10_2-114881.57Lam11_2-115668.57Lam12_2-
107717.26Lam13_2-152197.04Lam14_2-138477.34Lam15_2-
147305.07Lam16_2-135362.21Lam17_2-131330.27Lam18_2-
82897.81Lam19_2-153299.97Lam20_2-210676.69Lam21_2-
177158.17Lam22_2-130537.14Lam23_2-174808.75Lam24_2-
69252.19Lam1_3-140761.31Lam2_3-113105.4Lam3_3-
122719.8Lam4_3-105469.25Lam5_3-116685.58Lam6_3-
165051.71Lam7_3-72655.02Lam8_3-95551.33Lam9_3-
123916.8Lam10_3-114881.57Lam11_3-115668.57Lam12_3-
107717.26Lam13_3-152197.04Lam14_3-138477.34Lam15_3-

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107717.26Lam13_4-152197.04Lam14_4-138477.34Lam15_4-
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GT_DLR:

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787.50Lam8_1+840Lam9_1+1316Lam10_1+1012.80Lam11_1+
1519.20Lam12_1+980Lam13_1+1808.40Lam14_1+1842.40Lam15_1+
2105.60Lam16_1+1678.30Lam17_1+1539.60Lam18_1+394.80Lam19_1+
1774.50Lam20_1+1729.20Lam21_1+1700.40Lam22_1+1109.70Lam23_1
+1711.50Lam24_1+
788.80Lam1_2+1347.50Lam2_2+690.00Lam3_2+
1225.00Lam4_2+1191.30Lam5_2+915.60Lam6_2+1442.00Lam7_2+
787.50Lam8_2+840Lam9_2+1316Lam10_2+1012.80Lam11_2+
1519.20Lam12_2+980Lam13_2+1808.40Lam14_2+1842.40Lam15_2+
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+1711.50Lam24_2+
788.80Lam1_3+1347.50Lam2_3+690.00Lam3_3+
1225.00Lam4_3+1191.30Lam5_3+915.60Lam6_3+1442.00Lam7_3+
787.50Lam8_3+840Lam9_3+1316Lam10_3+1012.80Lam11_3+1519.20La
m12_3+980Lam13_3+1808.40Lam14_3+1842.40Lam15_3+2105.60Lam16
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+1711.50Lam24_4+
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787.50Lam8_5+840Lam9_5+1316Lam10_5+1012.80Lam11_5+
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2105.60Lam16_5+1678.30Lam17_5+1539.60Lam18_5+394.80Lam19_5+
1774.50Lam20_5+1729.20Lam21_5+1700.40Lam22_5+1109.70Lam23_5
+1711.50Lam24_5+
788.80Lam1_6+1347.50Lam2_6+690.00Lam3_6+1225.00Lam4_6+1191.
30Lam5_6+915.60Lam6_6+1442.00Lam7_6+787.50Lam8_6+840Lam9_6+
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60Lam18_7+394.80Lam19_7+1774.50Lam20_7+1729.20Lam21_7+1700.
40Lam22_7+1109.70Lam23_7+1711.50Lam24_7+
788.80Lam1_8+1347.50Lam2_8+690.00Lam3_8+1225.00Lam4_8+1191.
30Lam5_8+915.60Lam6_8+1442.00Lam7_8+787.50Lam8_8+840Lam9_8+
1316Lam10_8+1012.80Lam11_8+1519.20Lam12_8+980Lam13_8+1808.4
0Lam14_8+1842.40Lam15_8+2105.60Lam16_8+1678.30Lam17_8+1539.
60Lam18_8+394.80Lam19_8+1774.50Lam20_8+1729.20Lam21_8+1700.
40Lam22_8+1109.70Lam23_8+1711.50Lam24_8+
788.80Lam1_9+1347.50Lam2_9+690.00Lam3_9+1225.00Lam4_9+1191.
30Lam5_9+915.60Lam6_9+1442.00Lam7_9+
787.50Lam8_9+840Lam9_9+1316Lam10_9+1012.80Lam11_9+
1519.20Lam12_9+980Lam13_9+1808.40Lam14_9+1842.40Lam15_9+
2105.60Lam16_9+1678.30Lam17_9+1539.60Lam18_9+394.80Lam19_9+
```

```
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+1711.50Lam24_9+
788.80Lam1_10+1347.50Lam2_10+690.00Lam3_10+
1225.00Lam4_10+1191.30Lam5_10+915.60Lam6_10+1442.00Lam7_10+
787.50Lam8_10+840Lam9_10+1316Lam10_10+1012.80Lam11_10+
1519.20Lam12_10+980Lam13_10+1808.40Lam14_10+1842.40Lam15_10
+2105.60Lam16_10+1678.30Lam17_10+1539.60Lam18_10+394.80Lam1
9_10+1774.50Lam20_10+1729.20Lam21_10+1700.40Lam22_10+1109.7
0Lam23_10+1711.50Lam24_10+
788.80Lam1_11+1347.50Lam2_11+690.00Lam3_11+1225.00Lam4_11+1
191.30Lam5_11+915.60Lam6_11+1442.00Lam7_11+787.50Lam8_11+84
0Lam9_11+1316Lam10_11+1012.80Lam11_11+1519.20Lam12_11+980La
m13_11+1808.40Lam14_11+1842.40Lam15_11+2105.60Lam16_11+1678
.30Lam17_11+1539.60Lam18_11+394.80Lam19_11+1774.50Lam20_11+
