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: P1432263

Luminaire Tested: EHBR1-12-UNV-A1-L830-UPL30

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:	P1432263
	REPORT IS A COMBINATION OF REPORTS P1431640 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-12-UNV-A1-L830-UPL30
Description:	Elevate Round Highbay at, 12000 lumens, 3000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14352.2 lumens
Efficiency:	N/A
Efficacy:	165.5 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:	Semi-Direct

Input Watts (W):	86.7
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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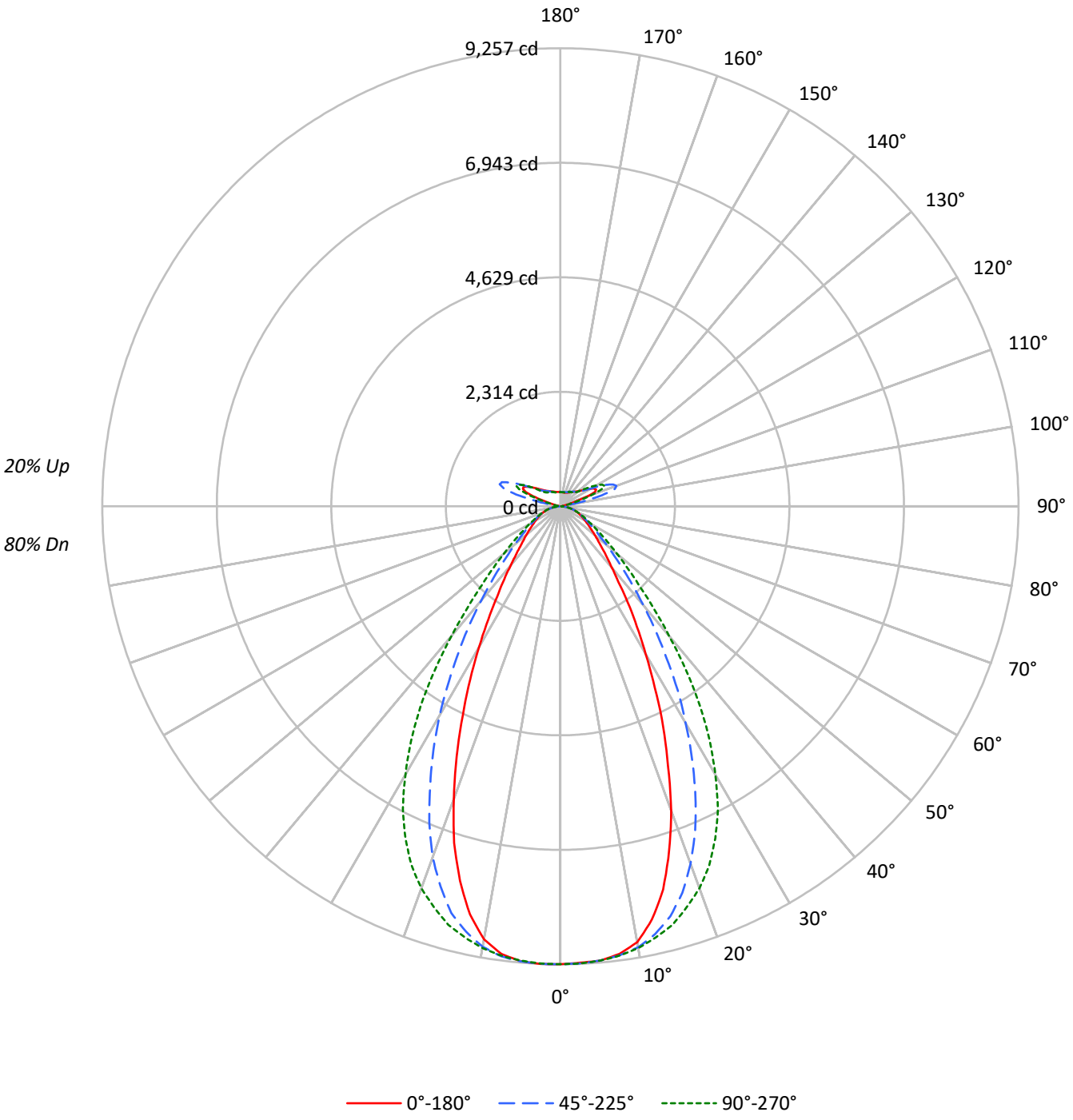
Scaled Data Report

TEST NUMBER: P1432263
CATALOG NUMBER: EHBR1-12-UNV-A1-L830-UPL30

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	114	114	114	114	109	109	109	109	100	100	100	92	92	92	84	84	84	80
1	107	103	100	97	102	99	96	93	91	89	87	84	82	81	77	76	75	72
2	99	93	88	83	95	90	85	81	83	79	76	77	74	72	71	69	67	64
3	92	84	78	73	89	81	76	71	76	71	67	71	67	64	66	63	61	58
4	86	77	70	65	83	74	68	63	70	64	60	65	61	58	61	58	55	52
5	81	70	63	58	77	68	62	57	64	59	54	60	56	52	57	53	50	48
6	76	65	58	52	73	63	56	51	59	54	50	56	51	48	53	49	46	44
7	71	60	53	48	68	58	52	47	55	49	45	52	47	44	49	45	42	40
8	67	56	49	44	64	54	48	43	51	46	42	49	44	40	46	42	39	37
9	63	52	45	40	61	50	44	40	48	42	39	46	41	37	43	39	36	34
10	59	48	42	37	57	47	41	37	45	40	36	43	38	35	41	37	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	43453	43453	43453	43453	43453
5°	43166	43160	43162	43238	43212
10°	42099	42590	42658	42537	41824
15°	38219	40886	41728	40558	37342
20°	31849	37405	39961	36701	30609
25°	24631	32343	37071	31162	23355
30°	17954	26340	32564	25340	17041
35°	12941	20301	26763	19427	12097
40°	9311	14994	19723	14361	9023
45°	7336	10970	13775	10494	7083
50°	6087	8242	9970	7970	5995
55°	5317	6508	7551	6399	5244
60°	4795	5433	6016	5399	4829
65°	4485	4792	5056	4808	4527
70°	4259	4360	4495	4384	4300
75°	3973	3948	3973	3959	4012
80°	3587	3330	3256	3382	3587
85°	2485	2109	2089	2141	2560

