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: P1433603

Luminaire Tested: EHBR1-48-UNV-A1-L935-UPL12

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:	P1433603
	REPORT IS A COMBINATION OF REPORTS P1431828 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-A1-L935-UPL12
Description:	Elevate Round Highbay at, 49000 lumens, 3500K 90CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	44041.4 lumens
Efficiency:	N/A
Efficacy:	165.6 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):	266
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

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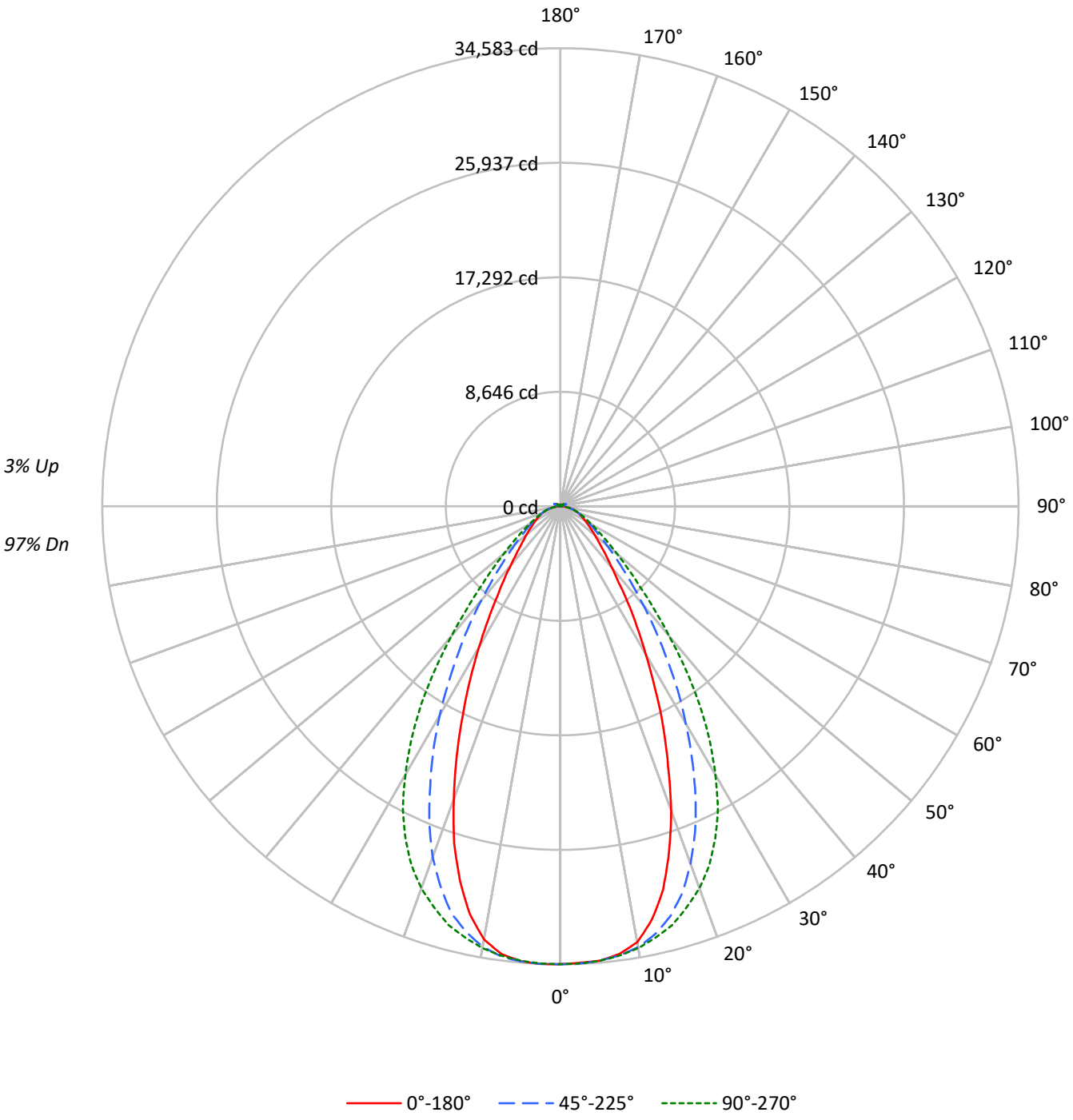
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	97
1	111	107	104	101	108	105	102	100	100	98	96	96	94	93	92	91	90	87
2	104	98	92	88	101	96	91	87	92	88	85	88	85	82	85	83	80	78
3	97	89	83	78	95	87	82	77	84	79	75	81	77	74	79	75	72	70
4	91	82	75	69	89	80	74	69	78	72	68	75	70	67	73	69	66	64
5	85	75	68	63	83	74	67	62	72	66	61	70	65	61	68	63	60	58
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	63	59	55	53
7	75	64	57	52	74	64	57	52	62	56	52	60	55	51	59	54	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	55	50	47	45
9	67	56	49	45	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	53	46	41	62	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	162339	162339	162339	162339	162339
5°	161265	161242	161248	161533	161435
10°	157280	159113	159365	158916	156251
15°	142784	152748	155891	151522	139506
20°	118985	139745	149291	137113	114353
25°	92018	120831	138495	116418	87250
30°	67073	98402	121657	94668	63663
35°	48349	75845	99984	72578	45193
40°	34784	56017	73683	53653	33711
45°	27409	40982	51462	39205	26461
50°	22741	30791	37248	29776	22395
55°	19861	24313	28208	23906	19593
60°	17912	20297	22476	20170	18038
65°	16752	17904	18888	17960	16912
70°	15909	16289	16792	16379	16066
75°	14842	14749	14842	14791	14985
80°	13405	12443	12168	12635	13405
85°	9290	7879	7795	8007	9564

