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: METALUX

Report Number: P1433125

Luminaire Tested: EHBR1-18-UNV-ASM-L930-UPL24

Issue Date: 3/20/2026

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1433125
	REPORT IS A COMBINATION OF REPORTS P1431679 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-ASM-L930-UPL24
Description:	Elevate Round Highbay at, 19000 lumens, 3000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	18522.3 lumens
Efficiency:	N/A
Efficacy:	166.6 lumens/watt
Spacing Criteria (0/90/45):	0.84 / 0.99 / 0.92
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Semi-Direct

Input Watts (W):	111.2
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

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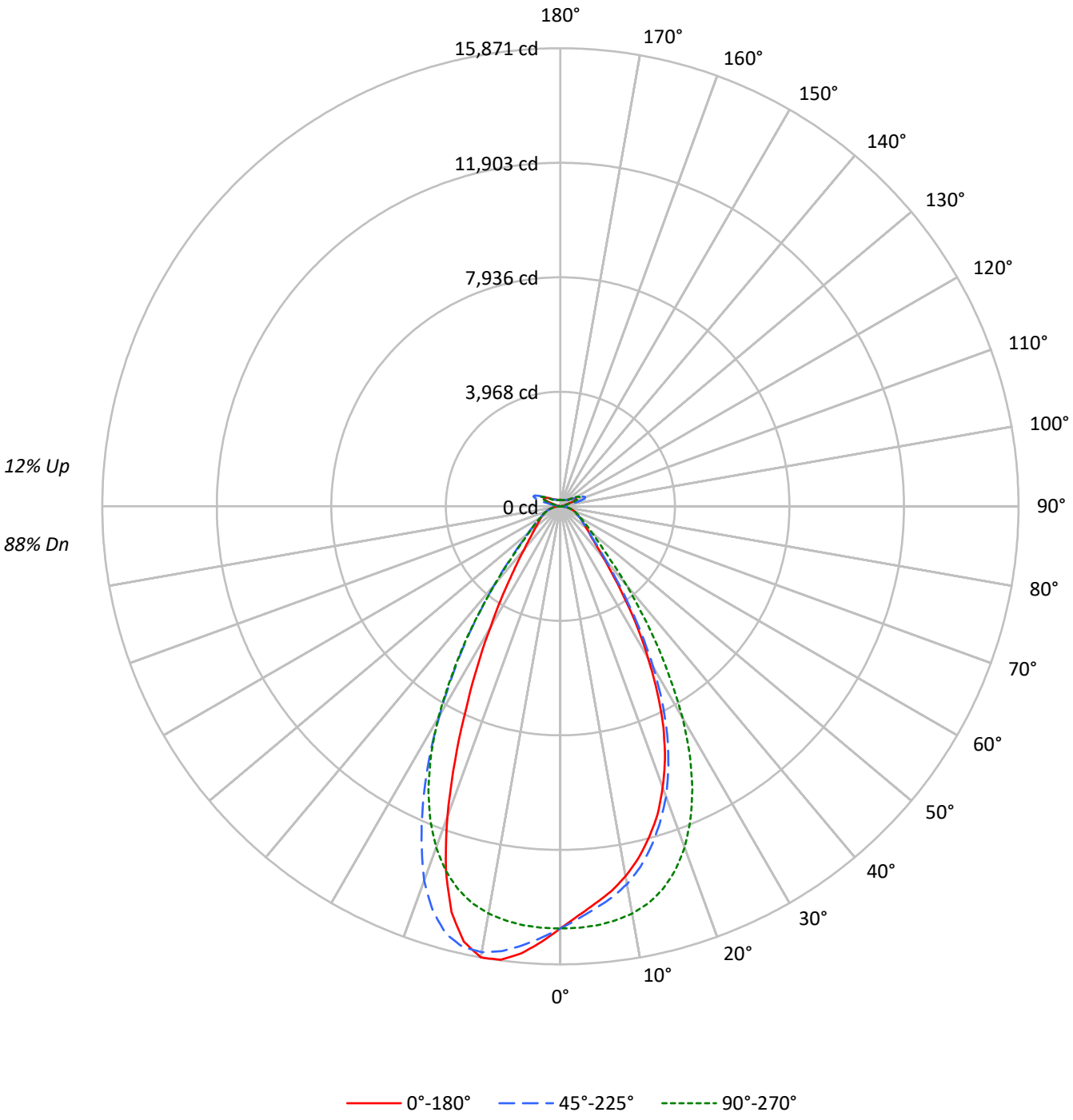
Scaled Data Report

TEST NUMBER: P1433125
CATALOG NUMBER: EHBR1-18-UNV-ASM-L930-UPL24

Luminous Intensity Polar Plot



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TEST NUMBER: P1433125
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																		
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	91	91	91	88
1	109	105	102	99	105	102	99	97	96	94	92	90	88	87	85	84	82	80
2	102	96	91	87	98	93	89	85	88	84	81	83	80	78	79	76	74	72
3	95	88	82	77	92	85	80	75	81	76	73	77	73	70	73	70	68	65
4	90	80	74	69	87	79	72	68	75	70	66	71	67	64	68	65	62	60
5	84	74	67	62	81	73	66	62	69	64	60	66	62	58	64	60	57	55
6	79	69	62	57	77	67	61	56	65	59	55	62	57	54	60	56	52	50
7	75	64	57	52	72	63	56	52	60	55	51	58	53	50	56	52	49	47
8	71	60	53	48	69	59	52	48	57	51	47	55	50	46	53	48	45	44
9	67	56	49	45	65	55	49	44	53	48	44	51	46	43	50	45	42	41
10	63	53	46	42	62	52	46	42	50	45	41	48	44	40	47	43	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	68686	68686	68686	68686	68686
5°	64725	65481	68268	71542	72828
10°	61257	62554	67428	73839	74698
15°	56584	58096	65438	73081	69418
20°	50401	52099	61200	67176	55664
25°	42238	43836	54167	56346	38568
30°	31602	33435	43982	43543	25090
35°	21038	22308	31545	31036	16249
40°	13268	14180	20395	20526	11200
45°	9454	9847	12940	13496	8675
50°	7874	7937	9610	9860	7372
55°	6951	6968	7846	8053	6715
60°	6436	6381	6794	6938	6398
65°	6144	6088	6193	6315	6169
70°	5966	5864	5870	5983	6045
75°	5673	5502	5489	5684	5849
80°	5161	4802	4823	5161	5520
85°	3759	3119	3119	3567	3942

