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: P1431643

Luminaire Tested: EHBR1-12-UNV-A1-L840

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:	P1431643
	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:	EHBR1-12-UNV-A1-L840
Description:	Elevate Round Highbay at, 12000 lumens, 4000K 80CRI LEDs with A lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	12272.0 lumens
Efficiency:	N/A
Efficacy:	189.7 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

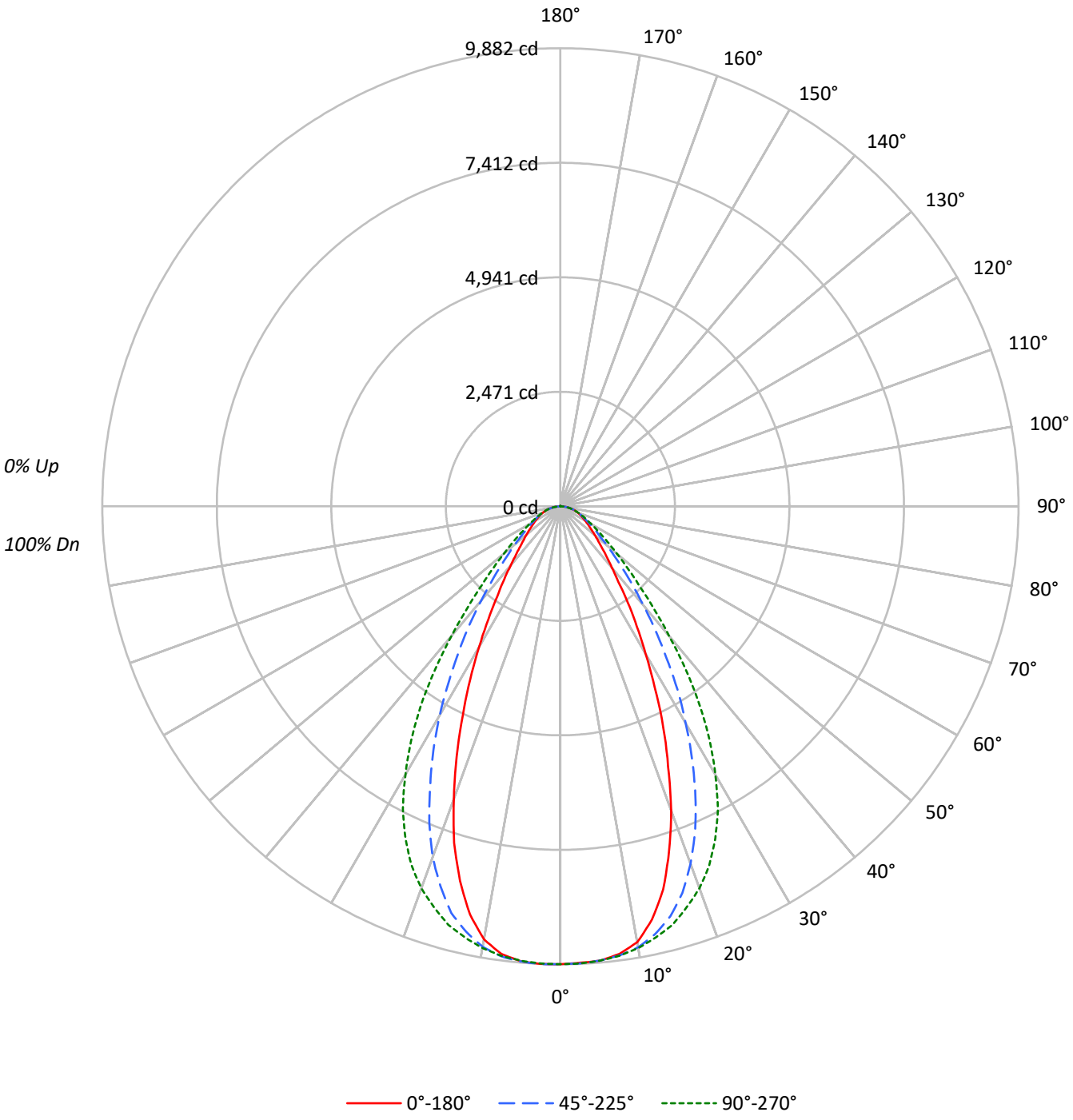
Input Watts (W):	64.7
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P1431643
CATALOG NUMBER: EHBR1-12-UNV-A1-L840

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P1431643
CATALOG NUMBER: EHBR1-12-UNV-A1-L840

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°	46389	46389	46389	46389	46389
5°	46383	46377	46379	46461	46432
10°	45534	46065	46138	46008	45236
15°	41617	44521	45437	44163	40661
20°	34923	41016	43818	40244	33564
25°	27209	35728	40951	34424	25799
30°	19991	29329	36260	28216	18975
35°	14537	22804	30062	21822	13588
40°	10561	17009	22373	16291	10236
45°	8416	12584	15802	12038	8125
50°	7076	9580	11589	9265	6968
55°	6280	7687	8919	7559	6195
60°	5779	6548	7252	6508	5820
65°	5553	5934	6260	5953	5605
70°	5477	5608	5781	5639	5531
75°	5422	5387	5422	5402	5474
80°	5449	5057	4946	5136	5449
85°	4914	4170	4127	4235	5059

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
Vertical Angle: 45°
Luminance: 16556 cd/sqm