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 53919 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3264.5	7.4
10°-20°	8773.8	19.9
20°-30°	10668.9	24.2
30°-40°	8690.6	19.7
40°-50°	5217.8	11.8
50°-60°	3002.9	6.8
60°-70°	1879.3	4.3
70°-80°	1106.8	2.5
80°-90°	325.6	0.7
90°-100°	29.0	0.1
100°-110°	191.2	0.4
110°-120°	353.6	0.8
120°-130°	210.1	0.5
130°-140°	128.4	0.3
140°-150°	90.7	0.2
150°-160°	60.4	0.1
160°-170°	35.5	0.1
170°-180°	12.1	0.0
0°-30°	22707.2	51.6
0°-40°	31397.8	71.3
0°-60°	39618.5	90.0
0°-90°	42930.4	97.5
90°-120°	573.7	1.3
90°-150°	1003.0	2.3
90°-180°	1111.0	2.5
0°-180°	44041.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	34569	34569	34569	34569	34569	
5°	34433	34428	34429	34490	34469	3254
15°	29955	32046	32705	31789	29268	8241
25°	18376	24130	27657	23249	17424	8372
35°	8874	13920	18351	13321	8295	5614
45°	4435	6631	8326	6343	4281	3498
55°	2684	3286	3812	3231	2648	2426
65°	1748	1869	1972	1875	1765	1738
75°	1046	1039	1046	1042	1056	1107
85°	319	271	268	275	329	341
90°	9	22	8	23	9	20
95°	15	49	15	42	14	14
105°	68	334	88	356	45	90
115°	307	395	376	437	322	283
125°	222	211	240	234	253	203
135°	164	164	154	172	178	128
145°	139	144	142	146	149	88
155°	126	129	127	129	136	59
165°	125	125	123	125	130	36
175°	129	128	125	127	131	12
180°	128	128	128	128	128	

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TEST NUMBER: P1433603
CATALOG NUMBER: EHBR1-48-UNV-A1-L935-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	34568.9	34568.9	34568.9	34568.9	34568.9	34568.9	*34568.9*	34568.9	34568.9
2.5°	*34492.8*	*34524.0*	*34537.1*	*34544.3*	*34552.2*	*34574.0*	*34583.4*	*34568.2*	*34581.2*
5°	34432.7	34434.9	34427.7	34460.3	34429.1	34450.9	*34489.9*	34474.8	34469.0
7.5°	34082.4	34154.8	34197.5	34208.3	34214.1	34240.9	*34268.4*	34112.7	34089.6
10°	33416.2	33537.1	33805.7	33882.5	33859.3	33902.8	*33763.8*	33356.8	33197.6
12.5°	31955.8	32380.9	33078.9	33389.5	33333.0	33371.3	*32897.8*	32039.1	31545.4
15°	29955.4	30578.8	32045.7	32658.2	32705.2	32658.2	*31788.6*	30115.4	29267.6
17.5°	27296.0	28447.2	30606.9	31795.9	31727.8	31750.2	*30099.4*	27626.1	26656.0
20°	24454.9	25682.1	28721.6	30704.7	30683.7	30557.7	*28180.8*	24919.0	23502.8
22.5°	21241.7	22824.4	26561.1	29363.1	29355.1	29145.1	*25844.3*	21962.7	20437.9
25°	18375.9	19928.2	24129.8	27719.6	27657.3	27418.4	*23248.6*	19013.8	17423.8
27.5°	15413.2	17027.0	21534.1	25793.6	25750.9	25490.3	*20767.4*	16257.4	14744.2
30°	12901.5	14377.1	18927.6	23674.4	23400.7	23371.0	*18209.4*	13705.2	12245.5
32.5°	10749.7	12014.6	16470.3	21458.1	20973.7	21112.1	*15660.1*	11570.8	10124.2
35°	8873.7	9988.0	13920.2	18895.1	18350.6	18529.4	*13320.7*	9494.3	8294.6
37.5°	7202.0	8273.5	11759.0	16402.2	15569.6	15907.0	*11263.1*	7928.8	6967.3
40°	6029.0	6879.0	9709.2	13666.8	12771.2	13320.7	*9299.5*	6613.3	5842.9
42.5°	5194.9	5749.6	8013.6	11055.2	10368.1	10757.7	*7664.6*	5528.7	4952.4
45°	4434.7	4877.1	6630.7	8723.9	8326.4	8687.6	*6343.2*	4714.2	4281.2
47.5°	3873.6	4214.6	5458.5	7044.8	6797.9	6912.3	*5297.8*	4113.9	3762.1
50°	3389.2	3652.8	4588.9	5685.9	5551.2	5621.4	*4437.6*	3579.6	3337.7
52.5°	3012.7	3206.1	3848.9	4672.9	4606.3	4617.1	*3781.7*	3148.8	2973.6
55°	2684.0	2818.7	3285.6	3828.0	3812.0	3814.9	*3230.6*	2790.4	2647.8
57.5°	2396.5	2508.1	2823.8	3215.4	3192.3	3197.4	*2797.7*	2478.4	2386.4
60°	2153.3	2227.8	2440.0	2717.3	2702.0	2695.6	*2424.8*	2200.3	2168.5
62.5°	1937.6	1985.3	2132.2	2329.2	2300.3	2306.8	*2131.5*	1987.5	1940.4
65°	1748.5	1765.2	1868.8	1990.4	1971.5	1987.5	*1874.6*	1776.0	1765.2
67.5°	1563.9	1580.5	1641.4	1723.2	1701.5	1714.5	*1642.8*	1584.9	1575.5
70°	1395.9	1395.2	1429.3	1473.4	1473.4	1475.6	*1437.2*	1402.5	1409.7
72.5°	1222.2	1217.8	1228.0	1257.6	1249.6	1277.2	*1236.7*	1225.8	1227.3
75°	1045.5	1033.2	1039.0	1054.2	1045.5	1060.0	*1041.9*	1055.6	1055.6
77.5°	879.0	855.8	848.6	850.8	834.8	856.6	*860.8*	870.3	892.0
80°	705.2	672.6	654.6	653.8	640.1	653.8	*664.7*	684.2	705.2
82.5°	523.5	495.2	464.9	459.1	450.4	458.3	*472.8*	495.9	530.0
85°	319.3	289.6	270.8	260.7	267.9	267.9	*275.2*	307.7	328.7
87.5°	115.1	100.6	82.6	83.3	85.5	88.4	*92.0*	115.8	126.7
90°	9.3	12.8	21.9	14.0	7.9	13.4	*23.1*	12.1	8.6
92.5°	12.3	19.5	35.3	18.2	10.3	18.2	*32.9*	16.4	11.7
95°	14.9	22.5	49.3	24.4	15.2	22.5	*42.0*	18.2	14.1
97.5°	18.5	24.9	56.6	29.8	23.7	28.0	*47.5*	19.5	17.1
100°	23.9	29.2	88.3	36.5	31.6	31.6	*87.0*	22.5	20.3
102.5°	39.8	62.1	187.5	68.8	48.1	62.1	*202.1*	45.7	24.6
105°	67.8	130.9	334.2	144.3	87.6	142.5	*356.1*	119.3	44.7
107.5°	116.5	234.4	440.7	255.7	166.2	266.0	*459.0*	236.2	103.7
110°	216.3	311.1	462.0	351.2	266.0	372.0	*500.9*	323.8	209.6

