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: P1432524

Luminaire Tested: EHBR1-60-UNV-ASM-L830-UPL15

Issue Date: 3/20/2026

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1432524
	REPORT IS A COMBINATION OF REPORTS P1431901 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-60-UNV-ASM-L830-UPL15
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	57028.8 lumens
Efficiency:	N/A
Efficacy:	167.9 lumens/watt
Spacing Criteria (0/90/45):	0.84 / 0.99 / 0.92
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	339.7
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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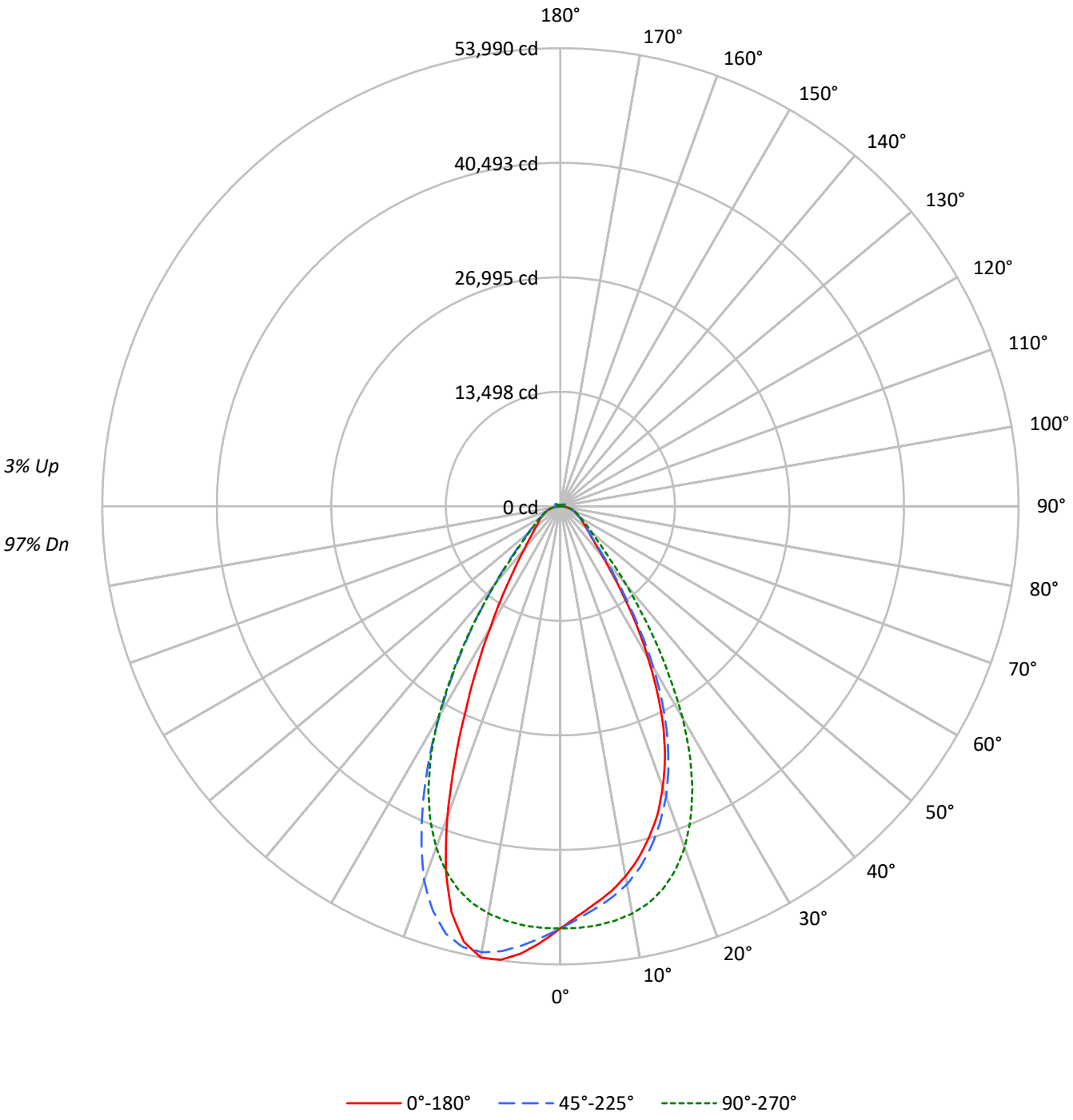
Scaled Data Report

TEST NUMBER: P1432524
CATALOG NUMBER: EHBR1-60-UNV-ASM-L830-UPL15

Luminous Intensity Polar Plot



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TEST NUMBER: P1432524
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	97
1	111	108	105	102	109	105	103	100	101	99	97	97	95	93	93	91	90	88
2	104	98	93	89	102	96	92	88	93	89	86	89	86	84	86	84	81	79
3	98	90	84	79	96	89	83	79	85	81	77	83	79	75	80	77	74	72
4	92	83	77	72	90	82	76	71	79	74	70	77	72	69	75	71	68	66
5	87	77	70	65	85	76	69	65	74	68	64	72	67	63	70	66	62	60
6	82	71	65	60	80	70	64	59	69	63	59	67	62	58	65	61	57	56
7	77	67	60	55	76	66	59	55	64	58	54	63	58	54	61	57	53	52
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	52	47	57	51	47	56	50	47	55	50	46	45
10	66	55	49	44	65	55	48	44	53	48	44	52	47	44	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	233659	233659	233659	233659	233659
5°	220186	222759	232237	243375	247754
10°	208387	212801	229382	251190	254114
15°	192493	197635	222609	248613	236152
20°	171458	177232	208196	228524	189361
25°	143689	149127	184270	191680	131200
30°	107508	113741	149620	148127	85356
35°	71571	75891	107313	105579	55278
40°	45136	48236	69381	69828	38101
45°	32160	33498	44022	45913	29513
50°	26788	27000	32691	33542	25079
55°	23646	23701	26691	27395	22845
60°	21894	21708	23113	23602	21762
65°	20898	20710	21069	21480	20988
70°	20299	19948	19969	20351	20564
75°	19298	18714	18674	19337	19894
80°	17559	16334	16405	17559	18781
85°	12785	10614	10614	12133	13410