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P1431643
CATALOG NUMBER: EHBR1-12-UNV-A1-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	932.9	7.6
10°-20°	2507.2	20.4
20°-30°	3048.7	24.8
30°-40°	2483.4	20.2
40°-50°	1491.0	12.1
50°-60°	858.1	7.0
60°-70°	537.0	4.4
70°-80°	316.3	2.6
80°-90°	92.5	0.8
90°-100°	0.0	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.1	0.0
130°-140°	0.6	0.0
140°-150°	1.1	0.0
150°-160°	1.3	0.0
160°-170°	1.1	0.0
170°-180°	0.5	0.0
0°-30°	6488.7	52.9
0°-40°	8972.1	73.1
0°-60°	11321.3	92.3
0°-90°	12267.1	100.0
90°-120°	0.1	0.0
90°-150°	2.0	0.0
90°-180°	5.0	0.0
0°-180°	12272.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9878	9878	9878	9878	9878	
5°	9839	9838	9838	9856	9850	930
15°	8560	9157	9346	9084	8363	2355
25°	5251	6895	7903	6644	4979	2392
35°	2536	3978	5244	3806	2370	1604
45°	1267	1895	2379	1813	1223	1000
55°	767	939	1089	923	757	693
65°	500	534	563	536	504	497
75°	299	297	299	298	302	316
85°	91	77	77	79	94	97
90°	0	0	0	0	0	5
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	1	0	0	0	1	1
135°	1	1	1	1	1	1
145°	2	2	2	2	2	1
155°	3	2	2	3	3	1
165°	5	4	4	4	5	1
175°	6	5	5	5	6	1
180°	6	6	6	6	6	

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P1431643
CATALOG NUMBER: EHBR1-12-UNV-A1-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	9878.3	9878.3	9878.3	9878.3	9878.3	9878.3	*9878.3*	9878.3	9878.3
2.5°	*9856.6*	*9865.5*	*9869.2*	*9871.3*	*9873.6*	*9879.8*	*9882.4*	*9878.1*	*9881.8*
5°	9839.4	9840.0	9838.0	9847.3	9838.4	9844.6	*9855.8*	9851.4	9849.8
7.5°	9739.3	9760.0	9772.2	9775.3	9776.9	9784.6	*9792.4*	9748.0	9741.3
10°	9548.9	9583.5	9660.2	9682.2	9675.6	9688.0	*9648.2*	9532.0	9486.4
12.5°	9131.6	9253.1	9452.5	9541.3	9525.1	9536.1	*9400.8*	9155.4	9014.3
15°	8560.0	8738.1	9157.3	9332.3	9345.8	9332.3	*9083.8*	8605.7	8363.4
17.5°	7800.0	8129.0	8746.2	9085.9	9066.4	9072.9	*8601.1*	7894.4	7617.1
20°	6988.2	7338.9	8207.4	8774.1	8768.1	8732.1	*8052.9*	7120.8	6716.1
22.5°	6070.0	6522.2	7590.0	8390.7	8388.4	8328.4	*7385.2*	6276.0	5840.3
25°	5251.1	5694.6	6895.3	7921.1	7903.3	7835.0	*6643.5*	5433.3	4979.0
27.5°	4404.4	4865.6	6153.5	7370.7	7358.5	7284.0	*5934.4*	4645.7	4213.3
30°	3686.7	4108.4	5408.7	6765.1	6686.9	6678.4	*5203.5*	3916.4	3499.3
32.5°	3071.8	3433.3	4706.5	6131.8	5993.4	6032.9	*4475.0*	3306.4	2893.0
35°	2535.7	2854.1	3977.8	5399.4	5243.8	5294.9	*3806.5*	2713.0	2370.2
37.5°	2058.0	2364.2	3360.2	4687.1	4449.1	4545.5	*3218.5*	2265.7	1991.0
40°	1722.8	1965.7	2774.5	3905.4	3649.5	3806.5	*2657.4*	1889.8	1669.7
42.5°	1484.5	1643.0	2289.9	3159.1	2962.8	3074.1	*2190.2*	1579.9	1415.2
45°	1267.2	1393.7	1894.8	2492.9	2379.3	2482.6	*1812.6*	1347.1	1223.4
47.5°	1106.9	1204.3	1559.8	2013.1	1942.6	1975.2	*1513.9*	1175.6	1075.0
50°	968.5	1043.8	1311.3	1624.8	1586.3	1606.4	*1268.1*	1022.9	953.8
52.5°	860.9	916.1	1099.9	1335.3	1316.3	1319.4	*1080.6*	899.8	849.7
55°	767.0	805.5	938.9	1093.9	1089.3	1090.1	*923.2*	797.4	756.6
57.5°	684.8	716.7	806.9	918.8	912.2	913.7	*799.5*	708.2	681.9
60°	615.3	636.6	697.2	776.5	772.1	770.3	*692.9*	628.8	619.7
62.5°	553.7	567.3	609.3	665.6	657.3	659.2	*609.1*	567.9	554.5
65°	499.7	504.4	534.0	568.8	563.4	567.9	*535.7*	507.5	504.4
67.5°	446.9	451.7	469.0	492.4	486.2	489.9	*469.4*	452.9	450.2
70°	398.9	398.7	408.4	421.0	421.0	421.7	*410.7*	400.8	402.8
72.5°	349.2	348.0	350.9	359.4	357.1	365.0	*353.4*	350.3	350.7
75°	298.8	295.2	296.9	301.2	298.8	302.9	*297.7*	301.7	301.7
77.5°	251.2	244.6	242.5	243.1	238.6	244.8	*246.0*	248.7	254.9
80°	201.5	192.2	187.0	186.8	182.9	186.8	*189.9*	195.5	201.5
82.5°	149.6	141.5	132.8	131.2	128.7	131.0	*135.1*	141.7	151.4
85°	91.2	82.8	77.4	74.5	76.6	76.6	*78.6*	87.9	93.9
87.5°	32.9	28.8	23.6	23.8	24.4	25.2	*26.3*	33.1	36.2
90°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.2
92.5°	0.2	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.2
95°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.2
97.5°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.2
100°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
102.5°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
105°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
107.5°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
110°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P1431643
CATALOG NUMBER: EHBR1-12-UNV-A1-L840

