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: P1433899

Luminaire Tested: EHBR1-48-UNV-ASM-L940-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:	P1433899
	REPORT IS A COMBINATION OF REPORTS P1431836 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-ASM-L940-UPL12
Description:	Elevate Round Highbay at, 49000 lumens, 4000K 90CRI LEDs with ASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	45354.5 lumens
Efficiency:	N/A
Efficacy:	170.5 lumens/watt
Spacing Criteria (0/90/45):	0.84 / 0.99 / 0.92
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

TEST NUMBER: P1433899
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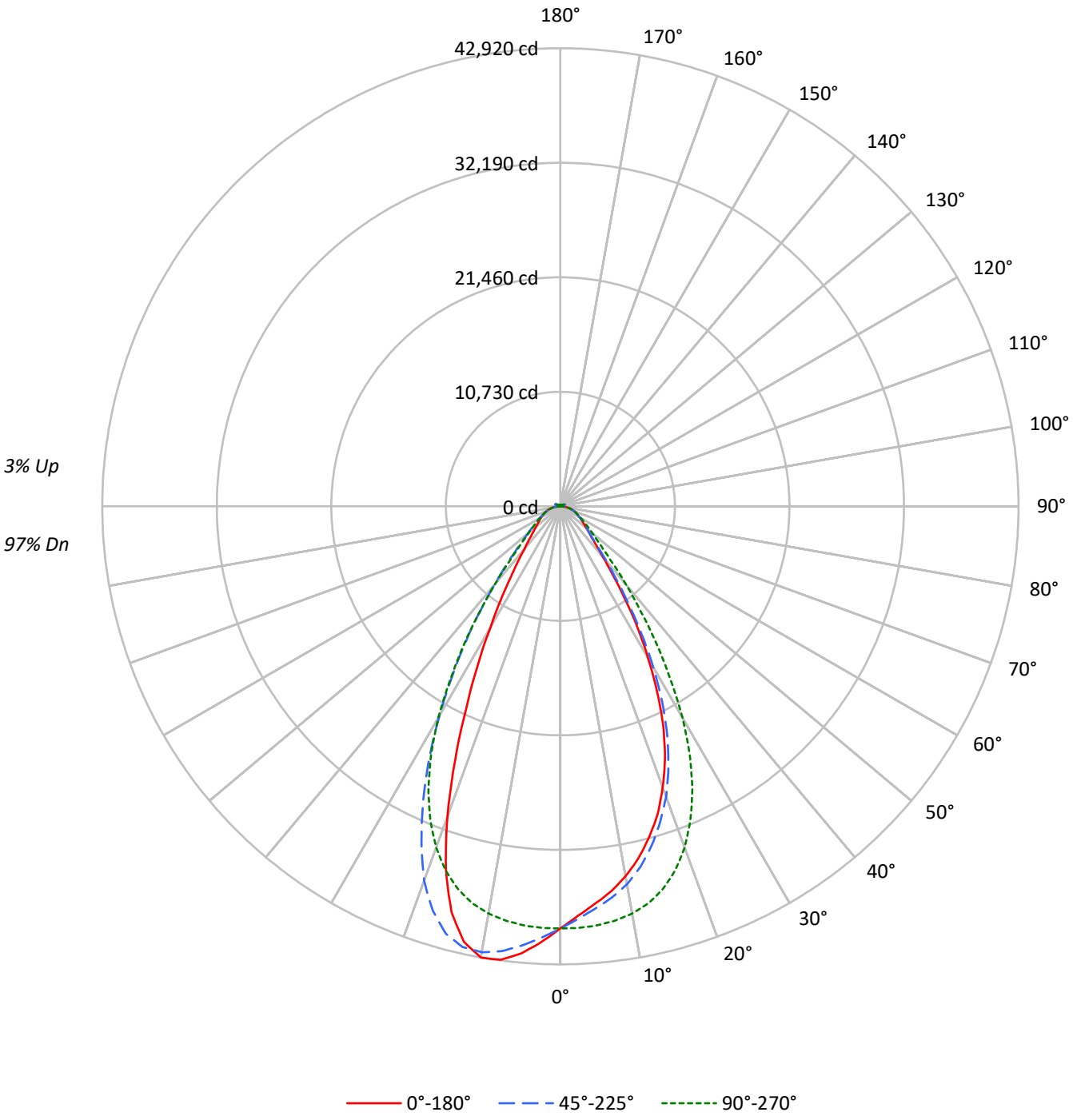
Luminous Intensity Polar Plot



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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	104	104	104	100	100	100	97
1	111	108	105	102	108	105	103	100	101	99	97	97	95	93	93	91	90	88
2	104	98	93	89	102	96	92	88	93	89	86	89	86	83	86	84	81	79
3	98	90	84	79	96	89	83	79	85	81	77	83	79	75	80	77	74	72
4	92	83	77	72	90	82	76	71	79	74	70	77	72	69	75	71	68	66
5	87	77	70	65	85	76	69	65	74	68	64	72	67	63	70	66	62	60
6	82	71	65	60	80	70	64	59	69	63	59	67	62	58	65	61	57	56
7	77	67	60	55	76	66	59	55	64	58	54	63	58	54	61	57	53	52
8	73	62	56	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	52	47	57	51	47	56	50	47	54	50	46	45
10	66	55	49	44	65	54	48	44	53	48	44	52	47	44	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	185752	185752	185752	185752	185752
5°	175040	177087	184621	193476	196957
10°	165661	169170	182352	199688	202013
15°	153026	157113	176968	197639	187733
20°	136303	140894	165509	181669	150536
25°	114228	118551	146489	152380	104300
30°	85466	90420	118943	117756	67855
35°	56896	60332	85310	83932	43945
40°	35882	38347	55156	55511	30289
45°	25566	26630	34996	36500	23462
50°	21295	21465	25989	26665	19937
55°	18798	18842	21218	21778	18161
60°	17405	17257	18374	18762	17300
65°	16614	16464	16749	17076	16685
70°	16137	15857	15874	16179	16349
75°	15341	14877	14846	15373	15815
80°	13958	12985	13042	13958	14931
85°	10166	8438	8438	9648	10661

