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: P1432747

Luminaire Tested: EHBR1-48-UNV-ASM-L835-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:	P1432747
	REPORT IS A COMBINATION OF REPORTS P1431836 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-ASM-L835-UPL12
Description:	Elevate Round Highbay at, 48000 lumens, 3500K 80CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	47207.5 lumens
Efficiency:	N/A
Efficacy:	177.5 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):	266
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

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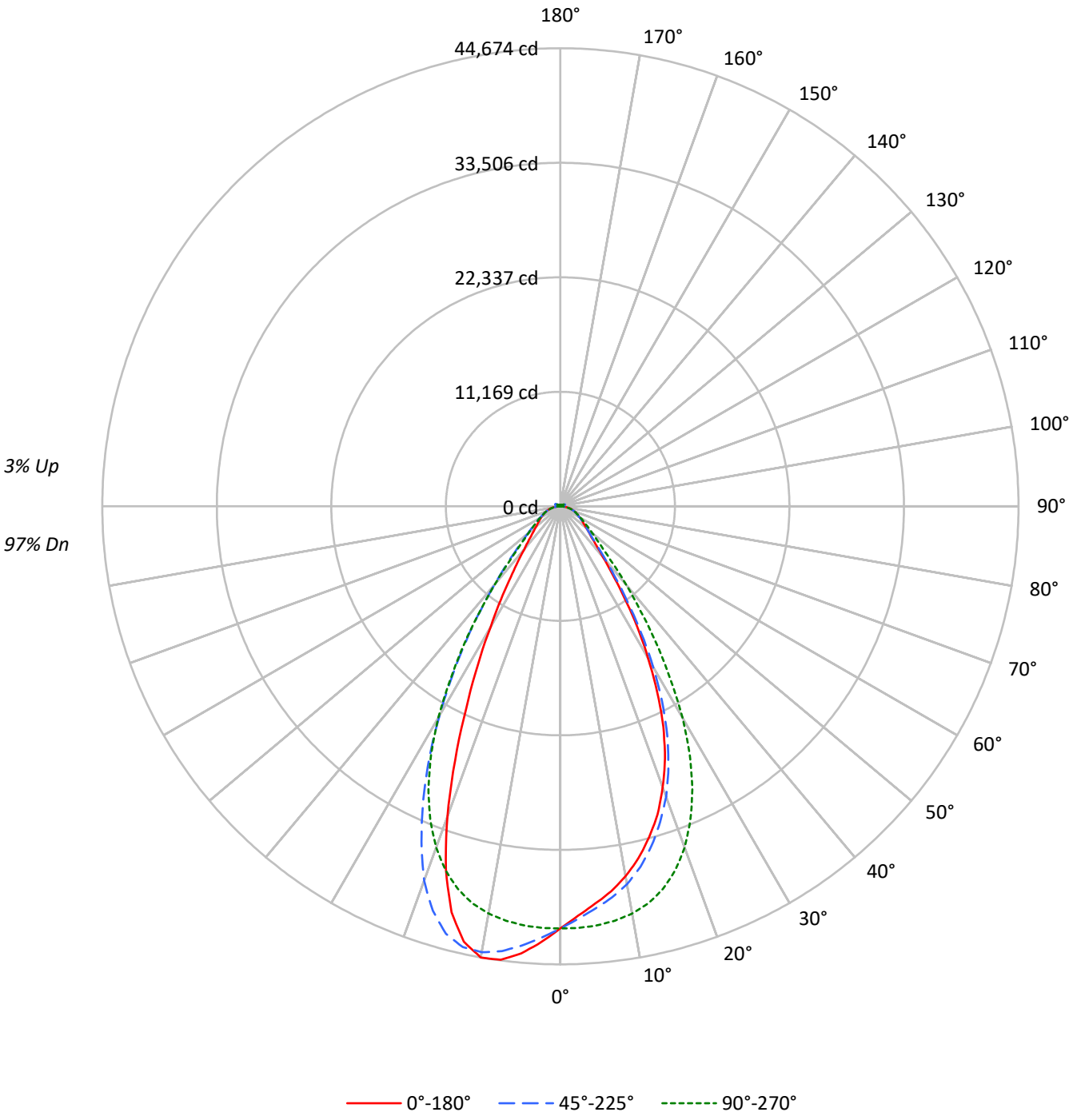
Luminous Intensity Polar Plot



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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	104	104	104	100	100	100	97
1	111	108	105	102	108	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	83	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	54	50	46	45
10	66	55	49	44	65	54	48	44	53	48	44	52	47	44	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	193341	193341	193341	193341	193341
5°	182192	184322	192165	201381	205004
10°	172430	176081	189802	207846	210267
15°	159279	163532	184198	205714	195403
20°	141872	146650	172272	189092	156687
25°	118895	123395	152474	158605	108561
30°	88957	94115	123803	122567	70627
35°	59221	62796	88795	87362	45740
40°	37348	39913	57409	57779	31526
45°	26611	27718	36426	37991	24421
50°	22165	22342	27051	27755	20752
55°	19566	19612	22085	22668	18903
60°	18117	17963	19125	19529	18007
65°	17292	17137	17434	17774	17367
70°	16796	16506	16523	16840	17016
75°	15969	15485	15452	16000	16461
80°	14529	13515	13574	14529	15542
85°	10579	8784	8784	10041	11097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 51213 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3914.7	8.3
10°-20°	10650.2	22.6
20°-30°	12490.5	26.5
30°-40°	8686.4	18.4
40°-50°	4316.7	9.1
50°-60°	2581.8	5.5
60°-70°	1817.2	3.8
70°-80°	1170.6	2.5
80°-90°	373.9	0.8
90°-100°	33.0	0.1
100°-110°	207.0	0.4
110°-120°	380.7	0.8
120°-130°	227.6	0.5
130°-140°	139.5	0.3
140°-150°	98.3	0.2
150°-160°	66.0	0.1
160°-170°	39.8	0.1
170°-180°	13.6	0.0
0°-30°	27055.4	57.3
0°-40°	35741.7	75.7
0°-60°	42640.3	90.3
0°-90°	46002.0	97.4
90°-120°	620.7	1.3
90°-150°	1086.1	2.3
90°-180°	1206.0	2.6
0°-180°	47207.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	41171	41171	41171	41171	41171	
5°	38901	39356	41030	42998	43772	3649
15°	33416	34308	38644	43158	40995	9319
25°	23743	24642	30449	31673	21680	10713
35°	10869	11525	16297	16034	8395	6924
45°	4306	4485	5894	6147	3951	3480
55°	2644	2650	2985	3063	2555	2399
65°	1805	1789	1820	1855	1813	1792
75°	1125	1091	1088	1127	1160	1187
85°	364	302	302	345	381	374
90°	9	24	9	27	15	22
95°	15	54	18	47	21	15
105°	72	358	95	384	53	97
115°	328	424	405	471	350	303
125°	238	229	260	255	276	217
135°	175	178	168	187	195	137
145°	150	157	155	157	162	95
155°	138	141	141	141	147	65
165°	138	139	139	140	147	39
175°	141	143	144	145	150	13
180°	144	144	144	144	144	