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 61892 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4731.0	8.3
10°-20°	12871.1	22.6
20°-30°	15095.2	26.5
30°-40°	10497.7	18.4
40°-50°	5216.9	9.1
50°-60°	3120.3	5.5
60°-70°	2196.2	3.9
70°-80°	1414.7	2.5
80°-90°	451.8	0.8
90°-100°	39.3	0.1
100°-110°	246.1	0.4
110°-120°	452.7	0.8
120°-130°	270.7	0.5
130°-140°	166.0	0.3
140°-150°	116.9	0.2
150°-160°	78.6	0.1
160°-170°	47.4	0.1
170°-180°	16.3	0.0
0°-30°	32697.3	57.3
0°-40°	43195.1	75.7
0°-60°	51532.2	90.4
0°-90°	55594.9	97.5
90°-120°	738.1	1.3
90°-150°	1291.7	2.3
90°-180°	1434.0	2.5
0°-180°	57028.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	49756	49756	49756	49756	49756	
5°	47013	47563	49586	51964	52899	4410
15°	40384	41463	46702	52158	49543	11262
25°	28694	29780	36798	38278	26201	12947
35°	13136	13929	19696	19378	10146	8368
45°	5203	5420	7122	7429	4775	4206
55°	3196	3203	3607	3702	3087	2899
65°	2181	2162	2199	2242	2191	2166
75°	1359	1318	1316	1362	1401	1435
85°	439	365	365	417	461	452
90°	11	29	11	32	18	27
95°	18	64	21	56	24	18
105°	86	426	113	457	63	115
115°	391	504	481	560	416	360
125°	283	272	310	303	328	258
135°	208	212	200	222	232	163
145°	178	187	184	187	192	113
155°	165	168	167	167	176	77
165°	164	166	166	167	175	46
175°	168	170	171	172	180	16
180°	172	172	172	172	172	

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Scaled Data Report

TEST NUMBER: P1432524
CATALOG NUMBER: EHBR1-60-UNV-ASM-L830-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1
2.5°	48279.1	48310.9	48648.6	49088.0	49727.2	50370.0	50890.7	51234.0	51403.8
5°	47013.1	47188.5	47562.6	48369.7	49586.3	50873.8	51964.5	52678.3	52899.4
7.5°	45779.6	45881.3	46507.4	47527.1	49249.4	51255.4	52876.1	53709.2	53912.7
10°	44274.7	44505.2	45212.4	46415.1	48735.4	51496.1	53368.7	53965.8	53990.0
12.5°	42503.8	42808.9	43539.5	45056.5	47915.3	51410.3	53203.6	53007.6	52562.6
15°	40384.1	40651.9	41462.7	43222.3	46702.3	50901.8	52157.6	50563.2	49543.4
17.5°	38094.5	38337.1	39041.5	40979.3	44993.1	49950.2	49974.5	46819.9	44896.1
20°	35239.5	35429.8	36426.3	38327.8	42790.3	48423.7	46968.3	41198.6	38919.2
22.5°	32201.6	32379.9	33265.3	35244.1	40028.6	46365.6	42781.9	35543.7	32433.9
25°	28694.5	28791.5	29780.5	31570.0	36798.5	43843.7	38278.3	29382.1	26200.6
27.5°	24748.8	24913.9	25948.7	27776.4	32999.3	40647.2	33482.7	24009.9	21074.6
30°	20679.1	20952.4	21878.0	23514.5	28779.4	36549.4	28492.1	19120.9	16418.1
32.5°	16880.8	17077.7	17737.3	19447.5	24054.7	32532.8	23699.2	15320.8	13031.2
35°	13135.8	13332.6	13928.8	15608.2	19695.7	27507.7	19377.5	12038.5	10145.5
37.5°	10041.0	10388.9	10771.5	12134.6	15457.0	22759.7	15446.8	9693.9	8229.1
40°	7823.2	7879.2	8360.6	9233.0	12025.5	17796.1	12102.9	7738.3	6603.8
42.5°	6262.3	6414.4	6621.5	7274.6	9111.7	13607.9	9512.9	6351.0	5609.2
45°	5203.3	5263.1	5419.8	5858.4	7122.5	10013.9	7428.6	5358.3	4775.1
47.5°	4552.1	4526.0	4626.8	4955.2	5800.5	7739.3	6020.7	4596.0	4187.3
50°	3992.3	3976.4	4024.0	4243.3	4872.1	5938.5	4999.0	4011.9	3737.6
52.5°	3557.5	3571.6	3576.2	3712.5	4185.4	4843.3	4257.2	3575.2	3390.5
55°	3195.5	3213.3	3203.0	3303.8	3607.0	4071.6	3702.2	3215.2	3087.3
57.5°	2912.8	2899.8	2885.8	2939.9	3167.6	3454.0	3215.2	2908.2	2823.2
60°	2632.0	2619.9	2609.6	2645.1	2778.5	2991.2	2837.3	2640.4	2616.1
62.5°	2391.3	2383.8	2382.9	2376.3	2479.0	2613.3	2508.9	2399.7	2378.2
65°	2181.3	2173.0	2161.7	2151.5	2199.1	2324.1	2242.0	2183.2	2190.7
67.5°	1971.4	1971.4	1951.8	1936.0	1982.6	2047.9	2012.5	1978.9	1987.3
70°	1781.1	1782.0	1750.3	1738.2	1752.2	1822.2	1785.7	1790.4	1804.4
72.5°	1576.8	1554.4	1531.1	1530.1	1532.0	1586.1	1574.0	1585.2	1600.1
75°	1359.4	1333.2	1318.3	1301.6	1315.5	1356.5	1362.2	1378.1	1401.4
77.5°	1149.4	1109.3	1097.2	1088.8	1079.5	1126.1	1143.8	1165.4	1199.8
80°	923.7	879.9	859.3	847.2	863.0	884.4	923.7	939.5	988.0
82.5°	683.0	650.3	625.1	624.2	631.6	651.2	684.8	714.7	742.7
85°	439.4	387.2	364.8	373.2	364.8	394.6	417.0	452.5	460.9
87.5°	158.6	124.1	118.5	130.6	127.9	137.1	156.7	170.8	171.7
90°	11.0	17.2	28.9	18.7	11.0	18.9	32.2	21.1	17.5
92.5°	15.6	25.8	45.8	24.2	14.1	25.1	44.6	26.5	21.5
95°	18.0	29.6	63.7	31.9	21.3	30.5	56.2	28.9	24.5
97.5°	23.5	32.7	73.0	38.9	32.0	37.5	63.2	30.4	28.4
100°	30.5	38.1	113.2	48.3	42.2	42.2	113.5	34.3	31.5
102.5°	50.7	79.9	239.4	89.4	63.0	81.8	260.8	64.6	36.9
105°	86.3	167.4	426.0	185.4	113.3	184.0	456.7	158.3	63.4
107.5°	148.2	299.0	562.5	327.1	213.3	341.1	587.6	307.0	138.5
110°	275.2	396.6	589.6	448.6	340.2	475.9	641.0	418.5	273.2

