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: P1433281

Luminaire Tested: EHBR1-48-UNV-A1-L930

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:	P1433281
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-5)
Test Lab:	INNOVATION CENTER
Issue Date:	3/13/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-48-UNV-A1-L930
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:	42225.8 lumens
Efficiency:	N/A
Efficacy:	163.3 lumens/watt
Spacing Criteria (0/90/45):	0.8 / 1.07 / 0.95
Luminous Opening:	Circular (Dia: 1.71' x H: 0')
CIE Type:	Direct

Input Watts (W):	258.6
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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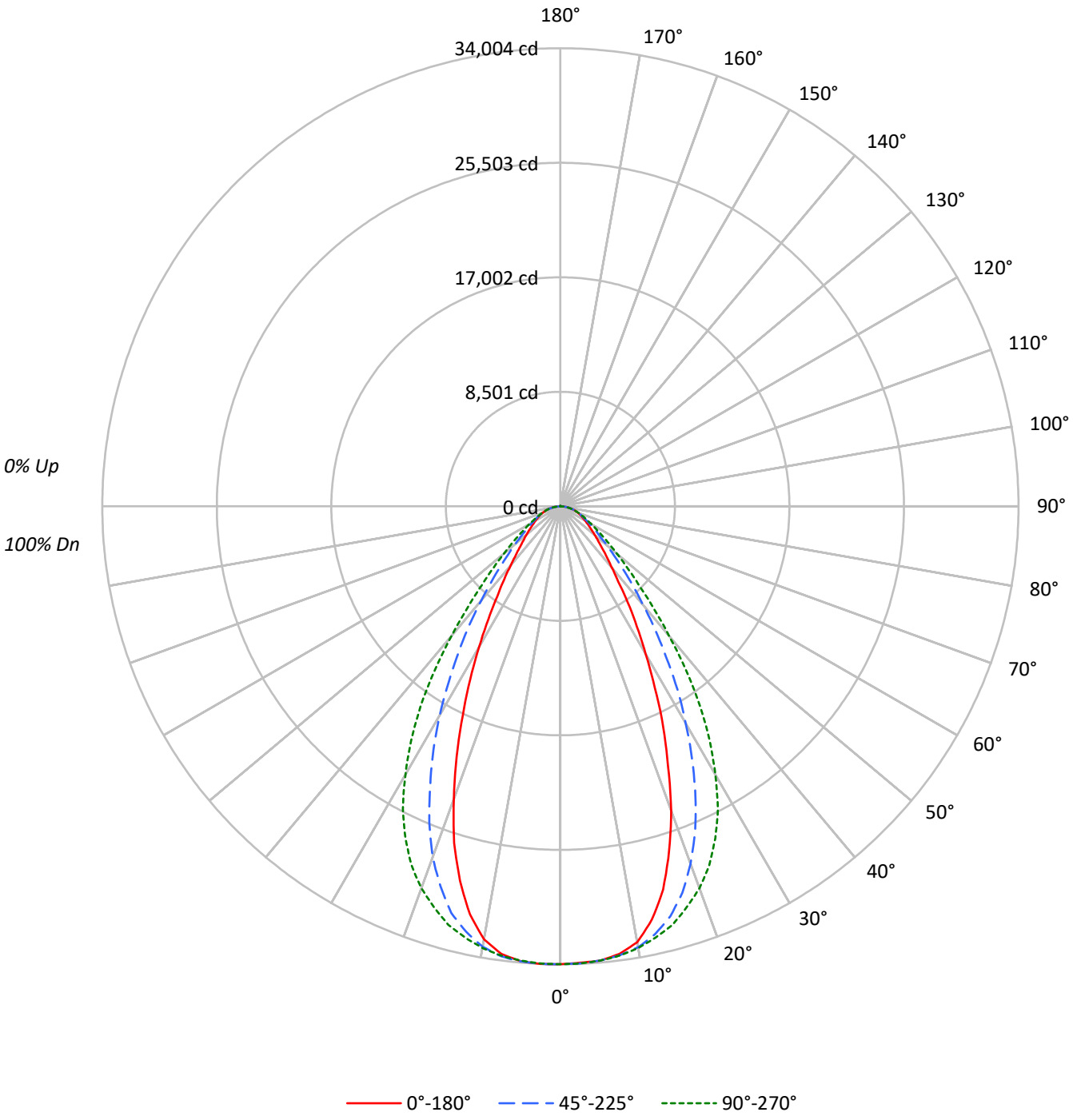
Luminous Intensity Polar Plot



