

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: P1433490

Luminaire Tested: EHBR1-24-UNV-TASM-L935

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433490
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: EHBR1-24-UNV-TASM-L935
Description: Elevate Round Highbay at, 24000 lumens, 3500K 90CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

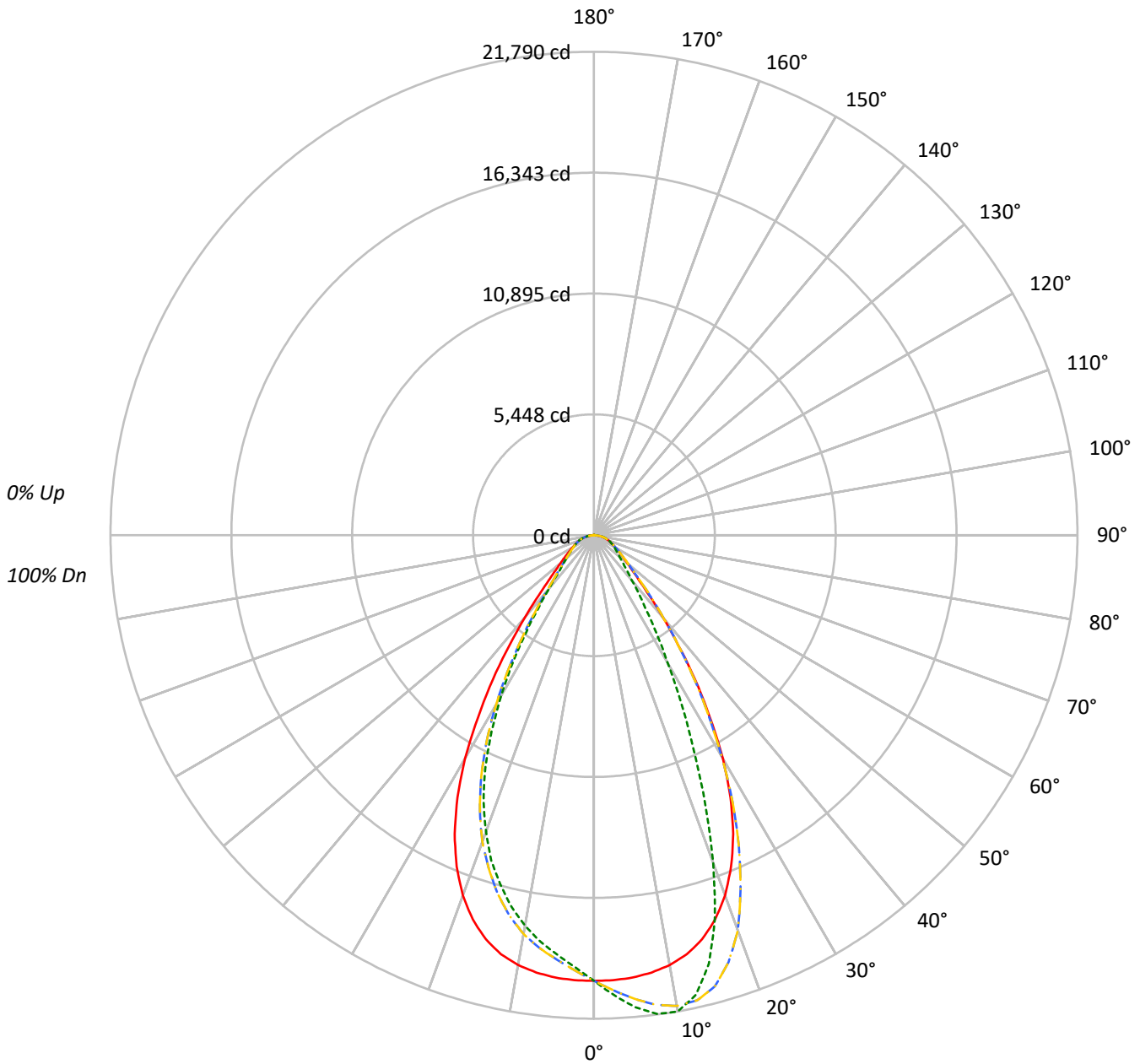
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22454.3 lumens
Efficiency: N/A
Efficacy: 175.0 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): 128.3
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: P1433490
CATALOG NUMBER: EHBR1-24-UNV-TASM-L935

