

APPENDIX U
RESULTS FOR S-GENERAL TASKS

Table U.1. Red-line and Yellow-line thresholds for S-General Search tasks.

IVIS Tasks			Young Drivers						Middle Age Drivers						Older Drivers						All Drivers														
Presentation Format	Density Level		Red-line Threshold					Yellow-line Threshold			Red-line Threshold					Yellow-line Threshold			Red-line Threshold																
			Task skipped	Threshold exceeded	Total exceeded	Below threshold	Missing data	Total	Minimum speed	Max. steering velocity	Mirror glances	Task skipped	Threshold exceeded	Total exceeded	Below threshold	Missing data	Total	Minimum speed	Max. steering velocity	Mirror glances	Task skipped	Threshold exceeded	Total exceeded	Below threshold	Missing data	Total									
Paragraph	L	# Subj.	0	0	0	12	0	12	0	X	0	0	1	1	9	2	12	0	0	0 [#]	1	1	2	10	0	12	1	X	X	1	2	3	31	2	36
		Prop.	.00	.00	.00	1.0	.00	1.0				.00	.08	.08	.75	.17	1.0				.08	.08	.17	.83	.00	1.0	1	X	X	.03	.06	.08	.86	.06	1.0
	M	# Subj.	0	0	0	12	0	12	0	X	0	0	2	2	10	0	12	0	X	X	1	3	4	8	0	12	1	X	X	1	5	6	30	0	36
		Prop.	.00	.00	.00	1.0	.00	1.0				.00	.17	.17	.83	.00	1.0				.08	.25	.33	.67	.00	1.0	1	X	X	.03	.14	.17	.83	.00	1.0
	H	# Subj.	2	4	6	6	0	12	X	X	2	0	5	5	7	0	12	X	X	X	8	2	10	2	0	12	8 [#]	8 [#]	8 [#]	10	11	21	15	0	36
		Prop.	.17	.33	.50	.50	.00	1.0				.00	.42	.42	.58	.00	1.0				.67	.17	.83	.17	.00	1.0	8 [#]	8 [#]	8 [#]	.28	.31	.58	.42	.00	1.0
VH	# Subj.	6	3	9	3	0	12	6	6	6	6	3	9	3	0	12	6	X	6	12	0	12	0	0	12	12 [#]	12 [#]	12 [#]	24	6	30	6	0	36	
	Prop.	.50	.25	.75	.25	.00	1.0				.50	.25	.75	.25	.00	1.0				1.0	.00	1.0	.00	.00	1.0	12 [#]	12 [#]	12 [#]	.67	.17	.83	.17	.00	1.0	
Table	L	# Subj.	0	0	0	12	0	12	0 [#]	0 [#]	0 [#]	0	0	0	12	0	12	0 [#]	0 [#]	0 [#]	1	3	4	7	1	12	1	1	1	1	3	4	31	1	36
		Prop.	.00	.00	.00	1.0	.00	1.0				.00	.00	.00	1.0	.00	1.0				.08	.25	.33	.58	.08	1.0	1	1	1	.03	.08	.11	.86	.03	1.0
	M	# Subj.	0	0	0	12	0	12	0	0	X	0	1	1	11	0	12	0	X	X	1	3	4	8	0	12	1	X	1	1	4	5	31	0	36
		Prop.	.00	.00	.00	1.0	.00	1.0				.00	.08	.08	.92	.00	1.0				.08	.25	.33	.67	.00	1.0	1	X	1	.03	.11	.14	.86	.00	1.0
	H	# Subj.	0	1	1	11	0	12	X	0	0	0	1	1	11	0	12	0	0	X	4	0	4	8	0	12	4	4	X	4	2	6	30	0	36
		Prop.	.00	.08	.08	.92	.00	1.0				.00	.08	.08	.92	.00	1.0				.33	.00	.33	.67	.00	1.0	4	4	X	.11	.06	.17	.83	.00	1.0
VH	# Subj.	1	0	1	11	0	12	1	1	X	2	2	4	8	0	12	2	2	X	9	1	10	2	0	12	9 [#]	9 [#]	9 [#]	12	3	15	21	0	36	
	Prop.	.08	.00	.08	.92	.00	1.0				.17	.17	.33	.67	.00	1.0				.75	.08	.83	.17	.00	1.0	9 [#]	9 [#]	9 [#]	.33	.08	.42	.58	.00	1.0	

Table U.2. Red-line Thresholds for all age groups combined with S-General tasks.

