

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: P1433321

Luminaire Tested: EHBR1-54-UNV-TASM-L930

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433321
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-54-UNV-TASM-L930
Description: Elevate Round Highbay at, 54000 lumens, 3000K 90CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

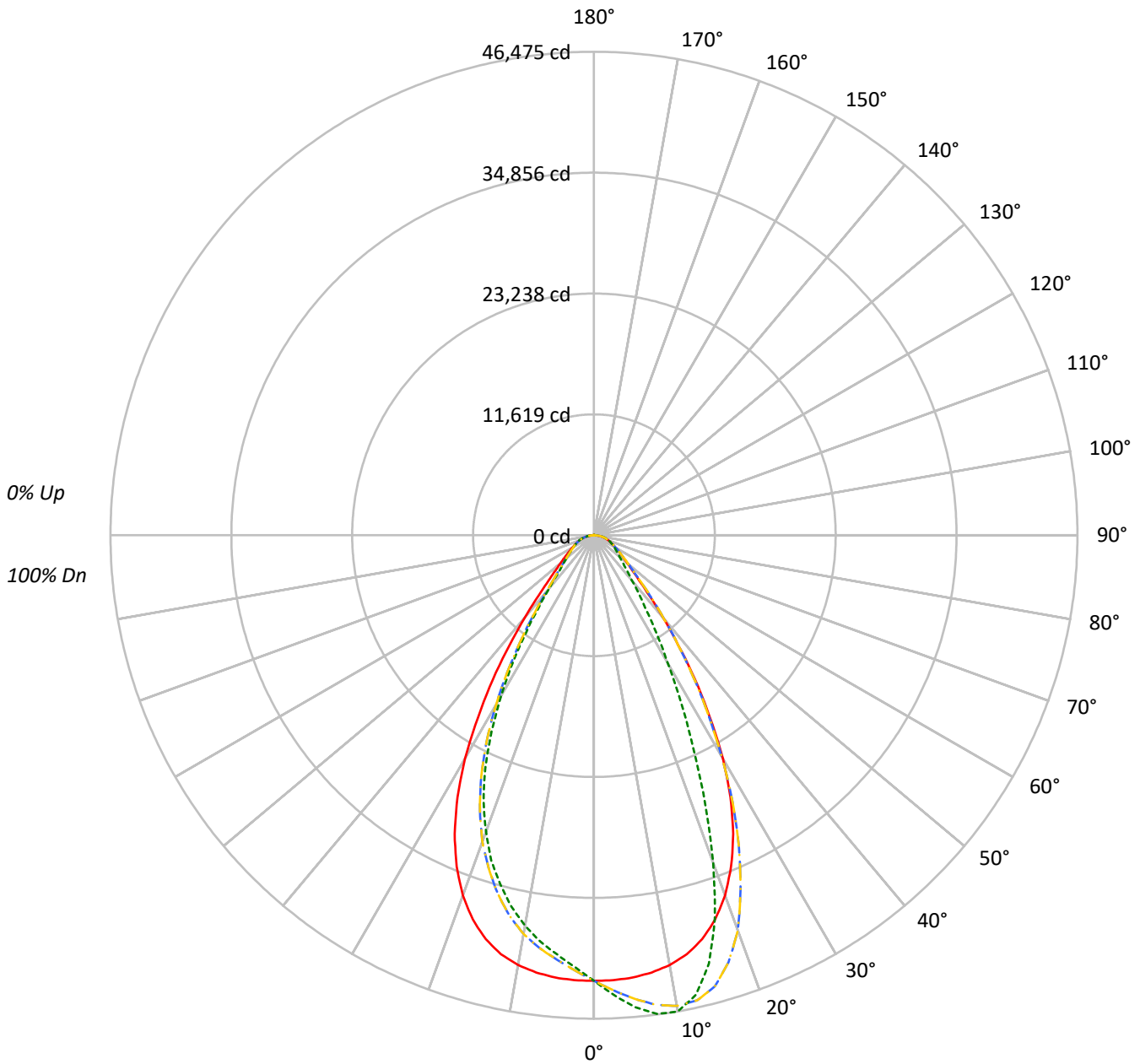
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47890.6 lumens
Efficiency: N/A
Efficacy: 161.8 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 0.84 / 0.9
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 296
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