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 18193 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1390.7	7.5
10°-20°	3783.5	20.4
20°-30°	4437.3	24.0
30°-40°	3085.9	16.7
40°-50°	1533.5	8.3
50°-60°	917.2	5.0
60°-70°	645.6	3.5
70°-80°	415.9	2.2
80°-90°	135.9	0.7
90°-100°	57.8	0.3
100°-110°	378.9	2.0
110°-120°	700.1	3.8
120°-130°	415.9	2.2
130°-140°	251.3	1.4
140°-150°	173.6	0.9
150°-160°	113.1	0.6
160°-170°	64.7	0.3
170°-180°	21.4	0.1
0°-30°	9611.6	51.9
0°-40°	12697.4	68.6
0°-60°	15148.2	81.8
0°-90°	16345.5	88.2
90°-120°	1136.8	6.1
90°-150°	1977.6	10.7
90°-180°	2177.0	11.8
0°-180°	18522.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14626	14626	14626	14626	14626	
5°	13820	13981	14576	15275	15550	1296
15°	11871	12188	13728	15332	14564	3311
25°	8435	8754	10817	11252	7702	3806
35°	3861	4094	5790	5696	2982	2460
45°	1530	1593	2094	2184	1404	1236
55°	939	942	1060	1088	908	852
65°	641	636	646	659	644	637
75°	400	388	387	400	412	422
85°	129	107	107	123	136	133
90°	16	44	16	47	18	14
95°	27	98	31	84	29	26
105°	132	662	174	706	88	176
115°	605	782	745	866	636	558
125°	437	419	477	464	499	398
135°	319	321	301	336	348	250
145°	264	277	272	279	284	167
155°	234	242	242	242	252	109
165°	222	228	227	226	233	63
175°	221	225	225	224	229	21
180°	225	225	225	225	225	

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Scaled Data Report

TEST NUMBER: P1433125
CATALOG NUMBER: EHBR1-18-UNV-ASM-L930-UPL24

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	14626.1	14626.1	14626.1	14626.1	14626.1	14626.1	14626.1	14626.1	*14626.1*
2.5°	14191.9	14201.3	14300.6	14429.7	14617.5	14806.6	14959.6	15060.5	*15110.4*
5°	13819.8	13871.3	13981.3	14218.6	14576.2	14954.7	15275.3	15485.1	*15550.0*
7.5°	13457.2	13487.0	13671.2	13970.8	14477.2	15066.9	15543.3	15788.1	*15847.9*
10°	*13014.8*	*13082.6*	*13290.5*	*13644.0*	*14326.1*	*15137.6*	*15688.1*	*15863.5*	*15870.7*
12.5°	12494.2	12584.0	12798.7	13244.7	14085.0	15112.4	15639.5	15581.9	*15451.0*
15°	11871.1	11949.8	12188.2	12705.4	13728.5	14962.9	15332.1	14863.3	*14563.5*
17.5°	11198.1	11269.4	11476.5	12046.1	13226.0	14683.1	14690.3	13763.0	*13197.4*
20°	10358.9	10414.8	10707.8	11266.7	12578.4	14234.4	13806.6	12110.6	*11440.5*
22.5°	9465.9	9518.3	9778.5	10360.2	11766.6	13629.5	12575.9	10448.3	*9534.1*
25°	8434.9	8463.4	8754.1	9280.2	10817.2	12888.1	11252.2	8637.0	*7701.9*
27.5°	7275.1	7323.6	7627.8	8165.1	9700.3	11948.5	9842.5	7057.8	*6195.0*
30°	6078.7	6159.1	6431.2	6912.2	8459.9	10743.9	8375.4	5620.7	*4826.1*
32.5°	4962.2	5020.1	5214.0	5716.7	7071.0	9563.3	6966.5	4503.6	*3830.7*
35°	3861.3	3919.2	4094.4	4588.1	5789.6	8086.0	5696.2	3538.8	*2982.3*
37.5°	2951.6	3053.9	3166.3	3567.1	4543.7	6690.3	4540.7	2849.6	*2419.0*
40°	2299.7	2316.2	2457.7	2714.1	3535.0	5231.3	3557.7	2274.7	*1941.3*
42.5°	1840.8	1885.6	1946.4	2138.4	2678.4	4000.1	2796.4	1866.9	*1648.9*
45°	1529.6	1547.1	1593.2	1722.1	2093.7	2943.6	2183.6	1575.1	*1403.6*
47.5°	1338.1	1330.5	1360.1	1456.6	1705.1	2275.0	1769.8	1351.0	*1230.8*
50°	1173.5	1168.9	1182.9	1247.3	1432.2	1745.7	1469.5	1179.3	*1098.7*
52.5°	1045.8	1049.9	1051.3	1091.3	1230.3	1423.7	1251.4	1051.0	*996.7*
55°	939.4	944.5	941.6	971.2	1060.3	1196.9	1088.3	945.1	*907.5*
57.5°	856.2	852.4	848.3	864.2	931.2	1015.3	945.1	854.9	*829.9*
60°	773.7	770.1	767.1	777.5	816.7	879.3	834.0	776.2	*769.1*
62.5°	702.9	700.7	700.4	698.6	728.7	768.2	737.5	705.4	*699.1*
65°	641.3	638.8	635.5	632.4	646.4	683.1	659.1	641.8	*643.9*
67.5°	579.5	579.5	573.7	569.1	582.8	602.0	591.5	581.7	*584.1*
70°	523.5	523.8	514.5	511.0	515.1	535.7	525.0	526.3	*530.4*
72.5°	463.5	456.9	450.0	449.8	450.3	466.2	462.7	466.0	*470.3*
75°	399.6	391.9	387.6	382.6	386.7	398.8	400.4	405.1	*412.0*
77.5°	337.9	326.1	322.5	320.1	317.3	331.1	336.2	342.6	*352.7*
80°	271.5	258.6	252.6	249.1	253.7	260.0	271.5	276.2	*290.4*
82.5°	200.8	191.1	183.8	183.5	185.7	191.4	201.3	210.0	*218.3*
85°	129.2	113.8	107.2	109.7	107.2	116.0	122.6	133.0	*135.5*
87.5°	46.6	36.4	34.8	38.4	37.6	40.3	46.1	50.2	*50.4*
90°	16.0	25.6	43.7	28.0	16.0	27.0	46.6	25.7	*17.9*
92.5°	23.2	38.9	70.1	36.4	20.8	36.6	65.9	34.1	*23.9*
95°	26.7	44.8	97.8	48.5	30.7	45.1	83.9	37.7	*28.7*
97.5°	34.2	49.6	112.3	59.3	47.5	56.0	94.7	40.2	*34.8*
100°	45.1	58.1	174.9	72.8	63.2	63.2	173.1	46.2	*39.6*
102.5°	76.4	123.2	371.2	136.6	95.7	123.7	400.9	92.3	*48.0*
105°	131.8	259.2	661.5	286.0	174.0	282.7	705.7	238.0	*88.0*
107.5°	228.1	464.0	872.5	506.4	329.4	527.1	909.2	469.3	*204.9*
110°	425.7	615.7	914.7	695.5	526.8	736.7	992.3	642.7	*414.4*