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Scaled Data Report

TEST NUMBER: P1432747
CATALOG NUMBER: EHBR1-48-UNV-ASM-L835-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	41170.6	41170.6	41170.6	41170.6	41170.6	41170.6	41170.6	41170.6	*41170.6*
2.5°	39948.6	39974.7	40254.2	40617.9	41146.7	41678.6	42109.4	42393.5	*42534.0*
5°	38900.9	39046.1	39355.7	40023.4	41030.2	42095.5	42998.0	43588.6	*43771.5*
7.5°	37880.4	37964.4	38482.5	39326.3	40751.4	42411.2	43752.2	44441.6	*44610.0*
10°	*36635.1*	*36825.7*	*37410.9*	*38406.0*	*40326.1*	*42610.4*	*44159.8*	*44654.0*	*44674.1*
12.5°	35169.8	35422.2	36026.8	37282.1	39647.5	42539.4	44023.2	43861.0	*43492.9*
15°	33415.8	33637.3	34308.2	35764.3	38643.8	42118.7	43157.8	41838.4	*40994.6*
17.5°	31521.3	31722.0	32304.8	33908.3	37229.5	41331.2	41351.2	38741.1	*37149.2*
20°	29158.9	29316.4	30140.9	31714.3	35406.8	40068.2	38863.8	34089.8	*32203.7*
22.5°	26645.2	26792.7	27525.3	29162.8	33121.6	38365.1	35399.8	29410.5	*26837.5*
25°	23743.3	23823.5	24641.9	26122.5	30448.9	36278.4	31673.3	24312.2	*21679.6*
27.5°	20478.4	20615.1	21471.2	22983.6	27305.3	33633.5	27705.2	19866.9	*17438.2*
30°	17110.9	17337.1	18102.9	19457.0	23813.5	30242.8	23575.7	15821.6	*13585.1*
32.5°	13968.0	14130.9	14676.8	16091.9	19904.0	26919.2	19609.9	12677.2	*10782.7*
35°	10869.2	11032.1	11525.4	12915.0	16297.1	22761.2	16034.0	9961.2	*8394.9*
37.5°	8308.4	8596.4	8912.9	10040.8	12789.9	18832.4	12781.5	8021.2	*6809.1*
40°	6473.3	6519.7	6918.0	7639.9	9950.5	14725.3	10014.6	6403.1	*5464.3*
42.5°	5181.7	5307.6	5479.0	6019.4	7539.5	11259.8	7871.4	5255.1	*4641.3*
45°	4305.5	4355.0	4484.6	4847.5	5893.5	8286.0	6146.8	4433.7	*3951.2*
47.5°	3766.6	3745.0	3828.4	4100.1	4799.6	6403.9	4981.8	3802.9	*3464.8*
50°	3303.4	3290.3	3329.7	3511.1	4031.5	4913.8	4136.4	3319.6	*3092.7*
52.5°	2943.7	2955.3	2959.2	3071.8	3463.2	4007.5	3522.7	2958.4	*2805.5*
55°	2644.1	2658.8	2650.3	2733.7	2984.6	3369.1	3063.3	2660.4	*2554.6*
57.5°	2410.2	2399.5	2387.8	2432.6	2621.0	2858.0	2660.4	2406.3	*2336.1*
60°	2177.9	2167.8	2159.4	2188.6	2299.1	2475.1	2347.7	2184.8	*2164.7*
62.5°	1978.7	1972.5	1971.7	1966.3	2051.2	2162.5	2076.0	1985.6	*1967.8*
65°	1804.9	1798.0	1788.7	1780.3	1819.7	1923.1	1855.2	1806.5	*1812.7*
67.5°	1631.2	1631.2	1615.1	1602.0	1640.6	1694.6	1665.2	1637.5	*1644.4*
70°	1473.8	1474.5	1448.3	1438.3	1449.8	1507.7	1477.6	1481.5	*1493.1*
72.5°	1304.7	1286.1	1266.8	1266.1	1267.6	1312.4	1302.4	1311.6	*1324.0*
75°	1124.9	1103.2	1090.8	1077.0	1088.5	1122.5	1127.1	1140.3	*1159.6*
77.5°	951.1	917.9	907.8	901.0	893.2	931.8	946.5	964.3	*992.8*
80°	764.3	728.0	711.0	701.0	714.1	731.8	764.3	777.4	*817.6*
82.5°	565.1	538.1	517.2	516.5	522.7	538.9	566.7	591.3	*614.5*
85°	363.6	320.4	301.9	308.9	301.9	326.6	345.1	374.4	*381.4*
87.5°	131.2	102.7	98.0	108.1	105.8	113.5	129.7	141.3	*142.1*
90°	9.2	14.4	24.2	15.7	9.2	15.9	27.1	17.6	*14.6*
92.5°	13.2	21.6	38.6	20.3	11.8	21.0	37.5	22.2	*17.9*
95°	15.1	24.8	53.5	26.9	17.8	25.6	47.2	24.1	*20.6*
97.5°	19.8	27.4	61.4	32.7	27.0	31.5	53.1	25.5	*23.8*
100°	25.6	32.0	95.2	40.6	35.4	35.4	95.4	28.7	*26.4*
102.5°	42.6	67.2	201.4	75.2	53.0	68.8	219.3	54.3	*30.9*
105°	72.5	140.8	358.3	155.9	95.3	154.8	384.1	133.0	*53.2*
107.5°	124.6	251.5	473.0	275.1	179.4	286.9	494.2	258.1	*116.4*
110°	231.5	333.6	495.9	377.3	286.2	400.3	539.1	351.9	*229.7*