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
115°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
117.5°	0.6	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.4
120°	0.4	0.0	0.0	0.0	0.0	0.0	*0.0*	0.2	0.4
122.5°	0.6	0.2	0.0	0.0	0.0	0.0	*0.0*	0.2	0.6
125°	0.6	0.2	0.0	0.0	0.0	0.0	*0.2*	0.2	0.6
127.5°	0.6	0.2	0.0	0.0	0.0	0.0	*0.2*	0.4	0.6
130°	0.6	0.4	0.2	0.0	0.2	0.2	*0.4*	0.4	0.6
132.5°	0.8	0.6	0.6	0.4	0.4	0.6	*0.6*	0.8	0.8
135°	1.0	0.8	0.8	0.6	0.8	0.8	*0.8*	0.8	1.0
137.5°	1.0	1.0	1.0	1.0	1.0	1.0	*1.0*	1.0	1.2
140°	1.4	1.2	1.2	1.2	1.2	1.2	*1.2*	1.4	1.4
142.5°	1.7	1.7	1.4	1.4	1.4	1.7	*1.7*	1.7	1.9
145°	1.9	1.9	1.7	1.7	1.7	1.9	*1.9*	2.1	2.1
147.5°	2.5	2.3	1.9	1.9	1.9	1.9	*2.1*	2.3	2.5
150°	2.7	2.5	2.1	2.1	2.1	2.1	*2.3*	2.7	2.9
152.5°	2.9	2.7	2.3	2.1	2.1	2.1	*2.5*	2.7	3.1
155°	3.1	2.9	2.5	2.1	2.1	2.3	*2.7*	3.1	3.3
157.5°	3.7	3.3	2.9	2.5	2.5	2.7	*3.1*	3.5	3.7
160°	4.1	3.7	3.3	2.9	2.9	3.1	*3.5*	3.9	4.1
162.5°	4.6	4.1	3.5	3.3	3.1	3.3	*3.7*	4.3	4.6
165°	4.8	4.3	3.9	3.5	3.5	3.5	*4.1*	4.6	4.8
167.5°	5.0	4.8	4.1	3.7	3.7	3.7	*4.3*	4.8	5.0
170°	5.2	5.0	4.3	3.9	3.7	3.9	*4.6*	5.0	5.2
172.5°	5.6	5.4	4.8	4.3	4.1	4.3	*5.0*	5.4	5.6
175°	6.2	5.8	5.4	4.8	4.6	4.8	*5.4*	5.8	6.2
177.5°	6.4	6.0	5.6	5.0	4.8	5.0	*5.6*	6.0	6.4
180°	5.6	5.6	5.6	5.6	5.6	5.6	*5.6*	5.6	5.6

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

TEST NUMBER: P1431643
CATALOG NUMBER: EHBR1-12-UNV-A1-L840

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	15.72	16.98	16.08	17.30	17.61	16.70	17.96	17.06	18.28	18.59
	3H	17.28	18.41	17.66	18.74	19.11	18.04	19.17	18.42	19.50	19.86
	4H	17.95	19.00	18.36	19.35	19.74	18.60	19.65	19.00	20.00	20.39
	6H	18.51	19.47	18.92	19.84	20.24	19.03	20.00	19.45	20.37	20.76
	8H	18.71	19.62	19.14	20.01	20.42	19.17	20.08	19.60	20.47	20.88
	12H	18.83	19.71	19.27	20.09	20.52	19.25	20.12	19.68	20.50	20.93
4H	2H	16.29	17.34	16.69	17.69	18.08	17.06	18.11	17.46	18.46	18.84
	3H	18.08	18.94	18.49	19.35	19.75	18.65	19.51	19.06	19.92	20.32
	4H	18.87	19.65	19.31	20.07	20.51	19.35	20.12	19.78	20.54	20.98
	6H	19.56	20.23	20.02	20.67	21.14	19.92	20.58	20.38	21.03	21.50
	8H	19.81	20.43	20.28	20.88	21.35	20.10	20.72	20.57	21.17	21.65
	12H	19.98	20.53	20.46	21.01	21.49	20.22	20.77	20.71	21.25	21.73
8H	4H	19.16	19.78	19.63	20.23	20.70	19.58	20.20	20.05	20.65	21.12
	6H	19.97	20.48	20.48	20.98	21.46	20.28	20.79	20.78	21.28	21.77
	8H	20.30	20.76	20.83	21.27	21.77	20.54	20.99	21.06	21.51	22.01
	12H	20.55	20.95	21.07	21.45	22.02	20.73	21.13	21.25	21.63	22.20
12H	4H	19.17	19.72	19.66	20.21	20.68	19.59	20.14	20.08	20.63	21.10
	6H	20.02	20.48	20.54	20.99	21.49	20.32	20.78	20.85	21.29	21.79
	8H	20.41	20.81	20.92	21.30	21.88	20.64	21.04	21.16	21.54	22.11

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-1

Test Date: 07/30/2025

Luminaire Tested: EHBR-60-L840-N

Data in this report applies to families of products including EHBR-60-L840-N

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

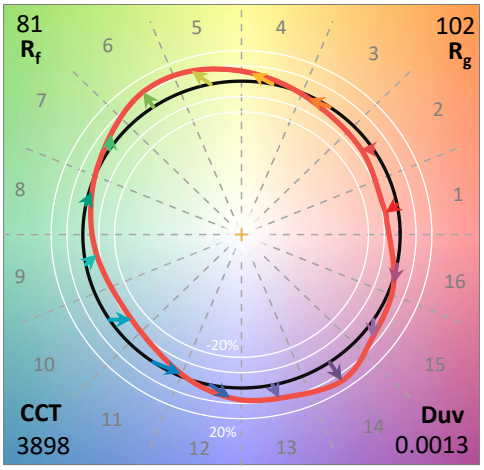
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2506-472-1
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-L840-N**
Description:	Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K):	3898
CIE u':	0.2263
CIE v':	0.5052
Duv:	0.0013
CIE x:	0.3861
CIE y:	0.3831
CIE z:	0.2308
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	578
Purity:	30.85729
Rf:	80.7
Rg:	102.1