TEST NUMBER: P1433321
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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	49
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	201135	201135	201135	201135
5°	201214	214658	201214	190773
10°	200048	221617	200048	181738
15°	195450	207340	195450	169008
20°	184078	167425	184078	151595
25°	164133	116863	164133	127987
30°	134336	76636	134336	96525
35°	97196	50067	97196	64823
40°	63459	34848	63459	41283
45°	40718	27299	40718	29746
50°	30641	23506	30641	25107
55°	25421	21759	25421	22522
60°	22463	21151	22463	21279
65°	21035	20954	21035	20865
70°	20710	21328	20710	21052
75°	20548	21887	20548	21232
80°	20091	23001	20091	21502
85°	16919	21375	16919	20383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 57248 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4072.5	8.5
10°-20°	11079.5	23.1
20°-30°	12994.0	27.1
30°-40°	9036.5	18.9
40°-50°	4490.7	9.4
50°-60°	2685.9	5.6
60°-70°	1890.5	3.9
70°-80°	1217.8	2.5
80°-90°	386.8	0.8
90°-100°	2.2	0.0
100°-110°	2.7	0.0
110°-120°	2.7	0.0
120°-130°	3.5	0.0
130°-140°	4.7	0.0
140°-150°	5.6	0.0
150°-160°	6.3	0.0
160°-170°	6.2	0.0
170°-180°	2.6	0.0
0°-30°	28146.0	58.8
0°-40°	37182.5	77.6
0°-60°	44359.1	92.6
0°-90°	47854.2	99.9
90°-120°	7.6	0.0
90°-150°	21.4	0.0
90°-180°	36.0	0.1
0°-180°	47890.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	42830	42830	42830	42830	42830	
5°	42684	45536	42684	40469	42684	4051
15°	40202	42647	40202	34763	40202	11235
25°	31676	22554	31676	24700	31676	14341
35°	16954	8733	16954	11307	16954	10584
45°	6131	4110	6131	4479	6131	5017
55°	3105	2658	3105	2751	3105	2839
65°	1893	1886	1893	1878	1893	1901
75°	1132	1206	1132	1170	1132	1189
85°	314	397	314	378	314	349
90°	1	6	1	1	1	15
95°	2	6	2	1	2	1
105°	2	7	2	2	2	2
115°	2	7	2	2	2	2
125°	3	8	3	2	3	3
135°	6	9	6	3	6	5
145°	10	10	10	9	10	6
155°	13	14	13	15	13	6
165°	22	26	22	22	22	6
175°	28	35	28	27	28	3
180°	30	30	30	30	30	



