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: P1433416

Luminaire Tested: EHBR1-12-UNV-A1-L935-UPL36

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:	P1433416
	REPORT IS A COMBINATION OF REPORTS P1431641 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-12-UNV-A1-L935-UPL36
Description:	Elevate Round Highbay at, 12000 lumens, 3500K 90CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14459.6 lumens
Efficiency:	N/A
Efficacy:	155.3 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):	93.1
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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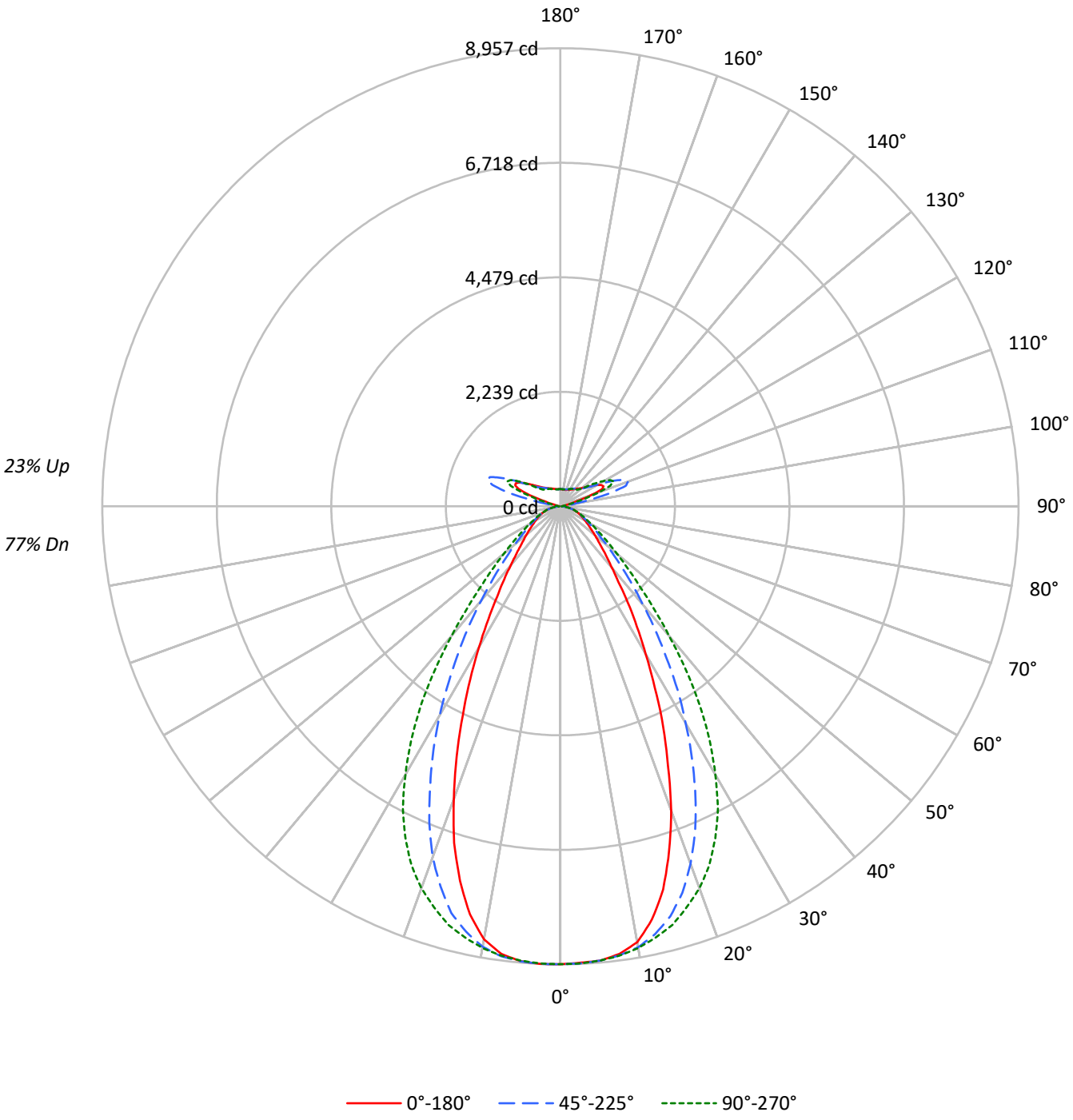
Scaled Data Report

TEST NUMBER: P1433416
CATALOG NUMBER: EHBR1-12-UNV-A1-L935-UPL36

Luminous Intensity Polar Plot



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TEST NUMBER: P1433416
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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	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	106	102	99	96	101	98	95	92	89	87	85	82	80	79	75	74	72	69
2	98	92	87	83	94	88	84	80	81	78	75	75	72	70	69	67	65	62
3	92	84	77	72	88	80	75	70	74	70	66	69	65	62	63	61	58	56
4	85	76	69	64	82	73	67	62	68	63	59	63	59	56	59	56	53	50
5	80	70	62	57	76	67	61	56	63	57	53	58	54	51	55	51	48	46
6	75	64	57	52	72	62	55	50	58	52	48	54	50	46	51	47	44	42
7	70	59	52	47	67	57	51	46	54	48	44	51	46	42	47	44	41	39
8	66	55	48	43	63	53	47	42	50	45	41	47	42	39	44	41	38	36
9	62	51	44	39	60	50	43	39	47	41	37	44	40	36	42	38	35	33
10	59	48	41	37	56	46	40	36	44	38	35	42	37	34	39	35	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	42044	42044	42044	42044	42044
5°	41766	41760	41762	41836	41810
10°	40734	41208	41274	41158	40467
15°	36980	39560	40375	39243	36131
20°	30816	36192	38665	35511	29616
25°	23832	31294	35869	30151	22597
30°	17372	25485	31508	24518	16488
35°	12522	19643	25895	18797	11705
40°	9008	14508	19084	13896	8731
45°	7098	10614	13328	10154	6853
50°	5890	7975	9647	7712	5801
55°	5144	6297	7306	6191	5074
60°	4639	5256	5821	5224	4672
65°	4339	4637	4892	4651	4380
70°	4120	4218	4349	4242	4161
75°	3844	3820	3844	3830	3881
80°	3471	3222	3152	3271	3471
85°	2406	2040	2019	2072	2476

