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: P1433810

Luminaire Tested: EHBR1-30-UNV-ASM-L940

Issue Date: 3/13/2026

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:	P1433810
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab:	INNOVATION CENTER
Issue Date:	3/13/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-30-UNV-ASM-L940
Description:	Elevate Round Highbay at, 30000 lumens, 4000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	28399.3 lumens
Efficiency:	N/A
Efficacy:	177.7 lumens/watt
Spacing Criteria (0/90/45):	0.84 / 0.99 / 0.92
Luminous Opening:	Circular (Dia: 1.71' x H: 0')
CIE Type:	Direct

Input Watts (W):	159.8
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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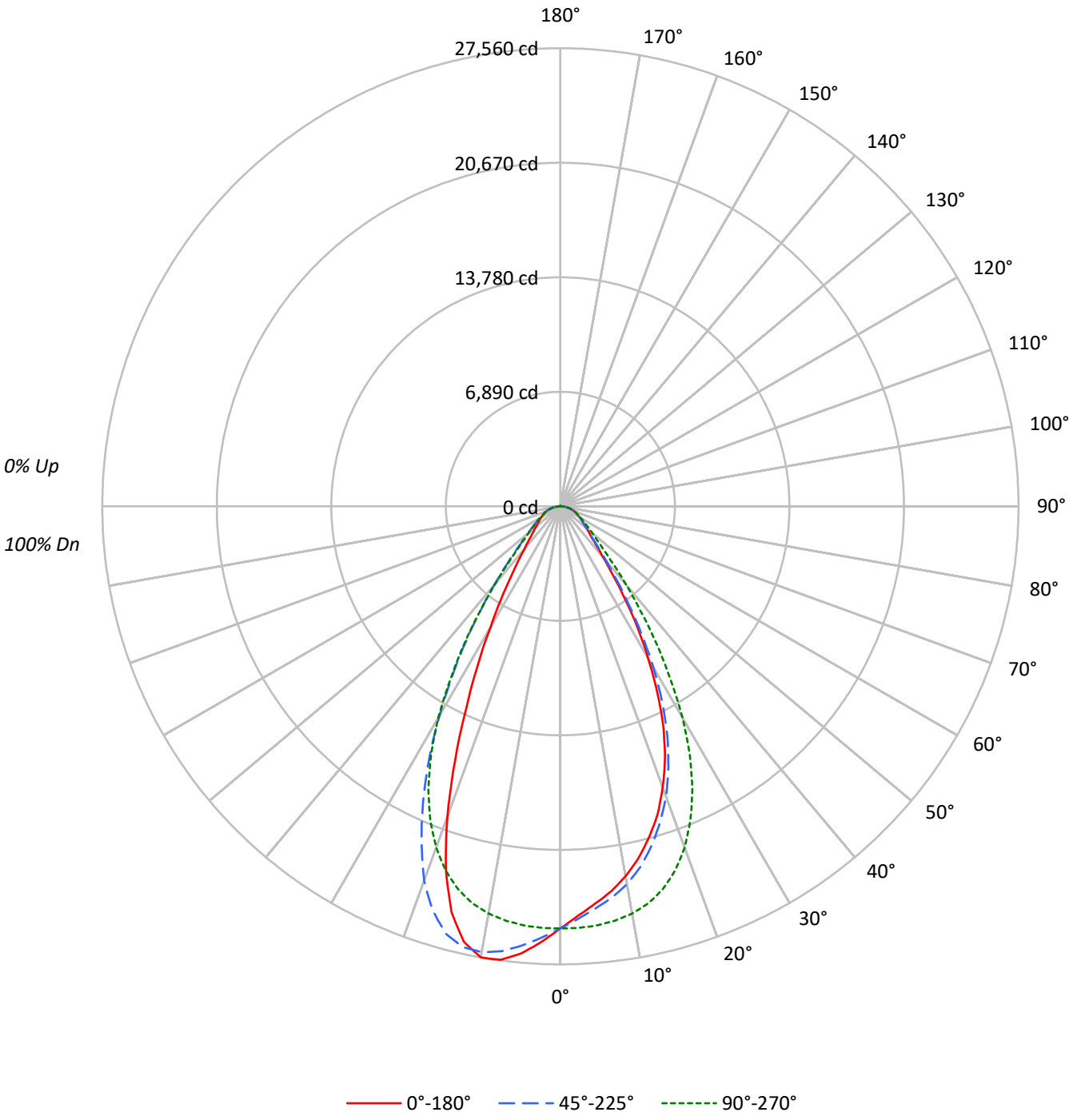
Scaled Data Report

TEST NUMBER: P1433810
CATALOG NUMBER: EHBR1-30-UNV-ASM-L940

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	49
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	119273	119273	119273	119273	119273
5°	113129	114451	119321	125043	127293
10°	107771	110054	118629	129907	131420
15°	100222	102899	115903	129441	122953
20°	89896	92924	109158	119817	99283
25°	75896	78769	97332	101245	69300
30°	57240	60558	79662	78866	45445
35°	38440	40761	57638	56707	29689
40°	24481	26163	37631	37873	20665
45°	17640	18374	24146	25184	16188
50°	14889	15007	18170	18643	13939
55°	13355	13386	15075	15473	12903
60°	12618	12511	13321	13603	12542
65°	12373	12262	12473	12716	12426
70°	12484	12267	12281	12515	12647
75°	12590	12209	12184	12618	12979
80°	12751	11861	11915	12751	13641
85°	12086	10033	10033	11471	12673