TEST NUMBER: P1433321
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2
2.5°	42805.4	43358.7	43806.8	44102.4	44248.6	44102.4	43806.8	43358.7	42805.4	42255.2	41876.9
5°	42684.1	43792.4	44731.3	45345.7	45536.0	45345.7	44731.3	43792.4	42684.1	41636.8	40942.1
7.5°	42394.1	44120.9	45516.0	46233.1	46408.3	46233.1	45516.0	44120.9	42394.1	40911.6	40033.8
10°	41951.7	44328.1	45940.0	46454.0	46474.9	46454.0	45940.0	44328.1	41951.7	39954.3	38919.0
12.5°	41245.7	44254.2	45797.8	45629.2	45246.1	45629.2	45797.8	44254.2	41245.7	38784.9	37478.9
15°	40201.6	43816.5	44897.5	43525.0	42647.1	43525.0	44897.5	43816.5	40201.6	37205.9	35691.2
17.5°	38730.3	42997.3	43018.2	40302.8	38646.8	40302.8	43018.2	42997.3	38730.3	35275.2	33607.1
20°	36834.1	41683.3	40430.5	35463.9	33501.9	35463.9	40430.5	41683.3	36834.1	32992.7	31355.9
22.5°	34456.8	39911.7	36826.8	30596.1	27919.3	30596.1	36826.8	39911.7	34456.8	30338.3	28634.9
25°	31676.4	37740.8	32950.1	25292.2	22553.6	25292.2	32950.1	37740.8	31676.4	27175.6	25635.2
27.5°	28406.0	34989.3	28822.1	20667.9	18141.1	20667.9	28822.1	34989.3	28406.0	23910.1	22336.7
30°	24773.4	31461.9	24526.0	16459.4	14132.8	16459.4	24526.0	31461.9	24773.4	20241.4	18832.6
32.5°	20706.4	28004.4	20400.3	13188.2	11217.3	13188.2	20400.3	28004.4	20706.4	16740.5	15268.3
35°	16954.1	23678.7	16680.3	10362.8	8733.3	10362.8	16680.3	23678.7	16954.1	13435.6	11989.9
37.5°	13305.5	19591.6	13296.7	8344.5	7083.7	8344.5	13296.7	19591.6	13305.5	10445.6	9272.1
40°	10351.6	15319.0	10418.2	6661.2	5684.6	6661.2	10418.2	15319.0	10351.6	7947.8	7196.8
42.5°	7843.4	11713.7	8188.8	5467.0	4828.5	5467.0	8188.8	11713.7	7843.4	6262.0	5699.8
45°	6131.1	8620.0	6394.6	4612.4	4110.5	4612.4	6394.6	8620.0	6131.1	5042.9	4665.4
47.5°	4993.1	6662.0	5182.6	3956.2	3604.5	3956.2	5182.6	6662.0	4993.1	4265.4	3982.8
50°	4194.0	5111.9	4303.2	3453.4	3217.4	3453.4	4303.2	5111.9	4194.0	3652.6	3464.0
52.5°	3602.9	4169.0	3664.7	3077.6	2918.6	3077.6	3664.7	4169.0	3602.9	3195.6	3078.4
55°	3104.9	3504.9	3186.8	2767.6	2657.6	2767.6	3186.8	3504.9	3104.9	2843.9	2757.2
57.5°	2726.6	2973.2	2767.6	2503.4	2430.3	2503.4	2767.6	2973.2	2726.6	2530.7	2484.1
60°	2391.7	2574.9	2442.3	2272.9	2252.0	2272.9	2442.3	2574.9	2391.7	2276.9	2246.4
62.5°	2133.9	2249.6	2159.6	2065.7	2047.2	2065.7	2159.6	2249.6	2133.9	2045.6	2051.2
65°	1893.0	2000.6	1929.9	1879.3	1885.7	1879.3	1929.9	2000.6	1893.0	1852.1	1860.9
67.5°	1706.6	1762.9	1732.4	1703.4	1710.6	1703.4	1732.4	1762.9	1706.6	1666.5	1680.2
70°	1508.3	1568.5	1537.2	1541.2	1553.3	1541.2	1537.2	1568.5	1508.3	1496.2	1506.7
72.5°	1318.7	1365.3	1354.9	1364.5	1377.3	1364.5	1354.9	1365.3	1318.7	1317.1	1317.9
75°	1132.5	1167.7	1172.6	1186.2	1206.3	1186.2	1172.6	1167.7	1132.5	1120.3	1134.9
77.5°	929.2	969.4	984.6	1003.2	1032.8	1003.2	984.6	969.4	929.2	937.2	944.5
80°	742.9	761.4	795.1	808.8	850.5	808.8	795.1	761.4	742.9	729.2	739.6
82.5°	543.7	560.6	589.5	615.2	639.3	615.2	589.5	560.6	543.7	537.3	538.1
85°	314.0	339.7	359.0	389.5	396.7	389.5	359.0	339.7	314.0	321.3	314.0
87.5°	110.1	118.1	134.9	146.9	147.8	146.9	134.9	118.1	110.1	112.5	102.0
90°	0.8	1.6	2.4	4.8	6.4	4.8	2.4	1.6	0.8	0.8	0.8
92.5°	0.8	1.6	2.4	4.8	6.4	4.8	2.4	1.6	0.8	0.8	0.8
95°	1.6	1.6	2.4	4.8	6.4	4.8	2.4	1.6	1.6	0.8	0.8
97.5°	1.6	1.6	2.4	4.8	6.4	4.8	2.4	1.6	1.6	0.8	0.8
100°	1.6	1.6	2.4	4.8	6.4	4.8	2.4	1.6	1.6	1.6	0.8
102.5°	1.6	2.4	3.2	5.6	6.4	5.6	3.2	2.4	1.6	1.6	0.8
105°	1.6	2.4	3.2	5.6	7.2	5.6	3.2	2.4	1.6	1.6	0.8
107.5°	1.6	2.4	3.2	5.6	7.2	5.6	3.2	2.4	1.6	1.6	1.6
110°	1.6	2.4	3.2	5.6	7.2	5.6	3.2	2.4	1.6	1.6	1.6