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 13965 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	845.5	5.8
10°-20°	2272.3	15.7
20°-30°	2763.1	19.1
30°-40°	2250.8	15.6
40°-50°	1351.4	9.3
50°-60°	777.7	5.4
60°-70°	486.7	3.4
70°-80°	286.7	2.0
80°-90°	89.7	0.6
90°-100°	87.9	0.6
100°-110°	581.8	4.0
110°-120°	1076.2	7.4
120°-130°	638.5	4.4
130°-140°	384.8	2.7
140°-150°	265.3	1.8
150°-160°	171.8	1.2
160°-170°	97.3	0.7
170°-180°	32.0	0.2
0°-30°	5880.9	40.7
0°-40°	8131.7	56.2
0°-60°	10260.8	71.0
0°-90°	11123.9	76.9
90°-120°	1745.8	12.1
90°-150°	3034.4	21.0
90°-180°	3336.0	23.1
0°-180°	14459.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8953	8953	8953	8953	8953	
5°	8918	8916	8917	8933	8927	843
15°	7758	8300	8470	8233	7580	2134
25°	4759	6249	7163	6021	4513	2168
35°	2298	3605	4753	3450	2148	1454
45°	1148	1717	2156	1643	1109	906
55°	695	851	987	837	686	628
65°	453	484	511	486	457	450
75°	271	269	271	270	273	287
85°	83	70	69	71	85	88
90°	24	67	24	70	24	16
95°	41	150	46	128	41	40
105°	202	1018	267	1084	132	271
115°	931	1203	1146	1331	976	858
125°	672	643	732	712	764	612
135°	490	492	460	514	531	384
145°	404	422	415	426	434	256
155°	355	367	367	368	383	166
165°	334	343	341	339	349	95
175°	332	337	336	333	339	32
180°	335	335	335	335	335	

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Scaled Data Report

TEST NUMBER: P1433416
CATALOG NUMBER: EHBR1-12-UNV-A1-L935-UPL36

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	8953.0	8953.0	8953.0	8953.0	8953.0	8953.0	*8953.0*	8953.0	8953.0
2.5°	*8933.3*	*8941.4*	*8944.8*	*8946.7*	*8948.7*	*8954.4*	*8956.7*	*8952.8*	*8956.2*
5°	8917.7	8918.3	8916.5	8924.9	8916.8	8922.5	*8932.6*	8928.6	8927.2
7.5°	8827.0	8845.8	8856.8	8859.6	8861.1	8868.1	*8875.1*	8834.9	8828.8
10°	8654.5	8685.8	8755.3	8775.3	8769.3	8780.5	*8744.5*	8639.1	8597.8
12.5°	8276.2	8386.4	8567.1	8647.6	8632.9	8642.9	*8520.2*	8297.8	8169.9
15°	7758.2	7919.6	8299.5	8458.1	8470.4	8458.1	*8232.9*	7799.6	7580.0
17.5°	7069.4	7367.6	7926.9	8234.8	8217.2	8223.0	*7795.4*	7154.9	6903.6
20°	6333.6	6651.5	7438.6	7952.2	7946.8	7914.2	*7298.6*	6453.8	6087.0
22.5°	5501.4	5911.3	6879.0	7604.7	7602.7	7548.3	*6693.4*	5688.1	5293.2
25°	4759.2	5161.2	6249.4	7179.1	7163.0	7101.1	*6021.2*	4924.4	4512.6
27.5°	3991.8	4409.8	5577.1	6680.3	6669.2	6601.7	*5378.5*	4210.5	3818.6
30°	3341.4	3723.6	4902.1	6131.4	6060.5	6052.8	*4716.1*	3549.6	3171.5
32.5°	2784.1	3111.7	4265.6	5557.4	5432.0	5467.8	*4055.8*	2996.7	2622.0
35°	2298.2	2586.8	3605.2	4893.6	4752.6	4798.9	*3449.9*	2458.9	2148.2
37.5°	1865.2	2142.7	3045.5	4248.1	4032.4	4119.7	*2917.0*	2053.5	1804.5
40°	1561.4	1781.6	2514.6	3539.6	3307.7	3449.9	*2408.5*	1712.8	1513.3
42.5°	1345.4	1489.1	2075.4	2863.2	2685.3	2786.1	*1985.0*	1431.9	1282.6
45°	1148.5	1263.2	1717.3	2259.4	2156.4	2250.1	*1642.8*	1220.9	1108.8
47.5°	1003.2	1091.5	1413.7	1824.5	1760.6	1790.2	*1372.1*	1065.5	974.3
50°	877.8	946.0	1188.5	1472.6	1437.7	1455.9	*1149.3*	927.1	864.5
52.5°	780.3	830.3	996.9	1210.2	1193.0	1195.8	*979.4*	815.5	770.1
55°	695.2	730.0	851.0	991.4	987.3	988.0	*836.7*	722.7	685.7
57.5°	620.7	649.6	731.3	832.7	826.8	828.1	*724.6*	641.9	618.0
60°	557.7	577.0	631.9	703.8	699.8	698.1	*628.0*	569.9	561.7
62.5°	501.8	514.2	552.2	603.3	595.7	597.5	*552.0*	514.7	502.6
65°	452.9	457.2	484.0	515.5	510.6	514.7	*485.5*	460.0	457.2
67.5°	405.0	409.4	425.1	446.3	440.7	444.0	*425.4*	410.5	408.0
70°	361.5	361.4	370.1	381.6	381.6	382.2	*372.2*	363.3	365.1
72.5°	316.5	315.4	318.0	325.7	323.7	330.8	*320.3*	317.5	317.8
75°	270.8	267.5	269.1	273.0	270.8	274.5	*269.8*	273.4	273.4
77.5°	227.7	221.7	219.8	220.3	216.3	221.9	*223.0*	225.4	231.0
80°	182.6	174.2	169.5	169.3	165.8	169.3	*172.1*	177.2	182.6
82.5°	135.6	128.2	120.4	118.9	116.6	118.7	*122.4*	128.4	137.2
85°	82.7	75.0	70.1	67.5	69.4	69.4	*71.2*	79.7	85.1
87.5°	29.8	26.1	21.4	21.6	22.1	22.8	*23.8*	30.0	32.8
90°	24.5	39.0	66.7	42.6	24.1	40.8	*70.4*	37.1	24.3
92.5°	35.4	59.4	107.5	55.6	31.5	55.6	*100.1*	50.0	33.5
95°	41.1	68.6	150.2	74.1	46.3	68.6	*127.9*	55.6	41.0
97.5°	52.3	76.0	172.4	90.8	72.3	85.3	*144.6*	59.4	50.2
100°	69.0	89.0	268.8	111.2	96.4	96.4	*265.1*	68.6	57.8
102.5°	117.2	189.1	571.0	209.5	146.5	189.1	*615.5*	139.0	70.8
105°	202.4	398.6	1017.7	439.4	266.9	433.8	*1084.5*	363.3	132.0
107.5°	350.7	713.7	1342.2	778.6	506.1	810.1	*1397.7*	719.3	311.8
110°	654.7	947.3	1407.1	1069.7	810.1	1132.6	*1525.7*	986.3	634.3