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Scaled Data Report

TEST NUMBER: P1433125
CATALOG NUMBER: EHBR1-18-UNV-ASM-L930-UPL24

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	575.1	661.5	876.2	767.7	685.8	821.0	969.5	712.6	*573.4*
115°	605.2	636.2	782.2	749.7	745.2	809.0	865.8	710.1	*636.0*
117.5°	584.7	580.8	664.2	674.1	719.9	740.4	747.8	666.8	*639.7*
120°	541.4	517.0	554.6	588.6	650.0	641.5	630.0	602.9	*603.5*
122.5°	487.1	458.2	475.3	500.9	562.3	544.3	532.5	538.2	*554.1*
125°	436.8	407.6	419.0	425.3	476.8	458.8	464.1	482.8	*498.9*
127.5°	392.3	372.7	379.3	372.3	404.8	396.4	414.7	435.9	*449.6*
130°	362.2	345.2	354.2	337.7	353.3	355.5	379.8	397.5	*406.3*
132.5°	337.1	326.2	336.8	316.6	321.2	330.4	353.7	368.9	*374.0*
135°	319.0	309.7	321.2	302.4	300.9	314.8	335.9	345.8	*347.5*
137.5°	303.6	295.5	307.2	293.0	289.2	303.1	319.0	326.8	*324.6*
140°	289.8	282.8	295.4	284.6	282.2	296.1	303.3	312.3	*310.4*
142.5°	274.7	269.8	284.9	277.7	275.3	287.9	291.6	298.1	*295.9*
145°	264.4	260.7	276.7	272.9	271.9	281.2	278.6	287.3	*284.2*
147.5°	255.3	252.9	267.3	265.8	265.8	272.9	269.2	276.7	*273.7*
150°	247.4	245.0	259.1	257.7	258.9	263.7	258.6	267.3	*266.6*
152.5°	239.5	236.9	249.8	248.4	249.5	254.3	249.5	259.4	*258.5*
155°	234.0	231.3	241.9	241.4	241.7	244.1	241.7	251.6	*251.8*
157.5°	230.1	228.3	236.4	236.2	236.2	237.7	236.4	245.2	*245.5*
160°	227.0	225.5	232.5	232.2	231.3	233.7	232.8	240.3	*240.5*
162.5°	223.9	222.4	230.6	229.4	229.4	229.4	228.8	236.2	*236.8*
165°	222.1	221.8	227.5	227.5	226.6	227.8	225.9	231.3	*233.1*
167.5°	222.1	220.8	226.9	226.9	225.9	224.7	225.3	229.7	*231.5*
170°	221.4	221.1	225.9	225.0	223.8	224.0	223.5	227.9	*229.6*
172.5°	221.9	221.6	226.7	225.5	224.7	224.7	223.1	226.3	*229.2*
175°	221.4	221.1	224.9	224.9	225.2	224.3	223.6	225.6	*228.6*
177.5°	222.8	222.5	224.9	224.9	224.0	224.6	225.1	227.1	*231.3*
180°	224.6	224.6	224.6	224.6	224.6	224.6	224.6	224.6	*224.6*

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Scaled Data Report

TEST NUMBER: P1433125
CATALOG NUMBER: EHBR1-18-UNV-ASM-L930-UPL24

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	14.25	15.29	14.82	15.83	16.44	15.02	16.06	15.58	16.60	17.20
	3H	16.06	16.99	16.64	17.55	18.19	16.57	17.50	17.15	18.06	18.70
	4H	16.80	17.66	17.40	18.23	18.90	17.22	18.08	17.82	18.65	19.32
	6H	17.36	18.16	17.97	18.75	19.42	17.71	18.51	18.32	19.09	19.76
	8H	17.55	18.30	18.17	18.90	19.58	17.87	18.62	18.49	19.22	19.90
	12H	17.64	18.36	18.27	18.96	19.66	17.94	18.66	18.57	19.26	19.96
4H	2H	14.76	15.63	15.36	16.20	16.86	15.39	16.26	15.99	16.83	17.49
	3H	16.80	17.51	17.41	18.13	18.80	17.20	17.91	17.81	18.53	19.20
	4H	17.66	18.30	18.29	18.93	19.64	17.98	18.62	18.61	19.25	19.96
	6H	18.35	18.91	19.00	19.55	20.28	18.61	19.17	19.26	19.82	20.54
	8H	18.58	19.10	19.23	19.74	20.47	18.82	19.33	19.47	19.98	20.71
	12H	18.71	19.17	19.38	19.84	20.58	18.93	19.39	19.60	20.06	20.80
8H	4H	17.92	18.44	18.57	19.08	19.81	18.22	18.74	18.88	19.38	20.12
	6H	18.73	19.15	19.42	19.85	20.58	18.98	19.41	19.67	20.10	20.83
	8H	19.03	19.41	19.74	20.11	20.86	19.27	19.64	19.97	20.34	21.09
	12H	19.23	19.56	19.93	20.24	21.07	19.45	19.78	20.15	20.46	21.28
12H	4H	17.92	18.38	18.59	19.05	19.79	18.23	18.69	18.90	19.36	20.10
	6H	18.77	19.15	19.47	19.85	20.60	19.03	19.40	19.73	20.10	20.85
	8H	19.12	19.44	19.81	20.13	20.95	19.36	19.68	20.05	20.37	21.19