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Scaled Data Report

TEST NUMBER: P1432524
CATALOG NUMBER: EHBR1-60-UNV-ASM-L830-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	371.2	426.0	564.7	495.1	442.4	530.1	626.3	463.4	*375.4*
115°	390.6	409.7	504.4	483.4	481.3	522.4	559.7	461.8	*415.7*
117.5°	377.4	374.1	428.5	435.7	465.1	478.2	483.8	434.0	*418.1*
120°	349.5	333.1	358.0	380.7	420.1	414.8	408.9	392.9	*394.8*
122.5°	314.6	296.1	307.9	325.0	364.6	353.0	346.1	352.0	*363.1*
125°	283.1	263.6	272.4	277.3	309.6	298.0	302.9	316.4	*328.4*
127.5°	254.4	241.1	246.9	243.2	264.1	258.6	271.2	286.3	*296.7*
130°	235.1	224.2	231.6	221.6	231.7	232.3	248.8	262.4	*268.7*
132.5°	219.8	212.8	221.8	209.5	211.7	217.0	232.7	244.8	*248.8*
135°	208.1	202.9	211.7	201.2	199.5	206.9	222.0	229.1	*231.7*
137.5°	199.1	194.6	204.3	196.0	192.7	200.2	211.1	217.7	*217.0*
140°	191.7	187.9	197.6	190.5	189.0	196.4	201.1	208.3	*208.7*
142.5°	183.4	180.3	191.5	186.9	185.3	191.9	194.3	200.0	*199.4*
145°	178.3	176.0	187.0	183.8	183.9	189.1	186.7	193.1	*192.5*
147.5°	173.9	172.4	181.6	180.0	180.0	183.8	181.4	187.0	*186.5*
150°	170.4	168.8	177.1	175.4	176.2	179.3	175.4	181.6	*182.8*
152.5°	166.8	164.3	171.9	170.2	170.9	174.0	170.9	178.1	*178.3*
155°	164.9	162.3	168.3	166.5	167.4	169.0	167.4	174.6	*175.5*
157.5°	164.5	161.9	166.4	165.4	165.4	167.1	166.4	172.7	*173.7*
160°	164.1	162.3	166.1	165.1	165.3	166.8	167.0	172.6	*173.6*
162.5°	163.6	162.0	166.4	165.6	165.6	165.6	166.7	172.4	*174.2*
165°	163.9	163.0	166.0	166.0	166.1	166.9	167.2	172.2	*174.8*
167.5°	163.9	163.2	167.0	167.0	167.2	166.5	168.3	173.5	*176.1*
170°	165.0	164.1	167.2	167.4	166.6	167.6	168.6	173.8	*176.3*
172.5°	166.9	166.0	170.0	169.3	169.5	169.5	170.7	175.0	*178.3*
175°	168.0	167.1	170.4	170.4	171.3	171.4	172.4	176.0	*179.5*
177.5°	169.7	168.8	170.4	170.4	170.5	172.4	174.1	177.8	*181.9*
180°	172.4	172.4	172.4	172.4	172.4	172.4	172.4	172.4	*172.4*

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Scaled Data Report

TEST NUMBER: P1432524
CATALOG NUMBER: EHBR1-60-UNV-ASM-L830-UPL15

CIE UGR TABLE:

Reflectances:											
	Ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
	Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
	Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.24	20.41	19.65	20.78	21.16	20.01	21.17	20.42	21.54	21.92
	3H	21.06	22.10	21.49	22.48	22.91	21.57	22.61	22.00	22.99	23.42
	4H	21.80	22.77	22.25	23.17	23.62	22.22	23.19	22.67	23.59	24.04
	6H	22.37	23.26	22.83	23.68	24.14	22.71	23.60	23.18	24.03	24.49
	8H	22.55	23.39	23.03	23.84	24.30	22.87	23.71	23.35	24.16	24.62
	12H	22.65	23.46	23.13	23.89	24.38	22.95	23.76	23.43	24.19	24.68
4H	2H	19.76	20.73	20.21	21.13	21.58	20.39	21.36	20.84	21.76	22.21
	3H	21.80	22.60	22.26	23.06	23.52	22.20	23.00	22.66	23.46	23.92
	4H	22.67	23.38	23.15	23.85	24.36	22.99	23.70	23.47	24.17	24.68
	6H	23.36	23.98	23.87	24.48	25.01	23.62	24.24	24.13	24.74	25.27
	8H	23.59	24.17	24.10	24.66	25.19	23.83	24.41	24.34	24.90	25.43
	12H	23.73	24.24	24.26	24.77	25.30	23.95	24.45	24.48	24.98	25.52
8H	4H	22.93	23.51	23.44	24.00	24.53	23.23	23.81	23.75	24.30	24.84
	6H	23.75	24.22	24.29	24.76	25.30	24.00	24.47	24.54	25.01	25.55
	8H	24.05	24.46	24.61	25.03	25.58	24.28	24.70	24.84	25.26	25.81
	12H	24.25	24.62	24.81	25.16	25.79	24.46	24.83	25.02	25.37	26.00
12H	4H	22.94	23.45	23.47	23.98	24.51	23.24	23.75	23.78	24.28	24.82
	6H	23.78	24.20	24.35	24.76	25.32	24.04	24.46	24.61	25.02	25.57
	8H	24.13	24.50	24.69	25.04	25.67	24.37	24.74	24.93	25.28	25.91

