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: P1433027

Luminaire Tested: EHBR1-48-UNV-A1-L850-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:	P1433027
	REPORT IS A COMBINATION OF REPORTS P1431828 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-A1-L850-UPL12
Description:	Elevate Round Highbay at, 48000 lumens, 5000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	47732.9 lumens
Efficiency:	N/A
Efficacy:	179.4 lumens/watt
Spacing Criteria (0/90/45):	0.8 / 1.07 / 0.95
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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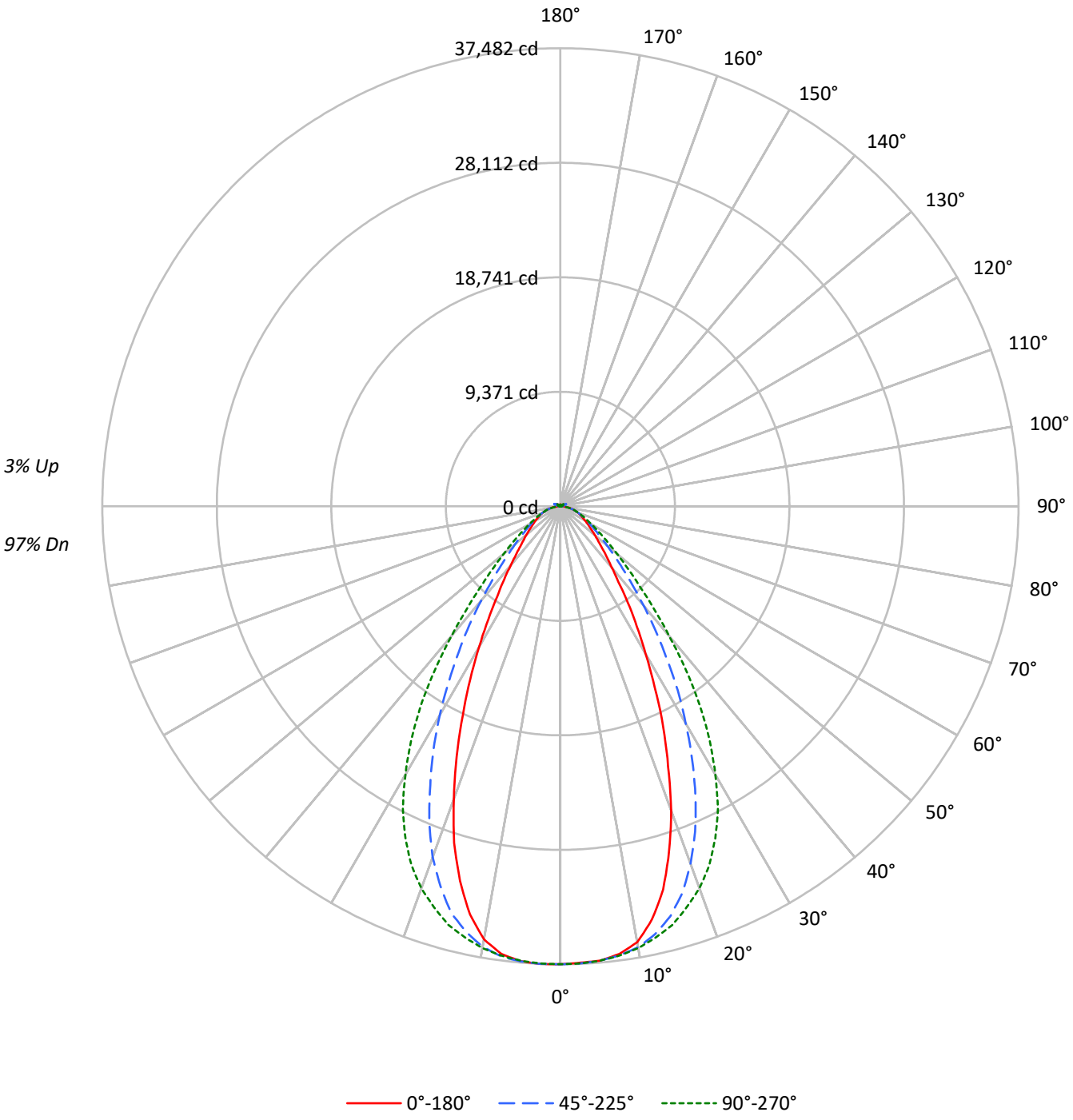
Luminous Intensity Polar Plot