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
Vertical Angle: 45°
Luminance: 49202 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3761.0	8.3
10°-20°	10232.1	22.6
20°-30°	12000.2	26.5
30°-40°	8345.4	18.4
40°-50°	4147.3	9.1
50°-60°	2480.5	5.5
60°-70°	1745.9	3.8
70°-80°	1124.6	2.5
80°-90°	359.2	0.8
90°-100°	31.7	0.1
100°-110°	198.8	0.4
110°-120°	365.8	0.8
120°-130°	218.7	0.5
130°-140°	134.1	0.3
140°-150°	94.4	0.2
150°-160°	63.4	0.1
160°-170°	38.2	0.1
170°-180°	13.1	0.0
0°-30°	25993.4	57.3
0°-40°	34338.7	75.7
0°-60°	40966.5	90.3
0°-90°	44196.2	97.4
90°-120°	596.4	1.3
90°-150°	1043.5	2.3
90°-180°	1158.0	2.6
0°-180°	45354.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	39554	39554	39554	39554	39554	
5°	37374	37811	39420	41310	42053	3506
15°	32104	32962	37127	41464	39385	8953
25°	22811	23675	29254	30430	20829	10292
35°	10442	11073	15657	15405	8065	6652
45°	4136	4309	5662	5906	3796	3344
55°	2540	2546	2867	2943	2454	2305
65°	1734	1718	1748	1782	1742	1722
75°	1081	1048	1046	1083	1114	1141
85°	349	290	290	332	366	360
90°	9	23	9	26	14	21
95°	14	51	17	45	20	14
105°	70	344	92	369	51	93
115°	316	408	389	452	336	291
125°	229	220	250	245	265	208
135°	168	171	161	179	187	132
145°	144	151	148	151	155	91
155°	133	136	135	135	142	62
165°	132	134	134	135	141	37
175°	135	137	138	139	144	13
180°	139	139	139	139	139	

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Scaled Data Report

TEST NUMBER: P1433899
CATALOG NUMBER: EHBR1-48-UNV-ASM-L940-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	*39554.5*
2.5°	38380.5	38405.6	38674.1	39023.5	39531.6	40042.6	40456.4	40729.4	*40864.4*
5°	37373.9	37513.4	37810.9	38452.4	39419.6	40443.1	41310.2	41877.6	*42053.4*
7.5°	36393.4	36474.2	36971.9	37782.6	39151.8	40746.5	42034.8	42697.1	*42858.9*
10°	*35197.0*	*35380.2*	*35942.4*	*36898.5*	*38743.2*	*40937.8*	*42426.4*	*42901.2*	*42920.5*
12.5°	33789.3	34031.8	34612.6	35818.6	38091.2	40869.6	42295.1	42139.4	*41785.6*
15°	32104.1	32316.9	32961.5	34360.4	37126.9	40465.4	41463.7	40196.1	*39385.4*
17.5°	30284.0	30476.8	31036.8	32577.3	35768.1	39708.8	39728.1	37220.4	*35691.0*
20°	28014.3	28165.6	28957.8	30469.4	34017.0	38495.4	37338.3	32751.6	*30939.6*
22.5°	25599.3	25741.0	26444.9	28018.0	31821.5	36859.2	34010.3	28256.1	*25784.0*
25°	22811.3	22888.4	23674.6	25097.1	29253.7	34854.4	30430.1	23357.9	*20828.6*
27.5°	19674.6	19805.9	20628.4	22081.4	26233.5	32313.3	26617.7	19087.1	*16753.7*
30°	16439.3	16656.5	17392.3	18693.3	22878.7	29055.7	22650.3	15200.5	*13051.8*
32.5°	13419.7	13576.2	14100.6	15460.2	19122.7	25862.6	18840.1	12179.6	*10359.4*
35°	10442.5	10599.1	11073.0	12408.0	15657.4	21867.8	15404.6	9570.2	*8065.4*
37.5°	7982.2	8258.9	8563.0	9646.6	12287.9	18093.2	12279.7	7706.4	*6541.8*
40°	6219.2	6263.7	6646.5	7340.0	9559.9	14147.3	9621.5	6151.8	*5249.8*
42.5°	4978.3	5099.3	5263.9	5783.1	7243.5	10817.8	7562.5	5048.8	*4459.1*
45°	4136.5	4184.0	4308.6	4657.2	5662.2	7960.7	5905.5	4259.7	*3796.1*
47.5°	3618.8	3598.0	3678.1	3939.2	4611.2	6152.5	4786.2	3653.6	*3328.8*
50°	3173.7	3161.2	3199.0	3373.3	3873.2	4720.9	3974.0	3189.3	*2971.3*
52.5°	2828.1	2839.3	2843.0	2951.3	3327.3	3850.2	3384.4	2842.3	*2695.3*
55°	2540.3	2554.5	2546.3	2626.4	2867.4	3236.8	2943.1	2556.0	*2454.3*
57.5°	2315.6	2305.3	2294.1	2337.1	2518.1	2745.8	2556.0	2311.9	*2244.4*
60°	2092.4	2082.7	2074.6	2102.7	2208.8	2377.9	2255.5	2099.0	*2079.7*
62.5°	1901.0	1895.1	1894.3	1889.1	1970.7	2077.6	1994.5	1907.6	*1890.6*
65°	1734.1	1727.5	1718.5	1710.4	1748.2	1847.6	1782.3	1735.6	*1741.5*
67.5°	1567.2	1567.2	1551.7	1539.1	1576.2	1628.1	1599.8	1573.2	*1579.9*
70°	1415.9	1416.7	1391.4	1381.8	1392.9	1448.5	1419.6	1423.4	*1434.5*
72.5°	1253.5	1235.6	1217.1	1216.4	1217.8	1260.9	1251.3	1260.1	*1272.1*
75°	1080.7	1059.9	1048.0	1034.7	1045.8	1078.5	1082.9	1095.5	*1114.1*
77.5°	913.8	881.9	872.2	865.6	858.1	895.2	909.4	926.4	*953.8*
80°	734.3	699.4	683.1	673.5	686.1	703.1	734.3	746.9	*785.5*
82.5°	543.0	517.0	496.9	496.2	502.2	517.7	544.5	568.1	*590.4*
85°	349.4	307.8	290.0	296.7	290.0	313.8	331.6	359.7	*366.4*
87.5°	126.1	98.7	94.2	103.9	101.6	109.0	124.6	135.7	*136.5*
90°	8.9	13.9	23.3	15.1	8.9	15.3	26.0	17.0	*14.1*
92.5°	12.7	20.8	37.1	19.5	11.4	20.2	36.1	21.3	*17.2*
95°	14.5	23.9	51.4	25.8	17.1	24.6	45.4	23.2	*19.8*
97.5°	19.0	26.4	59.0	31.4	25.9	30.3	51.1	24.5	*22.8*
100°	24.6	30.7	91.5	39.0	34.0	34.0	91.7	27.6	*25.3*
102.5°	40.9	64.6	193.5	72.2	51.0	66.1	210.7	52.2	*29.7*
105°	69.7	135.3	344.2	149.8	91.6	148.7	369.0	127.8	*51.1*
107.5°	119.7	241.7	454.5	264.3	172.4	275.7	474.8	248.0	*111.8*
110°	222.4	320.5	476.4	362.5	274.9	384.6	517.9	338.1	*220.7*

