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: P1433771

Luminaire Tested: EHBR1-24-UNV-ASM-L940-UPL12

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:	P1433771
	REPORT IS A COMBINATION OF REPORTS P1431708 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-24-UNV-ASM-L940-UPL12
Description:	Elevate Round Highbay at, 24000 lumens, 4000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	24207.8 lumens
Efficiency:	N/A
Efficacy:	178.4 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):	135.7
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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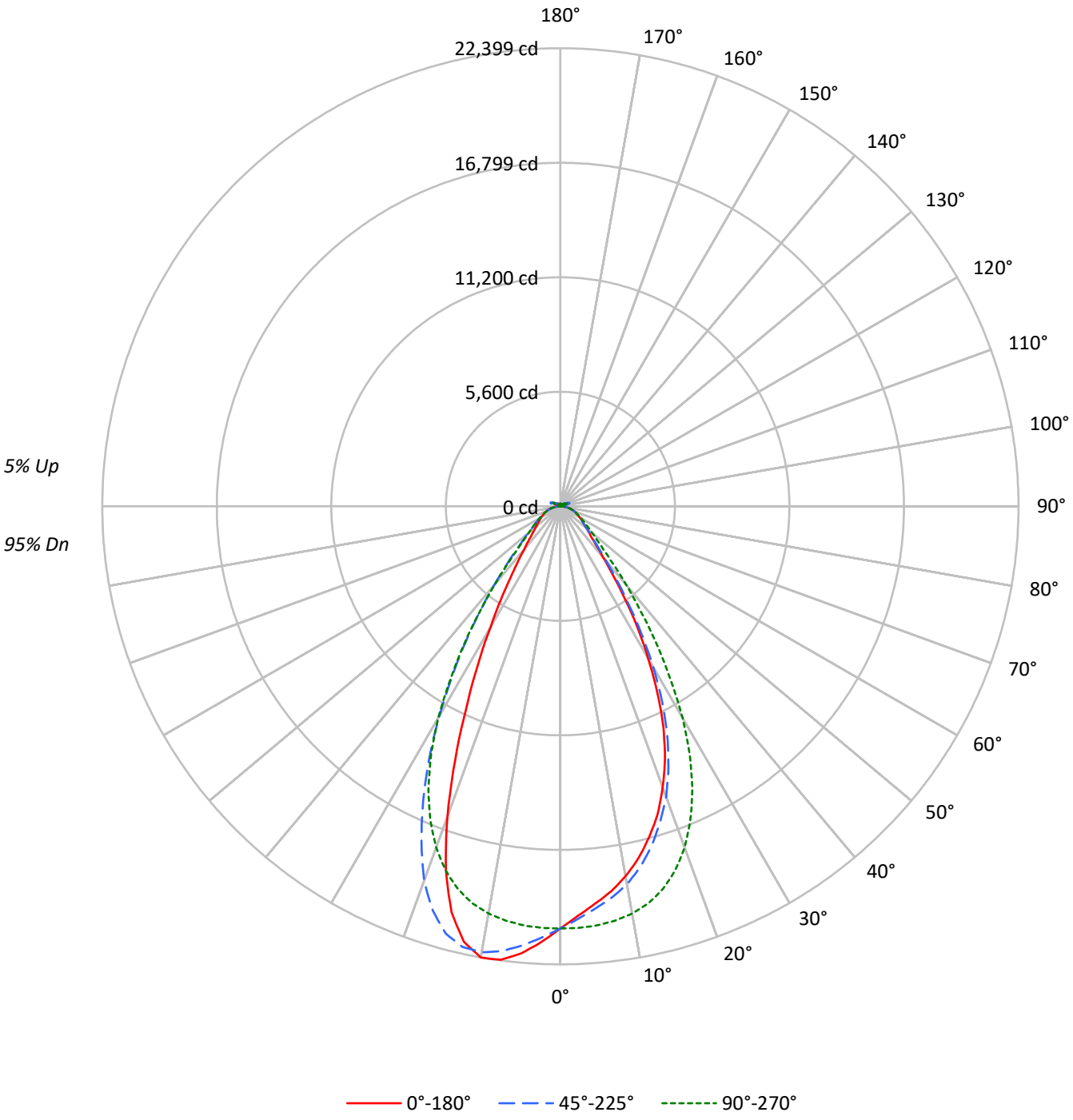
Scaled Data Report