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Scaled Data Report

TEST NUMBER: P1433416
CATALOG NUMBER: EHBR1-12-UNV-A1-L935-UPL36

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	884.7	1017.7	1347.7	1180.9	1054.8	1262.4	*1490.5*	1093.8	879.0
115°	931.0	978.8	1203.2	1153.0	1145.7	1243.9	*1331.0*	1090.0	975.5
117.5°	899.6	893.6	1021.4	1036.3	1106.7	1138.3	*1149.3*	1023.3	981.0
120°	832.7	795.3	852.8	904.7	999.2	986.3	*967.7*	925.3	925.5
122.5°	749.4	704.7	730.4	769.3	863.9	836.1	*817.5*	825.1	849.6
125°	671.6	626.7	643.3	652.6	732.2	704.5	*712.0*	739.8	764.3
127.5°	603.1	573.0	582.1	571.0	621.0	608.1	*636.1*	667.7	688.3
130°	556.7	530.6	543.3	517.2	541.5	545.2	*582.5*	608.4	621.6
132.5°	518.0	501.1	515.9	484.2	491.6	506.6	*541.9*	564.3	571.7
135°	490.3	475.3	492.0	462.1	460.5	482.7	*514.3*	529.0	531.1
137.5°	466.2	453.3	469.9	447.6	442.1	464.3	*488.4*	499.6	496.0
140°	444.4	433.0	451.5	434.9	431.1	453.4	*464.5*	477.7	474.0
142.5°	420.5	413.1	435.0	424.0	420.3	440.9	*446.5*	455.7	452.2
145°	404.0	398.4	422.3	416.8	414.9	430.0	*426.2*	439.4	433.9
147.5°	389.7	385.8	407.7	405.9	405.9	417.0	*411.6*	422.9	417.5
150°	376.9	373.0	394.9	393.1	394.9	402.3	*395.1*	408.4	406.8
152.5°	364.2	360.3	380.3	378.2	380.1	387.5	*380.5*	395.4	394.0
155°	355.0	351.1	367.4	367.1	367.1	371.0	*367.6*	382.8	383.0
157.5°	348.1	345.9	358.5	358.2	358.2	360.3	*358.7*	372.0	372.2
160°	343.0	340.8	351.5	351.1	349.3	353.2	*351.7*	363.2	363.3
162.5°	337.9	335.5	347.9	345.9	345.8	345.9	*344.5*	356.1	356.4
165°	334.3	333.9	342.8	342.4	340.6	342.4	*339.2*	347.1	349.1
167.5°	334.5	332.4	341.1	340.8	338.9	337.1	*337.6*	343.6	345.7
170°	332.8	332.6	339.4	337.2	335.2	335.3	*334.2*	340.1	342.1
172.5°	333.2	333.0	339.9	337.6	335.5	335.7	*332.6*	336.7	340.6
175°	331.9	331.5	336.7	336.2	336.0	334.3	*333.0*	335.3	339.3
177.5°	333.9	333.5	336.9	336.3	334.3	334.5	*335.1*	337.2	343.2
180°	335.1	335.1	335.1	335.1	335.1	335.1	*335.1*	335.1	335.1

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Scaled Data Report

TEST NUMBER: P1433416
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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	13.09	14.04	13.80	14.75	15.59	14.07	15.02	14.78	15.73	16.57
	3H	14.55	15.40	15.28	16.12	16.99	15.32	16.17	16.04	16.89	17.76
	4H	15.15	15.94	15.89	16.67	17.56	15.81	16.60	16.55	17.34	18.22
	6H	15.60	16.33	16.36	17.08	17.97	16.16	16.89	16.91	17.63	18.52
	8H	15.75	16.44	16.51	17.20	18.10	16.25	16.94	17.01	17.70	18.60
	12H	15.82	16.48	16.59	17.23	18.15	16.28	16.94	17.05	17.69	18.62
4H	2H	13.58	14.38	14.33	15.11	16.00	14.36	15.16	15.11	15.89	16.78
	3H	15.26	15.91	16.01	16.68	17.58	15.84	16.50	16.60	17.27	18.17
	4H	15.97	16.56	16.74	17.33	18.26	16.46	17.05	17.23	17.82	18.75
	6H	16.54	17.05	17.33	17.84	18.78	16.93	17.44	17.72	18.23	19.17
	8H	16.72	17.20	17.52	17.99	18.94	17.06	17.54	17.85	18.33	19.27
	12H	16.82	17.25	17.63	18.06	19.01	17.12	17.55	17.93	18.36	19.31
8H	4H	16.18	16.66	16.98	17.45	18.40	16.63	17.11	17.42	17.90	18.84
	6H	16.87	17.26	17.69	18.09	19.04	17.21	17.60	18.03	18.43	19.38
	8H	17.12	17.47	17.96	18.30	19.27	17.40	17.75	18.24	18.58	19.55
	12H	17.28	17.58	18.11	18.40	19.43	17.52	17.82	18.35	18.64	19.67
12H	4H	16.17	16.60	16.98	17.41	18.36	16.62	17.04	17.43	17.86	18.81
	6H	16.89	17.24	17.73	18.07	19.04	17.23	17.58	18.07	18.41	19.38
	8H	17.18	17.48	18.01	18.30	19.33	17.46	17.76	18.29	18.58	19.61