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Scaled Data Report

TEST NUMBER: P1432747
CATALOG NUMBER: EHBR1-48-UNV-ASM-L835-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	312.2	358.3	475.1	416.4	372.1	445.9	526.7	389.7	*315.6*
115°	328.5	344.6	424.2	406.6	404.9	439.4	470.7	388.4	*349.6*
117.5°	317.4	314.7	360.4	366.4	391.2	402.2	406.9	364.9	*351.5*
120°	294.0	280.1	301.1	320.1	353.4	348.8	343.9	330.4	*331.9*
122.5°	264.6	249.0	258.9	273.4	306.6	296.8	291.1	296.1	*305.3*
125°	238.1	221.7	229.1	233.1	260.4	250.6	254.7	266.1	*276.1*
127.5°	214.0	202.8	207.6	204.5	222.1	217.5	228.1	240.7	*249.4*
130°	197.7	188.6	194.7	186.4	194.8	195.4	209.2	220.6	*225.9*
132.5°	184.8	178.9	186.5	176.2	178.0	182.5	195.6	205.8	*209.2*
135°	175.0	170.6	178.0	169.1	167.8	174.0	186.6	192.6	*194.8*
137.5°	167.4	163.6	171.7	164.8	161.9	168.2	177.5	183.0	*182.4*
140°	161.1	158.0	166.0	160.2	158.8	165.1	169.0	175.1	*175.4*
142.5°	154.2	151.6	161.0	157.0	155.7	161.4	163.3	168.1	*167.6*
145°	149.8	147.9	157.2	154.4	154.6	158.9	156.9	162.2	*161.7*
147.5°	146.1	144.8	152.6	151.3	151.3	154.4	152.4	157.2	*156.6*
150°	143.1	141.8	148.9	147.4	148.1	150.7	147.4	152.6	*153.5*
152.5°	140.1	138.0	144.4	142.9	143.6	146.2	143.6	149.6	*149.7*
155°	138.4	136.3	141.4	139.8	140.6	142.0	140.6	146.6	*147.4*
157.5°	138.1	135.9	139.7	139.0	139.0	140.3	139.7	145.1	*145.8*
160°	137.7	136.2	139.4	138.7	138.8	140.0	140.2	144.9	*145.7*
162.5°	137.3	135.9	139.6	139.0	139.0	139.0	139.9	144.6	*146.1*
165°	137.5	136.7	139.3	139.3	139.3	140.0	140.3	144.4	*146.6*
167.5°	137.5	136.9	140.1	140.1	140.3	139.6	141.2	145.5	*147.7*
170°	138.5	137.7	140.3	140.4	139.7	140.5	141.4	145.7	*147.9*
172.5°	140.0	139.3	142.6	142.0	142.1	142.1	143.1	146.6	*149.5*
175°	140.9	140.1	142.8	142.8	143.6	143.7	144.7	147.5	*150.4*
177.5°	142.4	141.6	142.8	142.8	142.9	144.5	145.9	148.9	*152.4*
180°	144.5	144.5	144.5	144.5	144.5	144.5	144.5	144.5	*144.5*

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Scaled Data Report

TEST NUMBER: P1432747
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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	18.58	19.75	18.99	20.11	20.50	19.34	20.51	19.76	20.88	21.26
	3H	20.40	21.43	20.82	21.82	22.25	20.91	21.94	21.33	22.33	22.76
	4H	21.14	22.10	21.59	22.51	22.96	21.56	22.52	22.01	22.93	23.38
	6H	21.71	22.60	22.17	23.02	23.48	22.05	22.94	22.52	23.37	23.83
	8H	21.89	22.73	22.37	23.18	23.64	22.21	23.05	22.69	23.50	23.96
	12H	21.99	22.80	22.47	23.23	23.72	22.29	23.10	22.77	23.53	24.02
4H	2H	19.10	20.07	19.55	20.47	20.92	19.73	20.70	20.18	21.10	21.55
	3H	21.14	21.94	21.60	22.40	22.86	21.54	22.34	22.00	22.79	23.26
	4H	22.01	22.72	22.49	23.19	23.70	22.33	23.04	22.81	23.51	24.02
	6H	22.70	23.32	23.21	23.82	24.35	22.96	23.58	23.47	24.08	24.61
	8H	22.93	23.51	23.44	24.00	24.53	23.17	23.74	23.68	24.24	24.77
	12H	23.07	23.57	23.60	24.10	24.64	23.29	23.79	23.82	24.32	24.86
8H	4H	22.27	22.84	22.78	23.34	23.87	22.57	23.15	23.09	23.64	24.18
	6H	23.09	23.55	23.63	24.10	24.64	23.34	23.80	23.88	24.35	24.89
	8H	23.38	23.80	23.95	24.36	24.92	23.62	24.03	24.18	24.60	25.15
	12H	23.59	23.96	24.15	24.50	25.13	23.80	24.17	24.36	24.71	25.34
12H	4H	22.28	22.78	22.81	23.31	23.85	22.58	23.09	23.11	23.62	24.16
	6H	23.12	23.54	23.69	24.10	24.66	23.38	23.80	23.95	24.36	24.91
	8H	23.47	23.84	24.03	24.38	25.01	23.71	24.08	24.27	24.62	25.25

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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: SP1-2506-472-3