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Scaled Data Report

TEST NUMBER: P1433603
CATALOG NUMBER: EHBR1-48-UNV-A1-L935-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	291.8	334.2	442.6	387.7	346.3	414.6	*489.4*	359.2	289.9
115°	307.1	321.4	395.1	378.6	376.2	408.5	*437.0*	357.9	321.7
117.5°	297.4	293.4	335.4	340.2	363.4	373.8	*377.4*	336.0	323.5
120°	274.8	261.1	280.0	297.0	328.1	323.8	*317.8*	304.4	305.2
122.5°	248.1	232.0	239.8	252.6	283.7	274.5	*268.5*	271.6	281.0
125°	222.5	206.5	211.3	214.3	240.4	231.3	*234.5*	243.6	253.0
127.5°	200.0	188.8	191.1	187.5	203.9	199.7	*209.5*	220.6	228.0
130°	184.8	175.6	179.1	169.8	178.5	179.7	*192.6*	201.1	206.1
132.5°	172.7	166.5	171.4	160.3	162.8	168.4	*179.9*	188.0	190.4
135°	164.3	158.7	164.2	153.7	153.9	161.1	*171.5*	176.4	177.7
137.5°	156.4	152.2	157.6	150.4	148.5	155.8	*163.7*	167.4	166.9
140°	150.5	146.2	152.3	146.8	145.6	152.9	*156.5*	161.5	160.3
142.5°	143.4	140.9	147.6	143.8	142.7	150.1	*151.9*	154.9	154.4
145°	138.6	136.8	144.0	142.1	141.6	147.1	*145.9*	150.9	149.1
147.5°	135.9	134.0	139.8	139.2	139.2	142.8	*141.8*	146.2	145.0
150°	132.4	130.4	136.3	135.7	136.3	138.8	*137.0*	142.7	142.8
152.5°	128.9	126.9	132.1	130.8	131.4	133.9	*132.9*	138.5	139.3
155°	126.5	124.6	128.6	127.2	127.2	129.2	*129.3*	135.7	136.4
157.5°	126.3	124.2	127.1	125.6	125.6	126.9	*127.8*	133.5	134.2
160°	125.9	123.8	126.1	124.6	124.0	125.9	*126.8*	131.9	132.6
162.5°	125.5	123.4	125.5	124.2	123.4	124.2	*125.1*	130.9	131.6
165°	125.0	123.5	125.2	123.7	123.1	123.7	*124.7*	128.5	129.9
167.5°	125.7	124.4	125.3	123.8	123.3	122.6	*124.8*	128.1	129.4
170°	125.9	125.2	125.4	123.4	122.0	122.7	*124.3*	127.6	128.9
172.5°	127.3	126.6	126.9	124.8	123.4	124.2	*125.2*	127.8	129.8
175°	128.9	127.4	127.8	125.6	124.9	125.0	*126.6*	128.6	131.3
177.5°	130.2	128.8	128.5	126.3	125.0	125.7	*127.9*	130.0	133.2
180°	127.9	127.9	127.9	127.9	127.9	127.9	*127.9*	127.9	127.9

