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: P1432782

Luminaire Tested: EHBR1-54-UNV-ASM-L835-UPL24

Issue Date: 3/20/2026

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1432782
	REPORT IS A COMBINATION OF REPORTS P1431871 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-54-UNV-ASM-L835-UPL24
Description:	Elevate Round Highbay at, 53500 lumens, 3500K 80CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	54472.4 lumens
Efficiency:	N/A
Efficacy:	174.3 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):	312.5
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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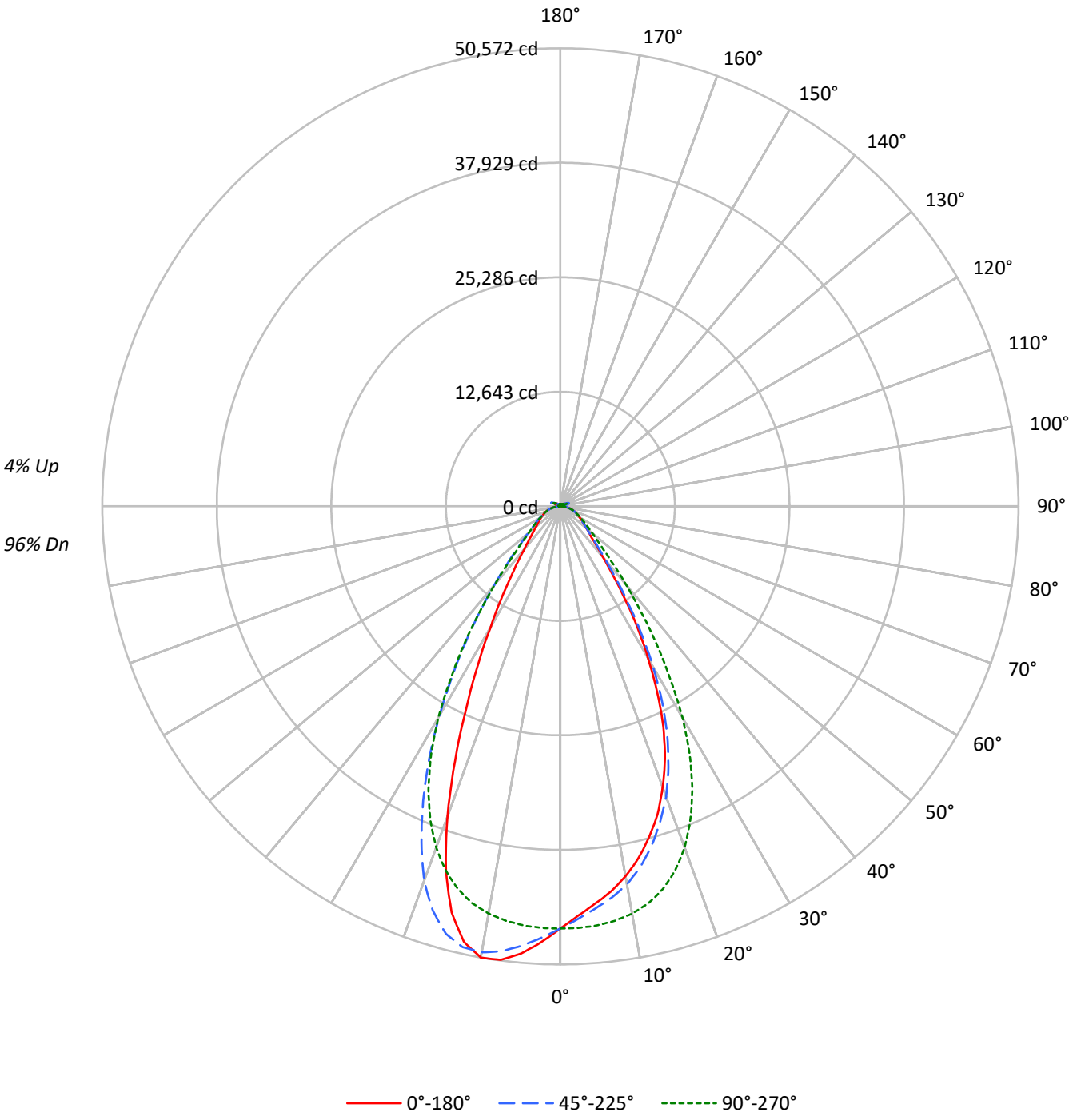
Luminous Intensity Polar Plot



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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	109	109	109	103	103	103	98	98	98	96
1	111	107	104	101	108	105	102	99	100	98	96	95	94	92	91	90	88	86
2	104	98	93	89	101	96	91	87	92	88	85	88	85	82	85	82	80	78
3	97	90	84	79	95	88	82	78	85	80	76	81	78	74	79	75	73	71
4	92	83	76	71	89	81	75	70	78	73	69	76	71	68	73	70	66	65
5	86	76	70	65	84	75	69	64	73	67	63	71	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	54	62	57	53	60	56	52	51
8	73	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	50	46	54	49	46	44
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	51	46	43	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	218869	218869	218869	218869	218869
5°	206247	208659	217537	227970	232071
10°	195196	199330	214863	235289	238029
15°	180308	185124	208519	232875	221203
20°	160604	166013	195017	214058	177375
25°	134593	139687	172606	179546	122895
30°	100703	106541	140149	138750	79952
35°	67040	71088	100519	98896	51779
40°	42279	45183	64989	65408	35689
45°	30124	31377	41235	43007	27645
50°	25092	25292	30622	31419	23491
55°	22150	22201	25002	25661	21399
60°	20508	20333	21649	22108	20385
65°	19576	19400	19735	20120	19659
70°	19014	18685	18704	19063	19263
75°	18075	17530	17493	18112	18635
80°	16447	15300	15367	16447	17593
85°	11976	9942	9942	11368	12560

