

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P1357238

Luminaire Tested: 4ASL4-35VHE-3-G52-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357238
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-12)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 4ASL4-35VHE-3-G52-UNV
Description: 4FT 3500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND G52 LEDS 3 ROW
Light Source: -
Ballast/Driver: -

Summary

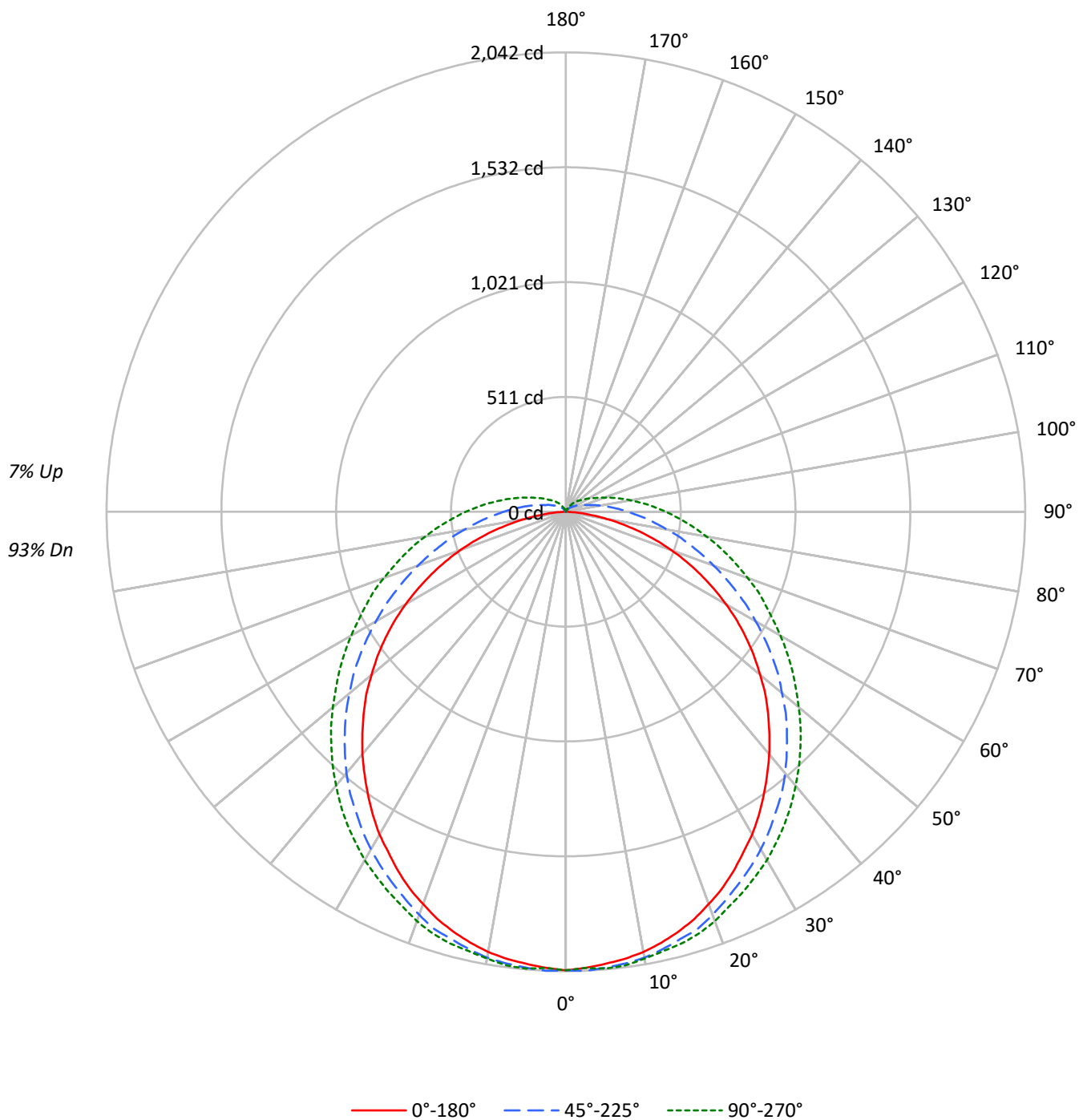
Lumens per Lamp: N/A
Luminaire Lumens: 6930.0 lumens
Efficiency: N/A
Efficacy: 47.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 145.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1357238

CATALOG NUMBER: 4ASL4-35VHE-3-G52-UNV

Luminous Intensity Polar Plot



TEST NUMBER: P1357238

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	93
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	63	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16541	16541	16541
5°	16393	16229	16162
10°	16302	15914	15753
15°	16121	15523	15407
20°	15877	15147	15016
25°	15594	14677	14572
30°	15294	14268	14195
35°	14924	13806	13777
40°	14583	13382	13336
45°	14217	12869	12894
50°	13801	12320	12434
55°	13350	11794	12022
60°	12764	11181	11602
65°	12018	10591	11254
70°	11068	10006	10982
75°	9683	9472	10795
80°	7585	9069	10715
85°	4558	8974	10873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14217 cd/sqm