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 14432 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	873.8	6.1
10°-20°	2348.5	16.4
20°-30°	2855.8	19.9
30°-40°	2326.2	16.2
40°-50°	1396.7	9.7
50°-60°	803.8	5.6
60°-70°	503.0	3.5
70°-80°	296.3	2.1
80°-90°	91.7	0.6
90°-100°	75.2	0.5
100°-110°	498.1	3.5
110°-120°	921.4	6.4
120°-130°	546.6	3.8
130°-140°	329.5	2.3
140°-150°	227.3	1.6
150°-160°	147.3	1.0
160°-170°	83.5	0.6
170°-180°	27.5	0.2
0°-30°	6078.1	42.3
0°-40°	8404.3	58.6
0°-60°	10604.8	73.9
0°-90°	11495.8	80.1
90°-120°	1494.7	10.4
90°-150°	2598.1	18.1
90°-180°	2856.0	19.9
0°-180°	14352.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9253	9253	9253	9253	9253	
5°	9217	9215	9216	9232	9226	871
15°	8018	8578	8754	8509	7834	2206
25°	4919	6459	7403	6223	4664	2241
35°	2375	3726	4912	3566	2220	1503
45°	1187	1775	2229	1698	1146	936
55°	718	880	1020	865	709	649
65°	468	500	528	502	472	465
75°	280	278	280	279	283	296
85°	85	72	72	74	88	91
90°	21	57	21	60	21	14
95°	35	128	40	110	35	34
105°	173	871	229	928	113	232
115°	797	1030	981	1140	835	734
125°	575	551	627	610	654	524
135°	420	421	394	440	455	328
145°	346	362	356	365	372	219
155°	304	315	315	315	328	142
165°	287	294	292	291	300	82
175°	285	289	288	286	292	27
180°	288	288	288	288	288	

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Scaled Data Report

TEST NUMBER: P1432263
CATALOG NUMBER: EHBR1-12-UNV-A1-L830-UPL30

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	9253.1	9253.1	9253.1	9253.1	9253.1	9253.1	*9253.1*	9253.1	9253.1
2.5°	*9232.8*	*9241.1*	*9244.6*	*9246.5*	*9248.7*	*9254.5*	*9256.9*	*9252.9*	*9256.4*
5°	9216.7	9217.2	9215.3	9224.1	9215.7	9221.5	*9232.0*	9227.9	9226.4
7.5°	9122.9	9142.3	9153.7	9156.6	9158.1	9165.3	*9172.6*	9131.0	9124.8
10°	8944.5	8977.0	9048.8	9069.4	9063.2	9074.8	*9037.6*	8928.7	8886.0
12.5°	8553.7	8667.5	8854.2	8937.4	8922.2	8932.6	*8805.8*	8575.9	8443.8
15°	8018.2	8185.1	8577.7	8741.6	8754.3	8741.6	*8508.9*	8061.0	7834.1
17.5°	7306.3	7614.5	8192.6	8510.8	8492.6	8498.7	*8056.7*	7394.8	7135.0
20°	6545.9	6874.4	7687.9	8218.8	8213.2	8179.4	*7543.2*	6670.1	6291.0
22.5°	5685.8	6109.4	7109.6	7859.6	7857.5	7801.3	*6917.8*	5878.8	5470.7
25°	4918.8	5334.2	6458.9	7419.8	7403.1	7339.1	*6223.0*	5089.4	4663.9
27.5°	4125.6	4557.7	5764.0	6904.2	6892.8	6823.0	*5558.8*	4351.7	3946.6
30°	3453.4	3848.4	5066.4	6336.9	6263.7	6255.7	*4874.2*	3668.5	3277.8
32.5°	2877.4	3216.0	4408.6	5743.7	5614.1	5651.1	*4191.8*	3097.1	2709.9
35°	2375.2	2673.5	3726.0	5057.7	4911.9	4959.8	*3565.6*	2541.3	2220.2
37.5°	1927.7	2214.6	3147.5	4390.4	4167.5	4257.8	*3014.8*	2122.3	1865.0
40°	1613.8	1841.3	2598.9	3658.2	3418.5	3565.6	*2489.2*	1770.2	1564.0
42.5°	1390.5	1539.0	2145.0	2959.2	2775.3	2879.5	*2051.6*	1479.9	1325.6
45°	1187.0	1305.5	1774.9	2335.1	2228.7	2325.5	*1697.9*	1261.8	1146.0
47.5°	1036.8	1128.1	1461.1	1885.7	1819.7	1850.2	*1418.1*	1101.2	1007.0
50°	907.2	977.7	1228.3	1522.0	1485.9	1504.7	*1187.8*	958.2	893.4
52.5°	806.4	858.1	1030.3	1250.8	1233.0	1235.9	*1012.2*	842.9	795.9
55°	718.5	754.5	879.5	1024.7	1020.4	1021.1	*864.8*	746.9	708.7
57.5°	641.5	671.3	755.8	860.6	854.5	855.9	*748.9*	663.4	638.7
60°	576.4	596.3	653.1	727.4	723.2	721.5	*649.0*	589.0	580.5
62.5°	518.7	531.4	570.7	623.5	615.7	617.5	*570.5*	532.0	519.4
65°	468.1	472.5	500.2	532.8	527.7	532.0	*501.8*	475.4	472.5
67.5°	418.6	423.1	439.3	461.2	455.4	458.9	*439.7*	424.2	421.7
70°	373.7	373.5	382.6	394.4	394.4	395.0	*384.7*	375.4	377.3
72.5°	327.1	326.0	328.7	336.7	334.5	341.9	*331.0*	328.1	328.5
75°	279.9	276.5	278.1	282.1	279.9	283.7	*278.9*	282.6	282.6
77.5°	235.3	229.1	227.2	227.7	223.5	229.3	*230.4*	233.0	238.8
80°	188.7	180.0	175.2	175.0	171.3	175.0	*177.9*	183.1	188.7
82.5°	140.1	132.5	124.4	122.9	120.6	122.7	*126.5*	132.7	141.8
85°	85.4	77.6	72.5	69.8	71.8	71.8	*73.6*	82.3	88.0
87.5°	30.8	27.0	22.1	22.3	22.9	23.6	*24.6*	31.0	33.9
90°	21.0	33.3	57.1	36.5	20.6	34.9	*60.3*	31.8	20.8
92.5°	30.3	50.8	92.1	47.6	27.0	47.6	*85.7*	42.8	28.8
95°	35.3	58.7	128.5	63.5	39.7	58.7	*109.5*	47.6	35.1
97.5°	44.8	65.1	147.6	77.7	61.9	73.0	*123.8*	50.8	43.0
100°	59.1	76.2	230.1	95.3	82.5	82.5	*227.0*	58.7	49.6
102.5°	100.3	161.9	488.8	179.4	125.4	161.9	*526.9*	119.1	60.7
105°	173.4	341.2	871.3	376.2	228.6	371.4	*928.5*	311.1	113.1
107.5°	300.3	611.0	1149.1	666.6	433.2	693.5	*1196.6*	615.8	267.0
110°	560.6	811.0	1204.6	915.7	693.5	969.7	*1306.1*	844.3	543.2