CRI (Ra):	82.1				
R1:	84.4	R9:	38.5		
R2:	83.5	R10:	58.9		
R3:	80.8	R11:	83.6		
R4:	83.9	R12:	54.2		
R5:	82.1	R13:	82.8		
R6:	77.3	R14:	88.2		
R7:	86.4	R15:	81.2		
R8:	78.3				



Test Conditions

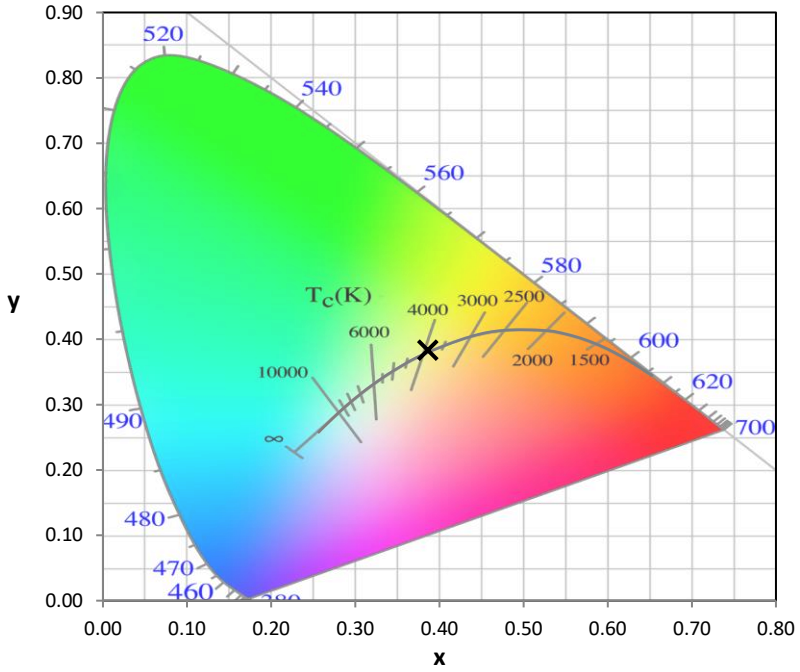
Stabilization Time:	42M
Operation Time:	1H 42M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-1

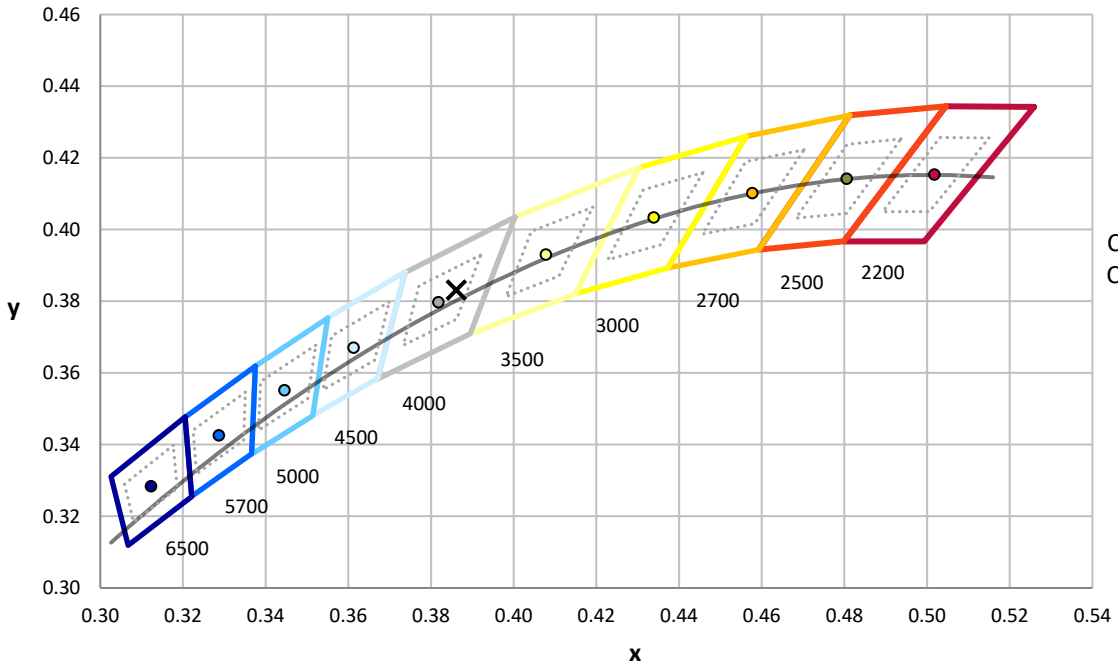
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