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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	105	105	105	100	100	100	97
1	111	107	104	101	108	105	102	100	100	98	96	96	94	93	92	91	90	87
2	104	98	92	88	101	96	91	87	92	88	85	88	85	82	85	83	80	78
3	97	89	83	78	95	87	82	77	84	79	75	81	77	74	79	75	72	70
4	91	82	75	69	89	80	74	69	78	72	68	75	70	67	73	69	66	64
5	85	75	68	63	83	74	67	62	72	66	61	70	65	61	68	63	60	58
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	63	59	55	53
7	75	64	57	52	74	64	57	52	62	56	52	60	55	51	59	54	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	55	50	47	45
9	67	56	49	45	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	53	46	41	62	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	175946	175946	175946	175946	175946
5°	174783	174758	174765	175073	174967
10°	170463	172450	172724	172236	169348
15°	154753	165551	168958	164223	151199
20°	128958	151458	161805	148606	123938
25°	99731	130959	150104	126177	94564
30°	72695	106651	131855	102604	68999
35°	52401	82202	108364	78662	48981
40°	37700	60713	79860	58151	36536
45°	29707	44417	55776	42491	28679
50°	24647	33372	40370	32271	24273
55°	21526	26351	30573	25909	21235
60°	19413	21998	24360	21861	19551
65°	18156	19405	20472	19465	18329
70°	17242	17655	18199	17752	17413
75°	16087	15986	16087	16031	16241
80°	14529	13485	13186	13694	14529
85°	10070	8539	8449	8676	10367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 58438 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3538.1	7.4
10°-20°	9509.2	19.9
20°-30°	11563.2	24.2
30°-40°	9419.1	19.7
40°-50°	5655.2	11.8
50°-60°	3254.6	6.8
60°-70°	2036.8	4.3
70°-80°	1199.6	2.5
80°-90°	352.9	0.7
90°-100°	31.4	0.1
100°-110°	207.2	0.4
110°-120°	383.2	0.8
120°-130°	227.7	0.5
130°-140°	139.1	0.3
140°-150°	98.3	0.2
150°-160°	65.5	0.1
160°-170°	38.5	0.1
170°-180°	13.1	0.0
0°-30°	24610.5	51.6
0°-40°	34029.6	71.3
0°-60°	42939.4	90.0
0°-90°	46528.8	97.5
90°-120°	621.8	1.3
90°-150°	1087.0	2.3
90°-180°	1204.0	2.5
0°-180°	47732.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	37466	37466	37466	37466	37466	
5°	37319	37314	37315	37381	37358	3527
15°	32466	34732	35447	34453	31721	8932
25°	19916	26152	29976	25197	18884	9074
35°	9618	15087	19889	14437	8990	6085
45°	4806	7186	9024	6875	4640	3791
55°	2909	3561	4132	3501	2870	2630
65°	1895	2025	2137	2032	1913	1884
75°	1133	1126	1133	1129	1144	1200
85°	346	294	290	298	356	369
90°	10	24	8	25	9	22
95°	16	53	16	46	15	15
105°	74	362	95	386	48	98
115°	333	428	408	474	349	307
125°	241	229	261	254	274	220
135°	178	178	167	186	193	139
145°	150	156	153	158	162	95
155°	137	139	138	140	148	64
165°	136	136	133	135	141	39
175°	140	138	135	137	142	13
180°	139	139	139	139	139	

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Scaled Data Report

TEST NUMBER: P1433027
CATALOG NUMBER: EHBR1-48-UNV-A1-L850-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	37466.5	37466.5	37466.5	37466.5	37466.5	37466.5	*37466.5*	37466.5	37466.5
2.5°	*37384.1*	*37417.9*	*37432.0*	*37439.9*	*37448.4*	*37472.0*	*37482.2*	*37465.7*	*37479.9*
5°	37319.0	37321.3	37313.5	37348.8	37315.0	37338.6	*37380.9*	37364.5	37358.2
7.5°	36939.2	37017.7	37063.9	37075.7	37082.0	37111.0	*37140.9*	36972.1	36947.1
10°	36217.2	36348.2	36639.4	36722.6	36697.5	36744.6	*36593.9*	36152.9	35980.3
12.5°	34634.4	35095.1	35851.6	36188.2	36127.0	36168.6	*35655.3*	34724.7	34189.5
15°	32466.3	33141.9	34731.8	35395.6	35446.6	35395.6	*34453.2*	32639.7	31720.8
17.5°	29584.0	30831.6	33172.5	34461.0	34387.3	34411.5	*32622.4*	29941.8	28890.3
20°	26504.7	27834.8	31129.1	33278.5	33255.7	33119.1	*30542.9*	27007.7	25472.8
22.5°	23022.2	24737.6	28787.5	31824.4	31815.7	31588.1	*28010.6*	23803.7	22151.1
25°	19916.2	21598.6	26152.4	30043.1	29975.6	29716.6	*25197.4*	20607.6	18884.3
27.5°	16705.2	18454.3	23339.2	27955.7	27909.4	27626.9	*22508.1*	17620.1	15980.1
30°	13982.9	15582.2	20514.2	25658.9	25362.2	25330.0	*19735.8*	14853.9	13272.0
32.5°	11650.8	13021.7	17850.8	23256.7	22731.8	22881.7	*16972.8*	12540.6	10972.8
35°	9617.5	10825.2	15087.0	20478.9	19888.7	20082.5	*14437.3*	10290.1	8989.8
37.5°	7805.7	8967.0	12744.7	17777.1	16874.6	17240.3	*12207.1*	8593.5	7551.3
40°	6534.4	7455.7	10523.1	14812.4	13841.7	14437.3	*10079.0*	7167.6	6332.7
42.5°	5630.3	6231.5	8685.3	11981.9	11237.2	11659.4	*8307.0*	5992.1	5367.5
45°	4806.4	5285.9	7186.5	9455.1	9024.3	9415.8	*6874.9*	5109.3	4640.1
47.5°	4198.3	4567.9	5916.0	7635.3	7367.7	7491.7	*5741.8*	4458.8	4077.4
50°	3673.3	3959.0	4973.6	6162.5	6016.5	6092.6	*4809.5*	3879.7	3617.5
52.5°	3265.3	3474.8	4171.5	5064.5	4992.4	5004.1	*4098.6*	3412.7	3222.8
55°	2909.0	3055.0	3561.0	4148.8	4131.6	4134.7	*3501.4*	3024.3	2869.7
57.5°	2597.4	2718.3	3060.5	3484.9	3459.9	3465.4	*3032.2*	2686.1	2586.4
60°	2333.7	2414.6	2644.5	2945.0	2928.5	2921.6	*2628.0*	2384.7	2350.3
62.5°	2100.0	2151.7	2311.0	2524.4	2493.1	2500.1	*2310.2*	2154.1	2103.0
65°	1895.1	1913.1	2025.4	2157.2	2136.8	2154.1	*2031.7*	1924.9	1913.1
67.5°	1695.0	1713.0	1778.9	1867.6	1844.1	1858.2	*1780.5*	1717.7	1707.5
70°	1512.9	1512.2	1549.1	1596.9	1596.9	1599.3	*1557.6*	1520.0	1527.9
72.5°	1324.6	1319.9	1330.9	1363.0	1354.4	1384.3	*1340.3*	1328.6	1330.1
75°	1133.2	1119.8	1126.1	1142.5	1133.2	1148.8	*1129.3*	1144.1	1144.1
77.5°	952.6	927.6	919.7	922.1	904.8	928.4	*933.0*	943.2	966.8
80°	764.3	729.0	709.4	708.6	693.7	708.6	*720.4*	741.5	764.3
82.5°	567.4	536.7	503.8	497.5	488.1	496.7	*512.5*	537.5	574.4
85°	346.1	313.8	293.5	282.5	290.4	290.4	*298.2*	333.5	356.3
87.5°	124.8	109.0	89.5	90.3	92.6	95.8	*99.7*	125.5	137.3
90°	10.1	13.9	23.8	15.1	8.5	14.5	*25.0*	13.2	9.3
92.5°	13.4	21.1	38.3	19.7	11.2	19.7	*35.7*	17.8	12.7
95°	16.1	24.4	53.4	26.4	16.5	24.4	*45.5*	19.7	15.3
97.5°	20.0	27.0	61.4	32.3	25.7	30.4	*51.5*	21.1	18.6
100°	25.9	31.6	95.7	39.6	34.3	34.3	*94.3*	24.4	22.0
102.5°	43.1	67.3	203.2	74.6	52.2	67.3	*219.1*	49.5	26.6
105°	73.5	141.8	362.2	156.4	95.0	154.4	*385.9*	129.3	48.4
107.5°	126.2	254.0	477.6	277.1	180.2	288.3	*497.4*	256.0	112.4
110°	234.5	337.1	500.8	380.6	288.3	403.1	*542.9*	351.0	227.2