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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: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

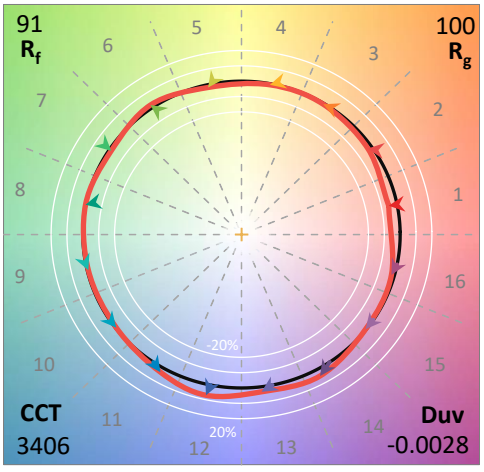
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-6
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-L935-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	3406	CRI (Ra):	94.6		
CIE u':	0.2394	R1:	96.6	R9:	63.8
CIE v':	0.5094	R2:	98.4	R10:	94.7
Duv:	-0.0028	R3:	98.1	R11:	96.6
CIE x:	0.4076	R4:	95.8	R12:	80.9
CIE y:	0.3856	R5:	96.2	R13:	97.4
CIE z:	0.2068	R6:	95.4	R14:	98.3
Peak Wavelength (nm):	630	R7:	91.8	R15:	93.1
Dominant Wavelength (nm):	582	R8:	84.4		
Purity:	38.0517				

Rf:	91.3
Rg:	100



Test Conditions

Stabilization Time:	35M
Operation Time:	1H 35M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-6

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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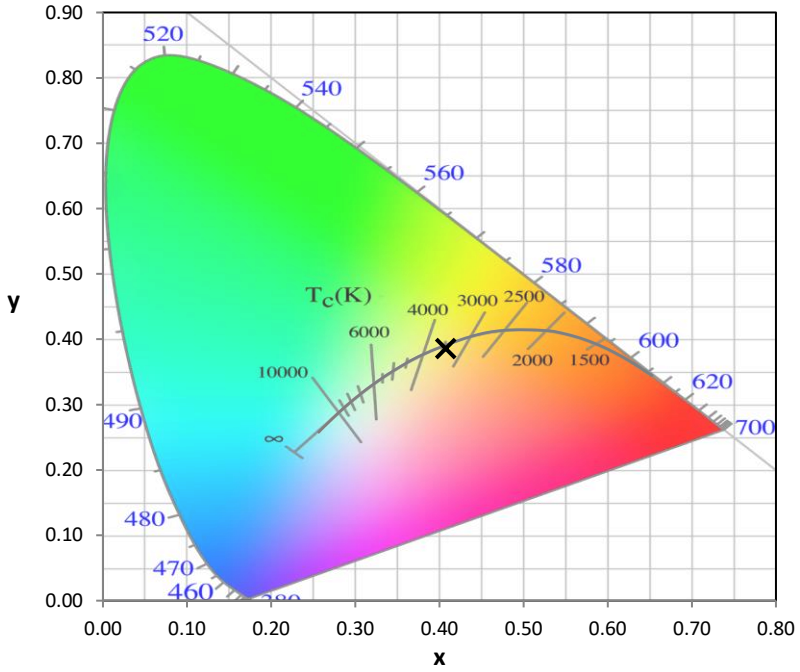
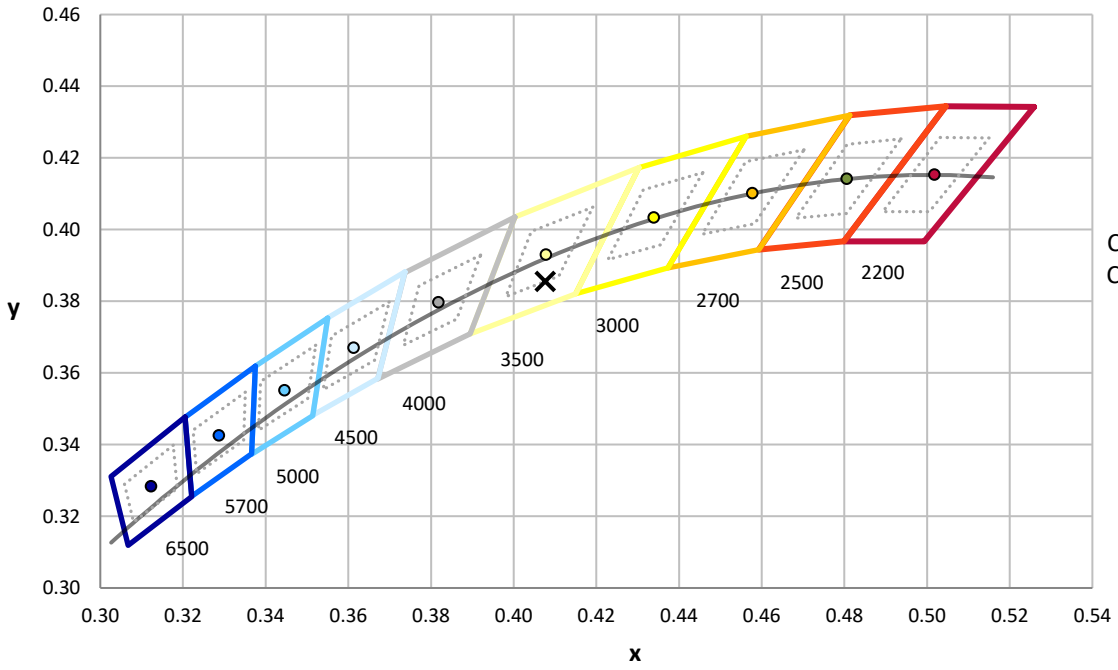
CIE 1931 Chromaticity Diagram