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Scaled Data Report

TEST NUMBER: P1432263
CATALOG NUMBER: EHBR1-12-UNV-A1-L830-UPL30

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	757.4	871.3	1153.8	1011.0	903.1	1080.8	*1276.0*	936.3	752.6
115°	797.0	838.0	1030.0	987.2	980.8	1064.9	*1139.5*	933.2	835.2
117.5°	770.3	765.0	874.5	887.2	947.5	974.5	*984.0*	876.1	839.9
120°	712.9	680.9	730.1	774.5	855.4	844.3	*828.4*	792.2	792.4
122.5°	641.7	603.2	625.3	658.6	739.6	715.7	*699.9*	706.5	727.4
125°	575.0	536.6	550.7	558.7	626.9	603.1	*609.6*	633.4	654.5
127.5°	516.4	490.6	498.3	488.8	531.7	520.5	*544.5*	571.8	589.4
130°	476.7	454.3	465.2	442.8	463.6	466.8	*498.7*	520.9	532.2
132.5°	443.5	429.1	441.8	414.6	421.0	433.8	*464.0*	483.2	489.5
135°	419.9	407.0	421.3	395.8	394.4	413.4	*440.3*	453.1	454.9
137.5°	399.3	388.2	402.5	383.4	378.6	397.7	*418.3*	427.9	424.9
140°	380.6	370.9	386.8	372.5	369.3	388.4	*397.9*	409.2	406.1
142.5°	360.3	353.9	372.7	363.2	360.0	377.8	*382.5*	390.4	387.4
145°	346.2	341.4	361.9	357.1	355.5	368.4	*365.2*	376.6	371.8
147.5°	334.0	330.7	349.4	347.8	347.8	357.3	*352.7*	362.4	357.8
150°	323.2	319.8	338.4	336.8	338.4	344.8	*338.6*	350.1	348.7
152.5°	312.2	308.8	325.9	324.1	325.7	332.1	*326.1*	339.0	337.8
155°	304.4	301.1	315.0	314.6	314.6	318.0	*315.2*	328.2	328.4
157.5°	298.6	296.7	307.4	307.1	307.1	308.8	*307.6*	319.1	319.3
160°	294.3	292.3	301.4	301.1	299.5	302.8	*301.6*	311.5	311.7
162.5°	290.0	287.9	298.4	296.7	296.5	296.7	*295.5*	305.6	305.8
165°	287.0	286.5	294.1	293.8	292.2	293.8	*291.1*	297.9	299.7
167.5°	287.2	285.4	292.7	292.3	290.8	289.2	*289.7*	295.0	296.7
170°	285.8	285.6	291.3	289.3	287.6	287.8	*286.8*	292.0	293.8
172.5°	286.2	286.0	291.8	289.7	287.9	288.1	*285.6*	289.2	292.5
175°	285.1	284.8	289.2	288.6	288.4	287.0	*286.0*	287.9	291.5
177.5°	286.9	286.5	289.3	288.8	287.0	287.2	*287.8*	289.7	294.9
180°	287.8	287.8	287.8	287.8	287.8	287.8	*287.8*	287.8	287.8