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 33948 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2415.0	8.5
10°-20°	6570.2	23.1
20°-30°	7705.5	27.1
30°-40°	5358.7	18.9
40°-50°	2663.0	9.4
50°-60°	1592.8	5.6
60°-70°	1121.0	3.9
70°-80°	722.2	2.5
80°-90°	229.4	0.8
90°-100°	1.3	0.0
100°-110°	1.6	0.0
110°-120°	1.6	0.0
120°-130°	2.1	0.0
130°-140°	2.8	0.0
140°-150°	3.3	0.0
150°-160°	3.7	0.0
160°-170°	3.7	0.0
170°-180°	1.6	0.0
0°-30°	16690.7	58.8
0°-40°	22049.3	77.6
0°-60°	26305.1	92.6
0°-90°	28377.7	99.9
90°-120°	4.5	0.0
90°-150°	12.7	0.0
90°-180°	22.0	0.1
0°-180°	28399.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	25398	25398	25398	25398	25398	
5°	23998	24279	25312	26526	27003	2251
15°	20614	21165	23840	26624	25290	5749
25°	14647	15202	18784	19540	13374	6609
35°	6705	7110	10054	9892	5179	4271
45°	2656	2767	3636	3792	2438	2147
55°	1631	1635	1841	1890	1576	1480
65°	1114	1104	1122	1144	1118	1106
75°	694	673	672	695	715	732
85°	224	186	186	213	235	231
90°	0	0	0	1	4	11
95°	0	0	1	1	4	1
105°	1	0	1	2	4	1
115°	1	1	1	2	4	1
125°	1	2	2	3	5	1
135°	2	3	4	4	5	2
145°	5	6	6	5	6	3
155°	9	8	8	8	9	4
165°	13	12	13	14	16	4
175°	16	16	17	18	20	1
180°	18	18	18	18	18	

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TEST NUMBER: P1433810
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	*25398.4*
2.5°	24644.6	24660.8	24833.1	25057.5	25383.7	25711.8	25977.6	26152.9	*26239.5*
5°	23998.3	24087.8	24278.8	24690.8	25311.8	25969.1	26525.8	26890.1	*27003.0*
7.5°	23368.7	23420.6	23740.1	24260.7	25139.9	26163.8	26991.1	27416.4	*27520.2*
10°	*22600.4*	*22718.1*	*23079.1*	*23693.0*	*24877.5*	*26286.7*	*27242.5*	*27547.4*	*27559.8*
12.5°	21696.5	21852.2	22225.2	22999.5	24458.8	26242.9	27158.2	27058.3	*26831.0*
15°	20614.4	20751.1	21165.0	22063.2	23839.7	25983.3	26624.4	25810.4	*25289.9*
17.5°	19445.7	19569.5	19929.1	20918.3	22967.1	25497.6	25510.0	23899.7	*22917.7*
20°	17988.3	18085.5	18594.2	19564.8	21842.7	24718.3	23975.4	21030.2	*19866.7*
22.5°	16437.7	16528.6	16980.6	17990.7	20433.0	23667.7	21838.4	18143.6	*16556.2*
25°	14647.3	14696.9	15201.8	16115.2	18784.2	22380.4	19539.5	14998.4	*13374.3*
27.5°	12633.3	12717.6	13245.8	14178.7	16844.8	20748.8	17091.5	12256.1	*10757.8*
30°	10555.8	10695.4	11167.8	12003.1	14690.8	18657.0	14544.0	9760.5	*8380.7*
32.5°	8617.0	8717.5	9054.2	9927.2	12278.9	16606.7	12097.5	7820.7	*6652.0*
35°	6705.2	6805.8	7110.0	7967.3	10053.9	14041.6	9891.5	6145.2	*5178.8*
37.5°	5125.5	5303.1	5498.4	6194.2	7890.2	11617.9	7885.0	4948.3	*4200.6*
40°	3993.4	4022.0	4267.8	4713.1	6138.5	9084.2	6178.0	3950.1	*3371.0*
42.5°	3196.7	3274.3	3380.0	3713.4	4651.1	6946.3	4855.9	3241.9	*2863.3*
45°	2656.1	2686.6	2766.6	2990.4	3635.7	5111.7	3792.0	2735.1	*2437.5*
47.5°	2323.7	2310.3	2361.8	2529.4	2960.9	3950.6	3073.3	2346.1	*2137.5*
50°	2037.9	2029.8	2054.1	2166.1	2487.0	3031.4	2551.8	2047.9	*1907.9*
52.5°	1816.0	1823.1	1825.5	1895.1	2136.5	2472.3	2173.2	1825.0	*1730.7*
55°	1631.2	1640.3	1635.0	1686.5	1841.2	2078.4	1889.8	1641.2	*1576.0*
57.5°	1486.9	1480.2	1473.1	1500.7	1616.9	1763.1	1641.2	1484.5	*1441.2*
60°	1343.5	1337.4	1332.1	1350.2	1418.3	1526.9	1448.3	1347.8	*1335.4*
62.5°	1220.6	1216.8	1216.4	1213.0	1265.5	1334.0	1280.6	1224.9	*1214.0*
65°	1113.5	1109.2	1103.5	1098.2	1122.5	1186.4	1144.4	1114.4	*1118.3*
67.5°	1006.4	1006.4	996.3	988.2	1012.0	1045.4	1027.3	1010.2	*1014.5*
70°	909.2	909.7	893.4	887.3	894.4	930.2	911.5	913.9	*921.1*
72.5°	804.8	793.5	781.6	781.1	782.0	809.6	803.5	809.1	*816.8*
75°	693.9	680.6	672.9	664.4	671.5	692.5	695.4	703.4	*715.3*
77.5°	586.8	566.3	560.1	555.8	551.1	574.8	583.9	594.9	*612.5*
80°	471.5	449.1	438.6	432.5	440.6	451.5	471.5	479.6	*504.4*
82.5°	348.6	331.9	319.1	318.6	322.4	332.4	349.6	364.8	*379.1*
85°	224.3	197.6	186.2	190.5	186.2	201.4	212.9	231.0	*235.2*
87.5°	81.0	63.4	60.5	66.7	65.2	70.0	80.0	87.2	*87.7*
90°	0.5	0.5	0.5	0.5	0.5	0.9	1.4	2.9	*3.8*
92.5°	0.5	0.5	0.5	0.5	0.5	0.9	1.4	2.9	*3.8*
95°	0.5	0.5	0.5	0.5	0.9	0.9	1.4	2.9	*3.8*
97.5°	0.9	0.5	0.5	0.5	0.9	0.9	1.4	2.9	*3.8*
100°	0.9	0.5	0.5	0.9	0.9	0.9	1.4	2.9	*3.8*
102.5°	0.9	0.5	0.5	0.9	0.9	1.4	1.9	3.4	*3.8*
105°	0.9	0.5	0.5	0.9	0.9	1.4	1.9	3.4	*4.3*
107.5°	0.9	0.5	0.9	0.9	0.9	1.4	1.9	3.4	*4.3*
110°	0.9	0.5	0.9	0.9	0.9	1.4	1.9	3.4	*4.3*

