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:

Luminaire Tested: EHBR1-18-UNV-TASM-L840-UPL36

Issue Date: 3/20/2026

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	
	REPORT IS A COMBINATION OF REPORTS P1431681 AND P1431635
Test Lab:	INNOVATION CENTER
Issue Date:	3/20/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	EHBR1-18-UNV-TASM-L840-UPL36
Description:	Elevate Round Highbay at, 18000 lumens, 4000K 80CRI LEDs with TASM lens
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	22034.0 lumens
Efficiency:	N/A
Efficacy:	179.0 lumens/watt
Spacing Criteria (0/90/45):	0.99 / 0.84 / 0.9
Luminous Opening:	Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type:	Semi-Direct

Input Watts (W):	123.1
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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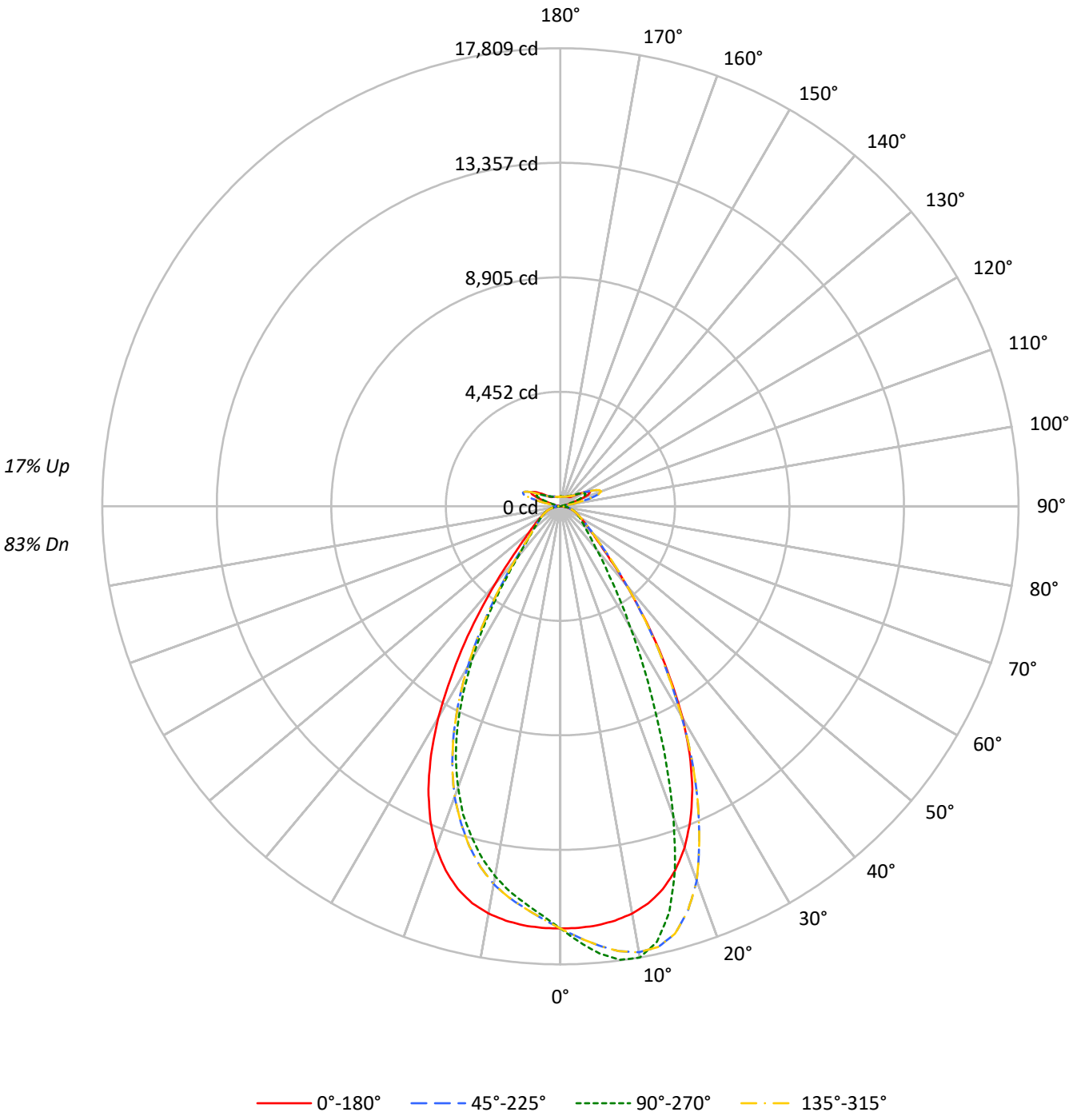
Luminous Intensity Polar Plot



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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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	108	104	101	98	103	100	98	95	93	91	89	87	85	83	81	79	78	75
2	101	95	89	85	97	91	87	83	85	82	79	80	77	74	75	72	71	68
3	94	86	80	75	91	84	78	74	78	74	70	74	70	67	69	66	64	62
4	88	79	72	67	85	77	71	66	72	67	63	68	64	61	65	61	59	56
5	83	73	66	61	80	71	65	60	67	62	58	64	59	56	60	57	54	52
6	78	67	60	55	75	66	59	55	62	57	53	59	55	51	56	53	50	48
7	73	63	56	51	71	61	55	50	58	53	49	56	51	47	53	49	46	44
8	69	58	52	47	67	57	51	46	55	49	45	52	47	44	50	46	43	41
9	65	55	48	43	63	53	47	43	51	46	42	49	44	41	47	43	40	38
10	62	51	45	40	60	50	44	40	48	43	39	46	42	38	44	40	37	36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	77076	77076	77076	77076
5°	76607	81725	76607	72632
10°	75665	83823	75665	68740
15°	73431	77898	73431	63497
20°	68676	62464	68676	56558
25°	60784	43279	60784	47398
30°	49354	28156	49354	35463
35°	35399	18234	35399	23608
40°	22886	12568	22886	14889
45°	14521	9735	14521	10608
50°	10783	8273	10783	8836
55°	8804	7536	8804	7800
60°	7624	7179	7624	7222
65°	6950	6923	6950	6894
70°	6587	6783	6587	6696
75°	6160	6563	6160	6365
80°	5412	6195	5412	5792
85°	3500	4422	3500	4219

