

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: P1432306

Luminaire Tested: EHBR1-18-UNV-TASM-L830

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432306
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: EHBR1-18-UNV-TASM-L830
Description: Elevate Round Highbay at, 18000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

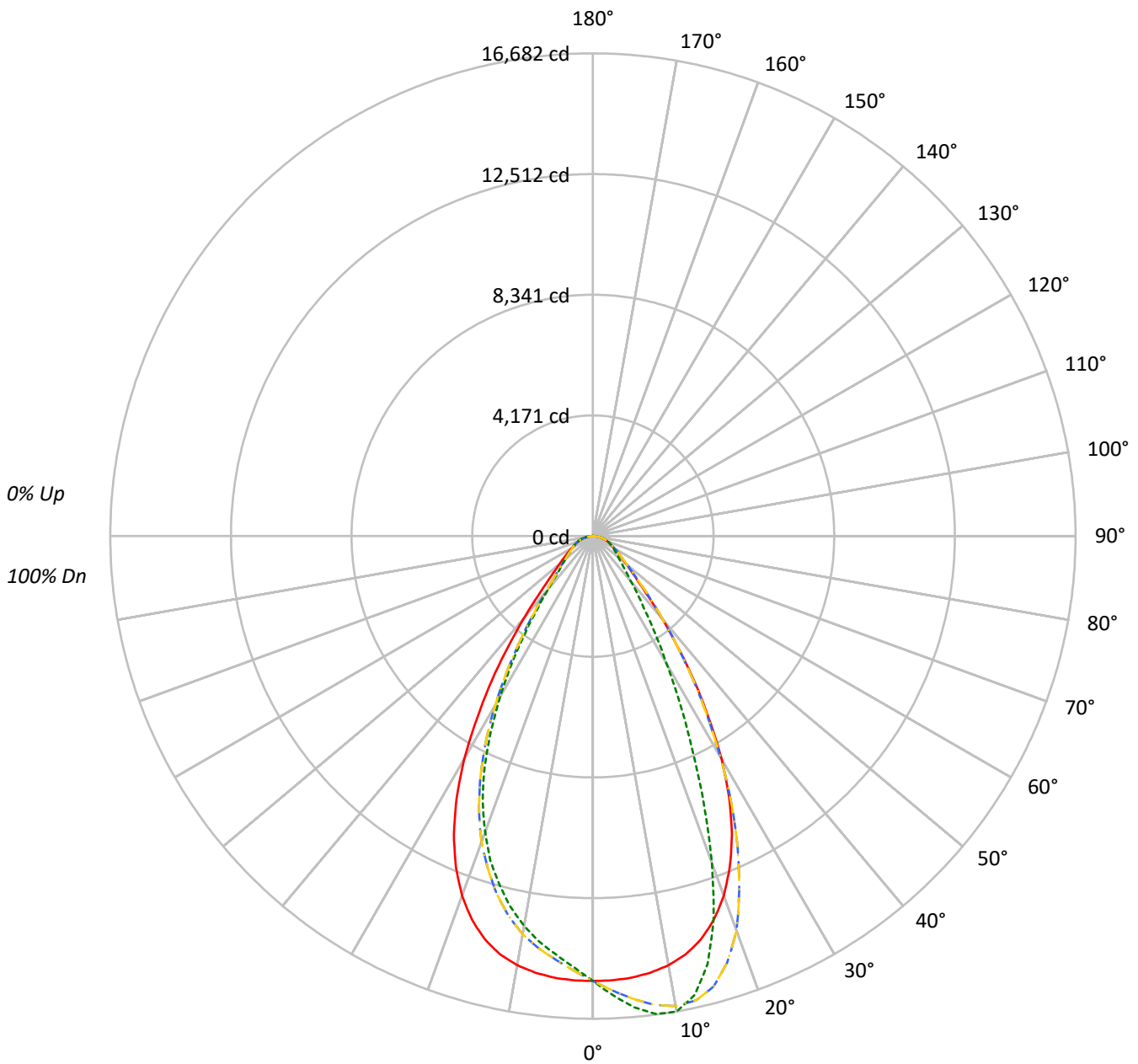
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17190.5 lumens
Efficiency: N/A
Efficacy: 181.5 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): 94.7
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