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	98	90	83	78	95	88	82	78	85	81	77	83	79	75	80	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	159618	159618	159618	159618	159618
5°	159597	159573	159580	159862	159765
10°	156676	158502	158753	158305	155651
15°	143195	153187	156340	151958	139907
20°	120164	141130	150771	138473	115486
25°	93621	122935	140907	118445	88770
30°	68787	100916	124766	97088	65290
35°	50019	78465	103438	75086	46754
40°	36341	58523	76979	56053	35219
45°	28958	43298	54371	41421	27956
50°	24346	32964	39876	31877	23976
55°	21607	26450	30687	26007	21315
60°	19885	22533	24953	22393	20025
65°	19104	20417	21540	20480	19286
70°	18845	19295	19891	19403	19032
75°	18652	18536	18652	18589	18832
80°	18752	17405	17019	17676	18752
85°	16913	14349	14192	14580	17415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 56967 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3209.8	7.6
10°-20°	8626.8	20.4
20°-30°	10490.1	24.8
30°-40°	8544.9	20.2
40°-50°	5130.4	12.1
50°-60°	2952.6	7.0
60°-70°	1847.8	4.4
70°-80°	1088.3	2.6
80°-90°	318.3	0.8
90°-100°	0.1	0.0
100°-110°	0.2	0.0
110°-120°	0.2	0.0
120°-130°	0.5	0.0
130°-140°	2.2	0.0
140°-150°	3.9	0.0
150°-160°	4.3	0.0
160°-170°	3.9	0.0
170°-180°	1.6	0.0
0°-30°	22326.6	52.9
0°-40°	30871.6	73.1
0°-60°	38954.5	92.3
0°-90°	42208.9	100.0
90°-120°	0.5	0.0
90°-150°	7.1	0.0
90°-180°	17.0	0.0
0°-180°	42225.8	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°	1	0	0	0	1	16
95°	1	0	0	0	1	1
105°	1	0	0	0	1	1
115°	1	0	0	0	1	2
125°	2	0	0	1	2	2
135°	4	3	3	3	4	3
145°	6	6	6	6	7	4
155°	11	9	7	9	11	5
165°	16	14	12	14	16	5
175°	21	18	16	18	21	2
180°	19	19	19	19	19	

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TEST NUMBER: P1433281
CATALOG NUMBER: EHBR1-48-UNV-A1-L930

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°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.7
92.5°	0.7	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.7
95°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.7
97.5°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.7
100°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
102.5°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
105°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
107.5°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
110°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4

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Scaled Data Report

TEST NUMBER: P1433281
CATALOG NUMBER: EHBR1-48-UNV-A1-L930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
115°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
117.5°	2.1	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	1.4
120°	1.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.7	1.4
122.5°	2.1	0.7	0.0	0.0	0.0	0.0	*0.0*	0.7	2.1
125°	2.1	0.7	0.0	0.0	0.0	0.0	*0.7*	0.7	2.1
127.5°	2.1	0.7	0.0	0.0	0.0	0.0	*0.7*	1.4	2.1
130°	2.1	1.4	0.7	0.0	0.7	0.7	*1.4*	1.4	2.1
132.5°	2.9	2.1	2.1	1.4	1.4	2.1	*2.1*	2.9	2.9
135°	3.6	2.9	2.9	2.1	2.9	2.9	*2.9*	2.9	3.6
137.5°	3.6	3.6	3.6	3.6	3.6	3.6	*3.6*	3.6	4.3
140°	5.0	4.3	4.3	4.3	4.3	4.3	*4.3*	5.0	5.0
142.5°	5.7	5.7	5.0	5.0	5.0	5.7	*5.7*	5.7	6.4
145°	6.4	6.4	5.7	5.7	5.7	6.4	*6.4*	7.1	7.1
147.5°	8.6	7.8	6.4	6.4	6.4	6.4	*7.1*	7.8	8.6
150°	9.3	8.6	7.1	7.1	7.1	7.1	*7.8*	9.3	10.0
152.5°	10.0	9.3	7.8	7.1	7.1	7.1	*8.6*	9.3	10.7
155°	10.7	10.0	8.6	7.1	7.1	7.8	*9.3*	10.7	11.4
157.5°	12.8	11.4	10.0	8.6	8.6	9.3	*10.7*	12.1	12.8
160°	14.3	12.8	11.4	10.0	10.0	10.7	*12.1*	13.5	14.3
162.5°	15.7	14.3	12.1	11.4	10.7	11.4	*12.8*	15.0	15.7
165°	16.4	15.0	13.5	12.1	12.1	12.1	*14.3*	15.7	16.4
167.5°	17.1	16.4	14.3	12.8	12.8	12.8	*15.0*	16.4	17.1
170°	17.8	17.1	15.0	13.5	12.8	13.5	*15.7*	17.1	17.8
172.5°	19.2	18.5	16.4	15.0	14.3	15.0	*17.1*	18.5	19.2
175°	21.4	20.0	18.5	16.4	15.7	16.4	*18.5*	20.0	21.4
177.5°	22.1	20.7	19.2	17.1	16.4	17.1	*19.2*	20.7	22.1
180°	19.2	19.2	19.2	19.2	19.2	19.2	*19.2*	19.2	19.2