TEST NUMBER: P1433771
CATALOG NUMBER: EHBR1-24-UNV-ASM-L940-UPL12

Luminous Intensity Polar Plot



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TEST NUMBER: P1433771
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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	108	108	108	103	103	103	98	98	98	95
1	111	107	104	101	108	105	102	99	100	97	95	95	93	92	91	90	88	86
2	104	98	93	89	101	96	91	87	92	88	85	88	85	82	84	82	80	78
3	97	90	84	79	95	88	82	78	84	80	76	81	77	74	78	75	72	70
4	91	82	76	71	89	81	75	70	78	73	69	75	71	68	73	69	66	64
5	86	76	69	64	84	75	69	64	73	67	63	70	66	62	68	64	61	59
6	81	71	64	59	79	70	63	59	68	62	58	66	61	57	64	60	56	55
7	77	66	59	54	75	65	59	54	63	58	53	62	57	53	60	56	52	51
8	72	62	55	50	71	61	55	50	59	54	50	58	53	49	57	52	49	47
9	69	58	51	47	67	57	51	47	56	50	46	55	49	46	53	49	45	44
10	65	54	48	44	64	54	48	44	53	47	43	52	46	43	50	46	43	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	96940	96940	96940	96940	96940
5°	91350	92417	96349	100971	102787
10°	86454	88286	95165	104212	105426
15°	79860	81993	92355	103143	97973
20°	71133	73529	86375	94809	78561
25°	59613	61869	76449	79523	54432
30°	44602	47189	62074	61454	35412
35°	29693	31485	44522	43802	22933
40°	18726	20012	28785	28970	15807
45°	13342	13897	18264	19048	12244
50°	11114	11202	13563	13916	10404
55°	9810	9833	11073	11365	9478
60°	9084	9006	9589	9792	9029
65°	8670	8593	8741	8912	8707
70°	8421	8275	8285	8443	8532
75°	8006	7765	7748	8022	8252
80°	7284	6777	6805	7284	7792
85°	5304	4405	4405	5034	5563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 25677 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1962.8	8.1
10°-20°	5339.9	22.1
20°-30°	6262.6	25.9
30°-40°	4355.3	18.0
40°-50°	2164.4	8.9
50°-60°	1294.5	5.3
60°-70°	911.1	3.8
70°-80°	586.9	2.4
80°-90°	188.4	0.8
90°-100°	30.7	0.1
100°-110°	197.6	0.8
110°-120°	364.5	1.5
120°-130°	217.1	0.9
130°-140°	132.0	0.5
140°-150°	91.9	0.4
150°-160°	60.7	0.3
160°-170°	35.5	0.1
170°-180°	11.9	0.0
0°-30°	13565.3	56.0
0°-40°	17920.5	74.0
0°-60°	21379.4	88.3
0°-90°	23065.9	95.3
90°-120°	592.9	2.4
90°-150°	1033.9	4.3
90°-180°	1142.0	4.7
0°-180°	24207.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20643	20643	20643	20643	20643	
5°	19505	19732	20572	21559	21947	1830
15°	16754	17202	19376	21639	20554	4672
25°	11905	12355	15267	15881	10870	5371
35°	5450	5779	8171	8039	4209	3472
45°	2159	2248	2955	3082	1981	1745
55°	1326	1329	1496	1536	1281	1203
65°	905	897	912	930	909	899
75°	564	547	546	565	581	595
85°	182	151	151	173	191	188
90°	8	23	8	25	11	13
95°	14	51	16	44	17	14
105°	69	344	91	368	48	92
115°	315	407	388	451	333	290
125°	228	219	249	243	262	207
135°	167	168	158	176	183	131
145°	140	147	144	147	151	89
155°	126	130	129	129	135	59
165°	122	125	124	124	129	35
175°	123	125	126	126	129	12
180°	126	126	126	126	126	

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Scaled Data Report

TEST NUMBER: P1433771
CATALOG NUMBER: EHBR1-24-UNV-ASM-L940-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	20642.6	20642.6	20642.6	20642.6	20642.6	20642.6	20642.6	20642.6	*20642.6*