TEST NUMBER: P1357238

CATALOG NUMBER: 4ASL4-35VHE-3-G52-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.3	2.8
10°-20°	554.9	8.0
20°-30°	839.0	12.1
30°-40°	1015.9	14.7
40°-50°	1067.0	15.4
50°-60°	995.5	14.4
60°-70°	822.7	11.9
70°-80°	592.4	8.5
80°-90°	368.1	5.3
90°-100°	215.7	3.1
100°-110°	123.4	1.8
110°-120°	69.7	1.0
120°-130°	40.1	0.6
130°-140°	21.6	0.3
140°-150°	9.1	0.1
150°-160°	1.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1587.2	22.9
0°-40°	2603.1	37.6
0°-60°	4665.6	67.3
0°-90°	6448.8	93.1
90°-120°	408.7	5.9
90°-150°	479.5	6.9
90°-180°	481.0	6.9
0°-180°	6930.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2017	2034	2034	2034	2038	192
15°	1932	1958	1966	1979	1987	545
25°	1763	1792	1822	1848	1864	812
35°	1534	1576	1627	1674	1695	960
45°	1271	1318	1390	1449	1475	981
55°	979	1034	1119	1199	1229	875
65°	661	725	835	941	979	654
75°	339	424	572	695	746	359
85°	64	191	360	487	534	78
90°	0	114	275	394	445	3
95°	0	72	208	318	364	0
105°	0	25	114	199	233	0
115°	0	13	68	123	144	0
125°	0	8	42	80	93	0
135°	0	0	25	51	64	0
145°	0	0	13	30	34	0
155°	0	0	0	8	13	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P1357238

CATALOG NUMBER: 4ASL4-35VHE-3-G52-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2038.2	2038.2	2038.2	2038.2	2038.2
2.5°	2029.7	2042.4	2042.4	2029.7	2029.7
5°	2017.0	2034.0	2034.0	2034.0	2038.2
7.5°	2004.3	2025.5	2025.5	2025.5	2034.0
10°	1987.4	2008.5	2012.8	2012.8	2017.0
12.5°	1961.9	1987.4	1991.6	1995.8	2000.1
15°	1932.3	1957.7	1966.2	1978.9	1987.4
17.5°	1898.4	1928.0	1945.0	1957.7	1966.2
20°	1856.0	1885.7	1906.8	1923.8	1936.5
22.5°	1813.6	1839.0	1864.5	1885.7	1898.4
25°	1762.8	1792.4	1822.1	1847.5	1864.5
27.5°	1707.7	1741.6	1779.7	1809.4	1826.3
30°	1656.8	1690.7	1733.1	1771.2	1788.2
32.5°	1597.5	1635.6	1682.3	1720.4	1741.6
35°	1534.0	1576.3	1627.2	1673.8	1695.0
37.5°	1470.4	1512.8	1576.3	1622.9	1644.1
40°	1406.8	1449.2	1517.0	1567.9	1589.0
42.5°	1339.0	1381.4	1453.4	1508.5	1534.0
45°	1271.2	1317.8	1389.9	1449.2	1474.6
47.5°	1203.4	1250.0	1326.3	1389.9	1415.3
50°	1127.2	1178.0	1254.3	1326.3	1351.7
52.5°	1055.1	1106.0	1190.7	1262.8	1288.2
55°	978.8	1033.9	1118.7	1199.2	1228.9
57.5°	902.6	957.7	1046.6	1131.4	1165.3
60°	822.1	881.4	974.6	1063.6	1101.7
62.5°	741.6	805.1	906.8	1000.0	1038.2
65°	661.0	724.6	834.8	940.7	978.8
67.5°	580.5	648.3	767.0	877.1	923.8
70°	500.0	572.1	699.2	813.6	860.2
72.5°	419.5	495.8	635.6	754.3	800.9
75°	339.0	423.7	572.1	694.9	745.8
77.5°	258.5	355.9	517.0	639.9	690.7
80°	186.4	296.6	457.6	584.8	635.6
82.5°	118.6	237.3	406.8	533.9	584.8
85°	63.6	190.7	360.2	487.3	533.9
87.5°	21.2	148.3	313.6	440.7	487.3
90°	0.0	114.4	275.4	394.1	444.9
92.5°	0.0	89.0	241.5	355.9	402.6
95°	0.0	72.0	207.6	317.8	364.4
97.5°	0.0	59.3	182.2	283.9	326.3
100°	0.0	46.6	156.8	254.2	292.4
102.5°	0.0	38.1	135.6	224.6	262.7
105°	0.0	25.4	114.4	199.2	233.1
107.5°	0.0	21.2	97.5	178.0	207.6
110°	0.0	16.9	89.0	152.5	182.2



TEST NUMBER: P1357238

CATALOG NUMBER: 4ASL4-35VHE-3-G52-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	12.7	80.5	135.6	165.3
115°	0.0	12.7	67.8	122.9	144.1
117.5°	0.0	12.7	59.3	110.2	131.4
120°	0.0	8.5	55.1	97.5	118.6
122.5°	0.0	8.5	46.6	89.0	105.9
125°	0.0	8.5	42.4	80.5	93.2
127.5°	0.0	4.2	38.1	72.0	84.7
130°	0.0	4.2	33.9	63.6	76.3
132.5°	0.0	4.2	29.7	59.3	72.0
135°	0.0	0.0	25.4	50.8	63.6
137.5°	0.0	0.0	21.2	46.6	55.1
140°	0.0	0.0	16.9	38.1	50.8
142.5°	0.0	0.0	12.7	33.9	42.4
145°	0.0	0.0	12.7	29.7	33.9
147.5°	0.0	0.0	8.5	21.2	29.7
150°	0.0	0.0	4.2	16.9	21.2
152.5°	0.0	0.0	0.0	12.7	16.9
155°	0.0	0.0	0.0	8.5	12.7
157.5°	0.0	0.0	0.0	0.0	4.2
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1357238