1729.20Lam21_11+1700.40Lam22_11+1109.70Lam23_11+1711.50Lam2
4_11+
788.80Lam1_12+1347.50Lam2_12+690.00Lam3_12+1225.00Lam4_12+1
191.30Lam5_12+915.60Lam6_12+1442.00Lam7_12+787.50Lam8_12+84
0Lam9_12+1316Lam10_12+1012.80Lam11_12+1519.20Lam12_12+980La
m13_12+1808.40Lam14_12+1842.40Lam15_12+2105.60Lam16_12+1678
.30Lam17_12+1539.60Lam18_12+394.80Lam19_12+1774.50Lam20_12+
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4_12+
788.80Lam1_13+1347.50Lam2_13+690.00Lam3_13+1225.00Lam4_13+1
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0Lam9_13+1316Lam10_13+1012.80Lam11_13+1519.20Lam12_13+980La
m13_13+1808.40Lam14_13+1842.40Lam15_13+2105.60Lam16_13+1678
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1729.20Lam21_13+1700.40Lam22_13+1109.70Lam23_13+1711.50Lam2
4_13+
788.80Lam1_14+1347.50Lam2_14+690.00Lam3_14+1225.00Lam4_14+1
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1729.20Lam21_14+1700.40Lam22_14+1109.70Lam23_14+1711.50Lam2
4_14+
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m13_15+1808.40Lam14_15+1842.40Lam15_15+2105.60Lam16_15+1678
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0Lam9_16+1316Lam10_16+1012.80Lam11_16+1519.20Lam12_16+980La
```

```
m13_16+1808.40Lam14_16+1842.40Lam15_16+2105.60Lam16_16+1678
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1729.20Lam21_16+1700.40Lam22_16+1109.70Lam23_16+1711.50Lam2
4_16+
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1519.20Lam12_17+980Lam13_17+1808.40Lam14_17+1842.40Lam15_17
+2105.60Lam16_17+1678.30Lam17_17+1539.60Lam18_17+394.80Lam1
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0Lam23_17+1711.50Lam24_17+
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1729.20Lam21_18+1700.40Lam22_18+1109.70Lam23_18+1711.50Lam2
4_18+
788.80Lam1_19+1347.50Lam2_19+690.00Lam3_19+
1225.00Lam4_19+1191.30Lam5_19+915.60Lam6_19+1442.00Lam7_19+
787.50Lam8_19+840Lam9_19+1316Lam10_19+1012.80Lam11_19+
1519.20Lam12_19+980Lam13_19+1808.40Lam14_19+1842.40Lam15_19
+2105.60Lam16_19+1678.30Lam17_19+1539.60Lam18_19+394.80Lam1
9_19+1774.50Lam20_19+1729.20Lam21_19+1700.40Lam22_19+1109.7
0Lam23_19+1711.50Lam24_19+
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m13_20+1808.40Lam14_20+1842.40Lam15_20+2105.60Lam16_20+1678
.30Lam17_20+1539.60Lam18_20+394.80Lam19_20+1774.50Lam20_20+
1729.20Lam21_20+1700.40Lam22_20+1109.70Lam23_20+1711.50Lam2
4_20+
788.80Lam1_21+1347.50Lam2_21+690.00Lam3_21+1225.00Lam4_21+1
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1729.20Lam21_21+1700.40Lam22_21+1109.70Lam23_21+1711.50Lam2
4_21+
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.30Lam17_22+1539.60Lam18_22+394.80Lam19_22+1774.50Lam20_22+
1729.20Lam21_22+1700.40Lam22_22+1109.70Lam23_22+1711.50Lam2
4_22+
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0Lam9_23+1316Lam10_23+1012.80Lam11_23+1519.20Lam12_23+980La
m13_23+1808.40Lam14_23+1842.40Lam15_23+2105.60Lam16_23+1678
.30Lam17_23+1539.60Lam18_23+394.80Lam19_23+1774.50Lam20_23+
1729.20Lam21_23+1700.40Lam22_23+1109.70Lam23_23+1711.50Lam2
4_23+
788.80Lam1_24+1347.50Lam2_24+690.00Lam3_24+1225.00Lam4_24+1
191.30Lam5_24+915.60Lam6_24+1442.00Lam7_24+787.50Lam8_24+84
0Lam9_24+1316Lam10_24+1012.80Lam11_24+1519.20Lam12_24+980La
m13_24+1808.40Lam14_24+1842.40Lam15_24+2105.60Lam16_24+1678
.30Lam17_24+1539.60Lam18_24+394.80Lam19_24+1774.50Lam20_24+
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6480Lam12_1+4422Lam13_1+17258Lam14_1+15943Lam15_1+