2.5°	20029.8	20043.0	20183.1	20365.4	20630.6	20897.3	21113.2	21255.7	*21326.1*
5°	19504.6	19577.3	19732.5	20067.4	20572.1	21106.3	21558.8	21854.9	*21946.6*
7.5°	18992.8	19035.0	19294.8	19717.8	20432.4	21264.6	21936.9	22282.6	*22367.0*
10°	*18368.4*	*18464.1*	*18757.5*	*19256.5*	*20219.1*	*21364.5*	*22141.3*	*22389.0*	*22399.1*
12.5°	17633.8	17760.3	18063.5	18692.8	19878.8	21328.8	22072.8	21991.5	*21806.9*
15°	16754.3	16865.4	17201.8	17931.9	19375.6	21117.9	21638.9	20977.4	*20554.3*
17.5°	15804.4	15905.1	16197.3	17001.3	18666.6	20723.1	20733.1	19424.4	*18626.3*
20°	14619.9	14699.0	15112.3	15901.2	17752.6	20089.8	19485.9	17092.3	*16146.6*
22.5°	13359.6	13433.6	13800.9	14621.9	16606.9	19235.9	17749.2	14746.2	*13456.0*
25°	11904.7	11944.9	12355.2	13097.6	15266.8	18189.6	15880.7	12189.9	*10870.0*
27.5°	10267.7	10336.1	10765.4	11523.7	13690.6	16863.5	13891.1	9961.1	*8743.3*
30°	8579.2	8692.6	9076.7	9755.5	11939.9	15163.5	11820.6	7932.8	*6811.5*
32.5°	7003.5	7085.1	7358.8	8068.2	9979.7	13497.0	9832.2	6356.2	*5406.3*
35°	5449.7	5531.4	5778.7	6475.5	8171.3	11412.3	8039.3	4994.5	*4209.1*
37.5°	4165.8	4310.2	4468.8	5034.3	6412.7	9442.4	6408.5	4021.7	*3414.0*
40°	3245.7	3268.9	3468.6	3830.6	4989.1	7383.1	5021.2	3210.5	*2739.8*
42.5°	2598.1	2661.2	2747.1	3018.1	3780.2	5645.6	3946.6	2634.9	*2327.2*
45°	2158.7	2183.5	2248.5	2430.5	2955.0	4154.5	3081.9	2223.0	*1981.1*
47.5°	1888.5	1877.7	1919.6	2055.8	2406.4	3210.8	2497.8	1906.8	*1737.2*
50°	1656.3	1649.8	1669.5	1760.4	2021.3	2463.7	2073.9	1664.5	*1550.6*
52.5°	1475.9	1481.8	1483.6	1540.2	1736.4	2009.4	1766.2	1483.3	*1406.7*
55°	1325.7	1333.1	1328.8	1370.6	1496.4	1689.3	1535.9	1333.8	*1280.8*
57.5°	1208.4	1203.0	1197.3	1219.7	1314.2	1433.0	1333.8	1206.5	*1171.3*
60°	1092.0	1087.0	1082.7	1097.4	1152.7	1241.0	1177.1	1095.4	*1085.4*
62.5°	992.1	988.9	988.6	985.9	1028.4	1084.2	1040.8	995.6	*986.7*
65°	905.0	901.6	896.9	892.6	912.4	964.3	930.2	905.7	*908.8*
67.5°	817.9	817.9	809.8	803.2	822.6	849.7	834.9	821.0	*824.5*
70°	738.9	739.4	726.1	721.1	727.0	755.9	740.8	742.8	*748.6*
72.5°	654.2	644.9	635.2	634.8	635.6	658.0	653.0	657.6	*663.8*
75°	564.0	553.1	547.0	540.0	545.8	562.8	565.1	571.8	*581.3*
77.5°	476.9	460.2	455.2	451.8	447.8	467.2	474.6	483.4	*497.8*
80°	383.2	365.0	356.5	351.5	358.0	367.0	383.2	389.8	*409.9*
82.5°	283.3	269.8	259.4	259.0	262.1	270.2	284.2	296.5	*308.1*
85°	182.3	160.6	151.4	154.8	151.4	163.7	173.0	187.7	*191.2*
87.5°	65.8	51.5	49.2	54.2	53.0	56.9	65.0	70.8	*71.2*
90°	8.5	13.5	22.9	14.7	8.5	14.5	24.9	14.8	*11.2*
92.5°	12.3	20.4	36.7	19.1	11.0	19.5	34.9	19.2	*14.3*
95°	14.2	23.5	51.1	25.4	16.4	23.9	44.3	21.1	*16.9*
97.5°	18.3	26.0	58.6	31.0	25.2	29.5	49.9	22.4	*19.9*
100°	23.9	30.4	91.1	38.3	33.3	33.3	90.6	25.4	*22.5*
102.5°	40.2	64.2	193.1	71.5	50.2	64.9	209.3	49.7	*26.8*
105°	68.9	134.9	343.9	149.1	90.8	147.6	367.6	125.3	*47.9*
107.5°	119.0	241.3	453.7	263.6	171.6	274.6	473.4	245.5	*108.5*
110°	221.6	320.1	475.7	361.8	274.2	383.5	516.5	335.6	*217.4*