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Scaled Data Report

TEST NUMBER: P1433603
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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	19.39	20.61	19.80	20.98	21.36	20.37	21.59	20.78	21.96	22.34
	3H	20.87	21.96	21.30	22.34	22.77	21.64	22.72	22.06	23.11	23.54
	4H	21.47	22.49	21.92	22.89	23.34	22.14	23.15	22.59	23.56	24.00
	6H	21.94	22.87	22.40	23.30	23.75	22.50	23.43	22.96	23.85	24.31
	8H	22.09	22.97	22.57	23.42	23.88	22.59	23.48	23.07	23.92	24.39
	12H	22.17	23.01	22.65	23.45	23.94	22.63	23.48	23.11	23.91	24.40
4H	2H	19.91	20.93	20.36	21.33	21.78	20.69	21.71	21.14	22.11	22.56
	3H	21.60	22.43	22.06	22.89	23.36	22.19	23.02	22.64	23.48	23.94
	4H	22.32	23.07	22.80	23.53	24.04	22.81	23.56	23.29	24.03	24.53
	6H	22.90	23.55	23.41	24.04	24.57	23.29	23.93	23.80	24.43	24.96
	8H	23.09	23.69	23.60	24.18	24.72	23.42	24.03	23.94	24.52	25.05
	12H	23.20	23.73	23.73	24.26	24.79	23.49	24.02	24.02	24.55	25.09
8H	4H	22.54	23.15	23.06	23.64	24.17	22.99	23.59	23.50	24.09	24.62
	6H	23.24	23.73	23.78	24.27	24.81	23.57	24.07	24.12	24.61	25.15
	8H	23.49	23.93	24.05	24.49	25.04	23.77	24.21	24.33	24.77	25.32
	12H	23.66	24.04	24.21	24.58	25.21	23.89	24.28	24.45	24.82	25.45
12H	4H	22.55	23.08	23.08	23.61	24.14	22.99	23.52	23.52	24.05	24.59
	6H	23.26	23.70	23.82	24.26	24.81	23.60	24.04	24.16	24.60	25.15
	8H	23.55	23.94	24.11	24.48	25.11	23.83	24.22	24.39	24.76	25.39

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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

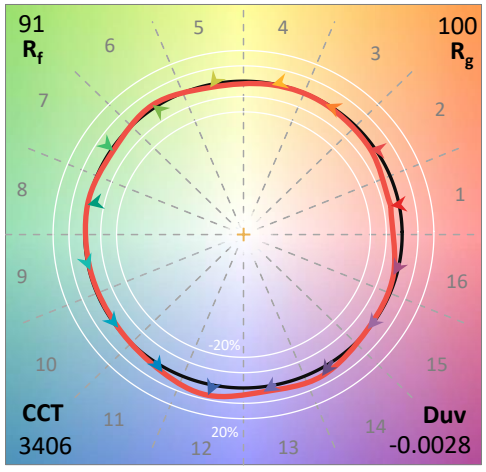
Test Information

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
CIE u':	0.2394
CIE v':	0.5094
Duv:	-0.0028
CIE x:	0.4076
CIE y:	0.3856
CIE z:	0.2068
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	582
Purity:	38.0517
Rf:	91.3
Rg:	100

CRI (Ra):	94.6				
R1:	96.6	R9:	63.8		
R2:	98.4	R10:	94.7		
R3:	98.1	R11:	96.6		
R4:	95.8	R12:	80.9		
R5:	96.2	R13:	97.4		
R6:	95.4	R14:	98.3		
R7:	91.8	R15:	93.1		
R8:	84.4				



Test Conditions

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

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Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

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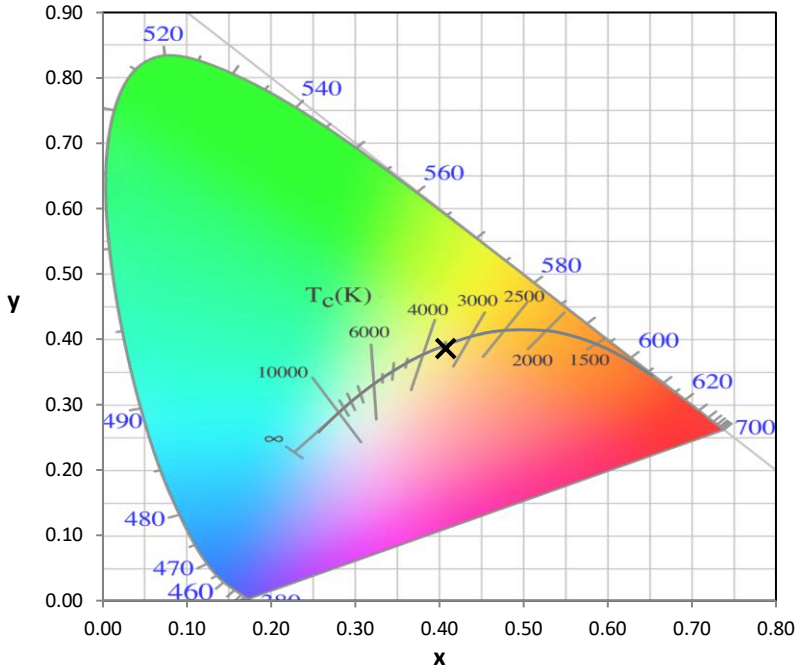
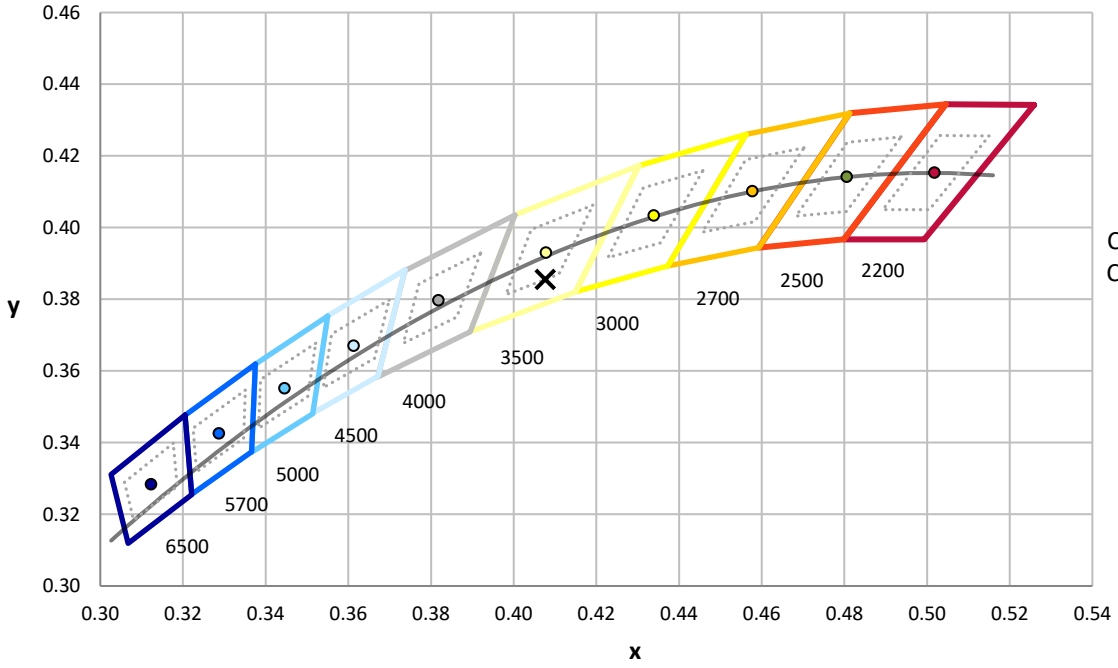
CIE 1931 Chromaticity Diagram