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Scaled Data Report

TEST NUMBER: P1432263
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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	13.45	14.44	14.12	15.10	15.88	14.43	15.42	15.11	16.09	16.86
	3H	14.92	15.80	15.61	16.48	17.29	15.68	16.56	16.37	17.24	18.05
	4H	15.51	16.34	16.22	17.03	17.85	16.18	17.00	16.88	17.69	18.51
	6H	15.97	16.73	16.69	17.43	18.27	16.53	17.28	17.24	17.98	18.82
	8H	16.12	16.83	16.84	17.55	18.39	16.62	17.34	17.35	18.05	18.89
	12H	16.19	16.87	16.92	17.58	18.45	16.65	17.34	17.38	18.05	18.91
4H	2H	13.95	14.78	14.66	15.47	16.29	14.73	15.56	15.44	16.25	17.07
	3H	15.63	16.31	16.34	17.03	17.87	16.21	16.89	16.93	17.62	18.46
	4H	16.34	16.95	17.07	17.68	18.56	16.83	17.44	17.56	18.18	19.05
	6H	16.91	17.44	17.66	18.20	19.08	17.30	17.83	18.05	18.58	19.47
	8H	17.10	17.59	17.85	18.34	19.23	17.43	17.93	18.19	18.68	19.57
	12H	17.20	17.64	17.97	18.41	19.31	17.49	17.93	18.27	18.71	19.60
8H	4H	16.55	17.05	17.31	17.80	18.69	17.00	17.50	17.76	18.25	19.14
	6H	17.24	17.64	18.03	18.44	19.33	17.58	17.98	18.37	18.78	19.67
	8H	17.50	17.85	18.29	18.65	19.56	17.78	18.14	18.58	18.93	19.84
	12H	17.65	17.97	18.45	18.75	19.72	17.89	18.21	18.69	18.99	19.96
12H	4H	16.55	16.99	17.32	17.76	18.66	16.99	17.43	17.77	18.21	19.10
	6H	17.27	17.63	18.07	18.42	19.33	17.60	17.96	18.40	18.76	19.67
	8H	17.55	17.87	18.35	18.65	19.62	17.83	18.15	18.63	18.93	19.90

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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

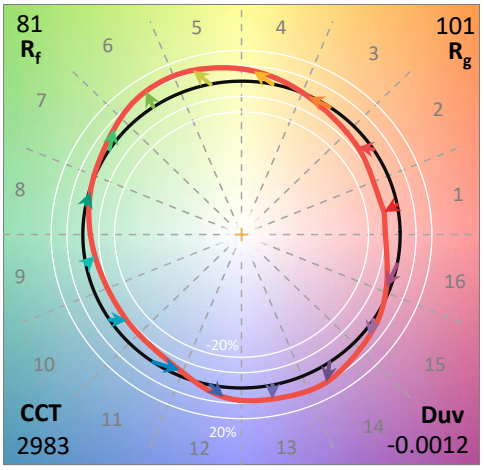
Test Information

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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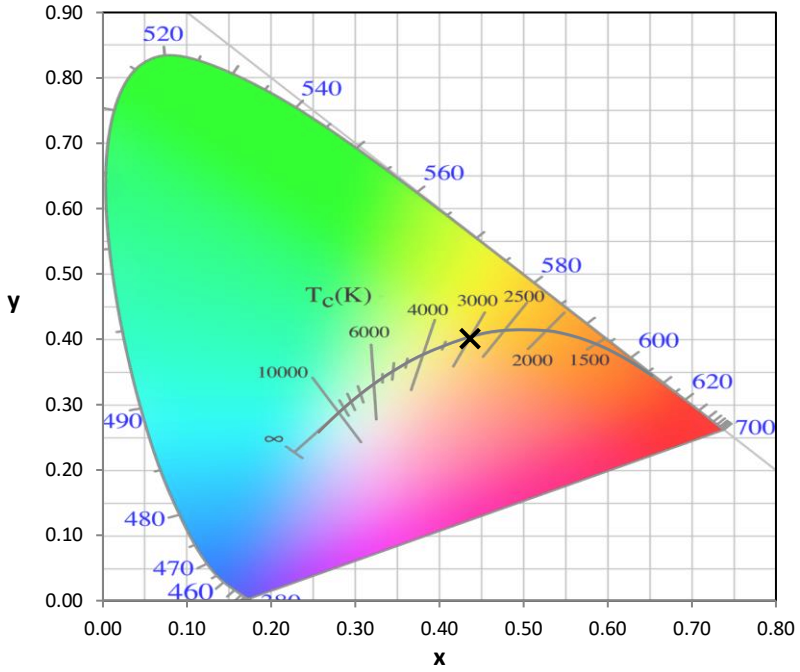
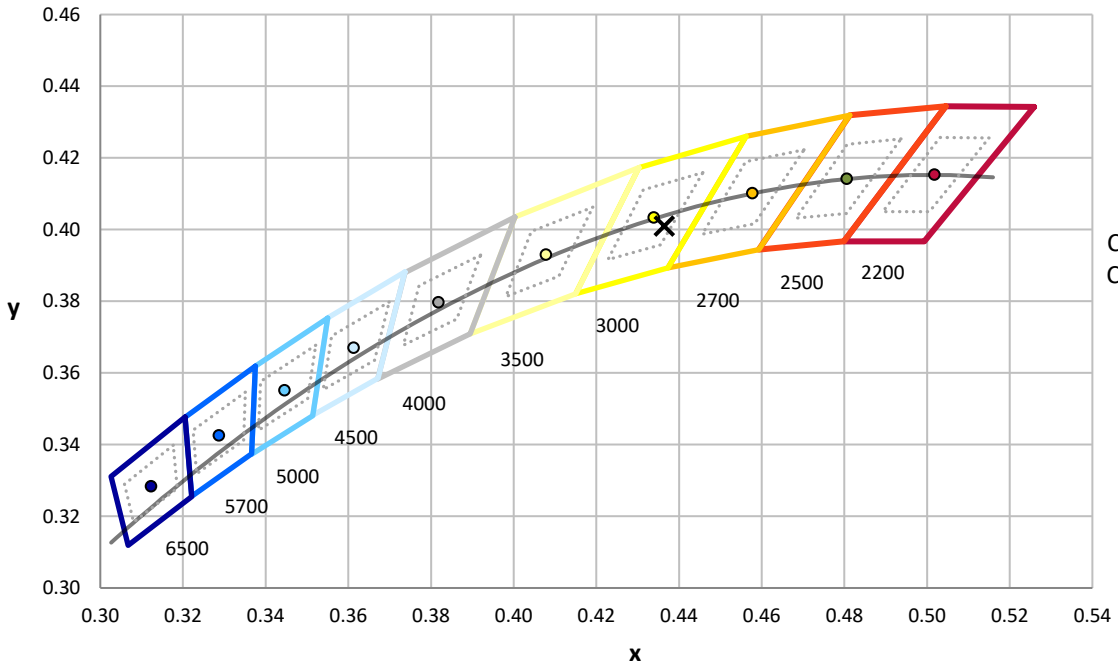
CIE 1931 Chromaticity Diagram