13528Lam16_1+8552Lam17_1+8736Lam18_1+3300Lam19_1+
12159Lam20_1+9297Lam21_1+13519Lam22_1+3149Lam23_1+
13962Lam24_1+
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6480Lam12_2+4422Lam13_2+17258Lam14_2+15943Lam15_2+
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13962Lam24_3+
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5954Lam4_5+4493Lam5_5+1649Lam6_5+7055Lam7_5+

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13962Lam24_5+
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5954Lam4_6+4493Lam5_6+1649Lam6_6+7055Lam7_6+
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13962Lam24_7+
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6480Lam12_8+4422Lam13_8+17258Lam14_8+15943Lam15_8+
13528Lam16_8+8552Lam17_8+8736Lam18_8+3300Lam19_8+
12159Lam20_8+9297Lam21_8+13519Lam22_8+3149Lam23_8+
13962Lam24_8+
501Lam1_9+5579Lam2_9+5806Lam3_9+
5954Lam4_9+4493Lam5_9+1649Lam6_9+7055Lam7_9+
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6480Lam12_9+4422Lam13_9+17258Lam14_9+15943Lam15_9+
13528Lam16_9+8552Lam17_9+8736Lam18_9+3300Lam19_9+
12159Lam20_9+9297Lam21_9+13519Lam22_9+3149Lam23_9+
13962Lam24_9+
501Lam1_10+5579Lam2_10+5806Lam3_10+
5954Lam4_10+4493Lam5_10+1649Lam6_10+7055Lam7_10+
2709Lam8_10+1559Lam9_10+4882Lam10_10+3274Lam11_10+
6480Lam12_10+4422Lam13_10+17258Lam14_10+15943Lam15_10+
13528Lam16_10+8552Lam17_10+8736Lam18_10+3300Lam19_10+
12159Lam20_10+9297Lam21_10+13519Lam22_10+3149Lam23_10+
13962Lam24_10+
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5954Lam4_11+4493Lam5_11+1649Lam6_11+7055Lam7_11+
2709Lam8_11+1559Lam9_11+4882Lam10_11+3274Lam11_11+
6480Lam12_11+4422Lam13_11+17258Lam14_11+15943Lam15_11+
13528Lam16_11+8552Lam17_11+8736Lam18_11+3300Lam19_11+
12159Lam20_11+9297Lam21_11+13519Lam22_11+3149Lam23_11+
13962Lam24_11+
```

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13528Lam16_12+8552Lam17_12+8736Lam18_12+3300Lam19_12+
12159Lam20_12+9297Lam21_12+13519Lam22_12+3149Lam23_12+
13962Lam24_12+
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5954Lam4_13+4493Lam5_13+1649Lam6_13+7055Lam7_13+
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13962Lam24_13+
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5954Lam4_14+4493Lam5_14+1649Lam6_14+7055Lam7_14+
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13528Lam16_14+8552Lam17_14+8736Lam18_14+3300Lam19_14+
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13962Lam24_14+
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13962Lam24_15+
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6480Lam12_17+4422Lam13_17+17258Lam14_17+15943Lam15_17+
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5954Lam4_18+4493Lam5_18+1649Lam6_18+7055Lam7_18+
2709Lam8_18+1559Lam9_18+4882Lam10_18+3274Lam11_18+
6480Lam12_18+4422Lam13_18+17258Lam14_18+15943Lam15_18+
13528Lam16_18+8552Lam17_18+8736Lam18_18+3300Lam19_18+
```

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13962Lam24_18+
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5954Lam4_19+4493Lam5_19+1649Lam6_19+7055Lam7_19+
2709Lam8_19+1559Lam9_19+4882Lam10_19+3274Lam11_19+
6480Lam12_19+4422Lam13_19+17258Lam14_19+15943Lam15_19+
13528Lam16_19+8552Lam17_19+8736Lam18_19+3300Lam19_19+
12159Lam20_19+9297Lam21_19+13519Lam22_19+3149Lam23_19+
13962Lam24_19+
501Lam1_20+5579Lam2_20+5806Lam3_20+
5954Lam4_20+4493Lam5_20+1649Lam6_20+7055Lam7_20+
2709Lam8_20+1559Lam9_20+4882Lam10_20+3274Lam11_20+
