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: P1433372

Luminaire Tested: EHBR1-60-UNV-ASM-L930-UPL15

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:	P1433372
	REPORT IS A COMBINATION OF REPORTS P1431901 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-60-UNV-ASM-L930-UPL15
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	54254.5 lumens
Efficiency:	N/A
Efficacy:	159.7 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:	Direct

Input Watts (W):	339.7
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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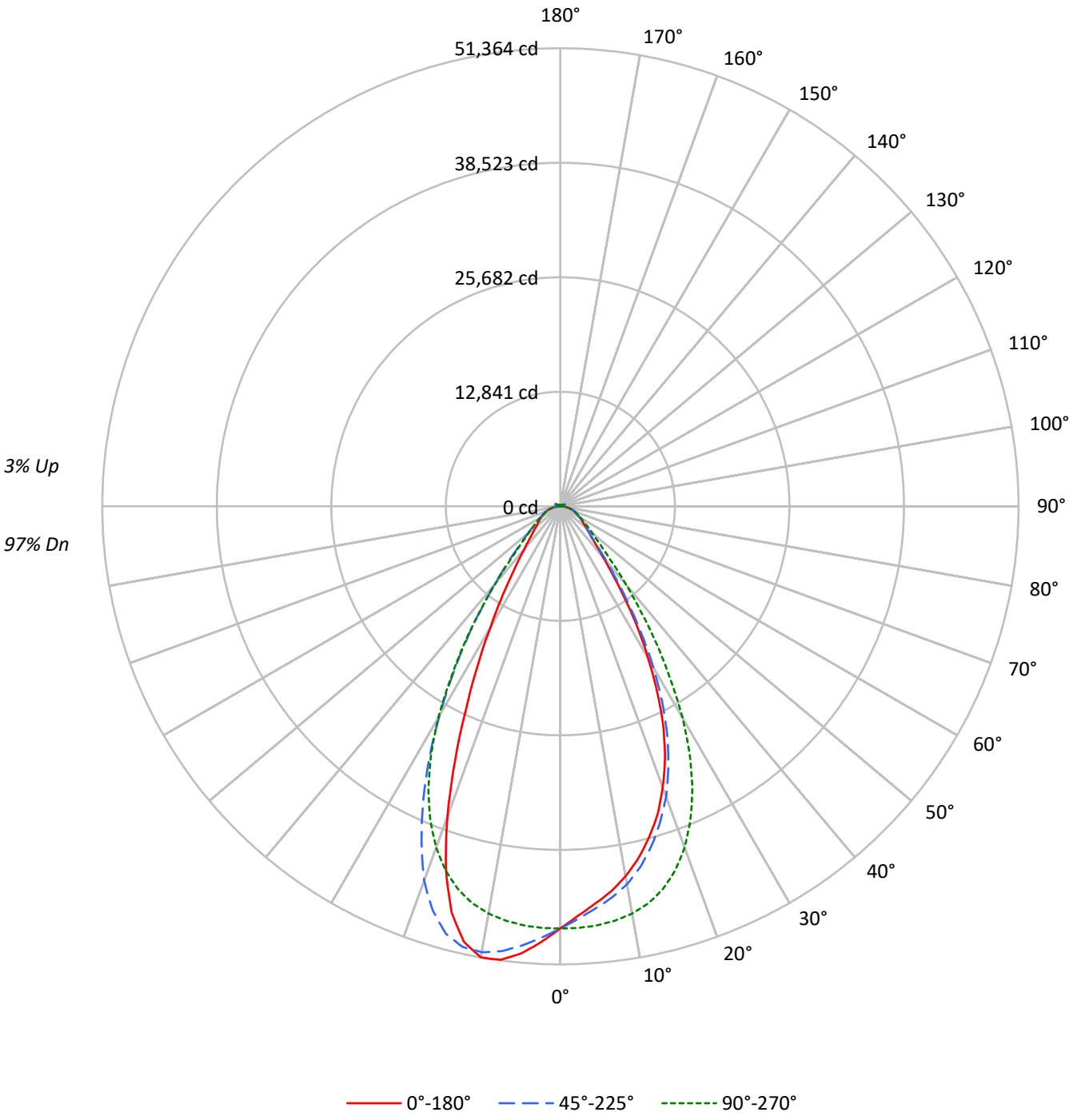
Scaled Data Report

TEST NUMBER: P1433372
CATALOG NUMBER: EHBR1-60-UNV-ASM-L930-UPL15

Luminous Intensity Polar Plot



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TEST NUMBER: P1433372
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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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	97
1	111	108	105	102	109	105	103	100	101	99	97	97	95	93	93	91	90	88
2	104	98	93	89	102	96	92	88	93	89	86	89	86	84	86	84	81	79
3	98	90	84	79	96	89	83	79	85	81	77	83	79	75	80	77	74	72
4	92	83	77	72	90	82	76	71	79	74	70	77	72	69	75	71	68	66
5	87	77	70	65	85	76	69	65	74	68	64	72	67	63	70	66	62	60
6	82	71	65	60	80	70	64	59	69	63	59	67	62	58	65	61	57	56
7	77	67	60	55	76	66	59	55	64	58	54	63	58	54	61	57	53	52
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	52	47	57	51	47	56	50	47	55	50	46	45
10	66	55	49	44	65	55	48	44	53	48	44	52	47	44	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	222292	222292	222292	222292	222292
5°	209474	211922	220939	231536	235702
10°	198249	202448	218223	238970	241752
15°	183129	188020	211780	236518	224663
20°	163116	168610	198067	217407	180149
25°	136699	141872	175305	182355	124818
30°	102278	108207	142341	140921	81203
35°	68089	72200	102092	100443	52589
40°	42940	45890	66006	66431	36247
45°	30595	31868	41881	43680	28077
50°	25485	25687	31101	31911	23858
55°	22495	22549	25392	26063	21734
60°	20828	20651	21988	22454	20704
65°	19882	19703	20044	20434	19967
70°	19311	18978	18998	19362	19564
75°	18358	17804	17766	18396	18926
80°	16705	15540	15606	16705	17868
85°	12162	10099	10099	11542	12755