REPORT NUMBER: SP1-2506-472-1

CIE 1931 Chromaticity Diagram



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

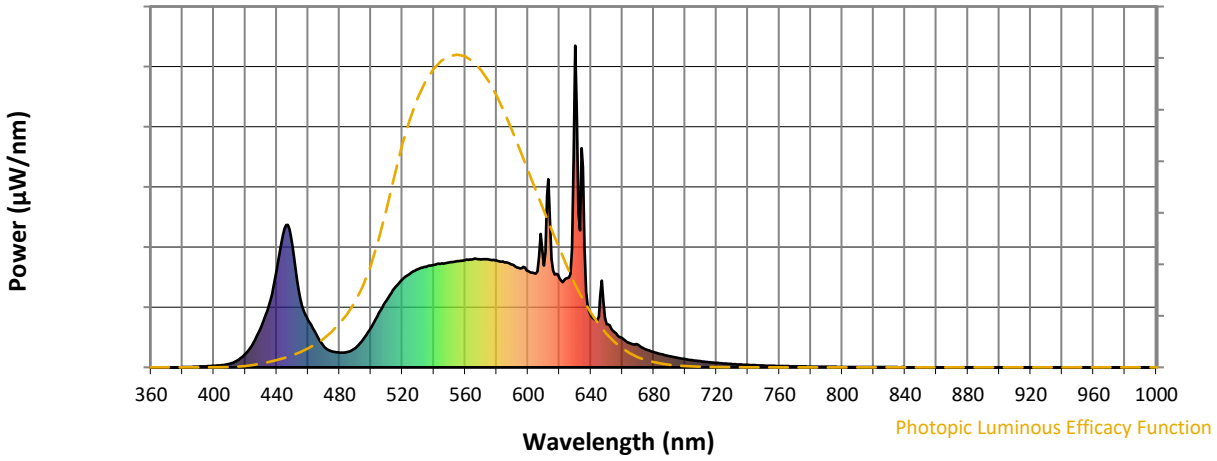


CCT = 3898K
CIE x = 0.3861
CIE y = 0.3831
Duv = 0.0013

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-1

Photopic Flux vs. Wavelength

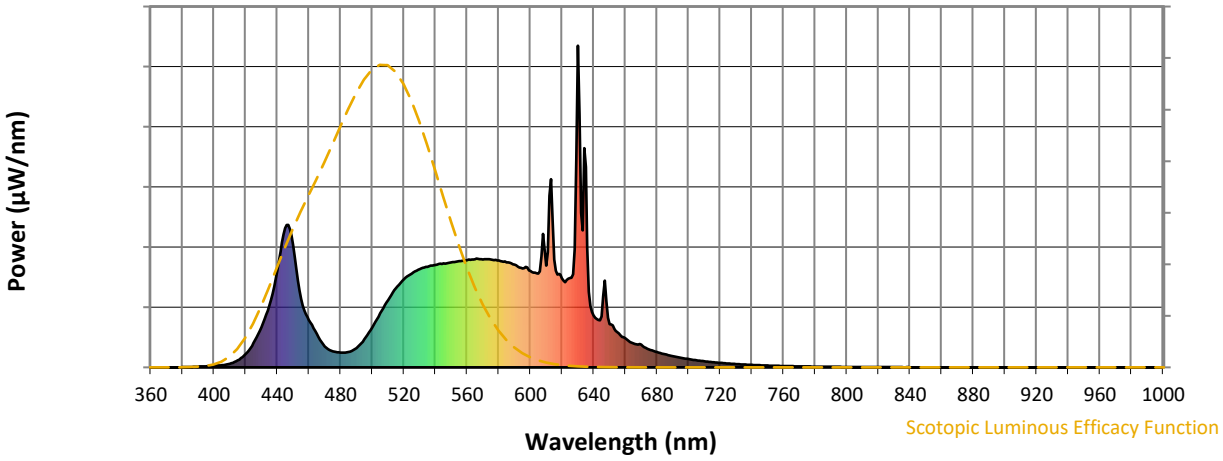


Photopic Lumens: NR

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Scotopic Flux vs. Wavelength