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.08	20.62	19.55	21.08	21.56	21.11	22.65	21.58	23.10	23.59
	3H	20.58	21.98	21.06	22.45	22.97	23.57	24.98	24.05	25.44	25.96
	4H	21.06	22.39	21.56	22.87	23.41	24.77	26.10	25.27	26.58	27.12
	6H	21.33	22.57	21.85	23.07	23.62	26.02	27.26	26.54	27.76	28.31
	8H	21.39	22.57	21.91	23.09	23.65	26.67	27.86	27.20	28.38	28.93
	12H	21.40	22.54	21.93	23.05	23.64	27.38	28.52	27.91	29.03	29.62
4H	2H	19.96	21.29	20.46	21.77	22.31	21.54	22.87	22.05	23.36	23.89
	3H	21.69	22.83	22.21	23.35	23.91	24.23	25.37	24.75	25.89	26.45
	4H	22.30	23.34	22.83	23.87	24.46	25.60	26.64	26.13	27.17	27.77
	6H	22.70	23.61	23.25	24.17	24.78	27.04	27.96	27.60	28.52	29.13
	8H	22.79	23.65	23.35	24.21	24.83	27.80	28.66	28.36	29.22	29.84
	12H	22.83	23.62	23.42	24.21	24.83	28.63	29.41	29.21	30.01	30.63
8H	4H	22.98	23.84	23.54	24.40	25.02	25.82	26.68	26.38	27.24	27.86
	6H	23.56	24.29	24.15	24.89	25.52	27.43	28.16	28.02	28.77	29.39
	8H	23.74	24.40	24.34	25.01	25.65	28.32	28.98	28.93	29.60	30.24
	12H	23.85	24.44	24.46	25.05	25.75	29.34	29.93	29.95	30.54	31.24
12H	4H	23.17	23.96	23.75	24.55	25.17	25.82	26.61	26.41	27.20	27.82
	6H	23.85	24.51	24.46	25.13	25.76	27.47	28.13	28.07	28.74	29.38
	8H	24.13	24.72	24.74	25.32	26.03	28.43	29.02	29.04	29.62	30.33

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-8

Test Date: 01/22/2026

Luminaire Tested: 4ASL-2-G520-UNV-OPL-1_600mA

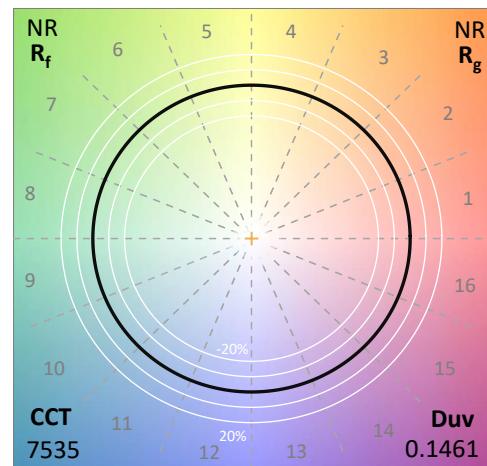
Data in this report applies to families of products including 4ASL

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-8
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 01/29/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Fail-Safe
 Catalog Number: **4ASL-2-G520-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND GREEN 520NM LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	7535	CRI (Ra):	-11.7		
CIE u':	0.0718	R1:	-30.6	R9:	-351.9
CIE v':	0.5710	R2:	5.1	R10:	-75.5
Duv:	0.1461	R3:	5.6	R11:	-78.0
CIE x:	0.1962	R4:	-51.7	R12:	-14.7
CIE y:	0.6931	R5:	-6.4	R13:	-32.5
CIE z:	0.1107	R6:	-0.6	R14:	52.7
Peak Wavelength (nm):	524	R7:	10.9	R15:	-37.0
Dominant Wavelength (nm):	529	R8:	-25.8		
Purity:	75.95236				
Rf:	NR				
Rg:	NR				



Test Conditions

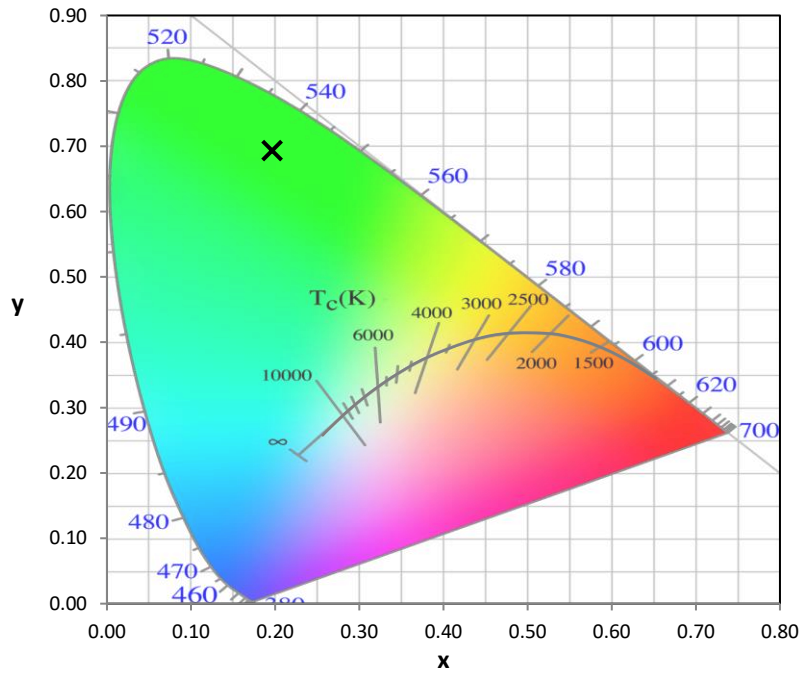
Stabilization Time: 48M
 Operation Time: 1H 48M
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2511-597-8