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



CCT = 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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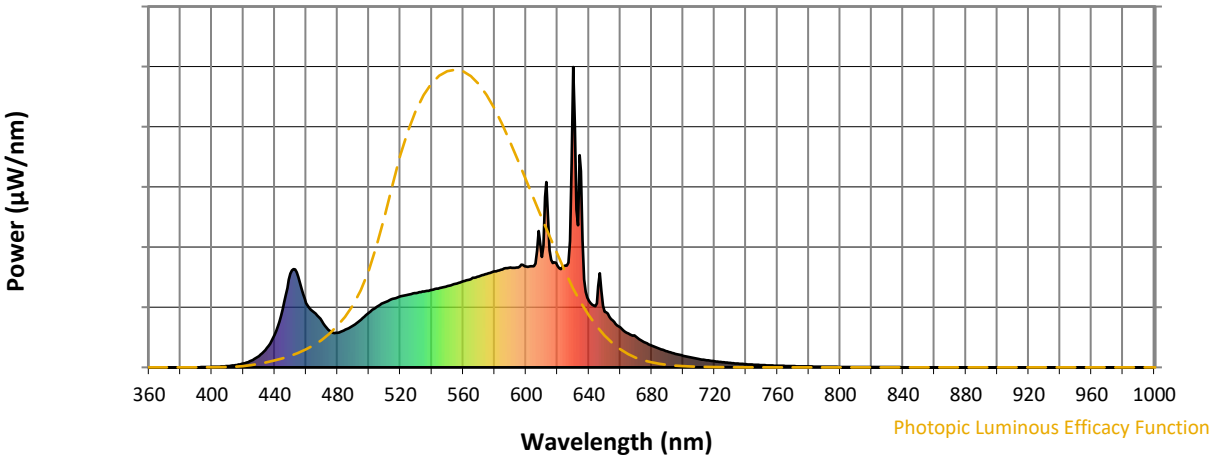
Photopic Flux vs. Wavelength



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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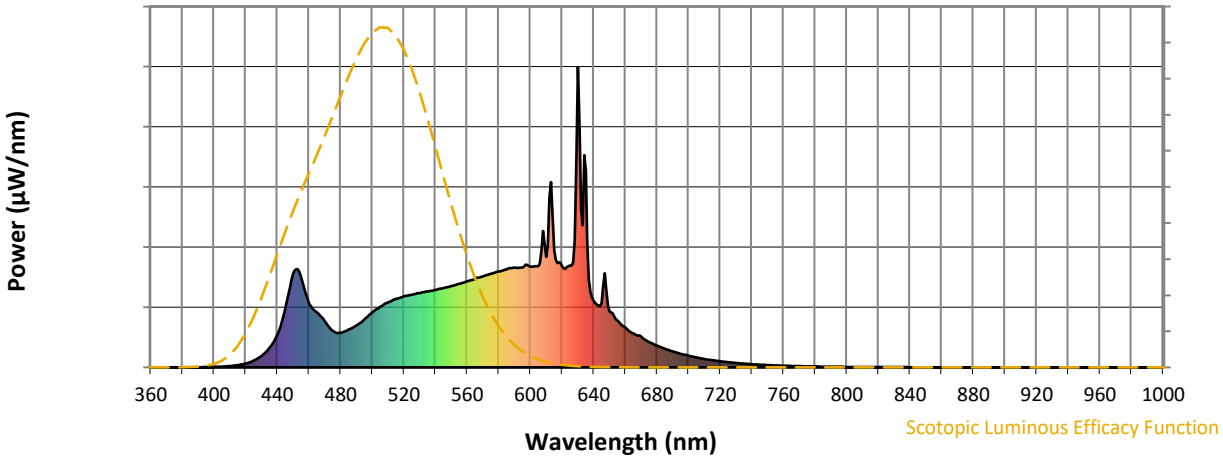
Scotopic Flux vs. Wavelength