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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: SP1-2506-472-2

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L830-N

Data in this report applies to families of products including EHBR-60-L830-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

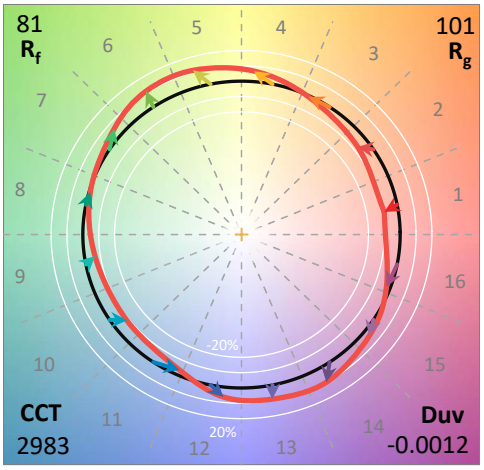
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-2
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-L830-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	2983
CIE u':	0.2516
CIE v':	0.5201
Duv:	-0.0012
CIE x:	0.4364
CIE y:	0.4010
CIE z:	0.1626
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	583
Purity:	51.34918
Rf:	81.2
Rg:	101.5

CRI (Ra):	83.4				
R1:	84.0	R9:	29.4		
R2:	87.5	R10:	68.6		
R3:	88.9	R11:	82.2		
R4:	83.8	R12:	61.6		
R5:	81.9	R13:	83.9		
R6:	83.1	R14:	92.5		
R7:	87.1	R15:	79.8		
R8:	70.9				



Test Conditions

Stabilization Time:	38M
Operation Time:	1H 38M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-2

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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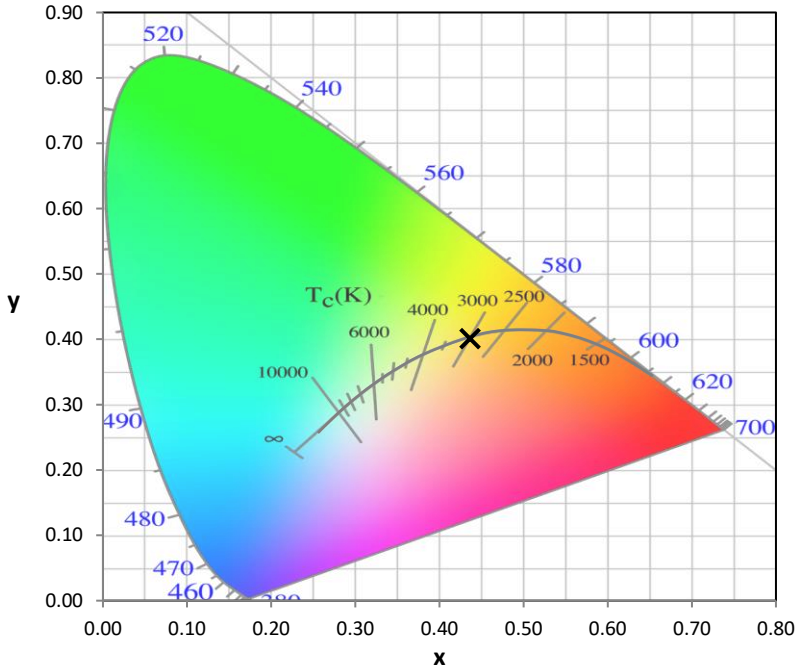
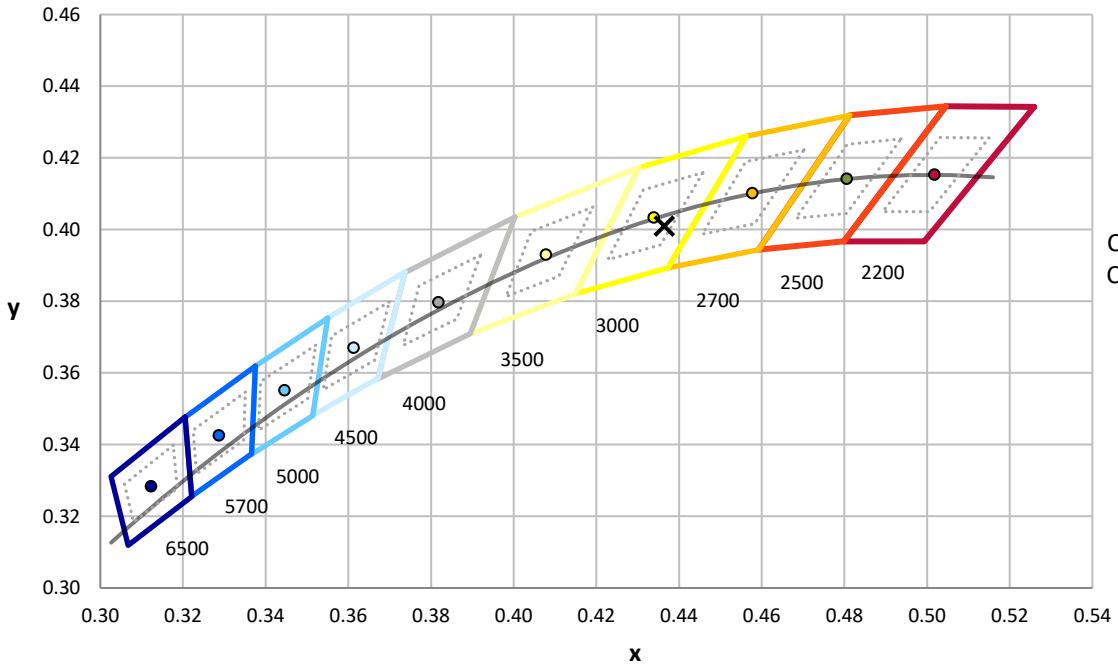
CIE 1931 Chromaticity Diagram