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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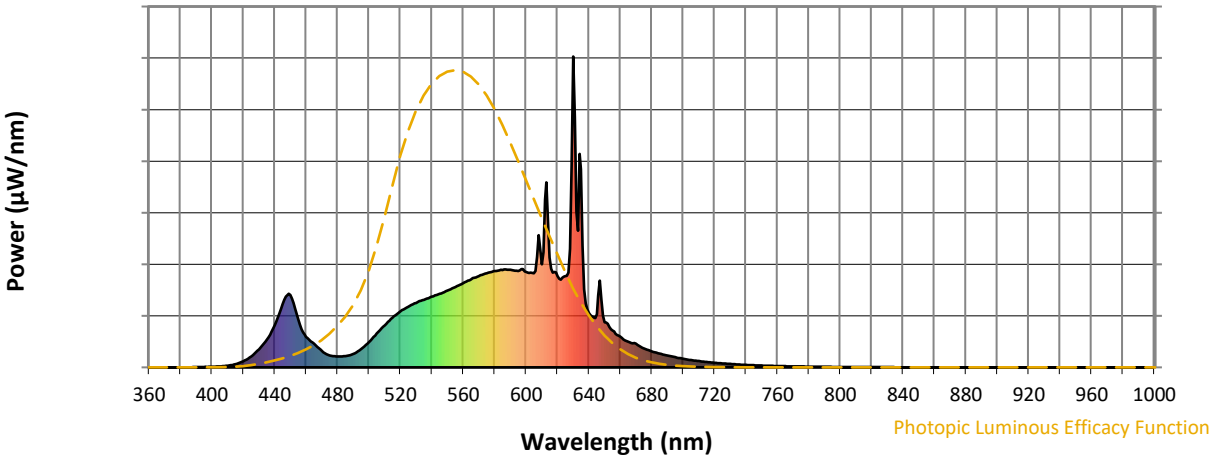
Photopic Flux vs. Wavelength



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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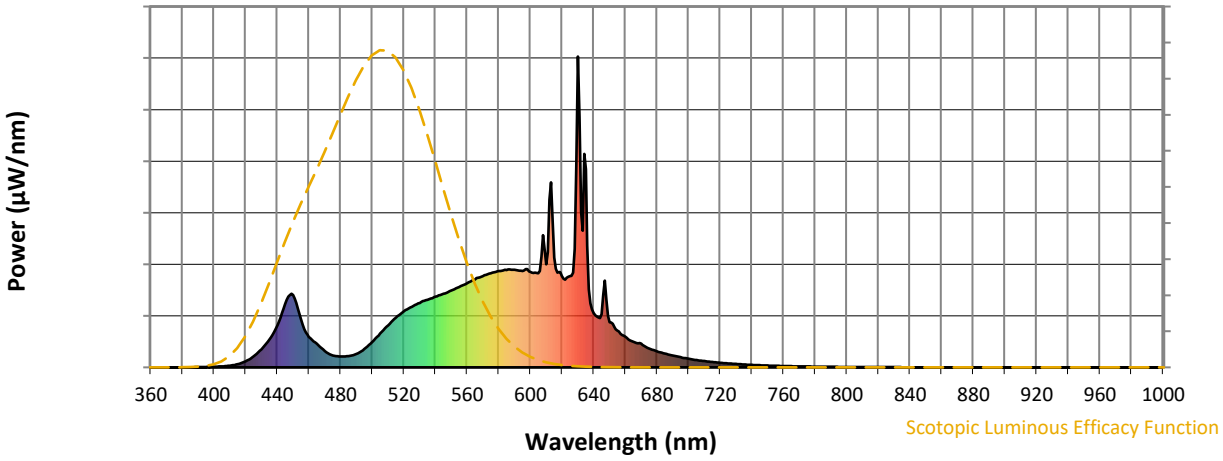
Scotopic Flux vs. Wavelength



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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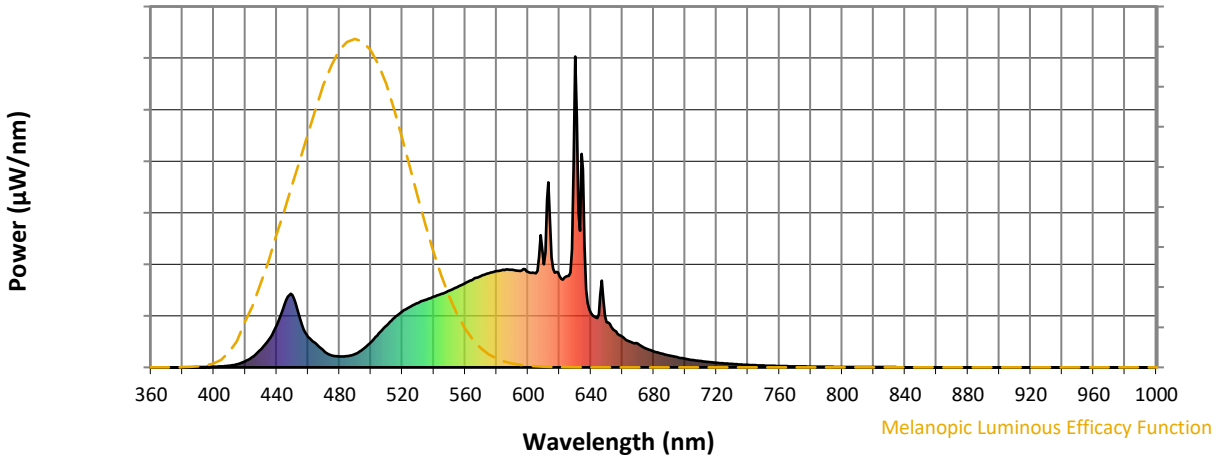
Melanopic Flux vs. Wavelength