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Scaled Data Report

TEST NUMBER: P1433281
CATALOG NUMBER: EHBR1-48-UNV-A1-L930

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	20.01	21.28	20.38	21.59	21.91	20.99	22.26	21.36	22.57	22.89
	3H	21.58	22.70	21.96	23.03	23.40	22.33	23.46	22.71	23.79	24.16
	4H	22.25	23.29	22.65	23.65	24.03	22.89	23.94	23.30	24.29	24.68
	6H	22.80	23.76	23.22	24.14	24.53	23.32	24.29	23.74	24.66	25.06
	8H	23.00	23.91	23.43	24.31	24.71	23.46	24.37	23.89	24.77	25.17
	12H	23.13	24.00	23.56	24.38	24.82	23.54	24.41	23.97	24.80	25.23
4H	2H	20.58	21.63	20.99	21.98	22.37	21.35	22.40	21.76	22.75	23.14
	3H	22.37	23.24	22.79	23.64	24.05	22.94	23.81	23.36	24.21	24.62
	4H	23.17	23.94	23.60	24.36	24.81	23.64	24.41	24.07	24.83	25.28
	6H	23.85	24.52	24.32	24.97	25.44	24.21	24.88	24.67	25.33	25.79
	8H	24.10	24.72	24.57	25.17	25.64	24.39	25.02	24.86	25.47	25.94
	12H	24.27	24.82	24.76	25.30	25.78	24.51	25.06	25.00	25.55	26.02
8H	4H	23.45	24.07	23.92	24.52	24.99	23.87	24.49	24.34	24.94	25.41
	6H	24.27	24.77	24.77	25.27	25.76	24.57	25.08	25.08	25.58	26.06
	8H	24.60	25.05	25.12	25.57	26.06	24.83	25.29	25.36	25.80	26.30
	12H	24.85	25.25	25.36	25.74	26.32	25.03	25.43	25.54	25.92	26.49
12H	4H	23.46	24.01	23.95	24.50	24.97	23.88	24.43	24.37	24.92	25.39
	6H	24.31	24.77	24.84	25.29	25.78	24.62	25.07	25.14	25.59	26.08
	8H	24.70	25.10	25.22	25.60	26.17	24.93	25.33	25.45	25.83	26.40

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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