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-5

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L930-N

Data in this report applies to families of products including EHBR-60-L930-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

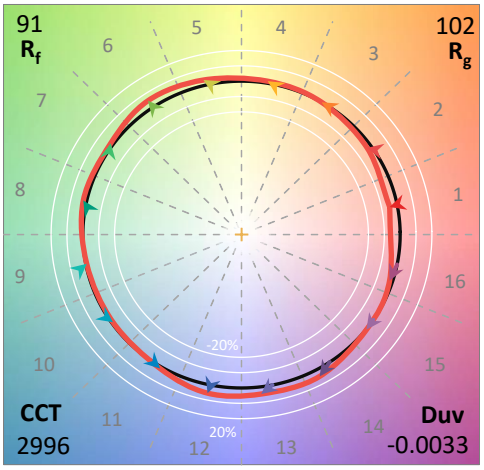
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-5
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/05/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Metalux
Catalog Number:	**EHBR-60-L930-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	2996
CIE u':	0.2519
CIE v':	0.5169
Duv:	-0.0033
CIE x:	0.4325
CIE y:	0.3945
CIE z:	0.1730
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	584
Purity:	48.21818
Rf:	91.3
Rg:	102

CRI (Ra):	94.4
R1:	96.8
R2:	98.1
R3:	97.8
R4:	95.6
R5:	96.9
R6:	95.7
R7:	90.9
R8:	83.0
R9:	61.4
R10:	94.4
R11:	95.7
R12:	88.5
R13:	97.3
R14:	97.8
R15:	92.3



Test Conditions

Stabilization Time:	40M
Operation Time:	1H 40M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-5

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

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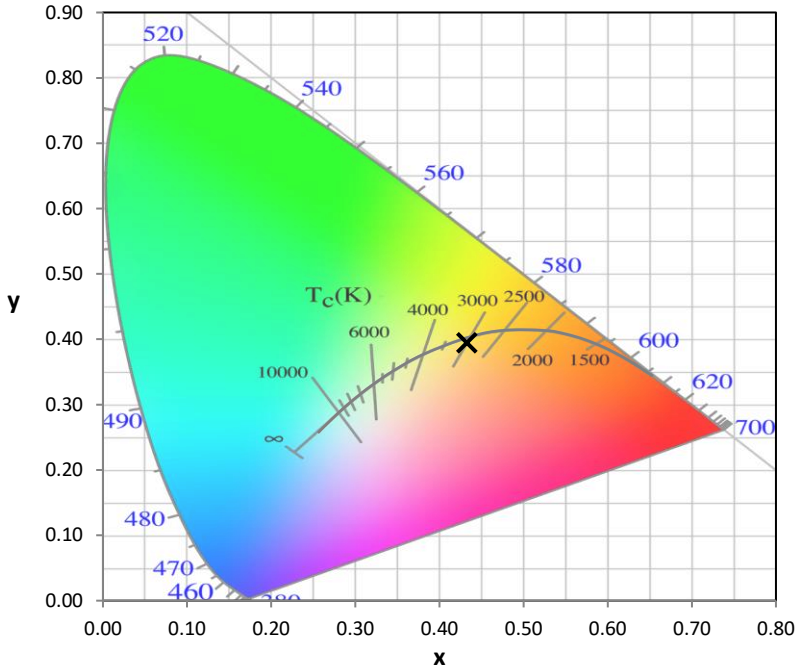
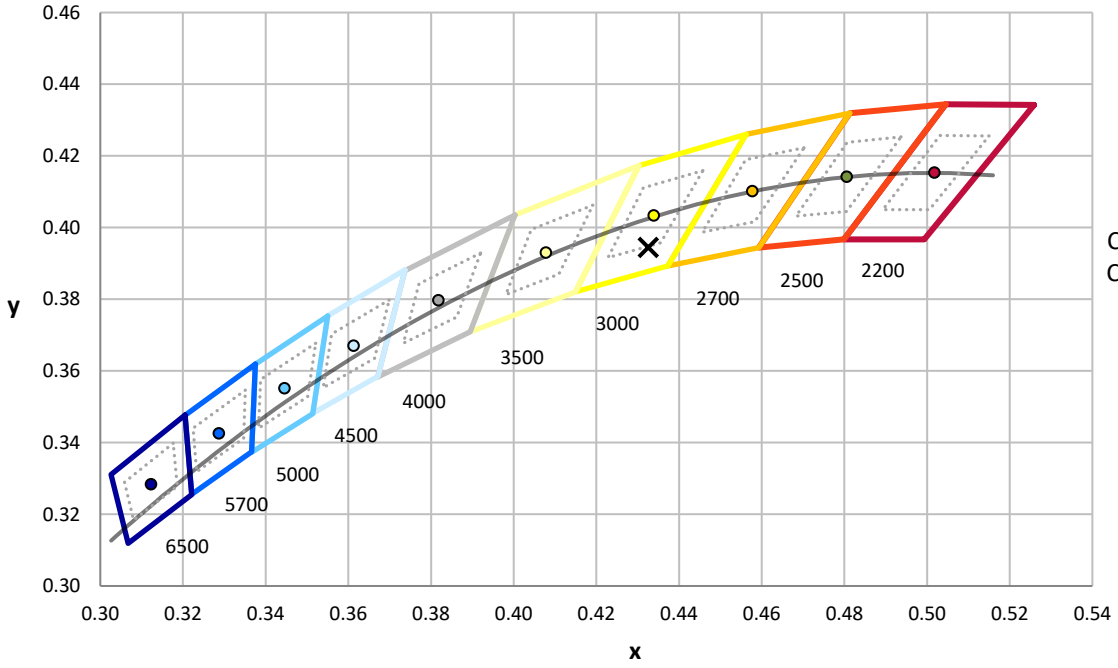
CIE 1931 Chromaticity Diagram