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 57974 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4431.6	8.1
10°-20°	12056.4	22.1
20°-30°	14139.6	26.0
30°-40°	9833.2	18.1
40°-50°	4886.7	9.0
50°-60°	2922.7	5.4
60°-70°	2057.1	3.8
70°-80°	1325.1	2.4
80°-90°	425.1	0.8
90°-100°	64.5	0.1
100°-110°	414.2	0.8
110°-120°	763.8	1.4
120°-130°	455.1	0.8
130°-140°	276.8	0.5
140°-150°	192.9	0.4
150°-160°	127.5	0.2
160°-170°	74.8	0.1
170°-180°	25.2	0.0
0°-30°	30627.6	56.2
0°-40°	40460.8	74.3
0°-60°	48270.2	88.6
0°-90°	52077.6	95.6
90°-120°	1242.5	2.3
90°-150°	2167.3	4.0
90°-180°	2395.0	4.4
0°-180°	54472.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	46606	46606	46606	46606	46606	
5°	44037	44552	46448	48675	49551	4131
15°	37828	38838	43746	48856	46407	10549
25°	26878	27895	34469	35855	24542	12127
35°	12304	13047	18449	18151	9503	7838
45°	4874	5077	6672	6958	4473	3940
55°	2993	3000	3379	3468	2892	2716
65°	2043	2025	2060	2100	2052	2029
75°	1273	1235	1232	1276	1313	1344
85°	412	342	342	391	432	424
90°	18	48	18	52	24	29
95°	30	107	34	93	36	29
105°	145	720	190	770	101	193
115°	660	852	813	944	697	608
125°	477	458	521	508	549	435
135°	350	354	332	370	384	274
145°	294	308	303	309	317	186
155°	266	273	272	272	284	124
165°	258	262	262	262	273	73
175°	260	264	265	265	274	25
180°	266	266	266	266	266	

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TEST NUMBER: P1432782
CATALOG NUMBER: EHBR1-54-UNV-ASM-L835-UPL24

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	46606.5	46606.5	46606.5	46606.5	46606.5	46606.5	46606.5	46606.5	*46606.5*
2.5°	45223.1	45252.8	45569.1	45980.7	46579.4	47181.5	47669.2	47990.9	*48149.9*
5°	44037.1	44201.4	44551.9	45307.9	46447.5	47653.5	48675.2	49343.7	*49550.8*
7.5°	42881.7	42977.1	43563.4	44518.7	46131.9	48010.9	49529.0	50309.4	*50500.0*
10°	*41472.1*	*41687.9*	*42350.4*	*43476.9*	*45650.5*	*48236.4*	*49990.4*	*50549.7*	*50572.5*
12.5°	39813.4	40099.2	40783.4	42204.5	44882.3	48156.0	49835.7	49652.3	*49235.4*
15°	37827.7	38078.6	38838.0	40486.3	43746.1	47679.7	48856.0	47362.5	*46407.2*
17.5°	35683.1	35910.3	36570.2	38385.3	42145.1	46788.3	46811.0	43856.2	*42054.2*
20°	33008.8	33187.2	34120.5	35901.6	40081.7	45358.5	43995.2	38590.7	*36455.7*
22.5°	30163.3	30330.2	31159.6	33013.2	37494.8	43430.6	40073.8	33293.7	*30380.9*
25°	26878.1	26969.0	27895.4	29571.6	34469.2	41068.4	35855.2	27522.2	*24542.1*
27.5°	23182.2	23336.9	24306.1	26018.2	30910.5	38074.2	31363.2	22490.1	*19740.6*
30°	19370.1	19626.2	20493.1	22026.0	26957.6	34235.8	26688.5	17910.5	*15378.8*
32.5°	15812.3	15996.6	16614.5	18216.5	22532.0	30473.5	22199.0	14351.0	*12206.3*
35°	12304.3	12488.6	13047.1	14620.2	18448.9	25766.5	18150.9	11276.5	*9503.3*
37.5°	9405.4	9731.3	10089.6	11366.6	14478.6	21319.0	14469.0	9080.3	*7708.2*
40°	7328.0	7380.5	7831.4	8648.6	11264.2	16669.6	11336.8	7248.5	*6185.8*
42.5°	5865.9	6008.3	6202.4	6814.2	8534.9	12746.5	8910.8	5949.0	*5254.2*
45°	4874.0	4929.9	5076.7	5487.5	6671.7	9380.0	6958.3	5019.0	*4472.9*
47.5°	4264.0	4239.5	4333.9	4641.5	5433.3	7249.4	5639.5	4305.0	*3922.3*
50°	3739.6	3724.8	3769.4	3974.6	4563.7	5562.6	4682.6	3757.9	*3501.0*
52.5°	3332.3	3345.5	3349.9	3477.4	3920.5	4536.6	3987.8	3349.0	*3175.9*
55°	2993.3	3009.9	3000.3	3094.6	3378.7	3813.9	3467.8	3011.6	*2891.9*
57.5°	2728.5	2716.3	2703.1	2753.8	2967.0	3235.3	3011.6	2724.1	*2644.6*
60°	2465.4	2454.0	2444.4	2477.6	2602.6	2801.9	2657.7	2473.2	*2450.6*
62.5°	2239.9	2233.0	2232.1	2226.0	2322.1	2447.9	2350.0	2247.8	*2227.7*
65°	2043.3	2035.4	2024.9	2015.3	2059.9	2177.0	2100.1	2045.0	*2052.0*
67.5°	1846.6	1846.6	1828.3	1813.5	1857.1	1918.3	1885.1	1853.6	*1861.5*
70°	1668.4	1669.3	1639.5	1628.1	1641.2	1706.8	1672.7	1677.1	*1690.2*
72.5°	1477.0	1456.0	1434.1	1433.2	1435.0	1485.7	1474.3	1484.8	*1498.8*
75°	1273.3	1248.9	1234.9	1219.1	1232.3	1270.7	1275.9	1290.8	*1312.7*
77.5°	1076.7	1039.1	1027.8	1019.8	1011.1	1054.9	1071.4	1091.6	*1123.9*
80°	865.2	824.2	804.9	793.5	808.4	828.5	865.2	880.1	*925.5*
82.5°	639.7	609.2	585.5	584.6	591.6	610.0	641.5	669.5	*695.7*
85°	411.6	362.7	341.7	349.6	341.7	369.7	390.7	423.9	*431.7*
87.5°	148.6	116.3	111.0	122.4	119.8	128.5	146.8	159.9	*160.8*
90°	17.9	28.4	48.1	31.0	17.9	30.5	52.5	31.4	*24.0*
92.5°	25.8	42.9	76.9	40.1	23.2	41.0	73.4	40.6	*30.5*
95°	29.7	49.4	107.1	53.3	34.5	50.2	93.1	44.5	*35.8*
97.5°	38.4	54.6	122.8	65.1	52.8	62.1	104.8	47.2	*42.4*
100°	50.2	63.8	190.9	80.4	69.9	69.9	190.1	53.7	*47.6*
102.5°	84.3	134.6	404.6	149.8	105.3	136.3	438.6	104.4	*56.8*
105°	144.6	282.7	720.4	312.3	190.5	309.3	770.2	263.0	*100.9*
107.5°	249.4	505.5	950.6	552.2	359.6	575.3	991.7	514.6	*228.1*
110°	464.4	670.6	996.5	758.0	574.5	803.4	1082.1	703.3	*456.1*