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Scaled Data Report

TEST NUMBER: P1433810
CATALOG NUMBER: EHBR1-30-UNV-ASM-L940

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.9	0.5	0.9	0.9	0.9	1.4	1.9	3.4	*4.3*
115°	0.9	0.5	0.9	0.9	1.4	1.4	1.9	3.4	*4.3*
117.5°	0.9	0.5	0.9	1.4	1.4	1.4	1.9	3.4	*4.3*
120°	0.9	0.5	0.9	1.4	1.4	1.4	2.4	3.4	*4.3*
122.5°	0.9	0.9	1.4	1.9	1.9	1.9	2.4	3.8	*4.3*
125°	1.4	0.9	1.9	2.4	1.9	1.9	2.9	3.8	*4.8*
127.5°	1.4	0.9	1.9	2.4	2.4	2.4	2.9	3.8	*4.8*
130°	1.4	1.4	2.4	2.9	2.9	2.4	2.9	4.3	*4.8*
132.5°	1.9	1.9	3.4	3.8	3.4	2.9	3.4	4.8	*5.2*
135°	1.9	2.4	3.4	4.3	3.8	2.9	3.8	4.3	*5.2*
137.5°	2.4	2.9	4.3	4.8	4.3	3.4	3.8	4.8	*5.2*
140°	3.4	3.8	4.8	4.8	4.8	3.8	3.8	4.8	*5.7*
142.5°	4.3	4.3	5.2	5.2	5.2	4.3	4.3	5.2	*5.7*
145°	5.2	5.2	5.7	5.2	5.7	5.2	4.8	5.2	*6.1*
147.5°	6.1	6.1	6.1	5.7	5.7	5.2	5.2	5.7	*6.7*
150°	7.2	7.2	6.7	6.1	6.1	6.1	5.7	6.1	*7.2*
152.5°	8.1	7.6	7.2	6.7	6.7	6.7	6.7	7.2	*7.6*
155°	9.0	8.6	8.1	7.2	7.6	7.6	7.6	8.1	*8.6*
157.5°	10.4	9.5	9.0	8.6	8.6	9.0	9.0	9.5	*10.0*
160°	11.5	11.0	10.4	10.0	10.4	10.4	11.0	11.5	*11.9*
162.5°	12.4	11.9	11.5	11.5	11.5	11.5	12.4	12.9	*13.8*
165°	13.3	12.9	12.4	12.4	12.9	12.9	13.8	14.7	*15.7*
167.5°	13.3	13.3	13.3	13.3	13.8	13.8	14.7	16.2	*17.1*
170°	14.3	13.8	13.8	14.3	14.3	14.7	15.7	17.1	*18.1*
172.5°	15.3	14.7	15.3	15.3	15.7	15.7	17.1	18.5	*19.6*
175°	16.2	15.7	16.2	16.2	16.7	17.1	18.1	19.6	*20.5*
177.5°	16.7	16.2	16.2	16.2	16.7	17.6	18.5	20.0	*21.0*
180°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	*17.6*

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Scaled Data Report

TEST NUMBER: P1433810
CATALOG NUMBER: EHBR1-30-UNV-ASM-L940

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	17.58	18.79	17.95	19.10	19.42	18.35	19.56	18.72	19.87	20.19
	3H	19.50	20.57	19.88	20.91	21.27	20.00	21.07	20.38	21.41	21.77
	4H	20.31	21.31	20.72	21.67	22.05	20.72	21.72	21.12	22.07	22.46
	6H	20.98	21.90	21.40	22.27	22.67	21.31	22.23	21.72	22.60	23.00
	8H	21.22	22.09	21.65	22.48	22.89	21.52	22.38	21.95	22.78	23.19
	12H	21.38	22.21	21.82	22.60	23.03	21.65	22.48	22.08	22.86	23.30
4H	2H	18.15	19.15	18.56	19.51	19.89	18.77	19.77	19.18	20.13	20.51
	3H	20.31	21.14	20.73	21.54	21.95	20.69	21.52	21.11	21.93	22.33
	4H	21.26	22.00	21.70	22.42	22.87	21.56	22.30	22.00	22.73	23.17
	6H	22.07	22.71	22.54	23.16	23.63	22.31	22.95	22.78	23.40	23.87
	8H	22.36	22.96	22.84	23.41	23.88	22.58	23.17	23.05	23.62	24.10
	12H	22.57	23.09	23.06	23.58	24.06	22.76	23.29	23.25	23.77	24.25
8H	4H	21.58	22.17	22.05	22.62	23.10	21.87	22.46	22.34	22.91	23.39
	6H	22.54	23.02	23.04	23.52	24.00	22.77	23.25	23.27	23.75	24.24
	8H	22.92	23.35	23.45	23.87	24.37	23.13	23.57	23.66	24.08	24.58
	12H	23.22	23.60	23.74	24.09	24.67	23.41	23.79	23.93	24.28	24.86
12H	4H	21.60	22.13	22.09	22.61	23.09	21.90	22.42	22.39	22.91	23.38
	6H	22.60	23.03	23.12	23.55	24.05	22.84	23.27	23.37	23.79	24.29
	8H	23.05	23.42	23.57	23.92	24.50	23.27	23.65	23.79	24.15	24.72

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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: SP1-2506-472-7

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L940-N

Data in this report applies to families of products including EHBR-60-L940-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

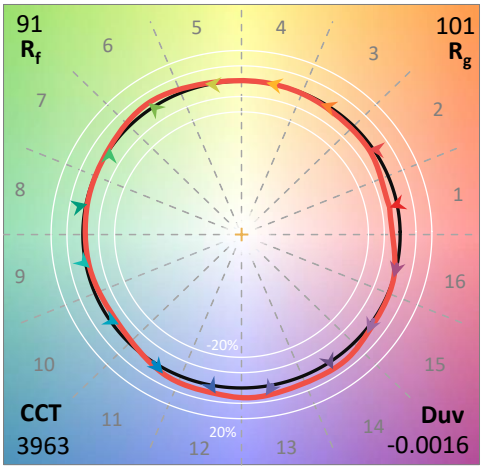
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-7
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-L940-N**
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	3963
CIE u':	0.2267
CIE v':	0.5003
Duv:	-0.0016
CIE x:	0.3810
CIE y:	0.3738
CIE z:	0.2453
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	580
Purity:	26.49712
Rf:	90.7
Rg:	101