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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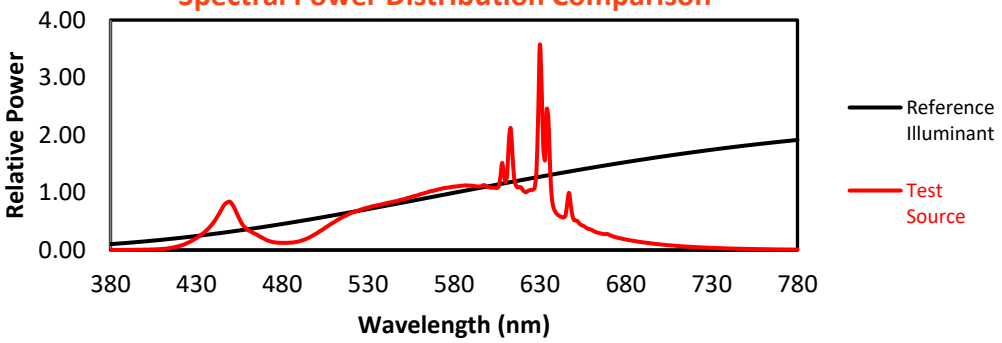
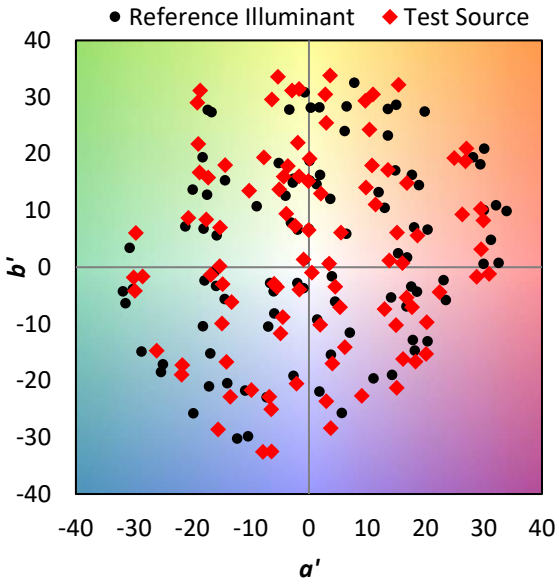
Summary

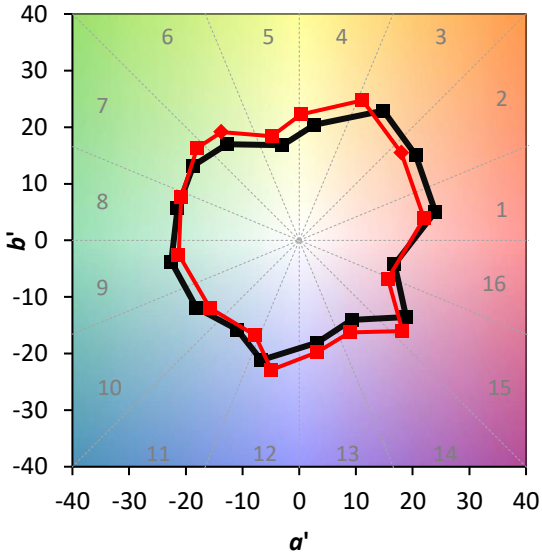
R_f = 81.2
R_g = 101.5
CIE R_a = 83.4
R_9 = 29.4

