

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



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P830824

Luminaire Tested: **OHBL-90SE-MCL-UNV-L735-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2103-200-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-90SE-MCL-UNV-L735-CD
Description: 90000 LUMEN OHBL SE LED LUMINAIRE WITH 70CRI, 3500K LEDS AND MEDIUM CLEAR LENS
Light Source: -
Ballast/Driver: -

Summary

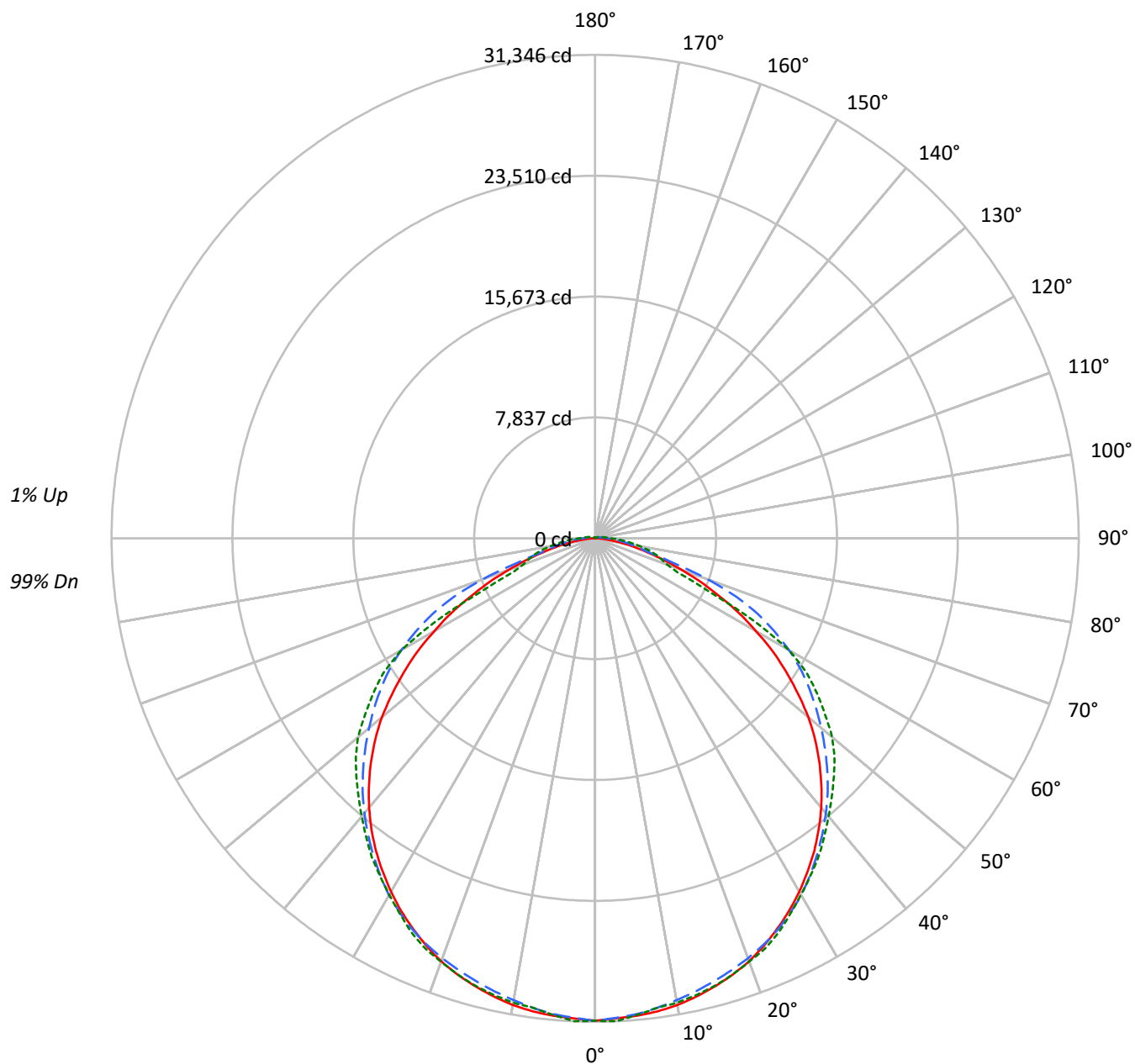
Lumens per Lamp: N/A
Luminaire Lumens: 88418.0 lumens
Efficiency: N/A
Efficacy: 167.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1.8' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 529
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: 25 FT

TEST NUMBER: P830824

CATALOG NUMBER: OHBL-90SE-MCL-UNV-L735-CD

Luminous Intensity Polar Plot





TEST NUMBER: P830824

CATALOG NUMBER: OHBL-90SE-MCL-UNV-L735-CD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	110	110	110	106	106	106	101	101	101			99
1	109	104	100	96	106	102	98	95	97	94	91	93	91	88	90	87	86			83
2	99	91	84	79	96	89	83	78	85	80	76	82	78	74	79	75	72			70
3	91	80	72	66	88	79	71	65	75	69	64	72	67	63	70	65	61			59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	62	57	53			51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	46	56	50	46			44
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	51	45	40			38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	46	40	36			34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	42	36	32			30
9	57	43	35	30	55	43	35	29	41	34	29	40	34	29	39	33	29			27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	36	30	26			24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49472	49472	49472
5°	49149	48754	48856
10°	48969	48015	48313
15°	48658	47463	47990
20°	48347	47115	47565
25°	47764	46764	47144
30°	47129	46213	46252
35°	46371	45336	45760
40°	45385	44431	45091
45°	44018	43383	44794
50°	42165	42191	44439
55°	39222	41018	42781
60°	35369	39302	39551
65°	30341	36115	25066
70°	24438	28194	18173
75°	18322	16736	18444
80°	12754	13916	17610
85°	7259	12751	16506