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Scaled Data Report

TEST NUMBER: P1433771
CATALOG NUMBER: EHBR1-24-UNV-ASM-L940-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	299.2	343.9	455.7	399.3	356.7	427.3	504.7	371.9	*300.0*
115°	314.9	330.7	406.8	389.9	387.8	421.0	450.8	370.6	*332.6*
117.5°	304.2	301.9	345.5	350.9	374.7	385.3	389.5	348.1	*334.5*
120°	281.7	268.8	288.5	306.4	338.4	334.0	328.6	314.9	*315.6*
122.5°	253.5	238.5	247.6	261.2	293.2	283.8	277.9	281.5	*290.0*
125°	227.6	212.2	218.8	222.2	248.7	239.3	242.6	252.8	*261.7*
127.5°	204.5	194.1	198.1	194.7	211.6	207.2	217.0	228.3	*236.1*
130°	188.8	180.1	185.3	176.9	185.0	186.0	198.8	208.7	*213.5*
132.5°	176.2	170.5	176.6	166.4	168.5	173.2	185.4	194.2	*197.0*
135°	166.8	162.1	168.5	159.2	158.3	165.0	176.4	181.8	*183.3*
137.5°	159.0	155.0	161.7	154.7	152.3	159.1	167.6	172.3	*171.3*
140°	152.2	148.9	156.0	150.4	149.1	155.8	159.5	164.7	*164.2*
142.5°	144.9	142.4	150.7	146.9	145.7	151.8	153.6	157.5	*156.7*
145°	140.0	138.2	146.7	144.4	144.2	148.8	147.2	152.0	*150.8*
147.5°	135.8	134.5	142.1	141.1	141.1	144.4	142.5	146.7	*145.5*
150°	132.2	130.9	138.1	137.0	137.7	140.2	137.3	142.1	*142.2*
152.5°	128.7	126.9	133.4	132.4	133.0	135.6	133.0	138.4	*138.2*
155°	126.2	124.7	129.9	129.0	129.4	130.7	129.4	134.9	*135.3*
157.5°	124.8	123.4	127.5	127.2	127.2	128.1	127.5	132.3	*132.7*
160°	123.8	122.8	126.1	125.8	125.5	126.7	126.6	130.7	*131.1*
162.5°	122.7	121.7	125.7	125.0	125.0	125.0	125.2	129.3	*130.1*
165°	122.1	121.8	124.6	124.6	124.3	124.9	124.5	127.7	*129.1*
167.5°	122.1	121.6	124.7	124.7	124.5	123.8	124.7	127.6	*129.1*
170°	122.4	122.0	124.5	124.3	123.6	124.0	124.1	127.3	*128.6*
172.5°	123.2	122.8	125.7	125.0	124.7	124.7	124.7	127.1	*129.1*
175°	123.3	122.9	125.1	125.1	125.5	125.3	125.5	127.2	*129.3*
177.5°	124.3	123.9	125.1	125.1	124.8	125.7	126.4	128.3	*130.9*
180°	125.7	125.7	125.7	125.7	125.7	125.7	125.7	125.7	*125.7*

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Scaled Data Report

TEST NUMBER: P1433771
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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	16.01	17.14	16.46	17.56	17.99	16.77	17.91	17.22	18.32	18.76
	3H	17.82	18.83	18.29	19.26	19.75	18.33	19.34	18.80	19.77	20.26
	4H	18.56	19.50	19.05	19.95	20.45	18.98	19.92	19.47	20.37	20.87
	6H	19.13	20.00	19.63	20.46	20.97	19.48	20.34	19.98	20.81	21.32
	8H	19.31	20.13	19.83	20.62	21.14	19.63	20.45	20.15	20.94	21.46
	12H	19.41	20.20	19.93	20.67	21.22	19.72	20.50	20.23	20.97	21.52
4H	2H	16.53	17.47	17.01	17.91	18.42	17.15	18.09	17.64	18.54	19.04
	3H	18.57	19.34	19.06	19.84	20.36	18.96	19.74	19.46	20.24	20.76
	4H	19.43	20.13	19.95	20.64	21.19	19.75	20.45	20.27	20.96	21.51
	6H	20.12	20.73	20.67	21.26	21.84	20.39	20.99	20.93	21.52	22.10
	8H	20.35	20.91	20.90	21.45	22.03	20.59	21.15	21.14	21.69	22.27
	12H	20.49	20.98	21.05	21.55	22.13	20.71	21.20	21.27	21.77	22.35
8H	4H	19.69	20.25	20.24	20.79	21.37	19.99	20.56	20.54	21.09	21.67
	6H	20.51	20.96	21.09	21.55	22.14	20.76	21.21	21.34	21.80	22.39
	8H	20.81	21.21	21.41	21.81	22.41	21.04	21.45	21.64	22.04	22.65
	12H	21.01	21.37	21.61	21.94	22.62	21.22	21.58	21.82	22.16	22.84
12H	4H	19.70	20.19	20.27	20.76	21.35	20.00	20.50	20.57	21.07	21.65
	6H	20.54	20.95	21.15	21.55	22.15	20.80	21.21	21.40	21.80	22.41
	8H	20.89	21.25	21.49	21.83	22.50	21.13	21.49	21.73	22.07	22.74