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Scaled Data Report

TEST NUMBER: P1433899
CATALOG NUMBER: EHBR1-48-UNV-ASM-L940-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	300.0	344.2	456.4	400.0	357.5	428.4	506.1	374.4	*303.3*
115°	315.6	331.1	407.6	390.6	389.0	422.1	452.2	373.1	*335.9*
117.5°	304.9	302.3	346.3	352.0	375.8	386.4	390.9	350.6	*337.7*
120°	282.5	269.2	289.3	307.5	339.5	335.1	330.4	317.4	*318.9*
122.5°	254.2	239.2	248.7	262.6	294.6	285.2	279.7	284.4	*293.3*
125°	228.7	213.0	220.1	224.0	250.1	240.7	244.7	255.6	*265.2*
127.5°	205.6	194.8	199.5	196.5	213.3	209.0	219.1	231.2	*239.6*
130°	190.0	181.2	187.1	179.1	187.2	187.7	201.0	211.9	*217.1*
132.5°	177.6	171.9	179.2	169.3	171.1	175.3	187.9	197.7	*201.0*
135°	168.2	163.9	171.1	162.5	161.2	167.1	179.2	185.0	*187.2*
137.5°	160.8	157.2	165.0	158.3	155.6	161.6	170.5	175.8	*175.2*
140°	154.7	151.8	159.5	153.9	152.6	158.7	162.4	168.3	*168.5*
142.5°	148.1	145.6	154.7	150.8	149.6	155.0	156.9	161.5	*161.0*
145°	143.9	142.1	151.0	148.3	148.5	152.7	150.7	155.9	*155.4*
147.5°	140.4	139.1	146.6	145.3	145.3	148.3	146.5	151.0	*150.5*
150°	137.5	136.2	143.0	141.6	142.3	144.8	141.6	146.6	*147.5*
152.5°	134.6	132.6	138.7	137.3	138.0	140.5	138.0	143.8	*143.8*
155°	132.9	131.0	135.8	134.3	135.1	136.4	135.1	140.9	*141.6*
157.5°	132.7	130.5	134.3	133.5	133.5	134.8	134.3	139.4	*140.1*
160°	132.3	130.9	134.0	133.2	133.3	134.5	134.7	139.2	*139.9*
162.5°	131.9	130.5	134.2	133.5	133.5	133.5	134.4	138.9	*140.4*
165°	132.1	131.4	133.8	133.8	133.9	134.5	134.8	138.7	*140.9*
167.5°	132.1	131.5	134.6	134.6	134.8	134.2	135.6	139.7	*141.9*
170°	133.0	132.3	134.8	134.9	134.3	135.0	135.8	140.0	*142.1*
172.5°	134.5	133.8	137.0	136.4	136.5	136.5	137.5	140.9	*143.7*
175°	135.4	134.6	137.2	137.2	138.0	138.1	139.0	141.7	*144.5*
177.5°	136.8	136.0	137.2	137.2	137.3	138.8	140.2	143.1	*146.5*
180°	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	*138.8*