TEST NUMBER: P1432306
CATALOG NUMBER: EHBR1-18-UNV-TASM-L830

Luminous Intensity Polar Plot





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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°	72198	72198	72198	72198
5°	72227	77052	72227	68478
10°	71808	79550	71808	65236
15°	70158	74425	70158	60666
20°	66075	60098	66075	54416
25°	58916	41948	58916	45941
30°	48220	27508	48220	34648
35°	34889	17971	34889	23269
40°	22778	12509	22778	14819
45°	14616	9799	14616	10678
50°	10998	8437	10998	9012
55°	9125	7810	9125	8084
60°	8063	7593	8063	7639
65°	7551	7522	7551	7491
70°	7434	7655	7434	7556
75°	7374	7856	7374	7621
80°	7213	8256	7213	7718
85°	6072	7673	6072	7317

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 20549 cd/sqm



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 CATALOG NUMBER: EHBR1-18-UNV-TASM-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1461.8	8.5
10°-20°	3977.0	23.1
20°-30°	4664.2	27.1
30°-40°	3243.7	18.9
40°-50°	1611.9	9.4
50°-60°	964.1	5.6
60°-70°	678.6	3.9
70°-80°	437.1	2.5
80°-90°	138.8	0.8
90°-100°	0.8	0.0
100°-110°	1.0	0.0
110°-120°	1.0	0.0
120°-130°	1.2	0.0
130°-140°	1.7	0.0
140°-150°	2.0	0.0
150°-160°	2.3	0.0
160°-170°	2.2	0.0
170°-180°	0.9	0.0
0°-30°	10103.1	58.8
0°-40°	13346.7	77.6
0°-60°	15922.8	92.6
0°-90°	17177.3	99.9
90°-120°	2.8	0.0
90°-150°	7.7	0.0
90°-180°	13.0	0.1
0°-180°	17190.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	15374	15374	15374	15374	15374	
5°	15322	16345	15322	14526	15322	1454
15°	14430	15308	14430	12478	14430	4033
25°	11370	8096	11370	8866	11370	5148
35°	6086	3135	6086	4059	6086	3799
45°	2201	1475	2201	1608	2201	1801
55°	1114	954	1114	987	1114	1019
65°	680	677	680	674	680	682
75°	406	433	406	420	406	427
85°	113	142	113	136	113	125
90°	0	2	0	0	0	6
95°	1	2	1	0	1	0
105°	1	3	1	1	1	1
115°	1	3	1	1	1	1
125°	1	3	1	1	1	1
135°	2	3	2	1	2	2
145°	4	4	4	3	4	2
155°	5	5	5	5	5	2
165°	8	10	8	8	8	2
175°	10	12	10	10	10	1
180°	11	11	11	11	11	