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L835-N

Data in this report applies to families of products including EHBR-60-L835-N

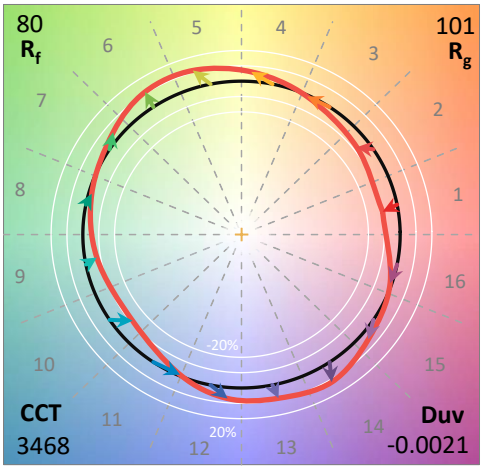
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-3
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-L835-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3500K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	3468	CRI (Ra):	82.1		
CIE u':	0.2375	R1:	82.9	R9:	27.6
CIE v':	0.5091	R2:	85.6	R10:	63.8
Duv:	-0.0021	R3:	85.9	R11:	81.2
CIE x:	0.4049	R4:	82.8	R12:	57.2
CIE y:	0.3856	R5:	81.0	R13:	82.6
CIE z:	0.2095	R6:	79.7	R14:	91.0
Peak Wavelength (nm):	630	R7:	86.5	R15:	79.4
Dominant Wavelength (nm):	581	R8:	72.1		
Purity:	37.24544				
Rf:	80.1				
Rg:	101				



Test Conditions

Stabilization Time:	39M
Operation Time:	1H 39M
Sphere Temperature (°C):	25.0

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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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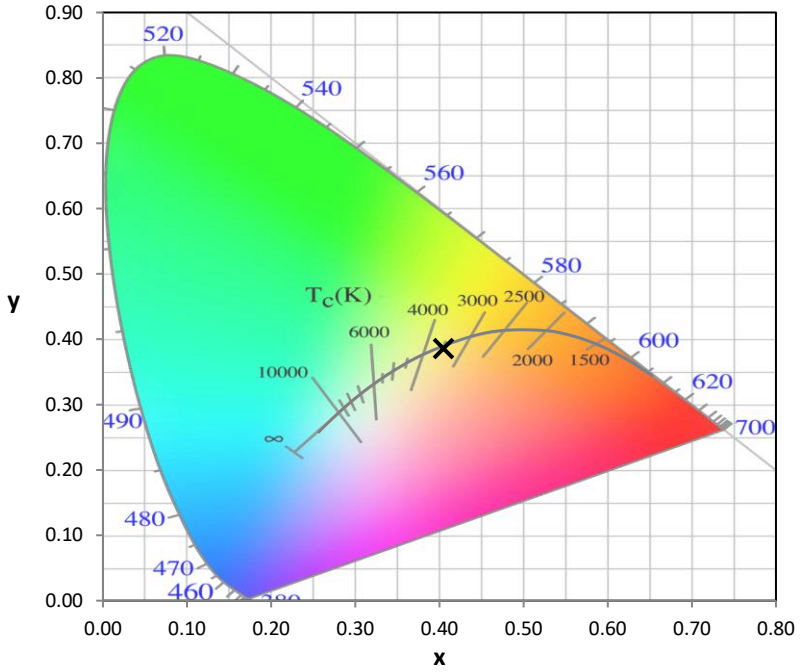
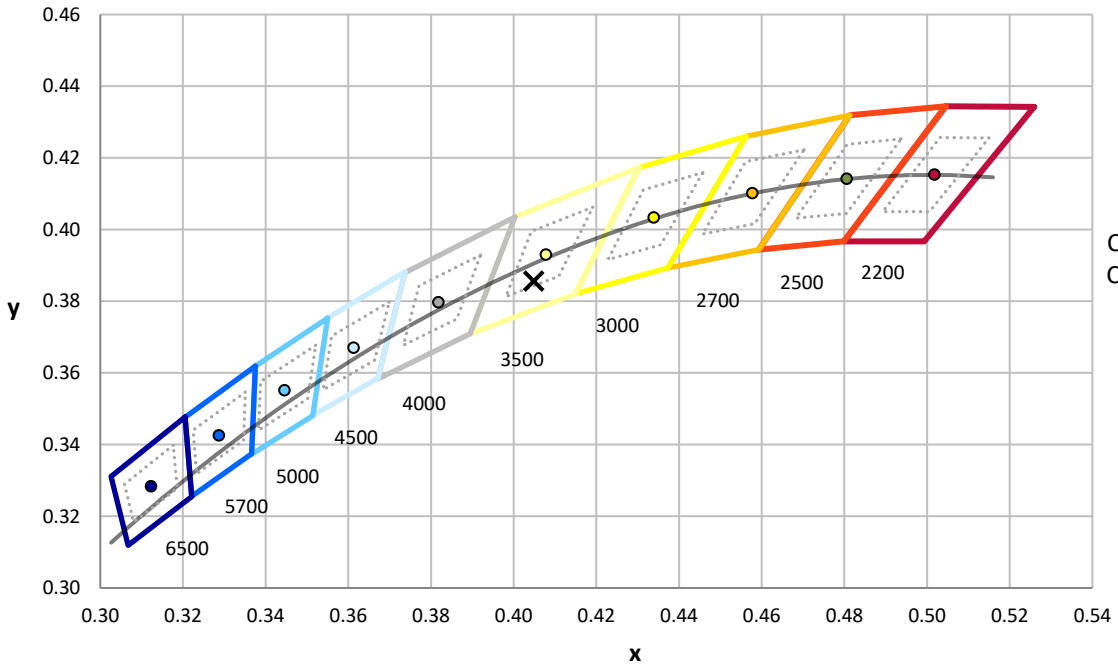
CIE 1931 Chromaticity Diagram