TEST NUMBER: P830824

CATALOG NUMBER: OHBL-90SE-MCL-UNV-L735-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2949.6	3.3
10°-20°	8458.2	9.6
20°-30°	12918.3	14.6
30°-40°	15674.3	17.7
40°-50°	16428.2	18.6
50°-60°	14886.4	16.8
60°-70°	9980.7	11.3
70°-80°	4481.8	5.1
80°-90°	1626.4	1.8
90°-100°	489.5	0.6
100°-110°	231.0	0.3
110°-120°	115.8	0.1
120°-130°	63.9	0.1
130°-140°	43.9	0.0
140°-150°	29.5	0.0
150°-160°	21.9	0.0
160°-170°	14.1	0.0
170°-180°	4.5	0.0
0°-30°	24326.1	27.5
0°-40°	40000.4	45.2
0°-60°	71315.0	80.7
0°-90°	87403.9	98.9
90°-120°	836.3	0.9
90°-150°	973.6	1.1
90°-180°	1014.0	1.1
0°-180°	88418.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	31282	31282	31282	31282	31282	
5°	31079	31187	30970	31065	31024	###
15°	30070	29952	29740	30002	30038	8490
25°	27935	27813	28008	28265	28184	12877
35°	24760	24819	25072	25339	25239	15476
45°	20549	20884	21272	21815	21883	15830
55°	15121	15849	16930	17609	17568	13497
65°	8874	10263	11652	9833	8029	8842
75°	3492	5066	3727	3813	4062	3816
85°	602	1153	1479	1787	1873	734
90°	4	384	764	959	1004	36
95°	4	240	525	638	656	6
105°	18	104	258	312	326	21
115°	36	54	131	167	176	34
125°	32	36	81	95	100	31
135°	41	45	50	72	77	32
145°	41	45	45	50	54	27
155°	45	50	50	50	45	21
165°	50	50	50	50	50	14
175°	50	50	45	41	41	5
180°	45	45	45	45	45	



TEST NUMBER: P830824

CATALOG NUMBER: OHBL-90SE-MCL-UNV-L735-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	31282.4	31282.4	31282.4	31282.4	31282.4
2.5°	31155.7	31286.9	31124.1	31300.5	31345.7
5°	31078.8	31187.4	30970.3	31065.3	31024.5
7.5°	30938.6	30974.8	30717.0	30793.9	30712.4
10°	30730.5	30712.4	30409.4	30558.7	30576.7
12.5°	30423.0	30368.7	30097.3	30323.4	30328.0
15°	30070.1	29952.5	29740.0	30002.3	30038.5
17.5°	29663.1	29509.3	29369.1	29708.3	29654.0
20°	29188.1	29007.2	28980.1	29351.0	29215.3
22.5°	28600.1	28459.9	28523.2	28876.0	28790.1
25°	27935.2	27813.1	28007.6	28265.4	28184.0
27.5°	27234.1	27161.7	27383.4	27582.4	27424.1
30°	26465.2	26424.5	26718.5	26881.3	26682.3
32.5°	25628.4	25641.9	25922.4	26144.0	25958.6
35°	24759.9	24818.7	25072.0	25338.9	25239.4
37.5°	23805.5	23936.7	24190.0	24493.1	24389.0
40°	22796.9	22986.8	23267.3	23633.7	23538.7
42.5°	21706.8	21946.5	22308.4	22715.4	22706.4
45°	20548.8	20883.6	21272.5	21815.3	21883.2
47.5°	19345.7	19721.1	20214.1	20937.8	21041.9
50°	18038.5	18508.9	19124.0	19992.5	20055.8
52.5°	16582.0	17224.3	18038.5	18870.7	18793.8
55°	15121.0	15849.2	16930.3	17608.8	17568.1
57.5°	13664.5	14483.2	15795.0	16279.0	16274.4
60°	12036.2	13072.0	14505.9	14872.2	14510.4
62.5°	10530.0	11642.7	13130.8	12863.9	11624.6
65°	8874.5	10263.1	11651.7	9833.4	8028.7
67.5°	7404.5	8851.9	9896.7	6735.0	5767.1
70°	5925.4	7522.1	7716.6	4998.1	4930.3
72.5°	4613.7	6314.4	5323.8	4278.9	4496.0
75°	3491.9	5066.0	3727.1	3813.0	4061.8
77.5°	2546.6	3889.9	2899.4	3342.6	3546.2
80°	1750.5	2754.6	2365.6	2808.9	2949.1
82.5°	1099.1	1818.3	1895.2	2261.6	2406.3
85°	601.6	1153.4	1479.1	1786.7	1872.6
87.5°	248.8	696.6	1130.8	1379.6	1451.9
90°	4.5	384.5	764.4	958.9	1004.1
92.5°	4.5	294.0	624.2	773.5	805.1
95°	4.5	239.7	524.7	637.8	655.9
97.5°	9.0	190.0	438.7	529.2	547.3
100°	13.6	158.3	366.4	443.3	456.8
102.5°	18.1	126.6	307.6	370.9	384.5
105°	18.1	104.0	257.8	312.1	325.7



TEST NUMBER: P830824

CATALOG NUMBER: OHBL-90SE-MCL-UNV-L735-CD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	31.7	63.3	153.8	194.5	203.5
115°	36.2	54.3	131.2	167.4	176.4
117.5°	36.2	45.2	113.1	140.2	149.3
120°	36.2	40.7	99.5	122.1	126.6
122.5°	36.2	36.2	85.9	108.6	113.1
125°	31.7	36.2	81.4	95.0	99.5
127.5°	36.2	36.2	72.4	85.9	90.5
130°	36.2	40.7	63.3	81.4	81.4
132.5°	40.7	45.2	58.8	76.9	76.9
135°	40.7	45.2	49.8	72.4	76.9
137.5°	45.2	45.2	45.2	67.8	72.4
140°	45.2	45.2	40.7	58.8	63.3
142.5°	40.7	45.2	40.7	54.3	58.8
145°	40.7	45.2	45.2	49.8	54.3
147.5°	45.2	45.2	45.2	45.2	49.8
150°	45.2	45.2	45.2	45.2	45.2
152.5°	45.2	45.2	45.2	45.2	45.2
155°	45.2	49.8	49.8	49.8	45.2
157.5°	45.2	49.8	49.8	49.8	49.8
160°	45.2	49.8	49.8	49.8	49.8
162.5°	49.8	49.8	49.8	49.8	49.8
165°	49.8	49.8	49.8	49.8	49.8
167.5°	49.8	54.3	49.8	49.8	49.8
170°	49.8	49.8	49.8	45.2	45.2
172.5°	49.8	49.8	49.8	45.2	45.2
175°	49.8	49.8	45.2	40.7	40.7
177.5°	54.3	49.8	45.2	40.7	36.2
180°	45.2	45.2	45.2	45.2	45.2



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°







107.5°	22.6	85.9	221.6	266.9	275.9
110°	27.1	72.4	185.5	226.2	235.2



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

Report Prepared for

Cooper Lighting Solutions

METALUX

Report Number: SP1-2307-100-2

Test Date: 08/03/2023

Luminaire Tested: OHB-15SE-N-UNV-L735-CD

Data in this report applies to families of products including OHB-15SE-N-UNV-L735-CD.