IVIS Tasks			Skipped Tasks			Number of Eye Glances					Peak Eye Glance Length					Task Completion Time					Lane Deviations			
Presentation Format	Density Level		Not presented, safety concern	Not presented, below red-line	Skipped by driver	1 - 4 glances	5 - 8 glances	9+ glances	Missing data	Total	Less than or equal to 2.0	2.0 > secs. ≤ 2.5	Greater than 2.5 secs.	Missing data	Total	Greater than 13 secs.	13 > secs. ≤ 20	Greater than 20 secs.	Missing data	Total	No deviations	1+ deviations	Missing data	Total
Paragraph	L	# Subj.	0	10	1	19	3	0	3	36	16	5	1	3	36	21	2	0	2	36	22	1	2	36
		Prop.	0.00	0.28	0.03	0.53	0.08	0.00	0.08	1.00	0.44	0.14	0.03	0.08	1.00	0.58	0.06	0.00	0.06	1.00	0.61	0.03	0.06	1.00
	M	# Subj.	0	0	1	25	8	1	1	36	27	4	3	1	36	33	2	0	0	36	34	1	0	36
		Prop.	0.00	0.00	0.03	0.69	0.22	0.03	0.03	1.00	0.75	0.11	0.08	0.03	1.00	0.92	0.06	0.00	0.00	1.00	0.94	0.03	0.00	1.00
	H	# Subj.	7	0	3	10	10	5	1	36	13	6	6	1	36	16	6	4	0	36	25	1	0	36
		Prop.	0.19	0.00	0.08	0.28	0.28	0.14	0.03	1.00	0.36	0.17	0.17	0.03	1.00	0.44	0.17	0.11	0.00	1.00	0.69	0.03	0.00	1.00
	VH	# Subj.	18	0	6	4	5	3	0	36	3	6	3	0	36	8	3	1	0	36	11	1	0	36
		Prop.	0.50	0.00	0.17	0.11	0.14	0.08	0.00	1.00	0.08	0.17	0.08	0.00	1.00	0.22	0.08	0.03	0.00	1.00	0.31	0.03	0.00	1.00
Table	L	# Subj.	0	23	1	8	2	0	2	36	7	1	2	2	36	10	0	1	1	36	11	0	1	36
		Prop.	0.00	0.64	0.03	0.22	0.06	0.00	0.06	1.00	0.19	0.03	0.06	0.06	1.00	0.28	0.00	0.03	0.03	1.00	0.31	0.00	0.03	1.00
	M	# Subj.	0	8	1	21	4	1	1	36	19	6	1	1	36	25	2	0	0	36	25	2	0	36
		Prop.	0.00	0.22	0.03	0.58	0.11	0.03	0.03	1.00	0.53	0.17	0.03	0.03	1.00	0.69	0.06	0.00	0.00	1.00	0.69	0.06	0.00	1.00
	H	# Subj.	3	0	1	29	2	0	1	36	26	3	2	1	36	32	0	0	0	36	32	0	0	36
		Prop.	0.08	0.00	0.03	0.81	0.06	0.00	0.03	1.00	0.72	0.08	0.06	0.03	1.00	0.89	0.00	0.00	0.00	1.00	0.89	0.00	0.00	1.00
	VH	# Subj.	11	0	1	21	2	0	1	36	19	1	3	1	36	24	0	0	0	36	24	0	0	36
		Prop.	0.31	0.00	0.03	0.58	0.06	0.00	0.03	1.00	0.53	0.03	0.08	0.03	1.00	0.67	0.00	0.00	0.00	1.00	0.67	0.00	0.00	1.00

Table U.3. Red-line Thresholds for young drivers with S-General tasks.