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



CCT = 3468K
CIE x = 0.4049
CIE y = 0.3856
Duv = -0.0021

Point lies inside the ANSI 3500K 4-step quadrangle

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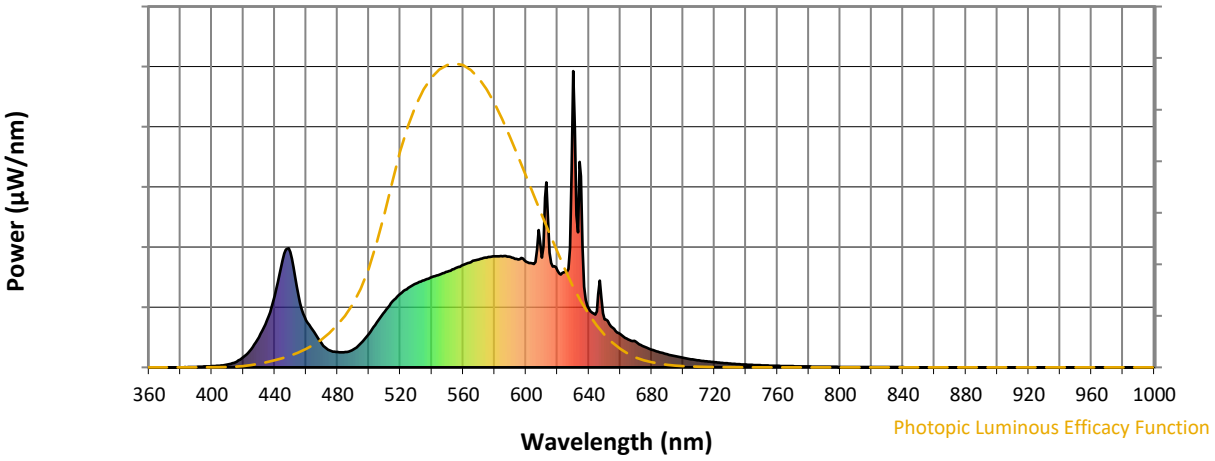
Photopic Flux vs. Wavelength



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	60	NR	620	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

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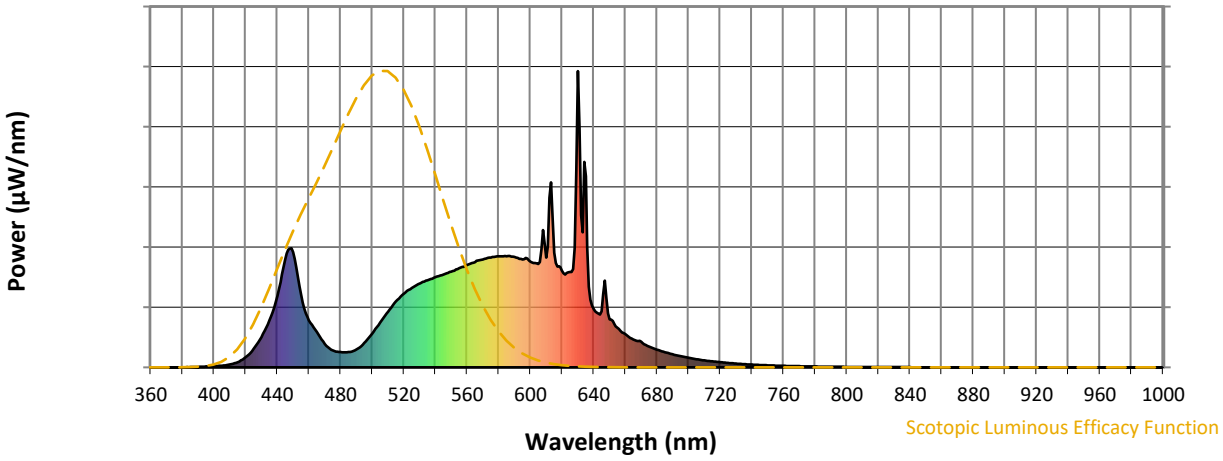
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.43**

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	60	NR	620	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

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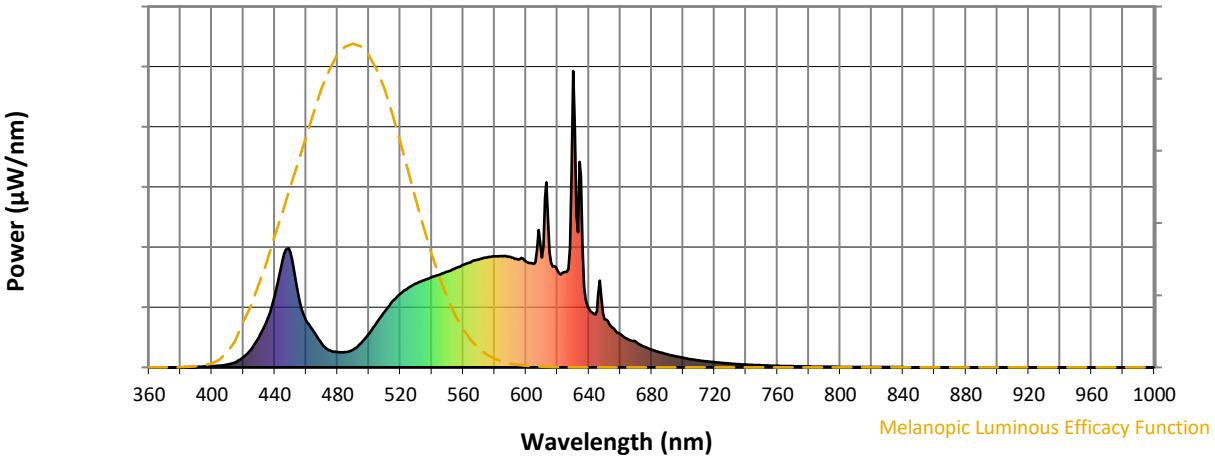
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.75**

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	60	NR	620	327	NR	750	7	NR	880	0	NR
365	0	NR	495	82	NR	625	322	NR	755	6	NR	885	0	NR
370	0	NR	500	114	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	152	NR	635	645	NR	765	4	NR	895	0	NR
380	0	NR	510	189	NR	640	197	NR	770	4	NR	900	0	NR
385	1	NR	515	222	NR	645	189	NR	775	3	NR	905	0	NR
390	2	NR	520	248	NR	650	163	NR	780	3	NR	910	0	NR
395	3	NR	525	268	NR	655	134	NR	785	2	NR	915	0	NR
400	4	NR	530	283	NR	660	113	NR	790	2	NR	920	0	NR
405	6	NR	535	294	NR	665	94	NR	795	2	NR	925	0	NR
410	9	NR	540	305	NR	670	87	NR	800	2	NR	930	0	NR
415	18	NR	545	314	NR	675	70	NR	805	1	NR	935	0	NR
420	34	NR	550	323	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	335	NR	685	51	NR	815	1	NR	945	0	NR
430	102	NR	560	346	NR	690	44	NR	820	1	NR	950	0	NR
435	159	NR	565	356	NR	695	38	NR	825	1	NR	955	0	NR
440	241	NR	570	364	NR	700	32	NR	830	1	NR	960	0	NR
445	363	NR	575	371	NR	705	28	NR	835	1	NR	965	0	NR
450	389	NR	580	375	NR	710	24	NR	840	1	NR	970	0	NR
455	245	NR	585	375	NR	715	20	NR	845	0	NR	975	0	NR
460	158	NR	590	373	NR	720	17	NR	850	0	NR	980	0	NR
465	120	NR	595	364	NR	725	15	NR	855	0	NR	985	0	NR
470	79	NR	600	357	NR	730	13	NR	860	0	NR	990	0	NR
475	57	NR	605	349	NR	735	11	NR	865	0	NR	995	0	NR
480	51	NR	610	371	NR	740	9	NR	870	0	NR	1000	0	NR
485	51	NR	615	387	NR	745	8	NR	875	0	NR			