TEST NUMBER: P1432306
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0
2.5°	15365.0	15563.7	15724.5	15830.7	15883.1	15830.7	15724.5	15563.7	15365.0	15167.6	15031.8
5°	15321.6	15719.4	16056.4	16276.9	16345.2	16276.9	16056.4	15719.4	15321.6	14945.7	14696.2
7.5°	15217.5	15837.3	16338.1	16595.5	16658.3	16595.5	16338.1	15837.3	15217.5	14685.3	14370.2
10°	15058.6	15911.7	16490.3	16674.7	16682.2	16674.7	16490.3	15911.7	15058.6	14341.7	13970.1
12.5°	14805.2	15885.2	16439.2	16378.7	16241.1	16378.7	16439.2	15885.2	14805.2	13921.9	13453.2
15°	14430.5	15728.0	16116.1	15623.4	15308.3	15623.4	16116.1	15728.0	14430.5	13355.1	12811.5
17.5°	13902.4	15434.0	15441.5	14466.8	13872.3	14466.8	15441.5	15434.0	13902.4	12662.1	12063.3
20°	13221.6	14962.3	14512.6	12729.9	12025.6	12729.9	14512.6	14962.3	13221.6	11842.8	11255.3
22.5°	12368.3	14326.4	13219.0	10982.5	10021.7	10982.5	13219.0	14326.4	12368.3	10890.0	10278.5
25°	11370.3	13547.2	11827.5	9078.7	8095.7	9078.7	11827.5	13547.2	11370.3	9754.7	9201.8
27.5°	10196.4	12559.5	10345.8	7418.7	6511.8	7418.7	10345.8	12559.5	10196.4	8582.6	8017.9
30°	8892.5	11293.3	8803.7	5908.1	5072.9	5908.1	8803.7	11293.3	8892.5	7265.7	6760.0
32.5°	7432.6	10052.3	7322.7	4733.9	4026.5	4733.9	7322.7	10052.3	7432.6	6009.0	5480.6
35°	6085.7	8499.5	5987.4	3719.8	3134.8	3719.8	5987.4	8499.5	6085.7	4822.7	4303.8
37.5°	4776.0	7032.4	4772.9	2995.3	2542.7	2995.3	4772.9	7032.4	4776.0	3749.5	3328.2
40°	3715.7	5498.8	3739.6	2391.0	2040.5	2391.0	3739.6	5498.8	3715.7	2852.8	2583.3
42.5°	2815.4	4204.6	2939.4	1962.4	1733.2	1962.4	2939.4	4204.6	2815.4	2247.7	2046.0
45°	2200.8	3094.1	2295.3	1655.6	1475.4	1655.6	2295.3	3094.1	2200.8	1810.2	1674.6
47.5°	1792.3	2391.3	1860.3	1420.1	1293.8	1420.1	1860.3	2391.3	1792.3	1531.1	1429.6
50°	1505.4	1834.9	1544.6	1239.6	1154.9	1239.6	1544.6	1834.9	1505.4	1311.1	1243.4
52.5°	1293.2	1496.5	1315.4	1104.8	1047.6	1104.8	1315.4	1496.5	1293.2	1147.1	1105.0
55°	1114.5	1258.1	1143.9	993.5	953.9	993.5	1143.9	1258.1	1114.5	1020.8	989.7
57.5°	978.8	1067.2	993.5	898.6	872.4	898.6	993.5	1067.2	978.8	908.4	891.7
60°	858.5	924.3	876.7	815.9	808.4	815.9	876.7	924.3	858.5	817.3	806.3
62.5°	765.9	807.4	775.2	741.5	734.8	741.5	775.2	807.4	765.9	734.3	736.3
65°	679.5	718.1	692.8	674.6	676.9	674.6	692.8	718.1	679.5	664.8	668.0
67.5°	612.6	632.7	621.8	611.5	614.0	611.5	621.8	632.7	612.6	598.2	603.1
70°	541.4	563.1	551.8	553.2	557.5	553.2	551.8	563.1	541.4	537.1	540.9
72.5°	473.3	490.1	486.3	489.8	494.4	489.8	486.3	490.1	473.3	472.8	473.0
75°	406.4	419.2	420.9	425.8	433.0	425.8	420.9	419.2	406.4	402.1	407.4
77.5°	333.6	348.0	353.4	360.1	370.7	360.1	353.4	348.0	333.6	336.5	339.0
80°	266.7	273.3	285.4	290.3	305.3	290.3	285.4	273.3	266.7	261.8	265.6
82.5°	195.2	201.2	211.6	220.8	229.5	220.8	211.6	201.2	195.2	192.9	193.1
85°	112.7	122.0	128.9	139.9	142.4	139.9	128.9	122.0	112.7	115.3	112.7
87.5°	39.5	42.3	48.4	52.7	53.0	52.7	48.4	42.3	39.5	40.4	36.6
90°	0.3	0.6	0.8	1.7	2.3	1.7	0.8	0.6	0.3	0.3	0.3
92.5°	0.3	0.6	0.8	1.7	2.3	1.7	0.8	0.6	0.3	0.3	0.3
95°	0.6	0.6	0.8	1.7	2.3	1.7	0.8	0.6	0.6	0.3	0.3
97.5°	0.6	0.6	0.8	1.7	2.3	1.7	0.8	0.6	0.6	0.3	0.3
100°	0.6	0.6	0.8	1.7	2.3	1.7	0.8	0.6	0.6	0.6	0.3
102.5°	0.6	0.8	1.1	2.1	2.3	2.1	1.1	0.8	0.6	0.6	0.3
105°	0.6	0.8	1.1	2.1	2.6	2.1	1.1	0.8	0.6	0.6	0.3
107.5°	0.6	0.8	1.1	2.1	2.6	2.1	1.1	0.8	0.6	0.6	0.6
110°	0.6	0.8	1.1	2.1	2.6	2.1	1.1	0.8	0.6	0.6	0.6



