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: P1432293

Luminaire Tested: EHBR1-18-UNV-A1-L830-UPL18

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:	P1432293
	REPORT IS A COMBINATION OF REPORTS P1431670 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-A1-L830-UPL18
Description:	Elevate Round Highbay at, 18000 lumens, 3000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	18885.9 lumens
Efficiency:	N/A
Efficacy:	177.2 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):	106.6
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: P1432293
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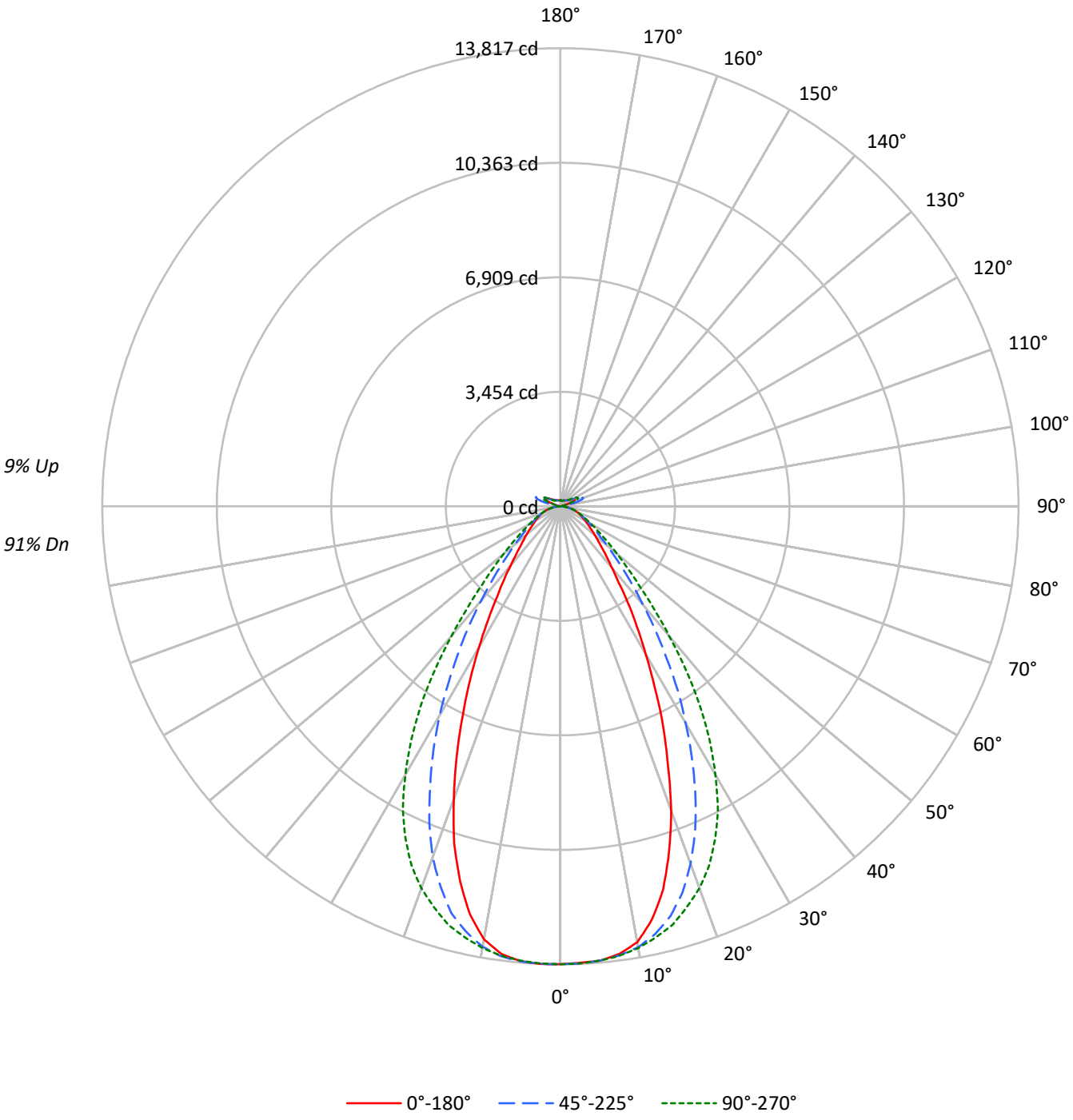
Luminous Intensity Polar Plot



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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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	91
1	109	106	103	100	106	103	100	97	97	95	93	92	90	88	87	85	84	82
2	102	96	91	86	99	93	89	85	88	85	81	84	81	78	80	77	75	73
3	95	87	81	76	92	85	79	75	81	76	72	77	73	70	74	71	68	66
4	89	80	73	68	86	78	72	67	74	69	65	71	67	63	68	65	61	59
5	83	73	66	61	81	72	65	60	69	63	59	66	61	57	63	59	56	54
6	78	68	60	55	76	66	60	55	64	58	54	61	56	52	59	55	51	50
7	74	63	56	51	72	61	55	50	59	53	49	57	52	48	55	51	47	46
8	69	58	51	46	68	57	51	46	55	49	45	54	48	45	52	47	44	42
9	66	54	48	43	64	54	47	43	52	46	42	50	45	41	49	44	41	39
10	62	51	44	40	61	50	44	40	49	43	39	47	42	39	46	41	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	64858	64858	64858	64858	64858
5°	64429	64420	64422	64537	64497
10°	62837	63569	63670	63490	62425
15°	57046	61026	62282	60537	55735
20°	47537	55832	59645	54780	45686
25°	36763	48275	55332	46511	34858
30°	26797	39314	48605	37822	25434
35°	19317	30301	39945	28997	18055
40°	13897	22380	29438	21436	13468
45°	10951	16373	20560	15664	10571
50°	9085	12301	14881	11896	8948
55°	7935	9714	11270	9551	7827
60°	7156	8109	8980	8058	7207
65°	6693	7153	7547	7175	6756
70°	6356	6508	6708	6544	6419
75°	5930	5893	5930	5910	5986
80°	5357	4971	4861	5049	5357
85°	3713	3148	3116	3198	3820