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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: SP1-2506-472-7

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L940-N

Data in this report applies to families of products including EHBR-60-L940-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

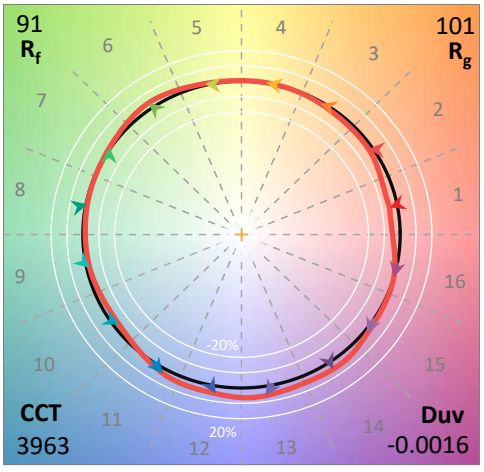
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-7
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-L940-N**
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	3963
CIE u':	0.2267
CIE v':	0.5003
Duv:	-0.0016
CIE x:	0.3810
CIE y:	0.3738
CIE z:	0.2453
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	580
Purity:	26.49712
Rf:	90.7
Rg:	101

CRI (Ra):	93.4
R1:	95.2
R2:	95.1
R3:	93.3
R4:	94.5
R5:	94.2
R6:	92.9
R7:	94.0
R8:	87.7
R9:	66.4
R10:	86.6
R11:	94.4
R12:	75.4
R13:	95.0
R14:	95.4
R15:	92.8



Test Conditions

Stabilization Time:	44M
Operation Time:	1H 44M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-7

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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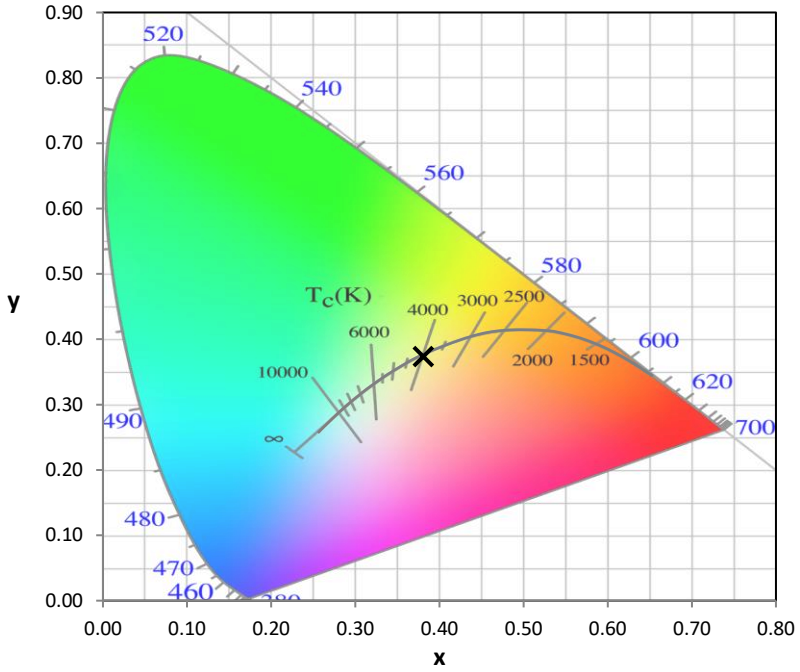
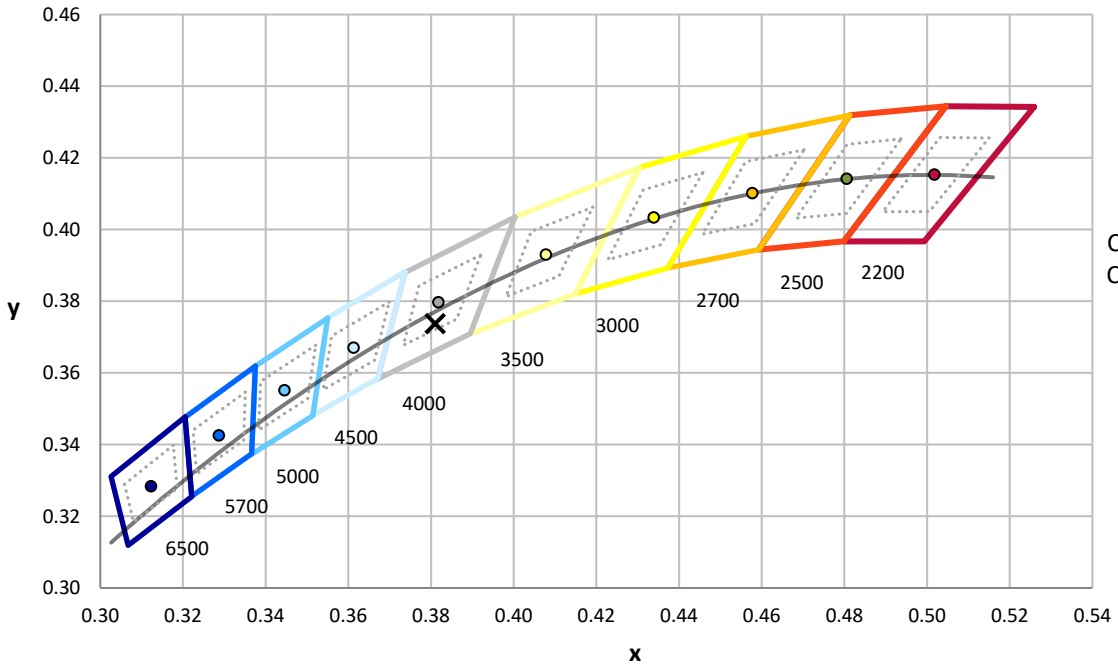
CIE 1931 Chromaticity Diagram