IVIS Tasks			Skipped Tasks			Number of Eye Glances					Peak Eye Glance Length					Task Completion Time					Lane Deviations			
Presentation Format	Density Level		Not presented, safety concern	Not presented, below red-line	Skipped by driver	1 - 4 glances	5 - 8 glances	9+ glances	Missing data	Total	Less than or equal to 2.0	2.0 > secs. ≤ 2.5	Greater than 2.5 secs.	Missing data	Total	Greater than 13 secs.	13 > secs. ≤ 20	Greater than 20 secs.	Missing data	Total	No deviations	1+ deviations	Missing data	Total
Paragraph	L	#Subj.	0	6	0	6	0	0	0	12	5	1	0	0	12	6	0	0	0	12	6	0	0	12
		Prop.	0.00	0.50	0.00	0.50	0.00	0.00	1.00	0.42	0.08	0.00	0.00	1.00	0.50	0.00	0.00	0.00	1.00	0.50	0.00	0.00	1.00	
	M	#Subj.	0	0	0	11	1	0	0	12	12	0	0	0	12	11	1	0	0	12	12	0	0	12
		Prop.	0.00	0.00	0.00	0.92	0.08	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.92	0.08	0.00	0.00	1.00	1.00	0.00	0.00	1.00
	H	#Subj.	0	0	2	4	5	1	0	12	4	4	2	0	12	7	2	1	0	12	10	0	0	12
		Prop.	0.00	0.00	0.17	0.33	0.42	0.08	0.00	1.00	0.33	0.33	0.17	0.00	1.00	0.58	0.17	0.08	0.00	1.00	0.83	0.00	0.00	1.00
	VH	#Subj.	5	0	1	3	1	2	0	12	2	3	1	0	12	4	1	1	0	12	6	0	0	12
		Prop.	0.42	0.00	0.08	0.25	0.08	0.17	0.00	1.00	0.17	0.25	0.08	0.00	1.00	0.33	0.08	0.08	0.00	1.00	0.50	0.00	0.00	1.00
Table	L	#Subj.	0	12	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	12	0	0	0	12
		Prop.	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
	M	#Subj.	0	4	0	8	0	0	0	12	7	1	0	0	12	8	0	0	0	12	8	0	0	12
		Prop.	0.00	0.33	0.00	0.67	0.00	0.00	0.00	1.00	0.58	0.08	0.00	0.00	1.00	0.67	0.00	0.00	0.00	1.00	0.67	0.00	0.00	1.00
	H	#Subj.	0	0	0	12	0	0	0	12	10	1	1	0	12	12	0	0	0	12	12	0	0	12
		Prop.	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.83	0.08	0.08	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
	VH	#Subj.	1	0	0	11	0	0	0	12	11	0	0	0	12	11	0	0	0	12	11	0	0	12
		Prop.	0.08	0.00	0.00	0.92	0.00	0.00	0.00	1.00	0.92	0.00	0.00	0.00	1.00	0.92	0.00	0.00	0.00	1.00	0.92	0.00	0.00	1.00

Table U.4. Red-line Thresholds for middle age drivers with S-General tasks.

