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: P1433274

Luminaire Tested: EHBR1-48-UNV-A1-L930-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:	P1433274
	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-L930-UPL12
Description:	Elevate Round Highbay at, 49000 lumens, 3000K 90CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	43303.2 lumens
Efficiency:	N/A
Efficacy:	162.8 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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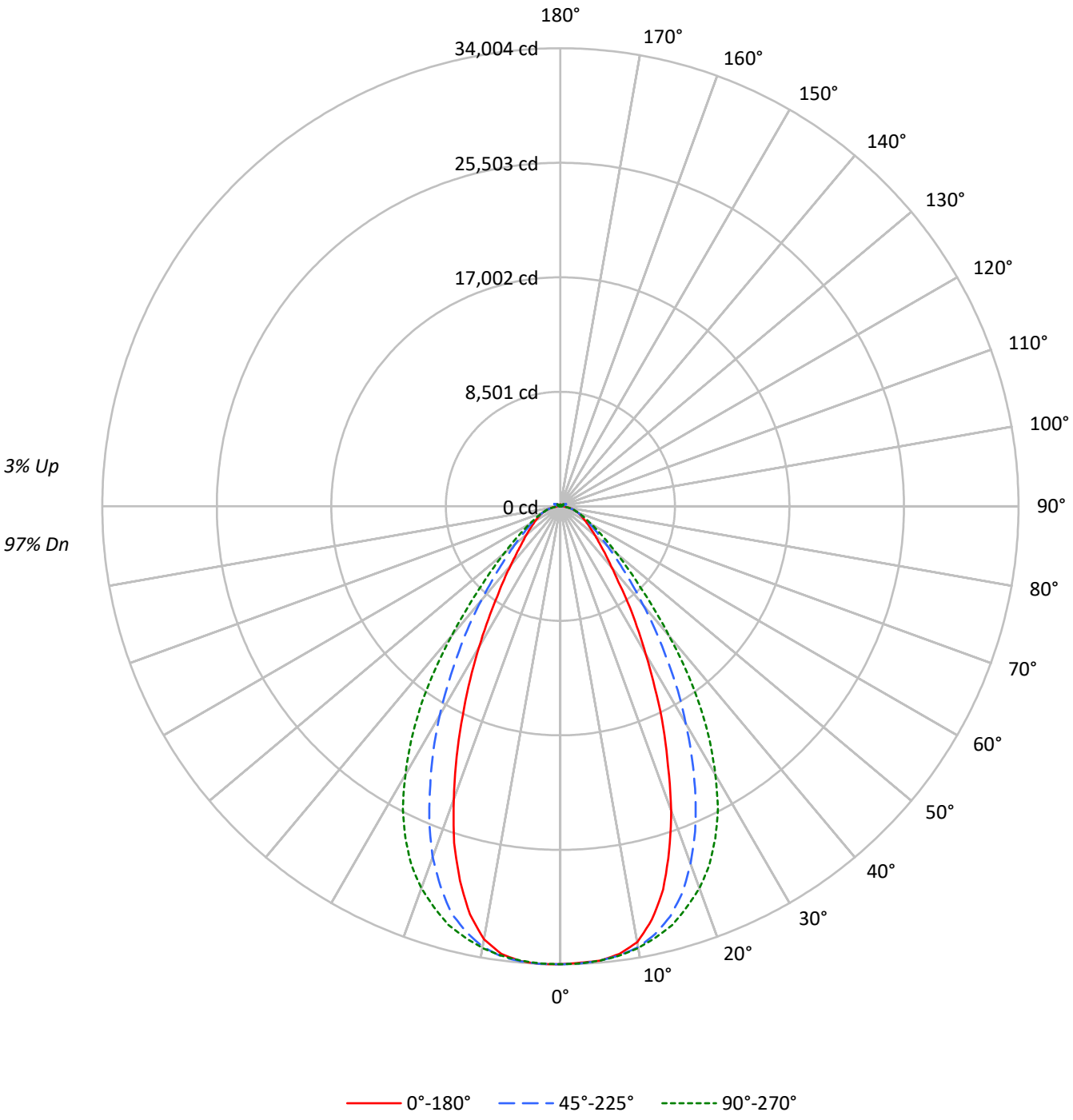
Luminous Intensity Polar Plot



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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°	159618	159618	159618	159618	159618
5°	158563	158540	158546	158826	158730
10°	154644	156446	156694	156252	153632
15°	140391	150188	153279	148983	137167
20°	116991	137402	146789	134816	112436
25°	90476	118806	136174	114467	85788
30°	65949	96753	119618	93082	62596
35°	47538	74573	98308	71362	44435
40°	34202	55079	72448	52754	33146
45°	26949	40295	50600	38548	26017
50°	22360	30275	36623	29276	22020
55°	19528	23906	27735	23505	19265
60°	17612	19957	22100	19833	17736
65°	16471	17603	18572	17658	16628
70°	15642	16016	16510	16105	15797
75°	14593	14502	14593	14544	14734
80°	13181	12234	11962	12424	13181
85°	9133	7748	7664	7873	9404