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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°	0.6	0.8	1.1	2.1	2.6	2.1	1.1	0.8	0.6	0.6	0.6
115°	0.8	0.8	1.1	2.1	2.6	2.1	1.1	0.8	0.8	0.6	0.6
117.5°	0.8	0.8	1.1	2.1	2.6	2.1	1.1	0.8	0.8	0.8	0.6
120°	0.8	0.8	1.4	2.1	2.6	2.1	1.4	0.8	0.8	0.8	0.6
122.5°	1.1	1.1	1.4	2.3	2.6	2.3	1.4	1.1	1.1	1.1	0.8
125°	1.1	1.1	1.7	2.3	2.9	2.3	1.7	1.1	1.1	1.4	1.1
127.5°	1.4	1.4	1.7	2.3	2.9	2.3	1.7	1.4	1.4	1.4	1.1
130°	1.7	1.4	1.7	2.6	2.9	2.6	1.7	1.4	1.7	1.7	1.4
132.5°	2.1	1.7	2.1	2.9	3.2	2.9	2.1	1.7	2.1	2.3	2.1
135°	2.3	1.7	2.3	2.6	3.2	2.6	2.3	1.7	2.3	2.6	2.1
137.5°	2.6	2.1	2.3	2.9	3.2	2.9	2.3	2.1	2.6	2.9	2.6
140°	2.9	2.3	2.3	2.9	3.5	2.9	2.3	2.3	2.9	2.9	2.9
142.5°	3.2	2.6	2.6	3.2	3.5	3.2	2.6	2.6	3.2	3.2	3.2
145°	3.5	3.2	2.9	3.2	3.7	3.2	2.9	3.2	3.5	3.2	3.5
147.5°	3.5	3.2	3.2	3.5	4.0	3.5	3.2	3.2	3.5	3.5	3.7
150°	3.7	3.7	3.5	3.7	4.3	3.7	3.5	3.7	3.7	3.7	4.0
152.5°	4.0	4.0	4.0	4.3	4.6	4.3	4.0	4.0	4.0	4.0	4.3
155°	4.6	4.6	4.6	4.9	5.2	4.9	4.6	4.6	4.6	4.3	4.9
157.5°	5.2	5.4	5.4	5.8	6.1	5.8	5.4	5.4	5.2	5.2	5.4
160°	6.4	6.4	6.7	6.9	7.2	6.9	6.7	6.4	6.4	6.1	6.4
162.5°	6.9	6.9	7.5	7.8	8.3	7.8	7.5	6.9	6.9	6.9	6.9
165°	7.8	7.8	8.3	8.9	9.6	8.9	8.3	7.8	7.8	7.5	7.5
167.5°	8.3	8.3	8.9	9.8	10.4	9.8	8.9	8.3	8.3	8.1	8.1
170°	8.6	8.9	9.6	10.4	11.0	10.4	9.6	8.9	8.6	8.6	8.3
172.5°	9.6	9.6	10.4	11.2	11.8	11.2	10.4	9.6	9.6	9.2	9.2
175°	10.1	10.4	11.0	11.8	12.4	11.8	11.0	10.4	10.1	9.8	9.8
177.5°	10.1	10.7	11.2	12.1	12.6	12.1	11.2	10.7	10.1	9.8	9.8
180°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	15374.0	15374.0	15374.0	15374.0	15374.0	15374.0
2.5°	14927.5	14917.7	14927.5	15031.8	15167.6	15365.0
5°	14580.6	14526.5	14580.6	14696.2	14945.7	15321.6
7.5°	14176.7	14145.3	14176.7	14370.2	14685.3	15217.5