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 21542 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1304.2	6.9
10°-20°	3505.3	18.6
20°-30°	4262.5	22.6
30°-40°	3472.1	18.4
40°-50°	2084.6	11.0
50°-60°	1199.7	6.4
60°-70°	750.8	4.0
70°-80°	442.2	2.3
80°-90°	132.4	0.7
90°-100°	45.5	0.2
100°-110°	301.3	1.6
110°-120°	557.4	3.0
120°-130°	330.8	1.8
130°-140°	199.9	1.1
140°-150°	138.4	0.7
150°-160°	90.1	0.5
160°-170°	51.4	0.3
170°-180°	17.0	0.1
0°-30°	9072.0	48.0
0°-40°	12544.1	66.4
0°-60°	15828.5	83.8
0°-90°	17153.9	90.8
90°-120°	904.3	4.8
90°-150°	1573.4	8.3
90°-180°	1732.0	9.2
0°-180°	18885.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13811	13811	13811	13811	13811	
5°	13757	13755	13755	13780	13771	1300
15°	11968	12803	13066	12700	11693	3292
25°	7342	9640	11050	9288	6961	3345
35°	3545	5561	7331	5322	3314	2243
45°	1772	2649	3326	2534	1710	1398
55°	1072	1313	1523	1291	1058	969
65°	699	747	788	749	705	695
75°	418	415	418	416	422	442
85°	128	108	107	110	131	136
90°	13	35	12	36	13	12
95°	22	78	24	66	21	21
105°	105	527	138	562	69	141
115°	482	623	593	689	506	445
125°	348	333	379	369	396	318
135°	255	256	239	267	276	199
145°	211	220	216	222	227	134
155°	187	193	192	193	201	87
165°	178	181	180	180	185	51
175°	178	179	178	177	182	17
180°	179	179	179	179	179	

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Scaled Data Report

TEST NUMBER: P1432293
CATALOG NUMBER: EHBR1-18-UNV-A1-L830-UPL18

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	13811.0	13811.0	13811.0	13811.0	13811.0	13811.0	*13811.0*	13811.0	13811.0
2.5°	*13780.7*	*13793.1*	*13798.3*	*13801.2*	*13804.4*	*13813.1*	*13816.8*	*13810.7*	*13816.0*
5°	13756.7	13757.5	13754.6	13767.7	13755.2	13763.9	*13779.6*	13773.5	13771.1
7.5°	13616.7	13645.6	13662.7	13667.0	13669.3	13680.0	*13691.0*	13628.8	13619.6
10°	13350.5	13398.9	13506.1	13536.9	13527.6	13544.9	*13489.4*	13326.8	13263.1
12.5°	12767.1	12936.9	13215.7	13339.9	13317.3	13332.6	*13143.4*	12800.3	12603.0
15°	11967.9	12216.9	12802.9	13047.7	13066.4	13047.7	*12700.3*	12031.7	11693.0
17.5°	10905.4	11365.3	12228.2	12703.2	12675.9	12684.9	*12025.4*	11037.2	10649.6
20°	9770.2	10260.6	11475.0	12267.2	12258.8	12208.5	*11258.9*	9955.7	9389.9
22.5°	8486.5	9118.9	10611.8	11731.2	11728.1	11644.1	*10325.3*	8774.6	8165.4
25°	7341.6	7961.7	9640.4	11074.6	11049.7	10954.2	*9288.3*	7596.4	6961.2
27.5°	6157.9	6802.7	8603.4	10305.1	10288.1	10183.9	*8297.0*	6495.2	5890.6
30°	5154.4	5744.0	7562.1	9458.4	9349.1	9337.2	*7275.0*	5475.5	4892.3
32.5°	4294.7	4800.1	6580.2	8573.0	8379.5	8434.7	*6256.6*	4622.8	4044.8
35°	3545.3	3990.5	5561.4	7549.0	7331.4	7402.9	*5321.9*	3793.1	3313.8
37.5°	2877.4	3305.5	4698.0	6553.0	6220.4	6355.2	*4499.9*	3167.8	2783.6
40°	2408.7	2748.3	3879.1	5460.2	5102.3	5321.9	*3715.4*	2642.2	2334.4
42.5°	2075.5	2297.1	3201.6	4416.8	4142.3	4297.9	*3062.2*	2208.9	1978.6
45°	1771.8	1948.5	2649.1	3485.4	3326.5	3470.9	*2534.3*	1883.4	1710.4
47.5°	1547.5	1683.8	2180.8	2814.5	2715.9	2761.6	*2116.6*	1643.6	1503.0
50°	1354.0	1459.4	1833.3	2271.6	2217.8	2245.9	*1772.9*	1430.2	1333.5
52.5°	1203.7	1280.9	1537.7	1867.0	1840.4	1844.7	*1510.8*	1258.0	1188.0
55°	1072.3	1126.1	1312.7	1529.4	1523.0	1524.1	*1290.7*	1114.9	1057.8
57.5°	957.5	1002.0	1128.2	1284.6	1275.4	1277.4	*1117.7*	990.2	953.4
60°	860.3	890.1	974.8	1085.6	1079.6	1076.9	*968.7*	879.1	866.4
62.5°	774.1	793.2	851.9	930.5	919.0	921.6	*851.6*	794.0	775.2
65°	698.6	705.2	746.6	795.2	787.7	794.0	*748.9*	709.6	705.2
67.5°	624.8	631.4	655.8	688.5	679.8	685.0	*656.4*	633.2	629.5
70°	557.7	557.4	571.0	588.6	588.6	589.6	*574.2*	560.3	563.2
72.5°	488.3	486.5	490.6	502.5	499.3	510.2	*494.1*	489.7	490.3
75°	417.7	412.8	415.1	421.1	417.7	423.5	*416.3*	421.7	421.7
77.5°	351.2	341.9	339.0	339.9	333.6	342.2	*344.0*	347.7	356.4
80°	281.8	268.7	261.5	261.2	255.7	261.2	*265.6*	273.3	281.8
82.5°	209.2	197.8	185.7	183.4	179.9	183.1	*188.9*	198.1	211.8
85°	127.6	115.7	108.2	104.2	107.1	107.1	*109.9*	122.9	131.3
87.5°	46.0	40.2	33.0	33.3	34.1	35.3	*36.7*	46.3	50.6
90°	13.0	20.1	34.6	22.1	12.5	21.1	*36.4*	19.2	12.7
92.5°	18.5	30.7	55.6	28.8	16.3	28.8	*51.8*	25.9	17.5
95°	21.6	35.5	77.7	38.4	24.0	35.5	*66.2*	28.8	21.4
97.5°	27.4	39.3	89.3	47.0	37.5	44.1	*74.8*	30.7	26.2
100°	36.1	46.1	139.2	57.6	49.9	49.9	*137.3*	35.5	30.3
102.5°	61.1	97.9	295.7	108.5	75.9	97.9	*318.8*	72.0	37.0
105°	105.2	206.5	527.1	227.5	138.3	224.6	*561.7*	188.2	68.8
107.5°	182.0	369.6	695.0	403.3	262.1	419.6	*723.9*	372.5	161.9
110°	339.5	490.6	728.7	554.0	419.6	586.6	*790.1*	510.8	328.9