IVIS Tasks			Skipped Tasks			Number of Eye Glances					Peak Eye Glance Length					Task Completion Time					Lane Deviations			
Presentation Format	Density Level		Not presented, safety concern	Not presented, below red-line	Skipped by driver	1 - 4 glances	5 - 8 glances	9+ glances	Missing data	Total	Less than or equal to 2.0	2.0 > secs. ≤ 2.5	Greater than 2.5 secs.	Missing data	Total	Greater than 13 secs.	13 > secs. ≤ 20	Greater than 20 secs.	Missing data	Total	No deviations	1+ deviations	Missing data	Total
Paragraph	L	# Subj.	0	4	0	4	1	0	3	12	4	0	1	3	12	6	0	0	2	12	6	0	2	12
		Prop.	0.00	0.33	0.00	0.33	0.08	0.00	0.25	1.00	0.33	0.00	0.08	0.25	1.00	0.50	0.00	0.00	0.17	1.00	0.50	0.00	0.17	1.00
	M	# Subj.	0	0	0	8	3	0	1	12	8	1	2	1	12	12	0	0	0	12	12	0	0	12
		Prop.	0.00	0.00	0.00	0.67	0.25	0.00	0.08	1.00	0.67	0.08	0.17	0.08	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
	H	# Subj.	0	0	0	4	5	2	1	12	8	1	2	1	12	7	4	1	0	12	12	0	0	12
		Prop.	0.00	0.00	0.00	0.33	0.42	0.17	0.08	1.00	0.67	0.08	0.17	0.08	1.00	0.58	0.33	0.08	0.00	1.00	1.00	0.00	0.00	1.00
	VH	# Subj.	3	0	3	1	4	1	0	12	1	3	2	0	12	4	2	0	0	12	5	1	0	12
		Prop.	0.25	0.00	0.25	0.08	0.33	0.08	0.00	1.00	0.08	0.25	0.17	0.00	1.00	0.33	0.17	0.00	0.00	1.00	0.42	0.08	0.00	1.00
Table	L	# Subj.	0	9	0	2	0	0	1	12	2	0	0	1	12	3	0	0	0	12	3	0	0	12
		Prop.	0.00	0.75	0.00	0.17	0.00	0.00	0.08	1.00	0.17	0.00	0.00	0.08	1.00	0.25	0.00	0.00	0.00	1.00	0.25	0.00	0.00	1.00
	M	# Subj.	0	4	0	6	1	0	1	12	4	3	0	1	12	7	1	0	0	12	7	1	0	12
		Prop.	0.00	0.33	0.00	0.50	0.08	0.00	0.08	1.00	0.33	0.25	0.00	0.08	1.00	0.58	0.08	0.00	0.00	1.00	0.58	0.08	0.00	1.00
	H	# Subj.	0	0	0	10	1	0	1	12	10	0	1	1	12	12	0	0	0	12	12	0	0	12
		Prop.	0.00	0.00	0.00	0.83	0.08	0.00	0.08	1.00	0.83	0.00	0.08	0.08	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00
	VH	# Subj.	2	0	0	9	0	0	1	12	6	1	2	1	12	10	0	0	0	12	10	0	0	12
		Prop.	0.17	0.00	0.00	0.75	0.00	0.00	0.08	1.00	0.50	0.08	0.17	0.08	1.00	0.83	0.00	0.00	0.00	1.00	0.83	0.00	0.00	1.00

Table U.5. Red-line Thresholds for older drivers with S-General tasks.