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 58881 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4500.9	8.3
10°-20°	12244.9	22.6
20°-30°	14360.8	26.5
30°-40°	9987.1	18.4
40°-50°	4963.1	9.1
50°-60°	2968.4	5.5
60°-70°	2089.3	3.9
70°-80°	1345.9	2.5
80°-90°	429.8	0.8
90°-100°	37.4	0.1
100°-110°	234.1	0.4
110°-120°	430.7	0.8
120°-130°	257.5	0.5
130°-140°	157.9	0.3
140°-150°	111.2	0.2
150°-160°	74.8	0.1
160°-170°	45.1	0.1
170°-180°	15.5	0.0
0°-30°	31106.7	57.3
0°-40°	41093.7	75.7
0°-60°	49025.3	90.4
0°-90°	52890.3	97.5
90°-120°	702.2	1.3
90°-150°	1228.8	2.3
90°-180°	1364.0	2.5
0°-180°	54254.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	47336	47336	47336	47336	47336	
5°	44726	45249	47174	49436	50326	4195
15°	38420	39446	44430	49620	47133	10714
25°	27299	28332	35008	36416	24926	12317
35°	12497	13251	18738	18435	9652	7961
45°	4950	5156	6776	7067	4543	4002
55°	3040	3047	3432	3522	2937	2758
65°	2075	2057	2092	2133	2084	2061
75°	1293	1254	1252	1296	1333	1365
85°	418	347	347	397	438	430
90°	10	27	10	31	17	26
95°	17	61	20	54	23	17
105°	82	405	108	434	60	109
115°	372	480	458	532	396	342
125°	269	259	294	288	312	245
135°	198	201	190	211	220	155
145°	170	178	175	178	183	107
155°	157	160	159	159	167	73
165°	156	158	158	159	166	44
175°	160	162	163	164	171	15
180°	164	164	164	164	164	

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Scaled Data Report

TEST NUMBER: P1433372
CATALOG NUMBER: EHBR1-60-UNV-ASM-L930-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	47335.6	47335.6	47335.6	47335.6	47335.6	47335.6	47335.6	47335.6	47335.6
2.5°	45930.4	45960.6	46282.0	46700.0	47308.0	47919.6	48414.9	48741.5	48903.1
5°	44726.0	44892.9	45248.8	46016.6	47174.0	48398.9	49436.5	50115.6	50326.0
7.5°	43552.5	43649.3	44244.9	45215.0	46853.6	48761.9	50303.8	51096.4	51289.9
10°	42120.8	42340.1	43012.9	44157.1	46364.5	48991.0	50772.4	51340.4	51363.5
12.5°	40436.1	40726.3	41421.3	42864.6	45584.3	48909.3	50615.3	50428.9	50005.5
15°	38419.5	38674.2	39445.6	41119.6	44430.4	48425.5	49620.3	48103.4	47133.2
17.5°	36241.2	36472.0	37142.2	38985.8	42804.3	47520.2	47543.3	44542.2	42712.0
20°	33525.1	33706.2	34654.2	36463.2	40708.6	46068.0	44683.4	39194.4	37025.9
22.5°	30635.1	30804.7	31647.0	33529.6	38081.3	44110.0	40700.7	33814.6	30856.1
25°	27298.6	27390.9	28331.7	30034.2	35008.3	41710.8	36416.2	27952.7	24926.0
27.5°	23544.8	23701.9	24686.4	26425.2	31394.0	38669.8	31853.8	22841.9	20049.4
30°	19673.1	19933.1	20813.6	22370.6	27379.3	34771.4	27106.0	18190.8	15619.4
32.5°	16059.6	16246.9	16874.4	18501.4	22884.5	30950.2	22546.3	14575.5	12397.3
35°	12496.7	12684.0	13251.2	14848.9	18737.6	26169.5	18434.8	11452.8	9651.9
37.5°	9552.5	9883.5	10247.5	11544.3	14705.1	21652.5	14695.3	9222.3	7828.8
40°	7442.6	7495.9	7953.9	8783.8	11440.5	16930.3	11514.2	7361.9	6282.5
42.5°	5957.6	6102.3	6299.4	6920.7	8668.5	12945.9	9050.2	6042.0	5336.3
45°	4950.2	5007.0	5156.1	5573.4	6776.1	9526.7	7067.2	5097.6	4542.8
47.5°	4330.7	4305.8	4401.7	4714.1	5518.3	7362.8	5727.8	4372.4	3983.6
50°	3798.1	3783.0	3828.2	4036.9	4635.1	5649.6	4755.8	3816.8	3555.7
52.5°	3384.5	3397.8	3402.2	3531.9	3981.8	4607.6	4050.1	3401.3	3225.6
55°	3040.0	3057.0	3047.2	3143.1	3431.5	3873.5	3522.1	3058.7	2937.1
57.5°	2771.1	2758.7	2745.4	2796.8	3013.5	3286.0	3058.7	2766.7	2685.9
60°	2503.9	2492.4	2482.6	2516.4	2643.3	2845.7	2699.3	2511.9	2488.9
62.5°	2275.0	2267.9	2267.0	2260.7	2358.4	2486.2	2386.8	2282.9	2262.5
65°	2075.2	2067.3	2056.6	2046.9	2092.1	2211.0	2132.9	2077.0	2084.1
67.5°	1875.5	1875.5	1856.9	1841.8	1886.2	1948.3	1914.6	1882.6	1890.6
70°	1694.4	1695.3	1665.2	1653.6	1667.0	1733.5	1698.9	1703.3	1716.6
72.5°	1500.1	1478.8	1456.6	1455.7	1457.5	1509.0	1497.4	1508.1	1522.2
75°	1293.2	1268.4	1254.2	1238.2	1251.5	1290.5	1295.9	1311.0	1333.2
77.5°	1093.5	1055.4	1043.8	1035.9	1026.9	1071.3	1088.2	1108.7	1141.5
80°	878.8	837.0	817.5	805.9	821.0	841.4	878.8	893.8	940.0
82.5°	649.7	618.6	594.7	593.9	600.9	619.5	651.5	679.9	706.6
85°	418.0	368.4	347.1	355.0	347.1	375.4	396.7	430.5	438.4
87.5°	150.9	118.1	112.7	124.2	121.6	130.5	149.1	162.5	163.3
90°	10.4	16.4	27.4	17.8	10.4	18.0	30.7	20.1	16.7
92.5°	14.9	24.5	43.6	23.0	13.5	23.9	42.4	25.2	20.4
95°	17.1	28.2	60.6	30.4	20.2	29.1	53.5	27.4	23.3
97.5°	22.4	31.1	69.4	37.0	30.5	35.6	60.2	29.0	27.0
100°	29.1	36.3	107.7	46.0	40.1	40.1	108.0	32.6	29.9
102.5°	48.2	76.0	227.8	85.0	60.0	77.8	248.1	61.5	35.1
105°	82.1	159.2	405.3	176.4	107.8	175.0	434.5	150.6	60.3
107.5°	141.0	284.5	535.1	311.2	202.9	324.6	559.0	292.0	131.8
110°	261.8	377.3	560.9	426.8	323.7	452.8	609.8	398.2	259.9