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Scaled Data Report

TEST NUMBER: P1432293
CATALOG NUMBER: EHBR1-18-UNV-A1-L830-UPL18

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	458.5	527.1	697.9	611.6	546.3	653.8	*771.8*	566.4	455.6
115°	482.5	506.9	623.1	597.2	593.3	644.2	*689.3*	564.6	505.5
117.5°	466.5	462.7	529.0	536.6	573.2	589.5	*595.3*	530.0	508.4
120°	431.6	411.9	441.7	468.5	517.4	510.8	*501.1*	479.3	479.6
122.5°	388.7	365.1	378.2	398.4	447.4	432.9	*423.4*	427.5	440.5
125°	348.4	324.8	333.1	338.0	379.2	364.8	*369.0*	383.3	396.4
127.5°	312.9	296.9	301.4	295.7	321.6	314.9	*329.5*	346.2	357.0
130°	288.9	275.1	281.6	267.9	280.6	282.5	*302.0*	315.5	322.4
132.5°	269.0	260.0	267.7	251.1	255.0	262.9	*281.2*	293.0	296.8
135°	254.9	246.9	255.5	239.9	239.2	250.8	*267.1*	274.7	276.0
137.5°	242.4	235.7	244.3	232.8	229.9	241.4	*253.9*	259.7	258.2
140°	231.6	225.5	235.1	226.4	224.5	236.1	*241.8*	248.8	246.9
142.5°	219.3	215.4	226.7	221.0	219.0	229.9	*232.8*	237.5	236.0
145°	210.9	208.0	220.3	217.4	216.5	224.4	*222.5*	229.5	226.6
147.5°	204.1	202.0	212.9	211.9	211.9	217.7	*215.1*	221.2	218.5
150°	197.6	195.5	206.5	205.5	206.5	210.3	*206.7*	214.0	213.3
152.5°	191.3	189.0	199.1	197.8	198.8	202.6	*199.3*	207.3	206.9
155°	186.7	184.5	192.6	192.0	192.0	194.3	*192.9*	201.1	201.4
157.5°	183.8	182.2	188.4	187.8	187.8	189.0	*188.7*	196.0	196.3
160°	181.5	179.9	185.1	184.5	183.6	185.7	*185.4*	191.7	192.0
162.5°	179.2	177.7	183.4	182.2	181.9	182.2	*181.9*	188.5	188.7
165°	177.5	176.9	181.3	180.6	179.6	180.6	*179.6*	184.0	185.2
167.5°	177.8	176.6	180.5	179.9	179.0	178.1	*178.9*	182.4	183.6
170°	177.1	176.9	179.8	178.3	177.1	177.4	*177.2*	180.7	181.9
172.5°	177.7	177.4	180.4	178.9	177.7	178.0	*176.9*	179.4	181.5
175°	177.7	177.0	179.4	178.5	178.3	177.5	*177.4*	178.9	181.5
177.5°	178.9	178.3	179.7	178.8	177.5	177.8	*178.6*	180.3	183.7
180°	178.6	178.6	178.6	178.6	178.6	178.6	*178.6*	178.6	178.6