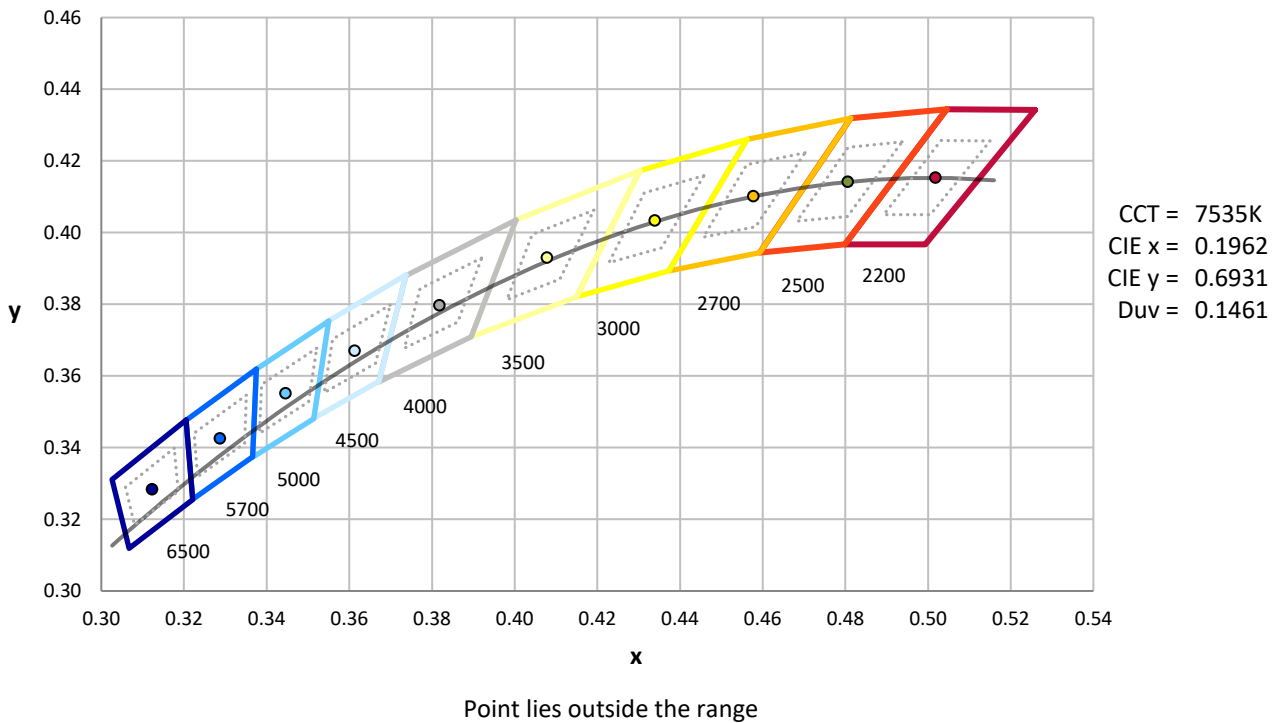
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2511-597-8