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90	90	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81	81	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74	74	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	67	67	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62	62	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57	57	57
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53	53	53
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	49	49	49
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46	46	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43	43	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	94305	94305	94305	94305
5°	94342	100646	94342	89447
10°	93796	103908	93796	85210
15°	91640	97215	91640	79242
20°	86307	78500	86307	71078
25°	76956	54793	76956	60009
30°	62985	35932	62985	45257
35°	45572	23474	45572	30393
40°	29753	16339	29753	19356
45°	19092	12799	19092	13947
50°	14366	11021	14366	11772
55°	11918	10201	11918	10559
60°	10532	9917	10532	9977
65°	9863	9824	9863	9783
70°	9710	9999	9710	9869
75°	9633	10261	9633	9956
80°	9419	10785	9419	10082
85°	7937	10022	7937	9559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26841 cd/sqm



TEST NUMBER: P1433490
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1909.5	8.5
10°-20°	5194.8	23.1
20°-30°	6092.4	27.1
30°-40°	4236.9	18.9
40°-50°	2105.5	9.4
50°-60°	1259.3	5.6
60°-70°	886.4	3.9
70°-80°	571.0	2.5
80°-90°	181.4	0.8
90°-100°	1.0	0.0
100°-110°	1.2	0.0
110°-120°	1.3	0.0
120°-130°	1.6	0.0
130°-140°	2.2	0.0
140°-150°	2.7	0.0
150°-160°	3.0	0.0
160°-170°	2.9	0.0
170°-180°	1.2	0.0
0°-30°	13196.7	58.8
0°-40°	17433.6	77.6
0°-60°	20798.5	92.6
0°-90°	22437.2	99.9
90°-120°	3.5	0.0
90°-150°	10.0	0.0
90°-180°	17.0	0.1
0°-180°	22454.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	20082	20082	20082	20082	20082	
5°	20013	21350	20013	18975	20013	1899
15°	18849	19996	18849	16299	18849	5268
25°	14852	10575	14852	11581	14852	6724
35°	7949	4095	7949	5302	7949	4962
45°	2875	1927	2875	2100	2875	2352
55°	1456	1246	1456	1290	1456	1331
65°	888	884	888	880	888	891
75°	531	566	531	549	531	557
85°	147	186	147	177	147	164
90°	0	3	0	0	0	7
95°	1	3	1	0	1	1
105°	1	3	1	1	1	1
115°	1	3	1	1	1	1
125°	2	4	2	1	2	1
135°	3	4	3	2	3	2
145°	4	5	4	4	4	3
155°	6	7	6	7	6	3
165°	10	12	10	10	10	3
175°	13	16	13	13	13	1
180°	14	14	14	14	14	



