

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: P1432526

Luminaire Tested: EHBR1-60-UNV-TASM-L830-UPL24

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432526
REPORT IS A COMBINATION OF REPORTS P1431903 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-60-UNV-TASM-L830-UPL24
Description: Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

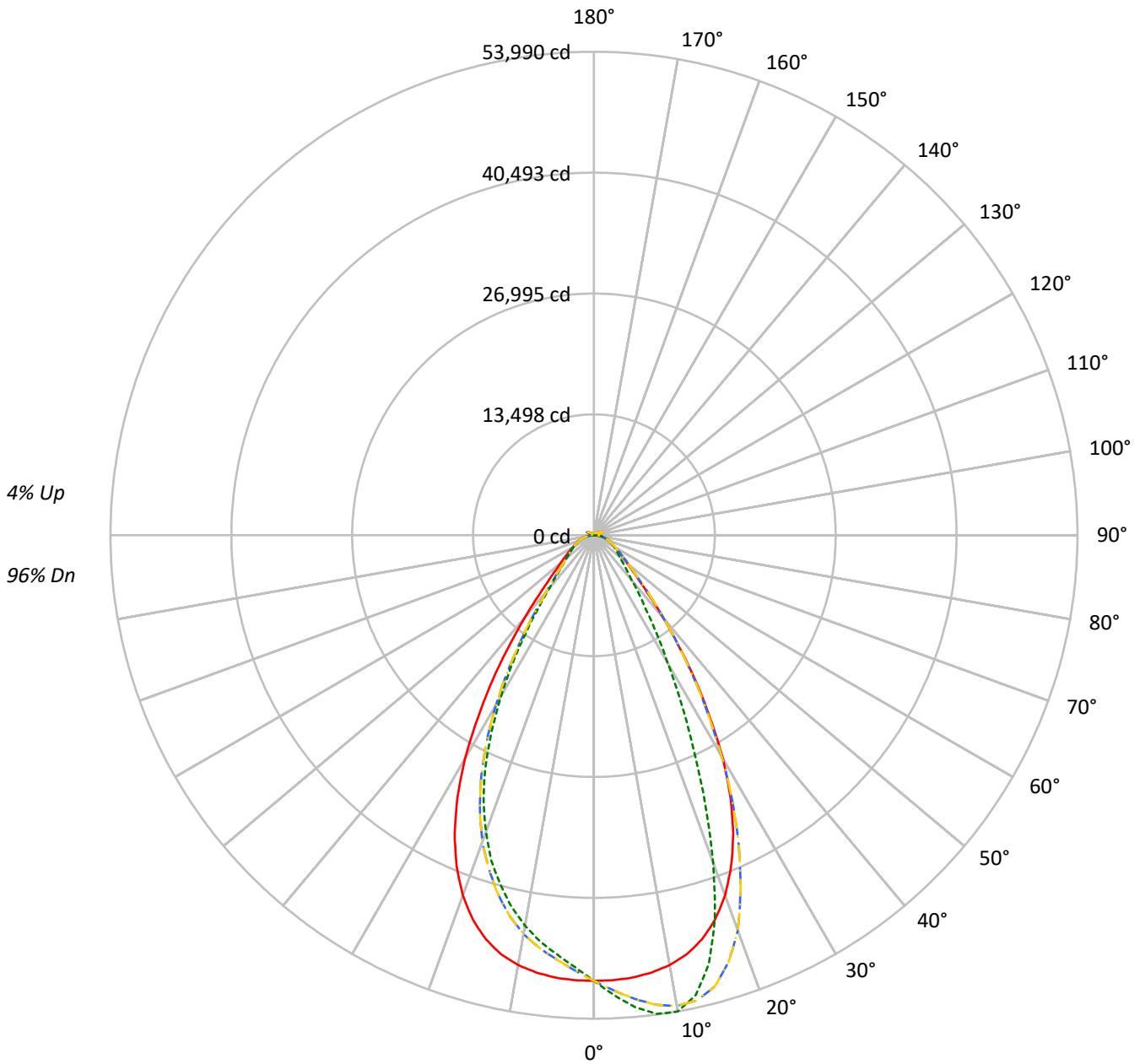
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57914.0 lumens
Efficiency: N/A
Efficacy: 166.9 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: Direct

Input Watts (W): 346.9
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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CATALOG NUMBER: EHBR1-60-UNV-TASM-L830-UPL24