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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°	1.6	2.4	3.2	5.6	7.2	5.6	3.2	2.4	1.6	1.6	1.6
115°	2.4	2.4	3.2	5.6	7.2	5.6	3.2	2.4	2.4	1.6	1.6
117.5°	2.4	2.4	3.2	5.6	7.2	5.6	3.2	2.4	2.4	2.4	1.6
120°	2.4	2.4	4.0	5.6	7.2	5.6	4.0	2.4	2.4	2.4	1.6
122.5°	3.2	3.2	4.0	6.4	7.2	6.4	4.0	3.2	3.2	3.2	2.4
125°	3.2	3.2	4.8	6.4	8.0	6.4	4.8	3.2	3.2	4.0	3.2
127.5°	4.0	4.0	4.8	6.4	8.0	6.4	4.8	4.0	4.0	4.0	3.2
130°	4.8	4.0	4.8	7.2	8.0	7.2	4.8	4.0	4.8	4.8	4.0
132.5°	5.6	4.8	5.6	8.0	8.8	8.0	5.6	4.8	5.6	6.4	5.6
135°	6.4	4.8	6.4	7.2	8.8	7.2	6.4	4.8	6.4	7.2	5.6
137.5°	7.2	5.6	6.4	8.0	8.8	8.0	6.4	5.6	7.2	8.0	7.2
140°	8.0	6.4	6.4	8.0	9.6	8.0	6.4	6.4	8.0	8.0	8.0
142.5°	8.8	7.2	7.2	8.8	9.6	8.8	7.2	7.2	8.8	8.8	8.8
145°	9.6	8.8	8.0	8.8	10.4	8.8	8.0	8.8	9.6	8.8	9.6
147.5°	9.6	8.8	8.8	9.6	11.2	9.6	8.8	8.8	9.6	9.6	10.4
150°	10.4	10.4	9.6	10.4	12.0	10.4	9.6	10.4	10.4	10.4	11.2
152.5°	11.2	11.2	11.2	12.0	12.8	12.0	11.2	11.2	11.2	11.2	12.0
155°	12.8	12.8	12.8	13.6	14.4	13.6	12.8	12.8	12.8	12.0	13.6
157.5°	14.4	15.2	15.2	16.0	16.8	16.0	15.2	15.2	14.4	14.4	15.2
160°	17.6	17.6	18.4	19.2	20.1	19.2	18.4	17.6	17.6	16.8	17.6
162.5°	19.2	19.2	20.9	21.7	23.3	21.7	20.9	19.2	19.2	19.2	19.2
165°	21.7	21.7	23.3	24.9	26.5	24.9	23.3	21.7	21.7	20.9	20.9
167.5°	23.3	23.3	24.9	27.3	28.9	27.3	24.9	23.3	23.3	22.5	22.5
170°	24.1	24.9	26.5	28.9	30.5	28.9	26.5	24.9	24.1	24.1	23.3
172.5°	26.5	26.5	28.9	31.3	33.0	31.3	28.9	26.5	26.5	25.7	25.7
175°	28.1	28.9	30.5	33.0	34.6	33.0	30.5	28.9	28.1	27.3	27.3
177.5°	28.1	29.7	31.3	33.8	35.4	33.8	31.3	29.7	28.1	27.3	27.3
180°	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	42830.2	42830.2	42830.2	42830.2	42830.2	42830.2
2.5°	41586.2	41558.9	41586.2	41876.9	42255.2	42805.4
5°	40620.0	40469.1	40620.0	40942.1	41636.8	42684.1
7.5°	39494.9	39407.3	39494.9	40033.8	40911.6	42394.1
10°	38310.2	38111.8	38310.2	38919.0	39954.3	41951.7
12.5°	36850.2	36587.5	36850.2	37478.9	38784.9	41245.7
15°	34993.3	34762.7	34993.3	35691.2	37205.9	40201.6
17.5°	33000.7	32791.9	33000.7	33607.1	35275.2	38730.3
20°	30498.2	30334.3	30498.2	31355.9	32992.7	36834.1
22.5°	27872.7	27719.4	27872.7	28634.9	30338.3	34456.8
25°	24783.9	24700.4	24783.9	25635.2	27175.6	31676.4
27.5°	21446.1	21303.9	21446.1	22336.7	23910.1	28406.0
30°	18036.0	17800.6	18036.0	18832.6	20241.4	24773.4
32.5°	14700.5	14531.1	14700.5	15268.3	16740.5	20706.4
35°	11476.7	11307.3	11476.7	11989.9	13435.6	16954.1
37.5°	8942.9	8643.3	8942.9	9272.1	10445.6	13305.5
40°	6782.5	6734.3	6782.5	7196.8	7947.8	10351.6
42.5°	5521.5	5390.6	5521.5	5699.8	6262.0	7843.4
45°	4530.5	4479.0	4530.5	4665.4	5042.9	6131.1
47.5°	3896.0	3918.5	3896.0	3982.8	4265.4	4993.1
50°	3423.0	3436.6	3423.0	3464.0	3652.6	4194.0
52.5°	3074.4	3062.3	3074.4	3078.4	3195.6	3602.9
55°	2766.0	2750.8	2766.0	2757.2	2843.9	3104.9
57.5°	2496.2	2507.4	2496.2	2484.1	2530.7	2726.6
60°	2255.2	2265.6	2255.2	2246.4	2276.9	2391.7
62.5°	2052.0	2058.4	2052.0	2051.2	2045.6	2133.9
65°	1870.5	1877.7	1870.5	1860.9	1852.1	1893.0
67.5°	1697.0	1697.0	1697.0	1680.2	1666.5	1706.6
70°	1534.0	1533.2	1534.0	1506.7	1496.2	1508.3
72.5°	1338.0	1357.3	1338.0	1317.9	1317.1	1318.7
75°	1147.7	1170.2	1147.7	1134.9	1120.3	1132.5
77.5°	954.9	989.4	954.9	944.5	937.2	929.2
80°	757.4	795.1	757.4	739.6	729.2	742.9
82.5°	559.8	587.9	559.8	538.1	537.3	543.7
85°	333.3	378.3	333.3	314.0	321.3	314.0
87.5°	106.8	136.5	106.8	102.0	112.5	110.1
90°	0.8	0.8	0.8	0.8	0.8	0.8
92.5°	0.8	0.8	0.8	0.8	0.8	0.8
95°	0.8	0.8	0.8	0.8	0.8	1.6
97.5°	0.8	1.6	0.8	0.8	0.8	1.6
100°	0.8	1.6	0.8	0.8	1.6	1.6
102.5°	0.8	1.6	0.8	0.8	1.6	1.6
105°	0.8	1.6	0.8	0.8	1.6	1.6
107.5°	0.8	1.6	0.8	1.6	1.6	1.6
110°	0.8	1.6	0.8	1.6	1.6	1.6