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Scaled Data Report

TEST NUMBER: P1432293
CATALOG NUMBER: EHBR1-18-UNV-A1-L830-UPL18

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	15.68	16.80	16.20	17.30	17.84	16.66	17.78	17.18	18.28	18.82
	3H	17.16	18.15	17.69	18.67	19.25	17.92	18.92	18.46	19.43	20.02
	4H	17.76	18.69	18.31	19.22	19.82	18.42	19.35	18.98	19.88	20.48
	6H	18.22	19.08	18.79	19.62	20.23	18.77	19.63	19.34	20.17	20.79
	8H	18.37	19.18	18.95	19.74	20.36	18.87	19.68	19.45	20.24	20.86
	12H	18.44	19.22	19.03	19.77	20.42	18.91	19.68	19.49	20.24	20.88
4H	2H	16.20	17.13	16.75	17.66	18.26	16.98	17.91	17.53	18.44	19.04
	3H	17.88	18.64	18.45	19.22	19.84	18.46	19.23	19.03	19.80	20.42
	4H	18.59	19.28	19.18	19.86	20.52	19.08	19.77	19.67	20.36	21.01
	6H	19.17	19.76	19.78	20.37	21.05	19.56	20.15	20.17	20.76	21.43
	8H	19.36	19.91	19.97	20.52	21.20	19.69	20.25	20.31	20.85	21.53
	12H	19.46	19.95	20.10	20.59	21.27	19.76	20.25	20.39	20.89	21.57
8H	4H	18.81	19.37	19.43	19.98	20.65	19.26	19.82	19.88	20.42	21.10
	6H	19.50	19.96	20.15	20.61	21.29	19.84	20.30	20.49	20.95	21.63
	8H	19.76	20.16	20.42	20.82	21.52	20.04	20.44	20.70	21.10	21.80
	12H	19.92	20.28	20.58	20.92	21.69	20.16	20.51	20.82	21.16	21.93
12H	4H	18.81	19.30	19.45	19.94	20.62	19.26	19.75	19.89	20.38	21.07
	6H	19.53	19.93	20.19	20.59	21.29	19.86	20.27	20.53	20.93	21.63
	8H	19.82	20.18	20.48	20.82	21.59	20.10	20.45	20.76	21.10	21.87

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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

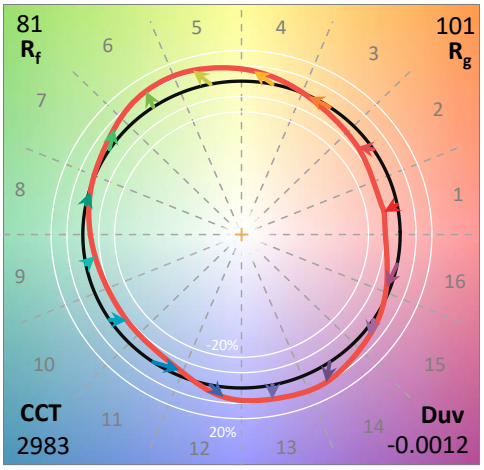
Test Information

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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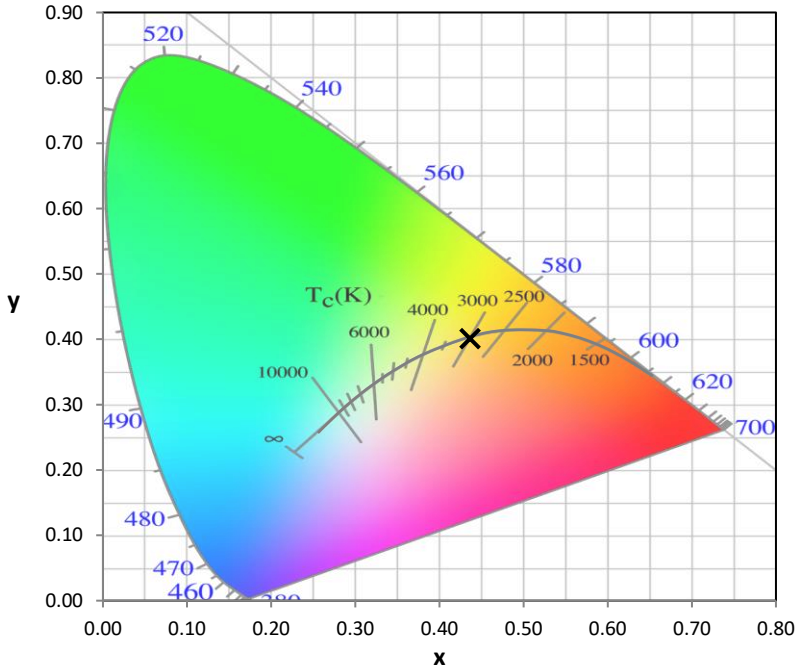
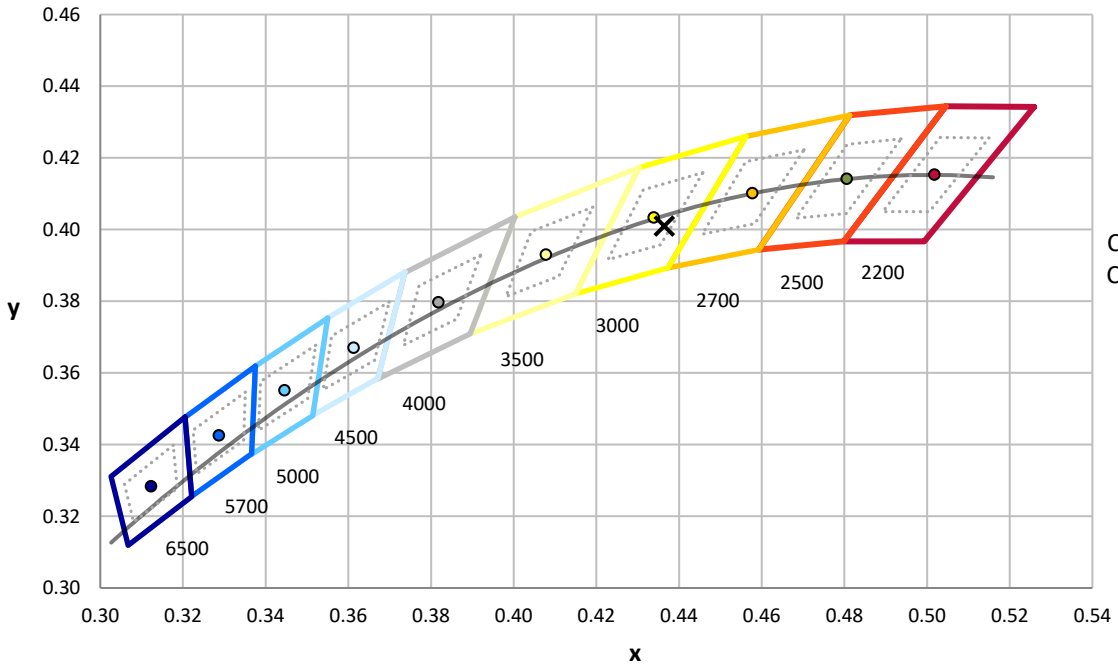
CIE 1931 Chromaticity Diagram