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
Vertical Angle: 45°
Luminance: 20416 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1560.6	7.1
10°-20°	4245.7	19.3
20°-30°	4979.4	22.6
30°-40°	3462.8	15.7
40°-50°	1720.9	7.8
50°-60°	1029.3	4.7
60°-70°	724.4	3.3
70°-80°	466.7	2.1
80°-90°	154.7	0.7
90°-100°	97.8	0.4
100°-110°	642.8	2.9
110°-120°	1188.4	5.4
120°-130°	705.6	3.2
130°-140°	425.8	1.9
140°-150°	293.7	1.3
150°-160°	190.8	0.9
160°-170°	108.6	0.5
170°-180°	35.9	0.2
0°-30°	10785.7	49.0
0°-40°	14248.5	64.7
0°-60°	16998.7	77.1
0°-90°	18344.5	83.3
90°-120°	1929.1	8.8
90°-150°	3354.2	15.2
90°-180°	3689.0	16.7
0°-180°	22034.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	16413	16413	16413	16413	16413	
5°	16357	17450	16357	15508	16357	1552
15°	15406	16343	15406	13321	15406	4305
25°	12139	8643	12139	9465	12139	5495
35°	6497	3347	6497	4333	6497	4056
45°	2350	1575	2350	1716	2350	1923
55°	1190	1018	1190	1054	1190	1088
65°	725	723	725	720	725	729
75°	434	462	434	448	434	456
85°	120	152	120	145	120	134
90°	27	29	27	27	27	18
95°	52	48	52	45	52	55
105°	295	148	295	224	295	398
115°	1265	1079	1265	1027	1265	1153
125°	809	846	809	741	809	745
135°	510	588	510	541	510	404
145°	460	481	460	447	460	288
155°	408	425	408	394	408	191
165°	381	391	381	373	381	108
175°	377	381	377	370	377	36
180°	376	376	376	376	376	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	16412.8	16412.8	16412.8	16412.8	*16412.8*	16412.8	16412.8	16412.8	16412.8	16412.8	16412.8
2.5°	16403.2	16615.3	16787.0	16900.3	*16956.3*	16900.3	16787.0	16615.3	16403.2	16192.4	16047.5
5°	16356.8	16781.5	17141.3	17376.7	*17449.6*	17376.7	17141.3	16781.5	16356.8	15955.5	15689.2
7.5°	16245.7	16907.4	17442.0	17716.8	*17783.9*	17716.8	17442.0	16907.4	16245.7	15677.5	15341.2
10°	*16076.1*	*16986.8*	*17604.5*	*17801.4*	*17809.4*	*17801.4*	*17604.5*	*16986.8*	*16076.1*	*15310.7*	*14914.0*
12.5°	15805.6	16958.5	17550.0	17485.4	*17338.5*	17485.4	17550.0	16958.5	15805.6	14862.6	14362.2
15°	15405.5	16790.7	17205.0	16679.0	*16342.6*	16679.0	17205.0	16790.7	15405.5	14257.5	13677.1
17.5°	14841.7	16476.8	16484.8	15444.3	*14809.6*	15444.3	16484.8	16476.8	14841.7	13517.6	12878.4
20°	14115.0	15973.3	15493.2	13590.0	*12838.1*	13590.0	15493.2	15973.3	14115.0	12643.0	12015.8
22.5°	13204.0	15294.4	14112.2	11724.6	*10698.8*	11724.6	14112.2	15294.4	13204.0	11625.8	10973.0
25°	12138.6	14462.5	12626.7	9692.1	*8642.7*	9692.1	12626.7	14462.5	12138.6	10413.8	9823.5
27.5°	10885.3	13408.1	11044.8	7920.0	*6951.8*	7920.0	11044.8	13408.1	10885.3	9162.5	8559.6
30°	9493.3	12056.4	9398.5	6307.3	*5415.7*	6307.3	9398.5	12056.4	9493.3	7756.6	7216.8
32.5°	7934.8	10731.5	7817.5	5053.8	*4298.6*	5053.8	7817.5	10731.5	7934.8	6415.0	5850.9
35°	6496.9	9073.8	6392.0	3971.1	*3346.6*	3971.1	6392.0	9073.8	6496.9	5148.6	4594.6
37.5°	5098.7	7507.6	5095.4	3197.7	*2714.5*	3197.7	5095.4	7507.6	5098.7	4002.8	3553.1
40°	3966.8	5870.3	3992.3	2552.6	*2178.4*	2552.6	3992.3	5870.3	3966.8	3045.6	2757.9
42.5°	3005.6	4488.7	3138.0	2095.0	*1850.3*	2095.0	3138.0	4488.7	3005.6	2399.6	2184.2
45°	2349.5	3303.2	2450.4	1767.5	*1575.1*	1767.5	2450.4	3303.2	2349.5	1932.5	1787.8
47.5°	1913.4	2552.9	1986.0	1516.0	*1381.2*	1516.0	1986.0	2552.9	1913.4	1634.5	1526.2
50°	1607.1	1958.9	1649.0	1323.4	*1232.9*	1323.4	1649.0	1958.9	1607.1	1399.7	1327.4
52.5°	1380.6	1597.6	1404.3	1179.4	*1118.4*	1179.4	1404.3	1597.6	1380.6	1224.6	1179.7
55°	1189.8	1343.1	1221.2	1060.6	*1018.4*	1060.6	1221.2	1343.1	1189.8	1089.8	1056.6
57.5°	1044.9	1139.3	1060.6	959.3	*931.3*	959.3	1060.6	1139.3	1044.9	969.8	951.9
60°	916.5	986.7	935.9	871.0	*863.0*	871.0	935.9	986.7	916.5	872.5	860.8
62.5°	817.7	862.0	827.6	791.6	*784.5*	791.6	827.6	862.0	817.7	783.9	786.0
65°	725.4	766.6	739.6	720.2	*722.6*	720.2	739.6	766.6	725.4	709.7	713.1
67.5°	654.0	675.5	663.8	652.8	*655.5*	652.8	663.8	675.5	654.0	638.6	643.8
70°	578.0	601.1	589.1	590.6	*595.2*	590.6	589.1	601.1	578.0	573.4	577.4
72.5°	505.3	523.2	519.2	522.9	*527.8*	522.9	519.2	523.2	505.3	504.7	505.0
75°	433.9	447.5	449.3	454.6	*462.3*	454.6	449.3	447.5	433.9	429.3	434.9
77.5°	356.1	371.5	377.3	384.4	*395.8*	384.4	377.3	371.5	356.1	359.2	361.9
80°	284.7	291.8	304.7	309.9	*325.9*	309.9	304.7	291.8	284.7	279.5	283.5
82.5°	208.4	214.8	225.9	235.7	*245.0*	235.7	225.9	214.8	208.4	205.9	206.2
85°	120.3	130.2	137.6	149.3	*152.0*	149.3	137.6	130.2	120.3	123.1	120.3
87.5°	42.2	45.2	51.7	56.3	*56.6*	56.3	51.7	45.2	42.2	43.1	39.1
90°	26.9	45.6	78.6	42.7	*29.1*	42.7	78.6	45.6	26.9	47.3	73.9
92.5°	35.1	62.0	111.4	57.0	*39.3*	57.0	111.4	62.0	35.1	61.7	118.9
95°	51.7	76.3	142.0	63.2	*47.5*	63.2	142.0	76.3	51.7	82.1	166.0
97.5°	80.4	94.7	160.4	67.3	*57.7*	67.3	160.4	94.7	80.4	100.5	190.5
100°	107.0	107.0	293.4	77.5	*65.9*	77.5	293.4	107.0	107.0	123.3	296.9
102.5°	162.2	209.5	680.3	155.6	*80.2*	155.6	680.3	209.5	162.2	231.7	630.3
105°	295.1	479.5	1197.8	403.1	*148.0*	403.1	1197.8	479.5	295.1	485.4	1123.2
107.5°	559.0	894.7	1543.4	795.8	*346.4*	795.8	1543.4	894.7	559.0	859.7	1481.5
110°	894.4	1250.6	1684.6	1090.4	*702.3*	1090.4	1684.6	1250.6	894.4	1180.8	1553.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1164.4	1393.8	1645.7	1209.0	*972.3*	1209.0	1645.7	1393.8	1164.4	1303.5	1487.6
115°	1265.0	1373.4	1469.8	1204.9	*1078.7*	1204.9	1469.8	1373.4	1265.0	1272.8	1328.1
117.5°	1222.0	1256.8	1269.3	1131.3	*1084.8*	1131.3	1269.3	1256.8	1222.0	1144.3	1127.6
120°	1103.4	1089.1	1069.2	1022.9	*1023.5*	1022.9	1069.2	1089.1	1103.4	999.1	941.5
122.5°	954.4	923.7	903.5	912.7	*939.6*	912.7	903.5	923.7	954.4	850.0	806.8
125°	809.1	778.5	787.2	818.6	*845.8*	818.6	787.2	778.5	809.1	721.5	711.0
127.5°	686.7	672.4	703.4	738.8	*761.9*	738.8	703.4	672.4	686.7	631.5	643.5
130°	599.1	602.8	644.1	673.7	*688.3*	673.7	644.1	602.8	599.1	572.5	600.8
132.5°	544.2	560.2	599.5	624.9	*633.4*	624.9	599.5	560.2	544.2	536.3	570.8
135°	509.8	533.6	569.1	585.7	*588.4*	585.7	569.1	533.6	509.8	512.1	544.2
137.5°	489.6	513.5	540.4	553.3	*549.5*	553.3	540.4	513.5	489.6	496.0	520.3
140°	477.6	501.6	513.8	528.8	*525.3*	528.8	513.8	501.6	477.6	481.7	500.1
142.5°	465.7	487.6	493.7	504.5	*500.7*	504.5	493.7	487.6	465.7	469.8	482.0
145°	459.8	475.9	471.5	486.1	*480.6*	486.1	471.5	475.9	459.8	461.6	468.0
147.5°	449.6	461.6	455.4	468.0	*462.5*	468.0	455.4	461.6	449.6	449.6	451.9
150°	437.6	445.8	437.3	451.9	*450.5*	451.9	437.3	445.8	437.6	435.6	437.9
152.5°	421.6	429.7	421.6	438.2	*436.5*	438.2	421.6	429.7	421.6	419.5	421.9
155°	407.8	411.9	407.8	424.5	*424.8*	424.5	407.8	411.9	407.8	407.5	408.1
157.5°	398.2	400.6	398.5	413.2	*413.5*	413.2	398.5	400.6	398.2	398.2	398.5
160°	389.3	393.4	391.6	404.2	*404.5*	404.2	391.6	393.4	389.3	391.0	391.3
162.5°	385.8	385.8	384.4	396.9	*397.5*	396.9	384.4	385.8	385.8	385.8	387.8
165°	380.6	382.6	379.1	387.9	*390.6*	387.9	379.1	382.6	380.6	382.3	382.3
167.5°	379.1	377.1	377.7	384.8	*387.5*	384.8	377.7	377.1	379.1	380.9	380.9
170°	375.3	375.6	374.3	381.3	*384.0*	381.3	374.3	375.6	375.3	377.4	379.1
172.5°	376.3	376.3	373.1	378.1	*382.8*	378.1	373.1	376.3	376.3	378.0	380.0
175°	376.9	375.2	373.7	376.7	*381.4*	376.7	373.7	375.2	376.9	376.6	376.6
177.5°	374.9	375.5	376.1	379.0	*385.8*	379.0	376.1	375.5	374.9	376.6	376.6
180°	375.5	375.5	375.5	375.5	*375.5*	375.5	375.5	375.5	375.5	375.5	375.5