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Scaled Data Report

TEST NUMBER: P1433899
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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	18.44	19.61	18.85	19.98	20.36	19.21	20.37	19.62	20.74	21.12
	3H	20.26	21.30	20.69	21.68	22.11	20.77	21.81	21.20	22.19	22.62
	4H	21.00	21.96	21.45	22.37	22.82	21.42	22.38	21.87	22.79	23.24
	6H	21.57	22.46	22.03	22.88	23.34	21.91	22.80	22.38	23.23	23.69
	8H	21.75	22.59	22.23	23.04	23.51	22.07	22.91	22.55	23.36	23.83
	12H	21.85	22.66	22.33	23.09	23.59	22.15	22.96	22.63	23.39	23.89
4H	2H	18.96	19.93	19.41	20.33	20.78	19.59	20.56	20.04	20.96	21.41
	3H	21.00	21.80	21.46	22.26	22.72	21.40	22.20	21.86	22.66	23.12
	4H	21.87	22.58	22.35	23.05	23.56	22.19	22.90	22.67	23.37	23.88
	6H	22.56	23.18	23.07	23.68	24.21	22.82	23.44	23.33	23.94	24.47
	8H	22.79	23.37	23.30	23.86	24.40	23.03	23.60	23.54	24.10	24.63
	12H	22.93	23.43	23.46	23.97	24.50	23.15	23.65	23.68	24.18	24.72
8H	4H	22.13	22.71	22.64	23.20	23.73	22.43	23.01	22.95	23.50	24.04
	6H	22.95	23.41	23.49	23.96	24.50	23.20	23.67	23.74	24.21	24.75
	8H	23.25	23.66	23.81	24.23	24.78	23.48	23.90	24.04	24.46	25.01
	12H	23.45	23.82	24.01	24.36	24.99	23.66	24.03	24.22	24.57	25.20
12H	4H	22.14	22.65	22.67	23.18	23.71	22.44	22.95	22.98	23.48	24.02
	6H	22.98	23.40	23.55	23.96	24.52	23.24	23.66	23.81	24.22	24.77
	8H	23.33	23.70	23.89	24.24	24.87	23.57	23.94	24.13	24.48	25.11

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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

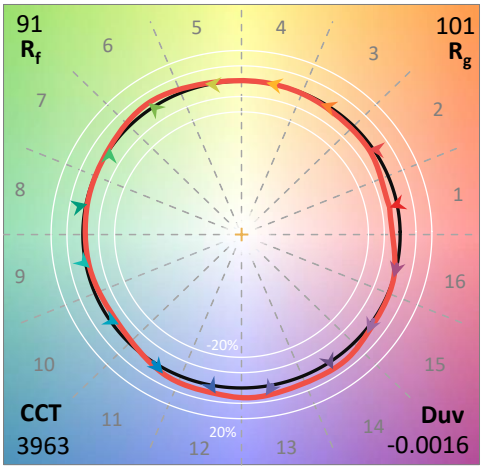
Test Information

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

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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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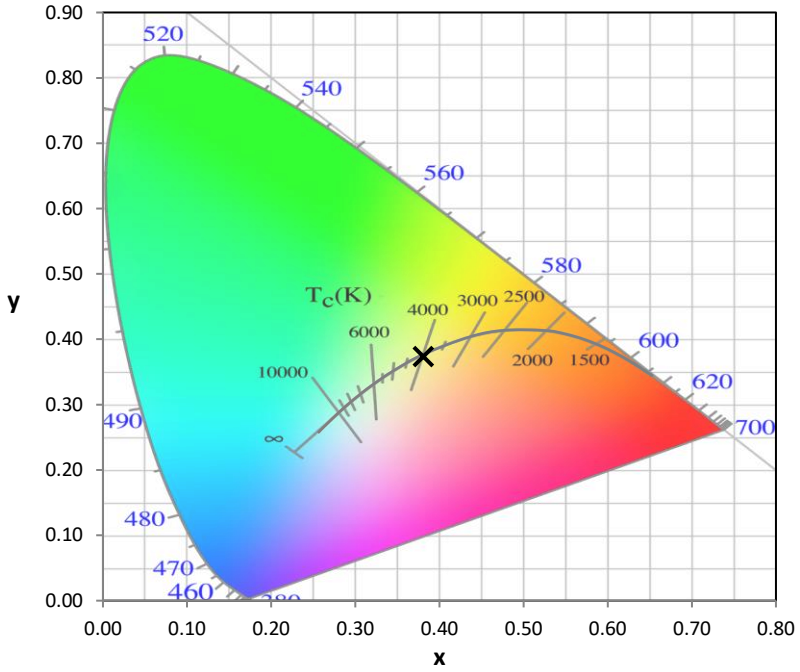
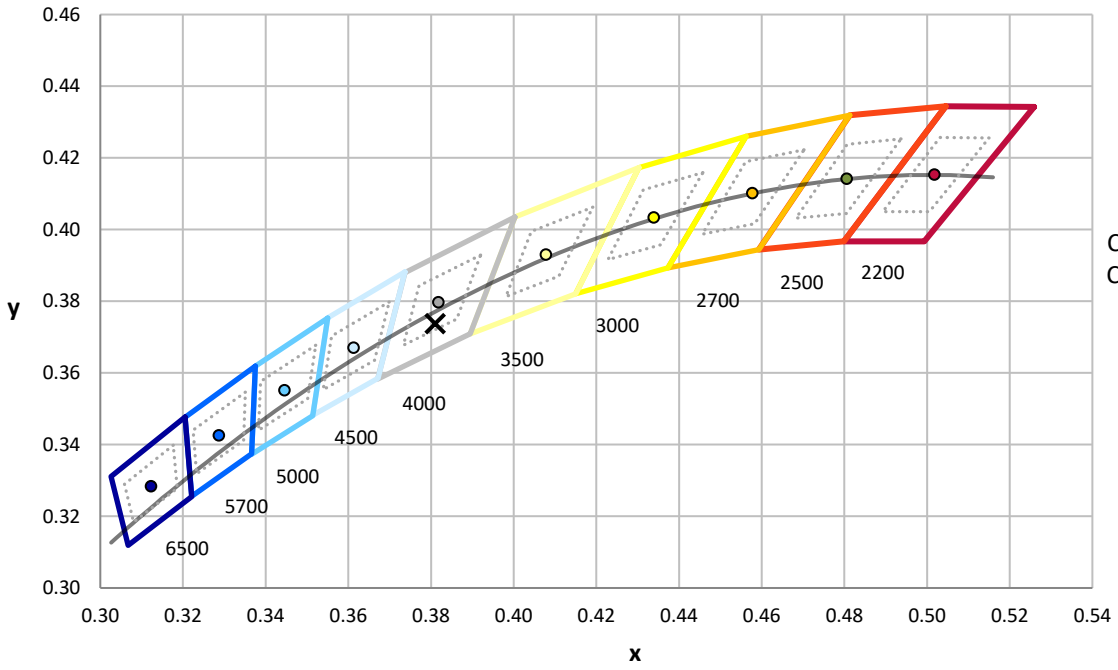
CIE 1931 Chromaticity Diagram