6480Lam12_20+4422Lam13_20+17258Lam14_20+15943Lam15_20+
13528Lam16_20+8552Lam17_20+8736Lam18_20+3300Lam19_20+
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13962Lam24_20+
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5954Lam4_21+4493Lam5_21+1649Lam6_21+7055Lam7_21+
2709Lam8_21+1559Lam9_21+4882Lam10_21+3274Lam11_21+
6480Lam12_21+4422Lam13_21+17258Lam14_21+15943Lam15_21+
13528Lam16_21+8552Lam17_21+8736Lam18_21+3300Lam19_21+
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13962Lam24_21+
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5954Lam4_22+4493Lam5_22+1649Lam6_22+7055Lam7_22+
2709Lam8_22+1559Lam9_22+4882Lam10_22+3274Lam11_22+
6480Lam12_22+4422Lam13_22+17258Lam14_22+15943Lam15_22+
13528Lam16_22+8552Lam17_22+8736Lam18_22+3300Lam19_22+
12159Lam20_22+9297Lam21_22+13519Lam22_22+3149Lam23_22+
13962Lam24_22+
501Lam1_23+5579Lam2_23+5806Lam3_23+
5954Lam4_23+4493Lam5_23+1649Lam6_23+7055Lam7_23+
2709Lam8_23+1559Lam9_23+4882Lam10_23+3274Lam11_23+
6480Lam12_23+4422Lam13_23+17258Lam14_23+15943Lam15_23+
13528Lam16_23+8552Lam17_23+8736Lam18_23+3300Lam19_23+
12159Lam20_23+9297Lam21_23+13519Lam22_23+3149Lam23_23+
13962Lam24_23+
501Lam1_24+5579Lam2_24+5806Lam3_24+
5954Lam4_24+4493Lam5_24+1649Lam6_24+7055Lam7_24+
2709Lam8_24+1559Lam9_24+4882Lam10_24+3274Lam11_24+
6480Lam12_24+4422Lam13_24+17258Lam14_24+15943Lam15_24+
13528Lam16_24+8552Lam17_24+8736Lam18_24+3300Lam19_24+
12159Lam20_24+9297Lam21_24+13519Lam22_24+3149Lam23_24+
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GT_RML:

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121229.77Mu_RML+800.84Lam1_1+6340.26Lam2_1+4874.65Lam3_1+
6141.23Lam4_1+4812.87Lam5_1+4572.68Lam6_1+6752.04Lam7_1+
2897.71Lam8_1+3861.69Lam9_1+5812.54Lam10_1+5610.50Lam11_1+
4944.07Lam12_1+5119.43Lam13_1+6679.28Lam14_1+5655.94Lam15_1
+5913.64Lam16_1+6251.86Lam17_1+5595.36Lam18_1+3606.40Lam19_
1+8923.01Lam20_1+11518.68Lam21_1+12598.32Lam22_1+5395.01Lam
23_1+6462.91Lam24_1+
800.84Lam1_2+6340.26Lam2_2+4874.65Lam3_2+
6141.23Lam4_2+4812.87Lam5_2+4572.68Lam6_2+6752.04Lam7_2+
2897.71Lam8_2+3861.69Lam9_2+5812.54Lam10_2+5610.50Lam11_2+
4944.07Lam12_2+5119.43Lam13_2+6679.28Lam14_2+5655.94Lam15_2
+5913.64Lam16_2+6251.86Lam17_2+5595.36Lam18_2+3606.40Lam19_
2+8923.01Lam20_2+11518.68Lam21_2+12598.32Lam22_2+5395.01Lam
23_2+6462.91Lam24_2+
800.84Lam1_3+6340.26Lam2_3+4874.65Lam3_3+
6141.23Lam4_3+4812.87Lam5_3+4572.68Lam6_3+6752.04Lam7_3+
2897.71Lam8_3+3861.69Lam9_3+5812.54Lam10_3+5610.50Lam11_3+
4944.07Lam12_3+5119.43Lam13_3+6679.28Lam14_3+5655.94Lam15_3
+5913.64Lam16_3+6251.86Lam17_3+5595.36Lam18_3+3606.40Lam19_
3+8923.01Lam20_3+11518.68Lam21_3+12598.32Lam22_3+5395.01Lam
23_3+6462.91Lam24_3+
800.84Lam1_4+6340.26Lam2_4+4874.65Lam3_4+
6141.23Lam4_4+4812.87Lam5_4+4572.68Lam6_4+6752.04Lam7_4+
2897.71Lam8_4+3861.69Lam9_4+5812.54Lam10_4+5610.50Lam11_4+
4944.07Lam12_4+5119.43Lam13_4+6679.28Lam14_4+5655.94Lam15_4
+5913.64Lam16_4+6251.86Lam17_4+5595.36Lam18_4+3606.40Lam19_
4+8923.01Lam20_4+11518.68Lam21_4+12598.32Lam22_4+5395.01Lam
23_4+6462.91Lam24_4+
800.84Lam1_5+6340.26Lam2_5+4874.65Lam3_5+
6141.23Lam4_5+4812.87Lam5_5+4572.68Lam6_5+6752.04Lam7_5+
2897.71Lam8_5+3861.69Lam9_5+5812.54Lam10_5+5610.50Lam11_5+
4944.07Lam12_5+5119.43Lam13_5+6679.28Lam14_5+5655.94Lam15_5
+5913.64Lam16_5+6251.86Lam17_5+5595.36Lam18_5+3606.40Lam19_
5+8923.01Lam20_5+11518.68Lam21_5+12598.32Lam22_5+5395.01Lam
23_5+6462.91Lam24_5+
800.84Lam1_6+6340.26Lam2_6+4874.65Lam3_6+