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



CCT = 3963K
CIE x = 0.3810
CIE y = 0.3738
Duv = -0.0016

Point lies inside the ANSI 4000K 4-step quadrangle

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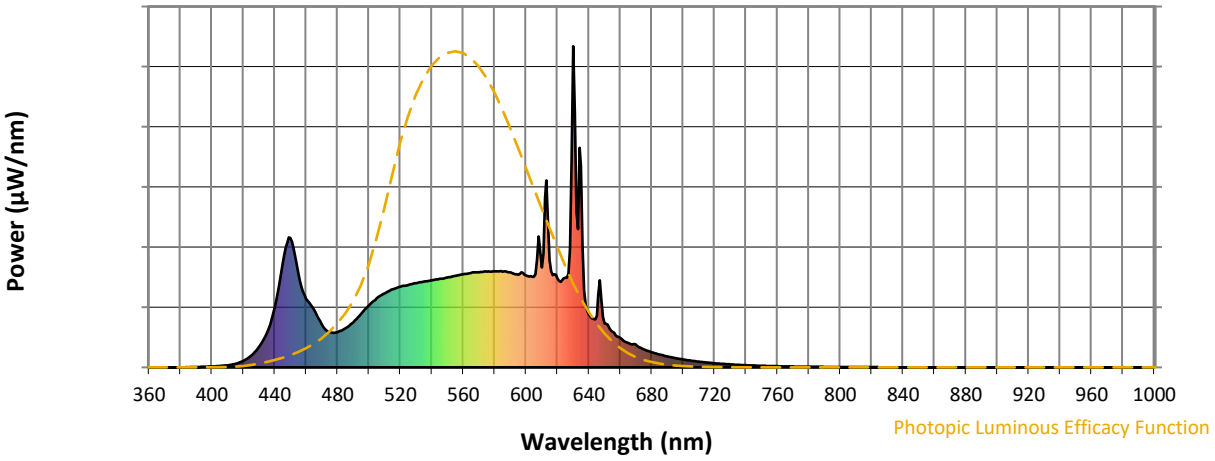
Photopic Flux vs. Wavelength



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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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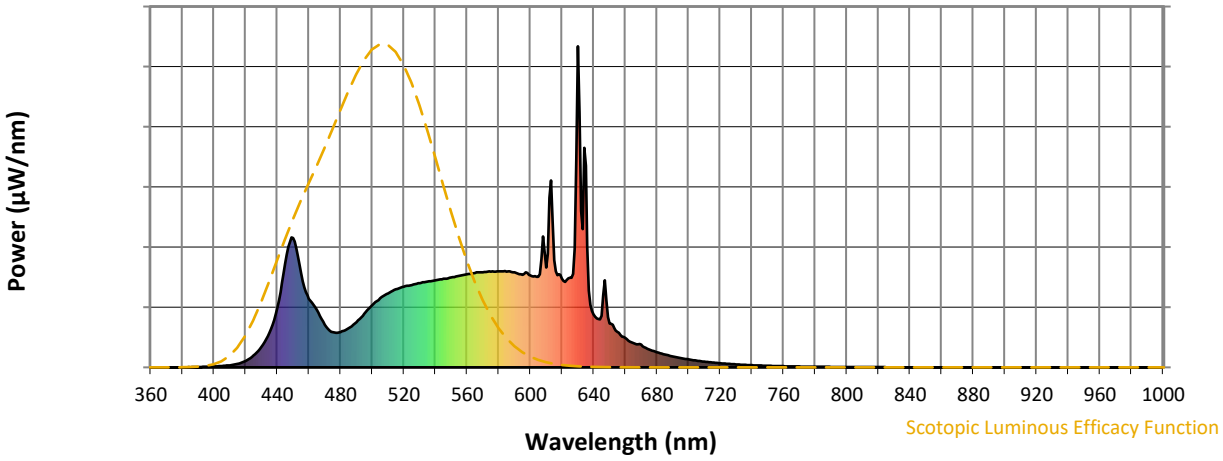
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.76**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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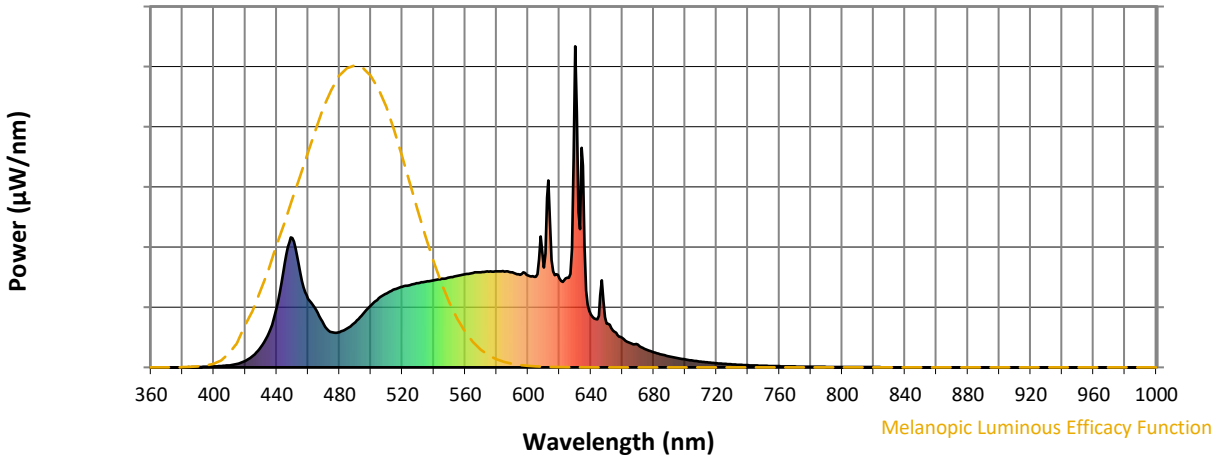
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.64**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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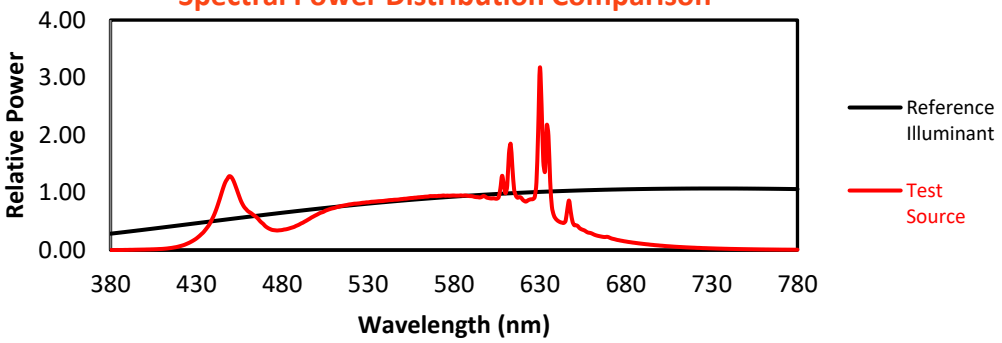
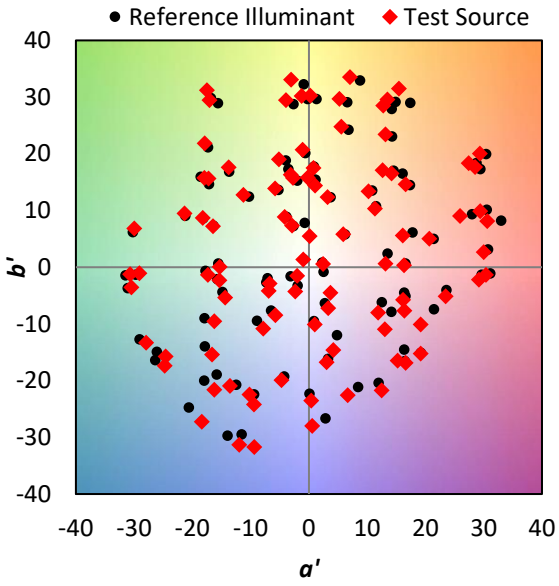
Summary