10°	13751.5	13680.4	13751.5	13970.1	14341.7	15058.6
12.5°	13227.5	13133.1	13227.5	13453.2	13921.9	14805.2
15°	12560.9	12478.2	12560.9	12811.5	13355.1	14430.5
17.5°	11845.7	11770.7	11845.7	12063.3	12662.1	13902.4
20°	10947.4	10888.6	10947.4	11255.3	11842.8	13221.6
22.5°	10005.0	9949.9	10005.0	10278.5	10890.0	12368.3
25°	8896.2	8866.2	8896.2	9201.8	9754.7	11370.3
27.5°	7698.1	7647.1	7698.1	8017.9	8582.6	10196.4
30°	6474.1	6389.6	6474.1	6760.0	7265.7	8892.5
32.5°	5276.8	5216.0	5276.8	5480.6	6009.0	7432.6
35°	4119.6	4058.8	4119.6	4303.8	4822.7	6085.7
37.5°	3210.1	3102.6	3210.1	3328.2	3749.5	4776.0
40°	2434.6	2417.3	2434.6	2583.3	2852.8	3715.7
42.5°	1982.0	1935.0	1982.0	2046.0	2247.7	2815.4
45°	1626.2	1607.8	1626.2	1674.6	1810.2	2200.8
47.5°	1398.5	1406.6	1398.5	1429.6	1531.1	1792.3
50°	1228.7	1233.6	1228.7	1243.4	1311.1	1505.4
52.5°	1103.5	1099.2	1103.5	1105.0	1147.1	1293.2
55°	992.8	987.4	992.8	989.7	1020.8	1114.5
57.5°	896.0	900.0	896.0	891.7	908.4	978.8
60°	809.5	813.3	809.5	806.3	817.3	858.5
62.5°	736.5	738.9	736.5	736.3	734.3	765.9
65°	671.4	674.1	671.4	668.0	664.8	679.5
67.5°	609.1	609.1	609.1	603.1	598.2	612.6
70°	550.6	550.3	550.6	540.9	537.1	541.4
72.5°	480.3	487.2	480.3	473.0	472.8	473.3
75°	412.0	420.0	412.0	407.4	402.1	406.4
77.5°	342.7	355.2	342.7	339.0	336.5	333.6
80°	271.8	285.4	271.8	265.6	261.8	266.7
82.5°	200.9	211.0	200.9	193.1	192.9	195.2
85°	119.6	135.8	119.6	112.7	115.3	112.7
87.5°	38.3	49.0	38.3	36.6	40.4	39.5
90°	0.3	0.3	0.3	0.3	0.3	0.3
92.5°	0.3	0.3	0.3	0.3	0.3	0.3
95°	0.3	0.3	0.3	0.3	0.3	0.6
97.5°	0.3	0.6	0.3	0.3	0.3	0.6
100°	0.3	0.6	0.3	0.3	0.6	0.6
102.5°	0.3	0.6	0.3	0.3	0.6	0.6
105°	0.3	0.6	0.3	0.3	0.6	0.6
107.5°	0.3	0.6	0.3	0.6	0.6	0.6
110°	0.3	0.6	0.3	0.6	0.6	0.6