IVIS Tasks			Skipped Tasks			Number of Eye Glances					Peak Eye Glance Length					Task Completion Time					Lane Deviations			
Presentation Format	Density Level		Not presented, safety concern	Not presented, below red-line	Skipped by driver	1 - 4 glances	5 - 8 glances	9+ glances	Missing data	Total	Less than or equal to 2.0	2.0 > secs. ≤ 2.5	Greater than 2.5 secs.	Missing data	Total	Greater than 13 secs.	13 > secs. ≤ 20	Greater than 20 secs.	Missing data	Total	No deviations	1+ deviations	Missing data	Total
Paragraph	L	#Subj.	0	0	1	9	2	0	0	12	7	4	0	0	12	9	2	0	0	12	10	1	0	12
		Prop.	0.00	0.00	0.08	0.75	0.17	0.00	0.00	1.00	0.58	0.33	0.00	0.00	1.00	0.75	0.17	0.00	0.00	1.00	0.83	0.08	0.00	1.00
	M	#Subj.	0	0	1	6	4	1	0	12	7	3	1	0	12	10	1	0	0	12	10	1	0	12
		Prop.	0.00	0.00	0.08	0.50	0.33	0.08	0.00	1.00	0.58	0.25	0.08	0.00	1.00	0.83	0.08	0.00	0.00	1.00	0.83	0.08	0.00	1.00
	H	#Subj.	7	0	1	2	0	2	0	12	1	1	2	0	12	2	0	2	0	12	3	1	0	12
		Prop.	0.58	0.00	0.08	0.17	0.00	0.17	0.00	1.00	0.08	0.08	0.17	0.00	1.00	0.17	0.00	0.17	0.00	1.00	0.25	0.08	0.00	1.00
	VH	#Subj.	10	0	2	0	0	0	0	12	0	0	0	0	12	0	0	0	0	12	0	0	0	12
		Prop.	0.83	0.00	0.17	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Table	L	#Subj.	0	2	1	6	2	0	1	12	5	1	2	1	12	7	0	1	1	12	8	0	1	12
		Prop.	0.00	0.17	0.08	0.50	0.17	0.00	0.08	1.00	0.42	0.08	0.17	0.08	1.00	0.58	0.00	0.08	0.08	1.00	0.67	0.00	0.08	1.00
	M	#Subj.	0	0	1	7	3	1	0	12	8	2	1	0	12	10	1	0	0	12	10	1	0	12
		Prop.	0.00	0.00	0.08	0.58	0.25	0.08	0.00	1.00	0.67	0.17	0.08	0.00	1.00	0.83	0.08	0.00	0.00	1.00	0.83	0.08	0.00	1.00
	H	#Subj.	3	0	1	7	1	0	0	12	6	2	0	0	12	8	0	0	0	12	8	0	0	12
		Prop.	0.25	0.00	0.08	0.58	0.08	0.00	0.00	1.00	0.50	0.17	0.00	0.00	1.00	0.67	0.00	0.00	0.00	1.00	0.67	0.00	0.00	1.00
	VH	#Subj.	8	0	1	1	2	0	0	12	2	0	1	0	12	3	0	0	0	12	3	0	0	12
		Prop.	0.67	0.00	0.08	0.08	0.17	0.00	0.00	1.00	0.17	0.00	0.08	0.00	1.00	0.25	0.00	0.00	0.00	1.00	0.25	0.00	0.00	1.00

Table U.6. T value results for Yellow-line Thresholds for S-General, paragraph format tasks.