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Scaled Data Report

TEST NUMBER: P1433372
CATALOG NUMBER: EHBR1-60-UNV-ASM-L930-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	353.2	405.3	537.3	471.0	420.9	504.3	595.8	440.8	*357.2*
115°	371.6	389.8	479.9	459.9	457.9	497.0	532.5	439.3	*395.5*
117.5°	359.0	355.9	407.7	414.5	442.5	454.9	460.3	412.9	*397.7*
120°	332.5	316.9	340.6	362.2	399.7	394.6	389.0	373.8	*375.6*
122.5°	299.3	281.7	292.9	309.2	346.8	335.8	329.3	334.9	*345.4*
125°	269.3	250.8	259.1	263.8	294.5	283.5	288.2	301.0	*312.4*
127.5°	242.0	229.4	234.9	231.3	251.2	246.0	258.0	272.3	*282.2*
130°	223.7	213.3	220.3	210.8	220.5	221.0	236.7	249.6	*255.7*
132.5°	209.1	202.5	211.0	199.3	201.4	206.5	221.4	232.9	*236.7*
135°	198.0	193.0	201.4	191.4	189.8	196.9	211.2	218.0	*220.5*
137.5°	189.4	185.1	194.4	186.4	183.3	190.4	200.9	207.1	*206.5*
140°	182.3	178.8	187.9	181.3	179.8	186.9	191.3	198.2	*198.5*
142.5°	174.5	171.5	182.1	177.8	176.3	182.6	184.8	190.3	*189.7*
145°	169.7	167.4	177.9	174.8	174.9	179.9	177.6	183.7	*183.1*
147.5°	165.5	164.0	172.8	171.3	171.3	174.8	172.6	177.9	*177.4*
150°	162.1	160.6	168.5	166.9	167.6	170.6	166.8	172.8	*173.9*
152.5°	158.7	156.3	163.5	161.9	162.6	165.6	162.6	169.4	*169.6*
155°	156.8	154.4	160.1	158.4	159.2	160.8	159.2	166.1	*167.0*
157.5°	156.5	154.0	158.3	157.4	157.4	159.0	158.3	164.3	*165.2*
160°	156.1	154.4	158.0	157.1	157.3	158.7	158.9	164.2	*165.1*
162.5°	155.7	154.1	158.3	157.6	157.6	157.6	158.6	164.0	*165.8*
165°	155.9	155.1	157.9	157.9	158.0	158.8	159.1	163.8	*166.3*
167.5°	155.9	155.2	158.9	158.9	159.1	158.4	160.1	165.0	*167.5*
170°	157.0	156.1	159.1	159.2	158.5	159.4	160.4	165.3	*167.7*
172.5°	158.8	157.9	161.7	161.0	161.2	161.2	162.4	166.5	*169.7*
175°	159.9	159.0	162.1	162.1	163.0	163.1	164.1	167.4	*170.7*
177.5°	161.5	160.6	162.1	162.1	162.2	164.0	165.7	169.1	*173.1*
180°	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	*164.0*