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



CCT = 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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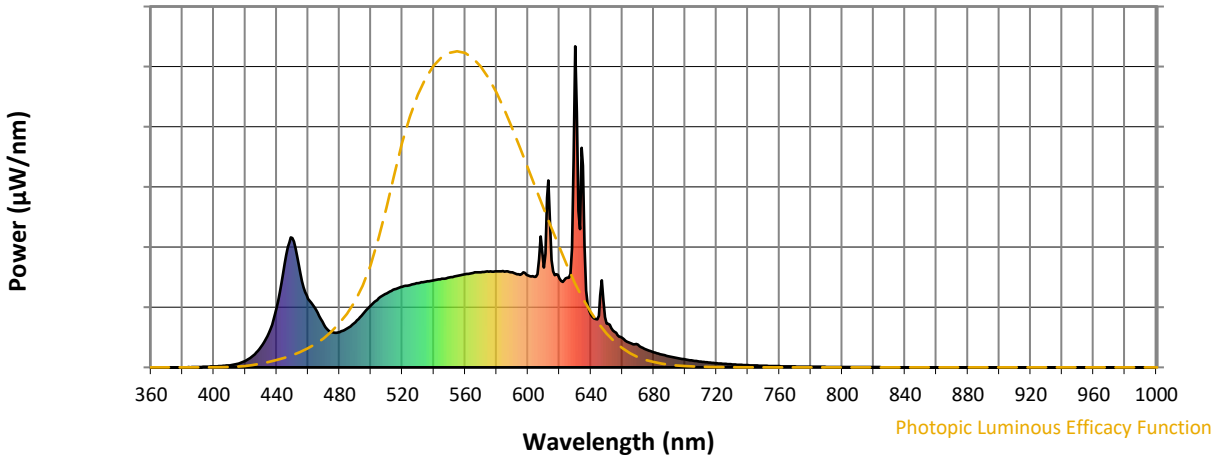
Photopic Flux vs. Wavelength



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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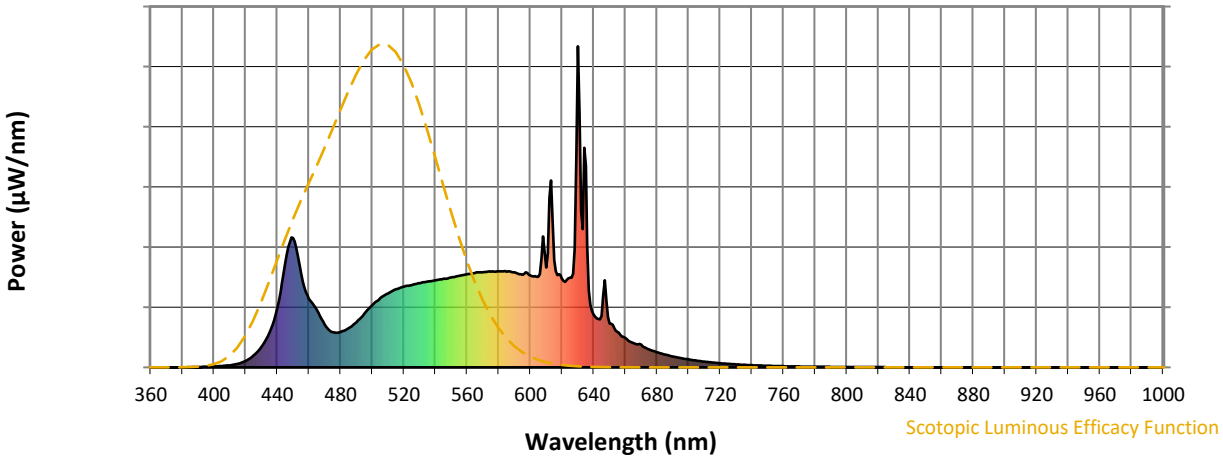
Scotopic Flux vs. Wavelength



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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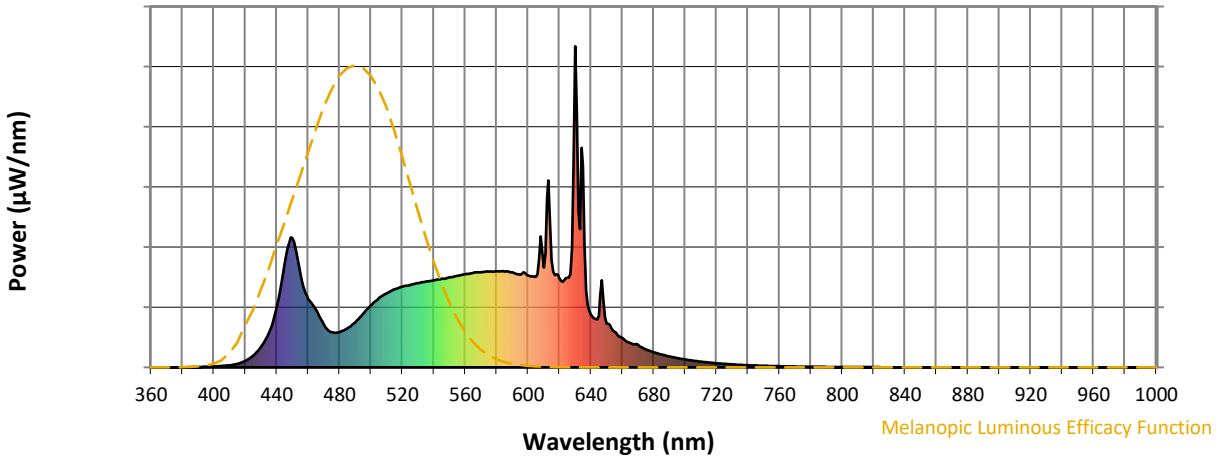
Melanopic Flux vs. Wavelength