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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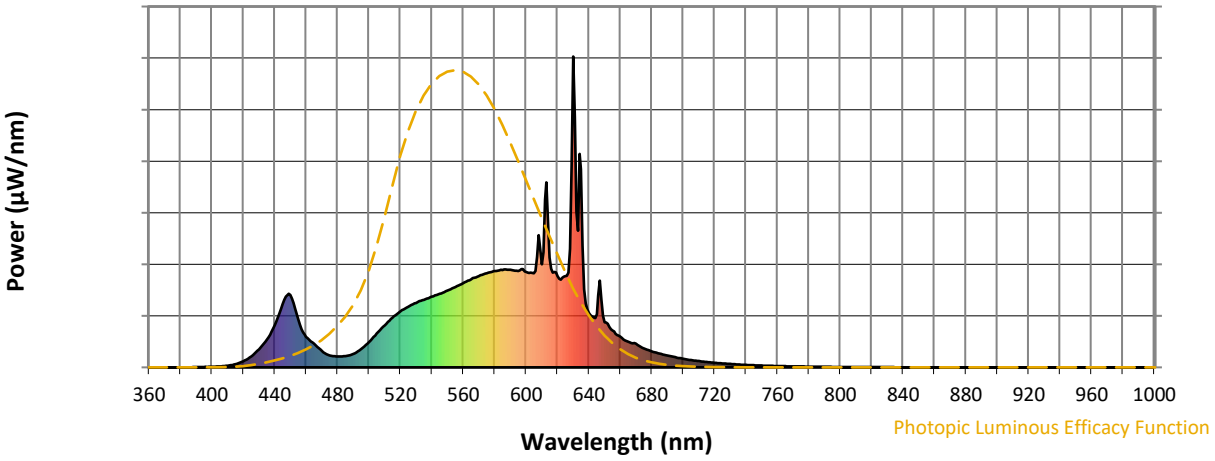
Photopic Flux vs. Wavelength



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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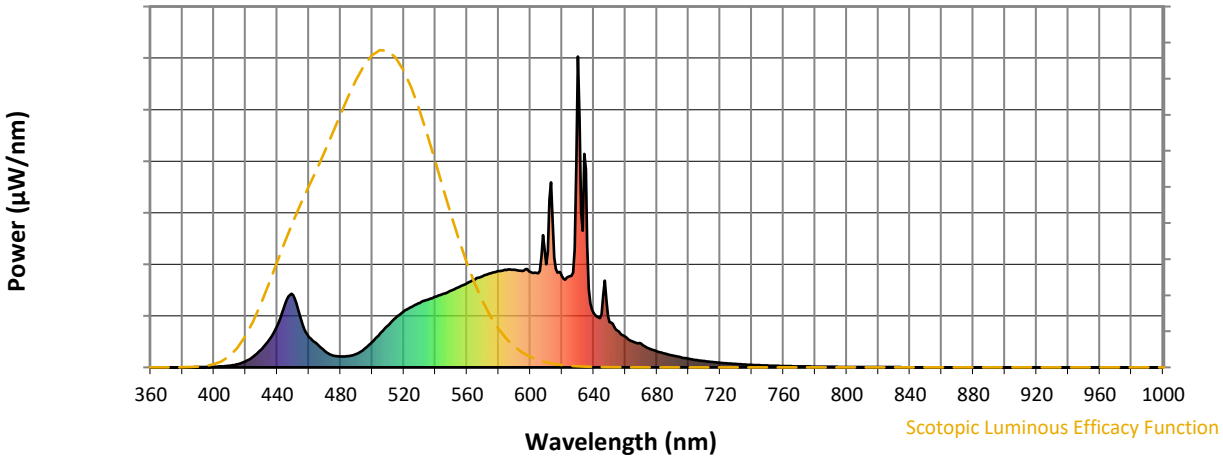
Scotopic Flux vs. Wavelength



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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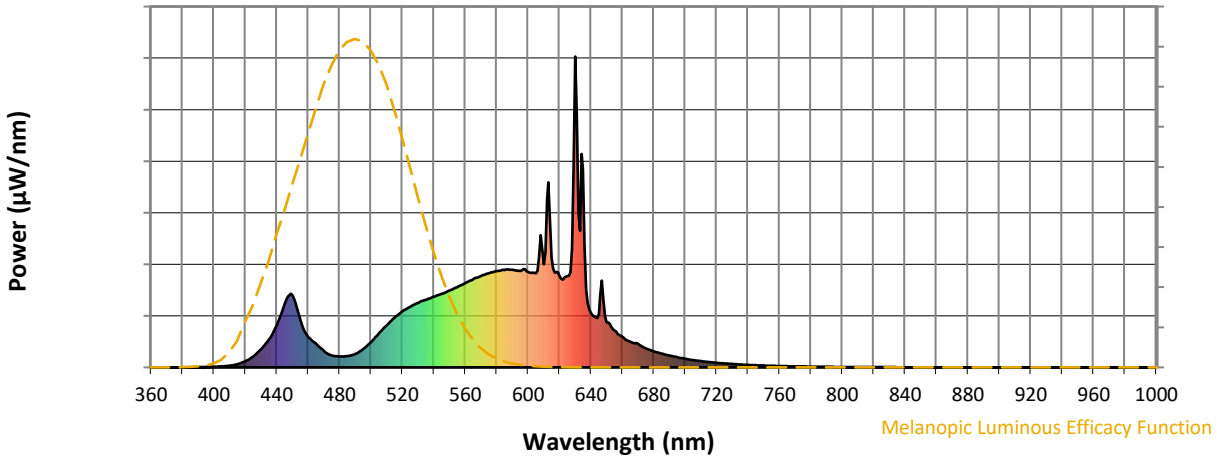
Melanopic Flux vs. Wavelength