CIE 1931 Chromaticity Diagram

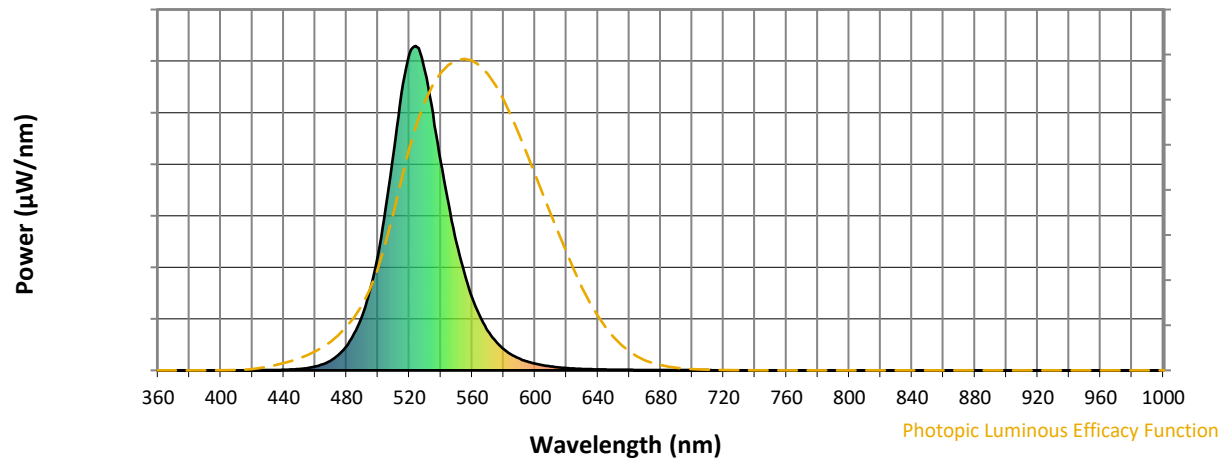


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



REPORT NUMBER: SP1-2511-597-8

Photopic Flux vs. Wavelength

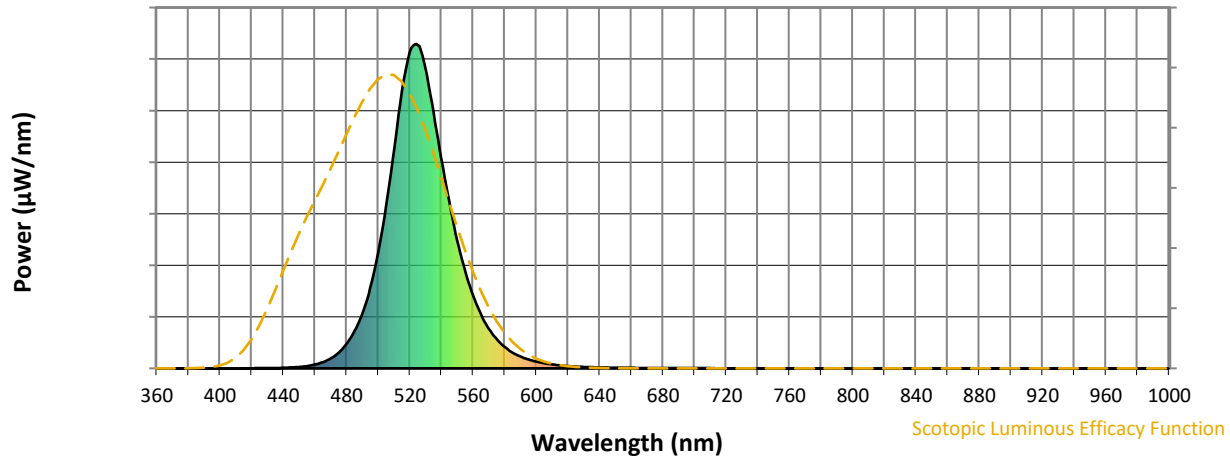


Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-8

Scotopic Flux vs. Wavelength



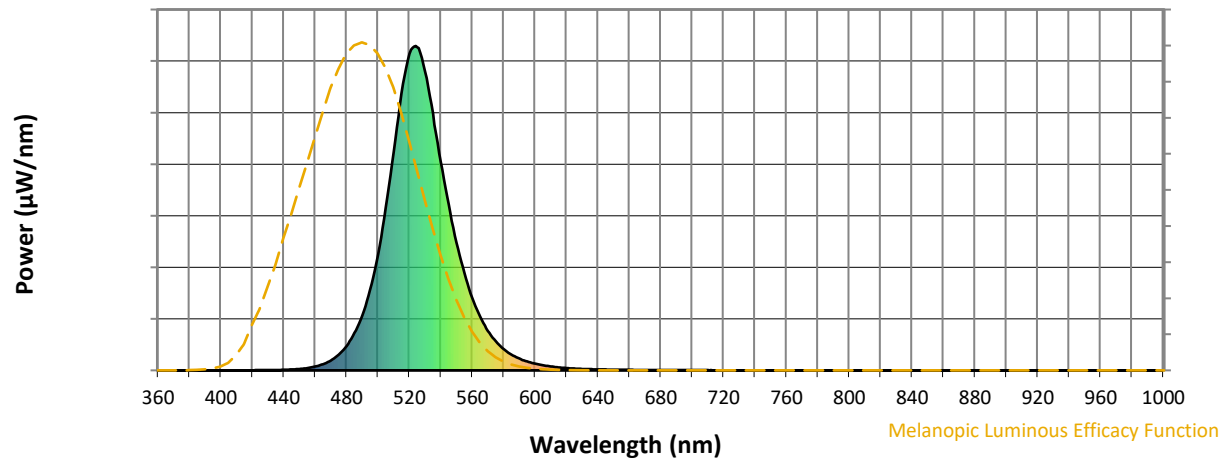
Scotopic Lumens: NR

S/P: 2.63

λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)
360	0	NR	490	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.87