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



CCT = 3406K
CIE x = 0.4076
CIE y = 0.3856
Duv = -0.0028

Point lies inside the ANSI 3500K 4-step quadrangle

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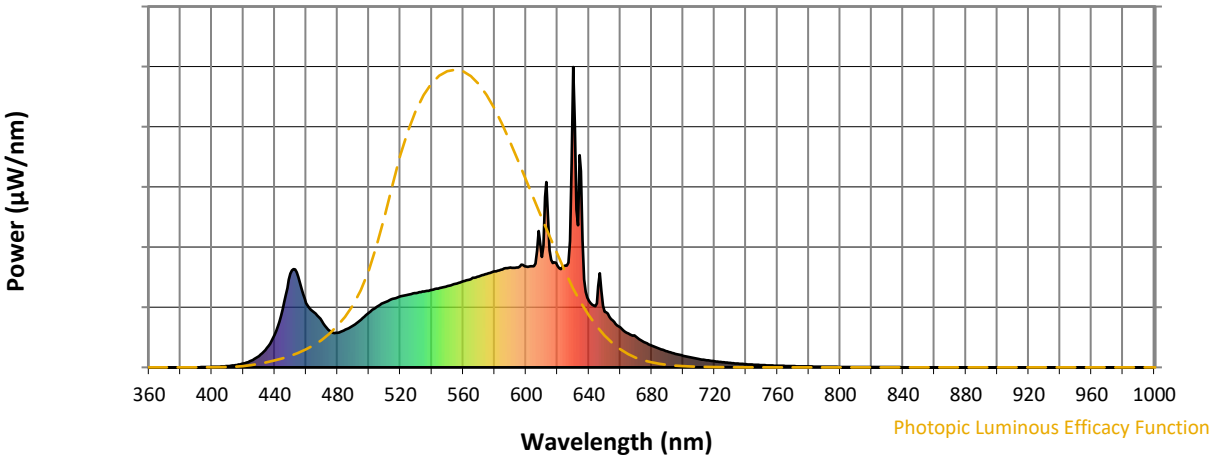
Photopic Flux vs. Wavelength



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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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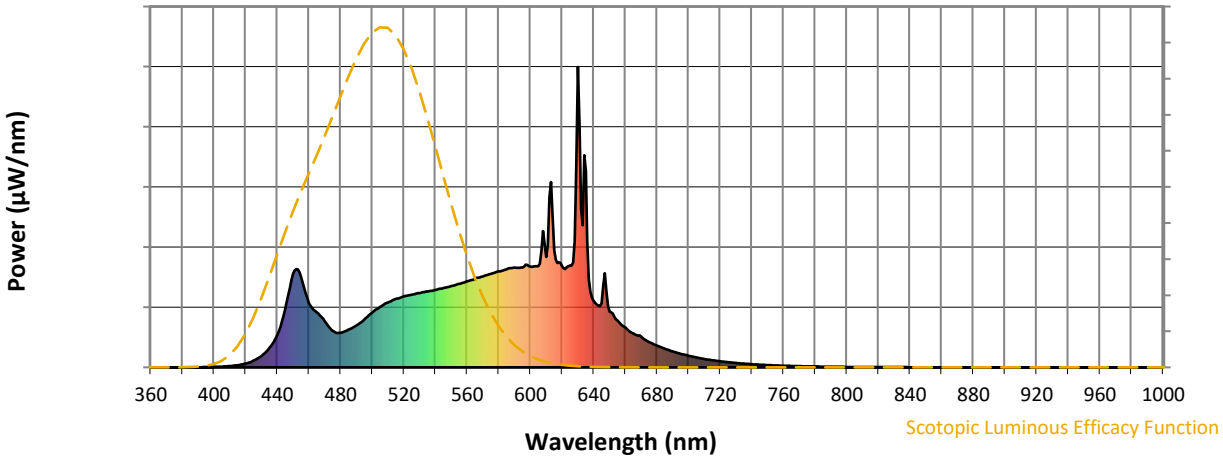
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.62**

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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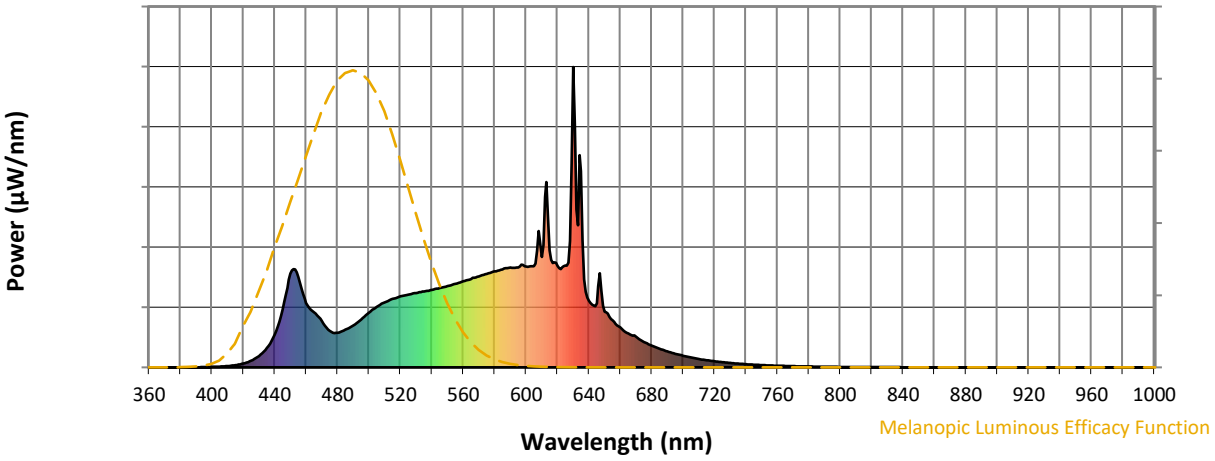
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.3**