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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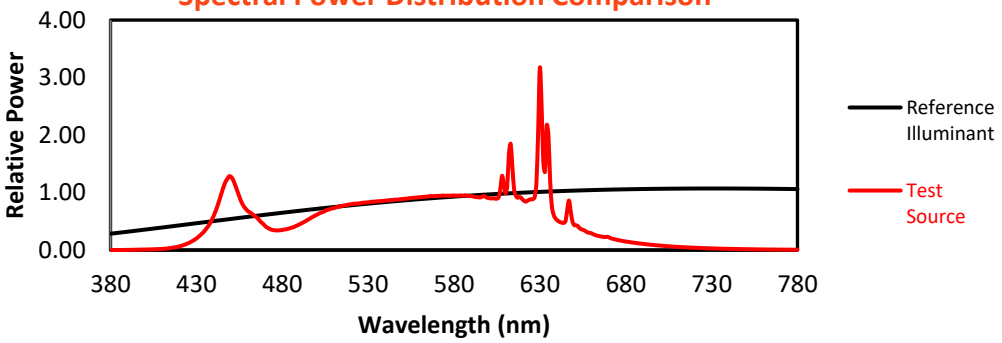
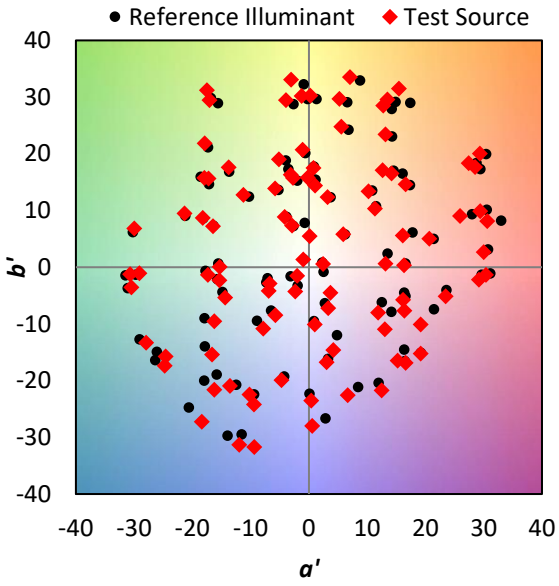
Summary

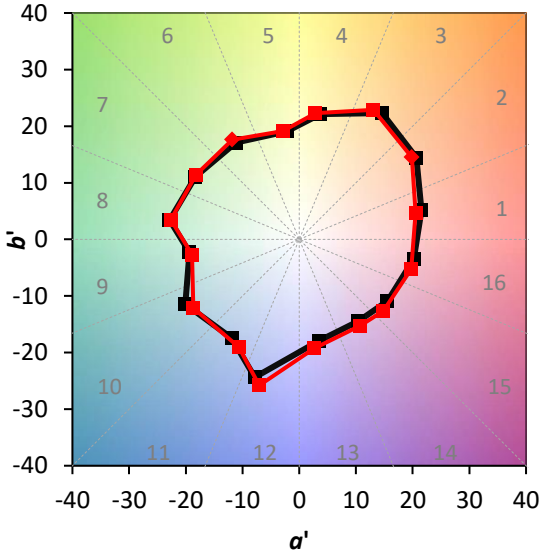
R_f = 90.7
R_g = 101
CIE R_a = 93.4
R_9 = 66.4