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 CATALOG NUMBER: EHBR1-18-UNV-TASM-L830

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.3	0.6	0.3	0.6	0.6	0.6
115°	0.3	0.6	0.3	0.6	0.6	0.8
117.5°	0.3	0.6	0.3	0.6	0.8	0.8
120°	0.3	0.6	0.3	0.6	0.8	0.8
122.5°	0.6	0.6	0.6	0.8	1.1	1.1
125°	0.6	0.8	0.6	1.1	1.4	1.1
127.5°	0.6	0.8	0.6	1.1	1.4	1.4
130°	0.8	0.8	0.8	1.4	1.7	1.7
132.5°	1.1	1.1	1.1	2.1	2.3	2.1
135°	1.4	1.1	1.4	2.1	2.6	2.3
137.5°	1.7	1.4	1.7	2.6	2.9	2.6
140°	2.3	2.1	2.3	2.9	2.9	2.9
142.5°	2.6	2.6	2.6	3.2	3.2	3.2
145°	3.2	3.2	3.2	3.5	3.2	3.5
147.5°	3.7	3.7	3.7	3.7	3.5	3.5
150°	4.3	4.3	4.3	4.0	3.7	3.7
152.5°	4.6	4.9	4.6	4.3	4.0	4.0
155°	5.2	5.4	5.2	4.9	4.3	4.6
157.5°	5.8	6.4	5.8	5.4	5.2	5.2
160°	6.7	6.9	6.7	6.4	6.1	6.4
162.5°	7.2	7.5	7.2	6.9	6.9	6.9
165°	7.8	8.1	7.8	7.5	7.5	7.8
167.5°	8.1	8.1	8.1	8.1	8.1	8.3
170°	8.3	8.6	8.3	8.3	8.6	8.6
172.5°	8.9	9.2	8.9	9.2	9.2	9.6
175°	9.6	9.8	9.6	9.8	9.8	10.1
177.5°	9.8	10.1	9.8	9.8	9.8	10.1
180°	10.7	10.7	10.7	10.7	10.7	10.7



TEST NUMBER: P1432306
 CATALOG NUMBER: EHBR1-18-UNV-TASM-L830

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	16.52	17.73	16.89	18.04	18.36	15.84	17.04	16.20	17.36	17.68
	3H	18.16	19.23	18.54	19.56	19.93	17.79	18.86	18.17	19.19	19.56
	4H	18.86	19.86	19.27	20.22	20.60	18.65	19.65	19.05	20.00	20.39
	6H	19.43	20.35	19.85	20.73	21.12	19.40	20.32	19.82	20.69	21.09
	8H	19.64	20.51	20.07	20.90	21.31	19.69	20.56	20.12	20.95	21.36
	12H	19.76	20.59	20.20	20.98	21.41	19.88	20.71	20.32	21.10	21.53
4H	2H	16.98	17.98	17.39	18.33	18.72	16.47	17.47	16.87	17.82	18.21
	3H	18.89	19.72	19.31	20.12	20.53	18.64	19.47	19.06	19.88	20.28
	4H	19.75	20.49	20.19	20.91	21.36	19.64	20.38	20.08	20.80	21.25
	6H	20.47	21.11	20.94	21.56	22.03	20.54	21.17	21.00	21.62	22.09
	8H	20.73	21.33	21.20	21.78	22.25	20.88	21.48	21.35	21.93	22.40
	12H	20.90	21.42	21.39	21.91	22.39	21.13	21.66	21.62	22.14	22.62
8H	4H	20.06	20.65	20.53	21.10	21.58	19.98	20.58	20.45	21.03	21.50
	6H	20.93	21.42	21.44	21.92	22.40	21.03	21.52	21.54	22.02	22.50
	8H	21.28	21.72	21.81	22.24	22.73	21.48	21.91	22.01	22.43	22.93
	12H	21.54	21.92	22.06	22.42	23.00	21.84	22.22	22.36	22.72	23.29
12H	4H	20.09	20.61	20.58	21.10	21.57	20.01	20.54	20.50	21.02	21.50
	6H	21.00	21.44	21.53	21.96	22.45	21.11	21.54	21.63	22.06	22.55
	8H	21.42	21.80	21.94	22.30	22.87	21.62	22.00	22.14	22.50	23.07

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-2

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L830-N

Data in this report applies to families of products including EHBR-60-L830-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-2
 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-L830-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 2983
 CIE u': 0.2516
 CIE v': 0.5201
 Duv: -0.0012
 CIE x: 0.4364
 CIE y: 0.4010
 CIE z: 0.1626
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 583
 Purity: 51.34918
 Rf: 81.2
 Rg: 101.5