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 53016 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3209.8	7.4
10°-20°	8626.8	19.9
20°-30°	10490.1	24.2
30°-40°	8544.9	19.7
40°-50°	5130.4	11.8
50°-60°	2952.6	6.8
60°-70°	1847.8	4.3
70°-80°	1088.3	2.5
80°-90°	320.2	0.7
90°-100°	28.5	0.1
100°-110°	188.0	0.4
110°-120°	347.6	0.8
120°-130°	206.6	0.5
130°-140°	126.2	0.3
140°-150°	89.2	0.2
150°-160°	59.4	0.1
160°-170°	35.0	0.1
170°-180°	11.9	0.0
0°-30°	22326.6	51.6
0°-40°	30871.6	71.3
0°-60°	38954.5	90.0
0°-90°	42210.8	97.5
90°-120°	564.1	1.3
90°-150°	986.1	2.3
90°-180°	1092.0	2.5
0°-180°	43303.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	33990	33990	33990	33990	33990	
5°	33856	33851	33852	33912	33891	3200
15°	29453	31509	32157	31256	28777	8103
25°	18068	23725	27194	22859	17132	8232
35°	8725	13687	18043	13097	8156	5520
45°	4360	6520	8187	6237	4210	3439
55°	2639	3231	3748	3176	2603	2386
65°	1719	1837	1938	1843	1736	1709
75°	1028	1022	1028	1024	1038	1089
85°	314	266	263	271	323	335
90°	9	22	8	23	8	20
95°	15	48	15	41	14	14
105°	67	329	86	350	44	89
115°	302	388	370	430	316	278
125°	219	208	236	230	249	199
135°	162	162	151	169	175	126
145°	136	142	139	144	147	87
155°	124	126	125	127	134	58
165°	123	123	121	123	128	35
175°	127	126	123	124	129	12
180°	126	126	126	126	126	

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Scaled Data Report

TEST NUMBER: P1433274
CATALOG NUMBER: EHBR1-48-UNV-A1-L930-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	33989.5	33989.5	33989.5	33989.5	33989.5	33989.5	*33989.5*	33989.5	33989.5
2.5°	*33914.7*	*33945.4*	*33958.2*	*33965.4*	*33973.1*	*33994.5*	*34003.8*	*33988.8*	*34001.6*
5°	33855.7	33857.8	33850.7	33882.7	33852.1	33873.5	*33911.9*	33897.0	33891.3
7.5°	33511.1	33582.3	33624.3	33635.0	33640.7	33667.0	*33694.1*	33541.0	33518.3
10°	32856.2	32975.0	33239.2	33314.6	33291.8	33334.6	*33197.9*	32797.8	32641.2
12.5°	31420.3	31838.2	32524.5	32829.9	32774.3	32812.0	*32346.4*	31502.2	31016.7
15°	29453.3	30066.3	31508.6	32110.8	32157.1	32110.8	*31255.8*	29610.6	28777.0
17.5°	26838.6	27970.4	30094.0	31263.0	31196.0	31218.1	*29594.9*	27163.1	26209.2
20°	24045.0	25251.7	28240.2	30190.1	30169.5	30045.6	*27708.5*	24501.4	23108.9
22.5°	20885.6	22441.8	26115.9	28871.0	28863.1	28656.7	*25411.1*	21594.6	20095.4
25°	18068.0	19594.2	23725.4	27255.0	27193.8	26958.9	*22859.0*	18695.1	17131.8
27.5°	15154.9	16741.7	21173.2	25361.3	25319.3	25063.0	*20419.3*	15984.9	14497.1
30°	12685.3	14136.2	18610.4	23277.6	23008.5	22979.3	*17904.3*	13475.5	12040.3
32.5°	10569.5	11813.2	16194.2	21098.5	20622.2	20758.2	*15397.7*	11376.8	9954.5
35°	8725.0	9820.6	13686.9	18578.4	18043.0	18218.8	*13097.4*	9335.1	8155.5
37.5°	7081.3	8134.9	11561.9	16127.3	15308.6	15640.4	*11074.3*	7796.0	6850.5
40°	5928.0	6763.8	9546.5	13437.8	12557.1	13097.4	*9143.6*	6502.5	5745.0
42.5°	5107.8	5653.2	7879.3	10869.9	10194.4	10577.4	*7536.1*	5436.0	4869.4
45°	4360.3	4795.3	6519.6	8577.7	8186.8	8542.0	*6236.9*	4635.2	4209.5
47.5°	3808.6	4144.0	5367.0	6926.7	6684.0	6796.5	*5209.0*	4045.0	3699.0
50°	3332.4	3591.6	4512.0	5590.6	5458.1	5527.2	*4363.2*	3519.6	3281.8
52.5°	2962.2	3152.3	3784.4	4594.5	4529.1	4539.7	*3718.3*	3096.0	2923.7
55°	2639.0	2771.4	3230.6	3763.8	3748.1	3751.0	*3176.5*	2743.6	2603.4
57.5°	2356.4	2466.1	2776.4	3161.5	3138.8	3143.8	*2750.8*	2436.8	2346.4
60°	2117.2	2190.5	2399.1	2671.7	2656.8	2650.4	*2384.2*	2163.4	2132.1
62.5°	1905.1	1952.0	2096.5	2290.1	2261.7	2268.1	*2095.8*	1954.2	1907.8
65°	1719.2	1735.6	1837.4	1957.0	1938.5	1954.2	*1843.1*	1746.3	1735.6
67.5°	1537.7	1554.1	1613.9	1694.3	1672.9	1685.8	*1615.3*	1558.3	1549.1
70°	1372.5	1371.8	1405.3	1448.7	1448.7	1450.9	*1413.1*	1379.0	1386.1
72.5°	1201.7	1197.4	1207.4	1236.5	1228.7	1255.8	*1216.0*	1205.3	1206.7
75°	1028.0	1015.9	1021.6	1036.5	1028.0	1042.2	*1024.5*	1037.9	1037.9
77.5°	864.2	841.5	834.4	836.5	820.8	842.2	*846.4*	855.7	877.1
80°	693.4	661.3	643.6	642.9	629.3	642.9	*653.6*	672.7	693.4
82.5°	514.7	486.9	457.1	451.4	442.8	450.6	*464.9*	487.6	521.1
85°	313.9	284.7	266.3	256.3	263.4	263.4	*270.6*	302.5	323.2
87.5°	113.2	98.9	81.2	81.9	84.0	86.9	*90.5*	113.9	124.6
90°	9.2	12.6	21.6	13.7	7.8	13.2	*22.7*	11.9	8.5
92.5°	12.1	19.2	34.8	17.9	10.2	17.9	*32.3*	16.1	11.5
95°	14.6	22.1	48.5	24.0	15.0	22.1	*41.3*	17.9	13.9
97.5°	18.2	24.5	55.7	29.3	23.3	27.5	*46.7*	19.2	16.8
100°	23.5	28.7	86.8	35.9	31.1	31.1	*85.5*	22.1	20.0
102.5°	39.1	61.0	184.4	67.6	47.3	61.0	*198.7*	44.9	24.1
105°	66.7	128.7	328.6	141.9	86.2	140.1	*350.1*	117.3	43.9
107.5°	114.5	230.4	433.3	251.4	163.4	261.5	*451.3*	232.2	101.9
110°	212.7	305.8	454.3	345.3	261.5	365.7	*492.5*	318.4	206.1