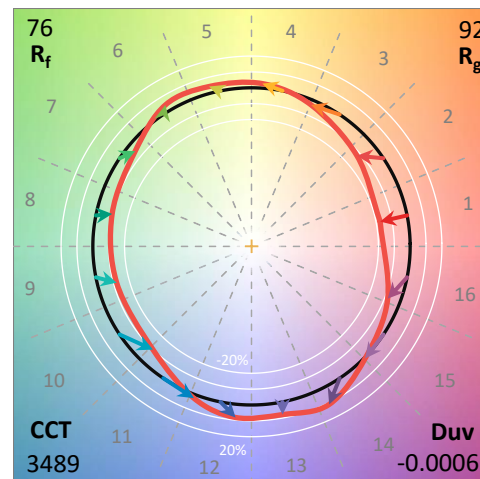
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2307-100-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/04/2023
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: **OHB-15SE-N-UNV-L735-CD**
 Description: 15000 LUMEN OHB SE LED LUMINAIRE WITH 70CRI, 3500K LEDS AND NARROW LENS

LENS

Spectral Parameters

CCT (K):	3489	CRI (Ra):	73.0		
CIE u':	0.2362	R1:	69.4	R9:	-30.0
CIE v':	0.5107	R2:	82.9	R10:	59.3
Duv:	-0.0006	R3:	92.6	R11:	62.7
CIE x:	0.4052	R4:	68.4	R12:	47.6
CIE y:	0.3895	R5:	68.8	R13:	72.2
CIE z:	0.2053	R6:	75.3	R14:	95.9
Peak Wavelength (nm):	588	R7:	79.3		
Dominant Wavelength (nm):	581	R8:	47.6		
Purity:	38.7				
Rf:	75.9				
Rg:	92.2				



Test Conditions

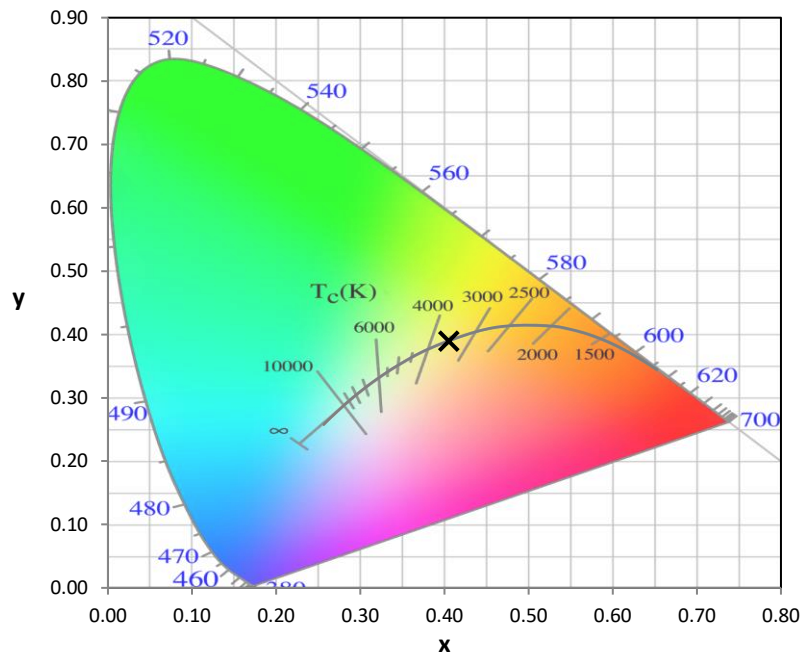
Stabilization Time: 28M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.7/58%
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2307-100-2

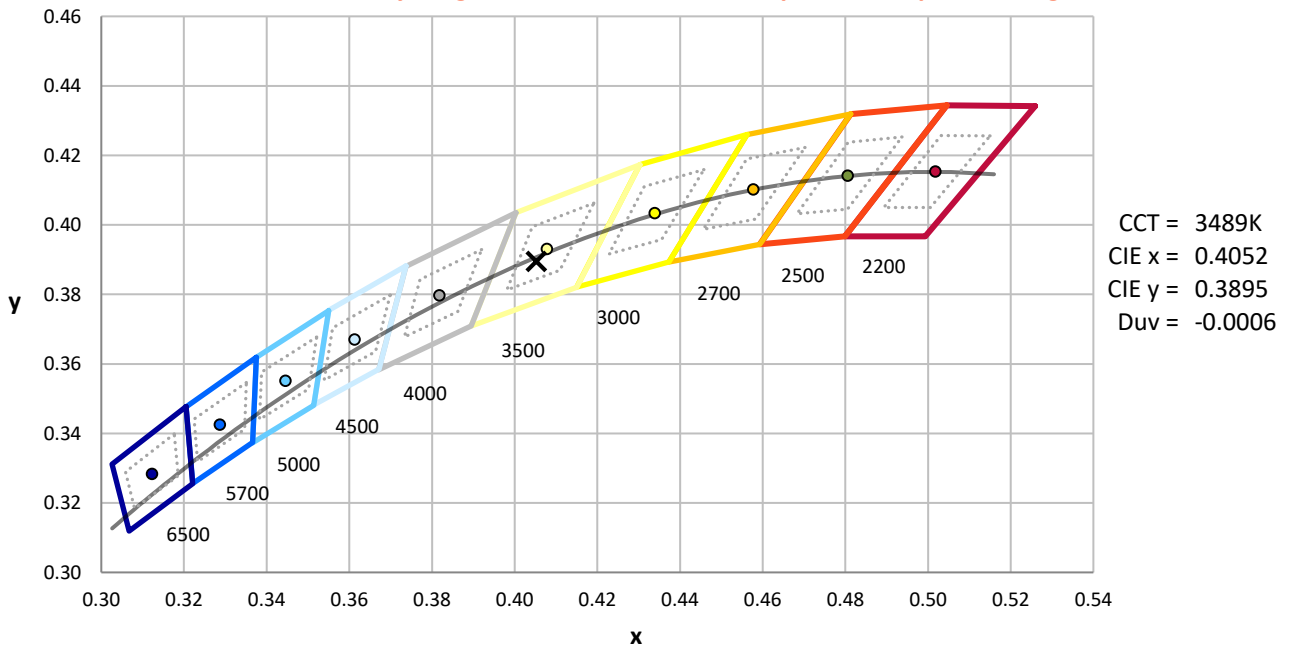
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/9/2023	8/9/2023
Power Meter	XITRON 2801 IN0071	11/29/2022	11/29/2023
AC Power Source	CHROMA 61603 IN0063	11/28/2022	11/28/2023
DC Power Source	AGILENT E3634A IN0208	11/28/2022	11/28/2023
Sphere Thermometer	ONSET IN0085	11/28/2022	11/28/2023
Room Thermometer	ONSET IN0046	11/28/2022	11/28/2023