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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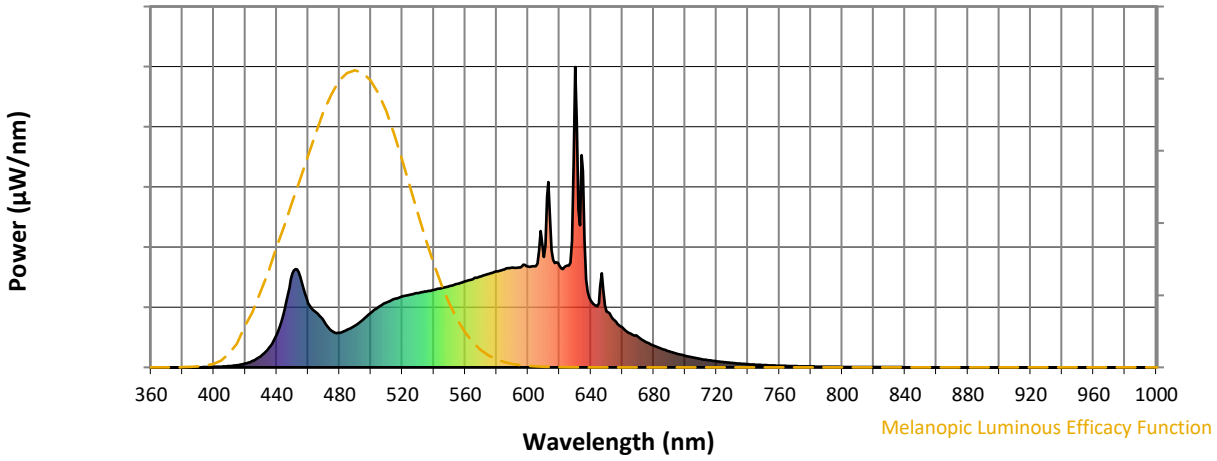
Melanopic Flux vs. Wavelength



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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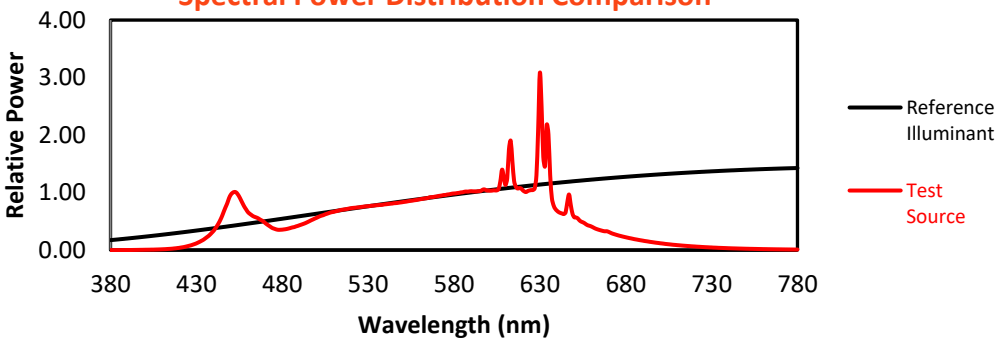
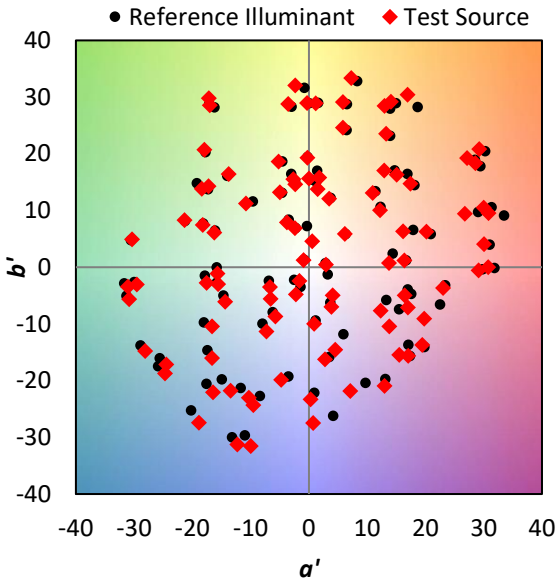
Summary

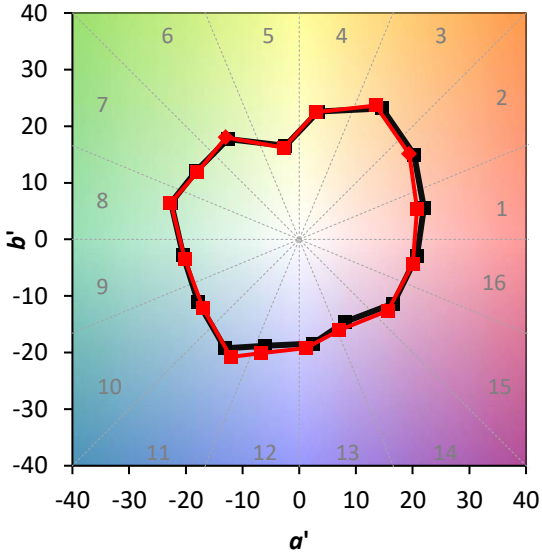
R_f = 91.3
R_g = 100
CIE R_a = 94.6
R_9 = 63.8