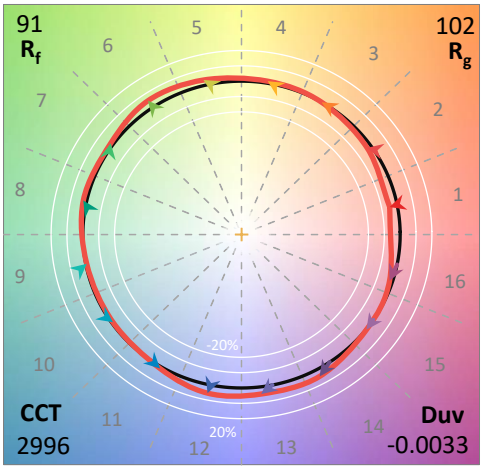
Test Information

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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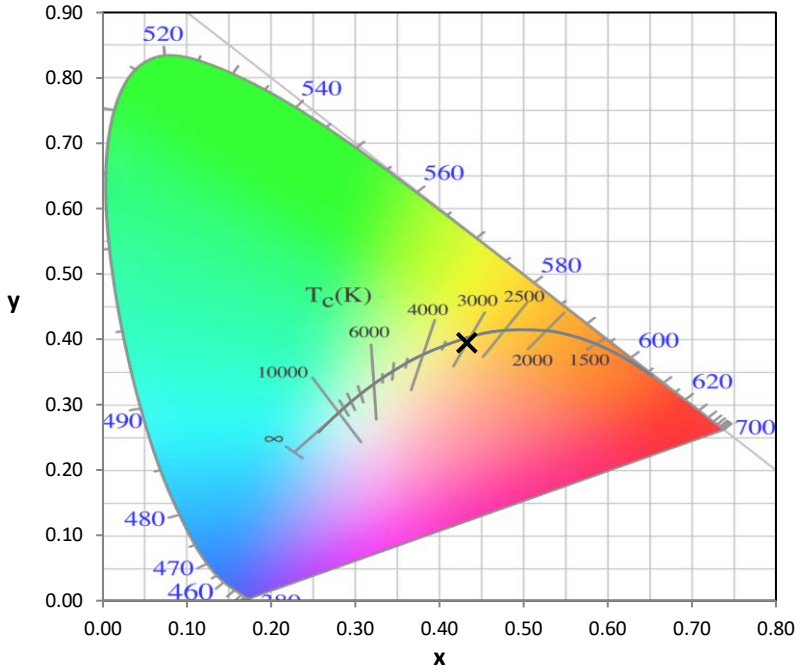
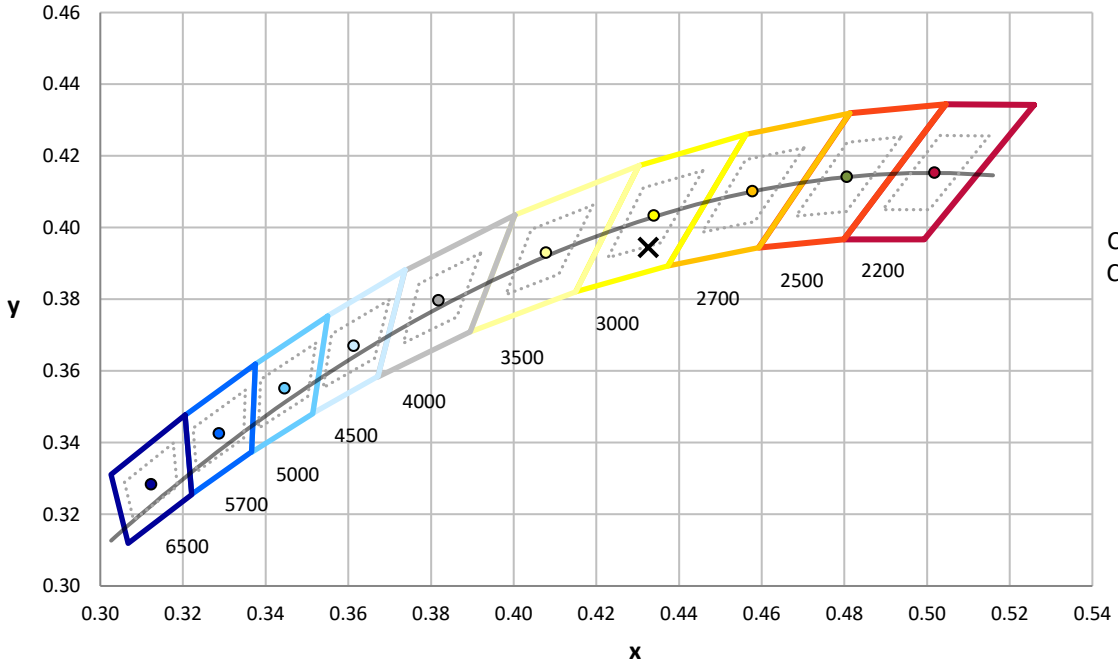
CIE 1931 Chromaticity Diagram



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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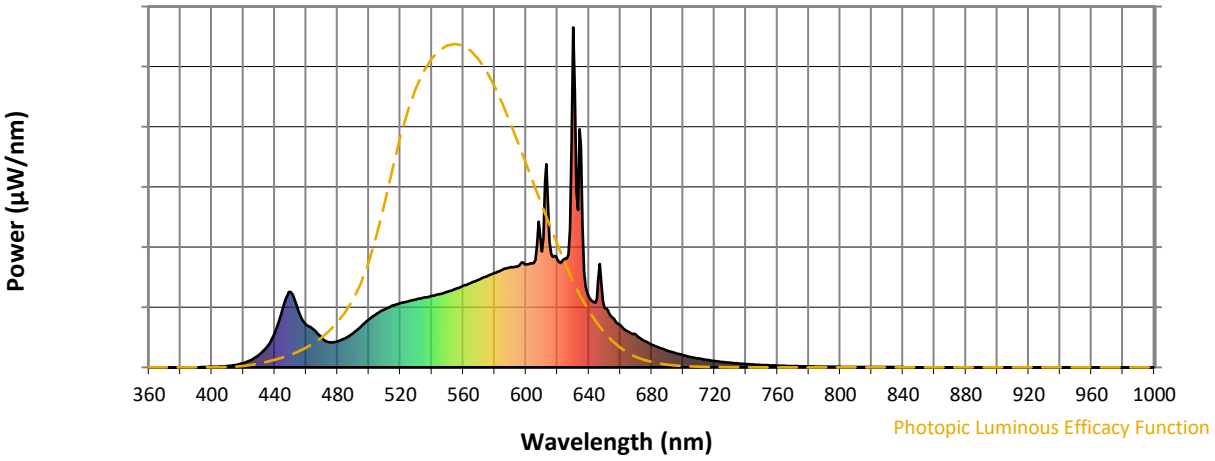
Photopic Flux vs. Wavelength