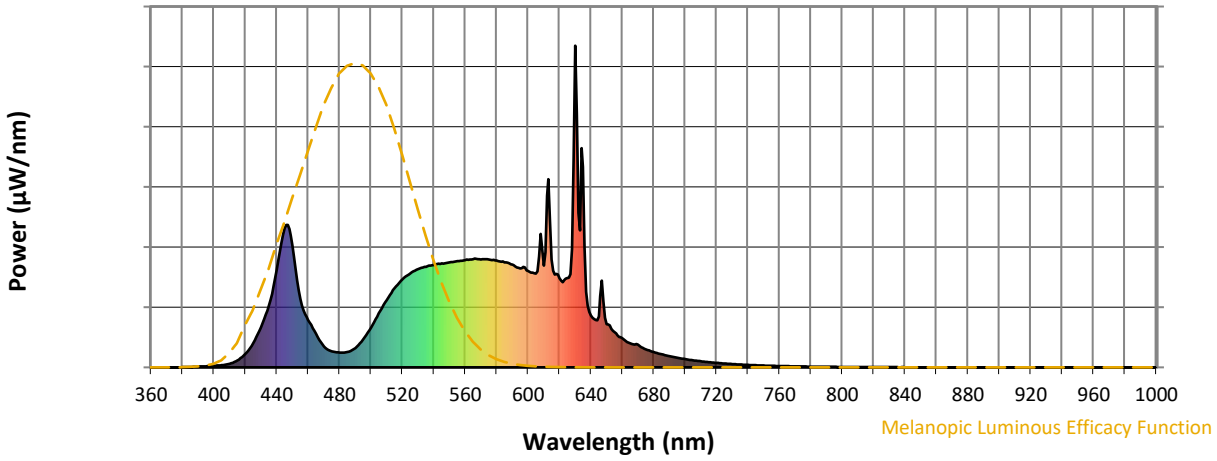


Scotopic Lumens: NR **S/P: 1.55**

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.99**

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

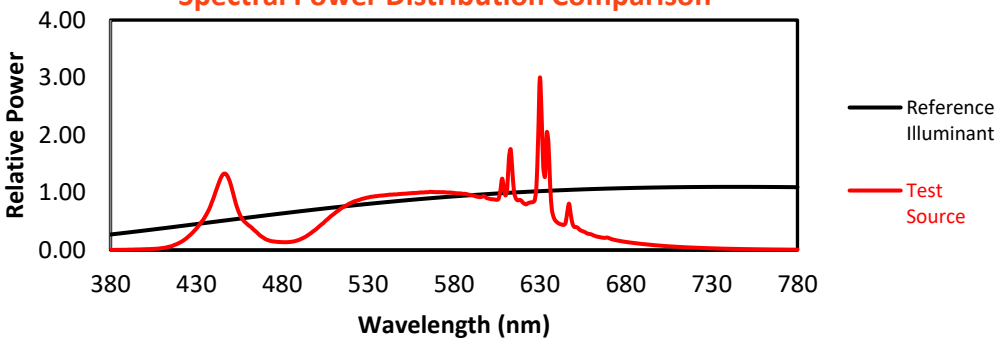
REPORT NUMBER: SP1-2506-472-1

TM-30-18

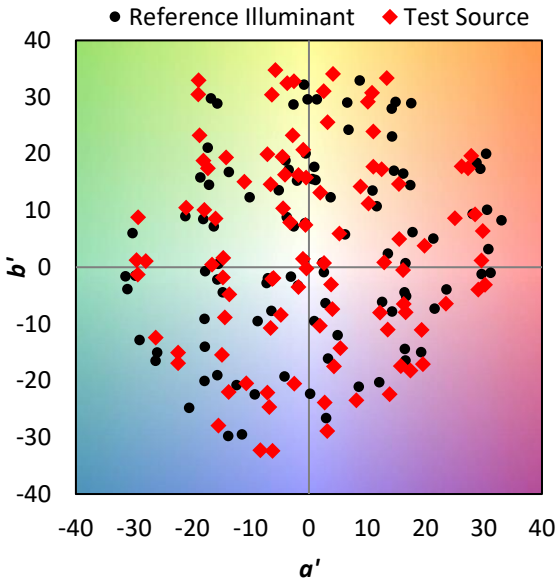
Summary

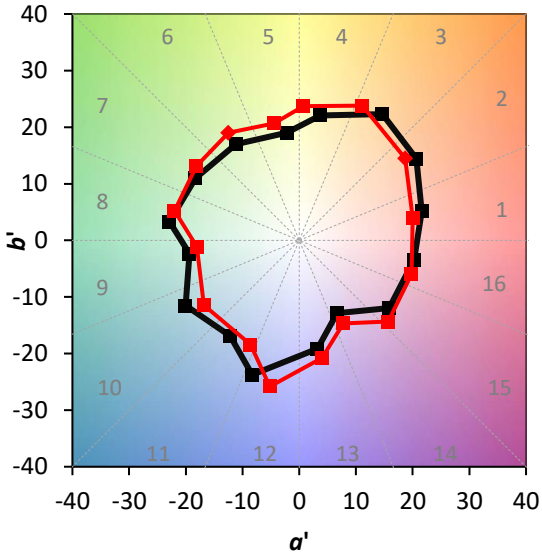
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