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



CCT = 2996K
CIE x = 0.4325
CIE y = 0.3945
Duv = -0.0033

Point lies inside the ANSI 3000K 7-step quadrangle

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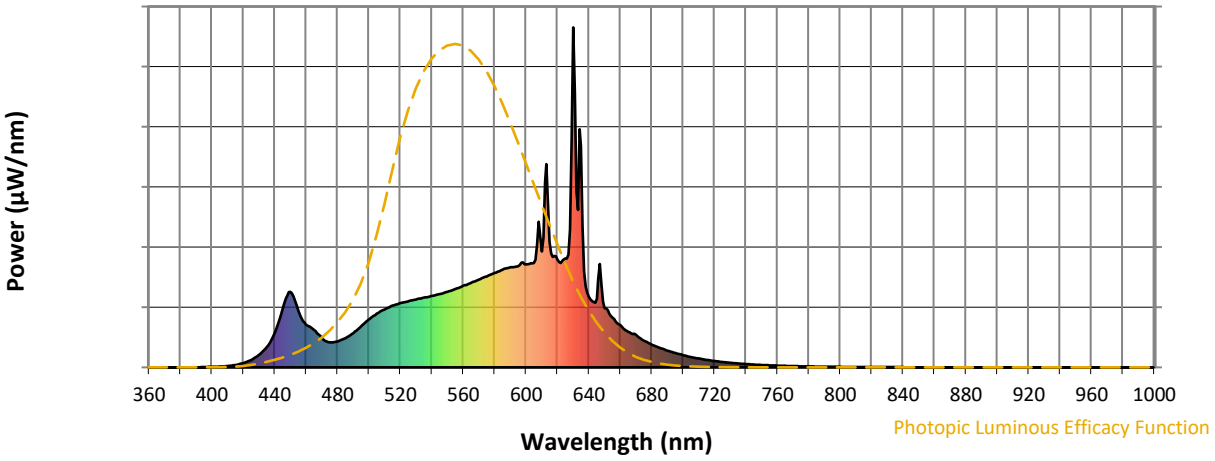
Photopic Flux vs. Wavelength



Photopic Lumens: NR

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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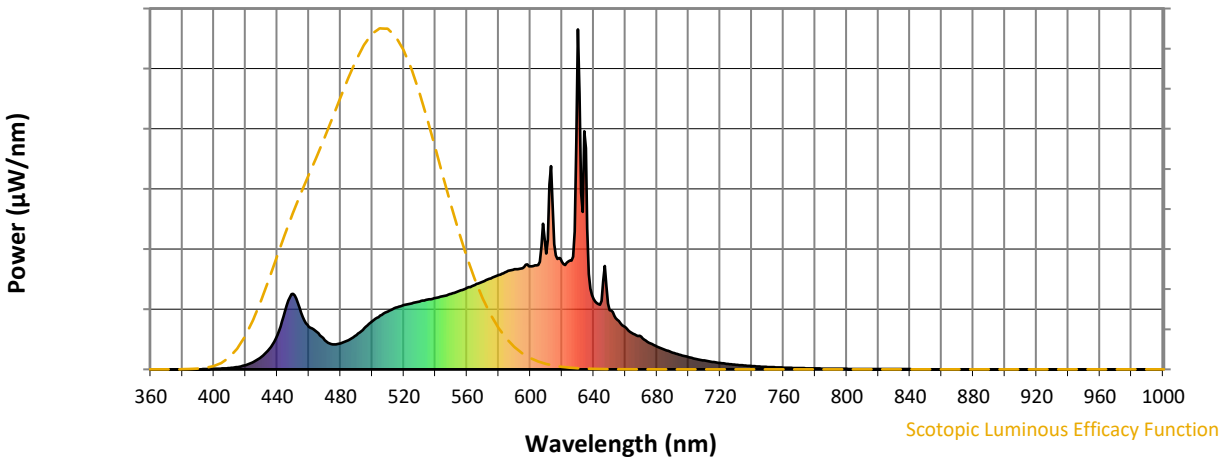
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.44**

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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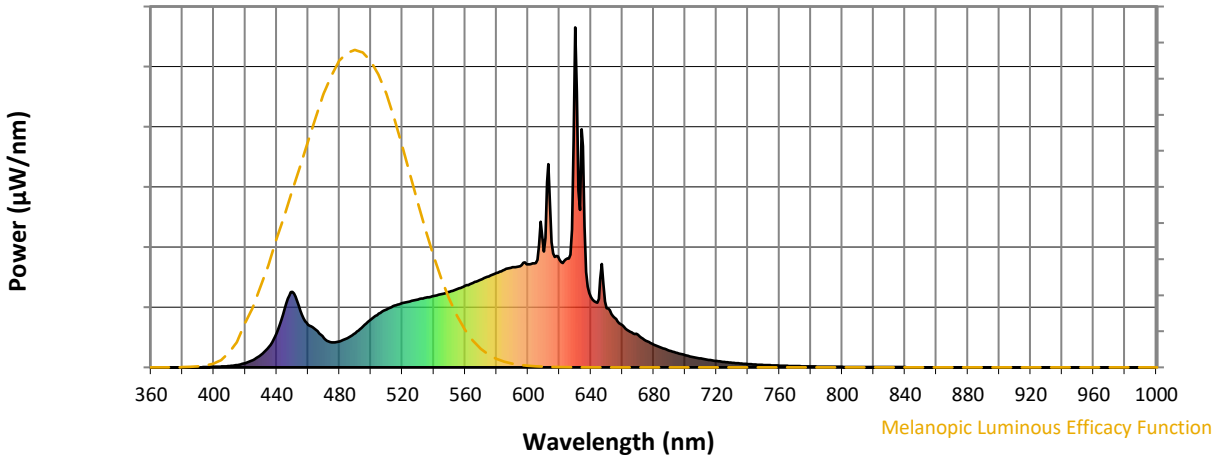
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.85**