TEST NUMBER: P1433321
 CATALOG NUMBER: EHBR1-54-UNV-TASM-L930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.8	1.6	0.8	1.6	1.6	1.6
115°	0.8	1.6	0.8	1.6	1.6	2.4
117.5°	0.8	1.6	0.8	1.6	2.4	2.4
120°	0.8	1.6	0.8	1.6	2.4	2.4
122.5°	1.6	1.6	1.6	2.4	3.2	3.2
125°	1.6	2.4	1.6	3.2	4.0	3.2
127.5°	1.6	2.4	1.6	3.2	4.0	4.0
130°	2.4	2.4	2.4	4.0	4.8	4.8
132.5°	3.2	3.2	3.2	5.6	6.4	5.6
135°	4.0	3.2	4.0	5.6	7.2	6.4
137.5°	4.8	4.0	4.8	7.2	8.0	7.2
140°	6.4	5.6	6.4	8.0	8.0	8.0
142.5°	7.2	7.2	7.2	8.8	8.8	8.8
145°	8.8	8.8	8.8	9.6	8.8	9.6
147.5°	10.4	10.4	10.4	10.4	9.6	9.6
150°	12.0	12.0	12.0	11.2	10.4	10.4
152.5°	12.8	13.6	12.8	12.0	11.2	11.2
155°	14.4	15.2	14.4	13.6	12.0	12.8
157.5°	16.0	17.6	16.0	15.2	14.4	14.4
160°	18.4	19.2	18.4	17.6	16.8	17.6
162.5°	20.1	20.9	20.1	19.2	19.2	19.2
165°	21.7	22.5	21.7	20.9	20.9	21.7
167.5°	22.5	22.5	22.5	22.5	22.5	23.3
170°	23.3	24.1	23.3	23.3	24.1	24.1
172.5°	24.9	25.7	24.9	25.7	25.7	26.5
175°	26.5	27.3	26.5	27.3	27.3	28.1
177.5°	27.3	28.1	27.3	27.3	27.3	28.1
180°	29.7	29.7	29.7	29.7	29.7	29.7