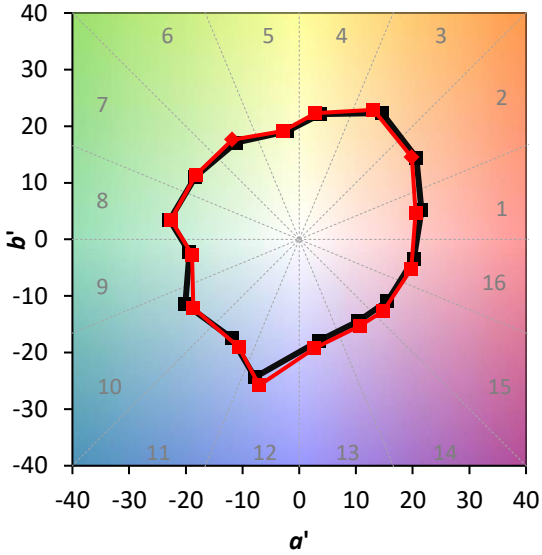
R_f = 90.7
R_g = 101
CIE R_a = 93.4
R_9 = 66.4

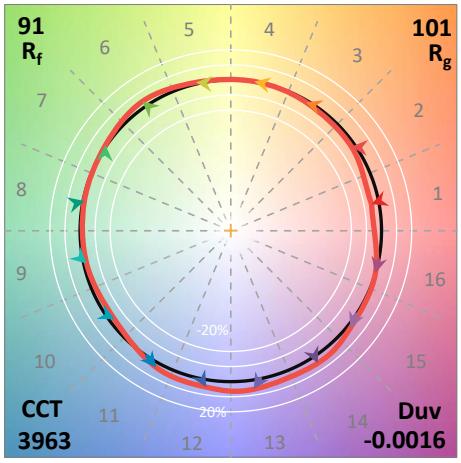
Spectral Power Distribution Comparison

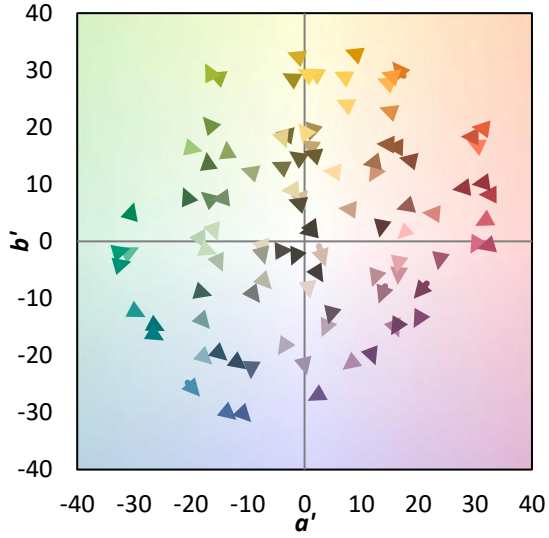


Color Vector Graphics









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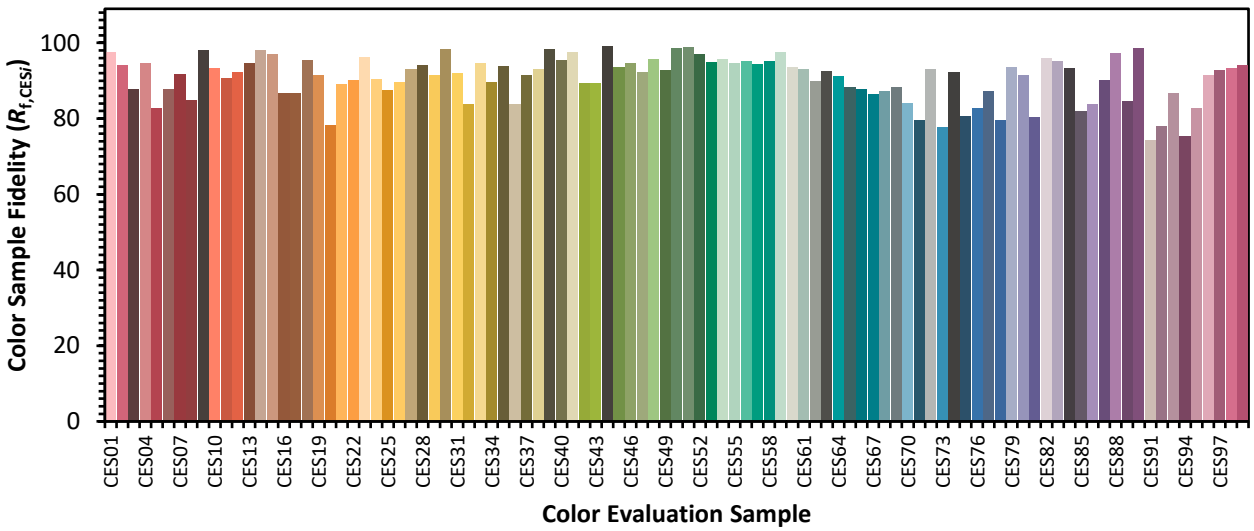
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 90	CES51 = 99	CES76 = 83
CES02 = 62	CES27 = 93	CES52 = 97	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 95	CES78 = 79
CES04 = 69	CES29 = 91	CES54 = 96	CES79 = 94
CES05 = 49	CES30 = 98	CES55 = 95	CES80 = 91
CES06 = 50	CES31 = 92	CES56 = 95	CES81 = 80
CES07 = 42	CES32 = 84	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 95	CES58 = 95	CES83 = 95
CES09 = 29	CES34 = 90	CES59 = 98	CES84 = 93
CES10 = 74	CES35 = 94	CES60 = 93	CES85 = 82
CES11 = 57	CES36 = 84	CES61 = 93	CES86 = 84
CES12 = 63	CES37 = 92	CES62 = 90	CES87 = 90
CES13 = 43	CES38 = 93	CES63 = 92	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 91	CES89 = 84
CES15 = 71	CES40 = 96	CES65 = 88	CES90 = 99
CES16 = 47	CES41 = 98	CES66 = 88	CES91 = 74
CES17 = 49	CES42 = 89	CES67 = 87	CES92 = 78
CES18 = 56	CES43 = 89	CES68 = 87	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 88	CES94 = 75
CES20 = 66	CES45 = 93	CES70 = 84	CES95 = 83
CES21 = 85	CES46 = 95	CES71 = 80	CES96 = 91
CES22 = 78	CES47 = 92	CES72 = 93	CES97 = 93
CES23 = 91	CES48 = 96	CES73 = 78	CES98 = 93
CES24 = 90	CES49 = 93	CES74 = 92	CES99 = 94
CES25 = 71	CES50 = 99	CES75 = 81	