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Scaled Data Report

TEST NUMBER: P1433372
CATALOG NUMBER: EHBR1-60-UNV-ASM-L930-UPL15

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	19.07	20.23	19.48	20.60	20.98	19.83	21.00	20.24	21.37	21.75
	3H	20.89	21.92	21.31	22.31	22.74	21.40	22.43	21.82	22.82	23.25
	4H	21.62	22.59	22.07	23.00	23.44	22.04	23.01	22.49	23.42	23.86
	6H	22.19	23.08	22.66	23.51	23.97	22.54	23.43	23.00	23.85	24.31
	8H	22.38	23.22	22.86	23.66	24.13	22.70	23.54	23.18	23.98	24.45
	12H	22.48	23.28	22.96	23.72	24.21	22.78	23.58	23.26	24.02	24.51
4H	2H	19.59	20.56	20.04	20.96	21.41	20.22	21.18	20.67	21.59	22.04
	3H	21.63	22.43	22.09	22.88	23.35	22.03	22.83	22.49	23.28	23.75
	4H	22.49	23.21	22.97	23.68	24.19	22.81	23.53	23.29	24.00	24.51
	6H	23.19	23.81	23.70	24.30	24.83	23.45	24.07	23.96	24.56	25.09
	8H	23.42	23.99	23.93	24.49	25.02	23.65	24.23	24.17	24.73	25.26
	12H	23.55	24.06	24.08	24.59	25.13	23.77	24.28	24.30	24.81	25.35
8H	4H	22.76	23.33	23.27	23.83	24.36	23.06	23.64	23.57	24.13	24.66
	6H	23.57	24.04	24.12	24.59	25.13	23.82	24.29	24.37	24.84	25.38
	8H	23.87	24.29	24.44	24.85	25.40	24.10	24.52	24.67	25.08	25.64
	12H	24.08	24.44	24.64	24.98	25.61	24.29	24.66	24.85	25.20	25.83
12H	4H	22.76	23.27	23.30	23.80	24.34	23.07	23.58	23.60	24.11	24.64
	6H	23.61	24.03	24.18	24.59	25.14	23.87	24.29	24.43	24.85	25.40
	8H	23.96	24.33	24.52	24.87	25.50	24.20	24.56	24.76	25.10	25.74

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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

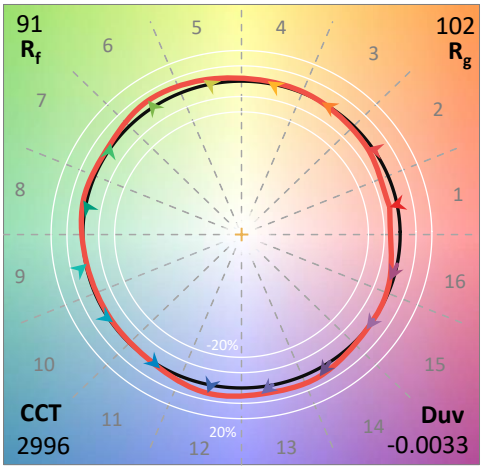
Test Information

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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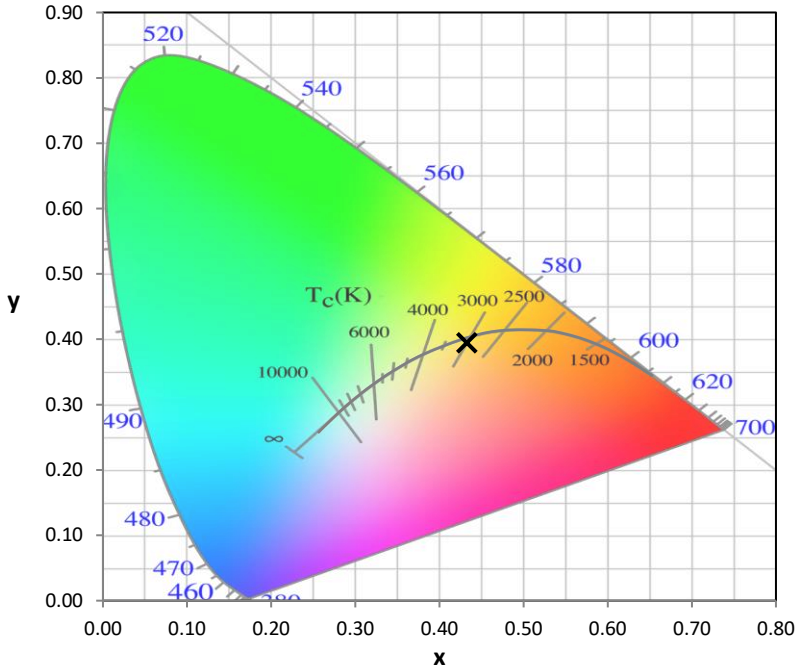
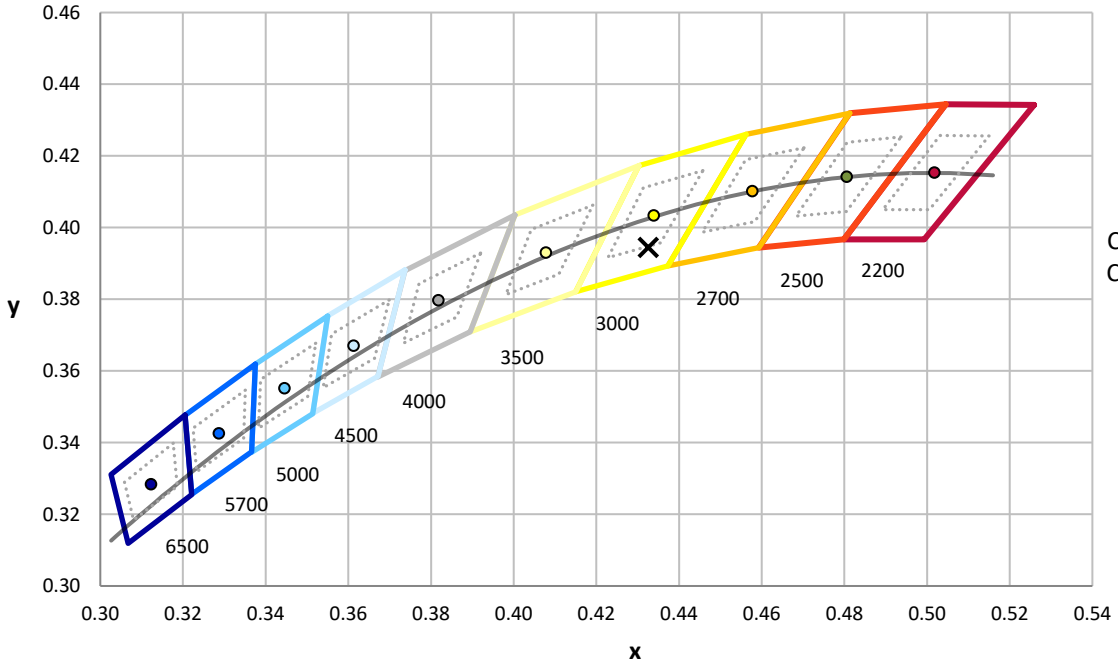
CIE 1931 Chromaticity Diagram