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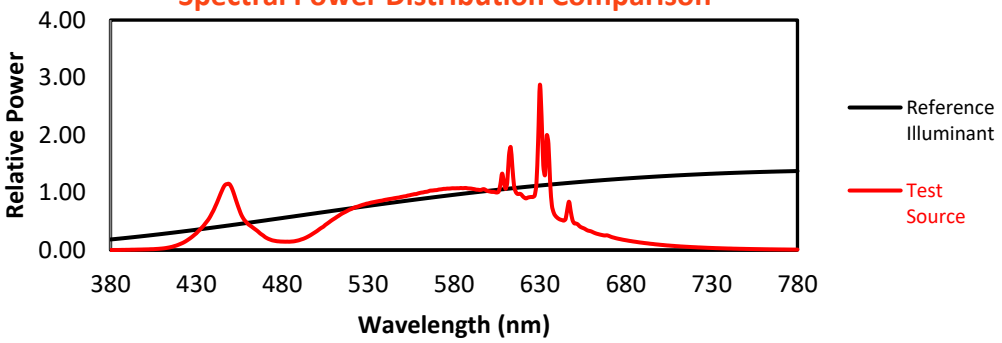
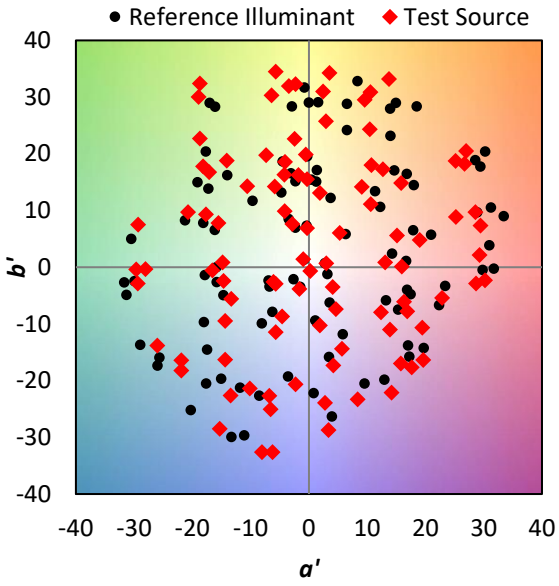
Summary

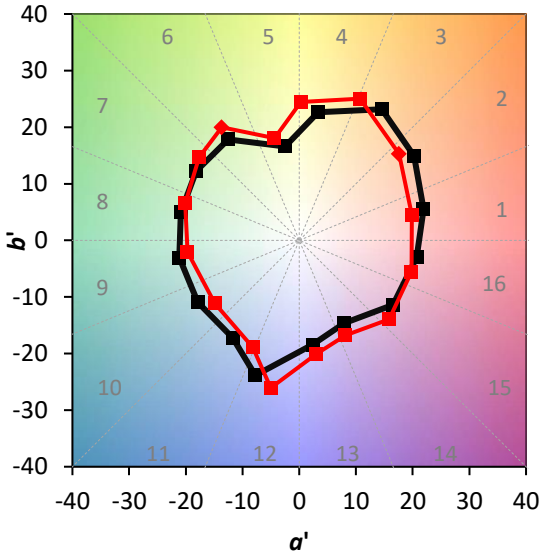
R_f = 80.1
R_g = 101
CIE R_a = 82.1
R_9 = 27.6