TEST NUMBER: P1433490
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L935

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6
2.5°	20070.0	20329.4	20539.5	20678.1	20746.6	20678.1	20539.5	20329.4	20070.0	19812.0	19634.6
5°	20013.1	20532.7	20972.9	21261.1	21350.2	21261.1	20972.9	20532.7	20013.1	19522.1	19196.3
7.5°	19877.2	20686.8	21340.8	21677.1	21759.2	21677.1	21340.8	20686.8	19877.2	19182.0	18770.5
10°	19669.7	20784.0	21539.7	21780.7	21790.4	21780.7	21539.7	20784.0	19669.7	18733.2	18247.8
12.5°	19338.6	20749.2	21473.0	21393.9	21214.3	21393.9	21473.0	20749.2	19338.6	18184.9	17572.7
15°	18849.1	20544.1	21050.9	20407.4	19995.8	20407.4	21050.9	20544.1	18849.1	17444.6	16734.4
17.5°	18159.3	20160.0	20169.7	18896.6	18120.2	18896.6	20169.7	20160.0	18159.3	16539.3	15757.2
20°	17270.2	19543.9	18956.4	16627.8	15707.9	16627.8	18956.4	19543.9	17270.2	15469.1	14701.7
22.5°	16155.6	18713.2	17266.9	14345.5	13090.4	14345.5	17266.9	18713.2	16155.6	14224.6	13425.9
25°	14851.9	17695.4	15449.2	11858.7	10574.6	11858.7	15449.2	17695.4	14851.9	12741.7	12019.5
27.5°	13318.6	16405.3	13513.7	9690.4	8505.7	9690.4	13513.7	16405.3	13318.6	11210.6	10472.9
30°	11615.4	14751.4	11499.4	7717.2	6626.4	7717.2	11499.4	14751.4	11615.4	9490.5	8830.0
32.5°	9708.5	13130.3	9565.0	6183.5	5259.4	6183.5	9565.0	13130.3	9708.5	7849.0	7158.8
35°	7949.2	11102.2	7820.8	4858.7	4094.7	4858.7	7820.8	11102.2	7949.2	6299.5	5621.7
37.5°	6238.5	9185.8	6234.4	3912.4	3321.2	3912.4	6234.4	9185.8	6238.5	4897.5	4347.4
40°	4853.5	7182.5	4884.8	3123.2	2665.3	3123.2	4884.8	7182.5	4853.5	3726.5	3374.4
42.5°	3677.5	5492.2	3839.4	2563.3	2263.9	2563.3	3839.4	5492.2	3677.5	2936.1	2672.5
45°	2874.7	4041.6	2998.1	2162.6	1927.2	2162.6	2998.1	4041.6	2874.7	2364.4	2187.4
47.5°	2341.1	3123.6	2430.0	1855.0	1690.0	1855.0	2430.0	3123.6	2341.1	1999.9	1867.4
50°	1966.4	2396.8	2017.6	1619.2	1508.5	1619.2	2017.6	2396.8	1966.4	1712.6	1624.1
52.5°	1689.2	1954.8	1718.2	1443.0	1368.5	1443.0	1718.2	1954.8	1689.2	1498.3	1443.3
55°	1455.7	1643.4	1494.2	1297.6	1246.0	1297.6	1494.2	1643.4	1455.7	1333.4	1292.7
57.5°	1278.5	1394.0	1297.6	1173.7	1139.4	1173.7	1297.6	1394.0	1278.5	1186.6	1164.7
60°	1121.4	1207.2	1145.1	1065.7	1055.9	1065.7	1145.1	1207.2	1121.4	1067.6	1053.2
62.5°	1000.5	1054.8	1012.6	968.5	959.9	968.5	1012.6	1054.8	1000.5	959.1	961.7
65°	887.6	938.1	904.9	881.1	884.1	881.1	904.9	938.1	887.6	868.4	872.5
67.5°	800.2	826.6	812.3	798.7	802.1	798.7	812.3	826.6	800.2	781.3	787.8
70°	707.2	735.4	720.7	722.6	728.2	722.6	720.7	735.4	707.2	701.5	706.4
72.5°	618.3	640.1	635.2	639.8	645.8	639.8	635.2	640.1	618.3	617.6	617.9
75°	530.9	547.5	549.8	556.2	565.5	556.2	549.8	547.5	530.9	525.3	532.1
77.5°	435.7	454.5	461.7	470.3	484.3	470.3	461.7	454.5	435.7	439.5	442.8
80°	348.3	357.0	372.8	379.2	398.8	379.2	372.8	357.0	348.3	342.0	346.9
82.5°	255.0	262.8	276.4	288.5	299.7	288.5	276.4	262.8	255.0	252.0	252.3
85°	147.3	159.2	168.3	182.6	186.0	182.6	168.3	159.2	147.3	150.6	147.3
87.5°	51.6	55.4	63.3	68.9	69.2	68.9	63.3	55.4	51.6	52.7	47.9
90°	0.4	0.7	1.1	2.3	3.0	2.3	1.1	0.7	0.4	0.4	0.4
92.5°	0.4	0.7	1.1	2.3	3.0	2.3	1.1	0.7	0.4	0.4	0.4
95°	0.7	0.7	1.1	2.3	3.0	2.3	1.1	0.7	0.7	0.4	0.4
97.5°	0.7	0.7	1.1	2.3	3.0	2.3	1.1	0.7	0.7	0.4	0.4
100°	0.7	0.7	1.1	2.3	3.0	2.3	1.1	0.7	0.7	0.7	0.4
102.5°	0.7	1.1	1.5	2.6	3.0	2.6	1.5	1.1	0.7	0.7	0.4
105°	0.7	1.1	1.5	2.6	3.4	2.6	1.5	1.1	0.7	0.7	0.4
107.5°	0.7	1.1	1.5	2.6	3.4	2.6	1.5	1.1	0.7	0.7	0.7
110°	0.7	1.1	1.5	2.6	3.4	2.6	1.5	1.1	0.7	0.7	0.7