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

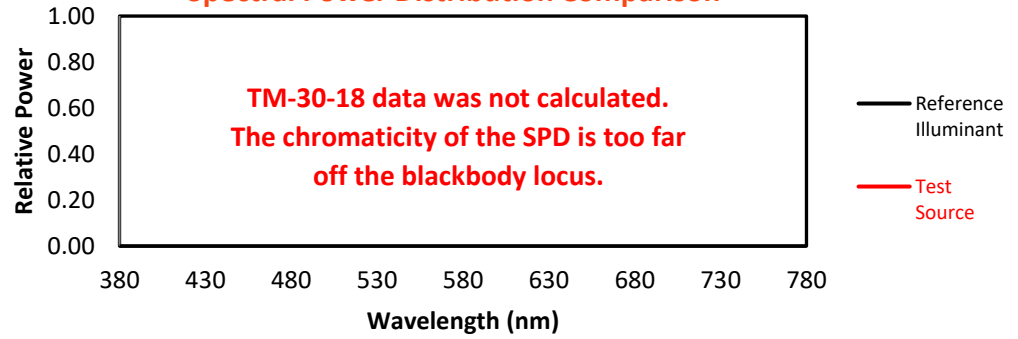
REPORT NUMBER: SP1-2511-597-8

TM-30-18

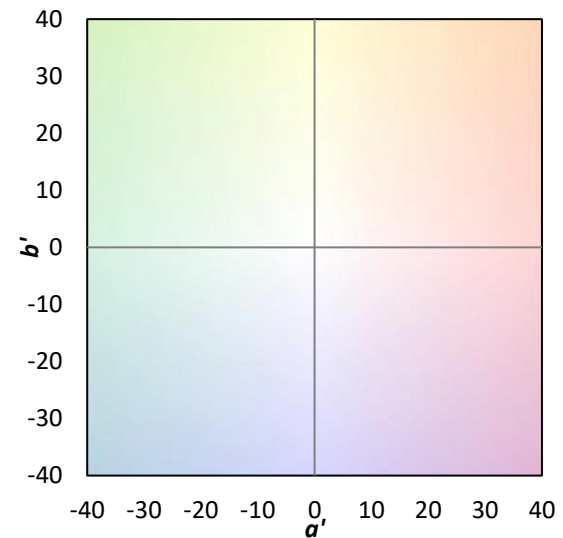
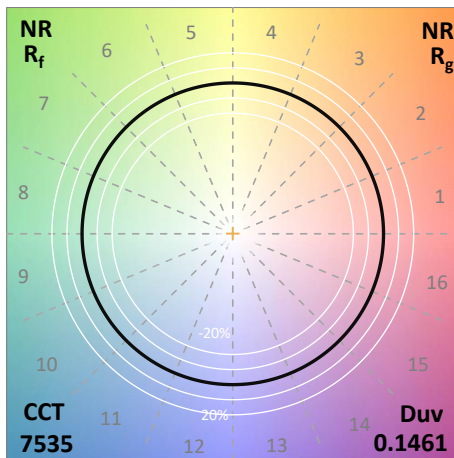
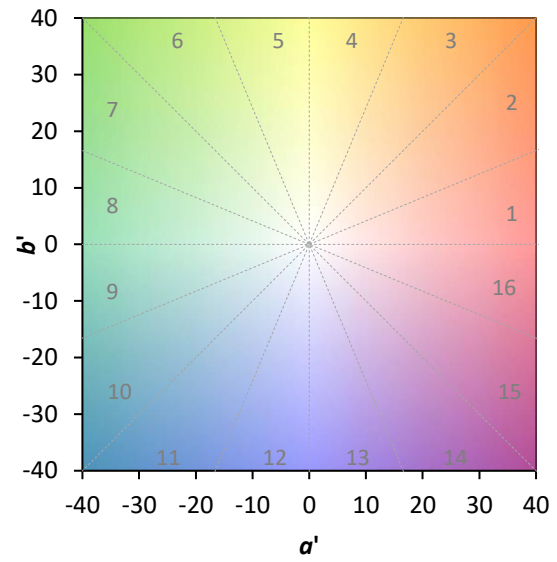
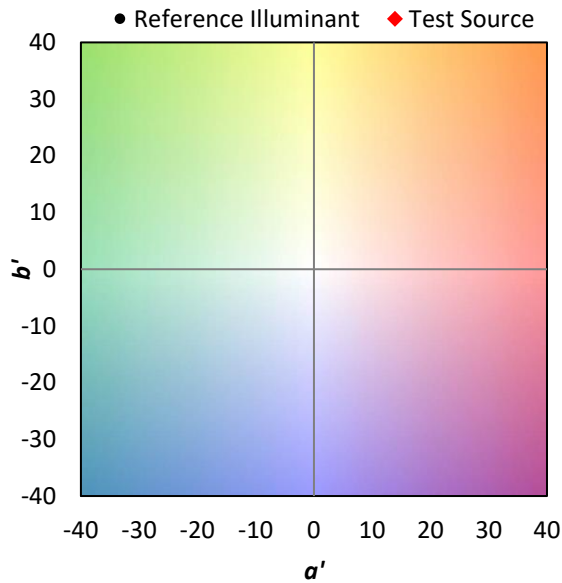
Summary