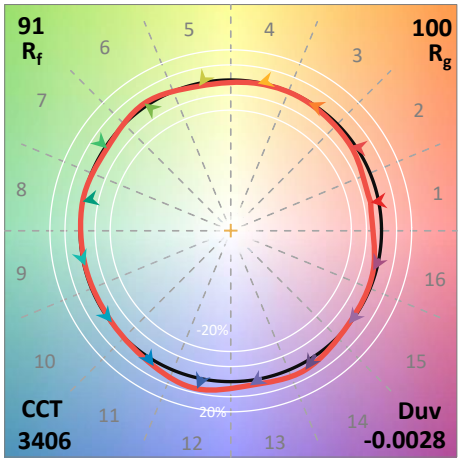
Spectral Power Distribution Comparison

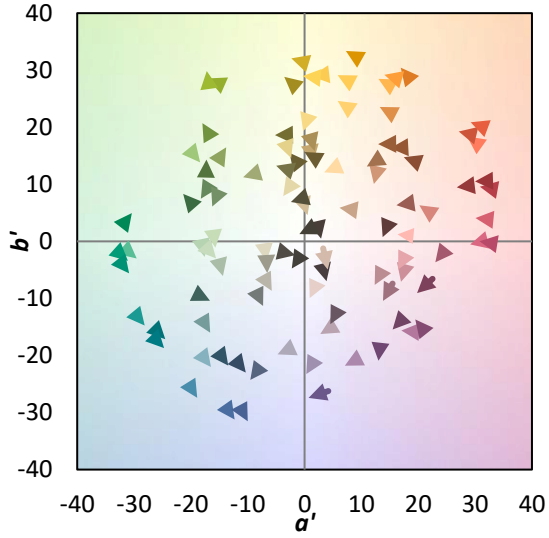


Color Vector Graphics









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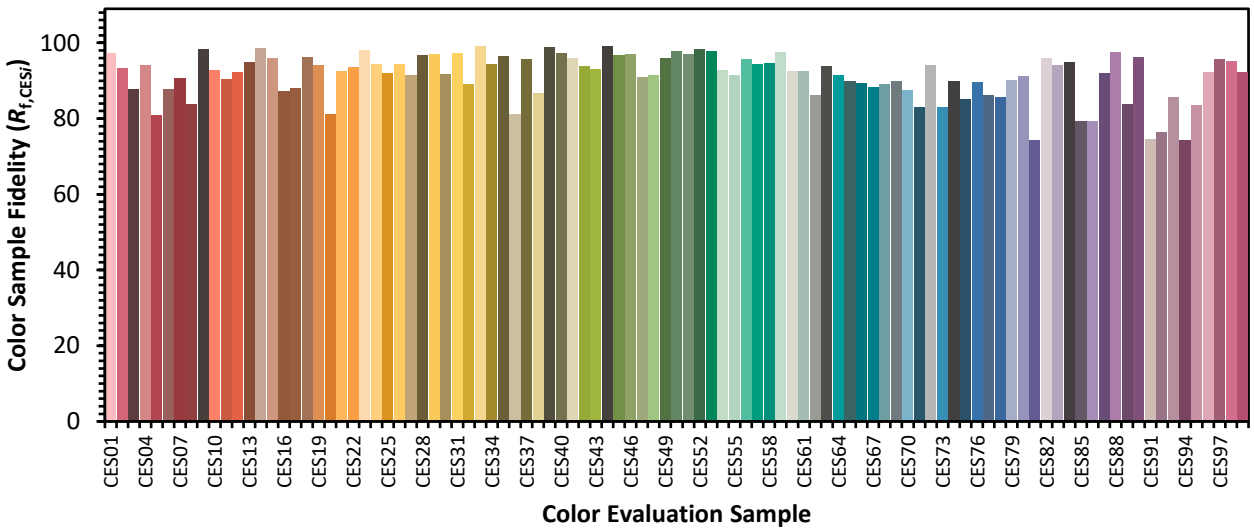
Individual Sample Fidelity Index ($R_{f,i}$)

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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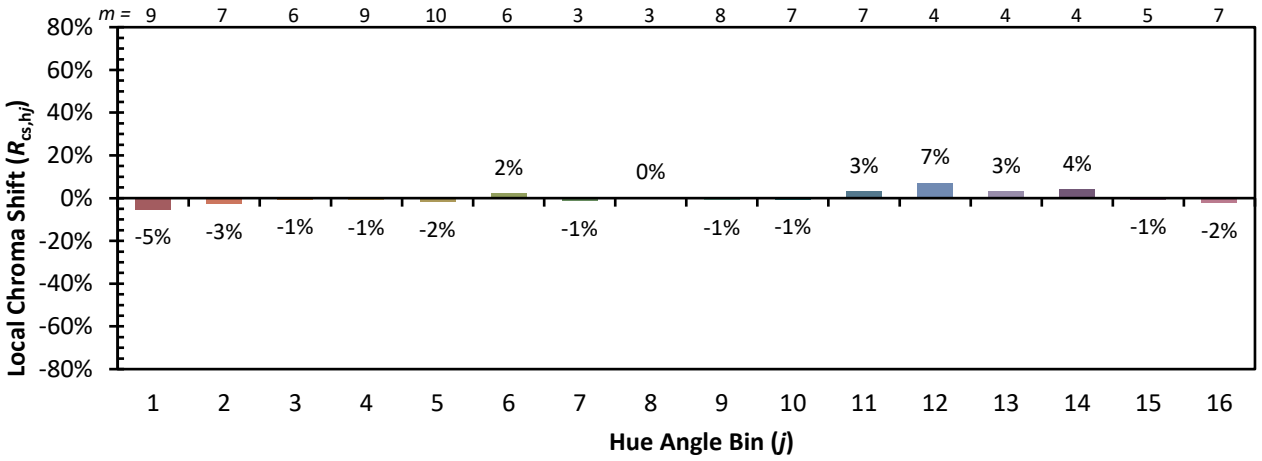
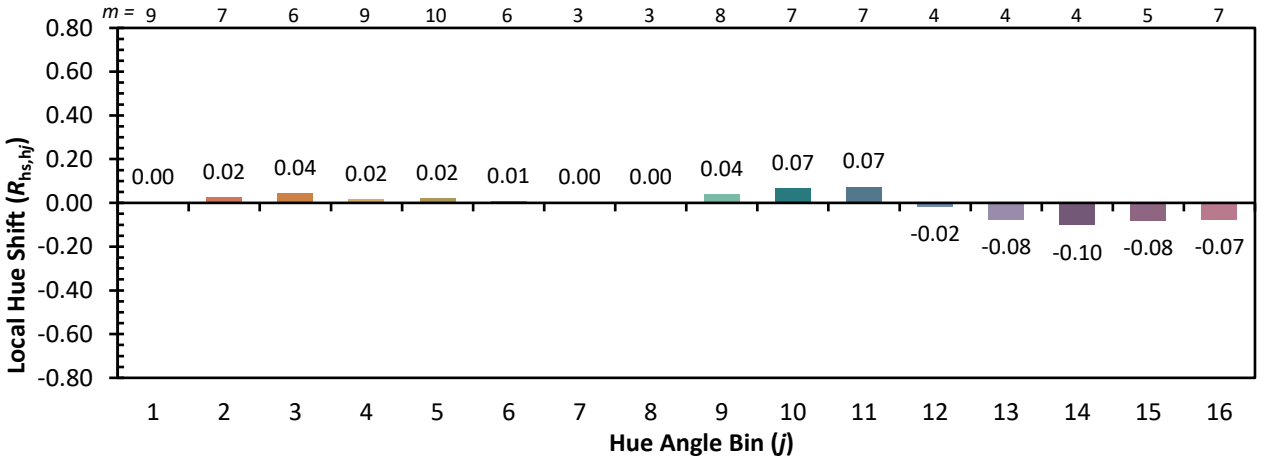
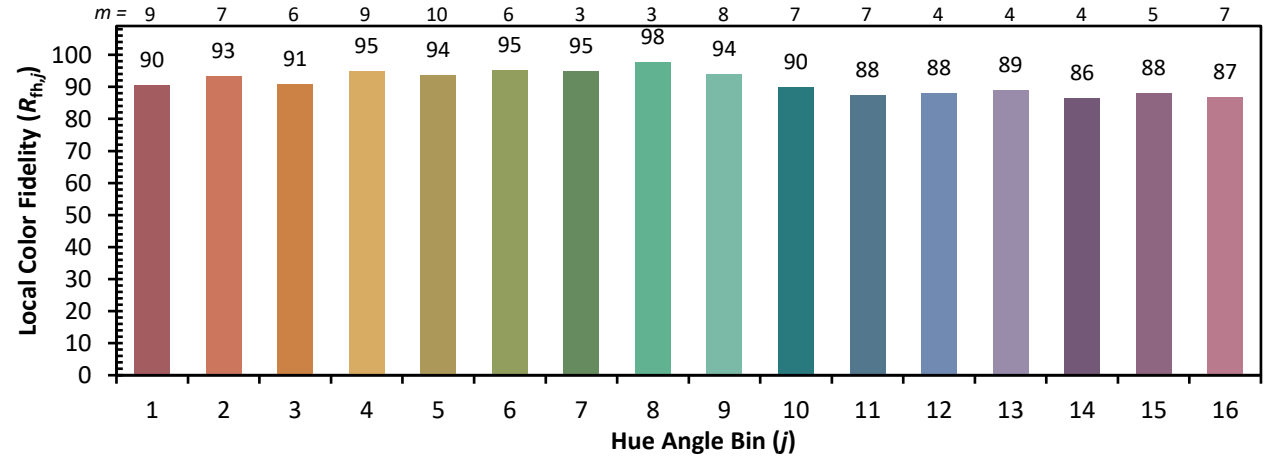
Color Rendition by Hue-Angle Bin