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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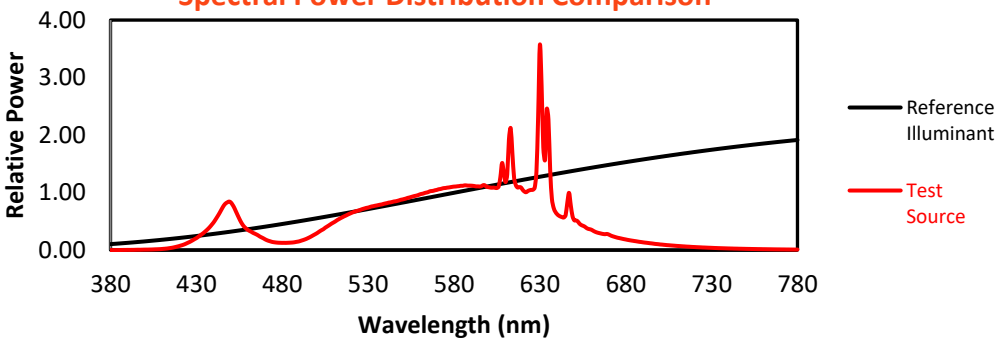
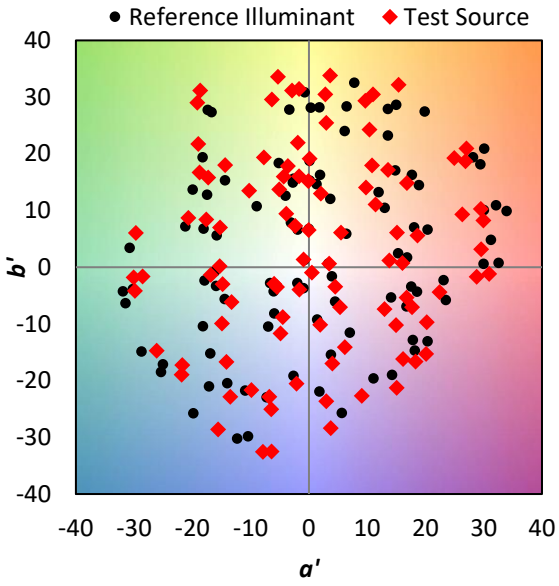
Summary

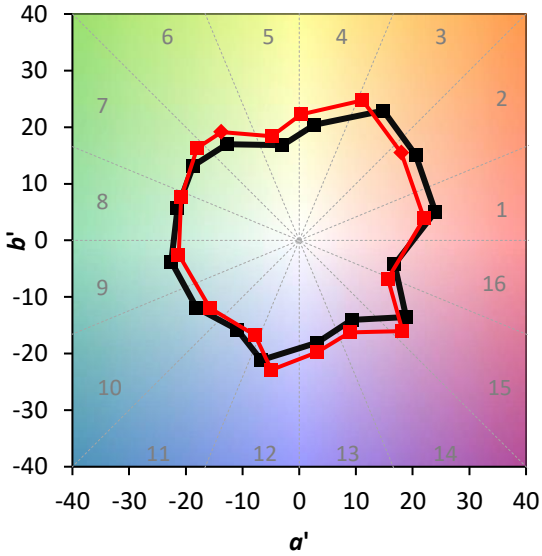
R_f = 81.2
R_g = 101.5
CIE R_a = 83.4
R_9 = 29.4