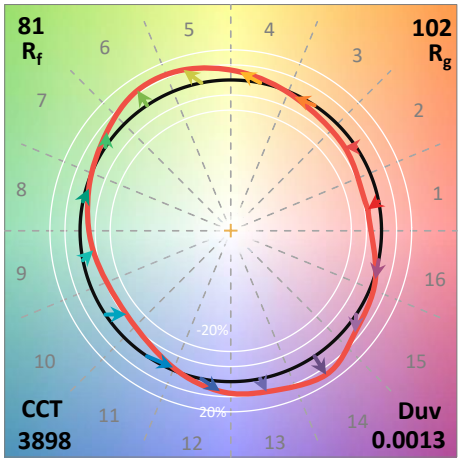
Spectral Power Distribution Comparison

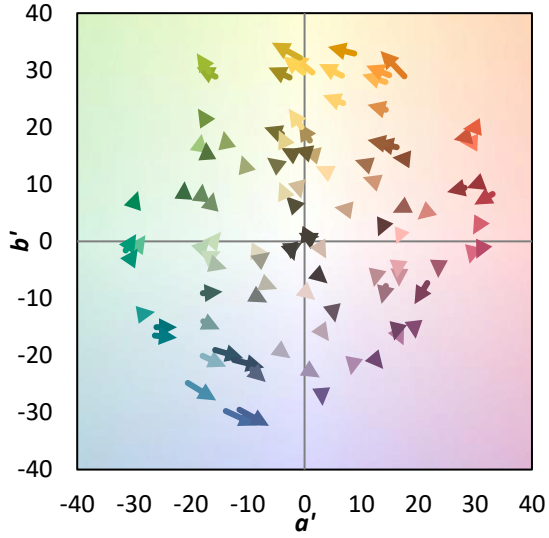


Color Vector Graphics







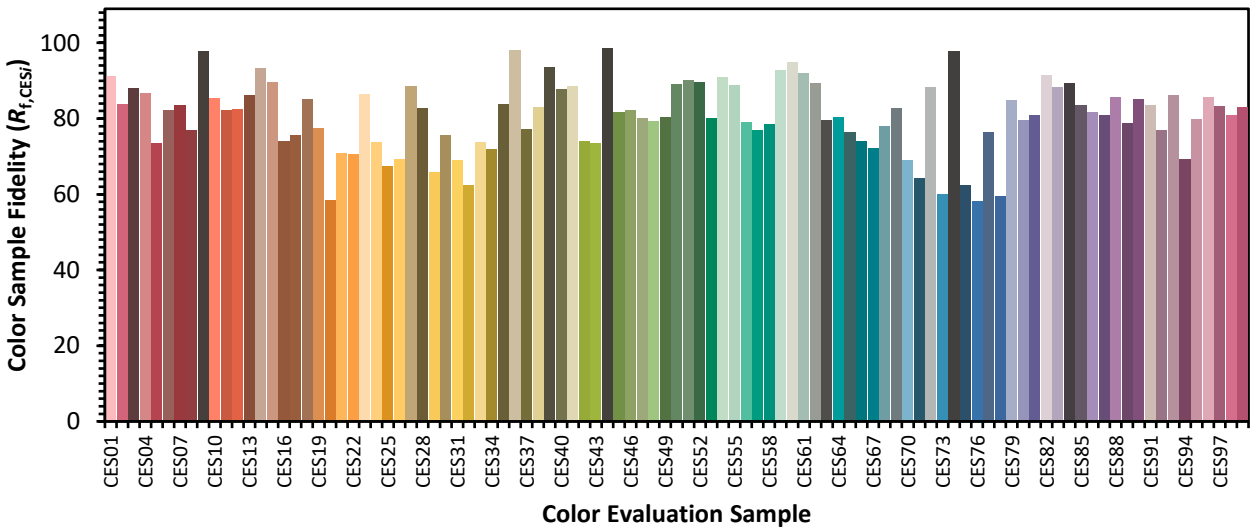


REPORT NUMBER: SP1-2506-472-1

TM-30-18

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

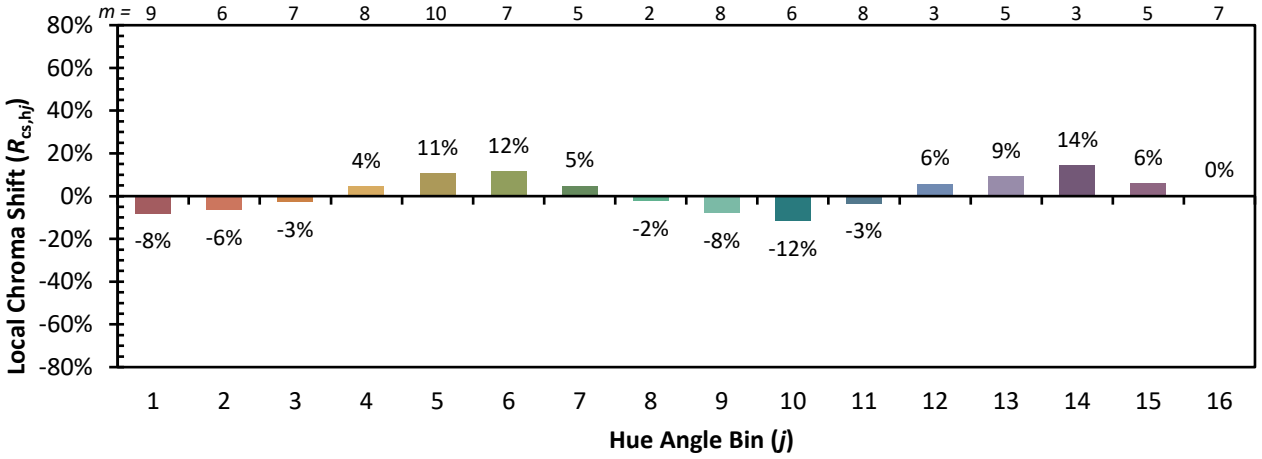
CES01 = 85	CES26 = 69	CES51 = 90	CES76 = 58
CES02 = 61	CES27 = 89	CES52 = 90	CES77 = 76
CES03 = 31	CES28 = 83	CES53 = 80	CES78 = 60
CES04 = 69	CES29 = 66	CES54 = 91	CES79 = 85
CES05 = 48	CES30 = 76	CES55 = 89	CES80 = 79
CES06 = 50	CES31 = 69	CES56 = 79	CES81 = 81
CES07 = 41	CES32 = 62	CES57 = 77	CES82 = 91
CES08 = 40	CES33 = 74	CES58 = 79	CES83 = 88
CES09 = 29	CES34 = 72	CES59 = 93	CES84 = 89
CES10 = 74	CES35 = 84	CES60 = 95	CES85 = 84
CES11 = 57	CES36 = 98	CES61 = 92	CES86 = 82
CES12 = 63	CES37 = 77	CES62 = 89	CES87 = 81
CES13 = 43	CES38 = 83	CES63 = 80	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 80	CES89 = 79
CES15 = 71	CES40 = 88	CES65 = 77	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 74	CES91 = 83
CES17 = 49	CES42 = 74	CES67 = 72	CES92 = 77
CES18 = 56	CES43 = 73	CES68 = 78	CES93 = 86
CES19 = 71	CES44 = 98	CES69 = 83	CES94 = 69
CES20 = 65	CES45 = 82	CES70 = 69	CES95 = 80
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 86
CES22 = 78	CES47 = 80	CES72 = 88	CES97 = 83
CES23 = 91	CES48 = 79	CES73 = 60	CES98 = 81
CES24 = 90	CES49 = 80	CES74 = 98	CES99 = 83
CES25 = 71	CES50 = 89	CES75 = 62	