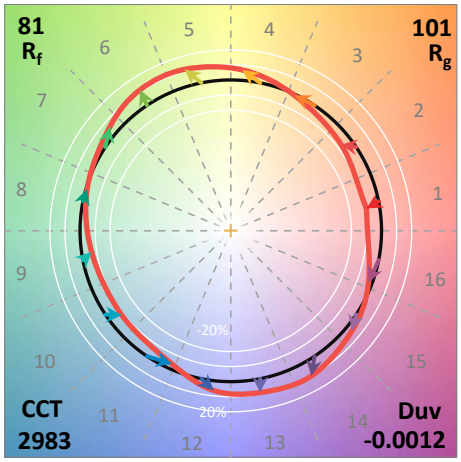
Spectral Power Distribution Comparison

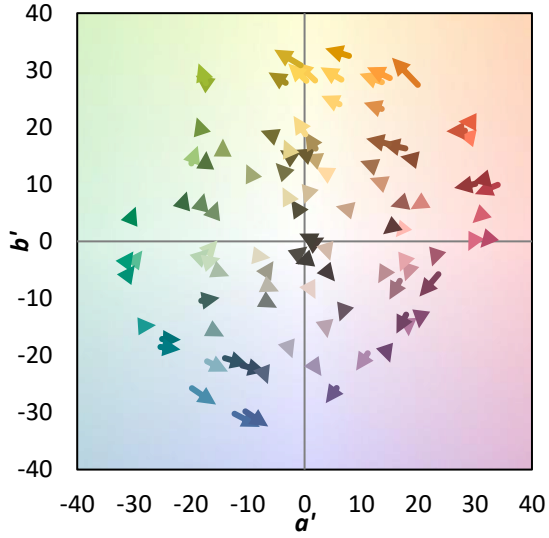


Color Vector Graphics









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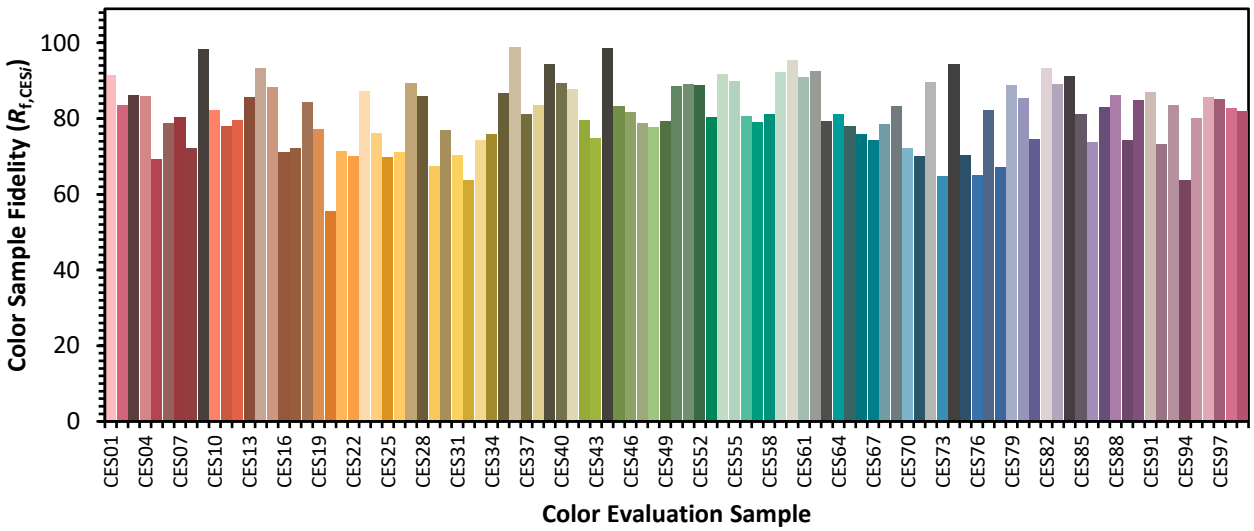
Individual Sample Fidelity Index ($R_{f,i}$)

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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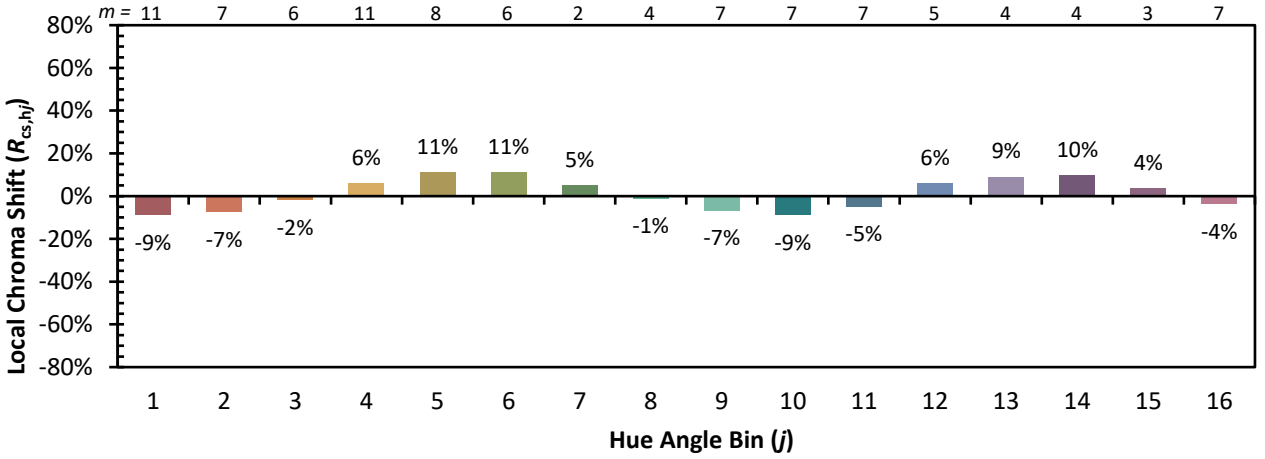
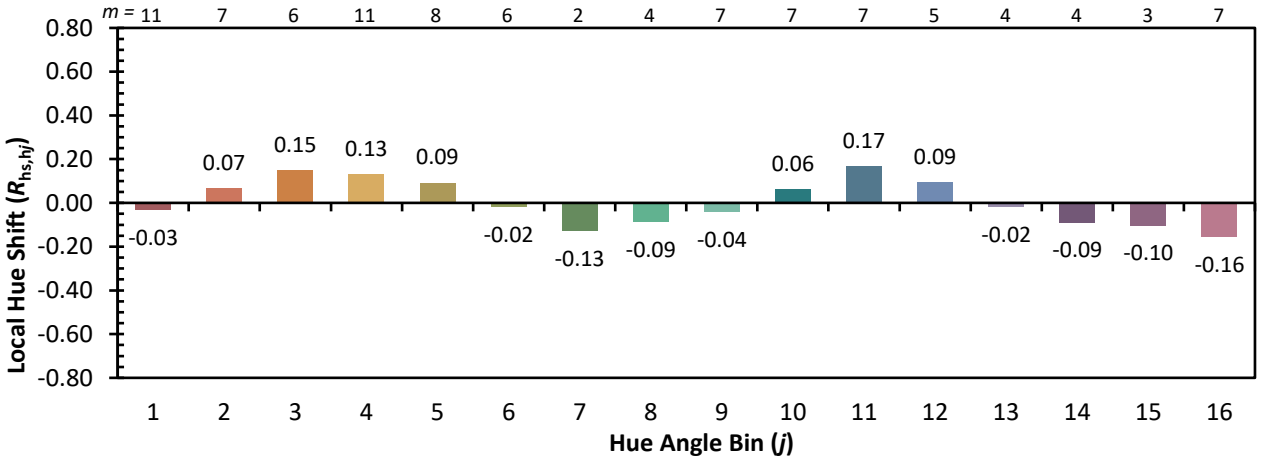
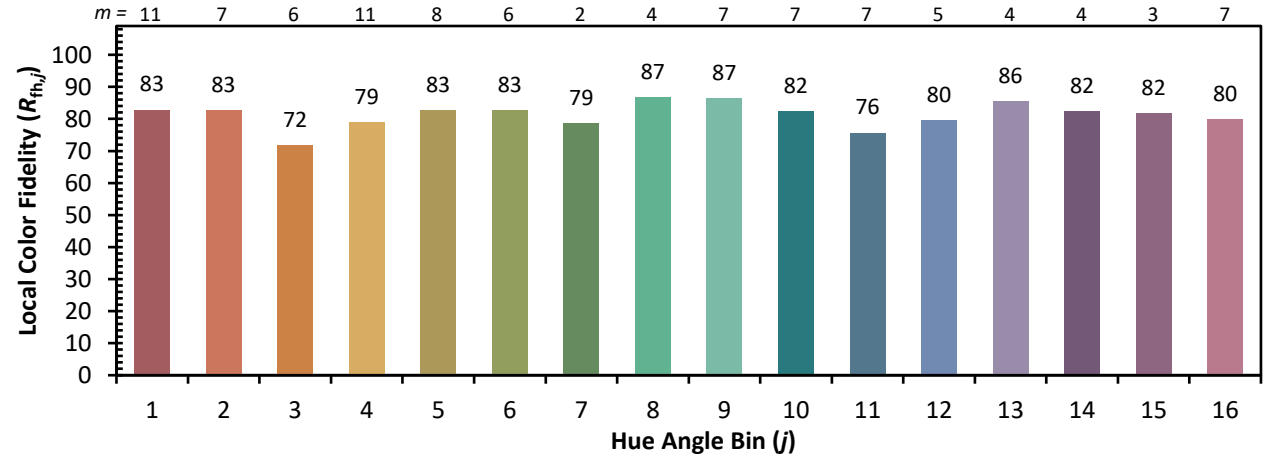
Color Rendition by Hue-Angle Bin