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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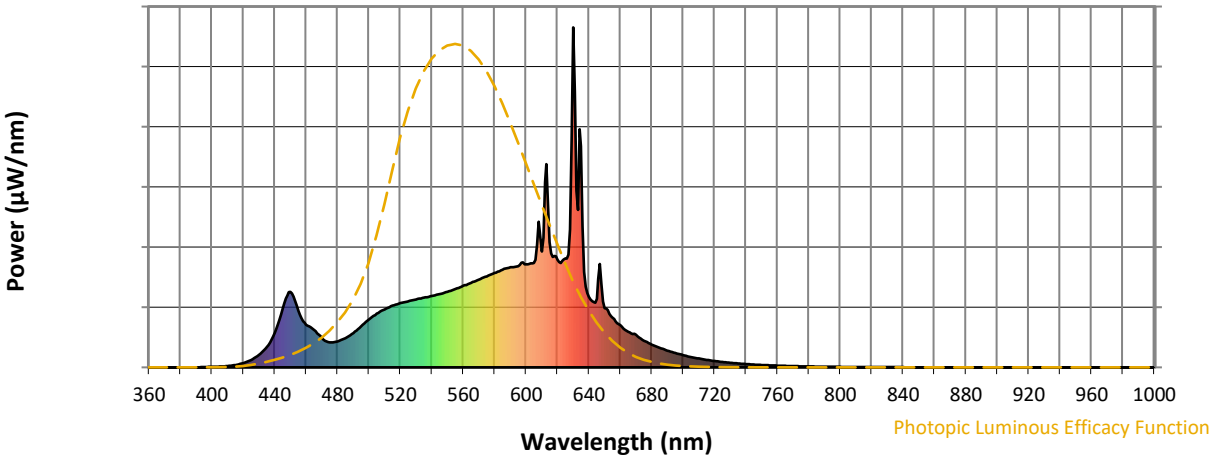
Photopic Flux vs. Wavelength



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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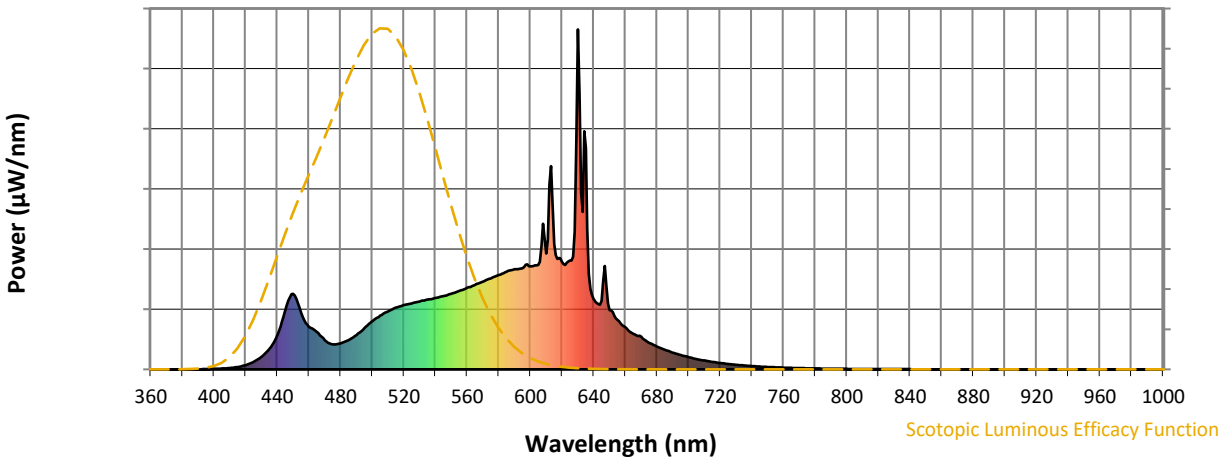
Scotopic Flux vs. Wavelength



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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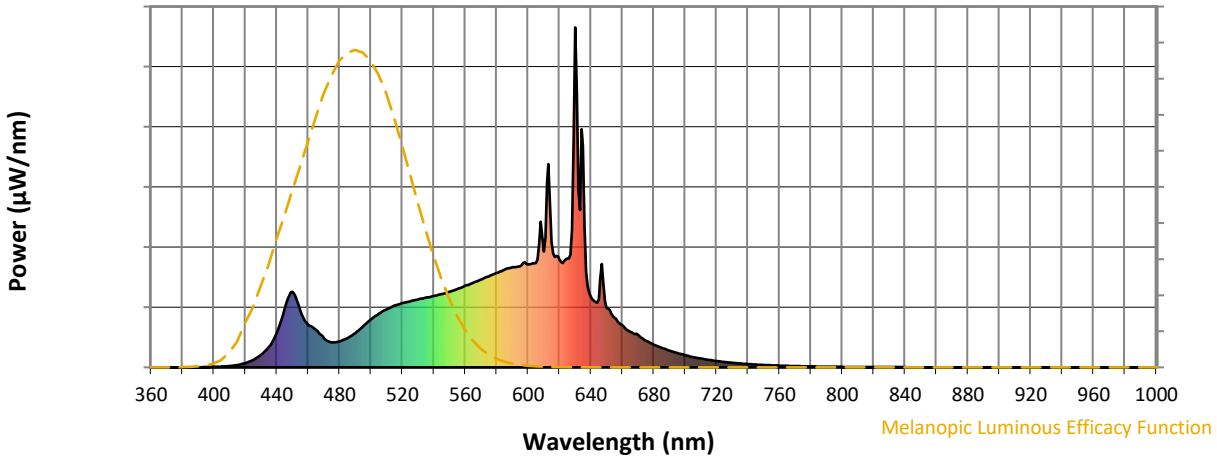
Melanopic Flux vs. Wavelength