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Scaled Data Report

TEST NUMBER: P1433027
CATALOG NUMBER: EHBR1-48-UNV-A1-L850-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	316.3	362.2	479.7	420.2	375.3	449.3	*530.4*	389.3	314.2
115°	332.8	348.3	428.2	410.3	407.8	442.7	*473.7*	387.9	348.6
117.5°	322.3	318.0	363.5	368.8	393.9	405.1	*409.0*	364.1	350.6
120°	297.8	283.0	303.4	321.9	355.6	351.0	*344.4*	330.0	330.7
122.5°	268.9	251.5	259.9	273.8	307.5	297.5	*291.0*	294.4	304.5
125°	241.2	223.8	229.0	232.2	260.6	250.7	*254.1*	264.0	274.2
127.5°	216.8	204.6	207.2	203.2	221.0	216.4	*227.1*	239.1	247.1
130°	200.3	190.3	194.1	184.1	193.4	194.8	*208.7*	218.0	223.4
132.5°	187.2	180.4	185.8	173.8	176.4	182.5	*195.0*	203.7	206.4
135°	178.1	172.0	178.0	166.6	166.8	174.7	*185.9*	191.2	192.6
137.5°	169.5	164.9	170.8	163.0	160.9	168.9	*177.4*	181.4	180.8
140°	163.2	158.4	165.0	159.1	157.8	165.7	*169.6*	175.0	173.8
142.5°	155.4	152.7	159.9	155.9	154.6	162.7	*164.6*	167.9	167.4
145°	150.2	148.2	156.1	154.0	153.4	159.4	*158.2*	163.6	161.6
147.5°	147.3	145.2	151.6	150.9	150.9	154.8	*153.6*	158.4	157.2
150°	143.5	141.4	147.7	147.1	147.7	150.4	*148.5*	154.7	154.8
152.5°	139.7	137.5	143.2	141.7	142.4	145.1	*144.0*	150.1	151.0
155°	137.1	135.1	139.4	137.8	137.8	140.0	*140.2*	147.1	147.8
157.5°	136.8	134.6	137.7	136.1	136.1	137.5	*138.5*	144.7	145.5
160°	136.4	134.2	136.6	135.1	134.4	136.4	*137.4*	142.9	143.7
162.5°	136.0	133.8	136.0	134.6	133.8	134.6	*135.6*	141.8	142.6
165°	135.5	133.9	135.7	134.1	133.4	134.1	*135.2*	139.3	140.8
167.5°	136.2	134.9	135.8	134.2	133.6	132.9	*135.3*	138.8	140.3
170°	136.4	135.7	136.0	133.7	132.2	133.0	*134.7*	138.3	139.7
172.5°	138.0	137.2	137.5	135.3	133.8	134.6	*135.7*	138.5	140.7
175°	139.7	138.1	138.5	136.1	135.4	135.5	*137.2*	139.4	142.3
177.5°	141.2	139.6	139.3	136.9	135.5	136.2	*138.6*	140.9	144.4
180°	138.6	138.6	138.6	138.6	138.6	138.6	*138.6*	138.6	138.6

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Scaled Data Report

TEST NUMBER: P1433027
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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	19.67	20.89	20.08	21.26	21.64	20.65	21.87	21.06	22.24	22.62
	3H	21.15	22.24	21.58	22.62	23.05	21.92	23.00	22.34	23.39	23.82
	4H	21.75	22.77	22.20	23.17	23.62	22.42	23.43	22.87	23.84	24.28
	6H	22.22	23.15	22.68	23.58	24.03	22.77	23.71	23.24	24.13	24.59
	8H	22.37	23.25	22.85	23.70	24.16	22.87	23.75	23.35	24.20	24.67
	12H	22.45	23.29	22.93	23.73	24.22	22.91	23.76	23.39	24.19	24.68
4H	2H	20.19	21.21	20.64	21.61	22.06	20.97	21.99	21.42	22.39	22.84
	3H	21.88	22.71	22.34	23.17	23.64	22.47	23.30	22.92	23.76	24.22
	4H	22.60	23.35	23.08	23.81	24.32	23.09	23.84	23.57	24.31	24.81
	6H	23.18	23.83	23.69	24.32	24.85	23.57	24.21	24.08	24.71	25.24
	8H	23.37	23.97	23.88	24.46	25.00	23.70	24.31	24.22	24.80	25.33
	12H	23.48	24.01	24.01	24.54	25.07	23.77	24.30	24.30	24.83	25.37
8H	4H	22.82	23.43	23.34	23.92	24.45	23.27	23.87	23.78	24.37	24.90
	6H	23.51	24.01	24.06	24.55	25.09	23.85	24.35	24.40	24.89	25.43
	8H	23.77	24.21	24.33	24.77	25.32	24.05	24.49	24.61	25.05	25.60
	12H	23.93	24.32	24.49	24.86	25.49	24.17	24.56	24.73	25.10	25.73
12H	4H	22.83	23.36	23.36	23.89	24.42	23.27	23.80	23.80	24.33	24.87
	6H	23.54	23.98	24.10	24.54	25.09	23.87	24.32	24.44	24.87	25.43
	8H	23.83	24.22	24.39	24.76	25.39	24.11	24.50	24.67	25.04	25.67