TEST NUMBER: P1433321
 CATALOG NUMBER: EHBR1-54-UNV-TASM-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	20.08	21.29	20.45	21.60	21.92	19.40	20.60	19.76	20.92	21.24
	3H	21.72	22.79	22.10	23.12	23.49	21.35	22.42	21.73	22.75	23.12
	4H	22.42	23.42	22.83	23.78	24.16	22.21	23.21	22.61	23.56	23.95
	6H	22.99	23.91	23.41	24.29	24.68	22.96	23.88	23.38	24.25	24.65
	8H	23.20	24.07	23.63	24.46	24.87	23.25	24.12	23.68	24.51	24.92
	12H	23.32	24.15	23.76	24.54	24.97	23.44	24.27	23.88	24.66	25.09
4H	2H	20.54	21.54	20.95	21.89	22.28	20.03	21.03	20.43	21.38	21.77
	3H	22.45	23.28	22.87	23.68	24.09	22.20	23.03	22.62	23.44	23.84
	4H	23.31	24.05	23.75	24.47	24.92	23.20	23.94	23.64	24.36	24.81
	6H	24.03	24.67	24.50	25.12	25.59	24.10	24.73	24.56	25.18	25.65
	8H	24.29	24.89	24.76	25.34	25.81	24.44	25.04	24.91	25.49	25.96
	12H	24.46	24.98	24.95	25.47	25.95	24.69	25.22	25.18	25.70	26.18
8H	4H	23.62	24.21	24.09	24.66	25.14	23.54	24.14	24.01	24.59	25.06
	6H	24.49	24.98	25.00	25.48	25.96	24.59	25.08	25.10	25.58	26.06
	8H	24.84	25.28	25.37	25.80	26.29	25.04	25.47	25.57	25.99	26.49
	12H	25.10	25.48	25.62	25.98	26.55	25.40	25.78	25.92	26.27	26.85
12H	4H	23.65	24.17	24.14	24.66	25.13	23.57	24.10	24.06	24.58	25.06
	6H	24.56	25.00	25.09	25.52	26.01	24.67	25.10	25.19	25.62	26.11
	8H	24.98	25.36	25.50	25.86	26.43	25.18	25.56	25.70	26.06	26.63