6141.23Lam4_6+4812.87Lam5_6+4572.68Lam6_6+6752.04Lam7_6+
2897.71Lam8_6+3861.69Lam9_6+5812.54Lam10_6+5610.50Lam11_6+
4944.07Lam12_6+5119.43Lam13_6+6679.28Lam14_6+5655.94Lam15_6
+5913.64Lam16_6+6251.86Lam17_6+5595.36Lam18_6+3606.40Lam19_
6+8923.01Lam20_6+11518.68Lam21_6+12598.32Lam22_6+5395.01Lam
23_6+6462.91Lam24_6+
800.84Lam1_7+6340.26Lam2_7+4874.65Lam3_7+
6141.23Lam4_7+4812.87Lam5_7+4572.68Lam6_7+6752.04Lam7_7+
2897.71Lam8_7+3861.69Lam9_7+5812.54Lam10_7+5610.50Lam11_7+
4944.07Lam12_7+5119.43Lam13_7+6679.28Lam14_7+5655.94Lam15_7
+5913.64Lam16_7+6251.86Lam17_7+5595.36Lam18_7+3606.40Lam19_
```

```
7+8923.01Lam20_7+11518.68Lam21_7+12598.32Lam22_7+5395.01Lam
23_7+6462.91Lam24_7+
800.84Lam1_8+6340.26Lam2_8+4874.65Lam3_8+
6141.23Lam4_8+4812.87Lam5_8+4572.68Lam6_8+6752.04Lam7_8+
2897.71Lam8_8+3861.69Lam9_8+5812.54Lam10_8+5610.50Lam11_8+
4944.07Lam12_8+5119.43Lam13_8+6679.28Lam14_8+5655.94Lam15_8
+5913.64Lam16_8+6251.86Lam17_8+5595.36Lam18_8+3606.40Lam19_
8+8923.01Lam20_8+11518.68Lam21_8+12598.32Lam22_8+5395.01Lam
23_8+6462.91Lam24_8+
800.84Lam1_9+6340.26Lam2_9+4874.65Lam3_9+
6141.23Lam4_9+4812.87Lam5_9+4572.68Lam6_9+6752.04Lam7_9+
2897.71Lam8_9+3861.69Lam9_9+5812.54Lam10_9+5610.50Lam11_9+
4944.07Lam12_9+5119.43Lam13_9+6679.28Lam14_9+5655.94Lam15_9
+5913.64Lam16_9+6251.86Lam17_9+5595.36Lam18_9+3606.40Lam19_
9+8923.01Lam20_9+11518.68Lam21_9+12598.32Lam22_9+5395.01Lam
23_9+6462.91Lam24_9+
800.84Lam1_10+6340.26Lam2_10+4874.65Lam3_10+
6141.23Lam4_10+4812.87Lam5_10+4572.68Lam6_10+6752.04Lam7_10
+2897.71Lam8_10+3861.69Lam9_10+5812.54Lam10_10+5610.50Lam11
_10+4944.07Lam12_10+5119.43Lam13_10+6679.28Lam14_10+5655.94
Lam15_10+5913.64Lam16_10+6251.86Lam17_10+5595.36Lam18_10+36
06.40Lam19_10+8923.01Lam20_10+11518.68Lam21_10+12598.32Lam2
2_10+5395.01Lam23_10+6462.91Lam24_10+
800.84Lam1_11+6340.26Lam2_11+4874.65Lam3_11+
6141.23Lam4_11+4812.87Lam5_11+4572.68Lam6_11+6752.04Lam7_11
+2897.71Lam8_11+3861.69Lam9_11+5812.54Lam10_11+5610.50Lam11
_11+4944.07Lam12_11+5119.43Lam13_11+6679.28Lam14_11+5655.94
Lam15_11+5913.64Lam16_11+6251.86Lam17_11+5595.36Lam18_11+36
06.40Lam19_11+8923.01Lam20_11+11518.68Lam21_11+12598.32Lam2
2_11+5395.01Lam23_11+6462.91Lam24_11+
800.84Lam1_12+6340.26Lam2_12+4874.65Lam3_12+
6141.23Lam4_12+4812.87Lam5_12+4572.68Lam6_12+6752.04Lam7_12
+2897.71Lam8_12+3861.69Lam9_12+5812.54Lam10_12+5610.50Lam11
_12+4944.07Lam12_12+5119.43Lam13_12+6679.28Lam14_12+5655.94
Lam15_12+5913.64Lam16_12+6251.86Lam17_12+5595.36Lam18_12+36
06.40Lam19_12+8923.01Lam20_12+11518.68Lam21_12+12598.32Lam2
2_12+5395.01Lam23_12+6462.91Lam24_12+
800.84Lam1_13+6340.26Lam2_13+4874.65Lam3_13+
6141.23Lam4_13+4812.87Lam5_13+4572.68Lam6_13+6752.04Lam7_13
+2897.71Lam8_13+3861.69Lam9_13+5812.54Lam10_13+5610.50Lam11
_13+4944.07Lam12_13+5119.43Lam13_13+6679.28Lam14_13+5655.94
Lam15_13+5913.64Lam16_13+6251.86Lam17_13+5595.36Lam18_13+36
06.40Lam19_13+8923.01Lam20_13+11518.68Lam21_13+12598.32Lam2
2_13+5395.01Lam23_13+6462.91Lam24_13+
800.84Lam1_14+6340.26Lam2_14+4874.65Lam3_14+6141.23Lam4_14+
4812.87Lam5_14+4572.68Lam6_14+6752.04Lam7_14+
```

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2897.71Lam8_14+3861.69Lam9_14+5812.54Lam10_14+5610.50Lam11_
14+4944.07Lam12_14+5119.43Lam13_14+6679.28Lam14_14+5655.94L
am15_14+5913.64Lam16_14+6251.86Lam17_14+5595.36Lam18_14+360
6.40Lam19_14+8923.01Lam20_14+11518.68Lam21_14+12598.32Lam22
_14+5395.01Lam23_14+6462.91Lam24_14+