CRI (Ra):	93.4
R1:	95.2
R2:	95.1
R3:	93.3
R4:	94.5
R5:	94.2
R6:	92.9
R7:	94.0
R8:	87.7
R9:	66.4
R10:	86.6
R11:	94.4
R12:	75.4
R13:	95.0
R14:	95.4
R15:	92.8



Test Conditions

Stabilization Time:	44M
Operation Time:	1H 44M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-7

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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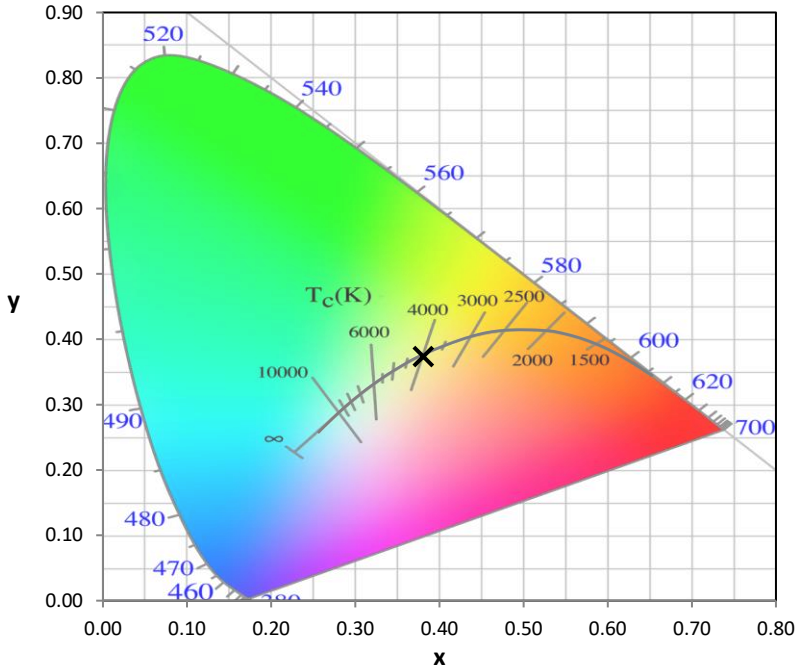
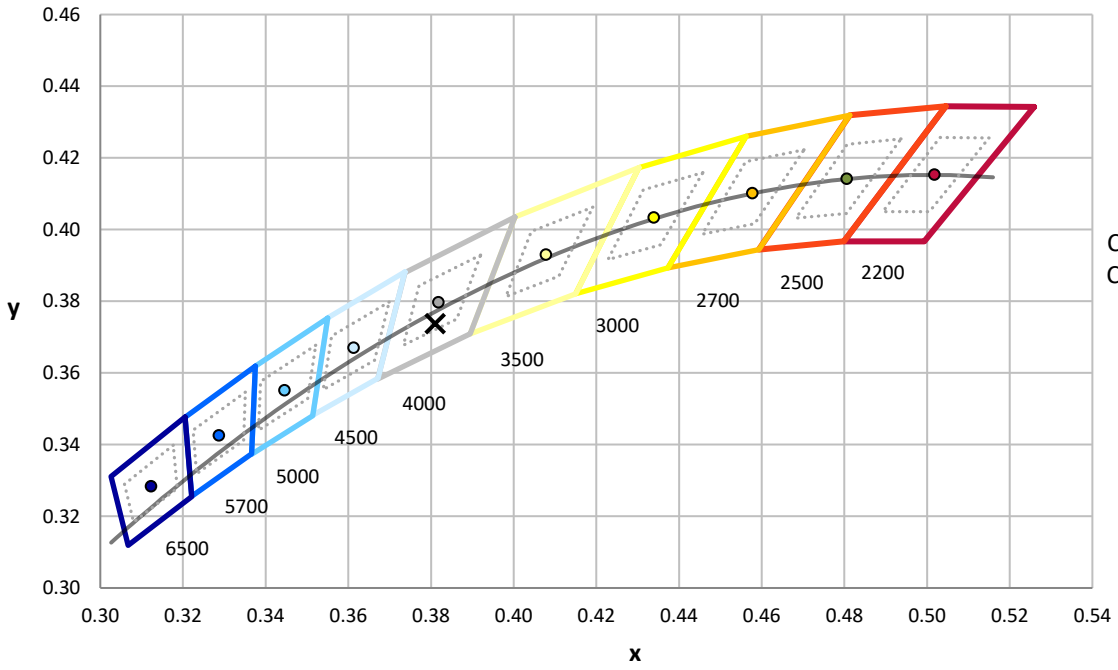
CIE 1931 Chromaticity Diagram



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



CCT = 3963K
CIE x = 0.3810
CIE y = 0.3738
Duv = -0.0016

Point lies inside the ANSI 4000K 4-step quadrangle

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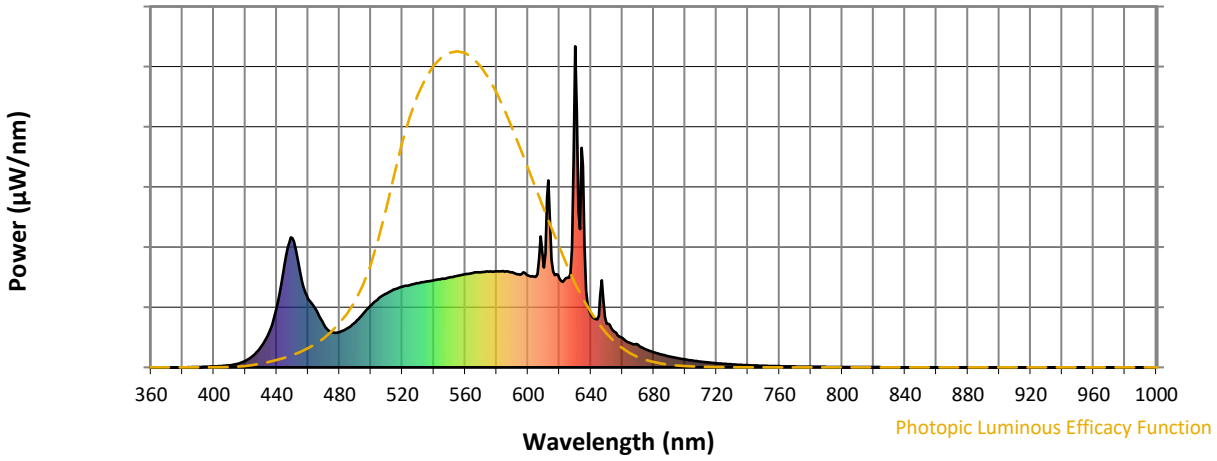
Photopic Flux vs. Wavelength