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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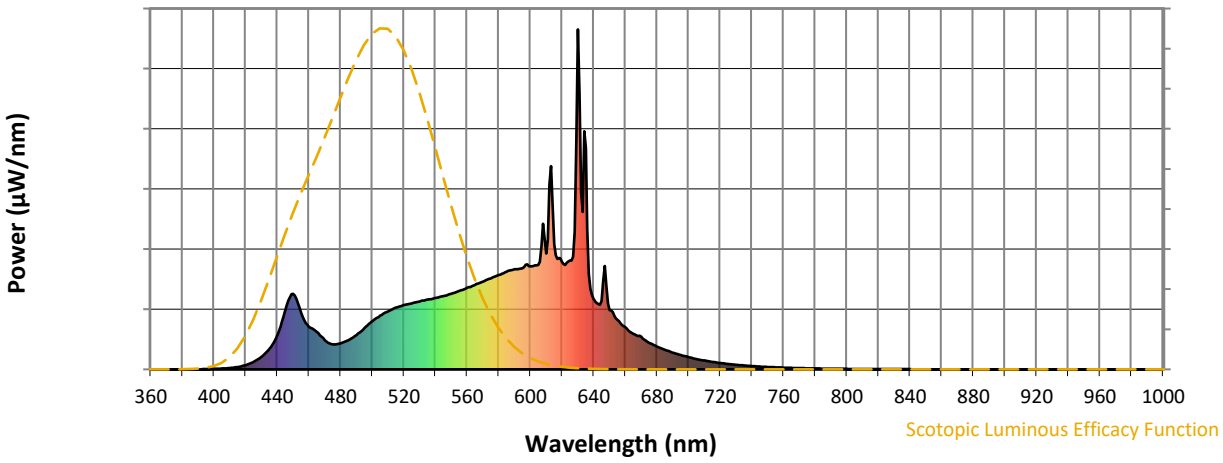
Scotopic Flux vs. Wavelength



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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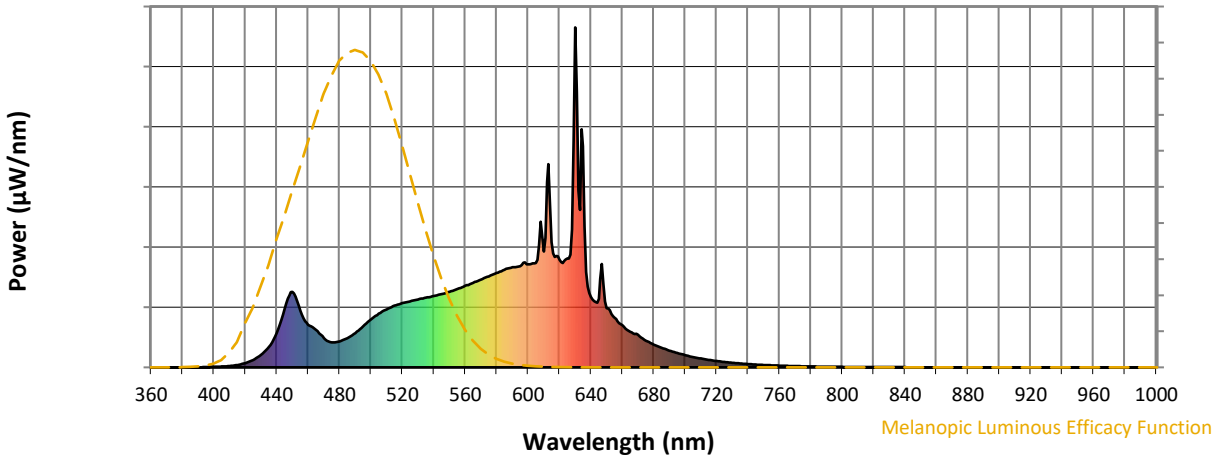
Melanopic Flux vs. Wavelength



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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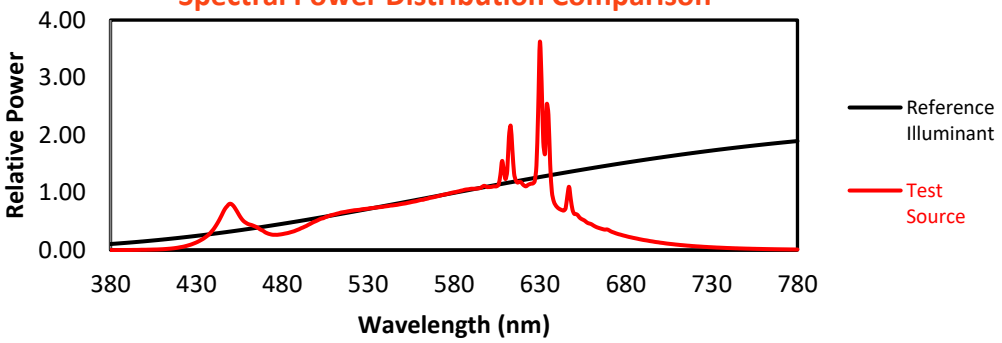
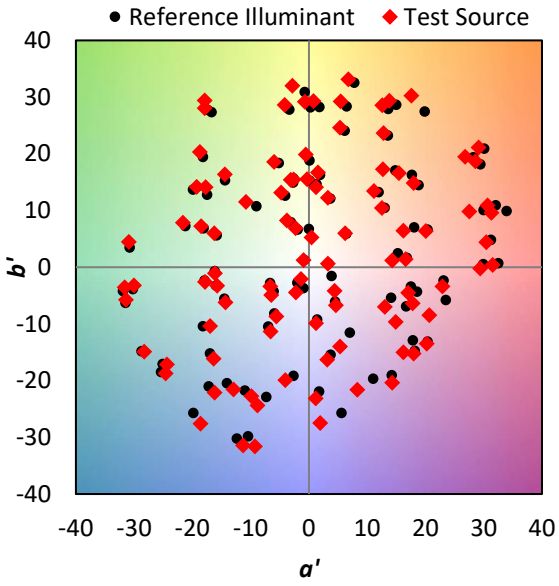
Summary