800.84Lam1_15+6340.26Lam2_15+4874.65Lam3_15+6141.23Lam4_15+
4812.87Lam5_15+4572.68Lam6_15+6752.04Lam7_15+
2897.71Lam8_15+3861.69Lam9_15+5812.54Lam10_15+5610.50Lam11_
15+4944.07Lam12_15+5119.43Lam13_15+6679.28Lam14_15+5655.94L
am15_15+5913.64Lam16_15+6251.86Lam17_15+5595.36Lam18_15+360
6.40Lam19_15+8923.01Lam20_15+11518.68Lam21_15+12598.32Lam22
_15+5395.01Lam23_15+6462.91Lam24_15+
800.84Lam1_16+6340.26Lam2_16+4874.65Lam3_16+
6141.23Lam4_16+4812.87Lam5_16+4572.68Lam6_16+6752.04Lam7_16
+2897.71Lam8_16+3861.69Lam9_16+5812.54Lam10_16+5610.50Lam11
_16+4944.07Lam12_16+5119.43Lam13_16+6679.28Lam14_16+5655.94
Lam15_16+5913.64Lam16_16+6251.86Lam17_16+5595.36Lam18_16+36
06.40Lam19_16+8923.01Lam20_16+11518.68Lam21_16+12598.32Lam2
2_16+5395.01Lam23_16+6462.91Lam24_16+
800.84Lam1_17+6340.26Lam2_17+4874.65Lam3_17+6141.23Lam4_17+
4812.87Lam5_17+4572.68Lam6_17+6752.04Lam7_17+
2897.71Lam8_17+3861.69Lam9_17+5812.54Lam10_17+5610.50Lam11_
17+4944.07Lam12_17+5119.43Lam13_17+6679.28Lam14_17+5655.94L
am15_17+5913.64Lam16_17+6251.86Lam17_17+5595.36Lam18_17+360
6.40Lam19_17+8923.01Lam20_17+11518.68Lam21_17+12598.32Lam22
_17+5395.01Lam23_17+6462.91Lam24_17+
800.84Lam1_18+6340.26Lam2_18+4874.65Lam3_18+6141.23Lam4_18+
4812.87Lam5_18+4572.68Lam6_18+6752.04Lam7_18+2897.71Lam8_18
+3861.69Lam9_18+5812.54Lam10_18+5610.50Lam11_18+4944.07Lam1
2_18+5119.43Lam13_18+6679.28Lam14_18+5655.94Lam15_18+
5913.64Lam16_18+6251.86Lam17_18+5595.36Lam18_18+3606.40Lam1
9_18+8923.01Lam20_18+11518.68Lam21_18+12598.32Lam22_18+5395
.01Lam23_18+6462.91Lam24_18+
800.84Lam1_19+6340.26Lam2_19+4874.65Lam3_19+6141.23Lam4_19+
4812.87Lam5_19+4572.68Lam6_19+6752.04Lam7_19+
2897.71Lam8_19+3861.69Lam9_19+5812.54Lam10_19+5610.50Lam11_
19+4944.07Lam12_19+5119.43Lam13_19+6679.28Lam14_19+5655.94L
am15_19+5913.64Lam16_19+6251.86Lam17_19+5595.36Lam18_19+360
6.40Lam19_19+8923.01Lam20_19+11518.68Lam21_19+12598.32Lam22
_19+5395.01Lam23_19+6462.91Lam24_19+
800.84Lam1_20+6340.26Lam2_20+4874.65Lam3_20+
6141.23Lam4_20+4812.87Lam5_20+4572.68Lam6_20+6752.04Lam7_20
+2897.71Lam8_20+3861.69Lam9_20+5812.54Lam10_20+5610.50Lam11
_20+4944.07Lam12_20+5119.43Lam13_20+6679.28Lam14_20+5655.94
Lam15_20+5913.64Lam16_20+6251.86Lam17_20+5595.36Lam18_20+36
06.40Lam19_20+8923.01Lam20_20+11518.68Lam21_20+12598.32Lam2
2_20+5395.01Lam23_20+6462.91Lam24_20+
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800.84Lam1_21+6340.26Lam2_21+4874.65Lam3_21+6141.23Lam4_21+
4812.87Lam5_21+4572.68Lam6_21+6752.04Lam7_21+2897.71Lam8_21
+3861.69Lam9_21+5812.54Lam10_21+5610.50Lam11_21+4944.07Lam1
2_21+5119.43Lam13_21+6679.28Lam14_21+5655.94Lam15_21+5913.6
4Lam16_21+6251.86Lam17_21+5595.36Lam18_21+3606.40Lam19_21+
8923.01Lam20_21+11518.68Lam21_21+12598.32Lam22_21+5395.01La
m23_21+6462.91Lam24_21+
800.84Lam1_22+6340.26Lam2_22+4874.65Lam3_22+
6141.23Lam4_22+4812.87Lam5_22+4572.68Lam6_22+6752.04Lam7_22
+2897.71Lam8_22+3861.69Lam9_22+5812.54Lam10_22+5610.50Lam11
_22+4944.07Lam12_22+5119.43Lam13_22+6679.28Lam14_22+5655.94
Lam15_22+5913.64Lam16_22+6251.86Lam17_22+5595.36Lam18_22+36
06.40Lam19_22+8923.01Lam20_22+11518.68Lam21_22+12598.32Lam2
2_22+5395.01Lam23_22+6462.91Lam24_22+
800.84Lam1_23+6340.26Lam2_23+4874.65Lam3_23+6141.23Lam4_23+
4812.87Lam5_23+4572.68Lam6_23+6752.04Lam7_23+2897.71Lam8_23
+3861.69Lam9_23+5812.54Lam10_23+5610.50Lam11_23+4944.07Lam1
2_23+5119.43Lam13_23+6679.28Lam14_23+5655.94Lam15_23+5913.6
4Lam16_23+6251.86Lam17_23+5595.36Lam18_23+3606.40Lam19_23+