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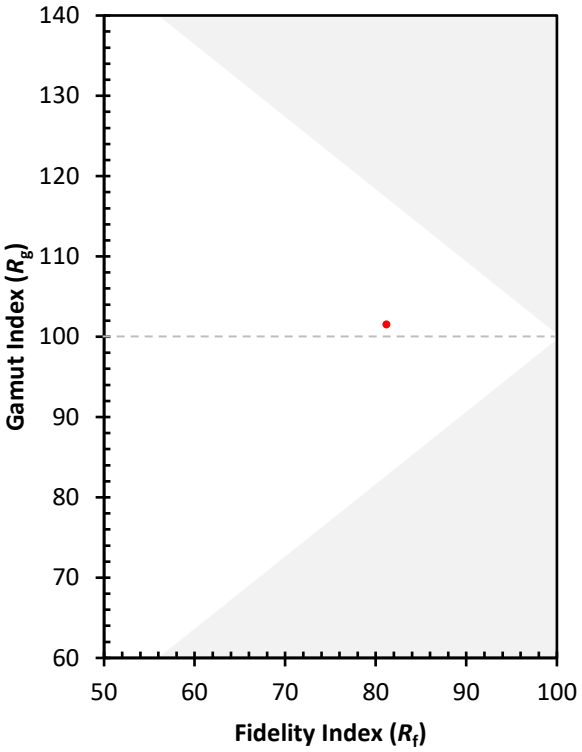
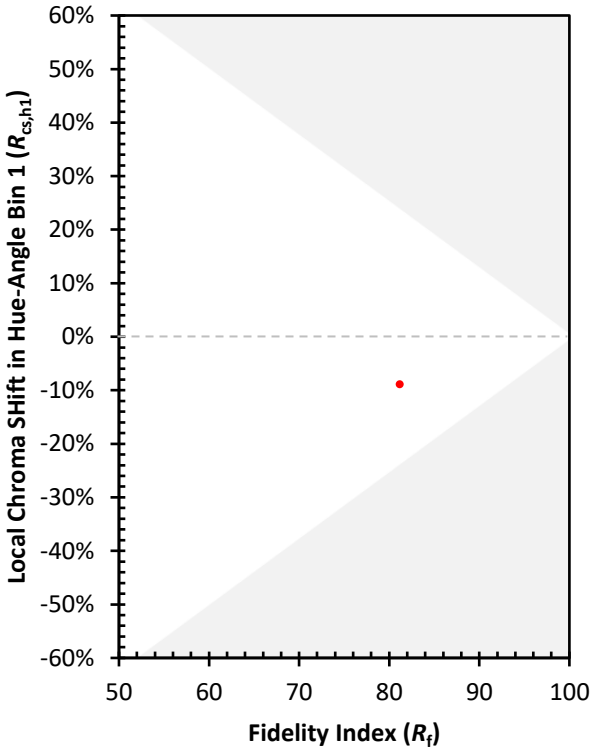
Measure Comparisons





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