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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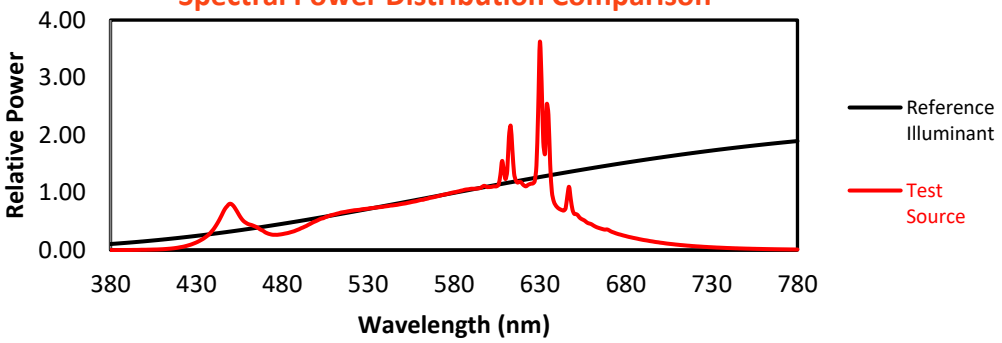
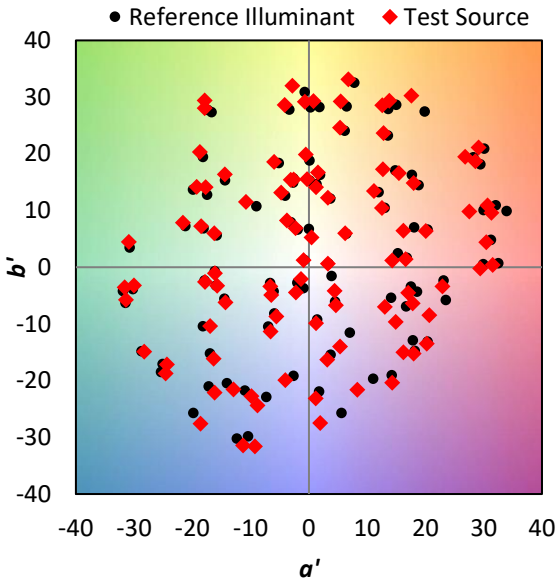
Summary

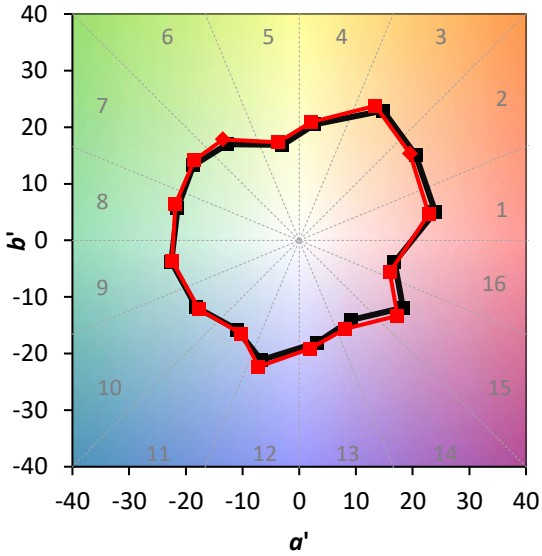
R_f = 91.3
R_g = 102
CIE R_a = 94.4
R_9 = 61.4