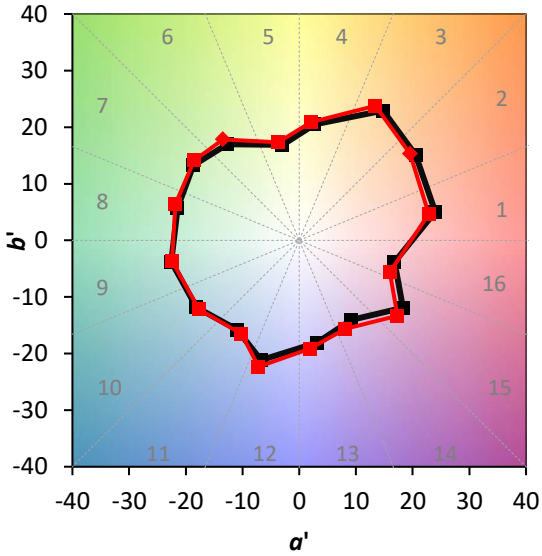
R_f = 91.3
R_g = 102
CIE R_a = 94.4
R_9 = 61.4

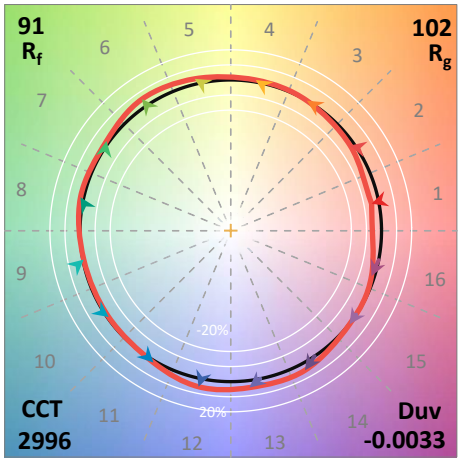
Spectral Power Distribution Comparison

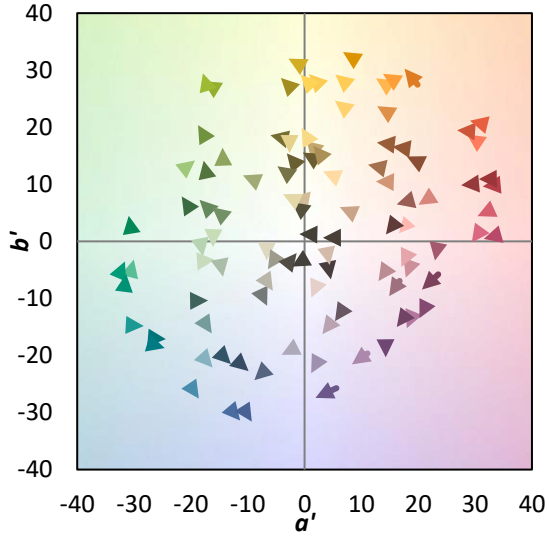


Color Vector Graphics









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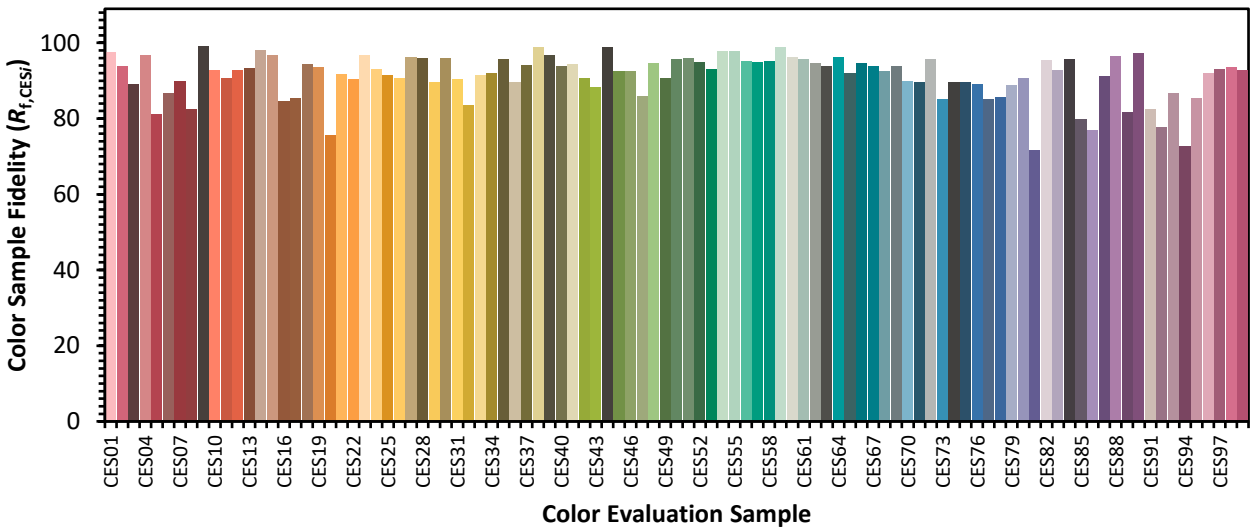
Individual Sample Fidelity Index ($R_{f,i}$)