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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: SP1-2506-472-4

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L850-N

Data in this report applies to families of products including EHBR-60-L850-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

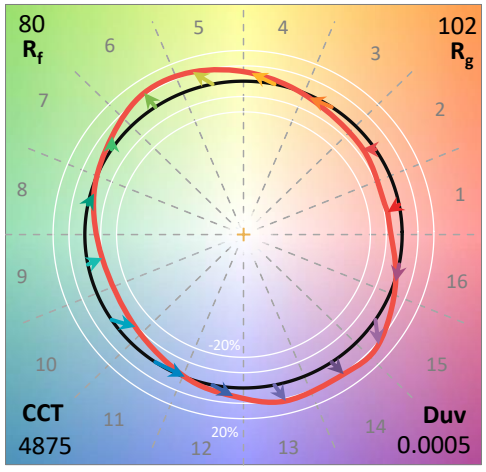
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-4
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-L850-N**
Description:	Elevate Round Highbay at, 60000 lumens, 5000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	4875
CIE u':	0.2124
CIE v':	0.4871
Duv:	0.0005
CIE x:	0.3488
CIE y:	0.3555
CIE z:	0.2957
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	573
Purity:	11.33556
Rf:	80
Rg:	102.3

CRI (Ra):	82.3				
R1:	85.0	R9:	43.9		
R2:	83.1	R10:	57.4		
R3:	78.8	R11:	83.1		
R4:	84.0	R12:	51.0		
R5:	83.0	R13:	83.4		
R6:	76.3	R14:	87.4		
R7:	86.8	R15:	83.4		
R8:	81.7				



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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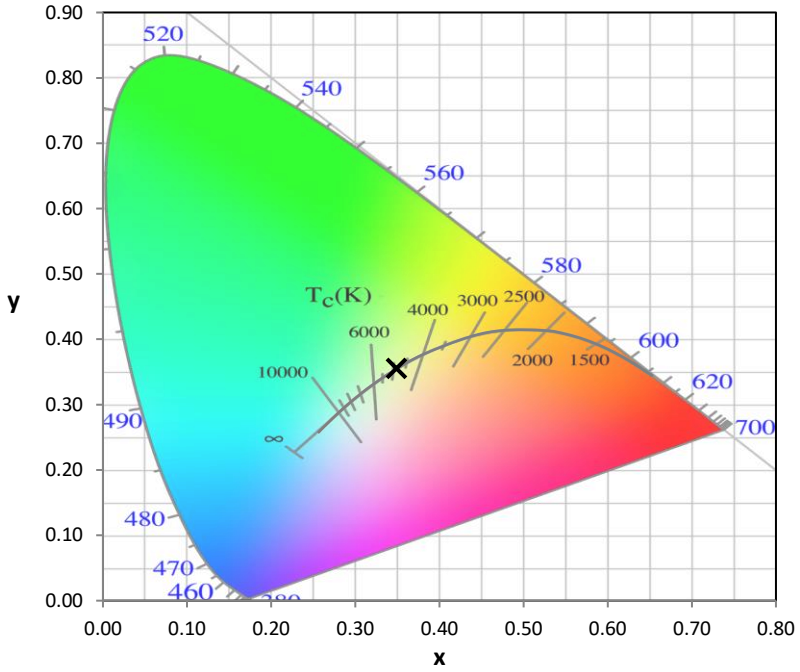
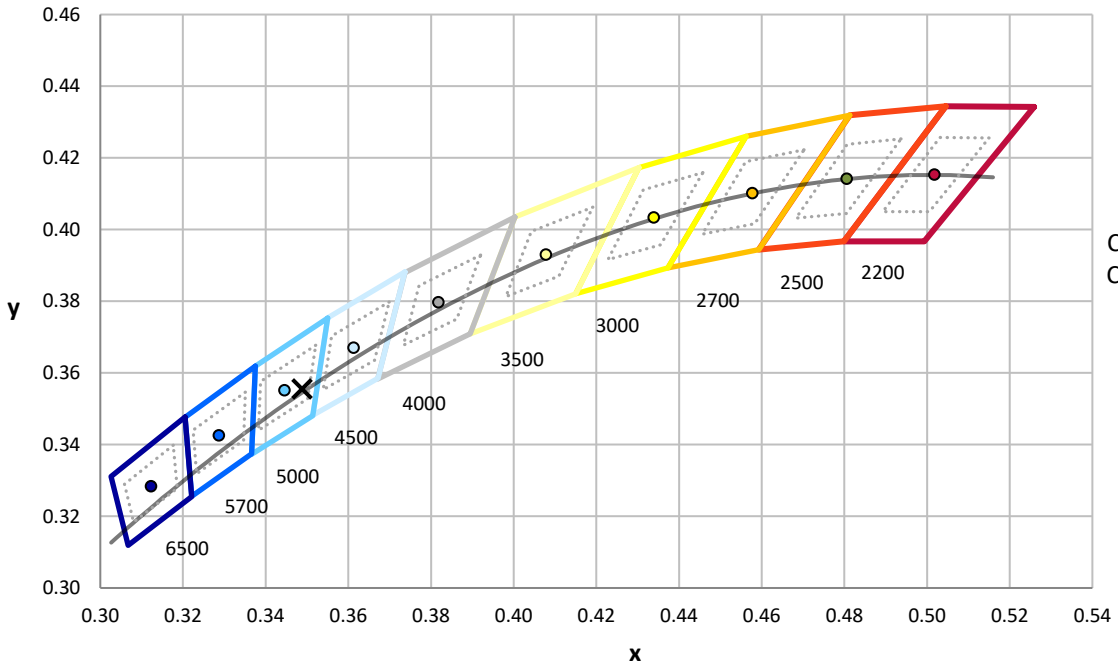
CIE 1931 Chromaticity Diagram