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	16412.8	16412.8	16412.8	16412.8	16412.8	16412.8
2.5°	15936.1	15925.6	15936.1	16047.5	16192.4	16403.2
5°	15565.8	15508.0	15565.8	15689.2	15955.5	16356.8
7.5°	15134.6	15101.1	15134.6	15341.2	15677.5	16245.7
10°	*14680.7*	*14604.7*	*14680.7*	*14914.0*	*15310.7*	*16076.1*
12.5°	14121.2	14020.5	14121.2	14362.2	14862.6	15805.6
15°	13409.6	13321.3	13409.6	13677.1	14257.5	15405.5
17.5°	12646.1	12566.0	12646.1	12878.4	13517.6	14841.7
20°	11687.1	11624.3	11687.1	12015.8	12643.0	14115.0
22.5°	10681.0	10622.2	10681.0	10973.0	11625.8	13204.0
25°	9497.3	9465.3	9497.3	9823.5	10413.8	12138.6
27.5°	8218.2	8163.8	8218.2	8559.6	9162.5	10885.3
30°	6911.5	6821.3	6911.5	7216.8	7756.6	9493.3
32.5°	5633.3	5568.4	5633.3	5850.9	6415.0	7934.8
35°	4398.0	4333.0	4398.0	4594.6	5148.6	6496.9
37.5°	3427.0	3312.2	3427.0	3553.1	4002.8	5098.7
40°	2599.1	2580.6	2599.1	2757.9	3045.6	3966.8
42.5°	2115.9	2065.7	2115.9	2184.2	2399.6	3005.6
45°	1736.1	1716.4	1736.1	1787.8	1932.5	2349.5
47.5°	1493.0	1501.6	1493.0	1526.2	1634.5	1913.4
50°	1311.7	1316.9	1311.7	1327.4	1399.7	1607.1
52.5°	1178.1	1173.5	1178.1	1179.7	1224.6	1380.6
55°	1059.9	1054.1	1059.9	1056.6	1089.8	1189.8
57.5°	956.5	960.8	956.5	951.9	969.8	1044.9
60°	864.2	868.2	864.2	860.8	872.5	916.5
62.5°	786.3	788.8	786.3	786.0	783.9	817.7
65°	716.8	719.6	716.8	713.1	709.7	725.4
67.5°	650.3	650.3	650.3	643.8	638.6	654.0
70°	587.8	587.5	587.8	577.4	573.4	578.0
72.5°	512.7	520.1	512.7	505.0	504.7	505.3
75°	439.8	448.4	439.8	434.9	429.3	433.9
77.5°	365.9	379.2	365.9	361.9	359.2	356.1
80°	290.2	304.7	290.2	283.5	279.5	284.7
82.5°	214.5	225.3	214.5	206.2	205.9	208.4
85°	127.7	145.0	127.7	120.3	123.1	120.3
87.5°	40.9	52.3	40.9	39.1	43.1	42.2
90°	43.3	26.9	43.3	73.9	47.3	26.9
92.5°	65.8	39.2	65.8	118.9	61.7	35.1
95°	76.0	45.3	76.0	166.0	82.1	51.7
97.5°	84.2	57.9	84.2	190.5	100.5	80.4
100°	98.5	76.3	98.5	296.9	123.3	107.0
102.5°	208.9	129.5	208.9	630.3	231.7	162.2
105°	440.1	223.5	440.1	1123.2	485.4	295.1
107.5°	787.8	387.2	787.8	1481.5	859.7	559.0
110°	1045.5	722.6	1045.5	1553.1	1180.8	894.4