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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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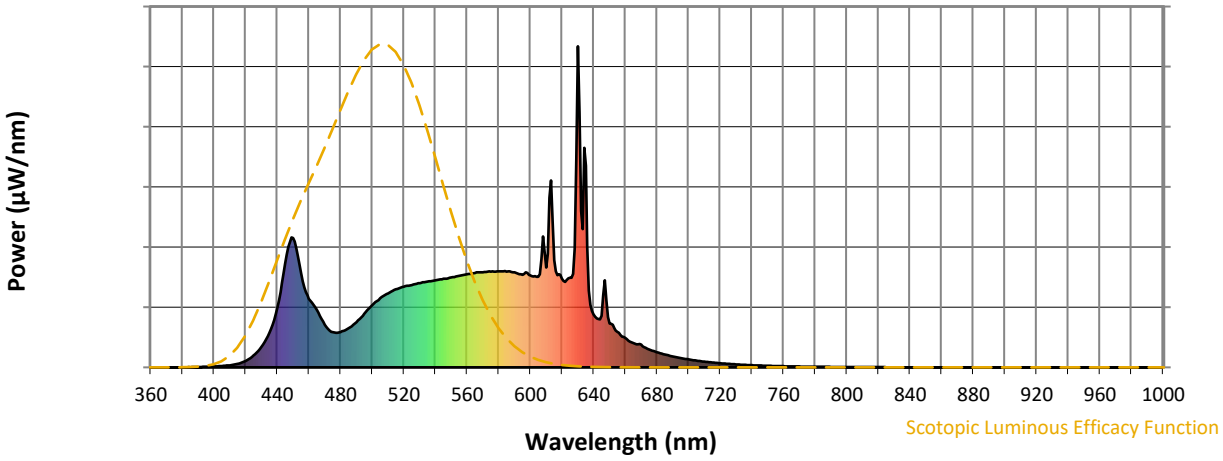
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.76**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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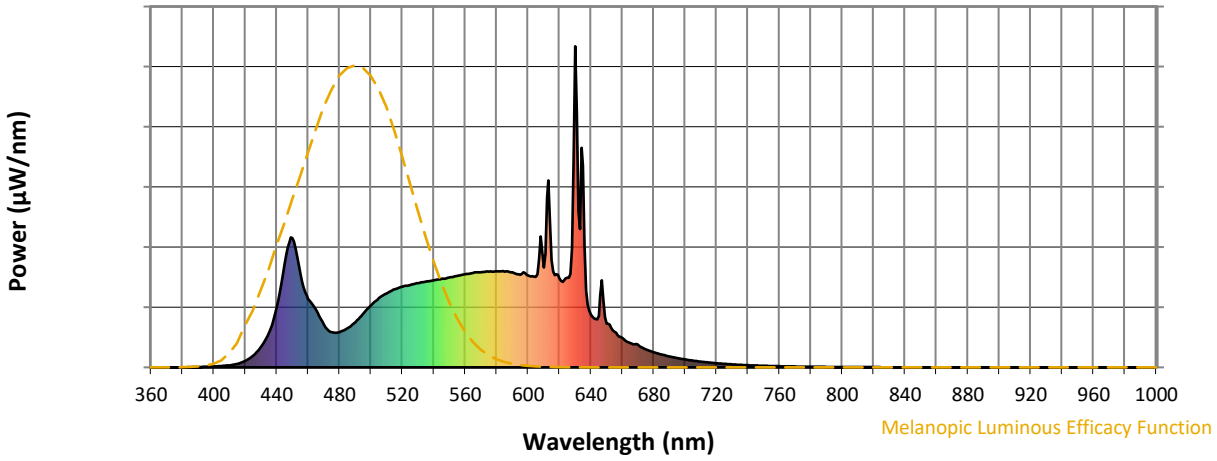
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.64**

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	141	NR	620	276	NR	750	5	NR	880	0	NR
365	0	NR	495	167	NR	625	279	NR	755	4	NR	885	0	NR
370	0	NR	500	193	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	215	NR	635	628	NR	765	3	NR	895	0	NR
380	0	NR	510	230	NR	640	164	NR	770	3	NR	900	0	NR
385	0	NR	515	243	NR	645	161	NR	775	2	NR	905	0	NR
390	1	NR	520	251	NR	650	137	NR	780	2	NR	910	0	NR
395	2	NR	525	256	NR	655	111	NR	785	2	NR	915	0	NR
400	3	NR	530	262	NR	660	92	NR	790	1	NR	920	0	NR
405	4	NR	535	267	NR	665	76	NR	795	1	NR	925	0	NR
410	6	NR	540	271	NR	670	71	NR	800	1	NR	930	0	NR
415	11	NR	545	276	NR	675	56	NR	805	1	NR	935	0	NR
420	20	NR	550	280	NR	680	47	NR	810	1	NR	940	0	NR
425	37	NR	555	285	NR	685	40	NR	815	1	NR	945	0	NR
430	63	NR	560	290	NR	690	34	NR	820	1	NR	950	0	NR
435	108	NR	565	294	NR	695	29	NR	825	1	NR	955	0	NR
440	186	NR	570	296	NR	700	25	NR	830	0	NR	960	0	NR
445	323	NR	575	298	NR	705	21	NR	835	0	NR	965	0	NR
450	403	NR	580	299	NR	710	18	NR	840	0	NR	970	0	NR
455	293	NR	585	298	NR	715	15	NR	845	0	NR	975	0	NR
460	214	NR	590	296	NR	720	13	NR	850	0	NR	980	0	NR
465	180	NR	595	288	NR	725	11	NR	855	0	NR	985	0	NR
470	132	NR	600	286	NR	730	9	NR	860	0	NR	990	0	NR
475	109	NR	605	282	NR	735	8	NR	865	0	NR	995	0	NR
480	110	NR	610	311	NR	740	7	NR	870	0	NR	1000	0	NR
485	121	NR	615	334	NR	745	6	NR	875	0	NR			