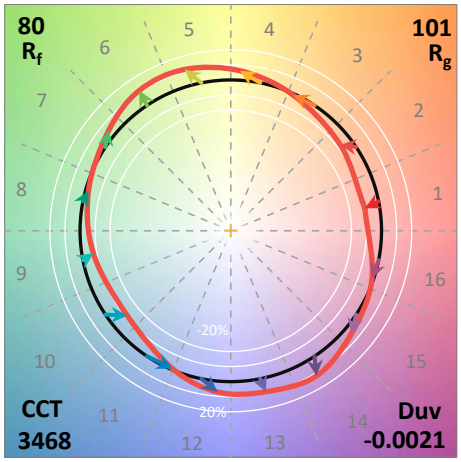
Spectral Power Distribution Comparison

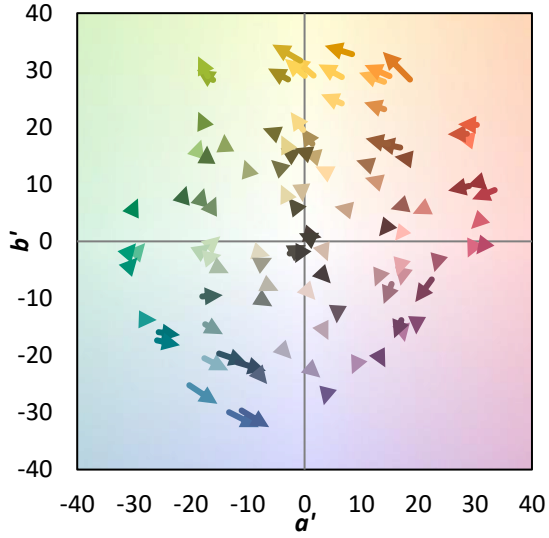


Color Vector Graphics









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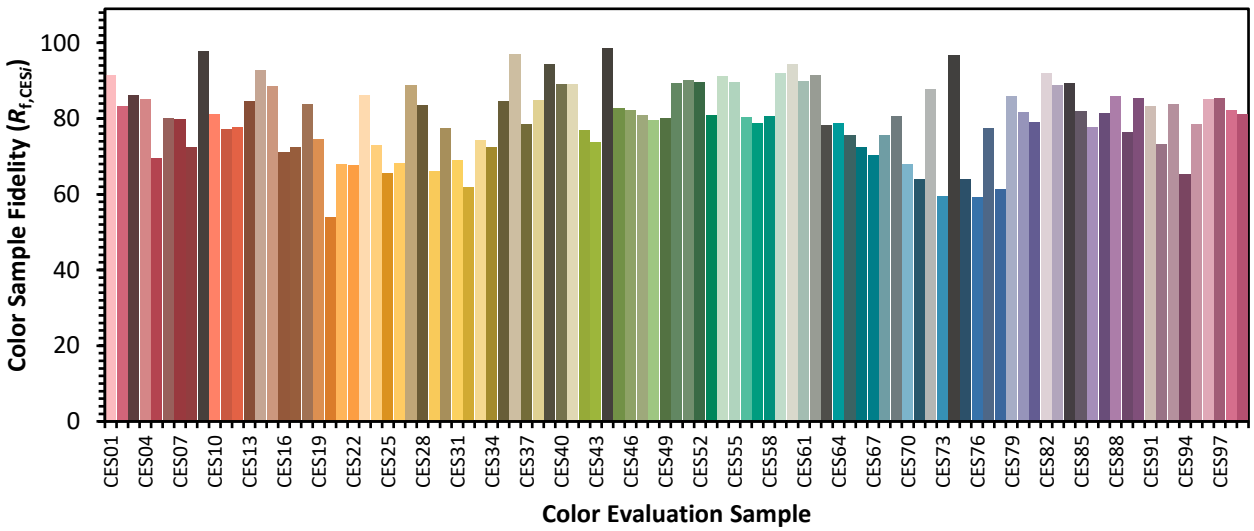
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 68	CES51 = 90	CES76 = 59
CES02 = 62	CES27 = 89	CES52 = 90	CES77 = 78
CES03 = 31	CES28 = 84	CES53 = 81	CES78 = 61
CES04 = 70	CES29 = 66	CES54 = 91	CES79 = 86
CES05 = 49	CES30 = 77	CES55 = 90	CES80 = 82
CES06 = 51	CES31 = 69	CES56 = 80	CES81 = 79
CES07 = 42	CES32 = 62	CES57 = 79	CES82 = 92
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 72	CES59 = 92	CES84 = 89
CES10 = 75	CES35 = 85	CES60 = 94	CES85 = 82
CES11 = 58	CES36 = 97	CES61 = 90	CES86 = 78
CES12 = 64	CES37 = 79	CES62 = 92	CES87 = 82
CES13 = 43	CES38 = 85	CES63 = 78	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 76
CES15 = 71	CES40 = 89	CES65 = 76	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 73	CES91 = 83
CES17 = 49	CES42 = 77	CES67 = 70	CES92 = 73
CES18 = 56	CES43 = 74	CES68 = 76	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 81	CES94 = 65
CES20 = 66	CES45 = 83	CES70 = 68	CES95 = 79
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 85
CES22 = 78	CES47 = 81	CES72 = 88	CES97 = 85
CES23 = 92	CES48 = 80	CES73 = 60	CES98 = 82
CES24 = 91	CES49 = 80	CES74 = 97	CES99 = 81
CES25 = 72	CES50 = 89	CES75 = 64	