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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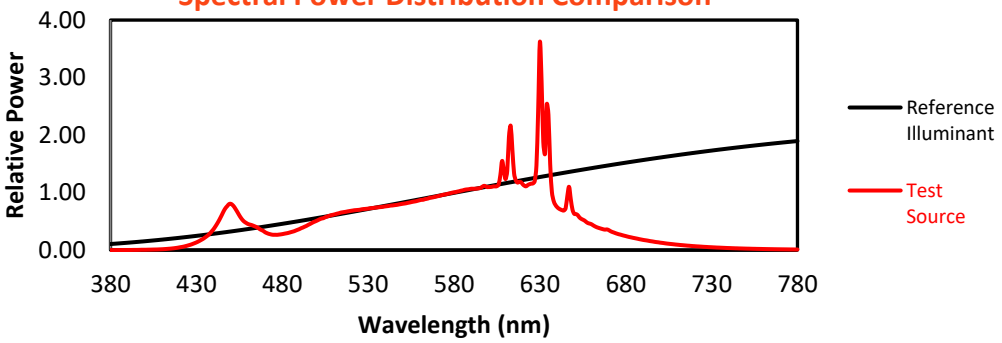
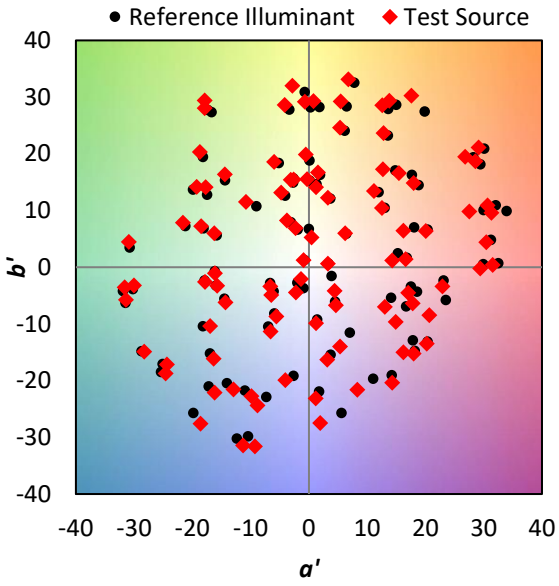
Summary

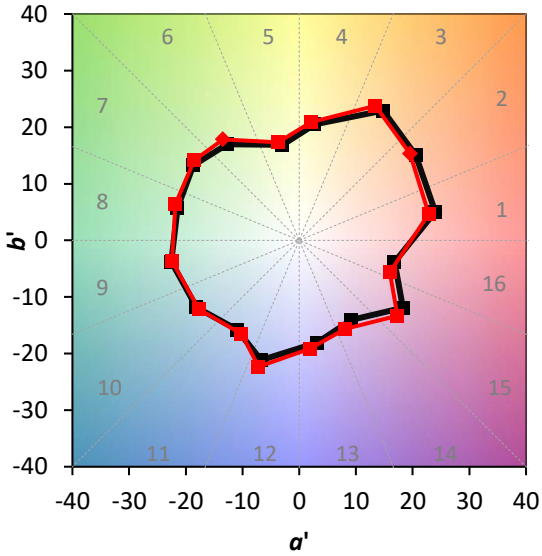
R_f = 91.3
R_g = 102
CIE R_a = 94.4
R_9 = 61.4