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Scaled Data Report

TEST NUMBER: P1433274
CATALOG NUMBER: EHBR1-48-UNV-A1-L930-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	286.9	328.6	435.1	381.2	340.5	407.6	*481.2*	353.2	285.1
115°	301.9	316.0	388.4	372.2	369.9	401.6	*429.7*	351.9	316.3
117.5°	292.4	288.5	329.8	334.5	357.3	367.5	*371.1*	330.3	318.0
120°	270.2	256.7	275.3	292.0	322.6	318.4	*312.4*	299.3	300.0
122.5°	243.9	228.1	235.8	248.4	278.9	269.9	*264.0*	267.1	276.3
125°	218.8	203.0	207.7	210.7	236.4	227.4	*230.5*	239.5	248.7
127.5°	196.7	185.6	187.9	184.4	200.5	196.3	*206.0*	216.9	224.2
130°	181.7	172.6	176.1	167.0	175.5	176.7	*189.4*	197.7	202.6
132.5°	169.9	163.7	168.5	157.6	160.0	165.6	*176.9*	184.8	187.2
135°	161.6	156.0	161.5	151.1	151.3	158.4	*168.6*	173.4	174.8
137.5°	153.8	149.6	155.0	147.8	146.0	153.2	*160.9*	164.6	164.1
140°	148.0	143.7	149.7	144.4	143.1	150.3	*153.9*	158.8	157.6
142.5°	141.0	138.6	145.1	141.4	140.3	147.6	*149.4*	152.3	151.9
145°	136.3	134.5	141.6	139.7	139.2	144.6	*143.5*	148.4	146.6
147.5°	133.7	131.7	137.5	136.9	136.9	140.4	*139.4*	143.7	142.6
150°	130.2	128.2	134.0	133.4	134.0	136.4	*134.7*	140.4	140.4
152.5°	126.7	124.8	129.9	128.6	129.2	131.6	*130.6*	136.2	137.0
155°	124.4	122.5	126.5	125.0	125.0	127.0	*127.2*	133.4	134.1
157.5°	124.1	122.1	124.9	123.5	123.5	124.8	*125.7*	131.3	132.0
160°	123.8	121.7	124.0	122.5	121.9	123.8	*124.7*	129.7	130.4
162.5°	123.4	121.4	123.4	122.1	121.4	122.1	*123.0*	128.7	129.4
165°	122.9	121.5	123.1	121.6	121.0	121.6	*122.6*	126.4	127.7
167.5°	123.6	122.4	123.2	121.7	121.2	120.6	*122.7*	125.9	127.3
170°	123.8	123.1	123.3	121.3	119.9	120.7	*122.2*	125.5	126.7
172.5°	125.2	124.5	124.8	122.7	121.4	122.1	*123.1*	125.7	127.6
175°	126.7	125.3	125.7	123.5	122.8	122.9	*124.5*	126.5	129.1
177.5°	128.1	126.6	126.4	124.2	122.9	123.6	*125.7*	127.8	131.0
180°	125.7	125.7	125.7	125.7	125.7	125.7	*125.7*	125.7	125.7

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Scaled Data Report

TEST NUMBER: P1433274
CATALOG NUMBER: EHBR1-48-UNV-A1-L930-UPL12

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	19.33	20.55	19.74	20.92	21.30	20.31	21.54	20.72	21.90	22.28
	3H	20.81	21.90	21.24	22.28	22.71	21.58	22.66	22.00	23.05	23.48
	4H	21.42	22.43	21.86	22.83	23.28	22.08	23.09	22.53	23.50	23.94
	6H	21.88	22.81	22.34	23.24	23.69	22.44	23.37	22.90	23.79	24.25
	8H	22.03	22.91	22.51	23.36	23.82	22.53	23.42	23.01	23.86	24.33
	12H	22.11	22.95	22.59	23.39	23.88	22.57	23.42	23.05	23.85	24.34
4H	2H	19.85	20.87	20.30	21.27	21.72	20.63	21.65	21.08	22.05	22.50
	3H	21.54	22.38	22.00	22.83	23.30	22.13	22.96	22.59	23.42	23.88
	4H	22.26	23.01	22.74	23.48	23.98	22.75	23.50	23.23	23.97	24.47
	6H	22.84	23.49	23.35	23.98	24.51	23.23	23.88	23.74	24.37	24.90
	8H	23.03	23.63	23.54	24.13	24.66	23.36	23.97	23.88	24.46	24.99
	12H	23.14	23.67	23.67	24.20	24.73	23.43	23.97	23.96	24.50	25.03
8H	4H	22.49	23.09	23.00	23.58	24.12	22.93	23.54	23.45	24.03	24.56
	6H	23.18	23.67	23.72	24.21	24.75	23.52	24.01	24.06	24.55	25.09
	8H	23.43	23.87	23.99	24.43	24.98	23.71	24.15	24.27	24.71	25.26
	12H	23.60	23.98	24.15	24.52	25.15	23.83	24.22	24.39	24.76	25.39
12H	4H	22.49	23.02	23.02	23.55	24.08	22.93	23.46	23.46	23.99	24.53
	6H	23.20	23.64	23.76	24.20	24.75	23.54	23.98	24.10	24.54	25.09
	8H	23.50	23.88	24.05	24.42	25.05	23.77	24.16	24.33	24.70	25.33

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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: SP1-2506-472-5