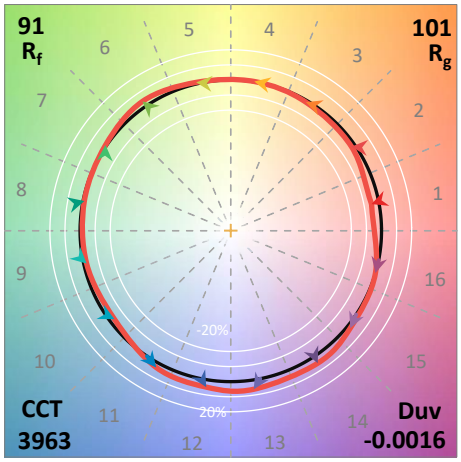
Spectral Power Distribution Comparison

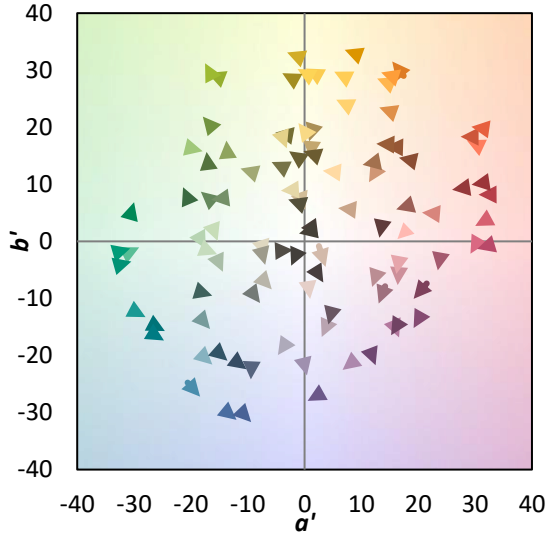


Color Vector Graphics









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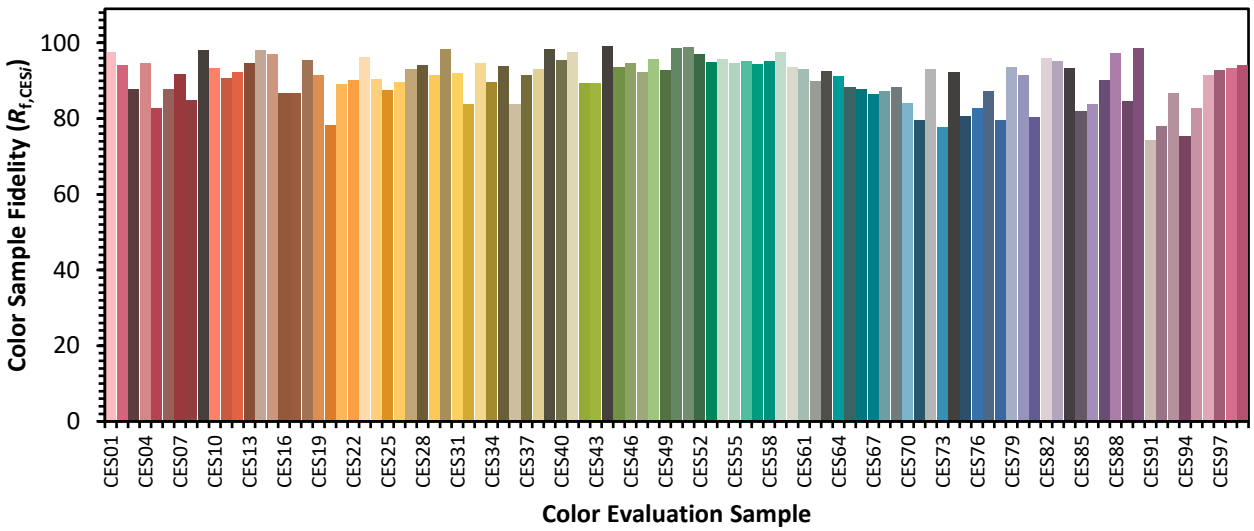
Individual Sample Fidelity Index ($R_{f,i}$)

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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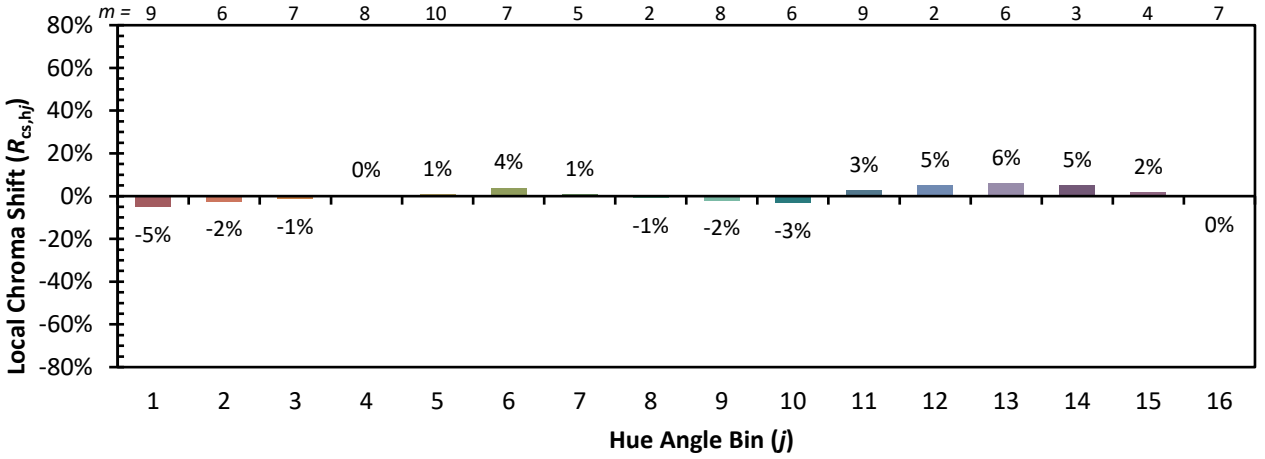
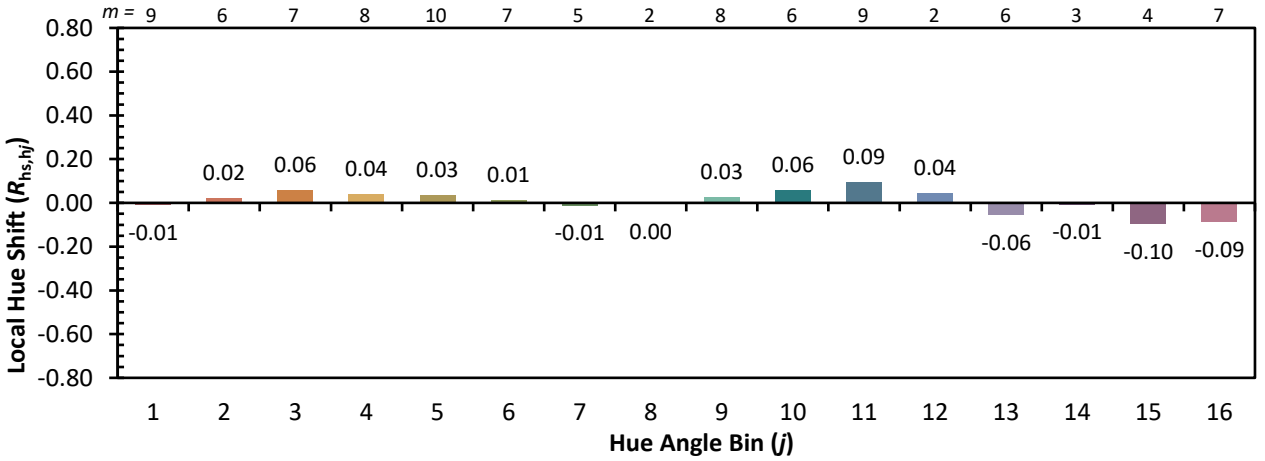
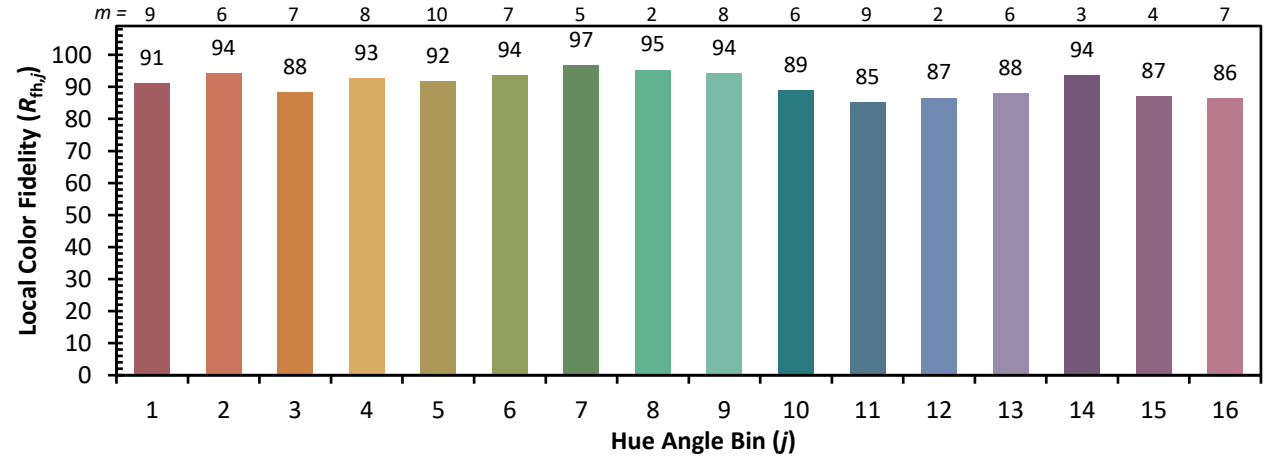
Color Rendition by Hue-Angle Bin