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



CCT = 2983K
CIE x = 0.4364
CIE y = 0.4010
Duv = -0.0012

Point lies inside the ANSI 3000K 4-step quadrangle

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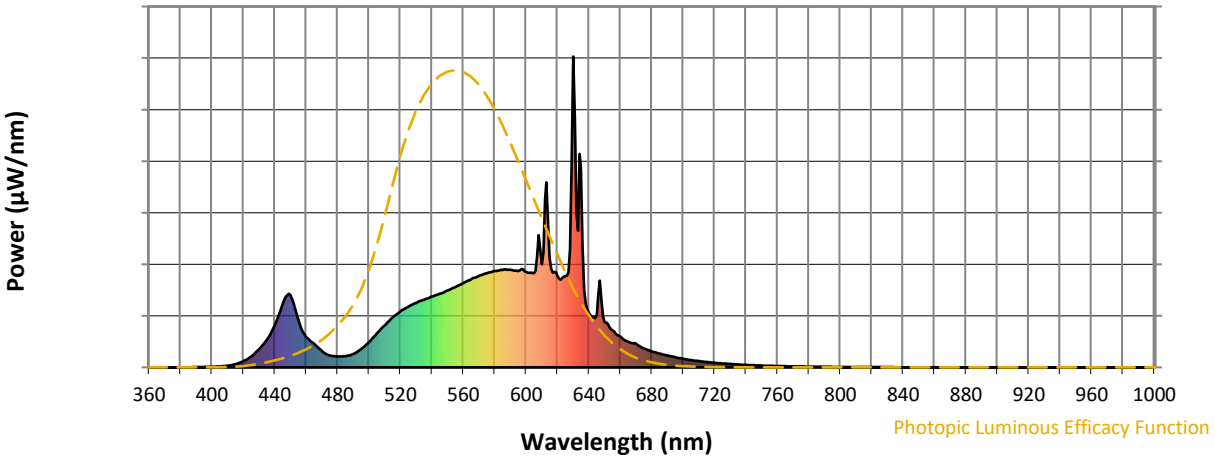
Photopic Flux vs. Wavelength



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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

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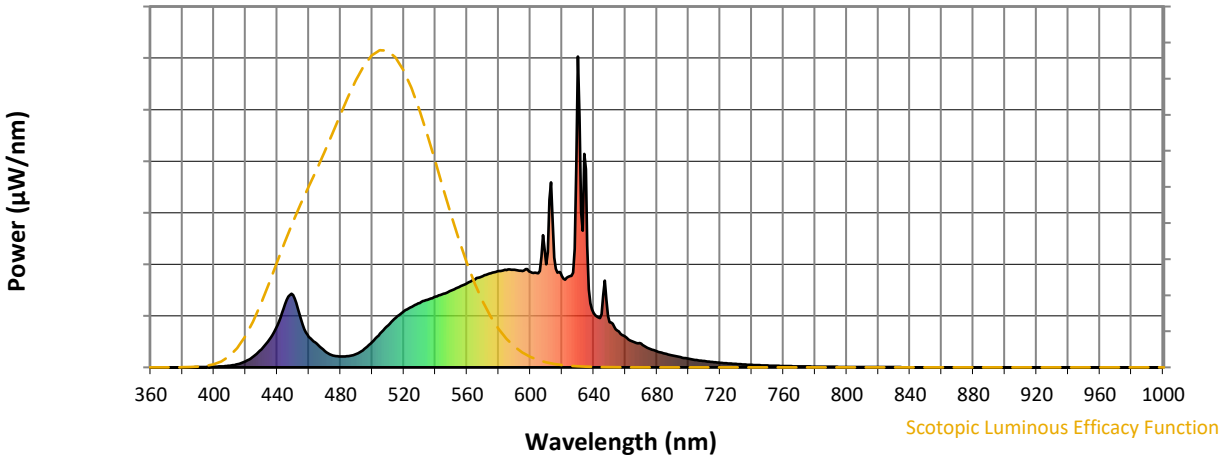
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.27**

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

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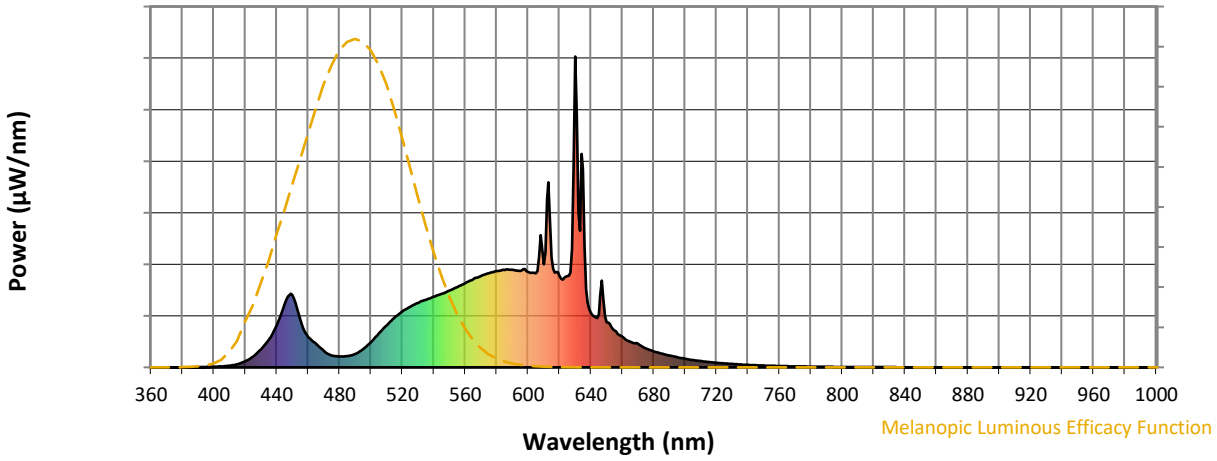
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.34**