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

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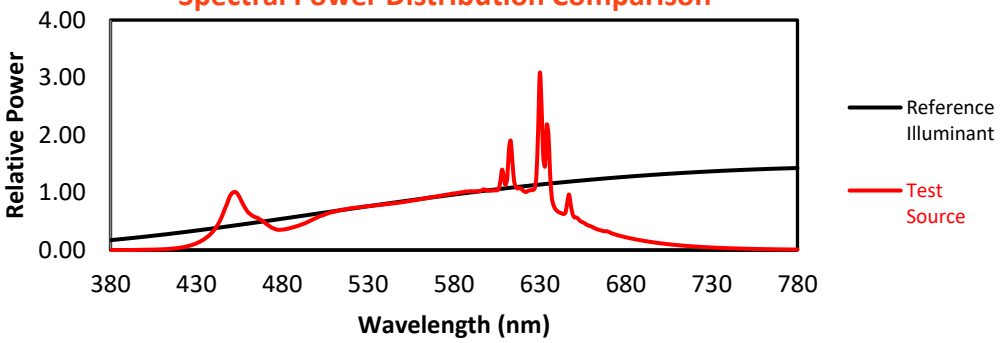
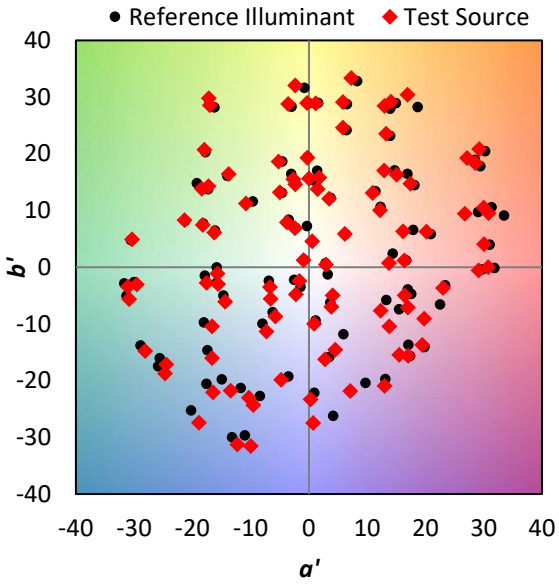
Summary

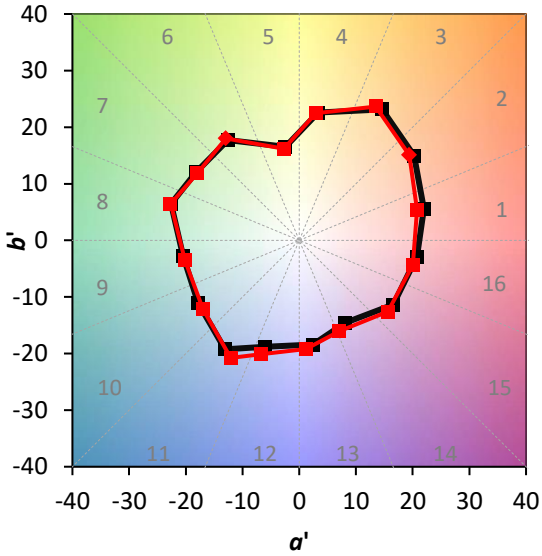
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