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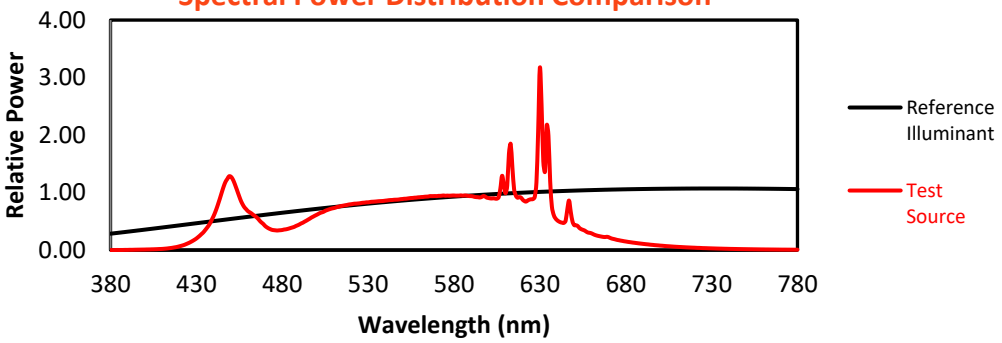
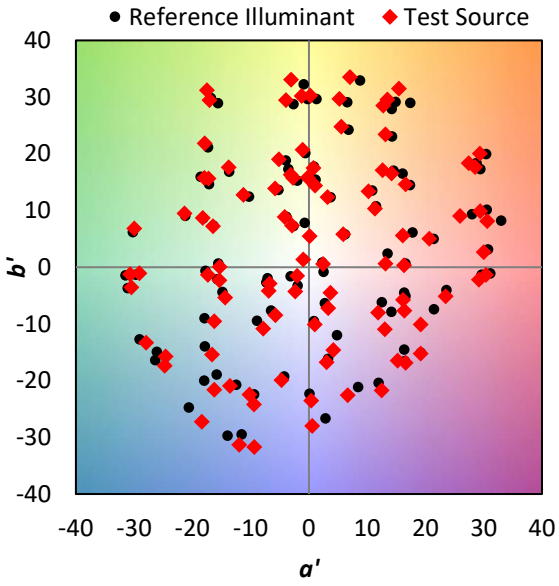
Summary

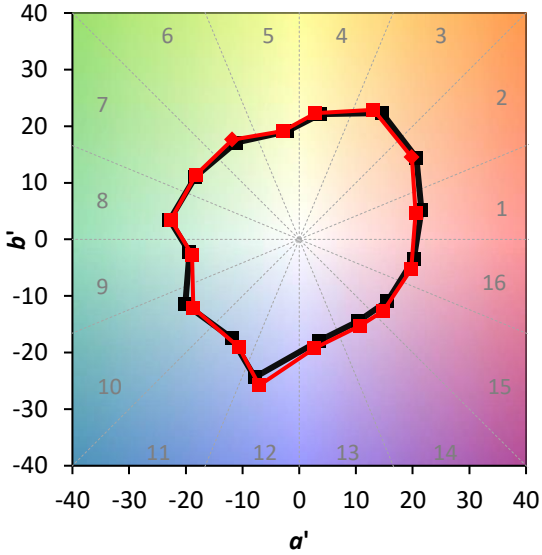
R_f = 90.7
R_g = 101
CIE R_a = 93.4
R_9 = 66.4