REPORT NUMBER: SP1-2307-100-2

CIE 1931 Chromaticity Diagram



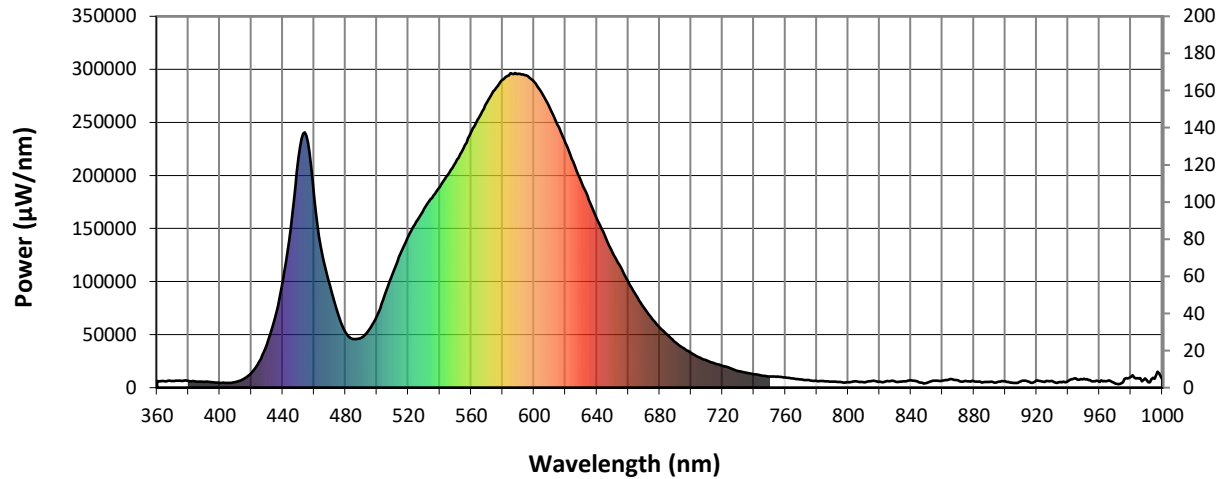
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2307-100-2

Photopic Flux vs. Wavelength

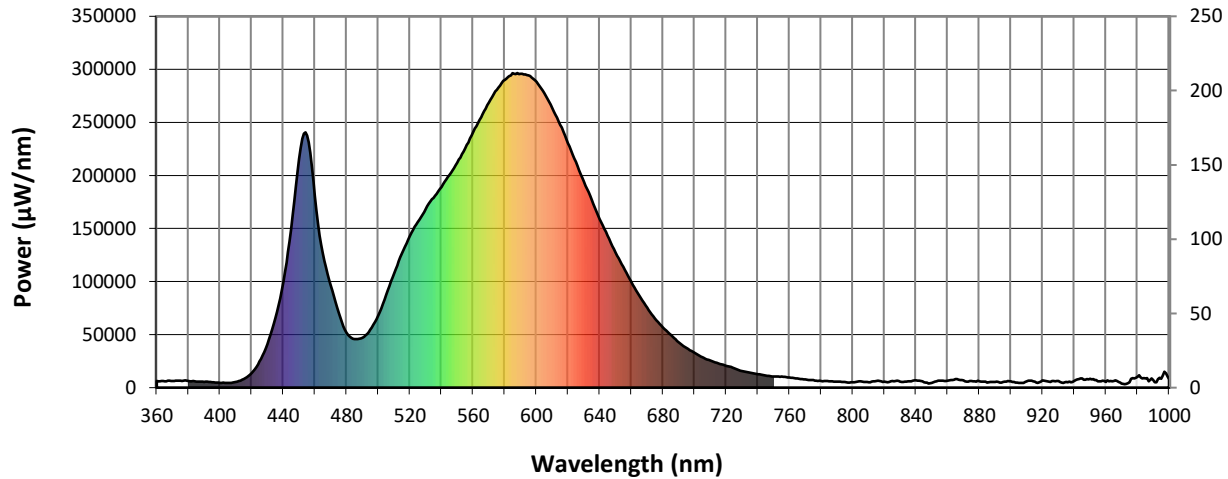


#####

λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	6366	NR	490	47130	NR	620	230435	NR	750	10555	NR	880	5822	NR
365	5925	NR	495	54424	NR	625	212935	NR	755	10386	NR	885	4770	NR
370	6268	NR	500	67766	NR	630	194319	NR	760	9571	NR	890	5279	NR
375	6497	NR	505	87548	NR	635	176714	NR	765	8796	NR	895	5445	NR
380	6318	NR	510	107612	NR	640	159022	NR	770	7688	NR	900	5934	NR
385	5716	NR	515	126336	NR	645	143212	NR	775	7039	NR	905	4594	NR
390	5462	NR	520	142943	NR	650	127214	NR	780	6282	NR	910	5910	NR
395	5187	NR	525	156046	NR	655	113910	NR	785	5849	NR	915	5732	NR
400	4568	NR	530	168399	NR	660	99647	NR	790	5698	NR	920	6817	NR
405	4481	NR	535	178779	NR	665	86667	NR	795	5315	NR	925	5494	NR
410	5393	NR	540	189196	NR	670	75195	NR	800	5004	NR	930	6404	NR
415	8052	NR	545	200610	NR	675	65133	NR	805	5848	NR	935	5273	NR
420	13696	NR	550	212065	NR	680	56714	NR	810	5027	NR	940	6245	NR
425	24563	NR	555	225598	NR	685	49746	NR	815	6212	NR	945	8810	NR
430	41084	NR	560	241077	NR	690	42689	NR	820	5650	NR	950	8264	NR
435	65723	NR	565	254881	NR	695	37295	NR	825	6411	NR	955	5892	NR
440	99807	NR	570	268758	NR	700	32779	NR	830	5679	NR	960	5507	NR
445	149359	NR	575	280646	NR	705	28556	NR	835	5857	NR	965	6242	NR
450	215870	NR	580	290065	NR	710	25496	NR	840	6910	NR	970	3723	NR
455	237735	NR	585	296284	NR	715	22794	NR	845	5135	NR	975	4991	NR
460	180903	NR	590	295851	NR	720	20477	NR	850	4417	NR	980	10241	NR
465	126687	NR	595	294360	NR	725	18231	NR	855	6494	NR	985	8801	NR
470	96291	NR	600	288175	NR	730	15637	NR	860	6521	NR	990	7127	NR
475	70550	NR	605	277740	NR	735	14130	NR	865	8026	NR	995	8514	NR
480	51790	NR	610	263525	NR	740	12715	NR	870	6772	NR	1000	7777	NR
485	45800	NR	615	247580	NR	745	11403	NR	875	6383	NR			