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



CCT = 4875K
CIE x = 0.3488
CIE y = 0.3555
Duv = 0.0005

Point lies inside the ANSI 5000K 4-step quadrangle

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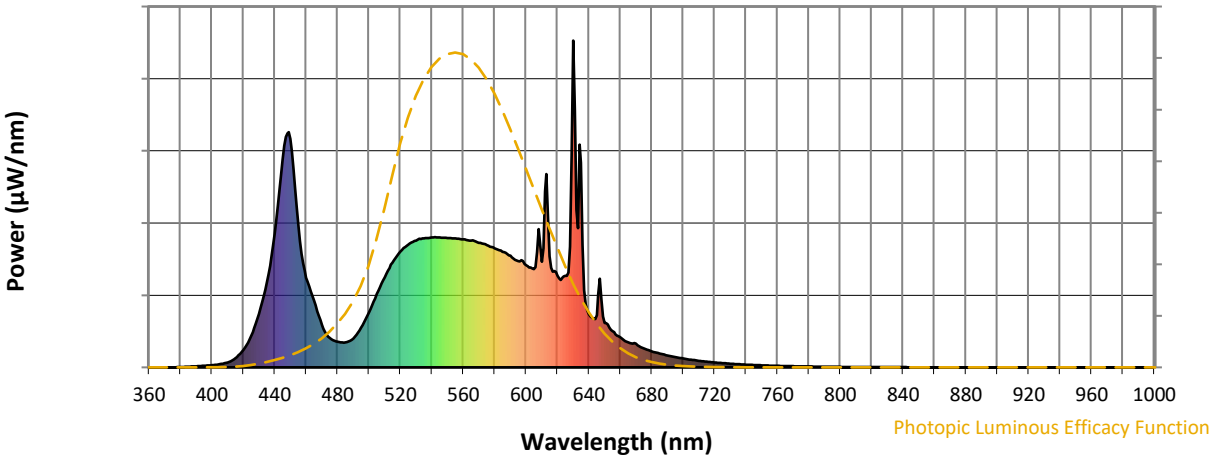
Photopic Flux vs. Wavelength



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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

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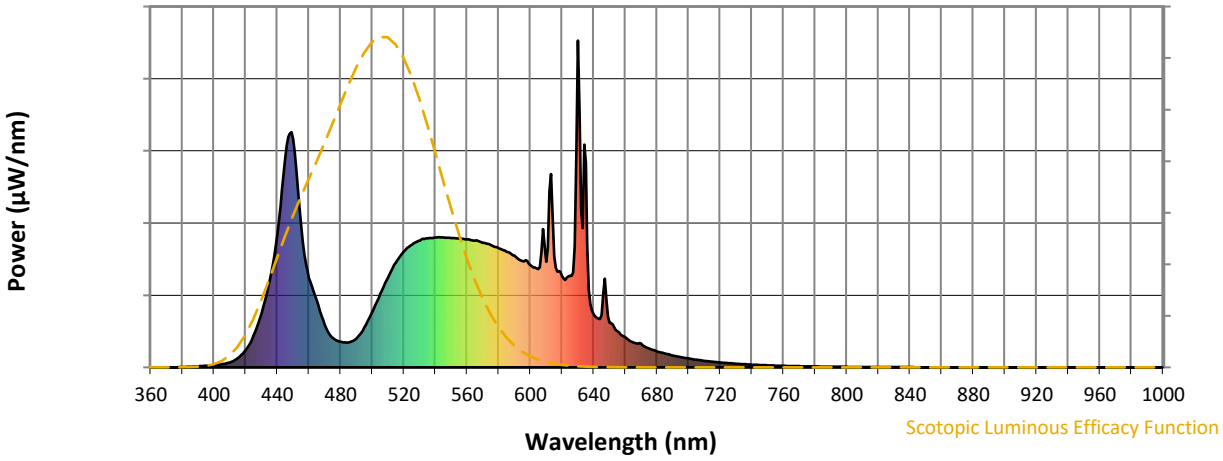
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.82**

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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

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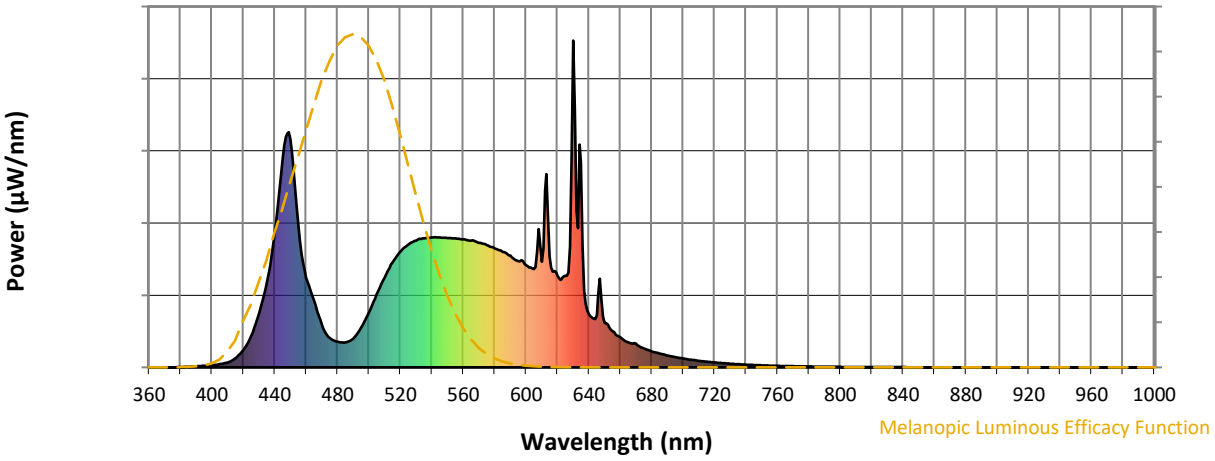
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.71**