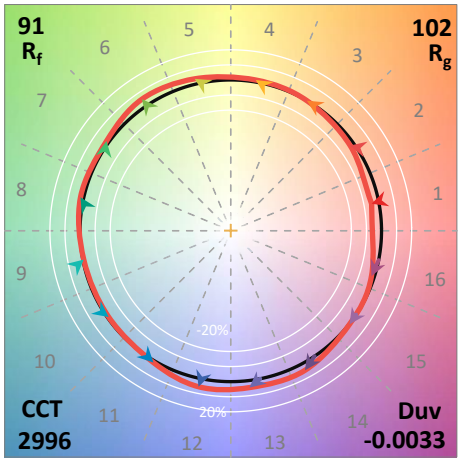
Spectral Power Distribution Comparison

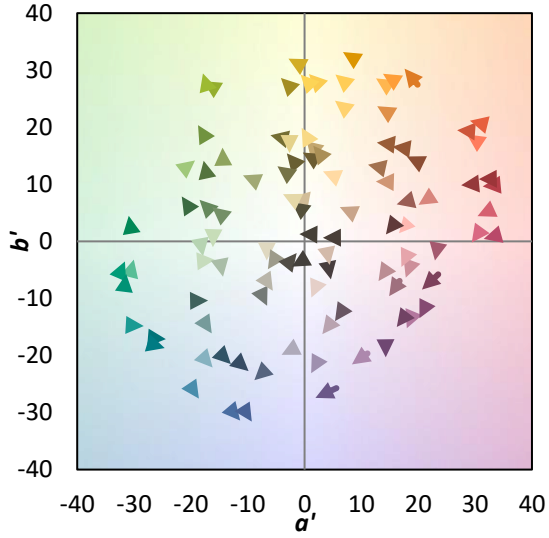


Color Vector Graphics









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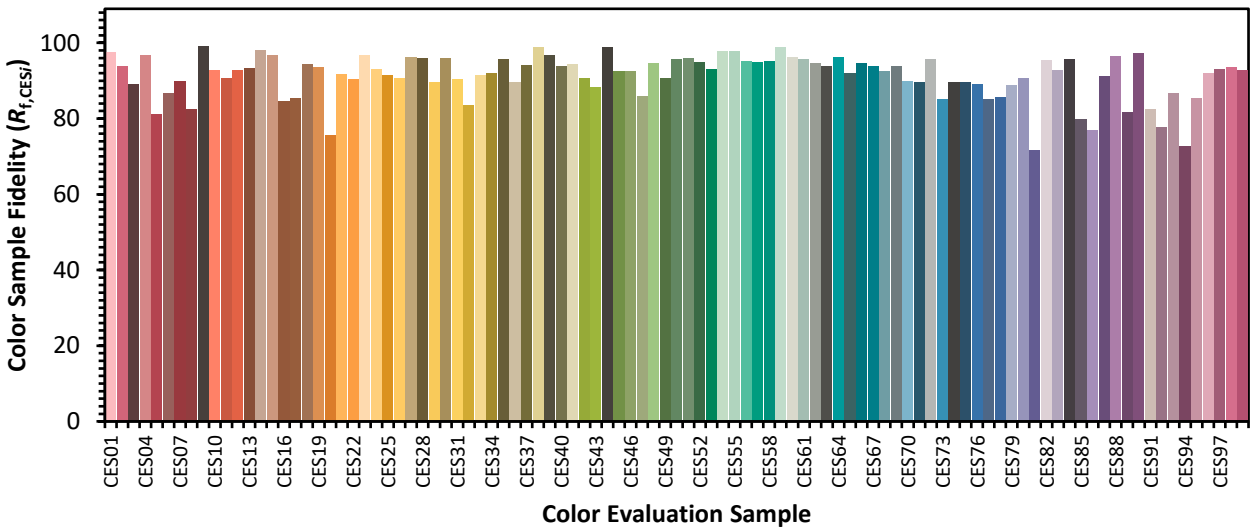
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 91	CES51 = 96	CES76 = 89
CES02 = 63	CES27 = 96	CES52 = 95	CES77 = 85
CES03 = 32	CES28 = 96	CES53 = 93	CES78 = 86
CES04 = 70	CES29 = 90	CES54 = 98	CES79 = 89
CES05 = 51	CES30 = 96	CES55 = 98	CES80 = 91
CES06 = 51	CES31 = 90	CES56 = 95	CES81 = 72
CES07 = 44	CES32 = 84	CES57 = 95	CES82 = 95
CES08 = 42	CES33 = 91	CES58 = 95	CES83 = 93
CES09 = 29	CES34 = 92	CES59 = 99	CES84 = 96
CES10 = 76	CES35 = 96	CES60 = 96	CES85 = 80
CES11 = 59	CES36 = 90	CES61 = 96	CES86 = 77
CES12 = 65	CES37 = 94	CES62 = 95	CES87 = 91
CES13 = 44	CES38 = 99	CES63 = 94	CES88 = 96
CES14 = 74	CES39 = 97	CES64 = 96	CES89 = 82
CES15 = 72	CES40 = 94	CES65 = 92	CES90 = 97
CES16 = 48	CES41 = 94	CES66 = 95	CES91 = 82
CES17 = 50	CES42 = 91	CES67 = 94	CES92 = 78
CES18 = 57	CES43 = 88	CES68 = 93	CES93 = 87
CES19 = 72	CES44 = 99	CES69 = 94	CES94 = 73
CES20 = 67	CES45 = 93	CES70 = 90	CES95 = 85
CES21 = 86	CES46 = 93	CES71 = 90	CES96 = 92
CES22 = 79	CES47 = 86	CES72 = 96	CES97 = 93
CES23 = 92	CES48 = 95	CES73 = 85	CES98 = 94
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 93
CES25 = 72	CES50 = 96	CES75 = 90	