		Variable	N	Mean	Std. Error	T value	P value
Low (3x2)	Young	MNSPEED	6	-0.17	1.55	-0.11	0.92
		MXSTER	6	-5.82	1.24	-4.68	0.01
		NMIRROR	6	0.08	0.32	0.26	0.81
	Middle Age	MNSPEED	6	-1.55	1.37	-1.13	0.31
		MXSTER	6	-9.55	4.83	-1.98	0.10
		NMIRROR	5	.	.	.	.
	Older	MNSPEED	11	0.61	1.30	0.46	0.65
		MXSTER	11	-9.48	4.07	-2.33	0.04
		NMIRROR	11	0.62	0.24	2.63	0.03
Medium (3x3)	Young	MNSPEED	12	1.17	0.98	1.20	0.25
		MXSTER	12	-8.63	3.02	-2.86	0.02
		NMIRROR	12	0.56	0.29	1.97	0.07
	Middle Age	MNSPEED	12	3.12	1.64	1.90	0.08
		MXSTER	12	-6.21	2.56	-2.43	0.03
		NMIRROR	11	0.59	0.26	2.30	0.04
	Older	MNSPEED	11	3.31	1.71	1.94	0.08
		MXSTER	11	-11.74	2.89	-4.07	0.00
		NMIRROR	11	0.52	0.21	2.45	0.03
High (5x4)	Young	MNSPEED	12	1.17	0.98	1.20	0.25
		MXSTER	12	-8.63	3.02	-2.86	0.02
		NMIRROR	12	0.56	0.29	1.97	0.07
	Middle Age	MNSPEED	12	3.12	1.64	1.90	0.08
		MXSTER	12	-6.21	2.56	-2.43	0.03
		NMIRROR	11	0.59	0.26	2.30	0.04
	Older	MNSPEED	11	3.31	1.71	1.94	0.08
		MXSTER	11	-11.74	2.89	-4.07	0.00
		NMIRROR	11	0.52	0.21	2.45	0.03
Very High (5x6)	Young	MNSPEED	6	2.89	2.35	1.23	0.27
		MXSTER	6	-9.98	4.70	-2.12	0.09
		NMIRROR	6	0.50	0.23	2.15	0.08
	Middle Age	MNSPEED	6	0.34	1.12	0.31	0.77
		MXSTER	6	-8.07	2.49	-3.23	0.02
		NMIRROR	6	0.88	0.55	1.60	0.17
	Older	MNSPEED	0	.	.	.	.
		MXSTER	0	.	.	.	.
		NMIRROR	0	.	.	.	.

Table U.7. T value results for Yellow-line Thresholds for S-General, table format tasks.

		Variable	N	Mean	Std. Error	T value	P value
Low (3x2)	Young	MNSPEED	0	.	.	.	.
		MXSTER	0	.	.	.	.
		NMIRROR	0	.	.	.	.
	Middle Age	MNSPEED	3	.	.	.	.
		MXSTER	3	.	.	.	.
		NMIRROR	2	.	.	.	.
	Older	MNSPEED	8	2.15	1.33	1.62	0.15
		MXSTER	8	-6.97	4.06	-1.72	0.13
		NMIRROR	8	0.71	0.33	2.15	0.07
Medium (3x3)	Young	MNSPEED	8	-0.23	1.55	-0.15	0.89
		MXSTER	8	-3.08	2.44	-1.26	0.25
		NMIRROR	8	0.50	0.13	4.00	0.01
	Middle Age	MNSPEED	8	0.33	1.70	0.20	0.85
		MXSTER	8	-7.02	2.93	-2.40	0.05
		NMIRROR	7	0.82	0.27	3.03	0.02
	Older	MNSPEED	11	2.25	1.53	1.46	0.17
		MXSTER	11	-15.29	4.09	-3.74	0.00
		NMIRROR	11	0.29	0.17	1.69	0.12
High (5x4)	Young	MNSPEED	12	3.94	1.63	2.41	0.03
		MXSTER	12	-5.33	2.53	-2.11	0.06
		NMIRROR	12	0.56	0.26	2.14	0.06
	Middle Age	MNSPEED	12	-0.49	1.22	-0.40	0.70
		MXSTER	12	-4.48	2.19	-2.05	0.07
		NMIRROR	11	0.73	0.20	3.68	0.00
	Older	MNSPEED	8	-0.45	1.50	-0.30	0.77
		MXSTER	8	-4.42	3.57	-1.24	0.26
		NMIRROR	8	1.04	0.39	2.64	0.03
Very High (5x6)	Young	MNSPEED	11	-0.33	1.38	-0.24	0.81
		MXSTER	11	-7.89	3.75	-2.10	0.06
		NMIRROR	11	0.77	0.22	3.56	0.01
	Middle Age	MNSPEED	10	-1.04	1.25	-0.83	0.43
		MXSTER	10	-6.95	3.12	-2.22	0.05
		NMIRROR	9	0.81	0.15	5.21	0.00
	Older	MNSPEED	3	.	.	.	.
		MXSTER	3	.	.	.	.
		NMIRROR	3	.	.	.	.