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

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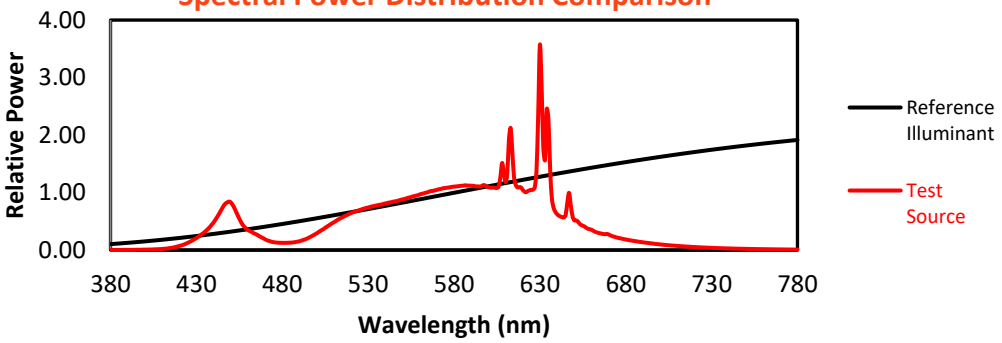
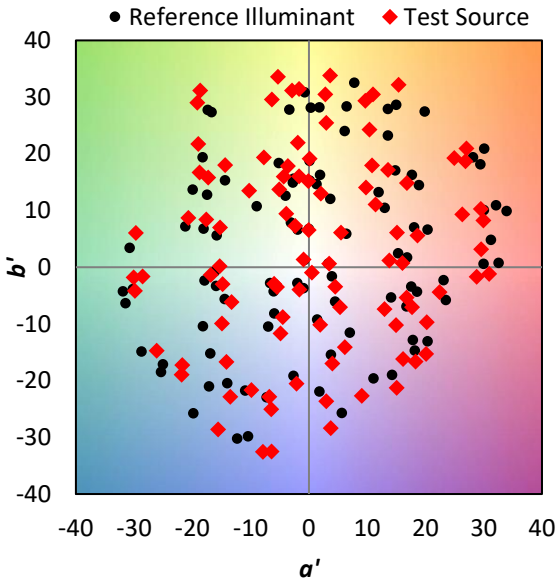
Summary

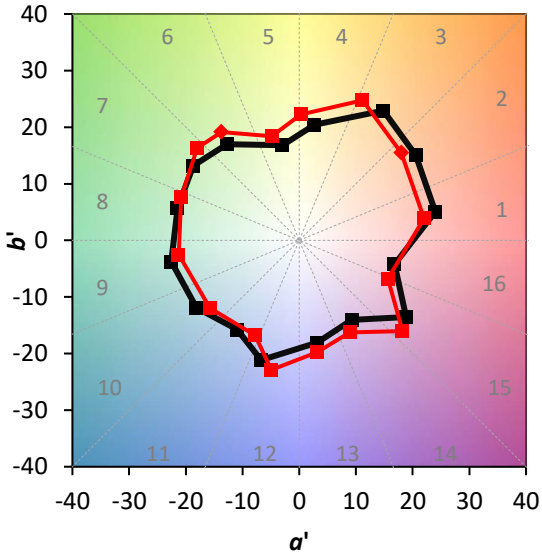
R_f = 81.2
R_g = 101.5
CIE R_a = 83.4
R_9 = 29.4