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

Scaled Data Report

TEST NUMBER:
CATALOG NUMBER: EHBR1-18-UNV-TASM-L840-UPL36

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1123.2	976.3	1123.2	1487.6	1303.5	1164.4
115°	1080.3	1027.4	1080.3	1328.1	1272.8	1265.0
117.5°	986.2	992.6	986.2	1127.6	1144.3	1222.0
120°	877.8	919.0	877.8	941.5	999.1	1103.4
122.5°	777.9	826.9	777.9	806.8	850.0	954.4
125°	691.9	741.3	691.9	711.0	721.5	809.1
127.5°	632.6	665.7	632.6	643.5	631.5	686.7
130°	585.9	614.5	585.9	600.8	572.5	599.1
132.5°	553.5	571.9	553.5	570.8	536.3	544.2
135°	525.1	541.2	525.1	544.2	512.1	509.8
137.5°	500.9	514.9	500.9	520.3	496.0	489.6
140°	479.1	491.1	479.1	500.1	481.7	477.6
142.5°	456.9	465.1	456.9	482.0	469.8	465.7
145°	441.1	447.3	441.1	468.0	461.6	459.8
147.5°	427.4	431.5	427.4	451.9	449.6	449.6
150°	413.7	417.8	413.7	437.9	435.6	437.6
152.5°	399.7	404.1	399.7	421.9	419.5	421.6
155°	390.0	394.4	390.0	408.1	407.5	407.8
157.5°	384.6	387.2	384.6	398.5	398.2	398.2
160°	379.4	381.7	379.4	391.3	391.0	389.3
162.5°	373.8	376.2	373.8	387.8	385.8	385.8
165°	372.4	372.7	372.4	382.3	382.3	380.6
167.5°	370.6	372.7	370.6	380.9	380.9	379.1
170°	370.9	371.2	370.9	379.1	377.4	375.3
172.5°	371.5	371.8	371.5	380.0	378.0	376.3
175°	370.2	370.5	370.2	376.6	376.6	376.9
177.5°	372.5	372.8	372.5	376.6	376.6	374.9
180°	375.5	375.5	375.5	375.5	375.5	375.5

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

Scaled Data Report

TEST NUMBER: CATALOG
CATALOG NUMBER: EHBR1-18-UNV-TASM-L840-UPL36

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	14.94	15.92	15.57	16.54	17.25	14.25	15.24	14.89	15.86	16.57
	3H	16.48	17.35	17.13	17.99	18.74	16.10	16.97	16.75	17.61	18.35
	4H	17.11	17.93	17.78	18.58	19.34	16.87	17.69	17.54	18.34	19.10
	6H	17.59	18.34	18.27	19.00	19.77	17.51	18.26	18.19	18.92	19.70
	8H	17.73	18.45	18.43	19.12	19.90	17.73	18.44	18.42	19.12	19.90
	12H	17.80	18.48	18.50	19.15	19.96	17.86	18.53	18.55	19.20	20.01
4H	2H	15.34	16.16	16.01	16.81	17.57	14.82	15.64	15.49	16.29	17.05
	3H	17.13	17.81	17.81	18.50	19.28	16.87	17.55	17.55	18.24	19.01
	4H	17.90	18.52	18.60	19.21	20.02	17.78	18.39	18.47	19.08	19.89
	6H	18.51	19.04	19.23	19.76	20.58	18.54	19.07	19.26	19.79	20.61
	8H	18.71	19.20	19.43	19.91	20.75	18.81	19.30	19.53	20.02	20.85
	12H	18.81	19.25	19.55	19.99	20.82	18.98	19.41	19.71	20.15	20.99
8H	4H	18.15	18.64	18.87	19.35	20.18	18.05	18.54	18.77	19.26	20.09
	6H	18.89	19.29	19.64	20.05	20.88	18.95	19.35	19.70	20.11	20.95
	8H	19.16	19.52	19.93	20.28	21.13	19.31	19.66	20.07	20.43	21.28
	12H	19.33	19.64	20.09	20.39	21.30	19.55	19.86	20.31	20.61	21.53
12H	4H	18.15	18.59	18.89	19.33	20.16	18.06	18.49	18.80	19.23	20.07
	6H	18.93	19.29	19.70	20.05	20.90	19.00	19.36	19.77	20.12	20.97
	8H	19.25	19.56	20.01	20.30	21.22	19.40	19.71	20.16	20.46	21.37