REPORT NUMBER: SP1-2307-100-2

Scotopic Flux vs. Wavelength



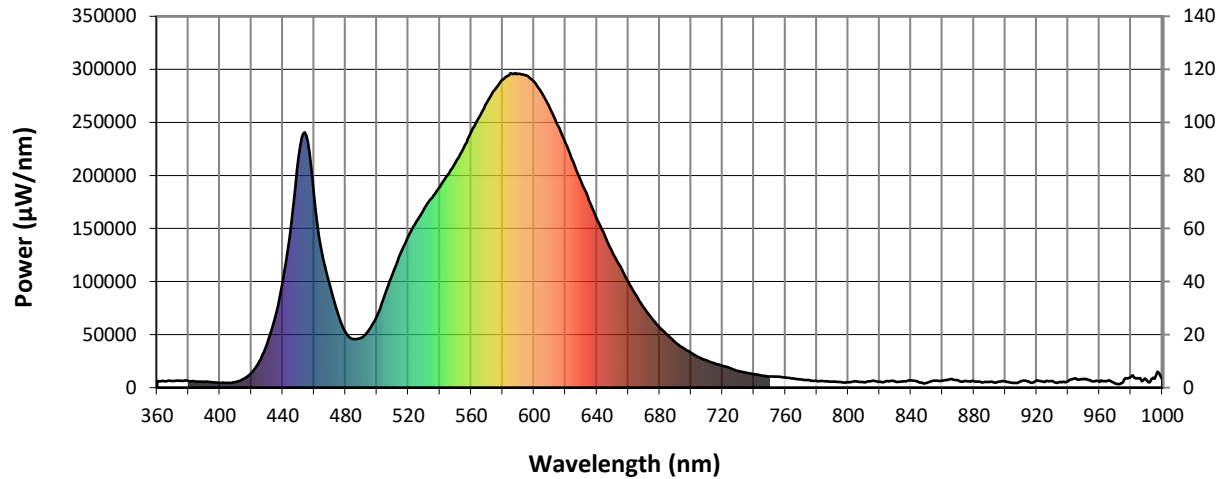
Scotopic Lumens: 21575.7

S/P: 1.41

λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	6366	NR	490	47130	NR	620	230435	NR	750	10555	NR	880	5822	NR
365	5925	NR	495	54424	NR	625	212935	NR	755	10386	NR	885	4770	NR
370	6268	NR	500	67766	NR	630	194319	NR	760	9571	NR	890	5279	NR
375	6497	NR	505	87548	NR	635	176714	NR	765	8796	NR	895	5445	NR
380	6318	NR	510	107612	NR	640	159022	NR	770	7688	NR	900	5934	NR
385	5716	NR	515	126336	NR	645	143212	NR	775	7039	NR	905	4594	NR
390	5462	NR	520	142943	NR	650	127214	NR	780	6282	NR	910	5910	NR
395	5187	NR	525	156046	NR	655	113910	NR	785	5849	NR	915	5732	NR
400	4568	NR	530	168399	NR	660	99647	NR	790	5698	NR	920	6817	NR
405	4481	NR	535	178779	NR	665	86667	NR	795	5315	NR	925	5494	NR
410	5393	NR	540	189196	NR	670	75195	NR	800	5004	NR	930	6404	NR
415	8052	NR	545	200610	NR	675	65133	NR	805	5848	NR	935	5273	NR
420	13696	NR	550	212065	NR	680	56714	NR	810	5027	NR	940	6245	NR
425	24563	NR	555	225598	NR	685	49746	NR	815	6212	NR	945	8810	NR
430	41084	NR	560	241077	NR	690	42689	NR	820	5650	NR	950	8264	NR
435	65723	NR	565	254881	NR	695	37295	NR	825	6411	NR	955	5892	NR
440	99807	NR	570	268758	NR	700	32779	NR	830	5679	NR	960	5507	NR
445	149359	NR	575	280646	NR	705	28556	NR	835	5857	NR	965	6242	NR
450	215870	NR	580	290065	NR	710	25496	NR	840	6910	NR	970	3723	NR
455	237735	NR	585	296284	NR	715	22794	NR	845	5135	NR	975	4991	NR
460	180903	NR	590	295851	NR	720	20477	NR	850	4417	NR	980	10241	NR
465	126687	NR	595	294360	NR	725	18231	NR	855	6494	NR	985	8801	NR
470	96291	NR	600	288175	NR	730	15637	NR	860	6521	NR	990	7127	NR
475	70550	NR	605	277740	NR	735	14130	NR	865	8026	NR	995	8514	NR
480	51790	NR	610	263525	NR	740	12715	NR	870	6772	NR	1000	7777	NR
485	45800	NR	615	247580	NR	745	11403	NR	875	6383	NR			

REPORT NUMBER: SP1-2307-100-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: 8294.3 M/P: 0.54