8923.01Lam20_23+11518.68Lam21_23+12598.32Lam22_23+5395.01La
m23_23+6462.91Lam24_23+
800.84Lam1_24+6340.26Lam2_24+4874.65Lam3_24+
6141.23Lam4_24+4812.87Lam5_24+4572.68Lam6_24+6752.04Lam7_24
+2897.71Lam8_24+3861.69Lam9_24+5812.54Lam10_24+5610.50Lam11
_24+4944.07Lam12_24+5119.43Lam13_24+6679.28Lam14_24+5655.94
Lam15_24+5913.64Lam16_24+6251.86Lam17_24+5595.36Lam18_24+36
06.40Lam19_24+8923.01Lam20_24+11518.68Lam21_24+12598.32Lam2
2_24+5395.01Lam23_24+6462.91Lam24_24=241242.91

Con_1:
Lam1_1+Lam2_1+Lam3_1+Lam4_1+Lam5_1+Lam6_1+Lam7_1+Lam8_1+Lam
9_1+Lam10_1+Lam11_1+Lam12_1+Lam13_1+Lam14_1+Lam15_1+Lam16_1
+Lam17_1+Lam18_1+Lam19_1+Lam20_1+Lam21_1+Lam22_1+Lam23_1+La
m24_1=1
Con_2:
Lam1_2+Lam2_2+Lam3_2+Lam4_2+Lam5_2+Lam6_2+Lam7_2+Lam8_2+Lam
9_2+Lam10_2+Lam11_2+Lam12_2+Lam13_2+Lam14_2+Lam15_2+Lam16_2
+Lam17_2+Lam18_2+Lam19_2+Lam20_2+Lam21_2+Lam22_2+Lam23_2+La
m24_2=1
Con_3:
Lam1_3+Lam2_3+Lam3_3+Lam4_3+Lam5_3+Lam6_3+Lam7_3+Lam8_3+Lam
9_3+Lam10_3+Lam11_3+Lam12_3+Lam13_3+Lam14_3+Lam15_3+Lam16_3
+Lam17_3+Lam18_3+Lam19_3+Lam20_3+Lam21_3+Lam22_3+Lam23_3+La
m24_3=1
Con_4:

4+Lam2_4+Lam3_4+Lam4_4+Lam5_4+Lam6_4+Lam7_4+Lam8_4+Lam9_4+L
am10_4+Lam11_4+Lam12_4+Lam13_4+Lam14_4+Lam15_4+Lam16_4+Lam1
7_4+Lam18_4+Lam19_4+Lam20_4+Lam21_4+Lam22_4+Lam23_4+Lam24_4
=1

Con_5:

Lam1_5+Lam2_5+Lam3_5+Lam4_5+Lam5_5+Lam6_5+Lam7_5+Lam8_5+Lam
9_5+Lam10_5+Lam11_5+Lam12_5+Lam13_5+Lam14_5+Lam15_5+Lam16_5
+Lam17_5+Lam18_5+Lam19_5+Lam20_5+Lam21_5+Lam22_5+Lam23_5+La
m24_5=1

Con_6:

Lam1_6+Lam2_6+Lam3_6+Lam4_6+Lam5_6+Lam6_6+Lam7_6+Lam8_6+Lam
9_6+Lam10_6+Lam11_6+Lam12_6+Lam13_6+Lam14_6+Lam15_6+Lam16_6
+Lam17_6+Lam18_6+Lam19_6+Lam20_6+Lam21_6+Lam22_6+Lam23_6+La
m24_6=1

Con_7:

Lam1_7+Lam2_7+Lam3_7+Lam4_7+Lam5_7+Lam6_7+Lam7_7+Lam8_7+Lam
9_7+Lam10_7+Lam11_7+Lam12_7+Lam13_7+Lam14_7+Lam15_7+Lam16_7+Lam1
7_7+Lam18_7+Lam19_7+Lam20_7+Lam21_7+Lam22_7+Lam23_7+Lam24_7=1

Con_8:

Lam1_8+Lam2_8+Lam3_8+Lam4_8+Lam5_8+Lam6_8+Lam7_8+Lam8_8+Lam
9_8+Lam10_8+Lam11_8+Lam12_8+Lam13_8+Lam14_8+Lam15_8+Lam16_8
+Lam17_8+Lam18_8+Lam19_8+Lam20_8+Lam21_8+Lam22_8+Lam23_8+La
m24_8=1

Con_9:

Lam1_9+Lam2_9+Lam3_9+Lam4_9+Lam5_9+Lam6_9+Lam7_9+Lam8_9+Lam
9_9+Lam10_9+Lam11_9+Lam12_9+Lam13_9+Lam14_9+Lam15_9+Lam16_9
+Lam17_9+Lam18_9+Lam19_9+Lam20_9+Lam21_9+Lam22_9+Lam23_9+La
m24_9=1

Con_10:

Lam1_10+Lam2_10+Lam3_10+Lam4_10+Lam5_10+Lam6_10+Lam7_10+Lam
8_10+Lam9_10+Lam10_10+Lam11_10+Lam12_10+Lam13_10+Lam14_10+L
am15_10+Lam16_10+Lam17_10+Lam18_10+Lam19_10+Lam20_10+Lam21_
10+Lam22_10+Lam23_10+Lam24_10=1

Con_11:

Lam1_11+Lam2_11+Lam3_11+Lam4_11+Lam5_11+Lam6_11+Lam7_11+Lam
8_11+Lam9_11+Lam10_11+Lam11_11+Lam12_11+Lam13_11+Lam14_11+L
am15_11+Lam16_11+Lam17_11+Lam18_11+Lam19_11+Lam20_11+Lam21_
11+Lam22_11+Lam23_11+Lam24_11=1

Con_12:

Lam1_12+Lam2_12+Lam3_12+Lam4_12+Lam5_12+Lam6_12+Lam7_12+Lam
8_12+Lam9_12+Lam10_12+Lam11_12+Lam12_12+Lam13_12+Lam14_12+L
am15_12+Lam16_12+Lam17_12+Lam18_12+Lam19_12+Lam20_12+Lam21_
12+Lam22_12+Lam23_12+Lam24_12=1

Con_13:

Lam1_13+Lam2_13+Lam3_13+Lam4_13+Lam5_13+Lam6_13+Lam7_13+Lam
8_13+Lam9_13+Lam10_13+Lam11_13+Lam12_13+Lam13_13+Lam14_13+L

am15_13+Lam16_13+Lam17_13+Lam18_13+Lam19_13+Lam20_13+Lam21_
13+Lam22_13+Lam23_13+Lam24_13=1
Con_14:
Lam1_14+Lam2_14+Lam3_14+Lam4_14+Lam5_14+Lam6_14+Lam7_14+Lam
8_14+Lam9_14+Lam10_14+Lam11_14+Lam12_14+Lam13_14+Lam14_14+L
am15_14+Lam16_14+Lam17_14+Lam18_14+Lam19_14+Lam20_14+Lam21_
14+Lam22_14+Lam23_14+Lam24_14=1
Con_15:
Lam1_15+Lam2_15+Lam3_15+Lam4_15+Lam5_15+Lam6_15+Lam7_15+Lam