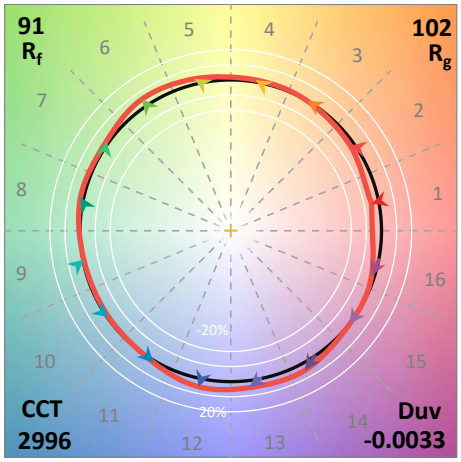
Spectral Power Distribution Comparison

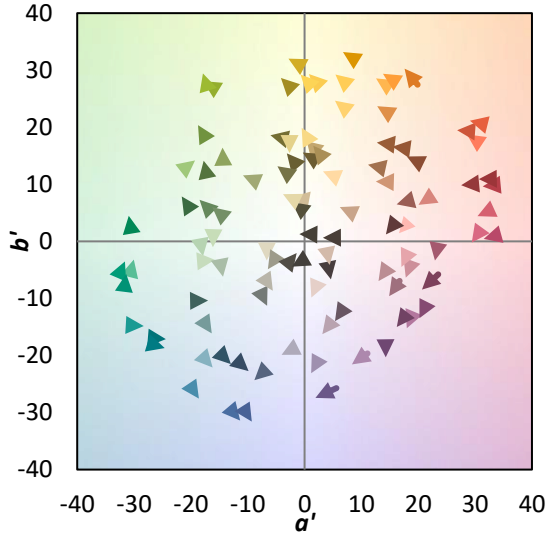


Color Vector Graphics









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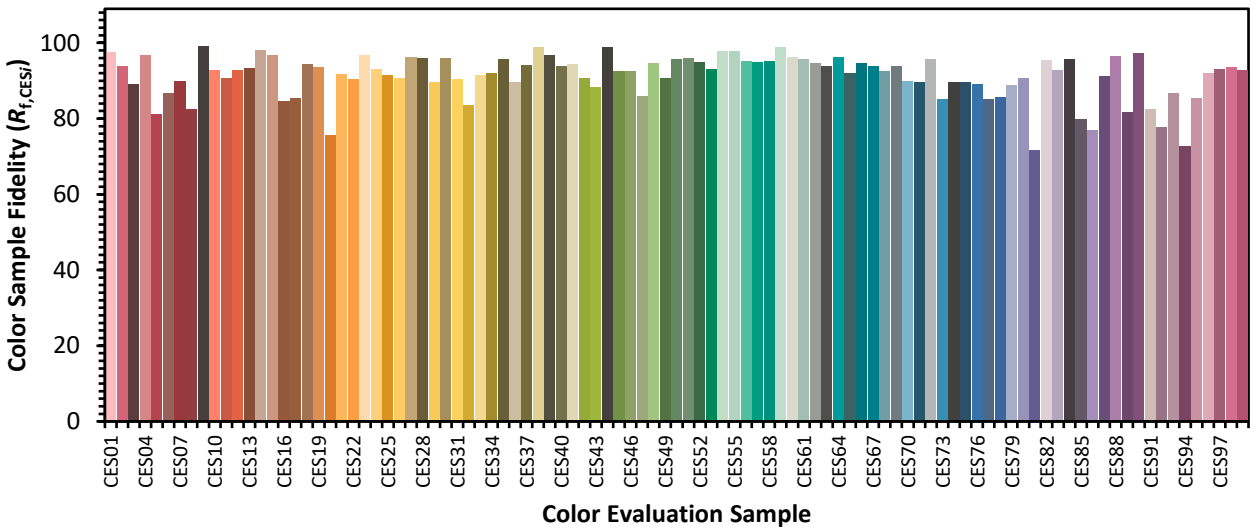
Individual Sample Fidelity Index ($R_{f,i}$)

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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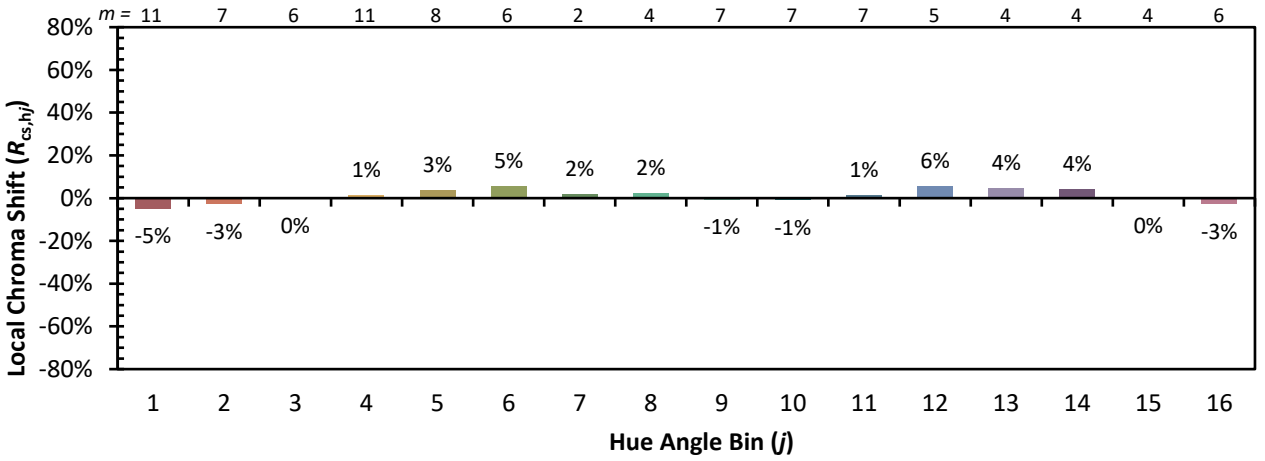
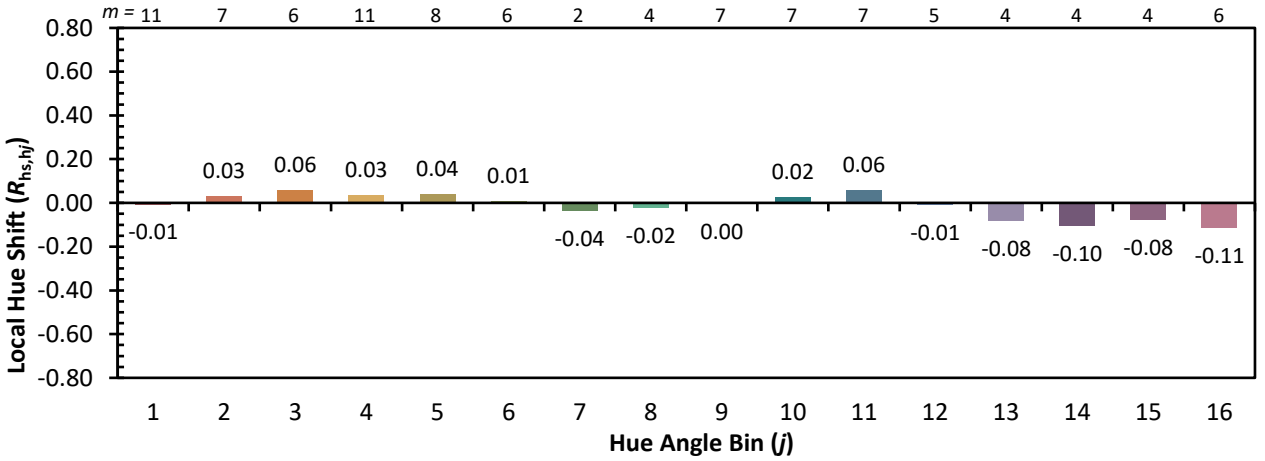
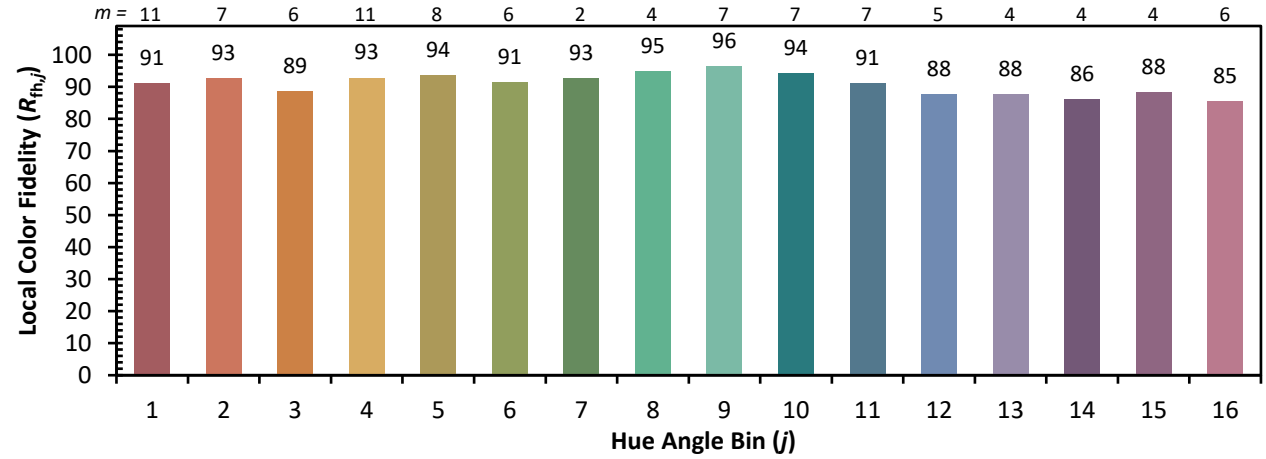
Color Rendition by Hue-Angle Bin