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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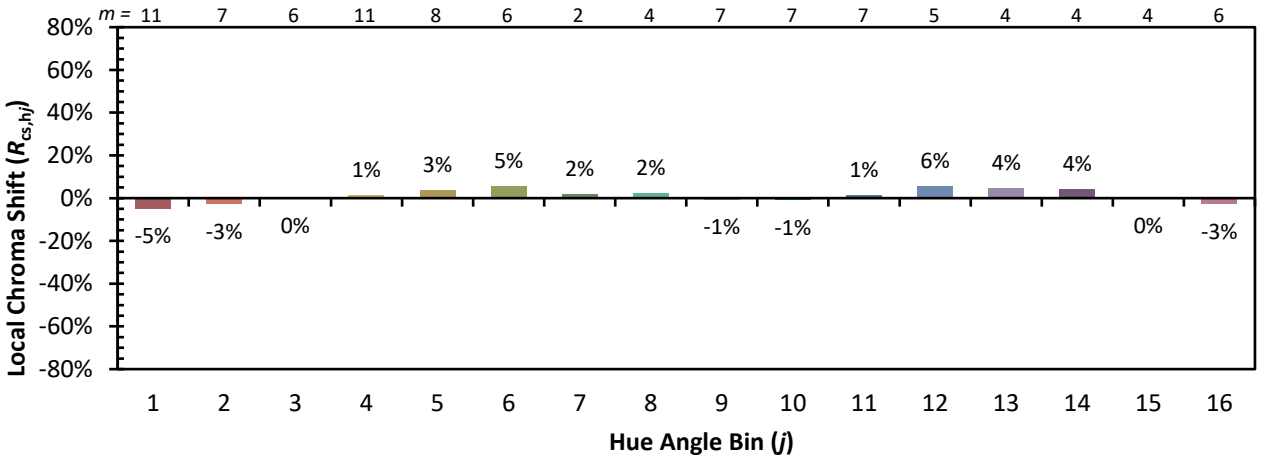
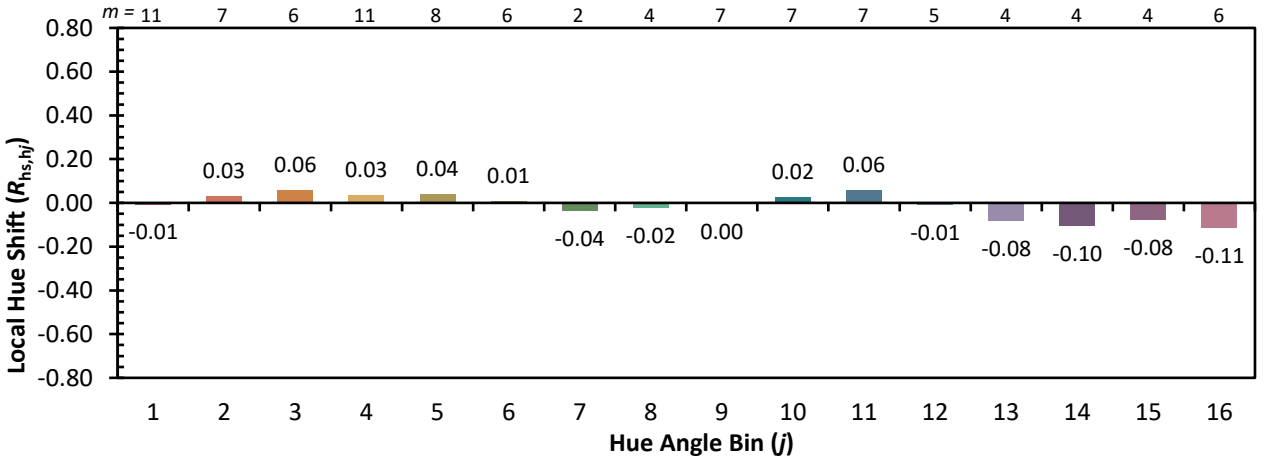
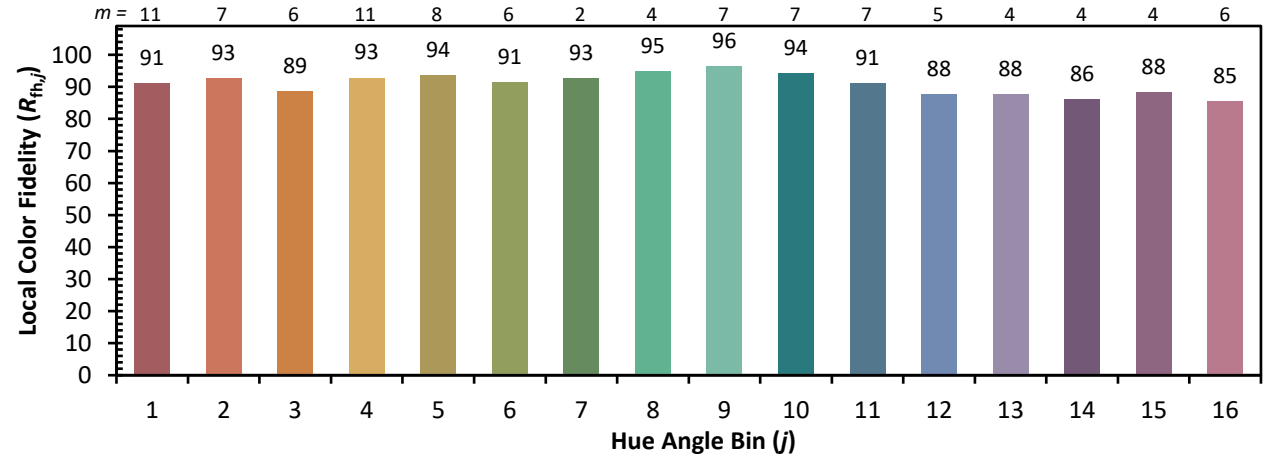
Color Rendition by Hue-Angle Bin