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L930-N

Data in this report applies to families of products including EHBR-60-L930-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

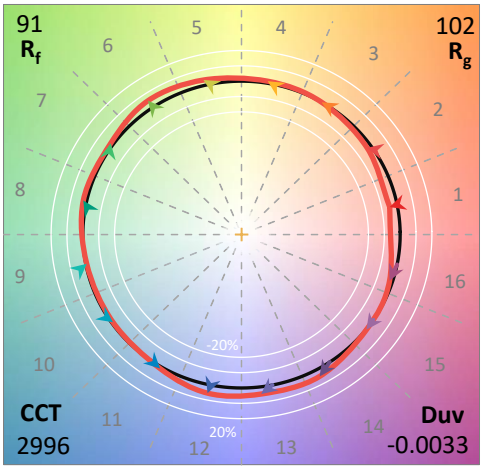
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-5
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-L930-N**
Description:	Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K):	2996
CIE u':	0.2519
CIE v':	0.5169
Duv:	-0.0033
CIE x:	0.4325
CIE y:	0.3945
CIE z:	0.1730
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	584
Purity:	48.21818
Rf:	91.3
Rg:	102

CRI (Ra):	94.4
R1:	96.8
R2:	98.1
R3:	97.8
R4:	95.6
R5:	96.9
R6:	95.7
R7:	90.9
R8:	83.0
R9:	61.4
R10:	94.4
R11:	95.7
R12:	88.5
R13:	97.3
R14:	97.8
R15:	92.3



Test Conditions

Stabilization Time:	40M
Operation Time:	1H 40M
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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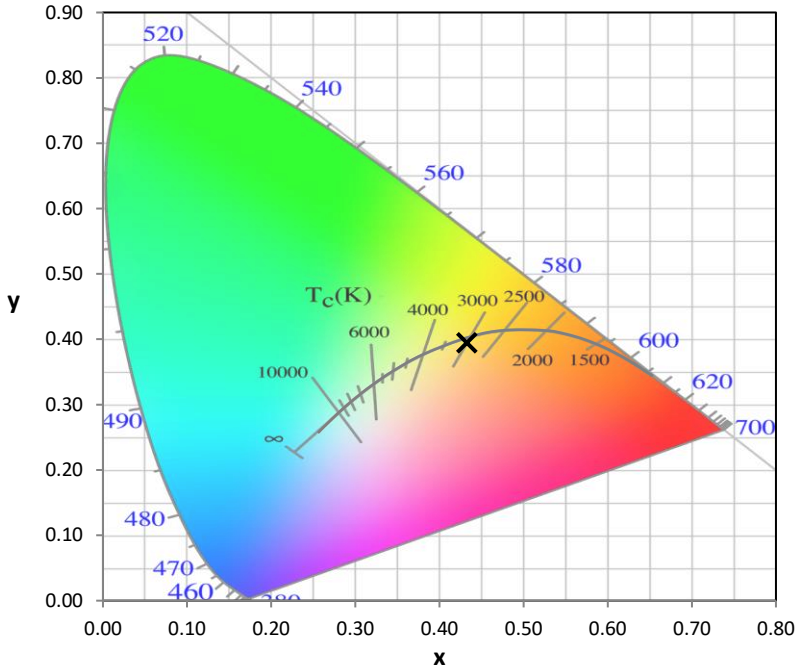
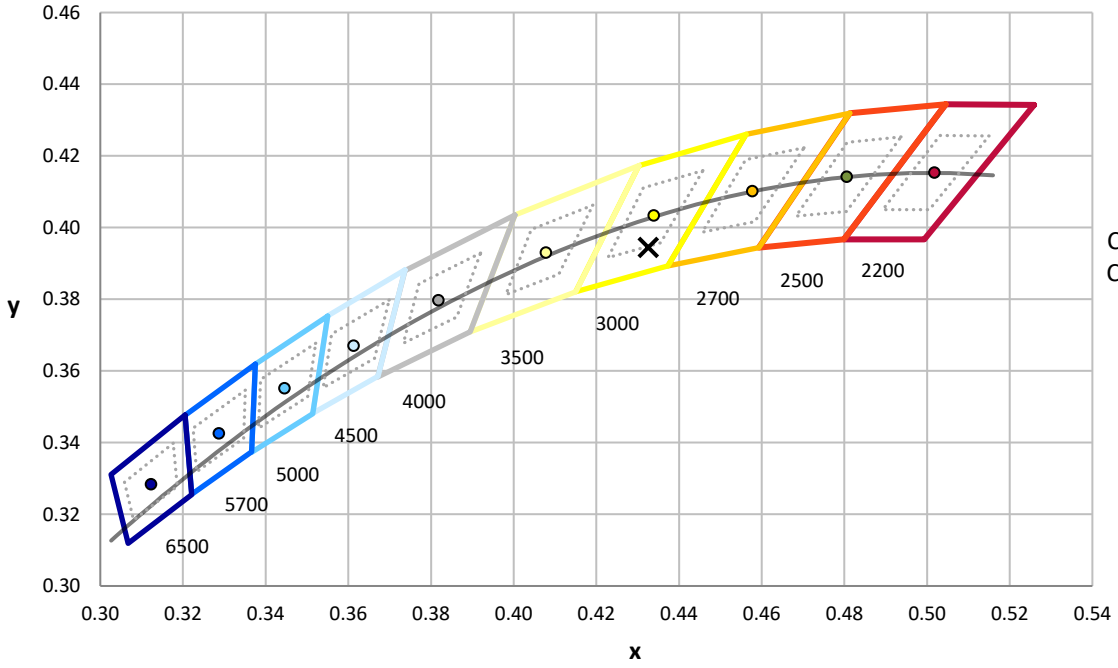
CIE 1931 Chromaticity Diagram