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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°	0.7	1.1	1.5	2.6	3.4	2.6	1.5	1.1	0.7	0.7	0.7
115°	1.1	1.1	1.5	2.6	3.4	2.6	1.5	1.1	1.1	0.7	0.7
117.5°	1.1	1.1	1.5	2.6	3.4	2.6	1.5	1.1	1.1	1.1	0.7
120°	1.1	1.1	1.9	2.6	3.4	2.6	1.9	1.1	1.1	1.1	0.7
122.5°	1.5	1.5	1.9	3.0	3.4	3.0	1.9	1.5	1.5	1.5	1.1
125°	1.5	1.5	2.3	3.0	3.8	3.0	2.3	1.5	1.5	1.9	1.5
127.5°	1.9	1.9	2.3	3.0	3.8	3.0	2.3	1.9	1.9	1.9	1.5
130°	2.3	1.9	2.3	3.4	3.8	3.4	2.3	1.9	2.3	2.3	1.9
132.5°	2.6	2.3	2.6	3.8	4.2	3.8	2.6	2.3	2.6	3.0	2.6
135°	3.0	2.3	3.0	3.4	4.2	3.4	3.0	2.3	3.0	3.4	2.6
137.5°	3.4	2.6	3.0	3.8	4.2	3.8	3.0	2.6	3.4	3.8	3.4
140°	3.8	3.0	3.0	3.8	4.5	3.8	3.0	3.0	3.8	3.8	3.8
142.5°	4.2	3.4	3.4	4.2	4.5	4.2	3.4	3.4	4.2	4.2	4.2
145°	4.5	4.2	3.8	4.2	4.9	4.2	3.8	4.2	4.5	4.2	4.5
147.5°	4.5	4.2	4.2	4.5	5.3	4.5	4.2	4.2	4.5	4.5	4.9
150°	4.9	4.9	4.5	4.9	5.6	4.9	4.5	4.9	4.9	4.9	5.3
152.5°	5.3	5.3	5.3	5.6	6.0	5.6	5.3	5.3	5.3	5.3	5.6
155°	6.0	6.0	6.0	6.4	6.8	6.4	6.0	6.0	6.0	5.6	6.4
157.5°	6.8	7.2	7.2	7.5	7.9	7.5	7.2	7.2	6.8	6.8	7.2
160°	8.2	8.2	8.7	9.1	9.4	9.1	8.7	8.2	8.2	7.9	8.2
162.5°	9.1	9.1	9.8	10.2	10.9	10.2	9.8	9.1	9.1	9.1	9.1
165°	10.2	10.2	10.9	11.7	12.4	11.7	10.9	10.2	10.2	9.8	9.8
167.5°	10.9	10.9	11.7	12.8	13.6	12.8	11.7	10.9	10.9	10.5	10.5
170°	11.3	11.7	12.4	13.6	14.3	13.6	12.4	11.7	11.3	11.3	10.9
172.5°	12.4	12.4	13.6	14.7	15.4	14.7	13.6	12.4	12.4	12.1	12.1
175°	13.1	13.6	14.3	15.4	16.2	15.4	14.3	13.6	13.1	12.8	12.8
177.5°	13.1	14.0	14.7	15.9	16.6	15.9	14.7	14.0	13.1	12.8	12.8
180°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0