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Scaled Data Report

TEST NUMBER: P1432782
CATALOG NUMBER: EHBR1-54-UNV-ASM-L835-UPL24

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	626.9	720.4	954.6	836.6	747.5	895.1	1057.3	779.4	*629.1*
115°	659.7	692.9	852.4	817.0	812.6	882.0	944.5	776.7	*697.2*
117.5°	637.4	632.6	723.9	735.2	785.1	807.4	816.1	729.6	*701.2*
120°	590.3	563.1	604.6	642.2	709.1	699.8	688.5	660.1	*661.8*
122.5°	531.2	499.8	519.0	547.4	614.2	594.6	582.3	590.2	*608.1*
125°	477.1	444.7	458.3	465.8	521.2	501.5	508.5	529.9	*548.7*
127.5°	428.6	406.7	415.0	408.1	443.4	434.2	454.8	478.8	*494.9*
130°	395.8	377.4	388.4	370.9	388.0	389.7	416.8	437.7	*447.8*
132.5°	369.2	357.3	370.4	349.1	353.5	363.1	388.9	407.2	*413.3*
135°	349.5	339.9	353.5	334.2	332.0	346.0	370.0	381.4	*384.4*
137.5°	333.3	325.0	339.4	324.6	319.8	333.8	351.7	361.3	*359.6*
140°	319.3	312.3	327.2	315.4	312.8	326.8	334.6	345.6	*344.6*
142.5°	304.1	298.8	316.3	308.5	305.8	318.5	322.4	330.7	*328.9*
145°	294.0	290.0	308.0	303.2	302.7	312.3	308.9	318.9	*316.7*
147.5°	285.3	282.7	298.4	296.1	296.1	303.2	299.3	308.0	*305.8*
150°	277.8	275.2	290.0	287.9	289.2	294.4	288.3	298.4	*298.8*
152.5°	270.5	267.0	280.4	278.3	279.6	284.8	279.6	290.9	*290.5*
155°	265.6	262.1	273.1	271.3	272.2	274.8	272.2	283.5	*284.4*
157.5°	263.0	259.9	268.2	267.3	267.3	269.6	268.2	278.3	*279.2*
160°	260.8	258.6	265.6	264.7	264.2	266.9	266.5	275.2	*276.1*
162.5°	258.6	256.4	264.7	263.4	263.4	263.4	263.9	272.6	*274.3*
165°	257.7	256.9	262.5	262.5	262.1	263.4	262.5	269.5	*272.6*
167.5°	257.7	256.4	263.0	263.0	262.5	261.2	263.0	269.5	*272.6*
170°	258.1	257.3	262.5	262.1	260.8	261.6	262.1	268.6	*271.7*
172.5°	259.9	259.0	265.1	263.9	263.4	263.4	263.4	268.6	*273.1*
175°	260.4	259.5	264.2	264.2	265.1	264.7	265.1	269.2	*273.6*
177.5°	262.5	261.6	264.2	264.2	263.9	265.6	267.3	271.3	*277.0*
180°	265.6	265.6	265.6	265.6	265.6	265.6	265.6	265.6	*265.6*

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Scaled Data Report

TEST NUMBER: P1432782
CATALOG NUMBER: EHBR1-54-UNV-ASM-L835-UPL24

CIE UGR TABLE:

Reflectances:											
	Ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
	Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
	Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	18.86	20.00	19.31	20.41	20.84	19.63	20.77	20.07	21.17	21.60
	3H	20.68	21.69	21.14	22.12	22.59	21.19	22.20	21.65	22.63	23.10
	4H	21.42	22.36	21.90	22.80	23.30	21.84	22.78	22.32	23.22	23.72
	6H	21.99	22.86	22.48	23.32	23.82	22.33	23.20	22.83	23.66	24.17
	8H	22.17	22.99	22.68	23.47	23.98	22.49	23.31	23.00	23.79	24.30
	12H	22.27	23.06	22.78	23.53	24.06	22.57	23.36	23.08	23.83	24.36
4H	2H	19.38	20.33	19.86	20.77	21.26	20.01	20.95	20.49	21.40	21.89
	3H	21.42	22.20	21.91	22.69	23.20	21.82	22.60	22.31	23.09	23.60
	4H	22.29	22.99	22.80	23.49	24.04	22.61	23.31	23.12	23.81	24.36
	6H	22.98	23.59	23.52	24.11	24.68	23.24	23.85	23.78	24.37	24.94
	8H	23.21	23.77	23.75	24.30	24.87	23.45	24.01	23.99	24.54	25.11
	12H	23.34	23.84	23.91	24.40	24.98	23.56	24.06	24.12	24.62	25.20
8H	4H	22.55	23.11	23.09	23.64	24.21	22.85	23.41	23.39	23.94	24.52
	6H	23.36	23.82	23.94	24.40	24.98	23.61	24.07	24.19	24.65	25.23
	8H	23.66	24.07	24.26	24.66	25.26	23.89	24.30	24.49	24.90	25.49
	12H	23.87	24.22	24.46	24.80	25.47	24.08	24.44	24.67	25.01	25.68
12H	4H	22.55	23.05	23.12	23.61	24.19	22.86	23.36	23.42	23.92	24.50
	6H	23.40	23.81	24.00	24.40	25.00	23.66	24.07	24.25	24.66	25.25
	8H	23.75	24.11	24.34	24.68	25.35	23.99	24.35	24.58	24.92	25.59

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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

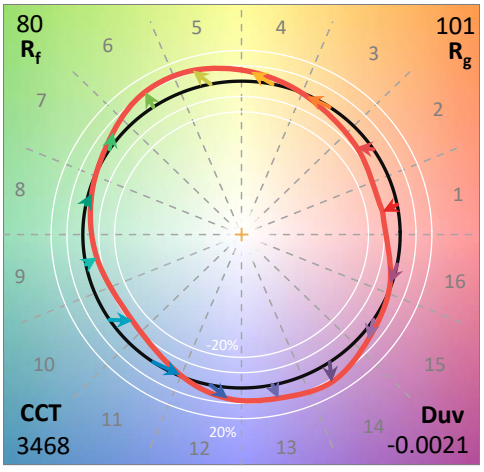
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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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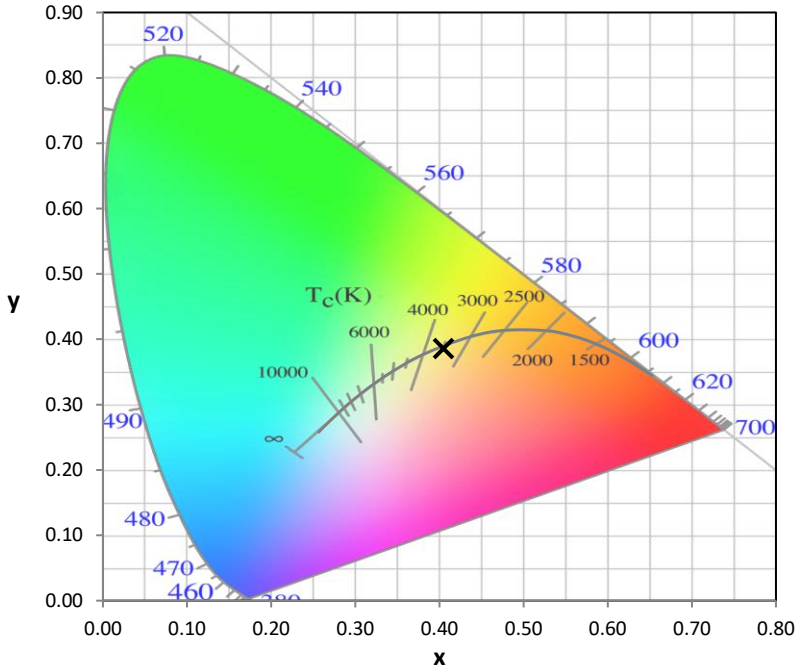
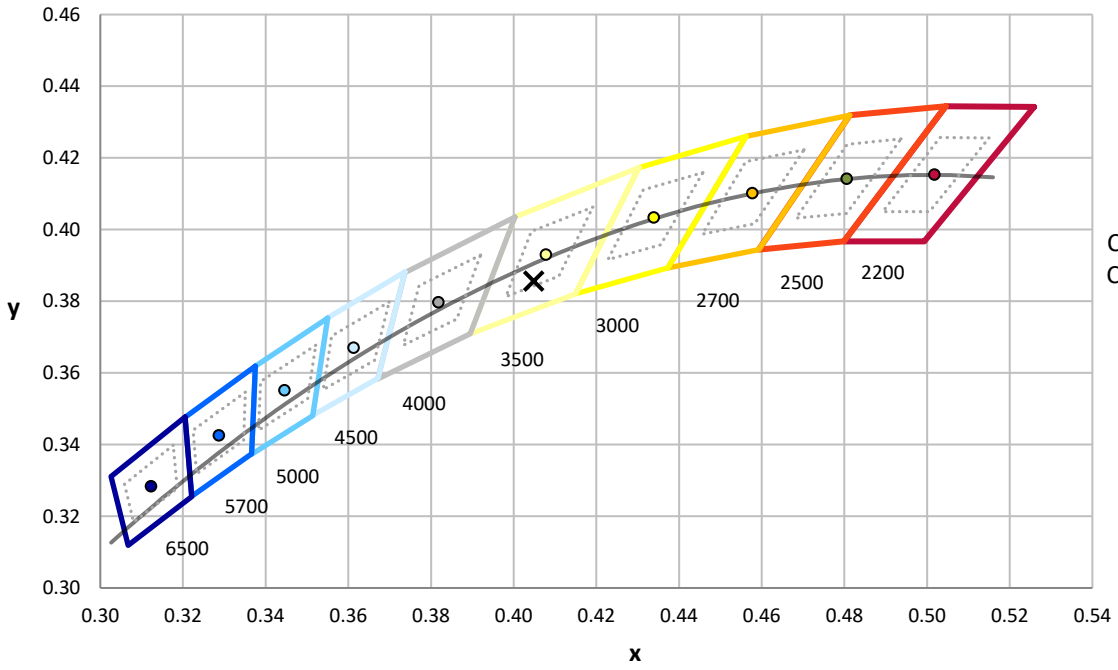
CIE 1931 Chromaticity Diagram