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

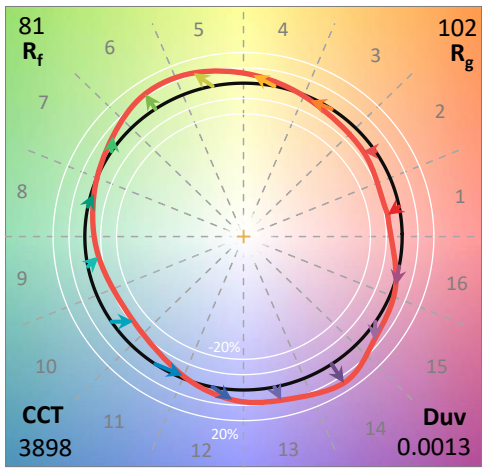
Test Information

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

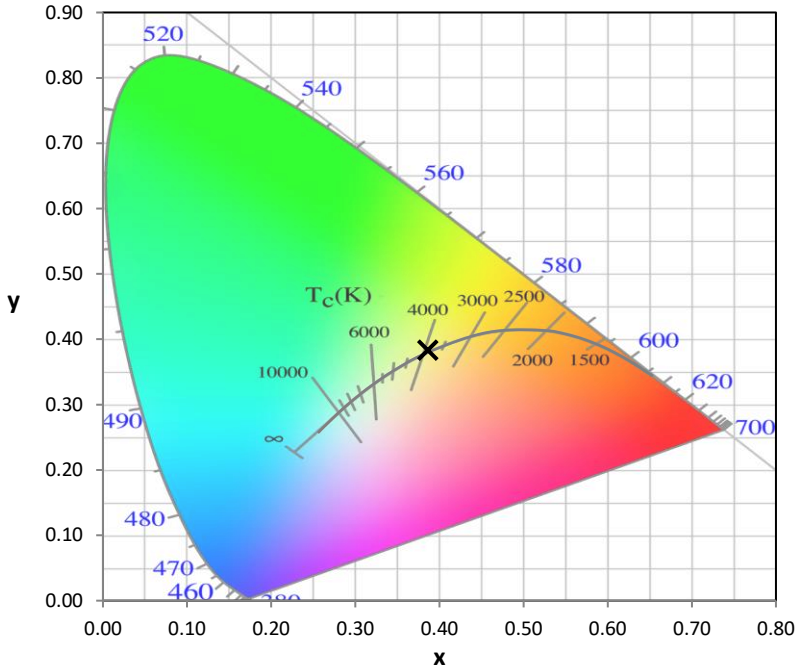
Stabilization Time:	42M
Operation Time:	1H 42M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2506-472-1

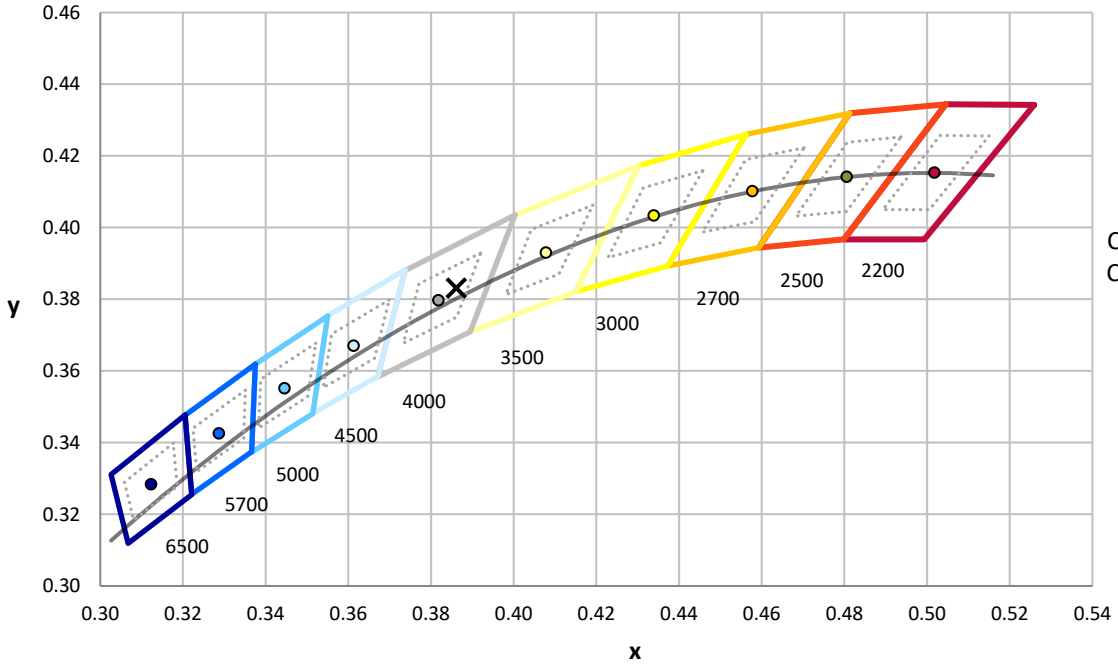
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