$R_f = 0$
 $R_g = 0$
 $CIE R_a = -11.7$
 $R_g = -351.9$

Spectral Power Distribution Comparison



Color Vector Graphics

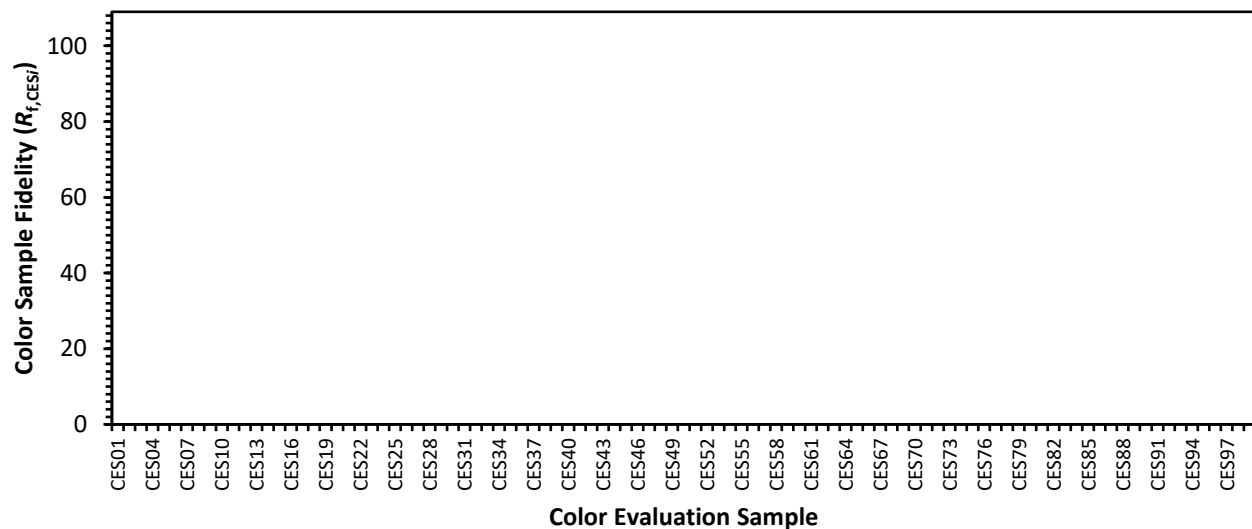


REPORT NUMBER: SP1-2511-597-8

TM-30-18

Individual Sample Fidelity Index ($R_{f,i}$)

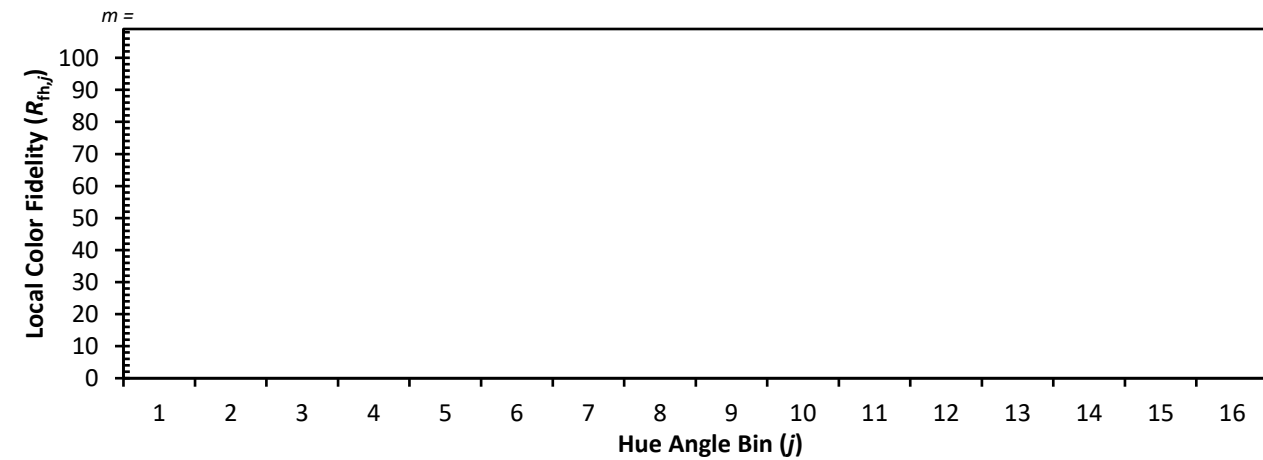
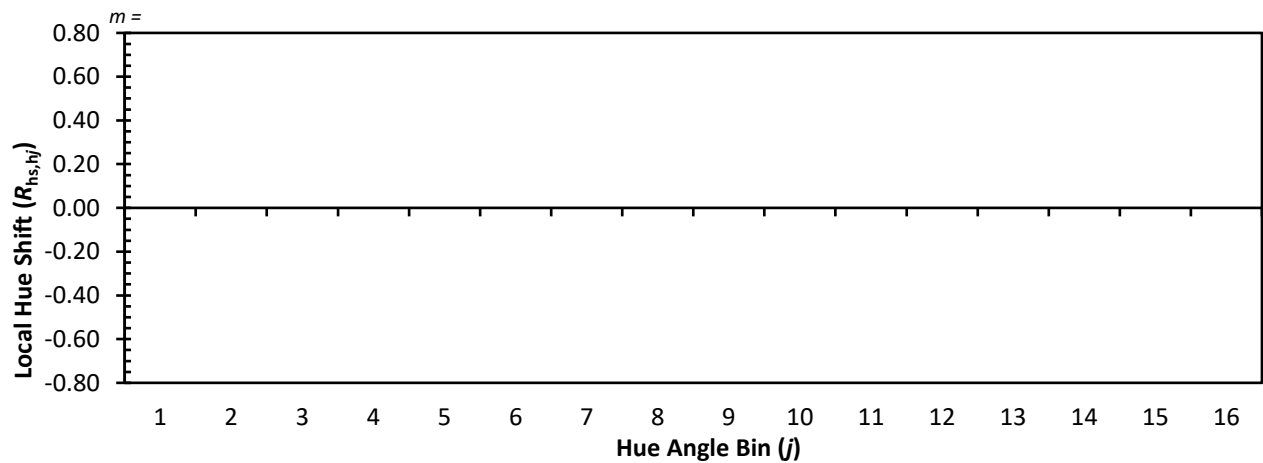
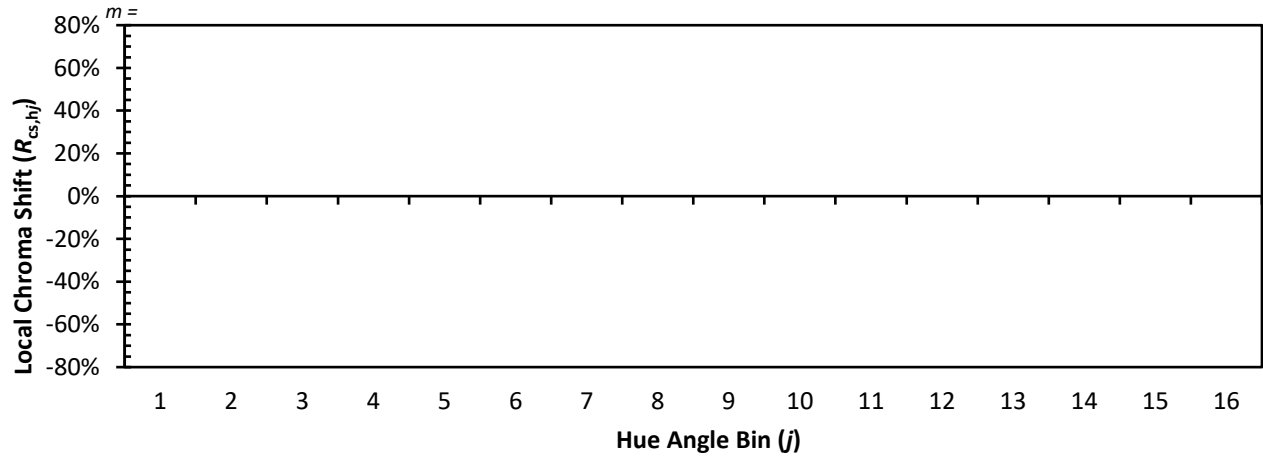
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CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
CES09 = 0	CES34 = 0	CES59 = 0	CES84 = 0
CES10 = 0	CES35 = 0	CES60 = 0	CES85 = 0
CES11 = 0	CES36 = 0	CES61 = 0	CES86 = 0
CES12 = 0	CES37 = 0	CES62 = 0	CES87 = 0
CES13 = 0	CES38 = 0	CES63 = 0	CES88 = 0
CES14 = 0	CES39 = 0	CES64 = 0	CES89 = 0
CES15 = 0	CES40 = 0	CES65 = 0	CES90 = 0
CES16 = 0	CES41 = 0	CES66 = 0	CES91 = 0
CES17 = 0	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 0	CES43 = 0	CES68 = 0	CES93 = 0
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CES20 = 0	CES45 = 0	CES70 = 0	CES95 = 0
CES21 = 0	CES46 = 0	CES71 = 0	CES96 = 0
CES22 = 0	CES47 = 0	CES72 = 0	CES97 = 0
CES23 = 0	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 0	CES49 = 0	CES74 = 0	CES99 = 0
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REPORT NUMBER: SP1-2511-597-8