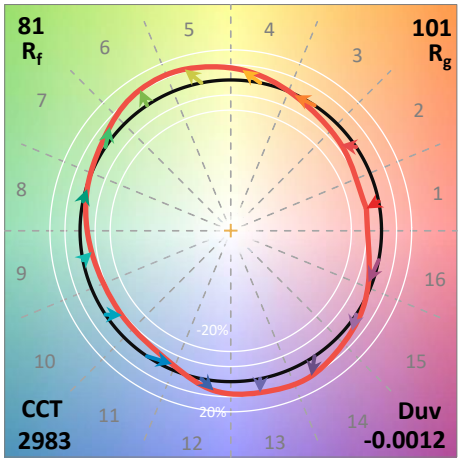
Spectral Power Distribution Comparison

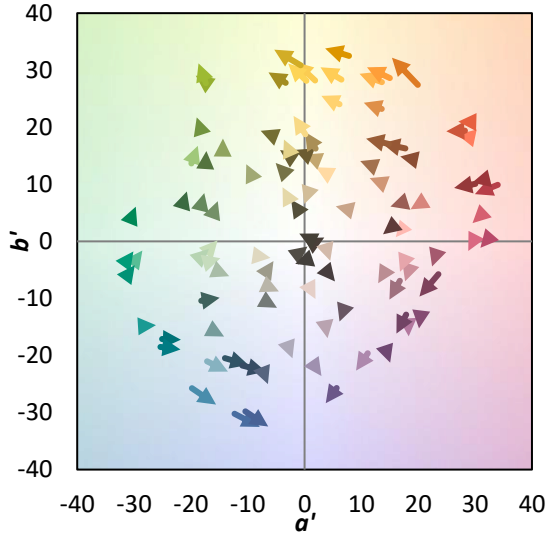


Color Vector Graphics









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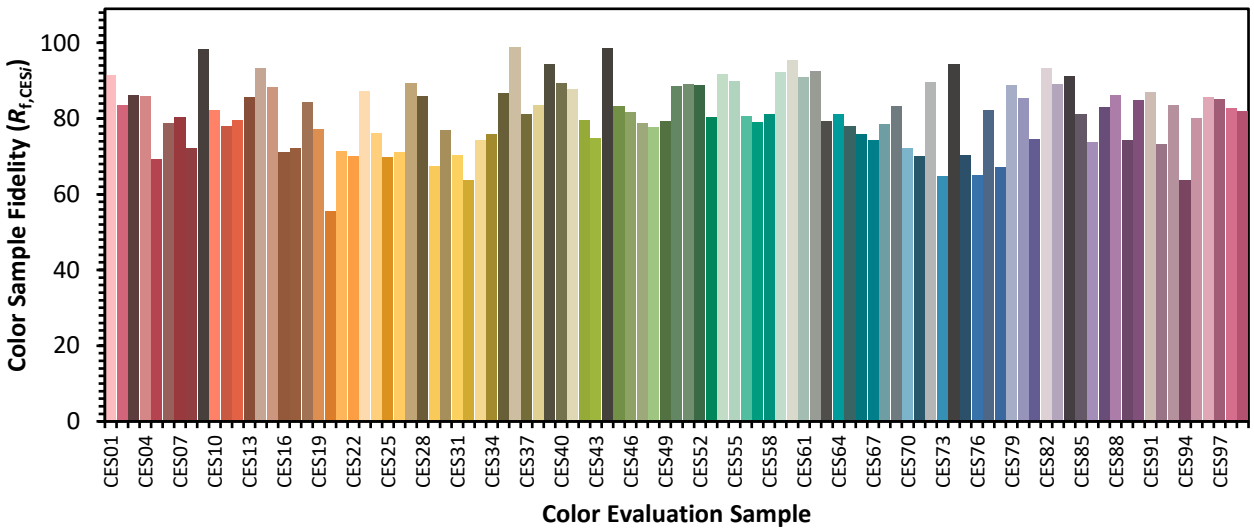
Individual Sample Fidelity Index ($R_{f,i}$)

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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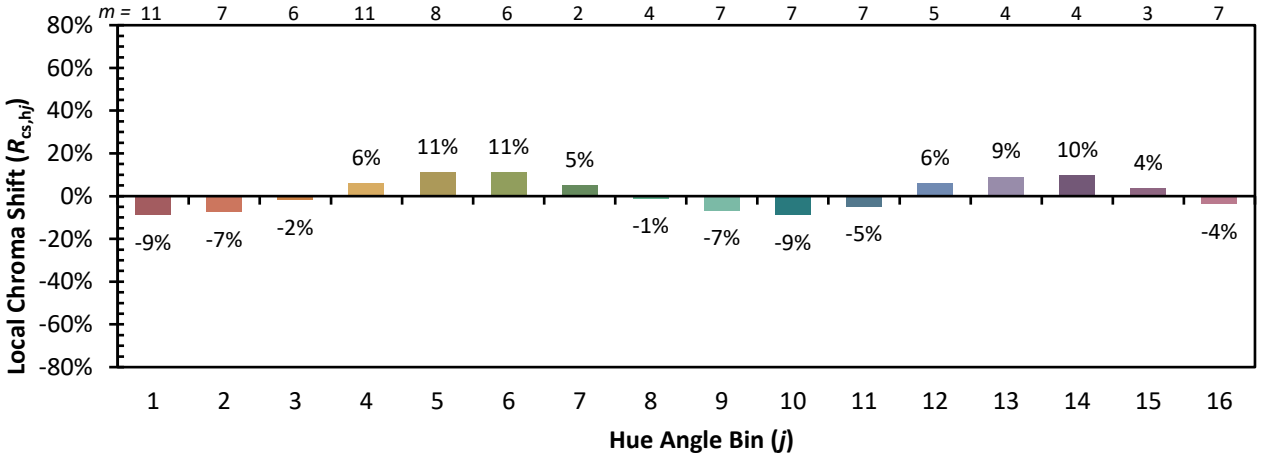
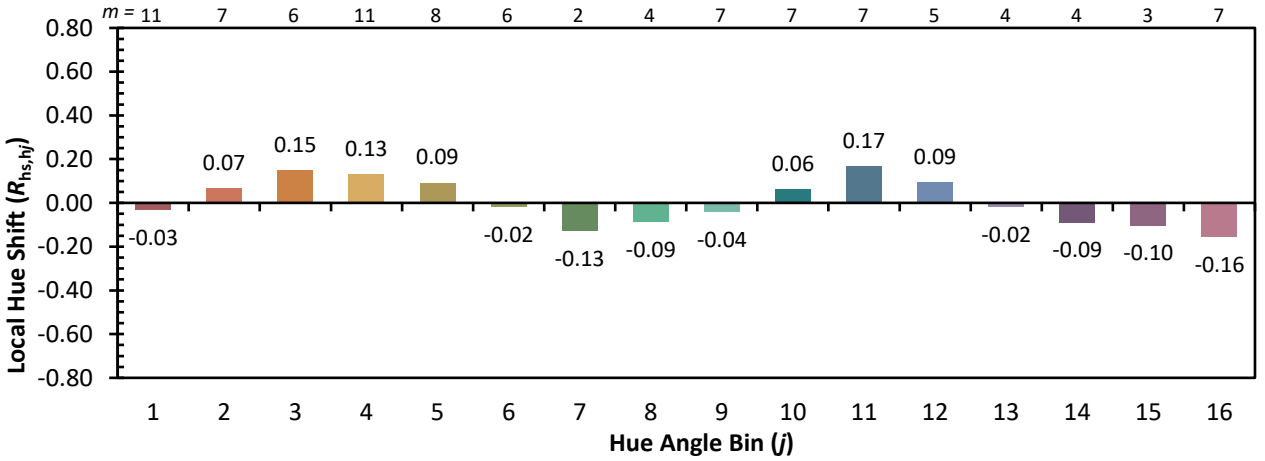
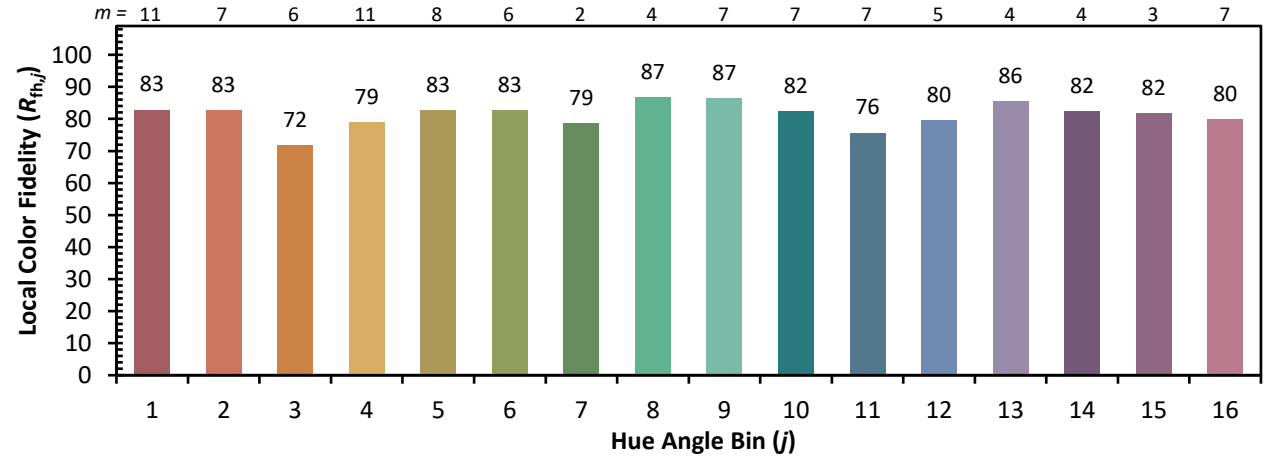
Color Rendition by Hue-Angle Bin