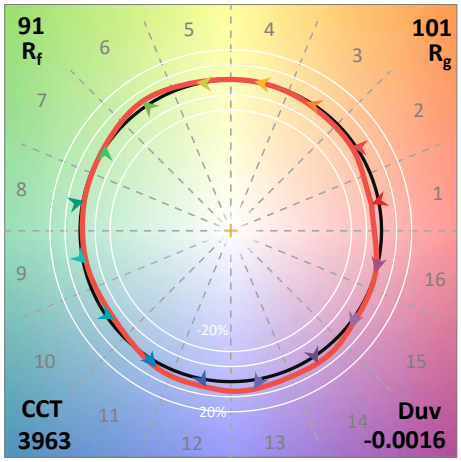
Spectral Power Distribution Comparison

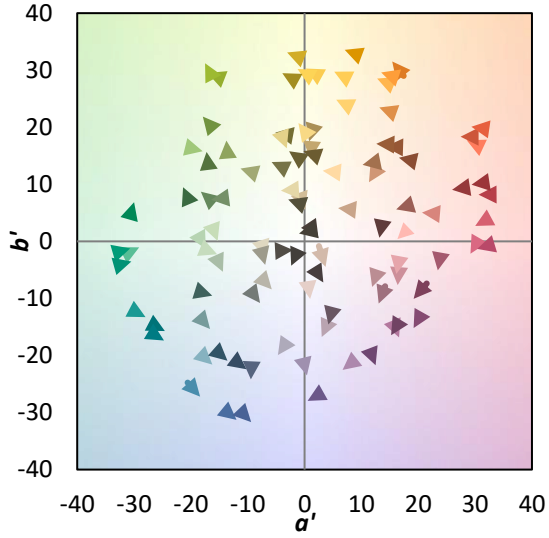


Color Vector Graphics









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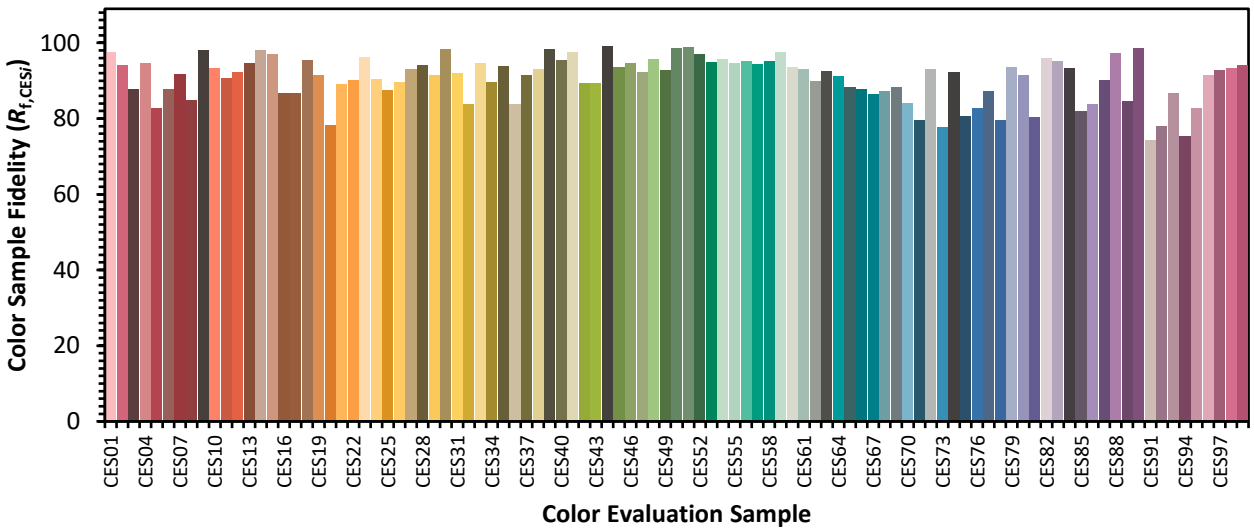
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 90	CES51 = 99	CES76 = 83
CES02 = 62	CES27 = 93	CES52 = 97	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 95	CES78 = 79
CES04 = 69	CES29 = 91	CES54 = 96	CES79 = 94
CES05 = 49	CES30 = 98	CES55 = 95	CES80 = 91
CES06 = 50	CES31 = 92	CES56 = 95	CES81 = 80
CES07 = 42	CES32 = 84	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 95	CES58 = 95	CES83 = 95
CES09 = 29	CES34 = 90	CES59 = 98	CES84 = 93
CES10 = 74	CES35 = 94	CES60 = 93	CES85 = 82
CES11 = 57	CES36 = 84	CES61 = 93	CES86 = 84
CES12 = 63	CES37 = 92	CES62 = 90	CES87 = 90
CES13 = 43	CES38 = 93	CES63 = 92	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 91	CES89 = 84
CES15 = 71	CES40 = 96	CES65 = 88	CES90 = 99
CES16 = 47	CES41 = 98	CES66 = 88	CES91 = 74
CES17 = 49	CES42 = 89	CES67 = 87	CES92 = 78
CES18 = 56	CES43 = 89	CES68 = 87	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 88	CES94 = 75
CES20 = 66	CES45 = 93	CES70 = 84	CES95 = 83
CES21 = 85	CES46 = 95	CES71 = 80	CES96 = 91
CES22 = 78	CES47 = 92	CES72 = 93	CES97 = 93
CES23 = 91	CES48 = 96	CES73 = 78	CES98 = 93
CES24 = 90	CES49 = 93	CES74 = 92	CES99 = 94
CES25 = 71	CES50 = 99	CES75 = 81	