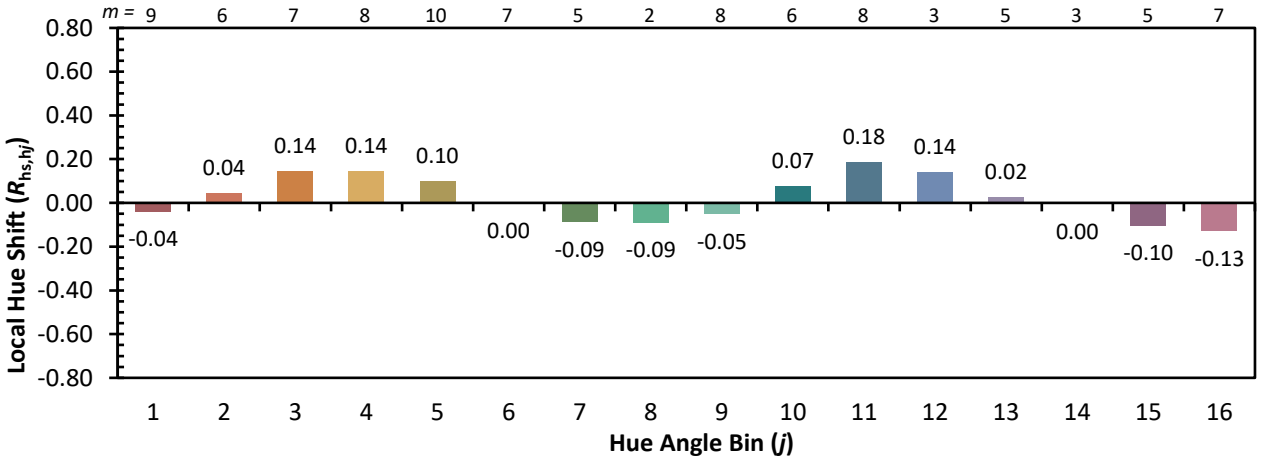


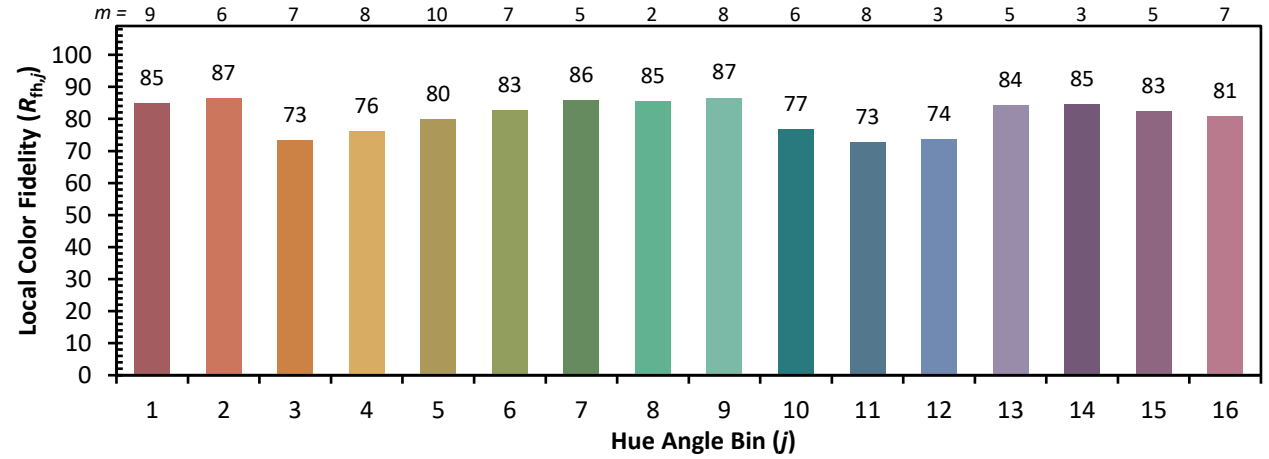
REPORT NUMBER: SP1-2506-472-1

TM-30-18

Color Rendition by Hue-Angle Bin



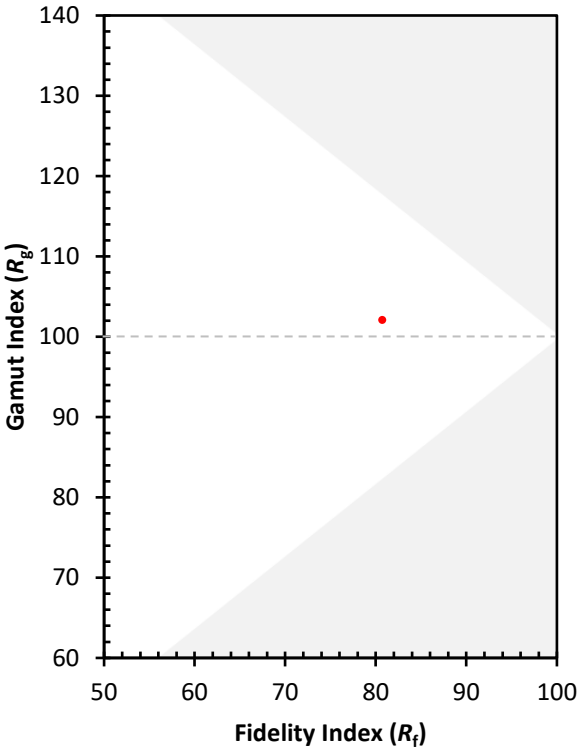


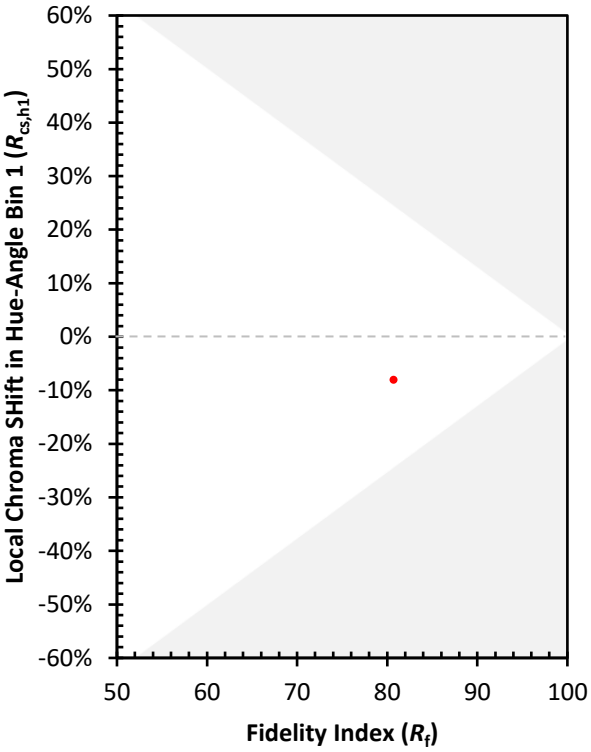


REPORT NUMBER: SP1-2506-472-1

TM-30-18

Measure Comparisons





(END OF REPORT)