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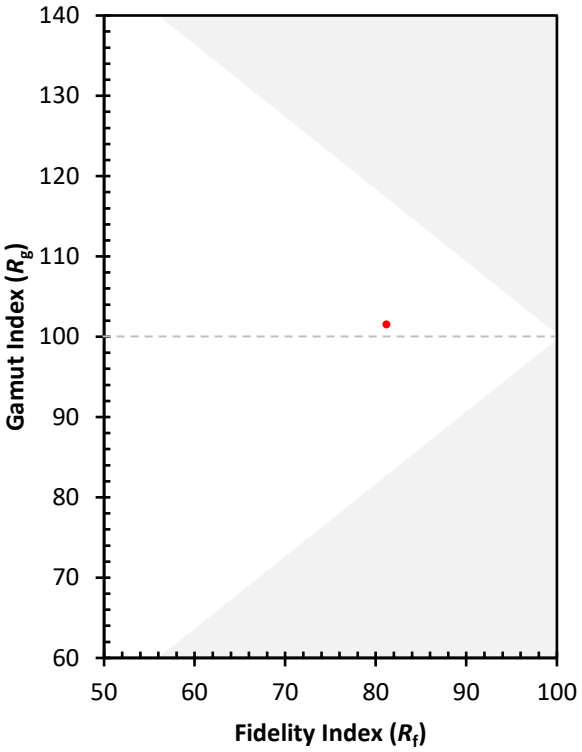
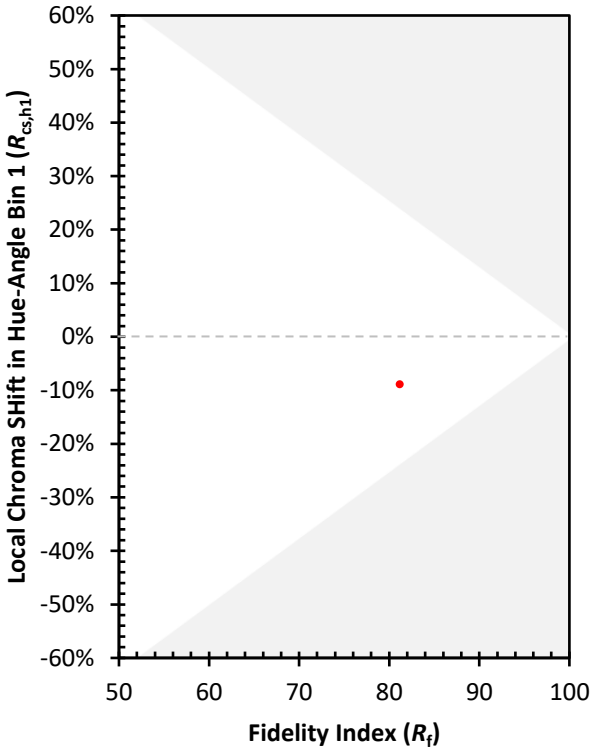
Measure Comparisons





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