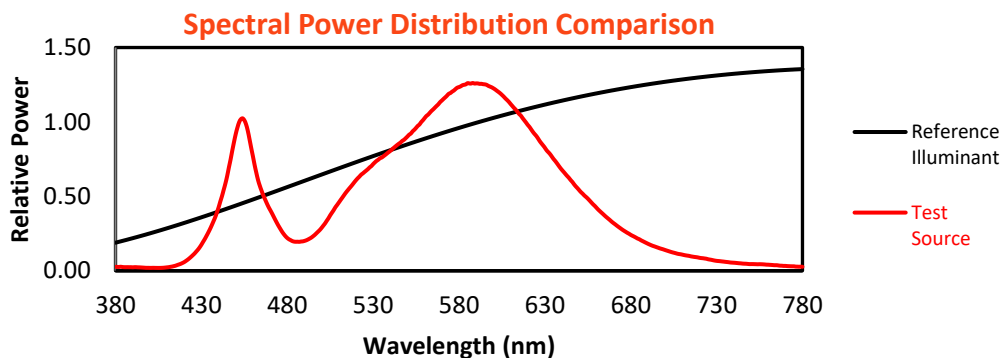
λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	6366	NR	490	47130	NR	620	230435	NR	750	10555	NR	880	5822	NR
365	5925	NR	495	54424	NR	625	212935	NR	755	10386	NR	885	4770	NR
370	6268	NR	500	67766	NR	630	194319	NR	760	9571	NR	890	5279	NR
375	6497	NR	505	87548	NR	635	176714	NR	765	8796	NR	895	5445	NR
380	6318	NR	510	107612	NR	640	159022	NR	770	7688	NR	900	5934	NR
385	5716	NR	515	126336	NR	645	143212	NR	775	7039	NR	905	4594	NR
390	5462	NR	520	142943	NR	650	127214	NR	780	6282	NR	910	5910	NR
395	5187	NR	525	156046	NR	655	113910	NR	785	5849	NR	915	5732	NR
400	4568	NR	530	168399	NR	660	99647	NR	790	5698	NR	920	6817	NR
405	4481	NR	535	178779	NR	665	86667	NR	795	5315	NR	925	5494	NR
410	5393	NR	540	189196	NR	670	75195	NR	800	5004	NR	930	6404	NR
415	8052	NR	545	200610	NR	675	65133	NR	805	5848	NR	935	5273	NR
420	13696	NR	550	212065	NR	680	56714	NR	810	5027	NR	940	6245	NR
425	24563	NR	555	225598	NR	685	49746	NR	815	6212	NR	945	8810	NR
430	41084	NR	560	241077	NR	690	42689	NR	820	5650	NR	950	8264	NR
435	65723	NR	565	254881	NR	695	37295	NR	825	6411	NR	955	5892	NR
440	99807	NR	570	268758	NR	700	32779	NR	830	5679	NR	960	5507	NR
445	149359	NR	575	280646	NR	705	28556	NR	835	5857	NR	965	6242	NR
450	215870	NR	580	290065	NR	710	25496	NR	840	6910	NR	970	3723	NR
455	237735	NR	585	296284	NR	715	22794	NR	845	5135	NR	975	4991	NR
460	180903	NR	590	295851	NR	720	20477	NR	850	4417	NR	980	10241	NR
465	126687	NR	595	294360	NR	725	18231	NR	855	6494	NR	985	8801	NR
470	96291	NR	600	288175	NR	730	15637	NR	860	6521	NR	990	7127	NR
475	70550	NR	605	277740	NR	735	14130	NR	865	8026	NR	995	8514	NR
480	51790	NR	610	263525	NR	740	12715	NR	870	6772	NR	1000	7777	NR
485	45800	NR	615	247580	NR	745	11403	NR	875	6383	NR			

REPORT NUMBER: SP1-2307-100-2

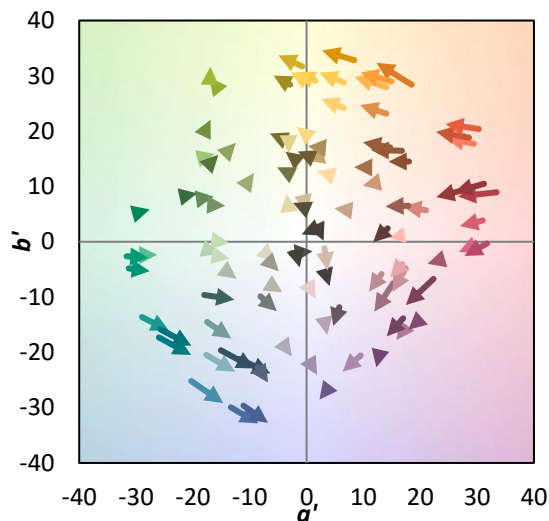
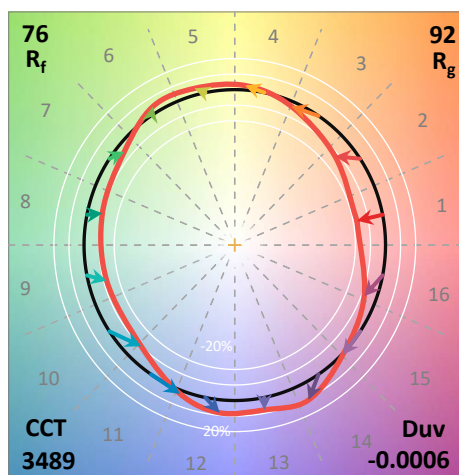
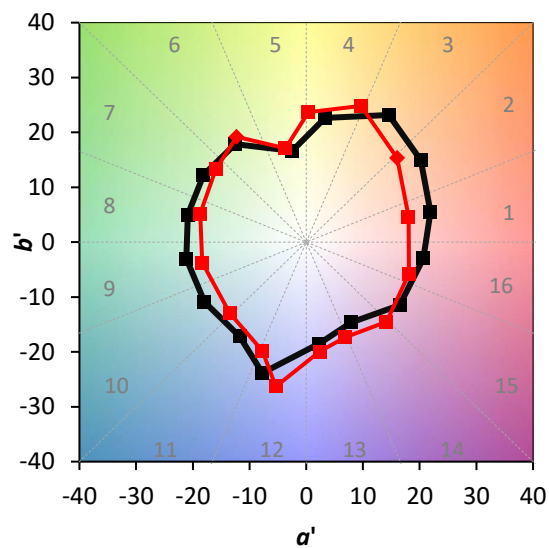
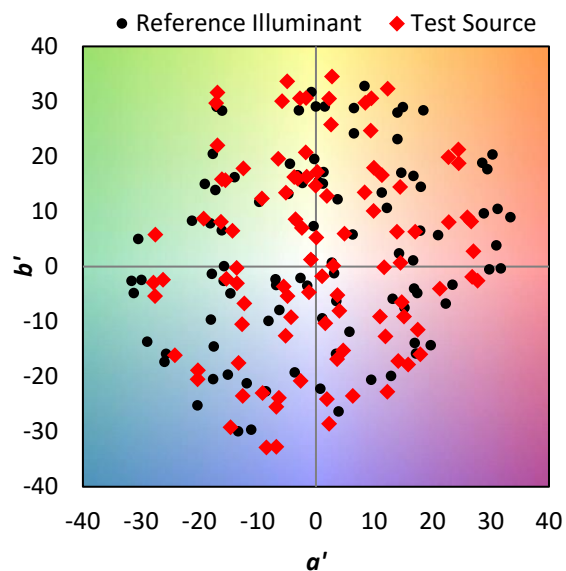
TM-30-18