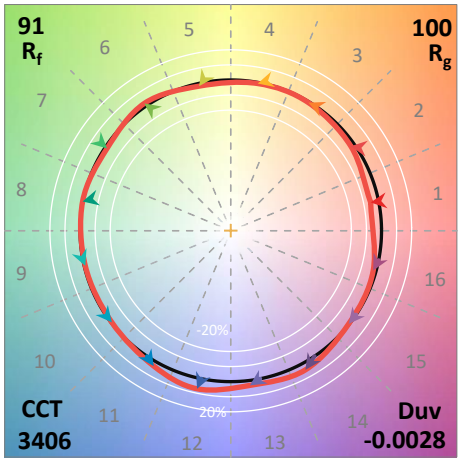
Spectral Power Distribution Comparison

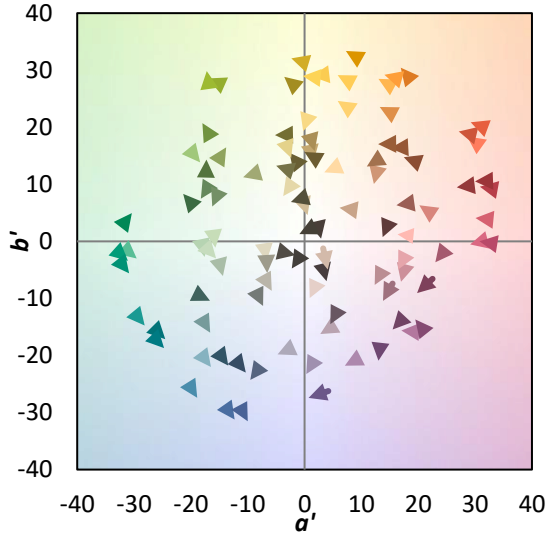


Color Vector Graphics









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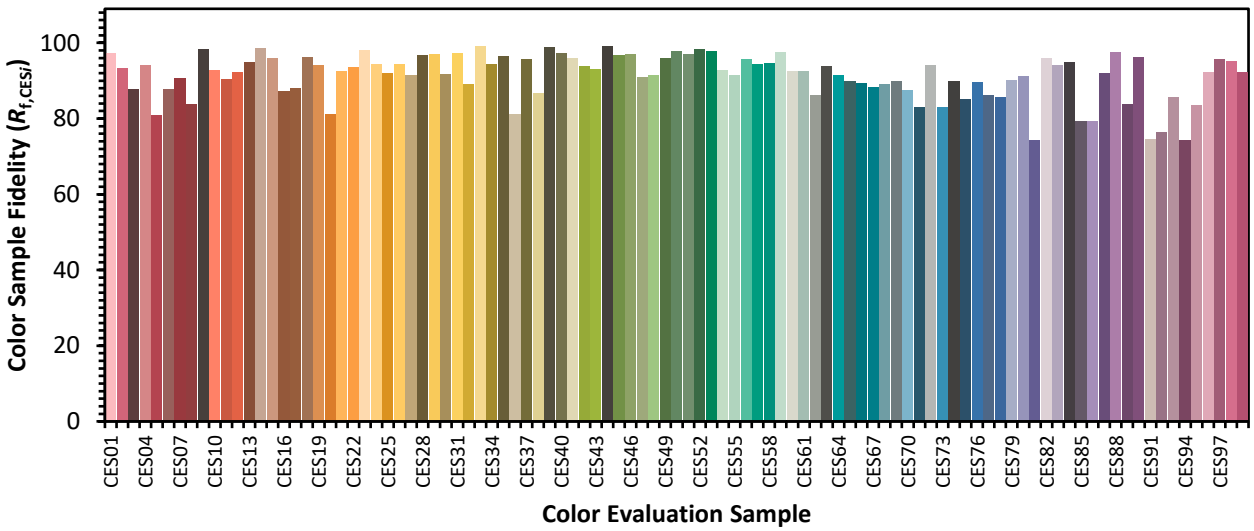
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 95	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 97	CES60 = 92	CES85 = 79
CES11 = 58	CES36 = 81	CES61 = 93	CES86 = 79
CES12 = 64	CES37 = 96	CES62 = 86	CES87 = 92
CES13 = 44	CES38 = 87	CES63 = 94	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 84
CES15 = 72	CES40 = 97	CES65 = 90	CES90 = 96
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 75
CES17 = 49	CES42 = 94	CES67 = 88	CES92 = 76
CES18 = 56	CES43 = 93	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 90	CES94 = 74
CES20 = 67	CES45 = 97	CES70 = 88	CES95 = 83
CES21 = 86	CES46 = 97	CES71 = 83	CES96 = 92
CES22 = 78	CES47 = 91	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 91	CES73 = 83	CES98 = 95
CES24 = 90	CES49 = 96	CES74 = 90	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 85	