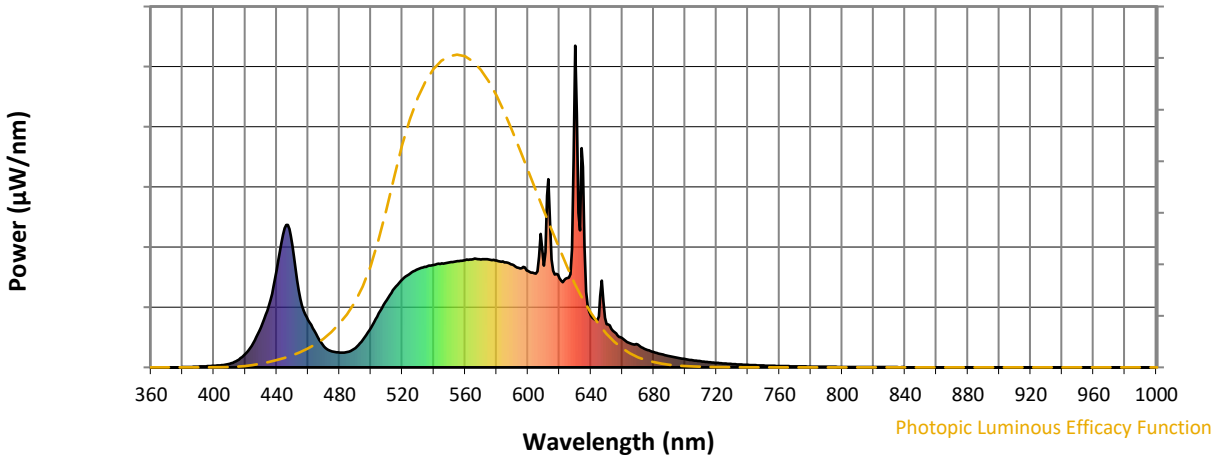


CCT = 3898K
CIE x = 0.3861
CIE y = 0.3831
Duv = 0.0013

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-1

Photopic Flux vs. Wavelength

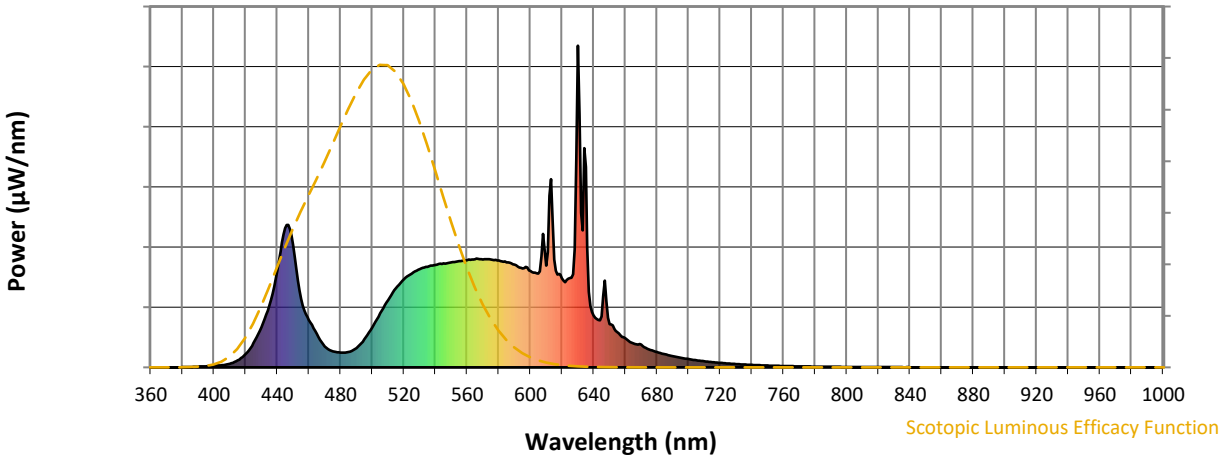


Photopic Lumens: NR

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

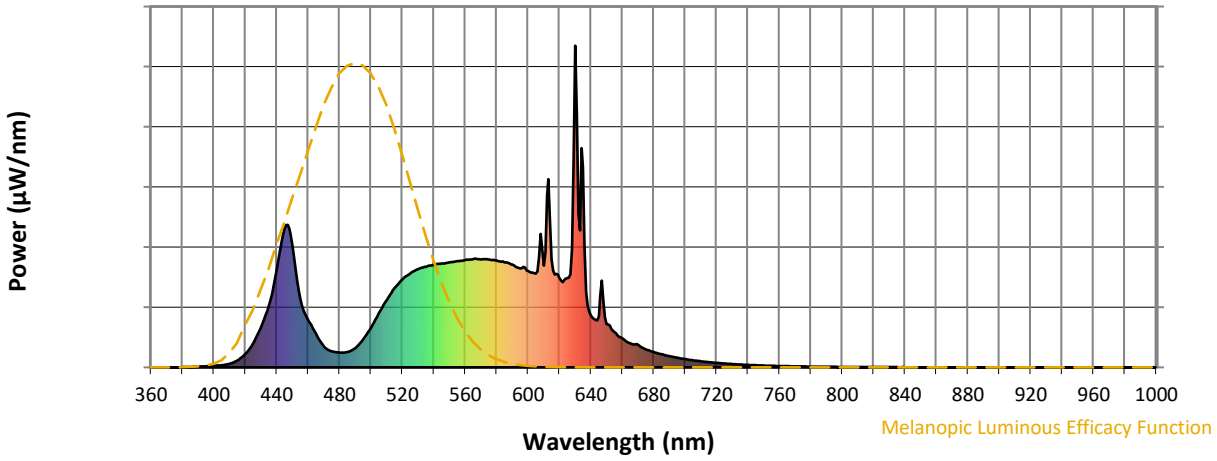


Scotopic Lumens: NR **S/P: 1.55**

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			

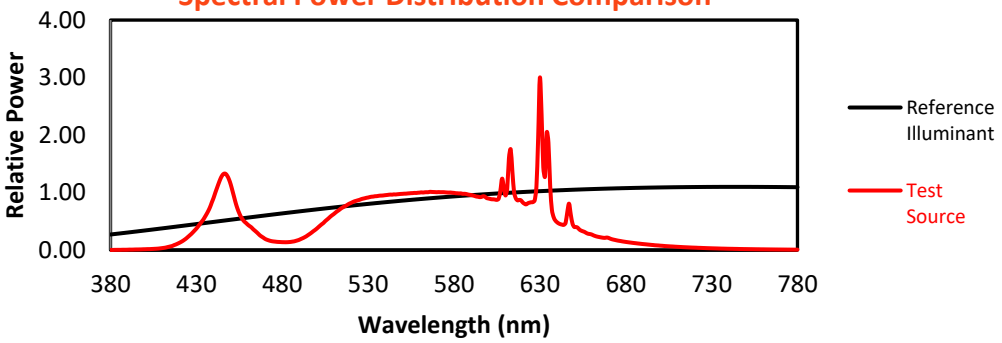
REPORT NUMBER: SP1-2506-472-1

TM-30-18

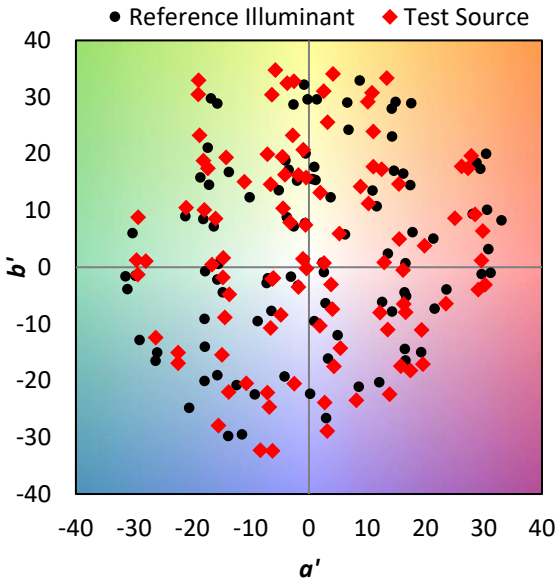
Summary

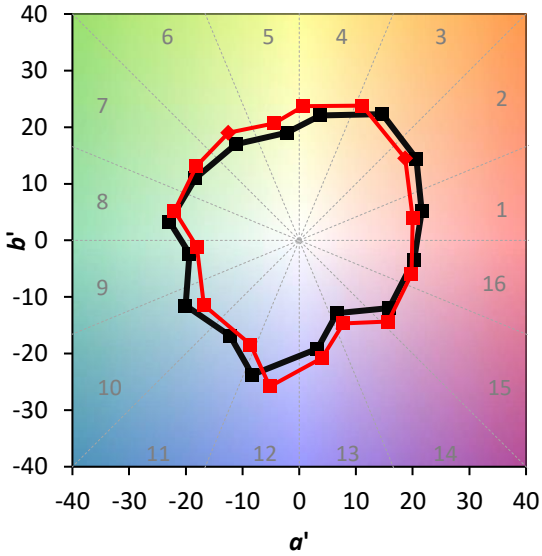
R_f = 80.7
R_g = 102.1
CIE R_a = 82.1
R_9 = 38.5