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

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



Test Conditions

Stabilization Time: 40M
 Operation Time: 1H 40M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-5

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: SP1-2506-472-5

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-472-5

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			

REPORT NUMBER: SP1-2506-472-5

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			

REPORT NUMBER: SP1-2506-472-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.85

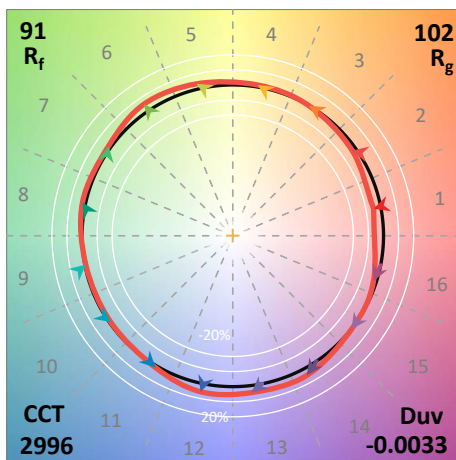
λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	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			

Summary

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

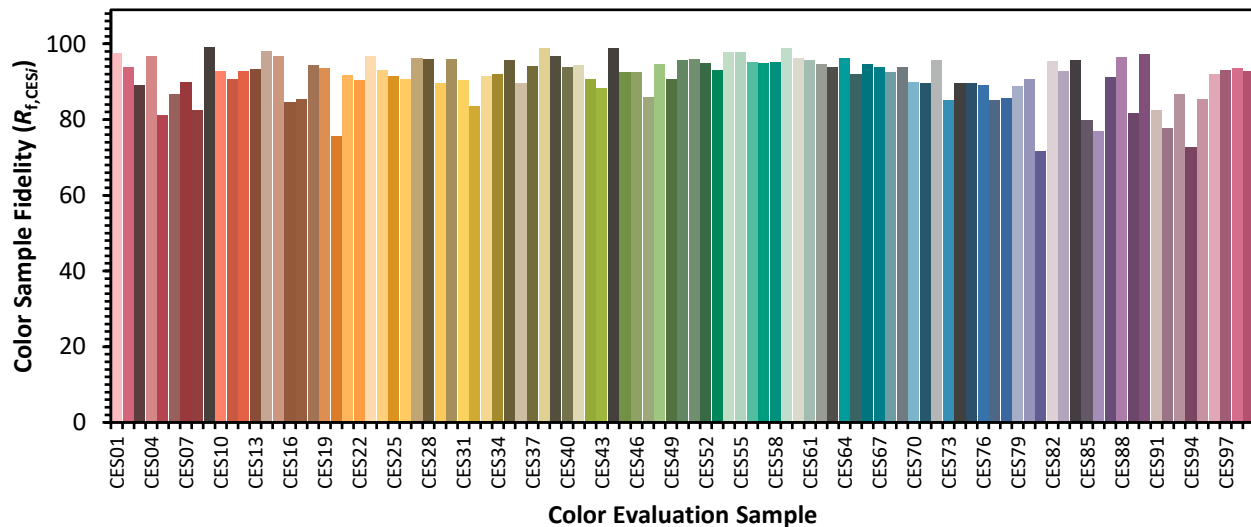


Color Vector Graphics



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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)