TEST NUMBER: P1433490

CATALOG NUMBER: EHBR1-24-UNV-TASM-L935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	20081.6	20081.6	20081.6	20081.6	20081.6	20081.6
2.5°	19498.3	19485.6	19498.3	19634.6	19812.0	20070.0
5°	19045.3	18974.6	19045.3	19196.3	19522.1	20013.1
7.5°	18517.8	18476.7	18517.8	18770.5	19182.0	19877.2
10°	17962.4	17869.3	17962.4	18247.8	18733.2	19669.7
12.5°	17277.7	17154.7	17277.7	17572.7	18184.9	19338.6
15°	16407.1	16299.1	16407.1	16734.4	17444.6	18849.1
17.5°	15472.9	15375.0	15472.9	15757.2	16539.3	18159.3
20°	14299.5	14222.7	14299.5	14701.7	15469.1	17270.2
22.5°	13068.6	12996.6	13068.6	13425.9	14224.6	16155.6
25°	11620.3	11581.2	11620.3	12019.5	12741.7	14851.9
27.5°	10055.3	9988.7	10055.3	10472.9	11210.6	13318.6
30°	8456.4	8346.1	8456.4	8830.0	9490.5	11615.4
32.5°	6892.5	6813.2	6892.5	7158.8	7849.0	9708.5
35°	5381.1	5301.6	5381.1	5621.7	6299.5	7949.2
37.5°	4193.0	4052.6	4193.0	4347.4	4897.5	6238.5
40°	3180.0	3157.5	3180.0	3374.4	3726.5	4853.5
42.5°	2588.8	2527.5	2588.8	2672.5	2936.1	3677.5
45°	2124.2	2100.1	2124.2	2187.4	2364.4	2874.7
47.5°	1826.7	1837.2	1826.7	1867.4	1999.9	2341.1
50°	1604.9	1611.3	1604.9	1624.1	1712.6	1966.4
52.5°	1441.5	1435.8	1441.5	1443.3	1498.3	1689.2
55°	1296.9	1289.7	1296.9	1292.7	1333.4	1455.7
57.5°	1170.3	1175.6	1170.3	1164.7	1186.6	1278.5
60°	1057.4	1062.3	1057.4	1053.2	1067.6	1121.4
62.5°	962.1	965.2	962.1	961.7	959.1	1000.5
65°	877.1	880.4	877.1	872.5	868.4	887.6
67.5°	795.7	795.7	795.7	787.8	781.3	800.2
70°	719.3	718.8	719.3	706.4	701.5	707.2
72.5°	627.4	636.4	627.4	617.9	617.6	618.3
75°	538.1	548.7	538.1	532.1	525.3	530.9
77.5°	447.7	464.0	447.7	442.8	439.5	435.7
80°	355.1	372.8	355.1	346.9	342.0	348.3
82.5°	262.5	275.6	262.5	252.3	252.0	255.0
85°	156.3	177.4	156.3	147.3	150.6	147.3
87.5°	50.1	64.0	50.1	47.9	52.7	51.6
90°	0.4	0.4	0.4	0.4	0.4	0.4
92.5°	0.4	0.4	0.4	0.4	0.4	0.4
95°	0.4	0.4	0.4	0.4	0.4	0.7
97.5°	0.4	0.7	0.4	0.4	0.4	0.7
100°	0.4	0.7	0.4	0.4	0.7	0.7
102.5°	0.4	0.7	0.4	0.4	0.7	0.7
105°	0.4	0.7	0.4	0.4	0.7	0.7
107.5°	0.4	0.7	0.4	0.7	0.7	0.7
110°	0.4	0.7	0.4	0.7	0.7	0.7



TEST NUMBER: P1433490
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.4	0.7	0.4	0.7	0.7	0.7
115°	0.4	0.7	0.4	0.7	0.7	1.1
117.5°	0.4	0.7	0.4	0.7	1.1	1.1
120°	0.4	0.7	0.4	0.7	1.1	1.1
122.5°	0.7	0.7	0.7	1.1	1.5	1.5
125°	0.7	1.1	0.7	1.5	1.9	1.5
127.5°	0.7	1.1	0.7	1.5	1.9	1.9
130°	1.1	1.1	1.1	1.9	2.3	2.3
132.5°	1.5	1.5	1.5	2.6	3.0	2.6
135°	1.9	1.5	1.9	2.6	3.4	3.0
137.5°	2.3	1.9	2.3	3.4	3.8	3.4
140°	3.0	2.6	3.0	3.8	3.8	3.8
142.5°	3.4	3.4	3.4	4.2	4.2	4.2
145°	4.2	4.2	4.2	4.5	4.2	4.5
147.5°	4.9	4.9	4.9	4.9	4.5	4.5
150°	5.6	5.6	5.6	5.3	4.9	4.9
152.5°	6.0	6.4	6.0	5.6	5.3	5.3
155°	6.8	7.2	6.8	6.4	5.6	6.0
157.5°	7.5	8.2	7.5	7.2	6.8	6.8
160°	8.7	9.1	8.7	8.2	7.9	8.2
162.5°	9.4	9.8	9.4	9.1	9.1	9.1
165°	10.2	10.5	10.2	9.8	9.8	10.2
167.5°	10.5	10.5	10.5	10.5	10.5	10.9
170°	10.9	11.3	10.9	10.9	11.3	11.3
172.5°	11.7	12.1	11.7	12.1	12.1	12.4
175°	12.4	12.8	12.4	12.8	12.8	13.1
177.5°	12.8	13.1	12.8	12.8	12.8	13.1
180°	14.0	14.0	14.0	14.0	14.0	14.0