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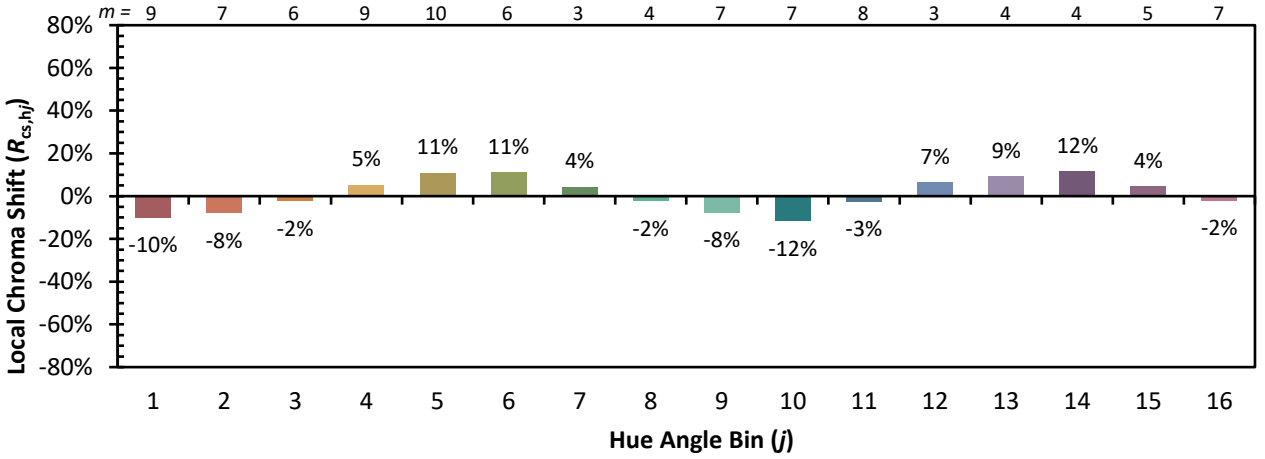
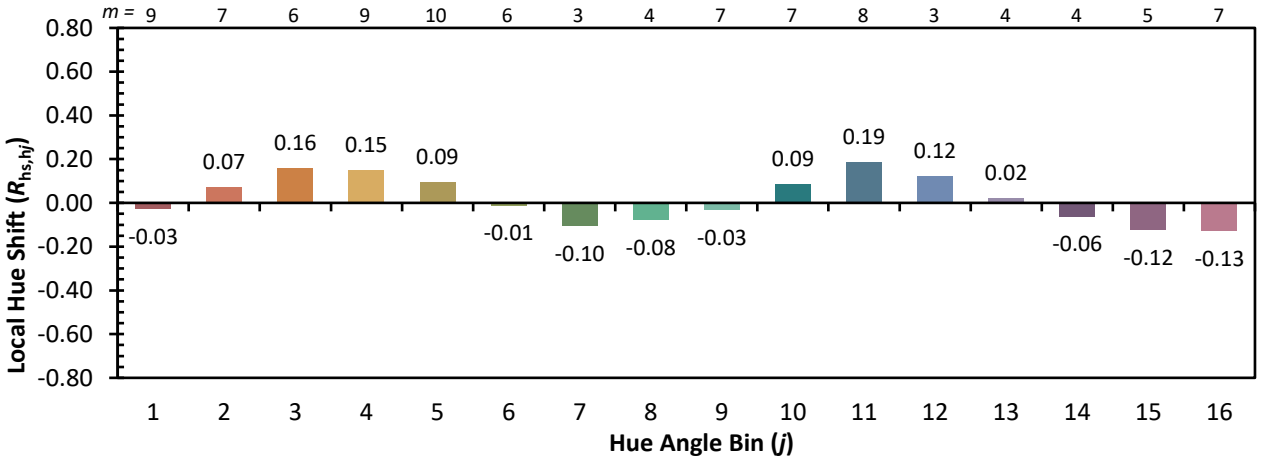
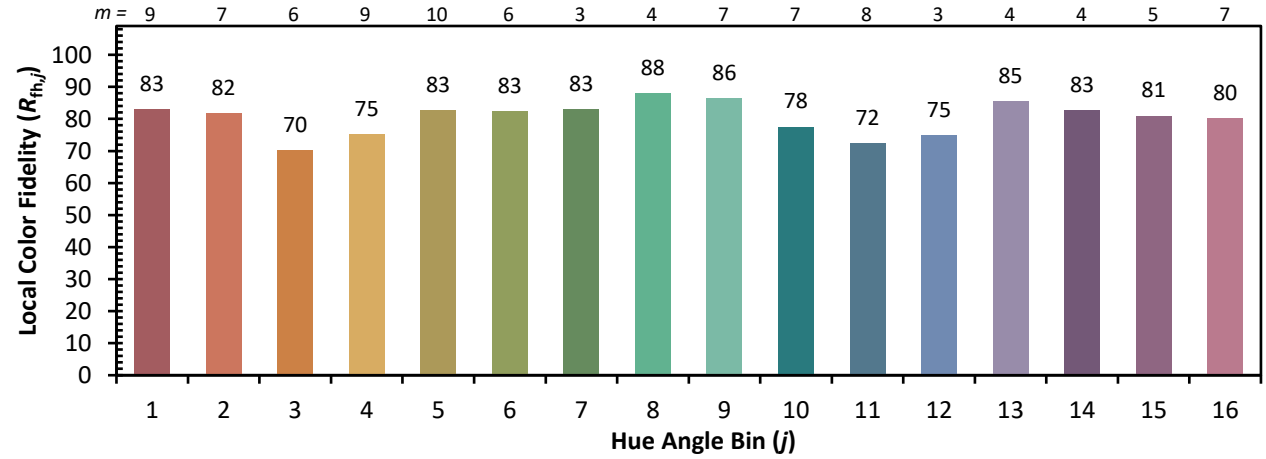
Color Rendition by Hue-Angle Bin







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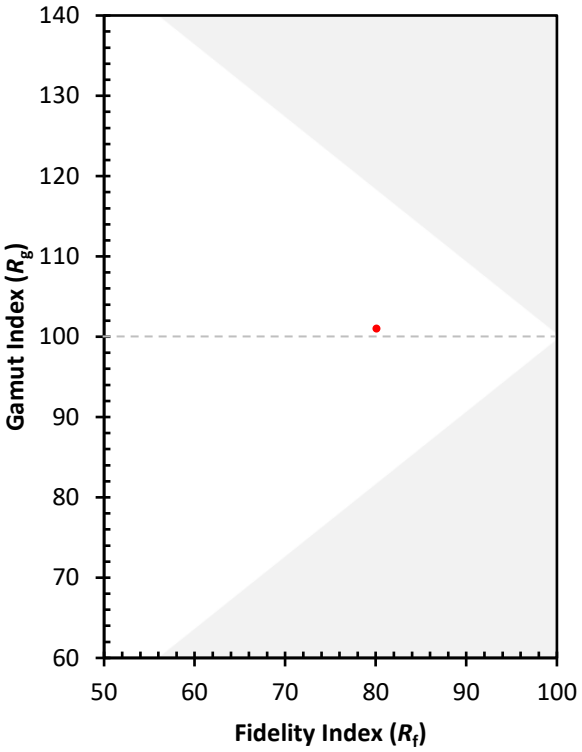
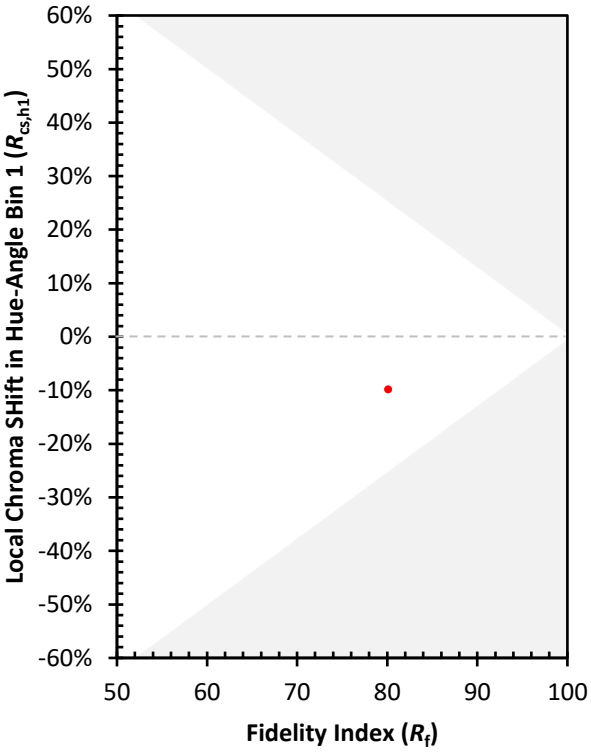
Measure Comparisons





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