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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

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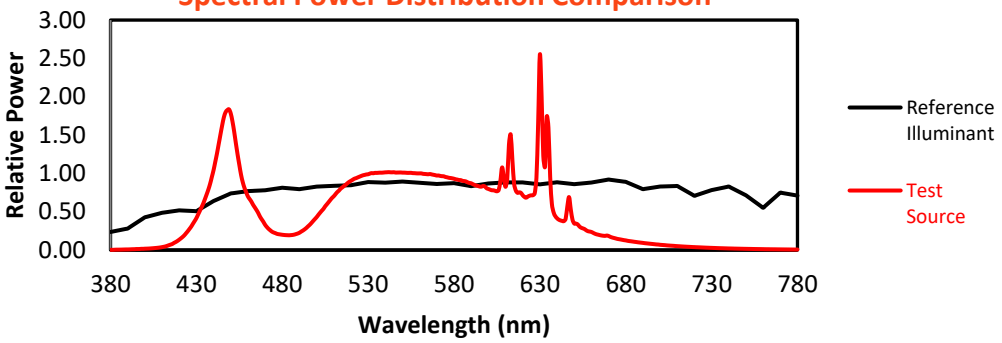
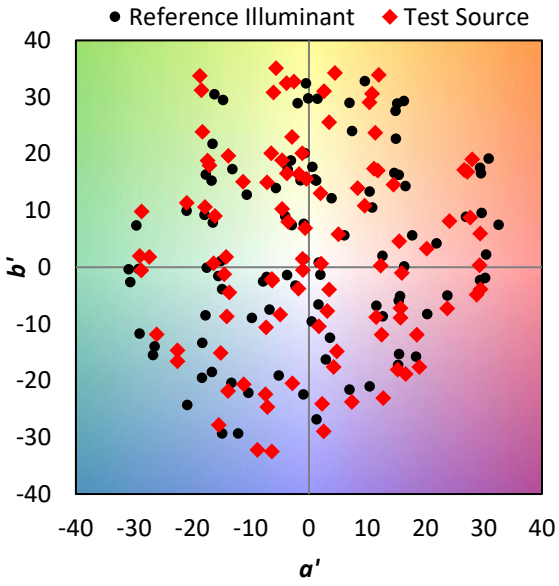
Summary

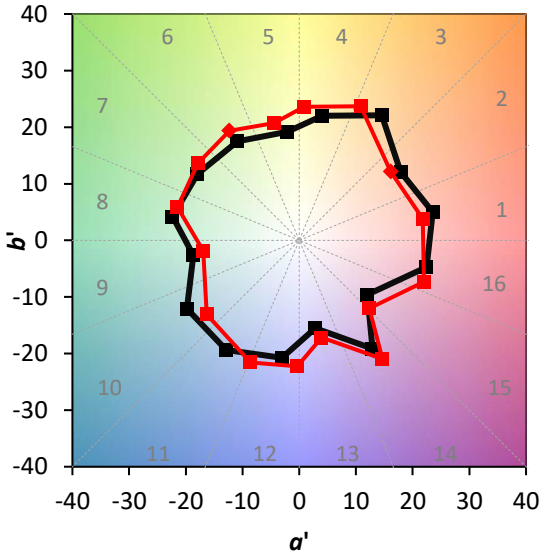
R_f = 80
R_g = 102.3
CIE R_a = 82.3
R_9 = 43.9