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



CCT = 2996K
CIE x = 0.4325
CIE y = 0.3945
Duv = -0.0033

Point lies inside the ANSI 3000K 7-step quadrangle

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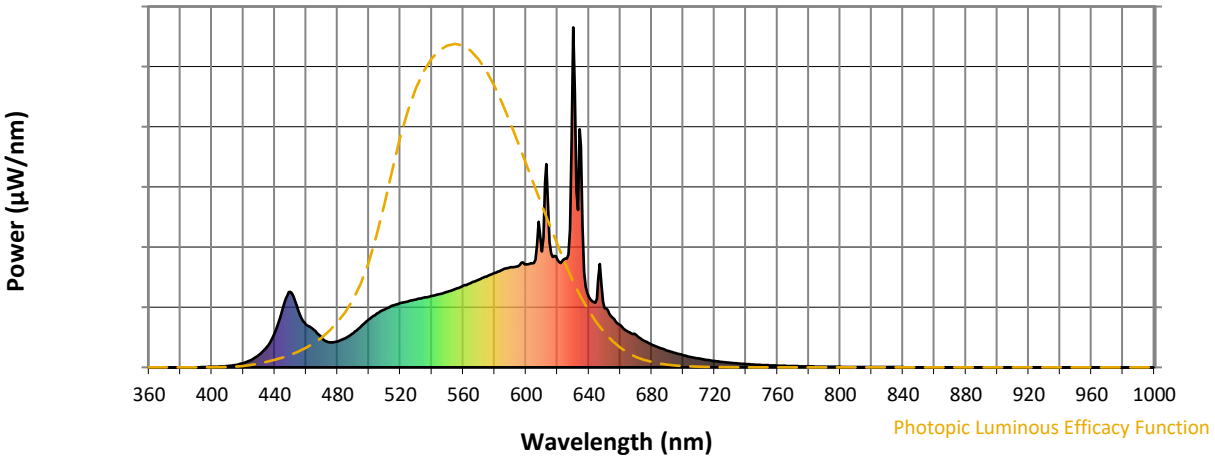
Photopic Flux vs. Wavelength



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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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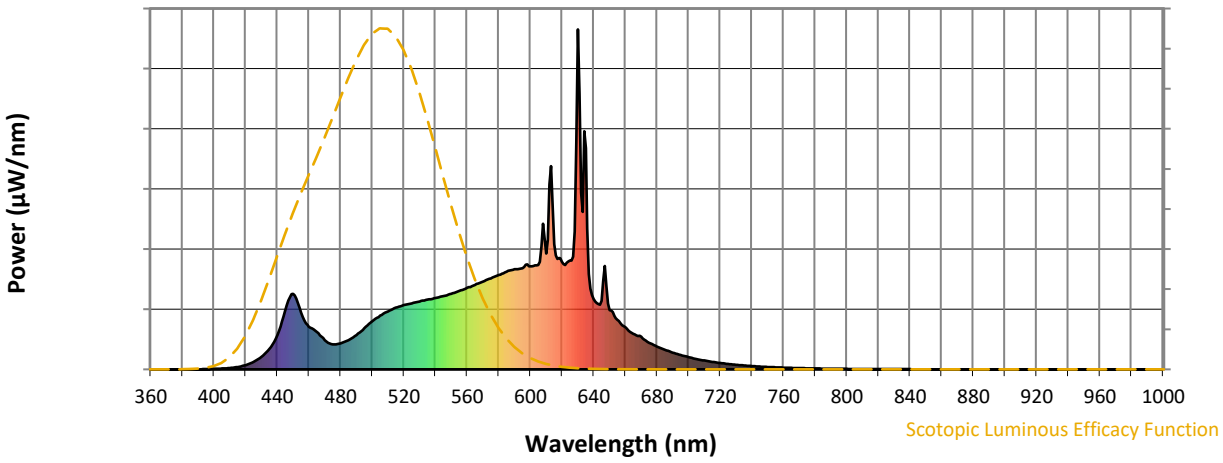
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.44**

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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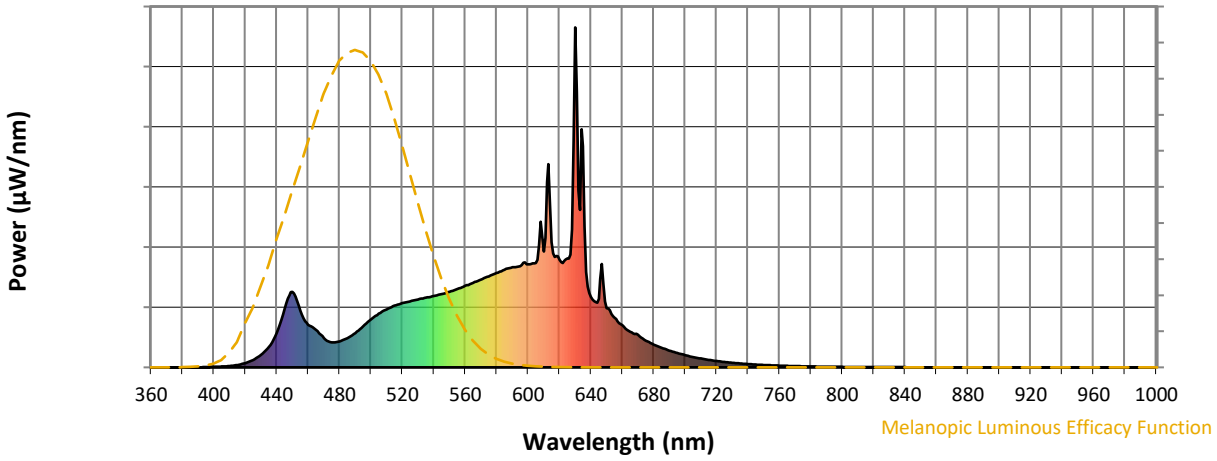
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.85**