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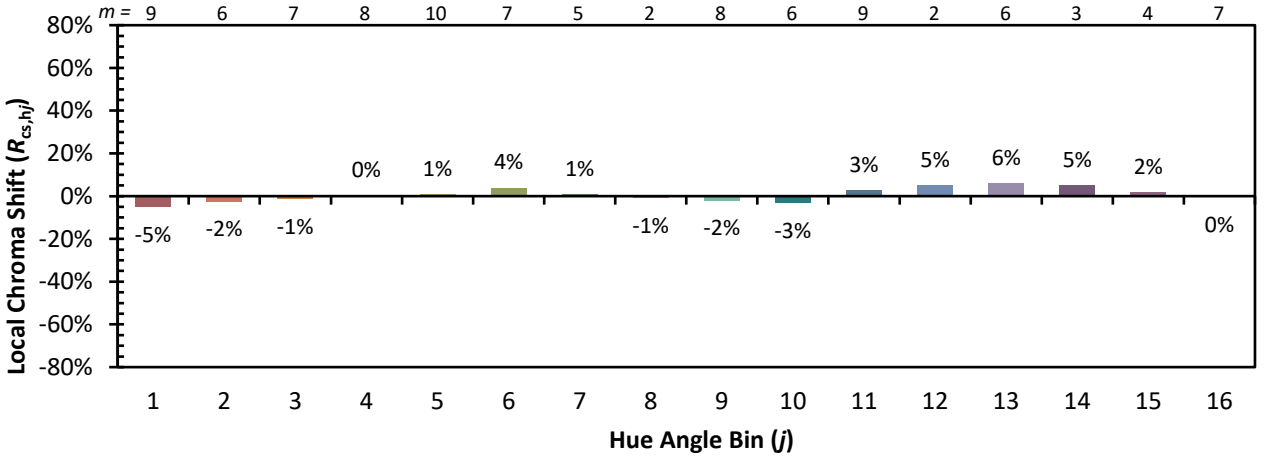
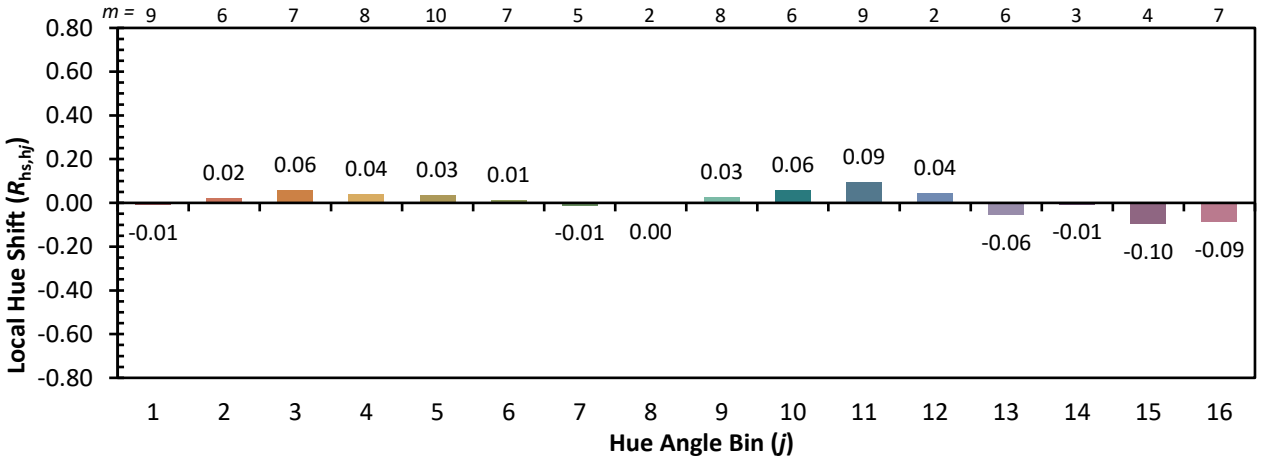
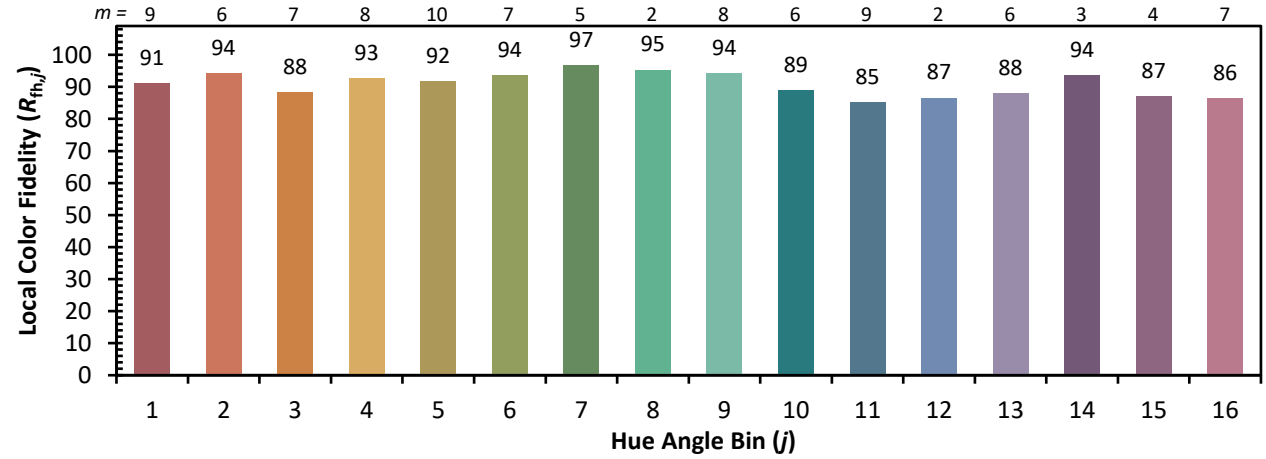
Color Rendition by Hue-Angle Bin







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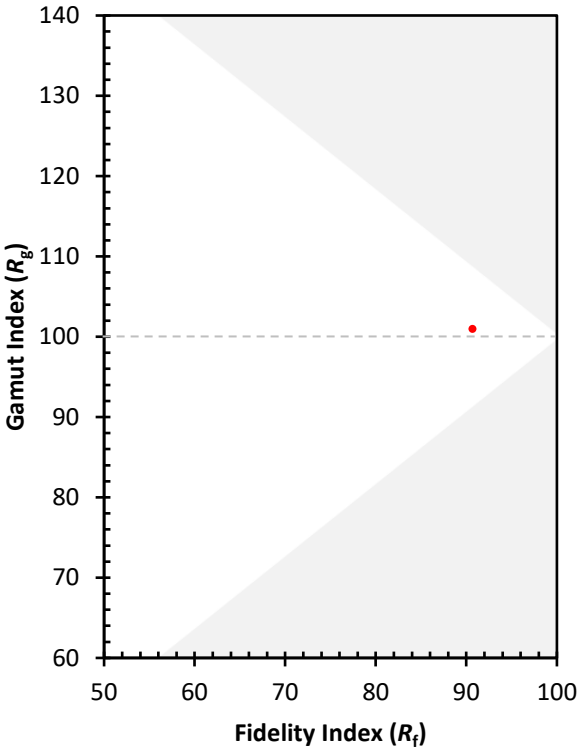
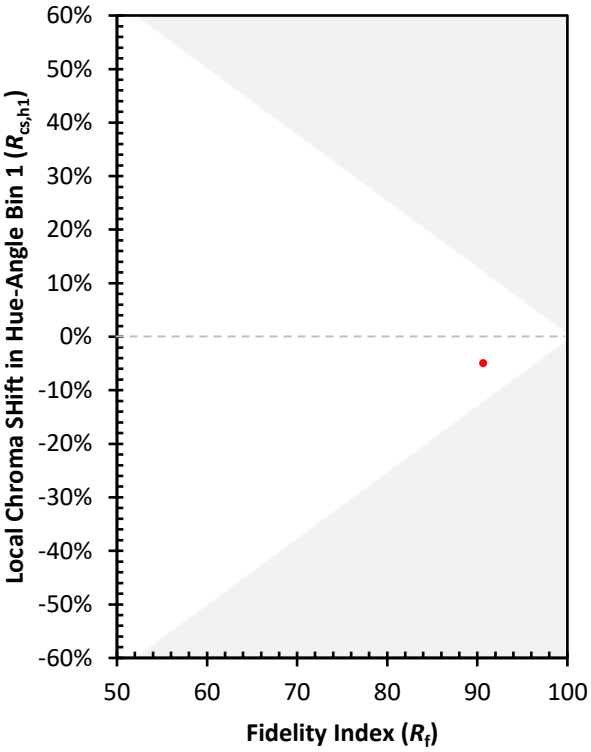
Measure Comparisons





(END OF REPORT)