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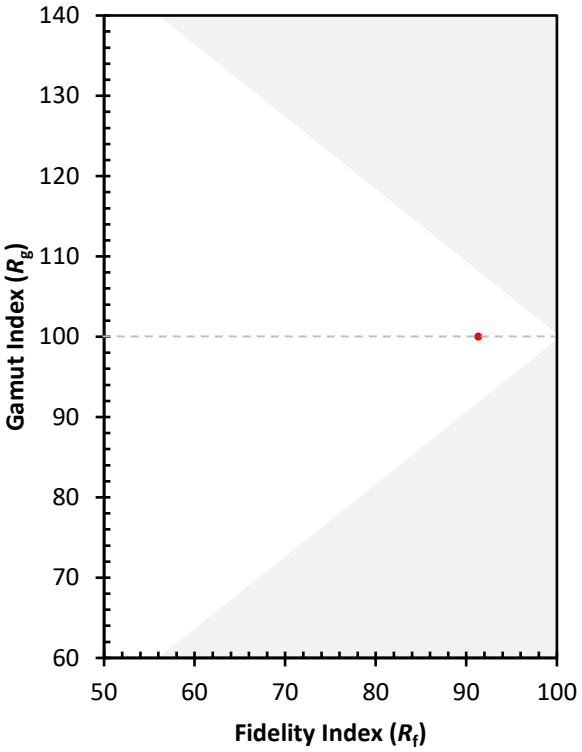
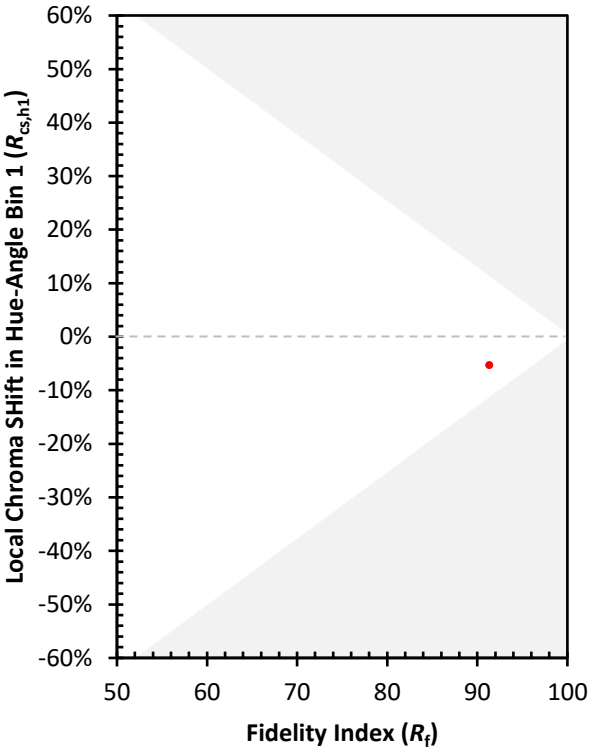
Measure Comparisons





(END OF REPORT)