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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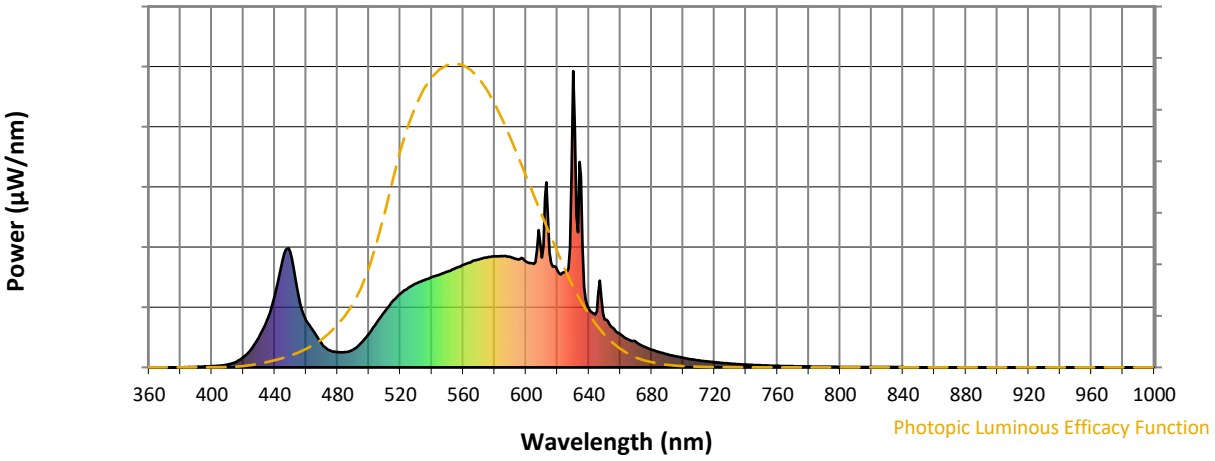
Photopic Flux vs. Wavelength



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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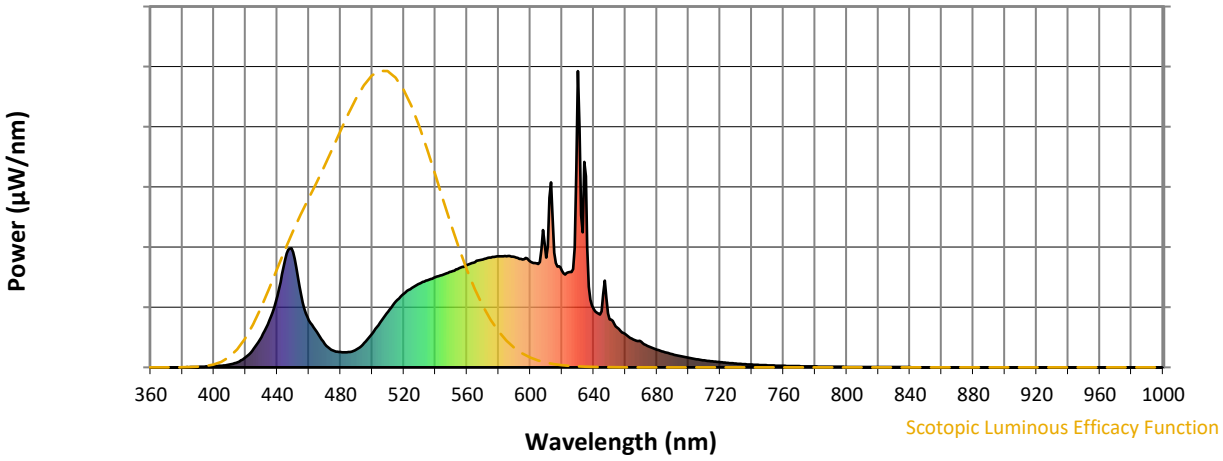
Scotopic Flux vs. Wavelength



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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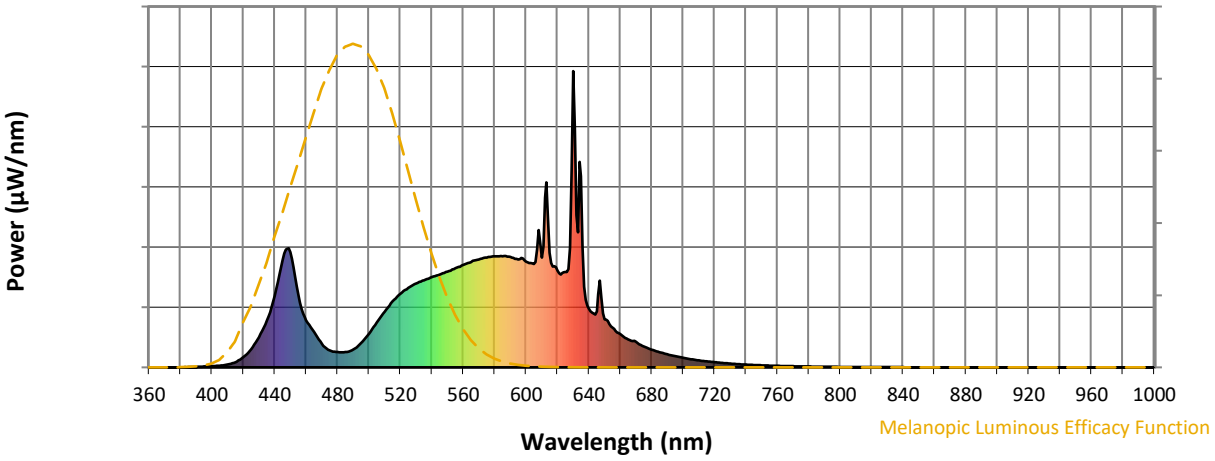
Melanopic Flux vs. Wavelength