TEST NUMBER: P1433490
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L935

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	17.45	18.65	17.81	18.97	19.29	16.77	17.97	17.13	18.29	18.60
	3H	19.09	20.16	19.47	20.49	20.86	18.72	19.79	19.10	20.12	20.49
	4H	19.79	20.79	20.20	21.15	21.53	19.58	20.58	19.98	20.93	21.32
	6H	20.36	21.28	20.78	21.66	22.05	20.33	21.25	20.74	21.62	22.02
	8H	20.57	21.44	21.00	21.83	22.24	20.61	21.48	21.05	21.88	22.29
	12H	20.69	21.52	21.12	21.91	22.34	20.81	21.64	21.24	22.03	22.46
4H	2H	17.91	18.91	18.31	19.26	19.65	17.40	18.40	17.80	18.75	19.14
	3H	19.82	20.64	20.23	21.05	21.46	19.57	20.40	19.99	20.80	21.21
	4H	20.68	21.42	21.11	21.84	22.29	20.57	21.31	21.01	21.73	22.18
	6H	21.40	22.04	21.87	22.49	22.96	21.46	22.10	21.93	22.55	23.02
	8H	21.66	22.25	22.13	22.70	23.18	21.81	22.41	22.28	22.86	23.33
	12H	21.83	22.35	22.32	22.84	23.31	22.06	22.58	22.55	23.07	23.55
8H	4H	20.99	21.58	21.46	22.03	22.50	20.91	21.51	21.38	21.95	22.43
	6H	21.86	22.35	22.37	22.85	23.33	21.96	22.45	22.47	22.95	23.43
	8H	22.21	22.65	22.74	23.16	23.66	22.41	22.84	22.94	23.36	23.86
	12H	22.47	22.85	22.99	23.35	23.92	22.77	23.15	23.29	23.64	24.22
12H	4H	21.01	21.54	21.50	22.02	22.50	20.94	21.46	21.43	21.95	22.43
	6H	21.93	22.36	22.46	22.88	23.38	22.04	22.47	22.56	22.99	23.48
	8H	22.35	22.73	22.87	23.22	23.80	22.55	22.93	23.07	23.43	24.00

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: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-6
 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-L935-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 3406
 CIE u': 0.2394
 CIE v': 0.5094
 Duv: -0.0028
 CIE x: 0.4076
 CIE y: 0.3856
 CIE z: 0.2068
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 582
 Purity: 38.0517
 Rf: 91.3
 Rg: 100

CRI (Ra):	94.6		
R1:	96.6	R9:	63.8
R2:	98.4	R10:	94.7
R3:	98.1	R11:	96.6
R4:	95.8	R12:	80.9
R5:	96.2	R13:	97.4
R6:	95.4	R14:	98.3
R7:	91.8	R15:	93.1
R8:	84.4		



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-6

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: SP1-2506-472-6

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.62

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.3

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

Summary

$R_f = 91.3$
 $R_g = 100$
 $CIE R_a = 94.6$
 $R_9 = 63.8$



Color Vector Graphics



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

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 95	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 97	CES60 = 92	CES85 = 79
CES11 = 58	CES36 = 81	CES61 = 93	CES86 = 79
CES12 = 64	CES37 = 96	CES62 = 86	CES87 = 92
CES13 = 44	CES38 = 87	CES63 = 94	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 84
CES15 = 72	CES40 = 97	CES65 = 90	CES90 = 96
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 75
CES17 = 49	CES42 = 94	CES67 = 88	CES92 = 76
CES18 = 56	CES43 = 93	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 90	CES94 = 74
CES20 = 67	CES45 = 97	CES70 = 88	CES95 = 83
CES21 = 86	CES46 = 97	CES71 = 83	CES96 = 92
CES22 = 78	CES47 = 91	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 91	CES73 = 83	CES98 = 95
CES24 = 90	CES49 = 96	CES74 = 90	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 85	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)