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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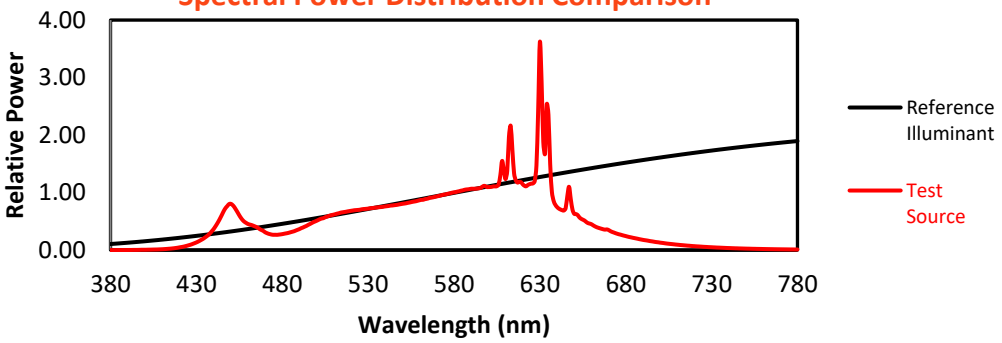
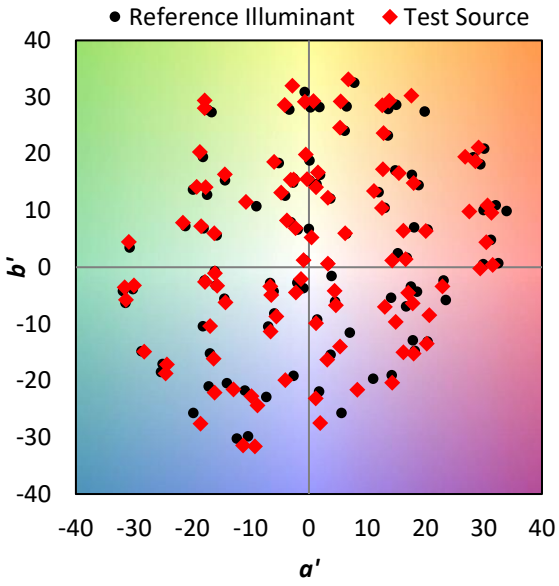
Summary

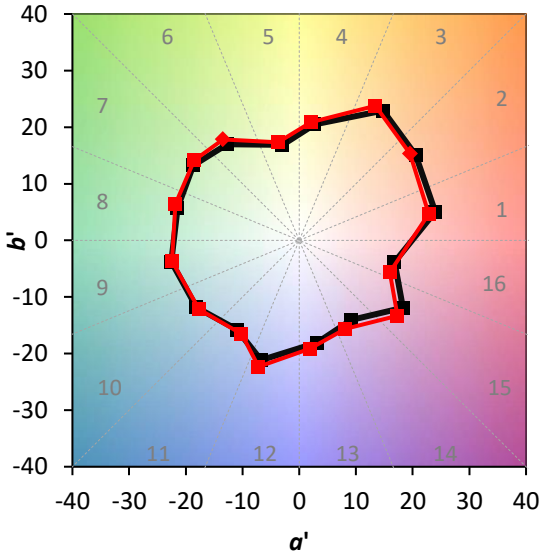
R_f = 91.3
R_g = 102
CIE R_a = 94.4
R_9 = 61.4