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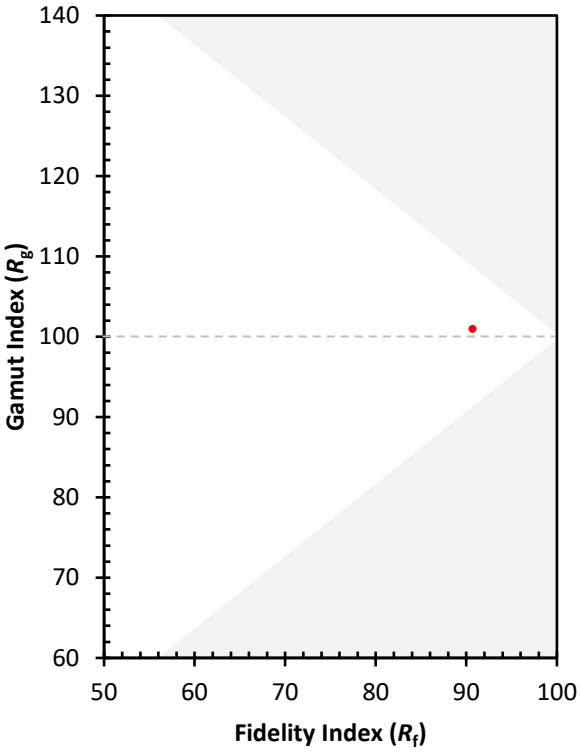
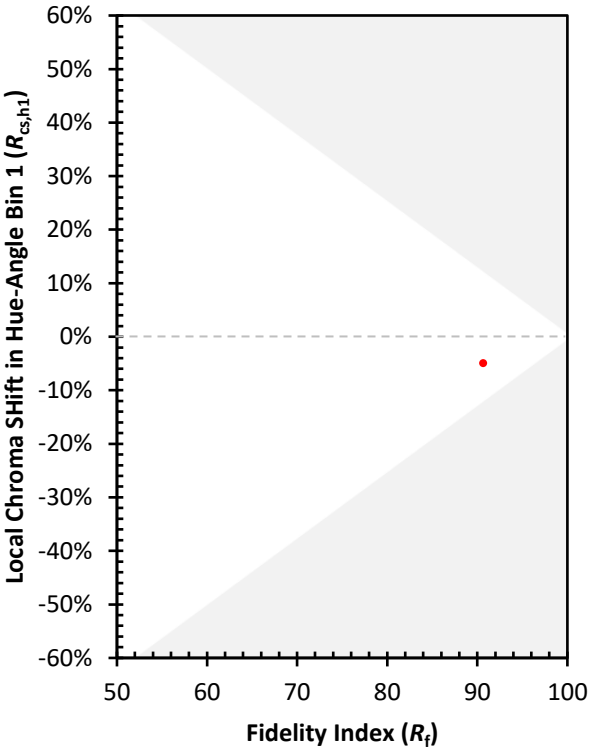
Measure Comparisons





(END OF REPORT)