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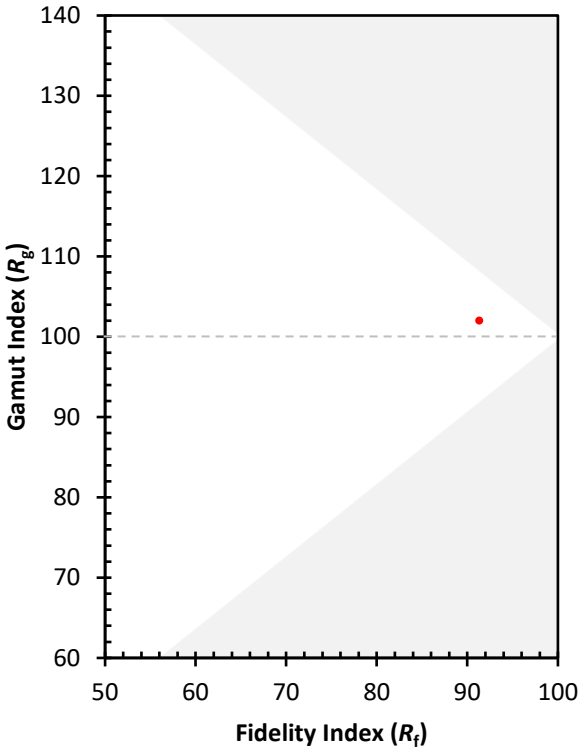
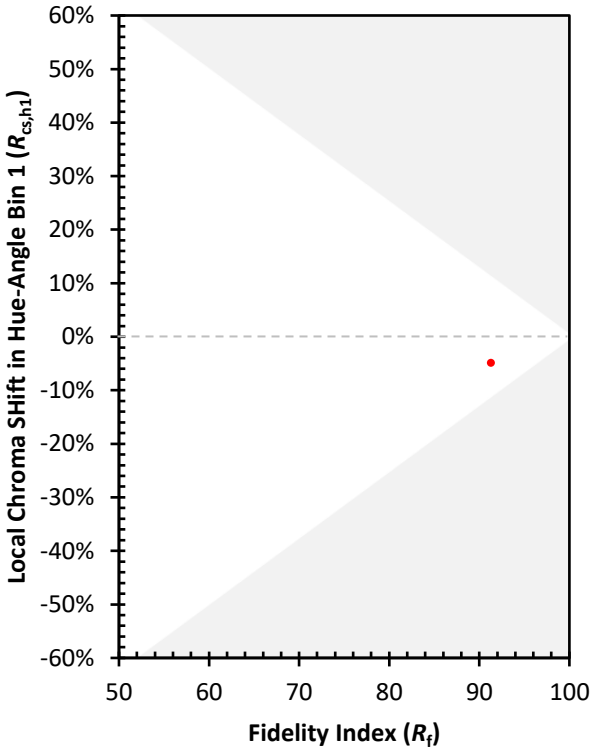
Measure Comparisons





(END OF REPORT)