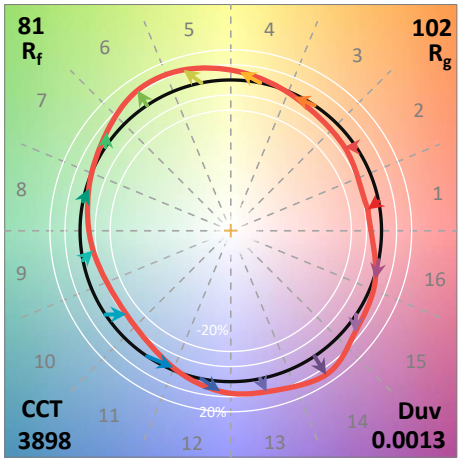
Spectral Power Distribution Comparison

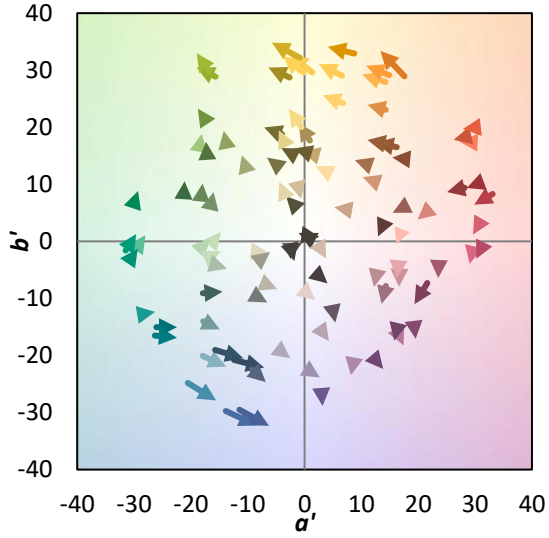


Color Vector Graphics







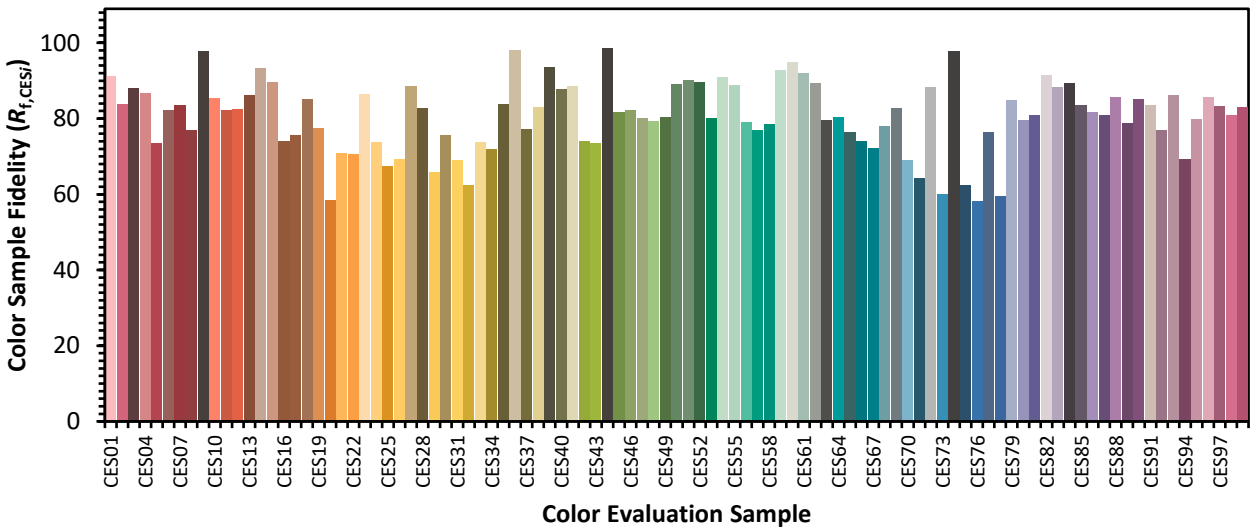


REPORT NUMBER: SP1-2506-472-1

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	



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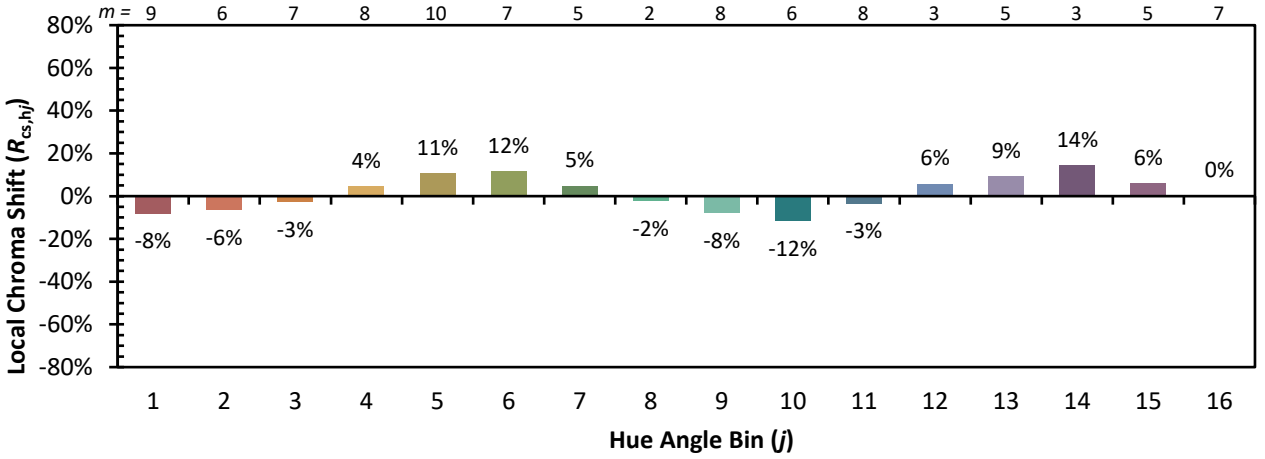