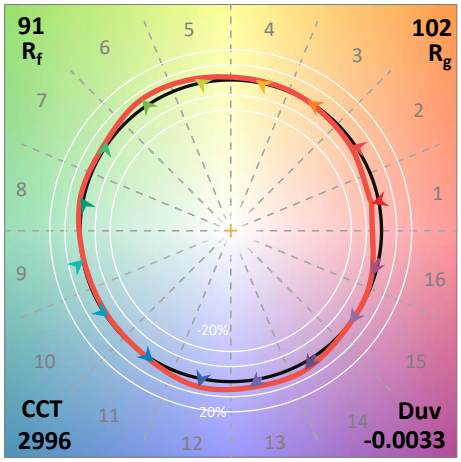
Spectral Power Distribution Comparison

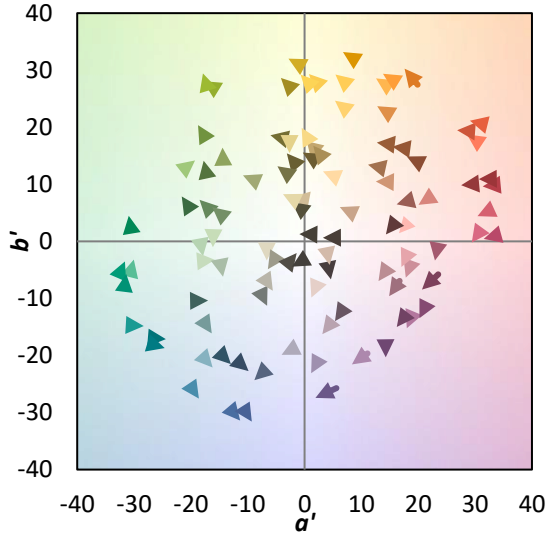


Color Vector Graphics









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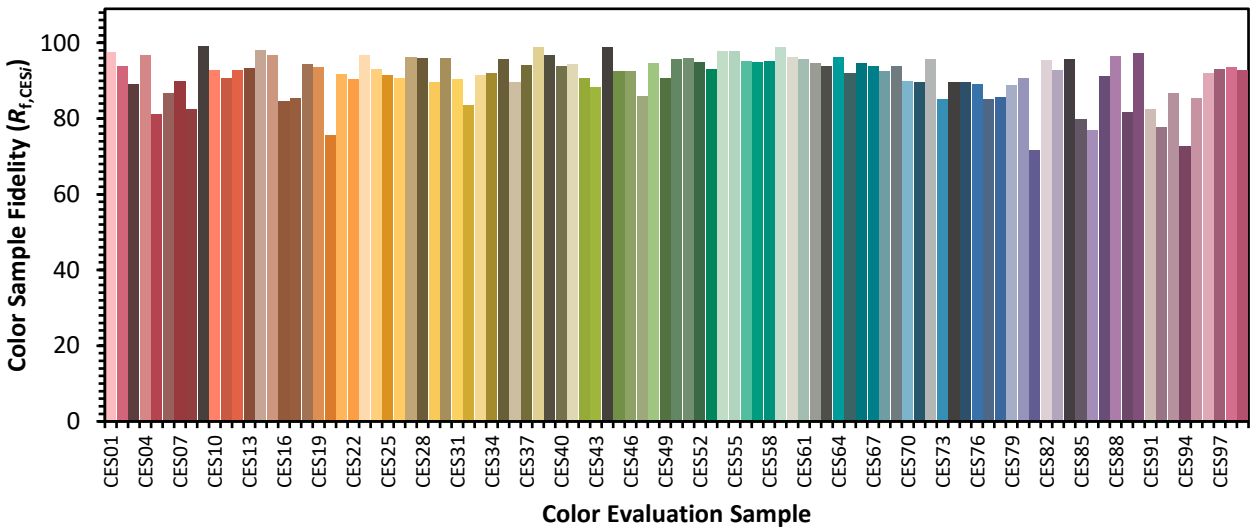
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 91	CES51 = 96	CES76 = 89
CES02 = 63	CES27 = 96	CES52 = 95	CES77 = 85
CES03 = 32	CES28 = 96	CES53 = 93	CES78 = 86
CES04 = 70	CES29 = 90	CES54 = 98	CES79 = 89
CES05 = 51	CES30 = 96	CES55 = 98	CES80 = 91
CES06 = 51	CES31 = 90	CES56 = 95	CES81 = 72
CES07 = 44	CES32 = 84	CES57 = 95	CES82 = 95
CES08 = 42	CES33 = 91	CES58 = 95	CES83 = 93
CES09 = 29	CES34 = 92	CES59 = 99	CES84 = 96
CES10 = 76	CES35 = 96	CES60 = 96	CES85 = 80
CES11 = 59	CES36 = 90	CES61 = 96	CES86 = 77
CES12 = 65	CES37 = 94	CES62 = 95	CES87 = 91
CES13 = 44	CES38 = 99	CES63 = 94	CES88 = 96
CES14 = 74	CES39 = 97	CES64 = 96	CES89 = 82
CES15 = 72	CES40 = 94	CES65 = 92	CES90 = 97
CES16 = 48	CES41 = 94	CES66 = 95	CES91 = 82
CES17 = 50	CES42 = 91	CES67 = 94	CES92 = 78
CES18 = 57	CES43 = 88	CES68 = 93	CES93 = 87
CES19 = 72	CES44 = 99	CES69 = 94	CES94 = 73
CES20 = 67	CES45 = 93	CES70 = 90	CES95 = 85
CES21 = 86	CES46 = 93	CES71 = 90	CES96 = 92
CES22 = 79	CES47 = 86	CES72 = 96	CES97 = 93
CES23 = 92	CES48 = 95	CES73 = 85	CES98 = 94
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 93
CES25 = 72	CES50 = 96	CES75 = 90	