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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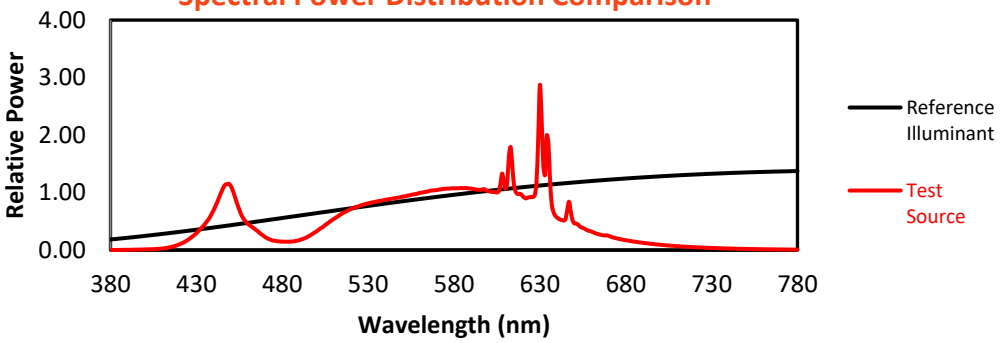
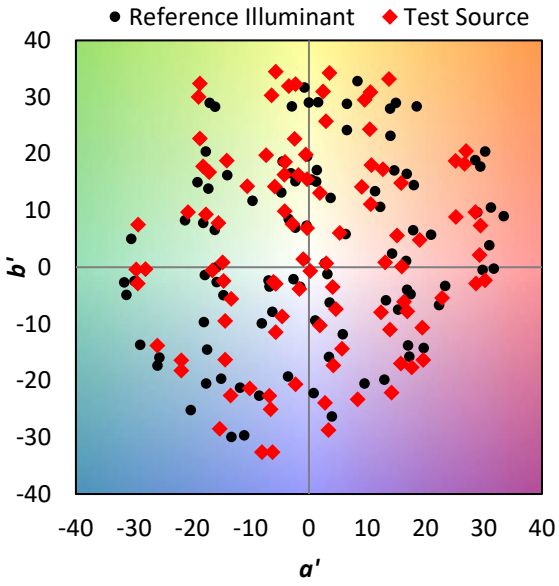
Summary

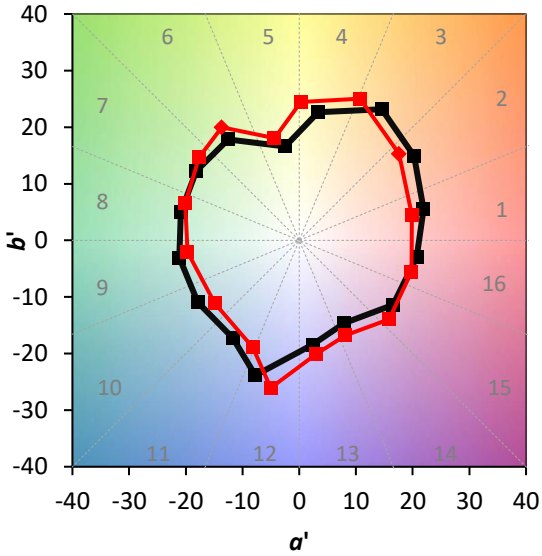
R_f = 80.1
R_g = 101
CIE R_a = 82.1
R_9 = 27.6