8_15+Lam9_15+Lam10_15+Lam11_15+Lam12_15+Lam13_15+Lam14_15+L
am15_15+Lam16_15+Lam17_15+Lam18_15+Lam19_15+Lam20_15+Lam21_
15+Lam22_15+Lam23_15+Lam24_15=1
Con_16:
Lam1_16+Lam2_16+Lam3_16+Lam4_16+Lam5_16+Lam6_16+Lam7_16+Lam
8_16+Lam9_16+Lam10_16+Lam11_16+Lam12_16+Lam13_16+Lam14_16+L
am15_16+Lam16_16+Lam17_16+Lam18_16+Lam19_16+Lam20_16+Lam21_
16+Lam22_16+Lam23_16+Lam24_16=1
Con_17:
Lam1_17+Lam2_17+Lam3_17+Lam4_17+Lam5_17+Lam6_17+Lam7_17+Lam
8_17+Lam9_17+Lam10_17+Lam11_17+Lam12_17+Lam13_17+Lam14_17+L
am15_17+Lam16_17+Lam17_17+Lam18_17+Lam19_17+Lam20_17+Lam21_
17+Lam22_17+Lam23_17+Lam24_17=1
Con_18:
Lam1_18+Lam2_18+Lam3_18+Lam4_18+Lam5_18+Lam6_18+Lam7_18+Lam
8_18+Lam9_18+Lam10_18+Lam11_18+Lam12_18+Lam13_18+Lam14_18+L
am15_18+Lam16_18+Lam17_18+Lam18_18+Lam19_18+Lam20_18+Lam21_
18+Lam22_18+Lam23_18+Lam24_18=1
Con_19:
Lam1_19+Lam2_19+Lam3_19+Lam4_19+Lam5_19+Lam6_19+Lam7_19+Lam
8_19+Lam9_19+Lam10_19+Lam11_19+Lam12_19+Lam13_19+Lam14_19+L
am15_19+Lam16_19+Lam17_19+Lam18_19+Lam19_19+Lam20_19+Lam21_
19+Lam22_19+Lam23_19+Lam24_19=1
Con_20:
Lam1_20+Lam2_20+Lam3_20+Lam4_20+Lam5_20+Lam6_20+Lam7_20+Lam
8_20+Lam9_20+Lam10_20+Lam11_20+Lam12_20+Lam13_20+Lam14_20+L
am15_20+Lam16_20+Lam17_20+Lam18_20+Lam19_20+Lam20_20+Lam21_
20+Lam22_20+Lam23_20+Lam24_20=1
Con_21:
Lam1_21+Lam2_21+Lam3_21+Lam4_21+Lam5_21+Lam6_21+Lam7_21+Lam
8_21+Lam9_21+Lam10_21+Lam11_21+Lam12_21+Lam13_21+Lam14_21+L
am15_21+Lam16_21+Lam17_21+Lam18_21+Lam19_21+Lam20_21+Lam21_
21+Lam22_21+Lam23_21+Lam24_21=1
Con_22:
Lam1_22+Lam2_22+Lam3_22+Lam4_22+Lam5_22+Lam6_22+Lam7_22+Lam
8_22+Lam9_22+Lam10_22+Lam11_22+Lam12_22+Lam13_22+Lam14_22+L
am15_22+Lam16_22+Lam17_22+Lam18_22+Lam19_22+Lam20_22+Lam21_
22+Lam22_22+Lam23_22+Lam24_22=1

Con_23:
Lam1_23+Lam2_23+Lam3_23+Lam4_23+Lam5_23+Lam6_23+Lam7_23+Lam8_23+Lam9_23+Lam10_23+Lam11_23+Lam12_23+Lam13_23+Lam14_23+Lam15_23+Lam16_23+Lam17_23+Lam18_23+Lam19_23+Lam20_23+Lam21_23+Lam22_23+Lam23_23+Lam24_23=1

Con_24:
Lam1_24+Lam2_24+Lam3_24+Lam4_24+Lam5_24+Lam6_24+Lam7_24+Lam8_24+Lam9_24+Lam10_24+Lam11_24+Lam12_24+Lam13_24+Lam14_24+Lam15_24+Lam16_24+Lam17_24+
Lam18_24+Lam19_24+Lam20_24+Lam21_24+Lam22_24+Lam23_24+Lam24_24=1

bounds
0<Mu_PCF1<1
0<Mu_PCF2<1
0<Mu_PCF3<1
0<Mu_PCF4<1
0<Mu_PCF5<1
0<Mu_PCF6<1
0<Mu_PCF7<1
0<Mu_PCF8<1
0<Mu_PCF9<1
0<Mu_PCF10<1
0<Mu_PCF11<1
0<Mu_PCF12<1
0<Mu_PCF13<1
0<Mu_PCF14<1
0<Mu_PCF15<1
0<Mu_PCF16<1
0<Mu_PCF17<1
0<Mu_PCF18<1
0<Mu_PCF19<1
0<Mu_PCF20<1
0<Mu_PCF21<1
0<Mu_PCF22<1
0<Mu_PCF23<1
0<Mu_PCF24<1
0<Mu_DLR1<1
0<Mu_DLR2<1
0<Mu_DLR3<1
0<Mu_DLR4<1
0<Mu_DLR5<1
0<Mu_DLR6<1
0<Mu_DLR7<1
0<Mu_DLR8<1
0<Mu_DLR9<1

```
0<Mu_DLR10<1
0<Mu_DLR11<1
0<Mu_DLR12<1
0<Mu_DLR13<1
0<Mu_DLR14<1
0<Mu_DLR15<1
0<Mu_DLR16<1
0<Mu_DLR17<1
0<Mu_DLR18<1
0<Mu_DLR19<1
0<Mu_DLR20<1
0<Mu_DLR21<1
0<Mu_DLR22<1
0<Mu_DLR23<1
0<Mu_DLR24<1
0<Mu_RWK1<1
0<Mu_RWK2<1
0<Mu_RWK3<1
0<Mu_RWK4<1
0<Mu_RWK5<1
0<Mu_RWK6<1
0<Mu_RWK7<1
0<Mu_RWK8<1
0<Mu_RWK9<1
0<Mu_RWK10<1
0<Mu_RWK11<1
0<Mu_RWK12<1
0<Mu_RWK13<1
0<Mu_RWK14<1
0<Mu_RWK15<1
0<Mu_RWK16<1
0<Mu_RWK17<1
0<Mu_RWK18<1
0<Mu_RWK19<1
0<Mu_RWK20<1
0<Mu_RWK21<1
0<Mu_RWK22<1
0<Mu_RWK23<1
0<Mu_RWK24<1
0<Mu_RML1<1
0<Mu_RML2<1
0<Mu_RML3<1
0<Mu_RML4<1
0<Mu_RML5<1
0<Mu_RML6<1
0<Mu_RML7<1
0<Mu_RML8<1
```

```
0<Mu_RML9<1
0<Mu_RML10<1
0<Mu_RML11<1
0<Mu_RML12<1
0<Mu_RML13<1
0<Mu_RML14<1
0<Mu_RML15<1
0<Mu_RML16<1
0<Mu_RML17<1
0<Mu_RML18<1
0<Mu_RML19<1
0<Mu_RML20<1
0<Mu_RML21<1
0<Mu_RML22<1
0<Mu_RML23<1
0<Mu_RML24<1

0<Mu_PCF<1
0<Mu_DLR<1
0<Mu_RWK<1
0<Mu_RML<1

end
```