Summary

$R_f = 75.9$
 $R_g = 92.2$
 CIE $R_a = 73.0$
 $R_g = -30.0$



Color Vector Graphics

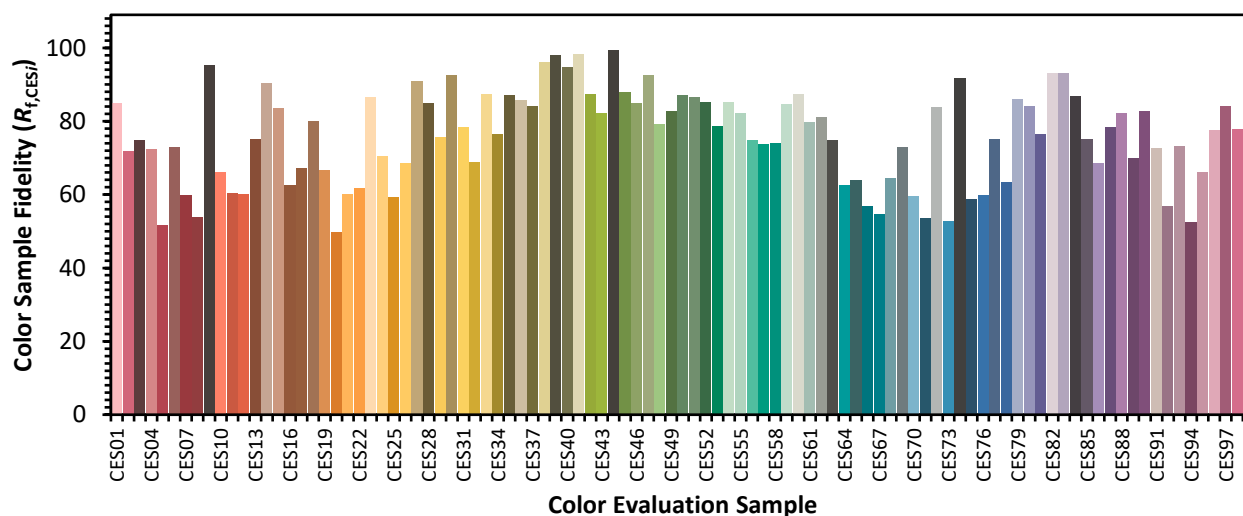


REPORT NUMBER: SP1-2307-100-2

TM-30-18

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

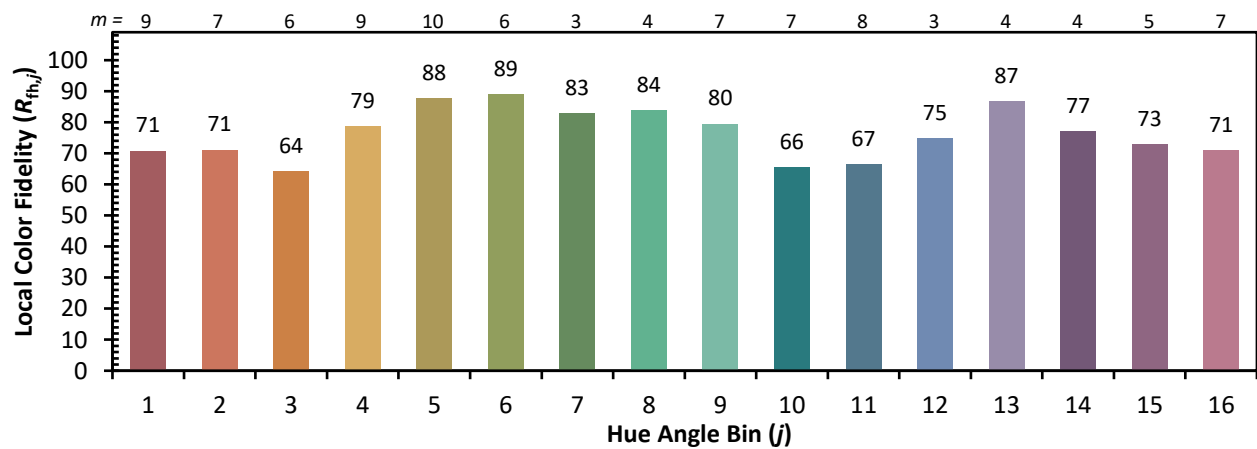
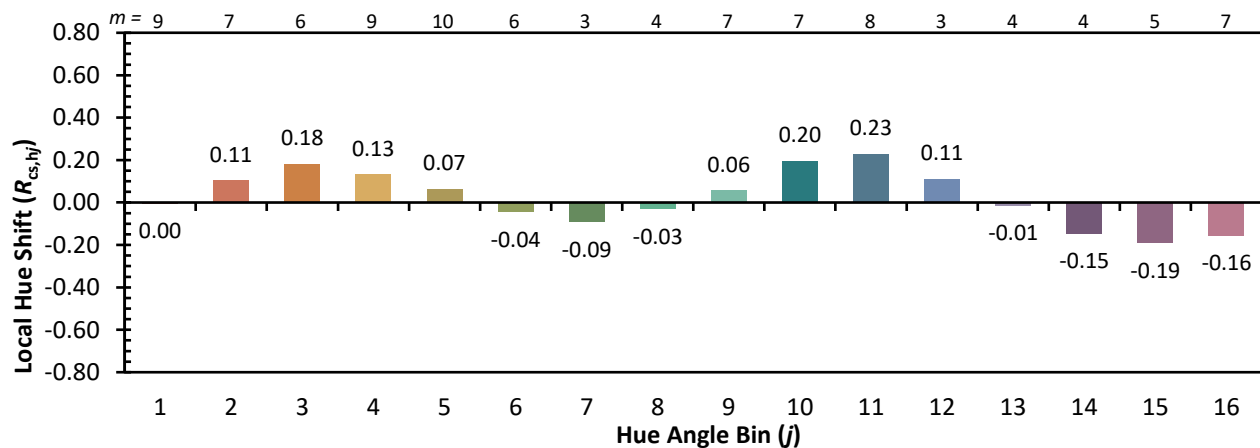
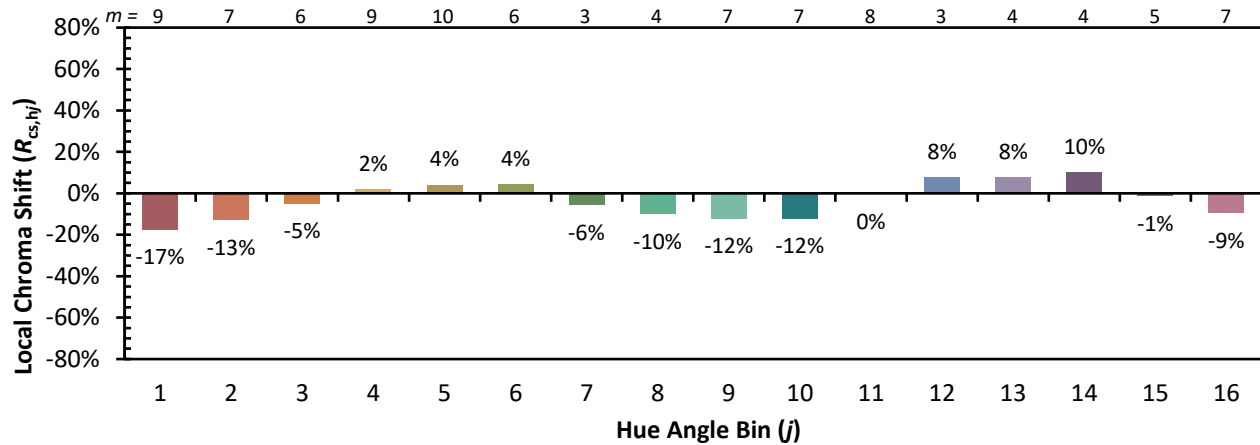
CES01 = 86	CES26 = 69	CES51 = 87	CES76 = 60
CES02 = 62	CES27 = 91	CES52 = 85	CES77 = 75
CES03 = 31	CES28 = 85	CES53 = 79	CES78 = 63
CES04 = 70	CES29 = 76	CES54 = 85	CES79 = 86
CES05 = 48	CES30 = 93	CES55 = 82	CES80 = 84
CES06 = 51	CES31 = 78	CES56 = 75	CES81 = 77
CES07 = 40	CES32 = 69	CES57 = 74	CES82 = 93
CES08 = 39	CES33 = 87	CES58 = 74	CES83 = 93
CES09 = 29	CES34 = 77	CES59 = 85	CES84 = 87
CES10 = 75	CES35 = 87	CES60 = 87	CES85 = 75
CES11 = 58	CES36 = 86	CES61 = 80	CES86 = 68
CES12 = 64	CES37 = 84	CES62 = 81	CES87 = 78
CES13 = 42	CES38 = 96	CES63 = 75	CES88 = 82
CES14 = 74	CES39 = 98	CES64 = 63	CES89 = 70
CES15 = 71	CES40 = 95	CES65 = 64	CES90 = 83
CES16 = 47	CES41 = 98	CES66 = 57	CES91 = 73
CES17 = 50	CES42 = 87	CES67 = 55	CES92 = 57
CES18 = 56	CES43 = 82	CES68 = 64	CES93 = 73
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 52
CES20 = 65	CES45 = 88	CES70 = 60	CES95 = 66
CES21 = 87	CES46 = 85	CES71 = 54	CES96 = 78
CES22 = 79	CES47 = 92	CES72 = 84	CES97 = 84
CES23 = 92	CES48 = 79	CES73 = 53	CES98 = 78
CES24 = 91	CES49 = 83	CES74 = 92	CES99 = 66
CES25 = 72	CES50 = 87	CES75 = 59	