TM-30-18

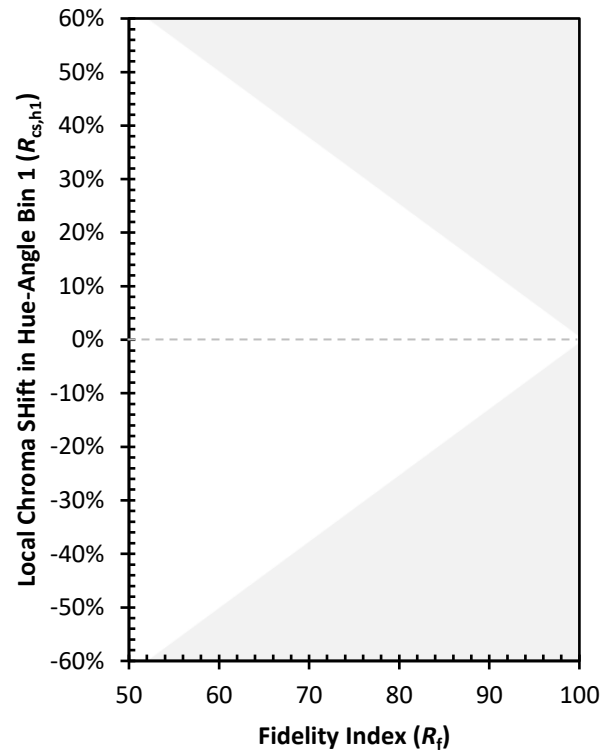
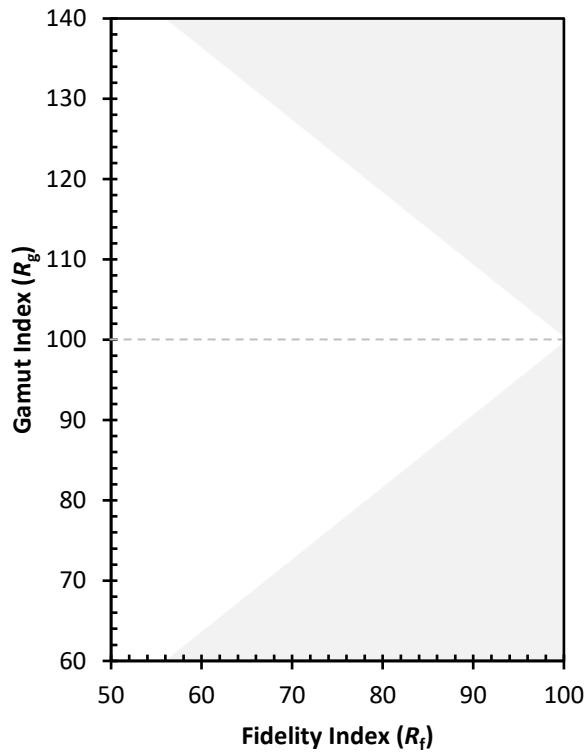
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2511-597-8

TM-30-18

Measure Comparisons



(END OF REPORT)