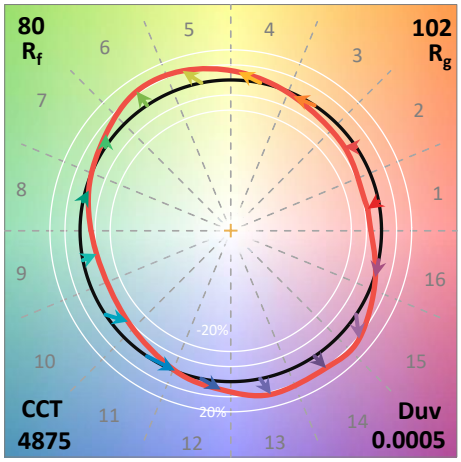
Spectral Power Distribution Comparison

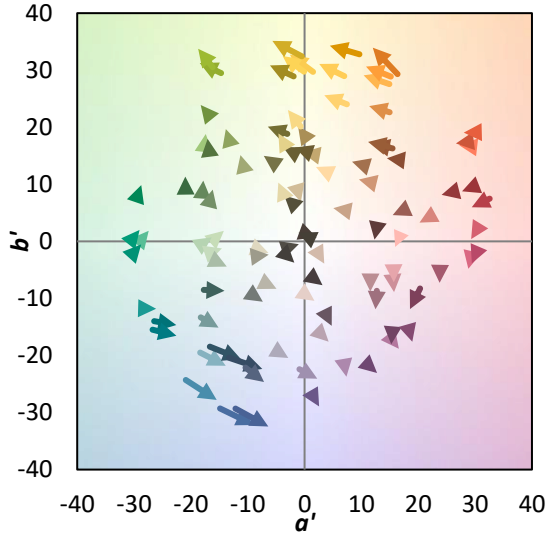


Color Vector Graphics









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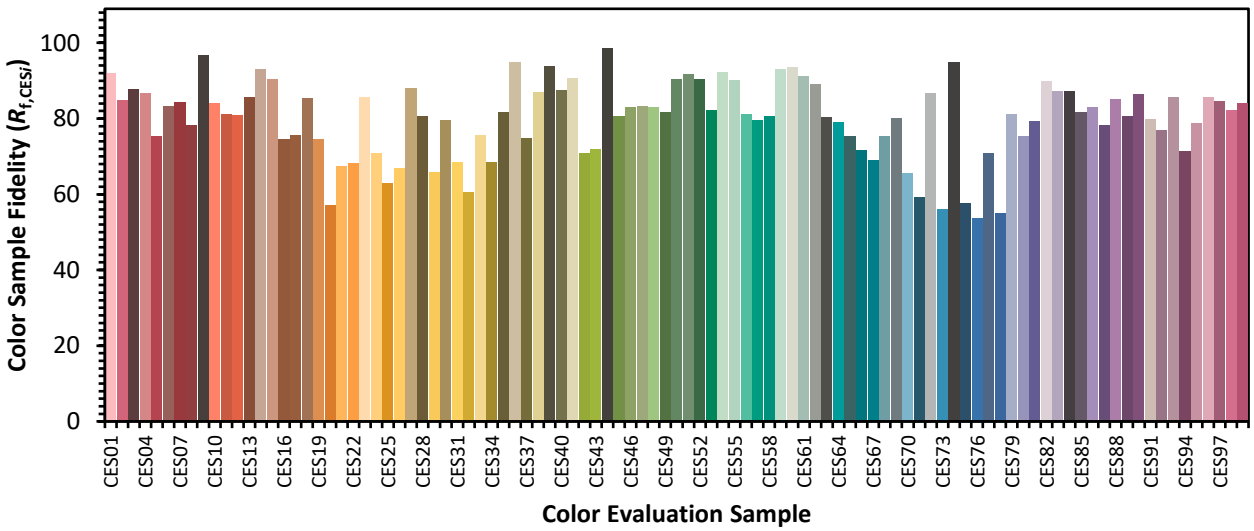
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 67	CES51 = 92	CES76 = 54
CES02 = 60	CES27 = 88	CES52 = 91	CES77 = 71
CES03 = 31	CES28 = 81	CES53 = 82	CES78 = 55
CES04 = 69	CES29 = 66	CES54 = 92	CES79 = 81
CES05 = 47	CES30 = 80	CES55 = 90	CES80 = 75
CES06 = 50	CES31 = 69	CES56 = 81	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 80	CES82 = 90
CES08 = 39	CES33 = 76	CES58 = 81	CES83 = 87
CES09 = 29	CES34 = 68	CES59 = 93	CES84 = 87
CES10 = 73	CES35 = 82	CES60 = 94	CES85 = 82
CES11 = 56	CES36 = 95	CES61 = 91	CES86 = 83
CES12 = 62	CES37 = 75	CES62 = 89	CES87 = 78
CES13 = 42	CES38 = 87	CES63 = 80	CES88 = 85
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 81
CES15 = 71	CES40 = 87	CES65 = 75	CES90 = 86
CES16 = 46	CES41 = 91	CES66 = 72	CES91 = 80
CES17 = 48	CES42 = 71	CES67 = 69	CES92 = 77
CES18 = 56	CES43 = 72	CES68 = 75	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 80	CES94 = 71
CES20 = 65	CES45 = 81	CES70 = 66	CES95 = 79
CES21 = 85	CES46 = 83	CES71 = 59	CES96 = 86
CES22 = 77	CES47 = 83	CES72 = 87	CES97 = 85
CES23 = 91	CES48 = 83	CES73 = 56	CES98 = 82
CES24 = 90	CES49 = 82	CES74 = 95	CES99 = 84
CES25 = 71	CES50 = 91	CES75 = 58	