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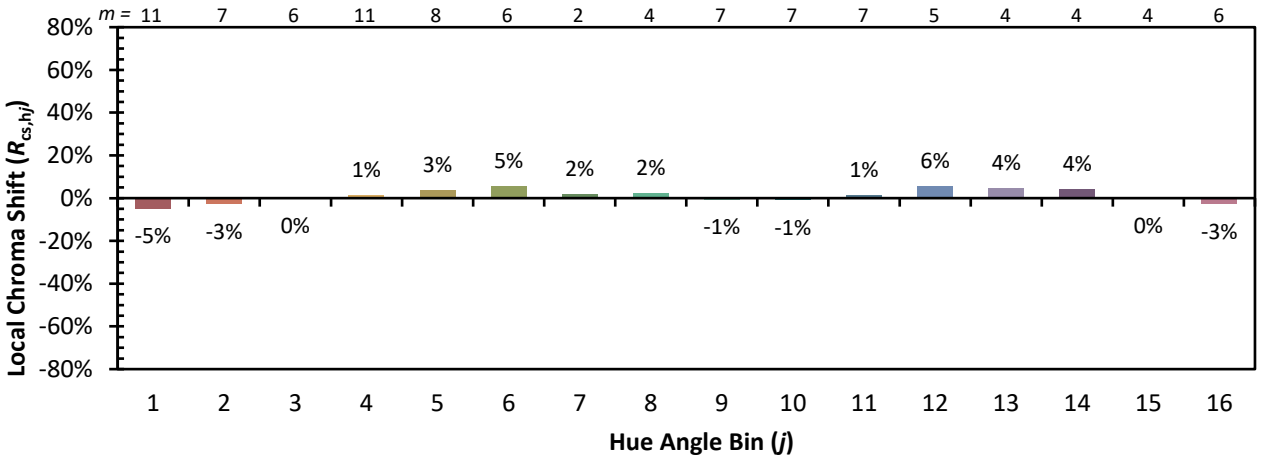
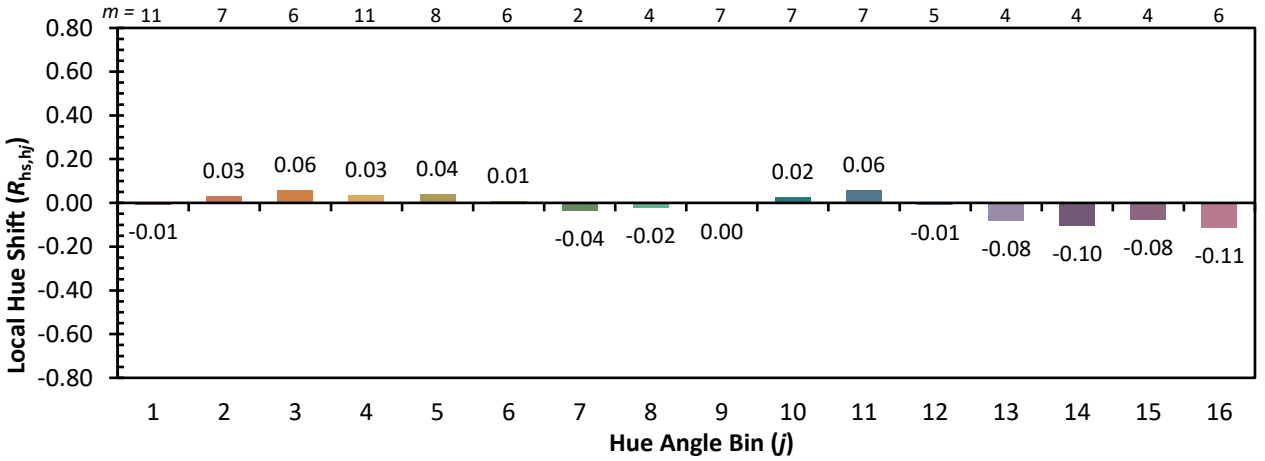
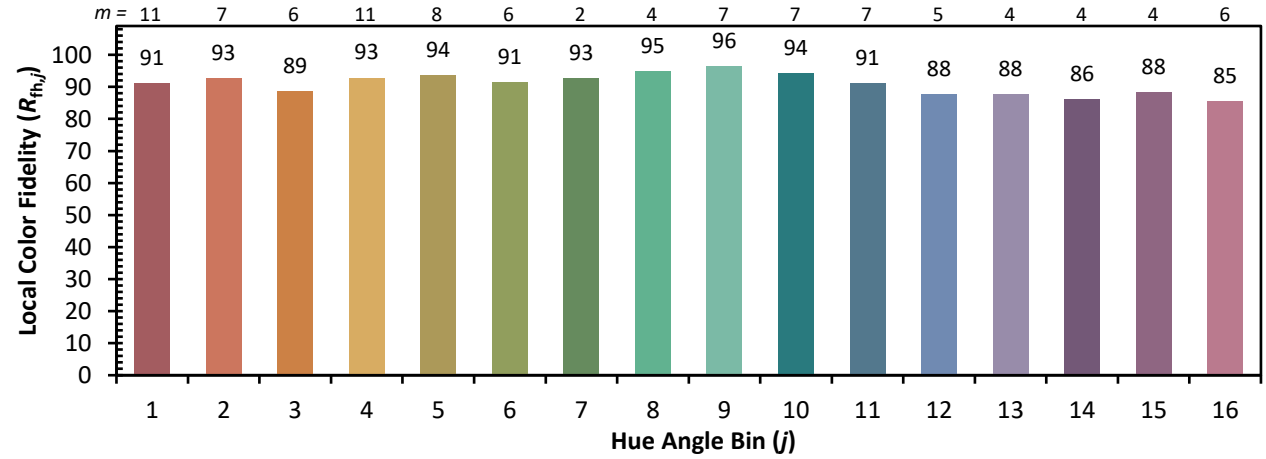
Color Rendition by Hue-Angle Bin







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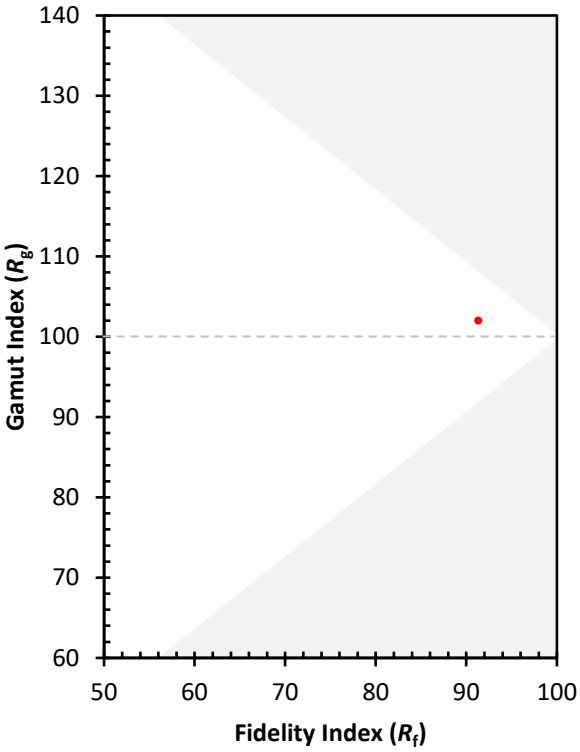
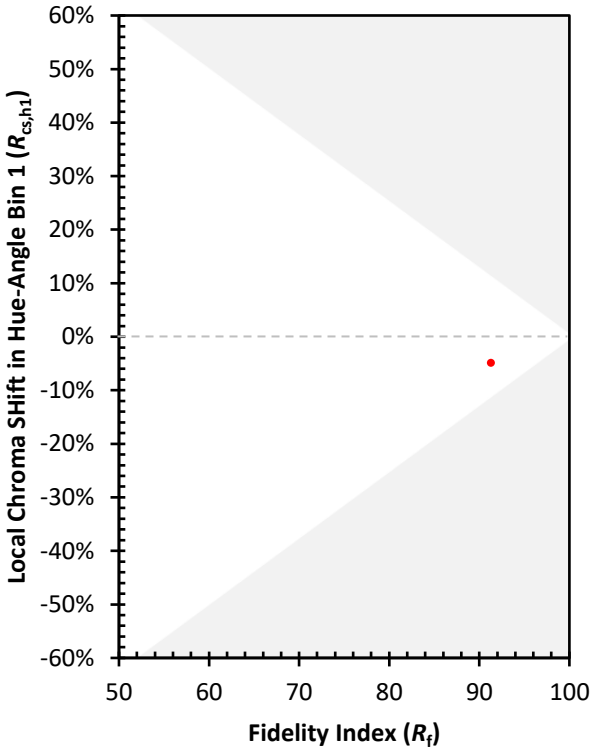
Measure Comparisons





(END OF REPORT)