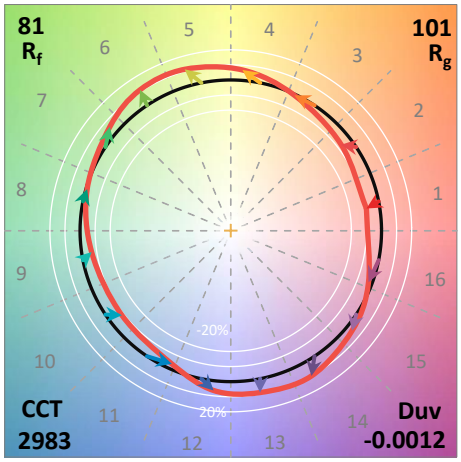
Spectral Power Distribution Comparison

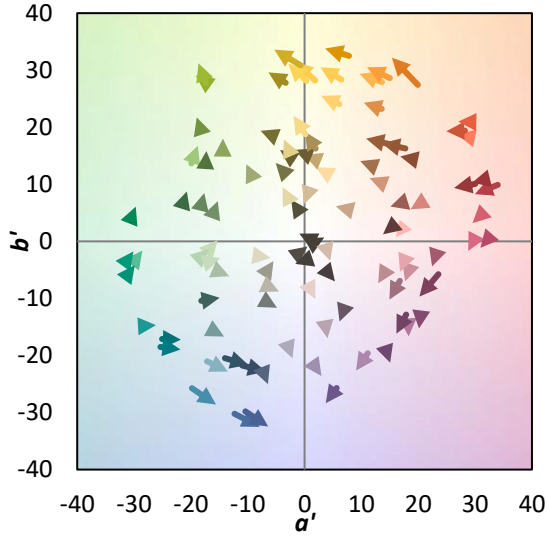


Color Vector Graphics









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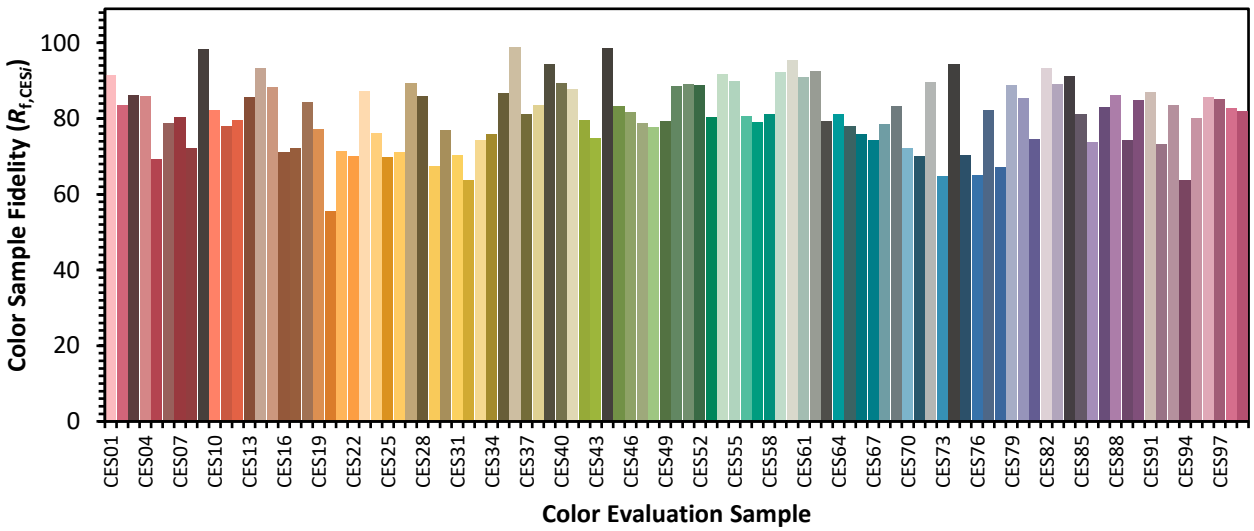
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 71	CES51 = 89	CES76 = 65
CES02 = 63	CES27 = 89	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 86	CES53 = 80	CES78 = 67
CES04 = 70	CES29 = 68	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 77	CES55 = 90	CES80 = 85
CES06 = 51	CES31 = 70	CES56 = 81	CES81 = 75
CES07 = 43	CES32 = 64	CES57 = 79	CES82 = 93
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 76	CES59 = 92	CES84 = 91
CES10 = 76	CES35 = 87	CES60 = 96	CES85 = 81
CES11 = 59	CES36 = 99	CES61 = 91	CES86 = 74
CES12 = 65	CES37 = 81	CES62 = 93	CES87 = 83
CES13 = 44	CES38 = 83	CES63 = 79	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 81	CES89 = 74
CES15 = 72	CES40 = 89	CES65 = 78	CES90 = 85
CES16 = 48	CES41 = 88	CES66 = 76	CES91 = 87
CES17 = 50	CES42 = 80	CES67 = 74	CES92 = 73
CES18 = 57	CES43 = 75	CES68 = 79	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 83	CES94 = 64
CES20 = 67	CES45 = 83	CES70 = 72	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 70	CES96 = 86
CES22 = 79	CES47 = 79	CES72 = 90	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 65	CES98 = 83
CES24 = 91	CES49 = 79	CES74 = 94	CES99 = 82
CES25 = 72	CES50 = 88	CES75 = 70	