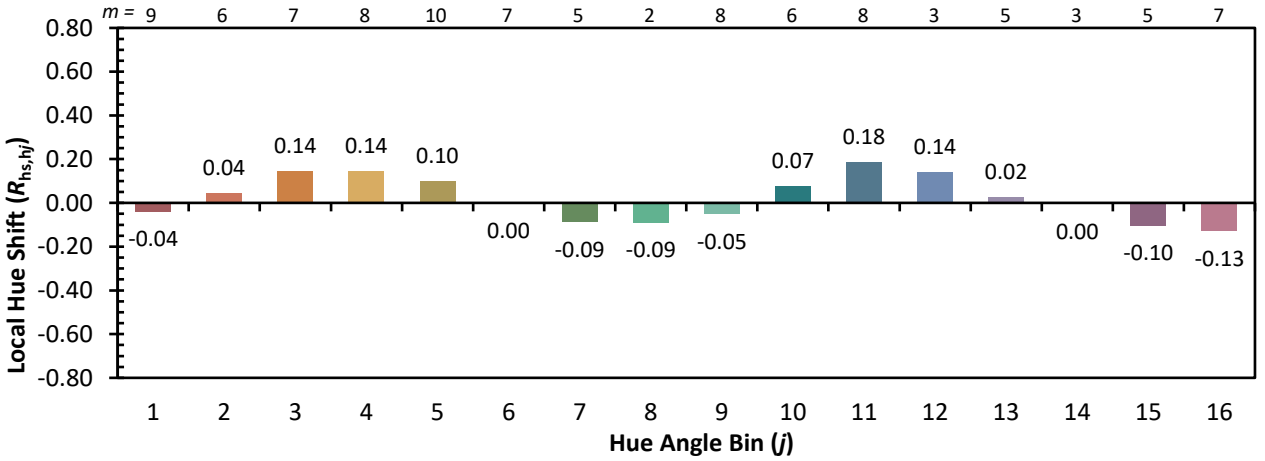
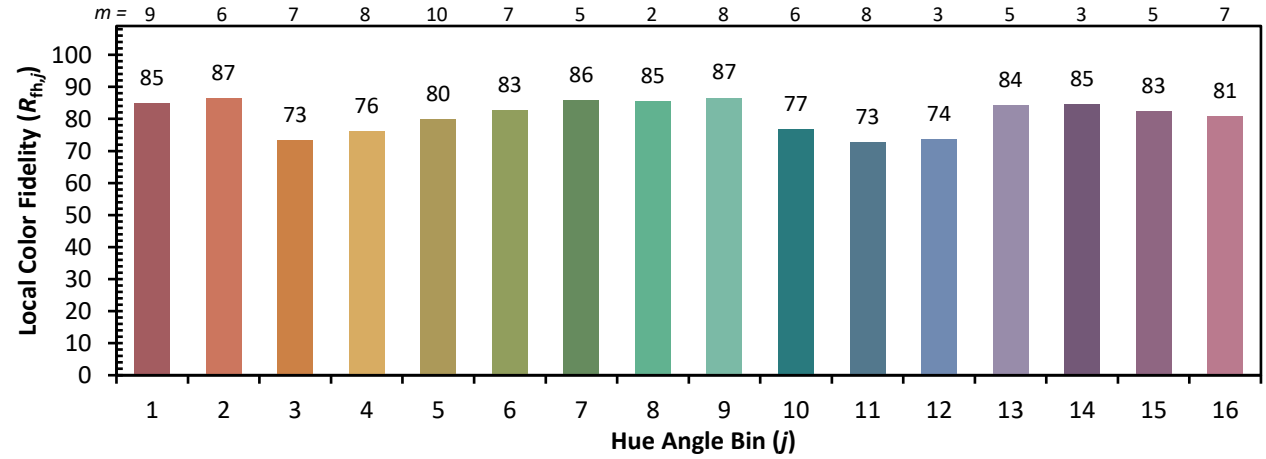
Color Rendition by Hue-Angle Bin







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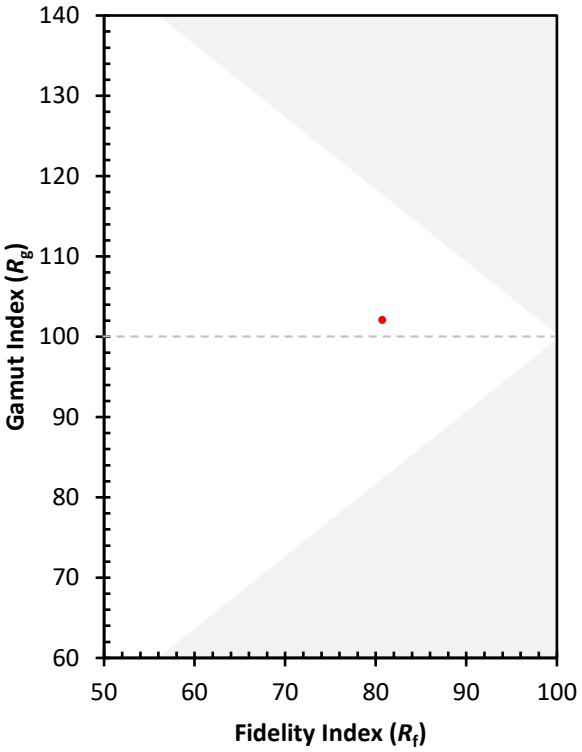
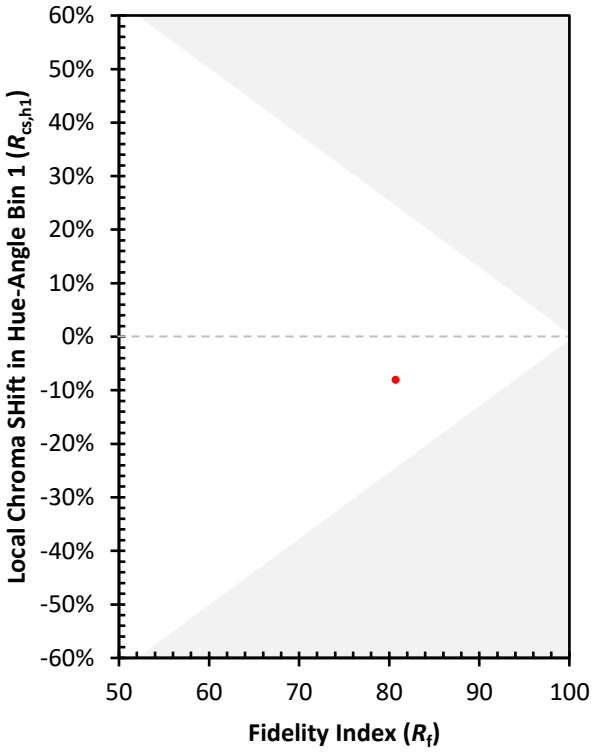
Measure Comparisons





(END OF REPORT)