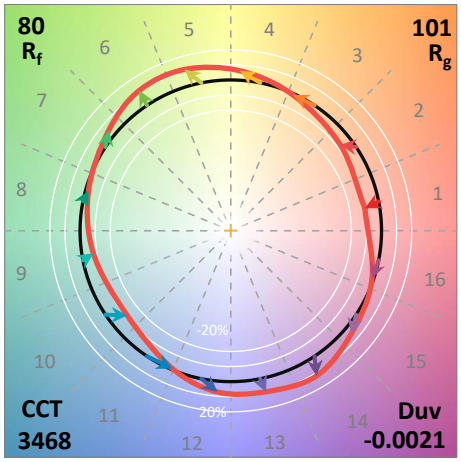
Spectral Power Distribution Comparison

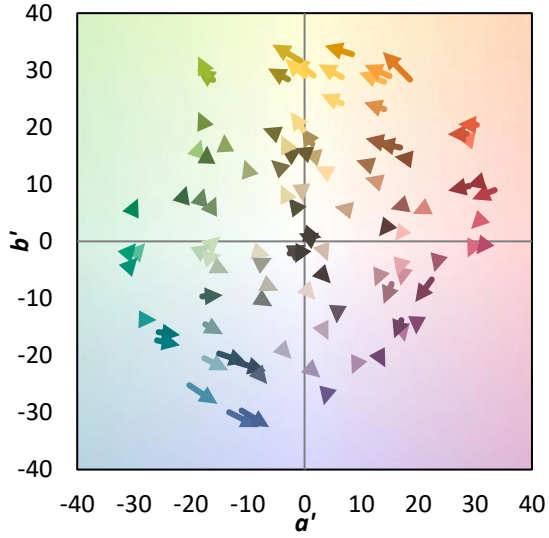


Color Vector Graphics









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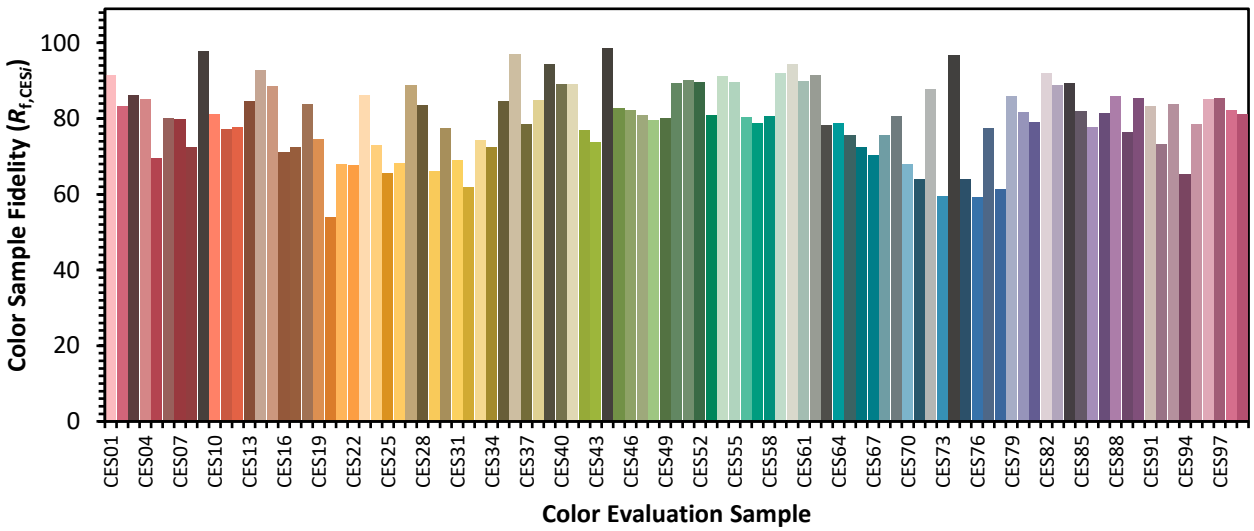
Individual Sample Fidelity Index ($R_{f,i}$)

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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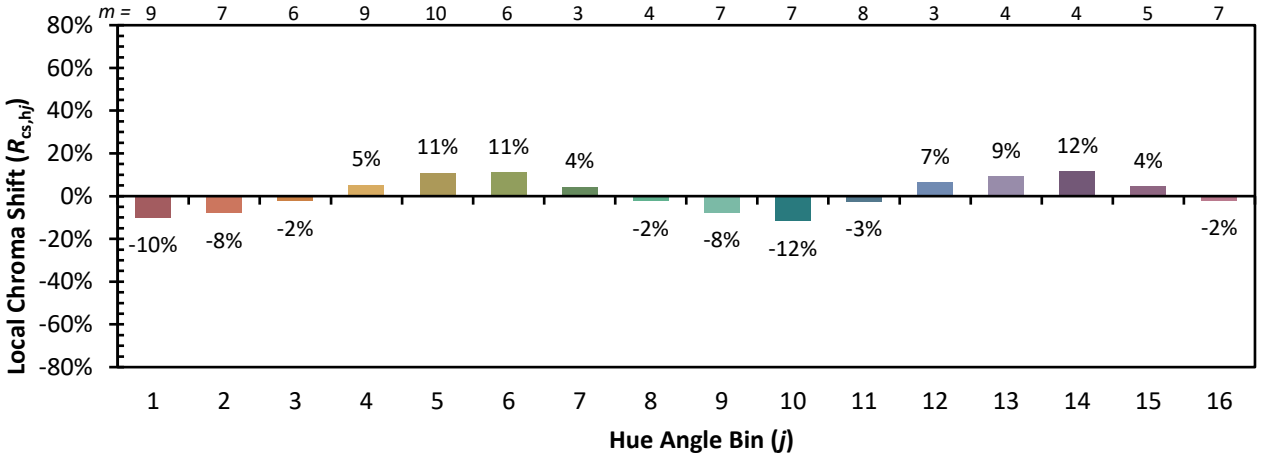
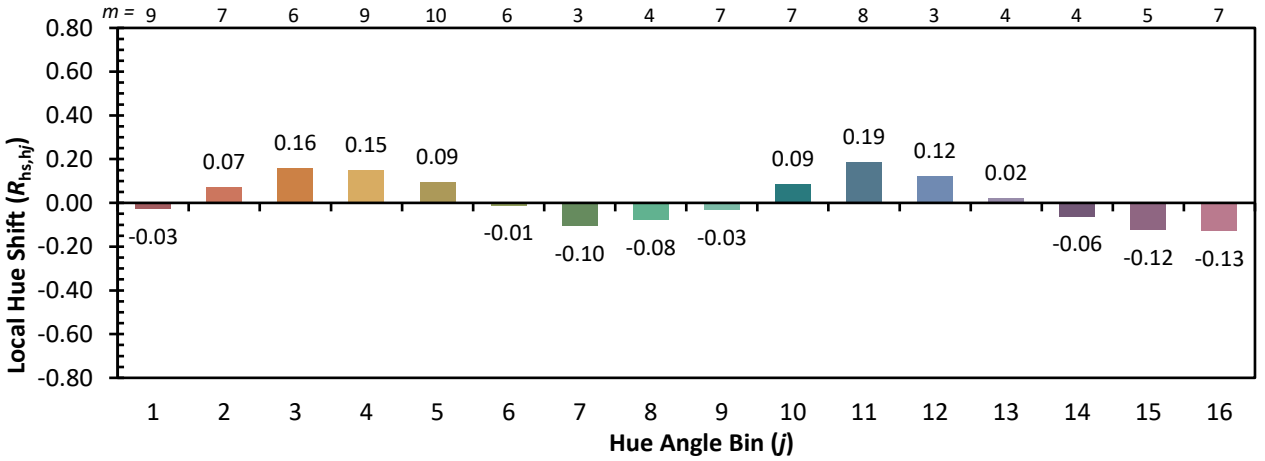
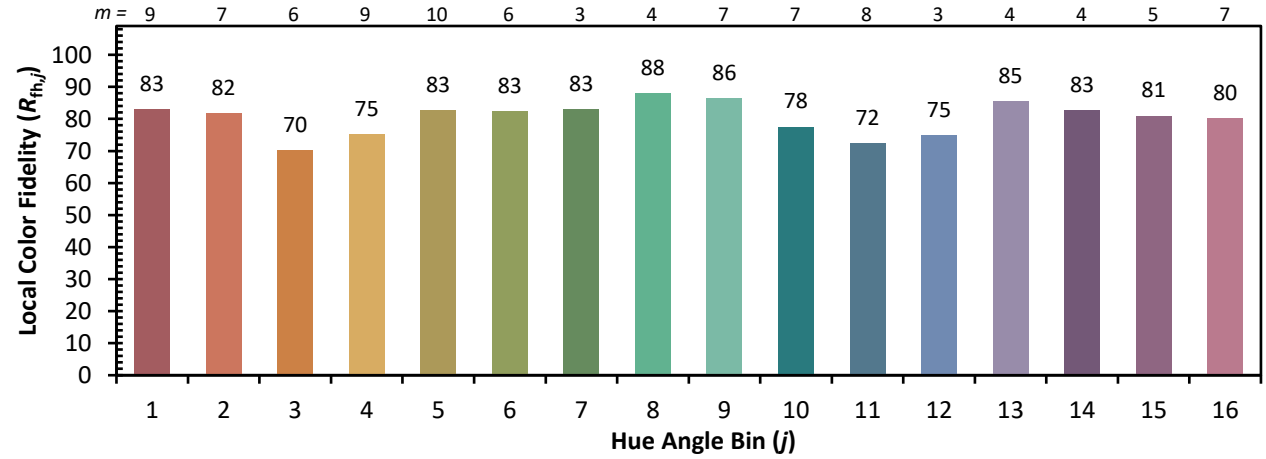
Color Rendition by Hue-Angle Bin