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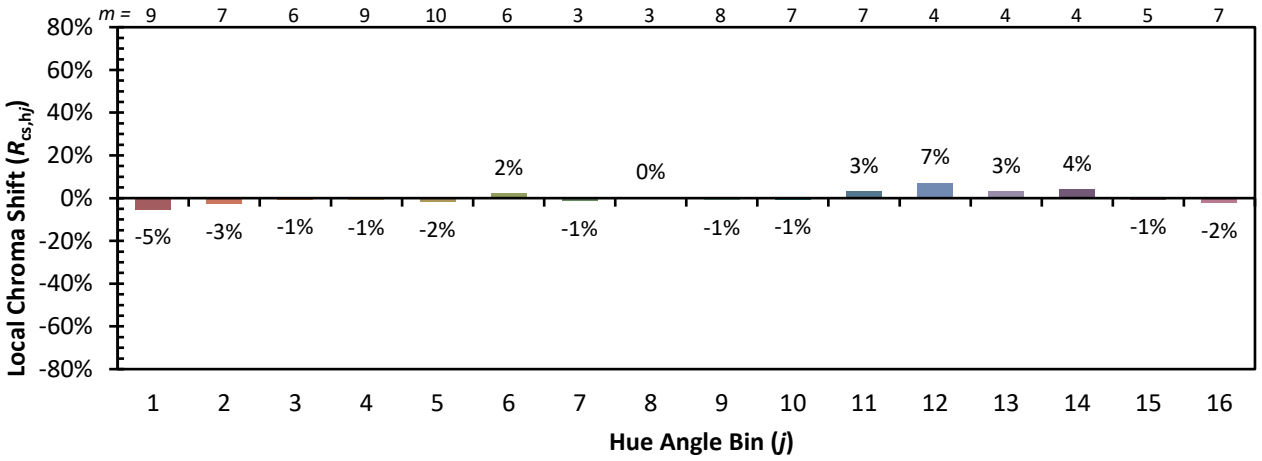
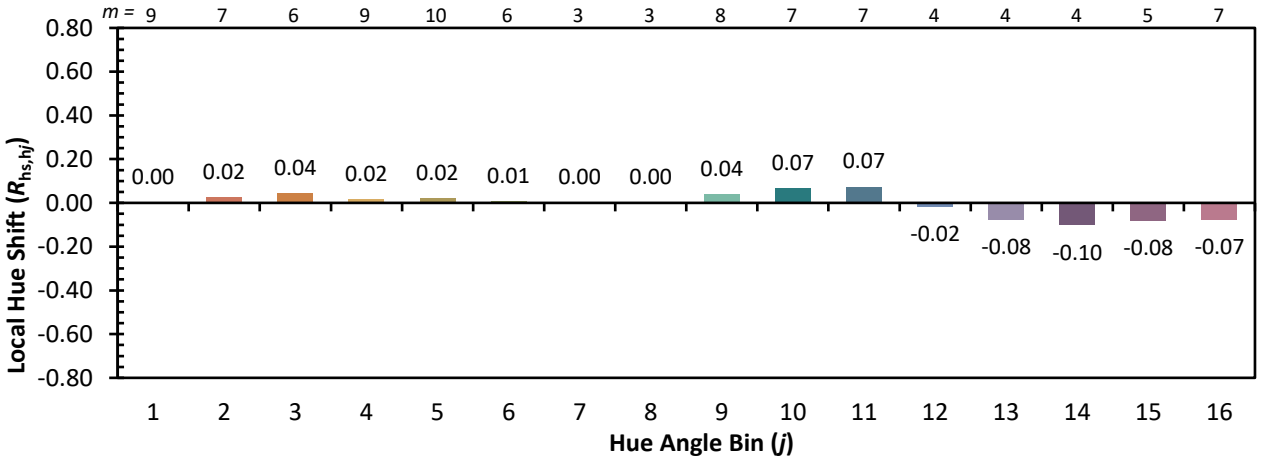
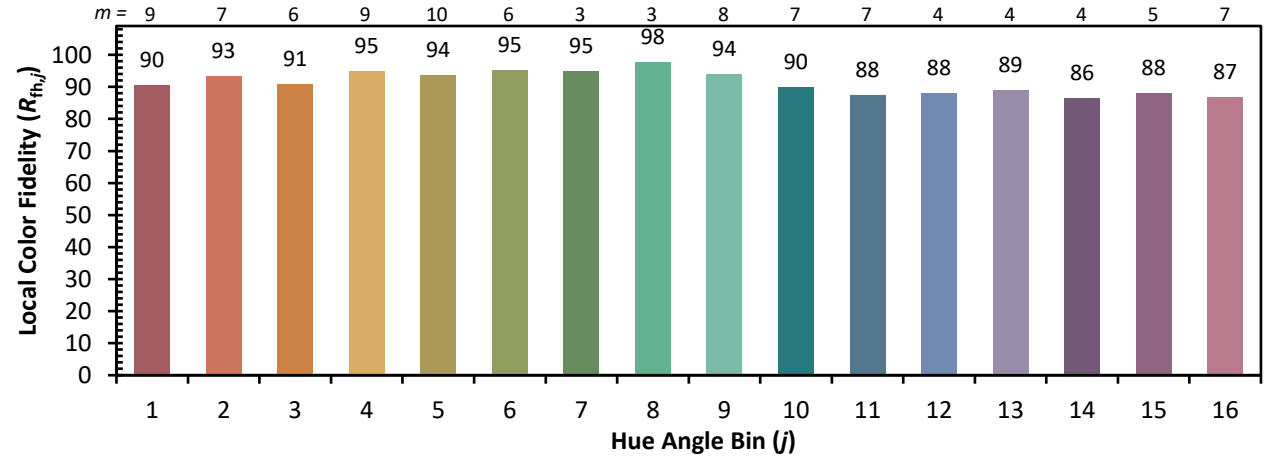
Color Rendition by Hue-Angle Bin







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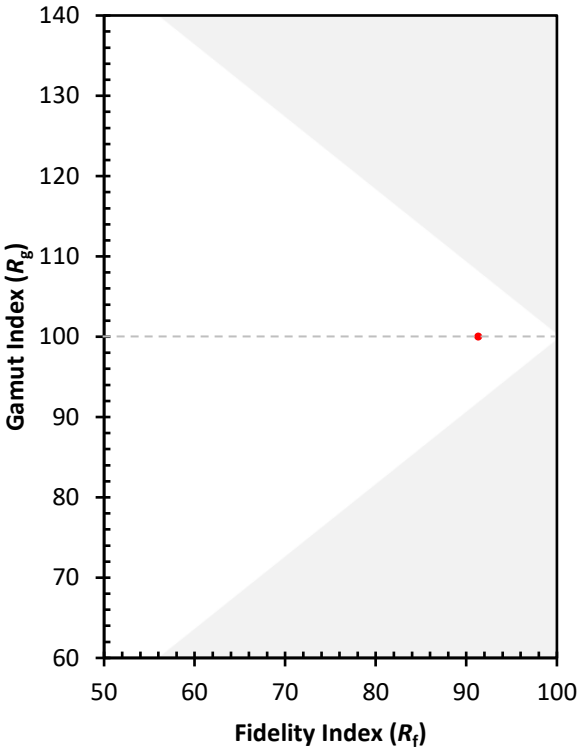
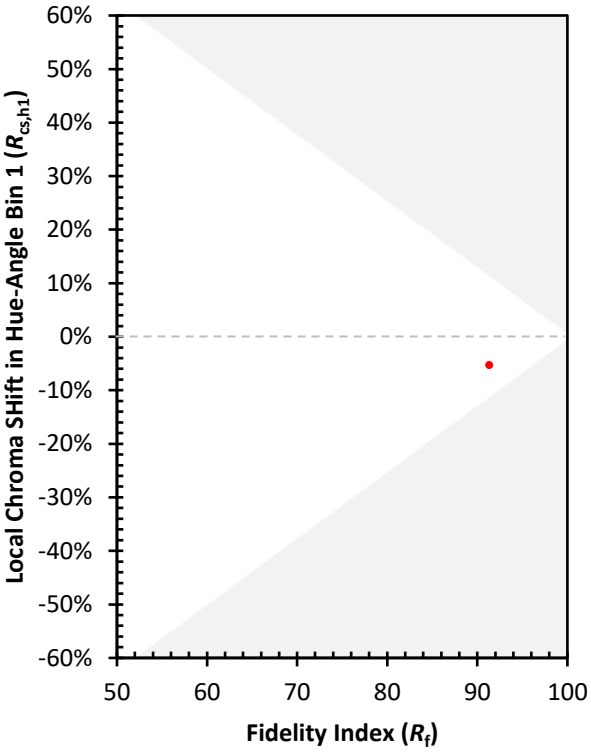
Measure Comparisons





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