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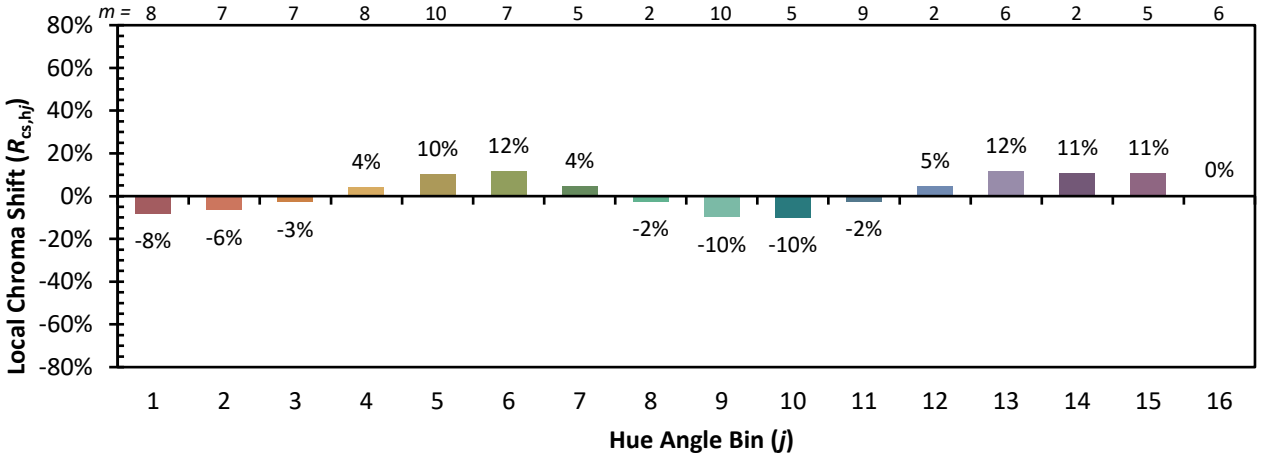
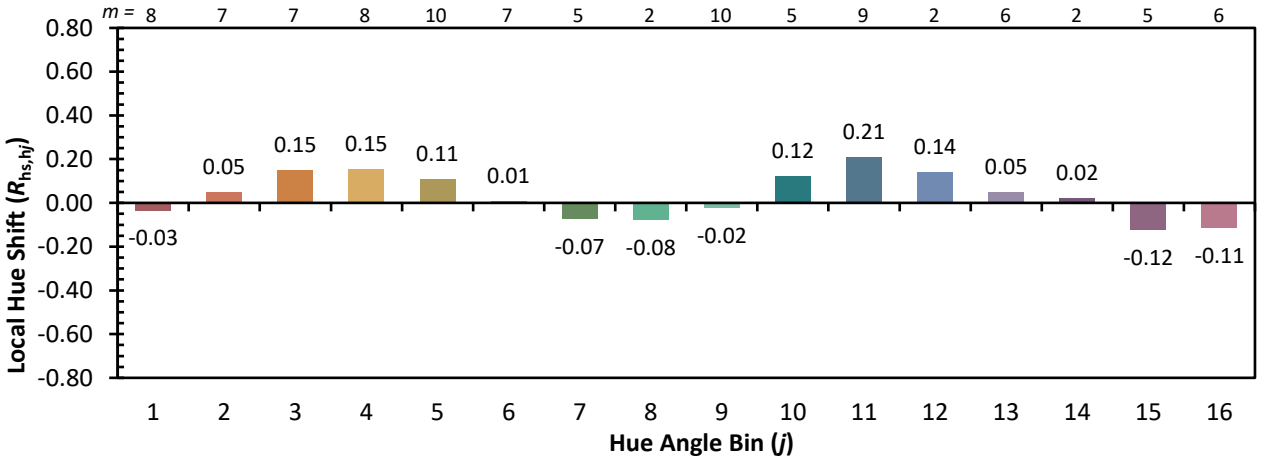
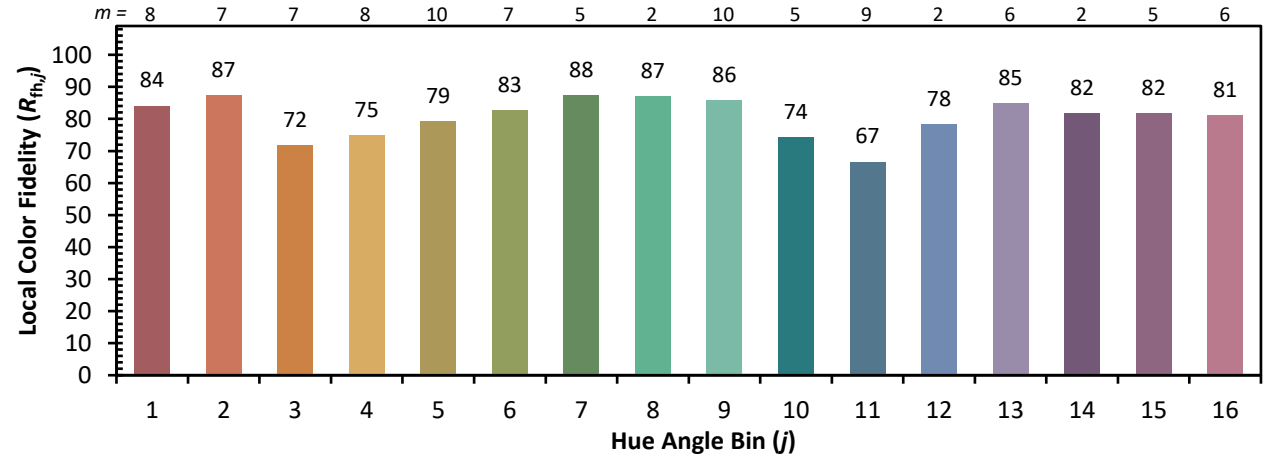
Color Rendition by Hue-Angle Bin







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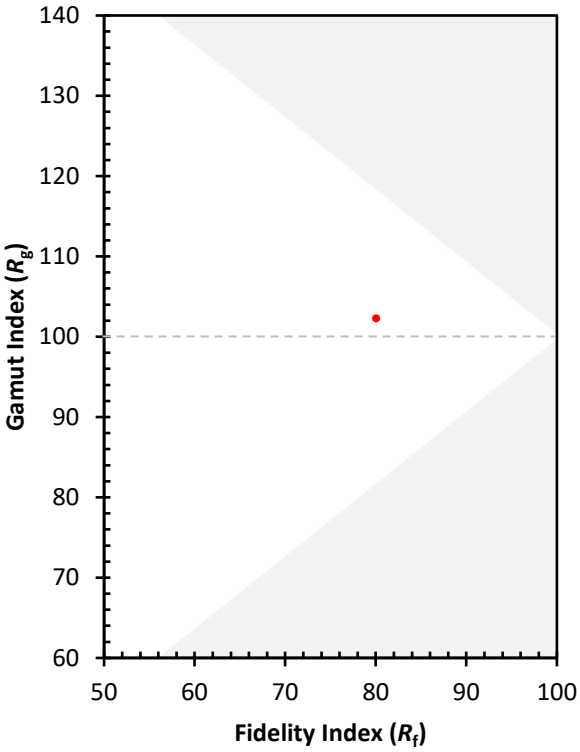
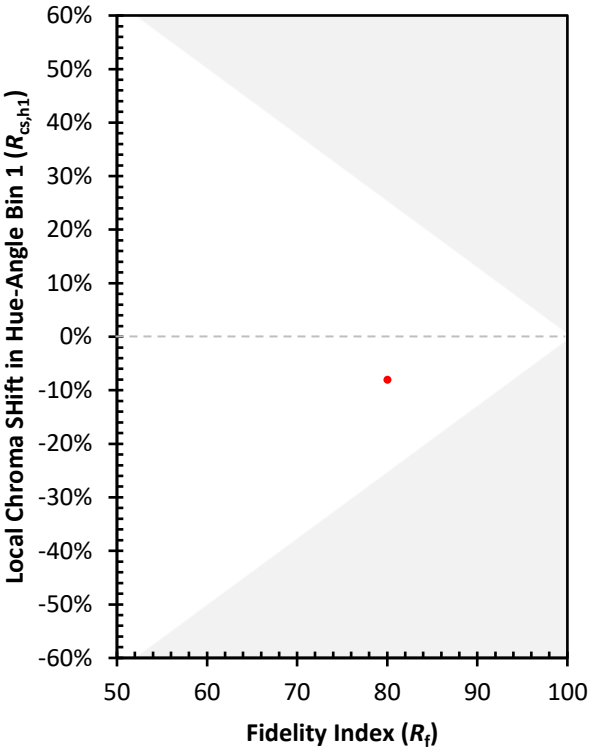
Measure Comparisons





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