REPORT NUMBER: SP1-2307-100-2

TM-30-18

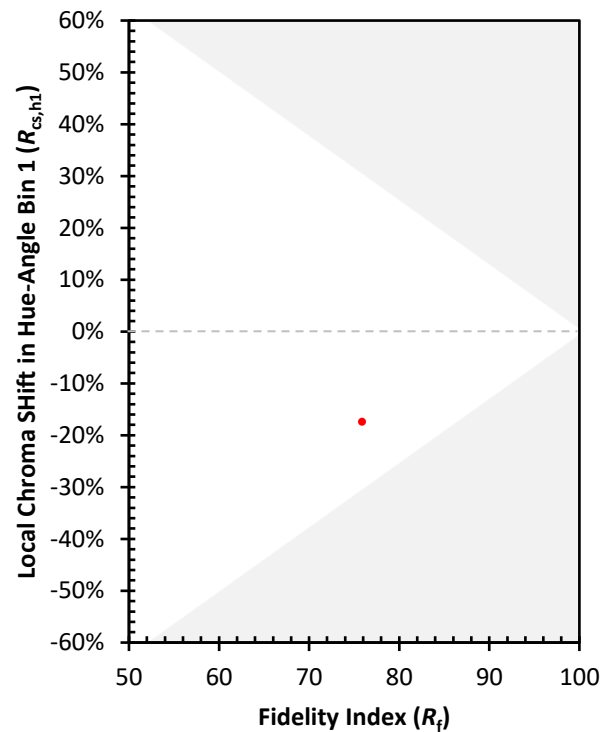
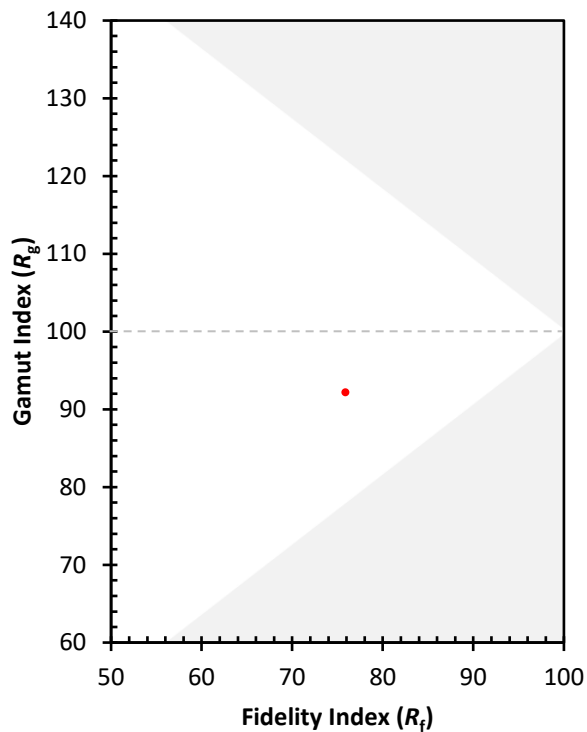
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2307-100-2

TM-30-18

Measure Comparisons



(END OF REPORT)