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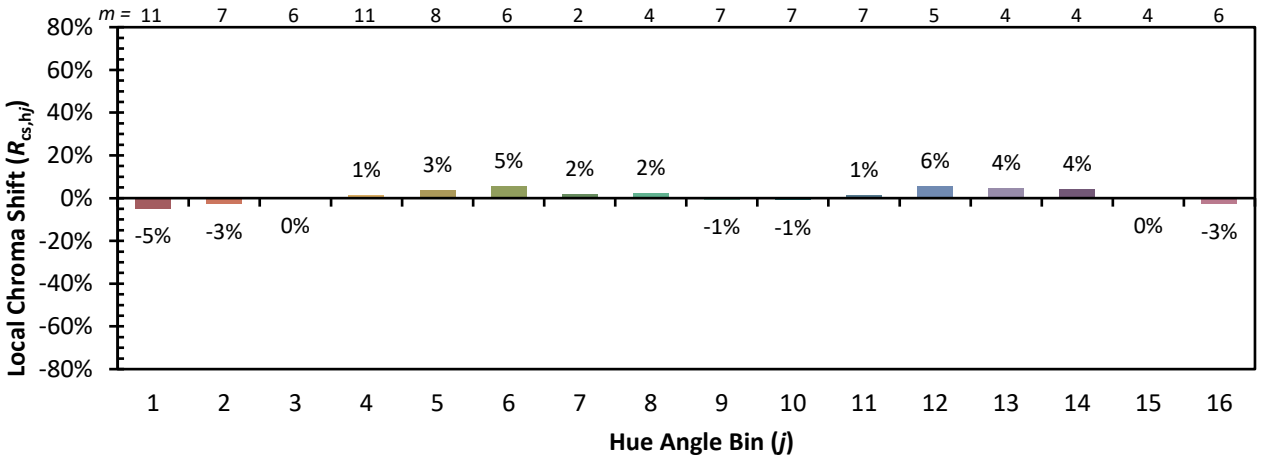
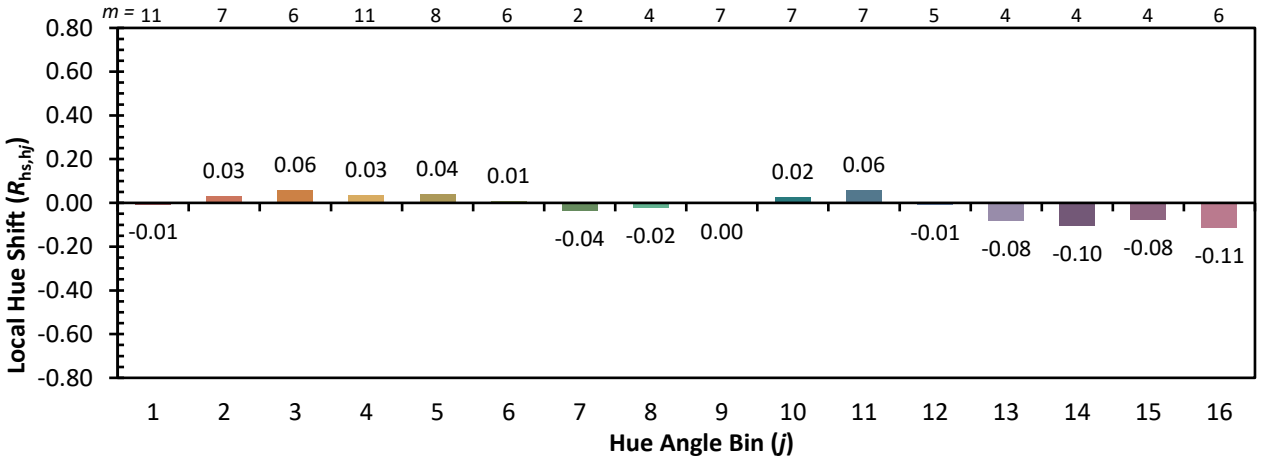
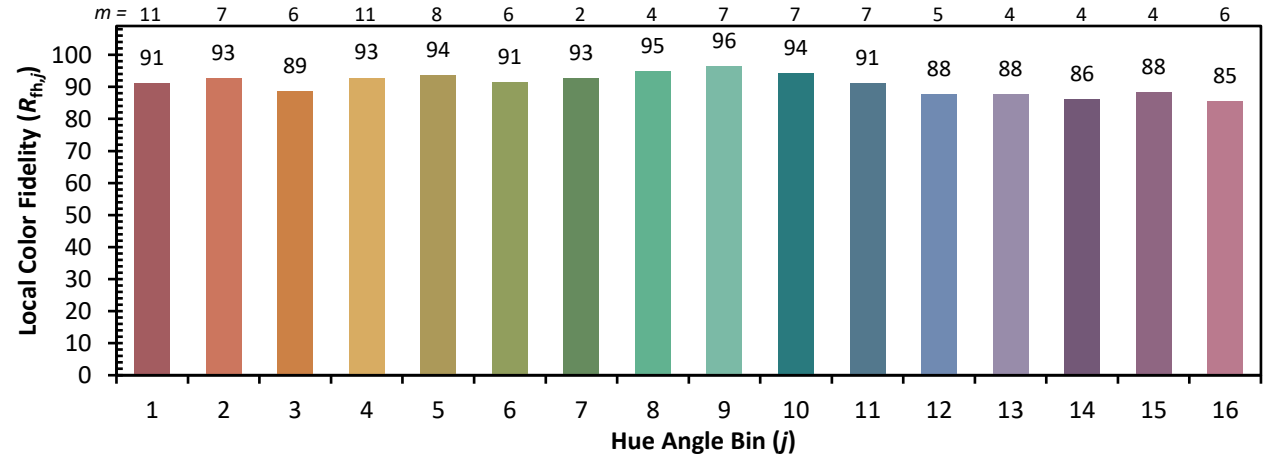
Color Rendition by Hue-Angle Bin







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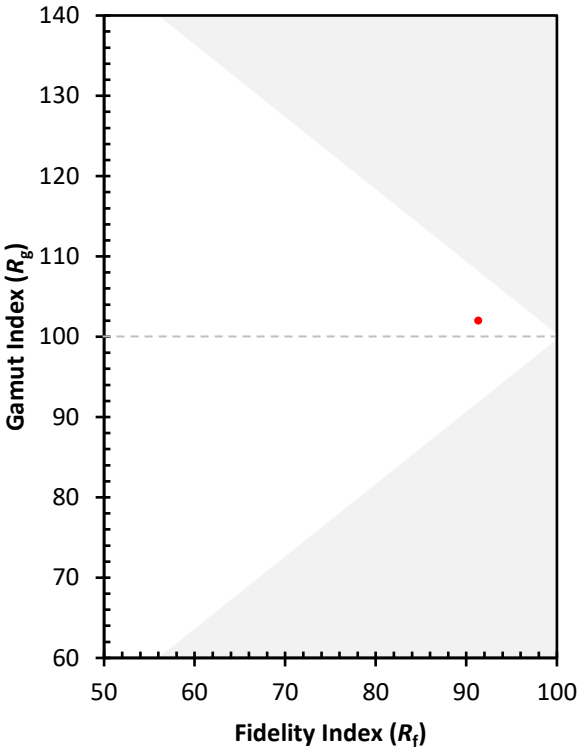
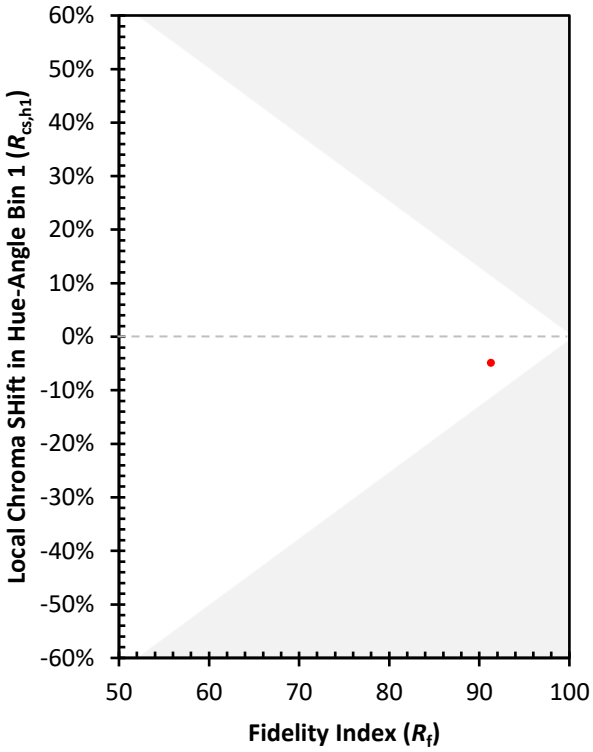
Measure Comparisons





(END OF REPORT)