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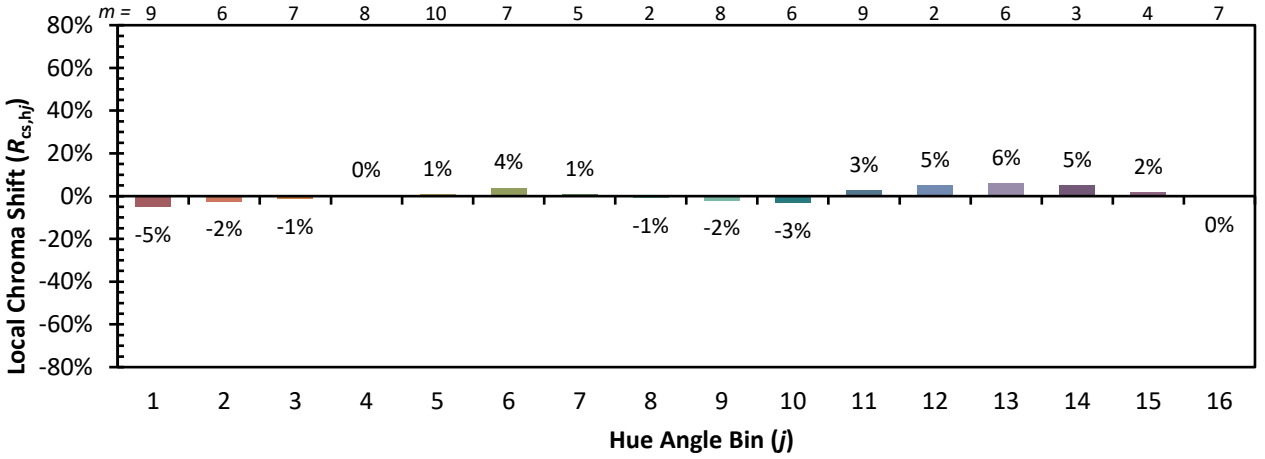
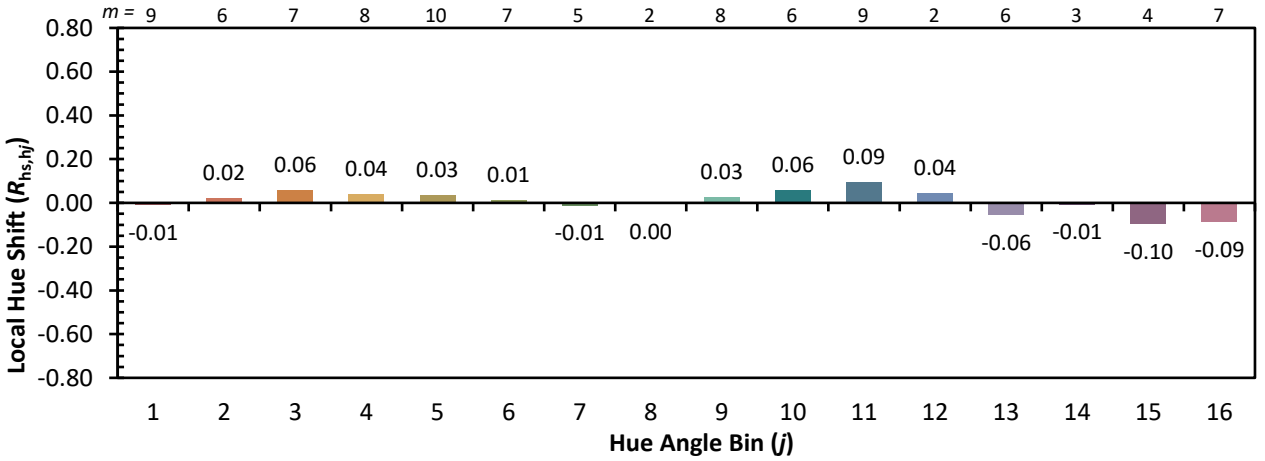
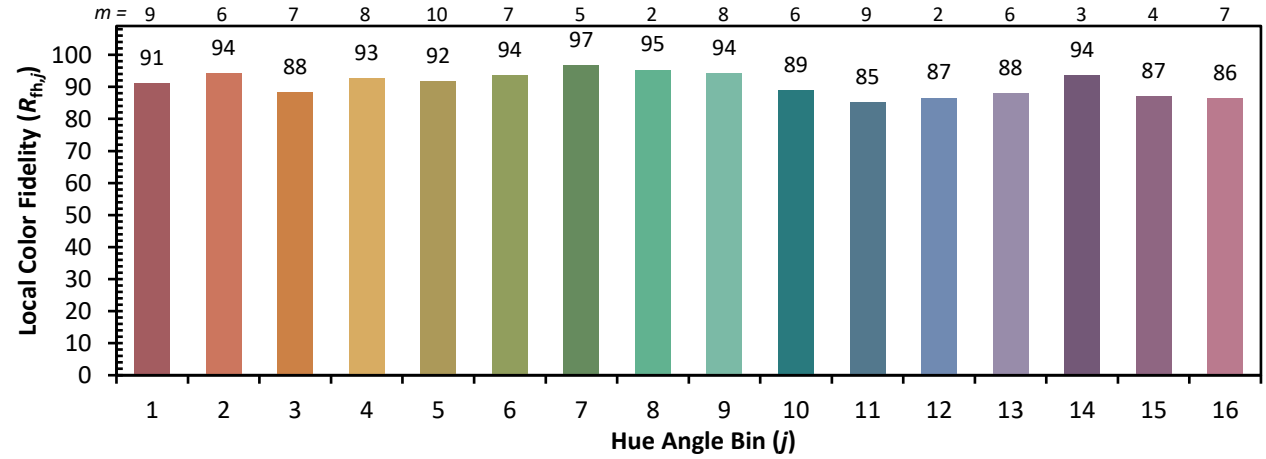
Color Rendition by Hue-Angle Bin







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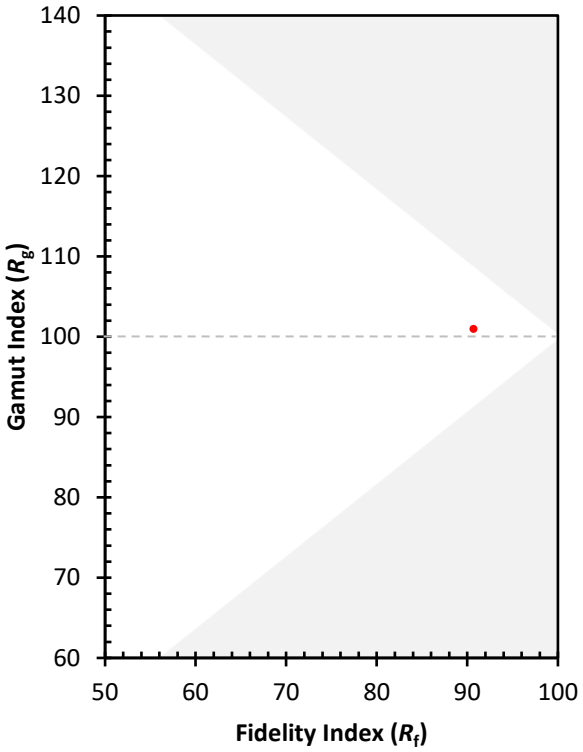
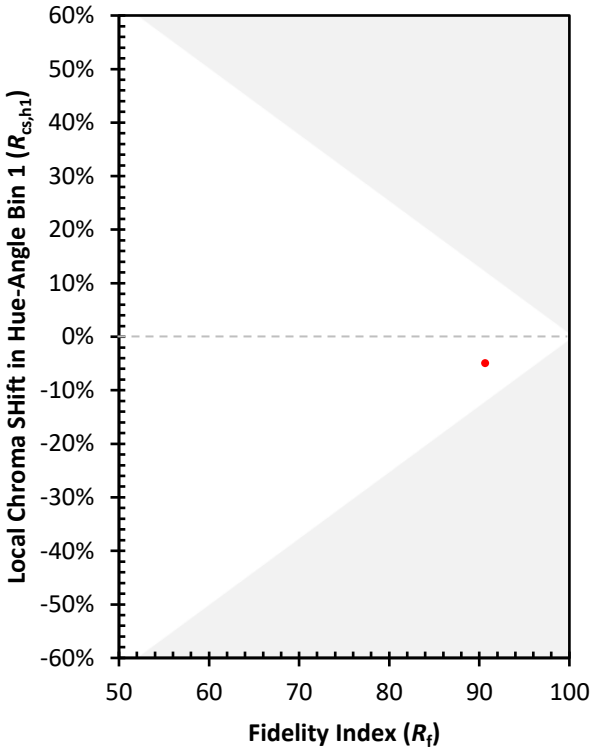
Measure Comparisons





(END OF REPORT)