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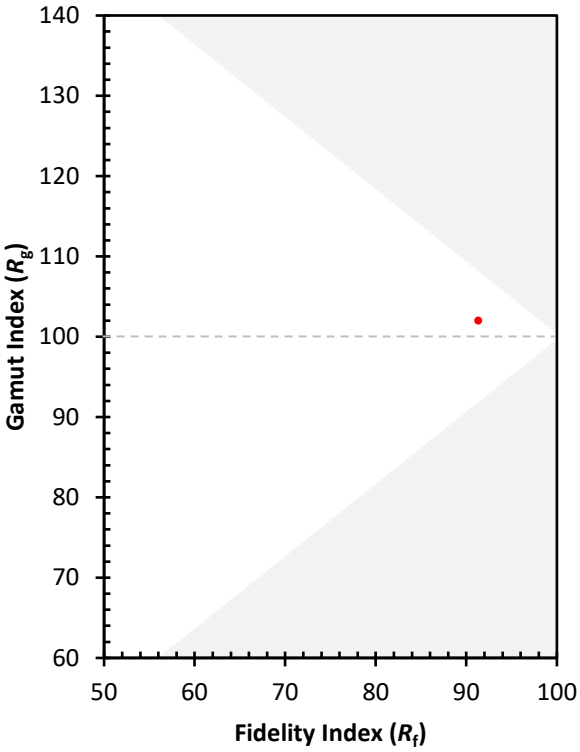
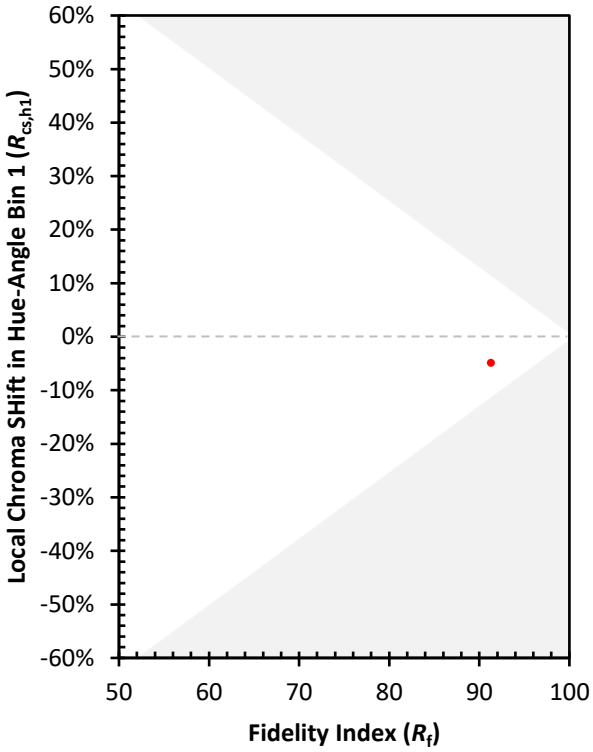
Measure Comparisons





(END OF REPORT)