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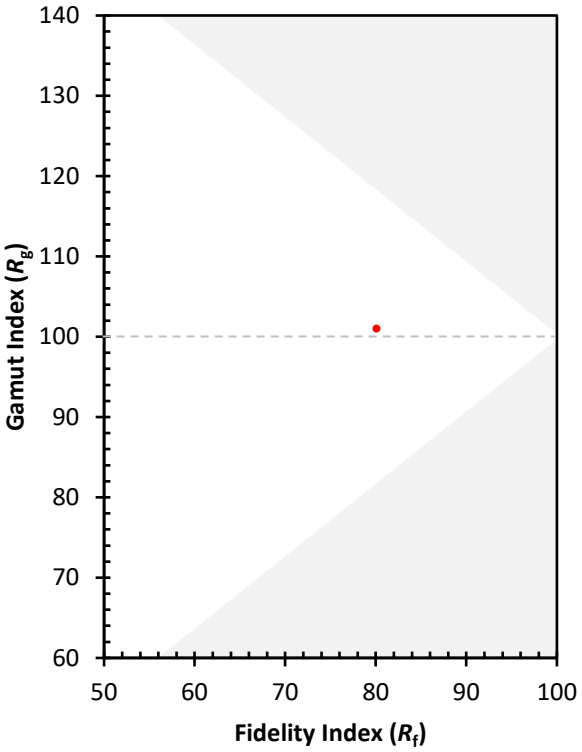
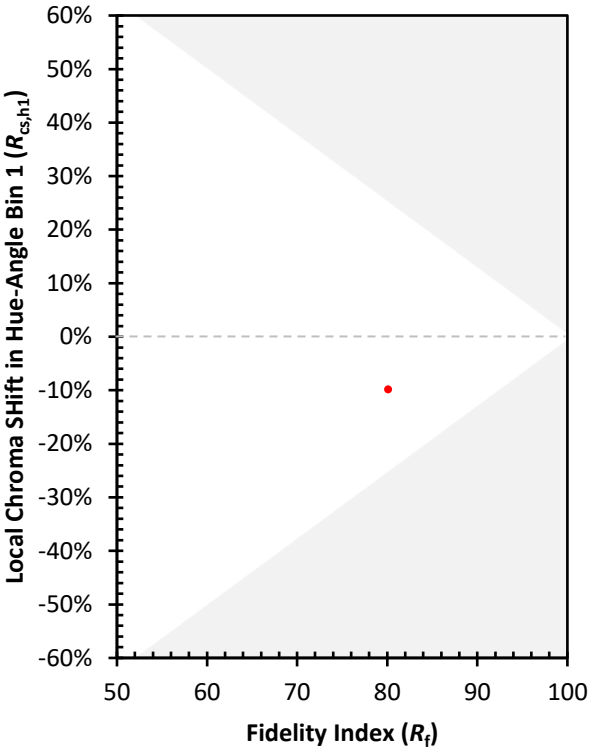
Measure Comparisons





(END OF REPORT)