CRI (Ra):	83.4		
R1:	84.0	R9:	29.4
R2:	87.5	R10:	68.6
R3:	88.9	R11:	82.2
R4:	83.8	R12:	61.6
R5:	81.9	R13:	83.9
R6:	83.1	R14:	92.5
R7:	87.1	R15:	79.8
R8:	70.9		



Test Conditions

Stabilization Time: 38M
 Operation Time: 1H 38M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-2

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: SP1-2506-472-2

CIE 1931 Chromaticity Diagram



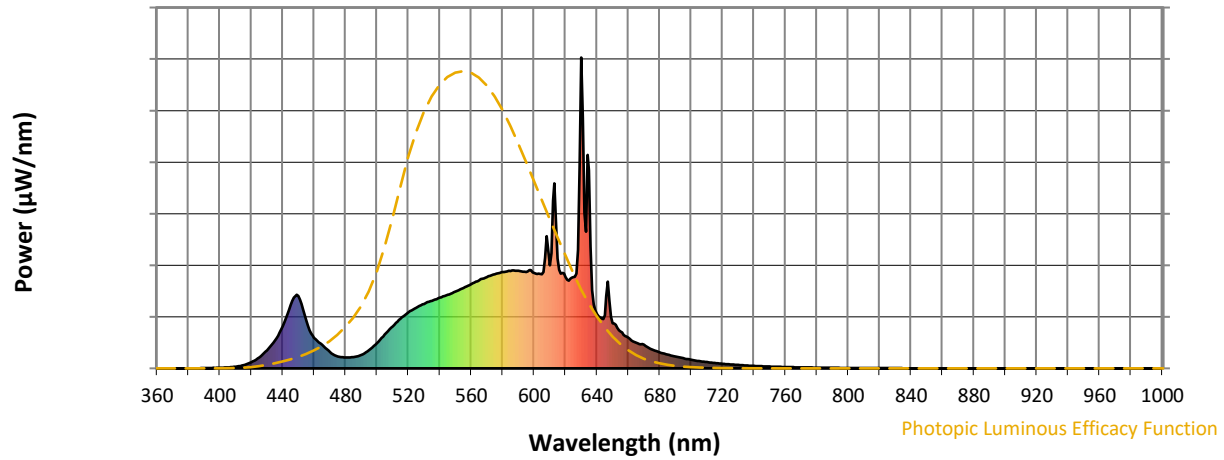
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-2

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-2

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.34

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

Summary

$R_f = 81.2$
 $R_g = 101.5$
 CIE $R_a = 83.4$
 $R_9 = 29.4$



Color Vector Graphics



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

CES01 = 86	CES26 = 71	CES51 = 89	CES76 = 65
CES02 = 63	CES27 = 89	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 86	CES53 = 80	CES78 = 67
CES04 = 70	CES29 = 68	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 77	CES55 = 90	CES80 = 85
CES06 = 51	CES31 = 70	CES56 = 81	CES81 = 75
CES07 = 43	CES32 = 64	CES57 = 79	CES82 = 93
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 76	CES59 = 92	CES84 = 91
CES10 = 76	CES35 = 87	CES60 = 96	CES85 = 81
CES11 = 59	CES36 = 99	CES61 = 91	CES86 = 74
CES12 = 65	CES37 = 81	CES62 = 93	CES87 = 83
CES13 = 44	CES38 = 83	CES63 = 79	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 81	CES89 = 74
CES15 = 72	CES40 = 89	CES65 = 78	CES90 = 85
CES16 = 48	CES41 = 88	CES66 = 76	CES91 = 87
CES17 = 50	CES42 = 80	CES67 = 74	CES92 = 73
CES18 = 57	CES43 = 75	CES68 = 79	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 83	CES94 = 64
CES20 = 67	CES45 = 83	CES70 = 72	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 70	CES96 = 86
CES22 = 79	CES47 = 79	CES72 = 90	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 65	CES98 = 83
CES24 = 91	CES49 = 79	CES74 = 94	CES99 = 82
CES25 = 72	CES50 = 88	CES75 = 70	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)