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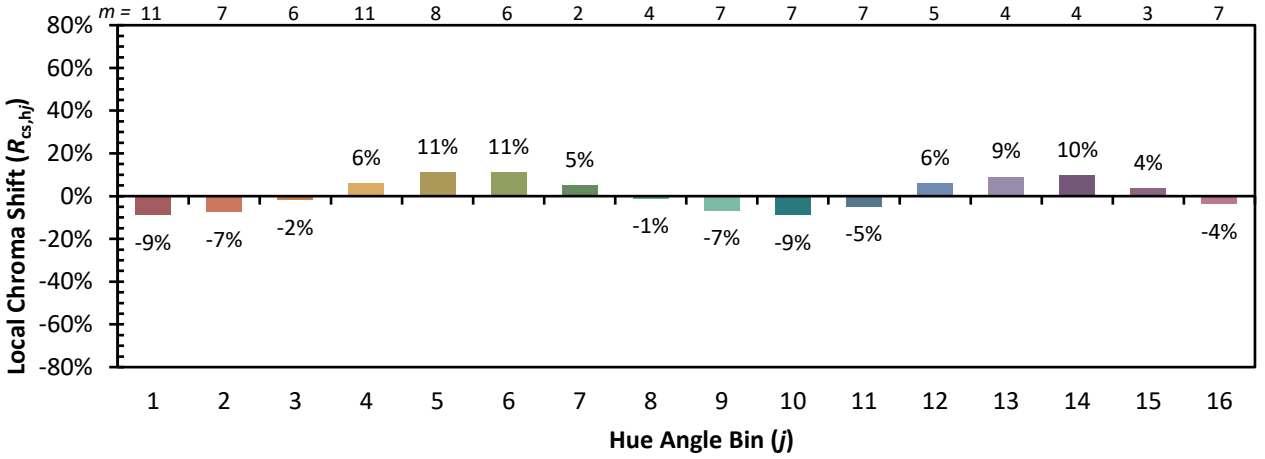
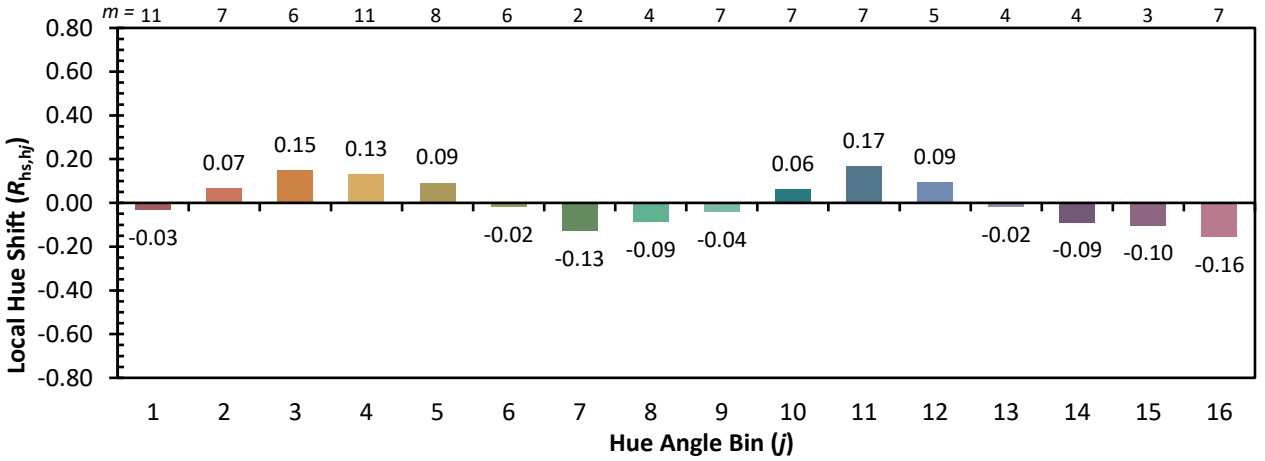
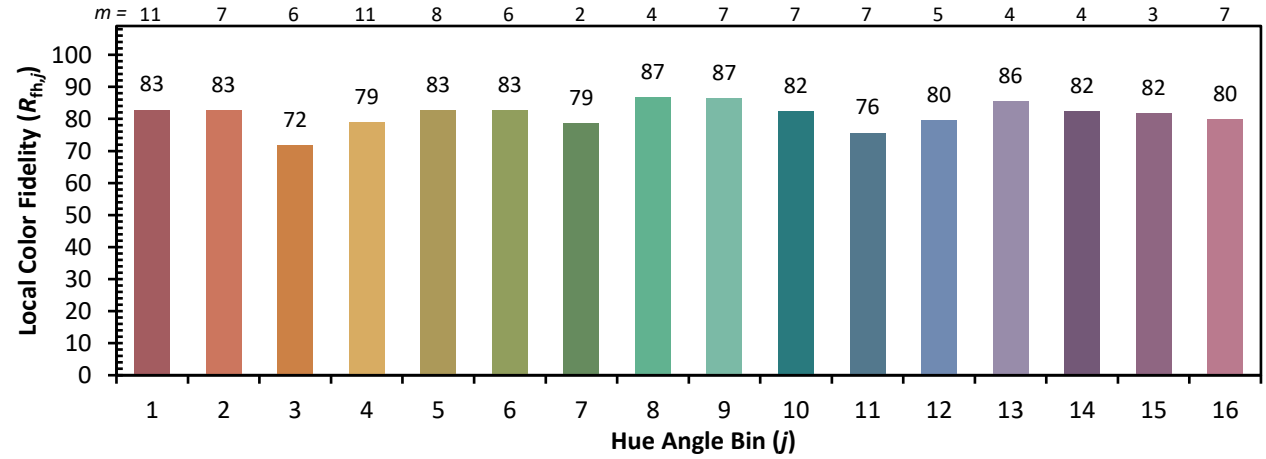
Color Rendition by Hue-Angle Bin







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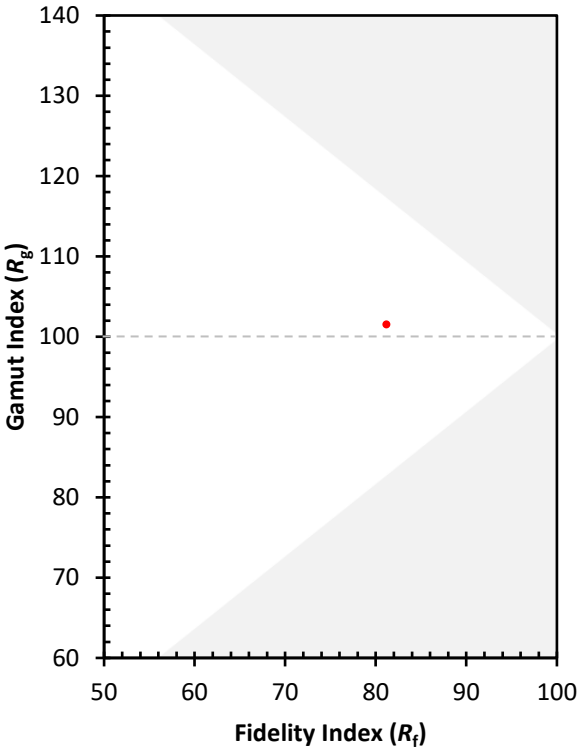
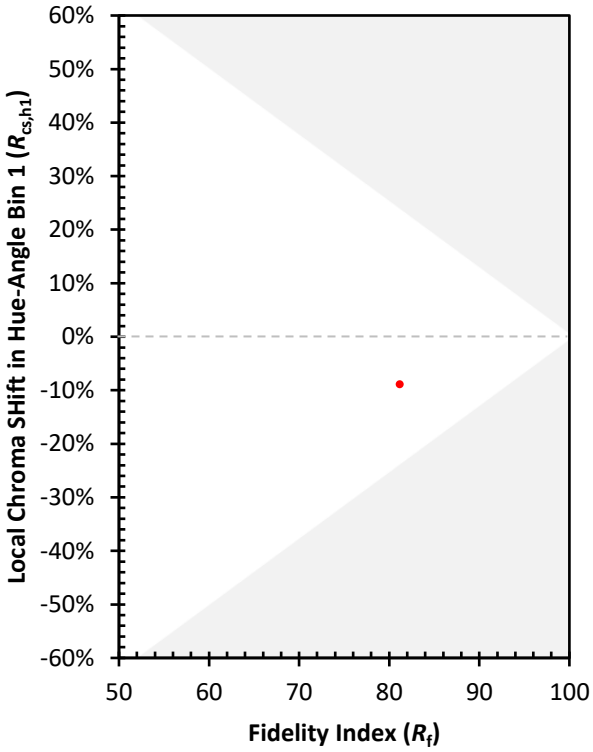
Measure Comparisons





(END OF REPORT)