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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	98	96	
1	111	107	104	102	108	105	102	100	100	98	96	96	94	92	91	90	89	89	87	
2	104	98	93	89	101	96	91	88	92	88	85	88	85	83	85	82	80	80	78	
3	98	90	84	79	95	88	83	78	85	80	76	82	78	75	79	76	73	73	71	
4	92	83	76	71	89	81	75	70	78	73	69	76	71	68	73	70	67	67	65	
5	86	76	70	65	84	75	69	64	73	67	63	71	66	62	69	65	61	61	60	
6	81	71	64	59	79	70	64	59	68	62	58	66	61	57	64	60	57	57	55	
7	77	66	59	55	75	65	59	54	64	58	54	62	57	53	60	56	53	53	51	
8	73	62	55	51	71	61	55	50	60	54	50	58	53	49	57	52	49	49	47	
9	69	58	51	47	67	57	51	47	56	50	46	55	50	46	54	49	46	46	44	
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	51	46	43	43	41	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	233659	233659	233659	233659
5°	232237	247754	232237	220186
10°	229382	254114	229382	208387
15°	222609	236152	222609	192493
20°	208196	189361	208196	171458
25°	184270	131200	184270	143689
30°	149620	85356	149620	107508
35°	107313	55278	107313	71571
40°	69381	38101	69381	45136
45°	44022	29513	44022	32160
50°	32691	25079	32691	26788
55°	26691	22845	26691	23646
60°	23113	21762	23113	21894
65°	21069	20988	21069	20898
70°	19969	20564	19969	20299
75°	18674	19894	18674	19298
80°	16405	18781	16405	17559
85°	10614	13410	10614	12785

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 61892 cd/sqm



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 CATALOG NUMBER: EHBR1-60-UNV-TASM-L830-UPL24

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4731.0	8.2
10°-20°	12871.1	22.2
20°-30°	15095.2	26.1
30°-40°	10497.7	18.1
40°-50°	5216.9	9.0
50°-60°	3120.3	5.4
60°-70°	2196.2	3.8
70°-80°	1414.7	2.4
80°-90°	453.4	0.8
90°-100°	62.6	0.1
100°-110°	400.4	0.7
110°-120°	738.1	1.3
120°-130°	440.0	0.8
130°-140°	267.9	0.5
140°-150°	187.0	0.3
150°-160°	123.9	0.2
160°-170°	72.9	0.1
170°-180°	24.7	0.0
0°-30°	32697.3	56.5
0°-40°	43195.1	74.6
0°-60°	51532.2	89.0
0°-90°	55596.4	96.0
90°-120°	1201.1	2.1
90°-150°	2096.1	3.6
90°-180°	2318.0	4.0
0°-180°	57914.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	49756	49756	49756	49756	49756	
5°	49586	52899	49586	47013	49586	4706
15°	46702	49543	46702	40384	46702	13052
25°	36798	26201	36798	28694	36798	16660
35°	19696	10146	19696	13136	19696	12295
45°	7122	4775	7122	5203	7122	5828
55°	3607	3087	3607	3196	3607	3298
65°	2199	2191	2199	2181	2199	2209
75°	1316	1401	1316	1359	1316	1381
85°	365	461	365	439	365	406
90°	17	24	17	17	17	25
95°	34	35	34	29	34	35
105°	184	98	184	140	184	248
115°	785	674	785	637	785	716
125°	504	531	504	461	504	464
135°	322	372	322	338	322	255
145°	294	307	294	285	294	184
155°	264	276	264	258	264	123
165°	256	266	256	252	256	73
175°	259	268	259	255	259	25
180°	260	260	260	260	260	



TEST NUMBER: P1432526
 CATALOG NUMBER: EHBR1-60-UNV-TASM-L830-UPL24

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1
2.5°	49727.2	50370.0	50890.7	51234.0	51403.8	51234.0	50890.7	50370.0	49727.2	49088.0	48648.6
5°	49586.3	50873.8	51964.5	52678.3	52899.4	52678.3	51964.5	50873.8	49586.3	48369.7	47562.6
7.5°	49249.4	51255.4	52876.1	53709.2	53912.7	53709.2	52876.1	51255.4	49249.4	47527.1	46507.4
10°	48735.4	51496.1	53368.7	53965.8	53990.0	53965.8	53368.7	51496.1	48735.4	46415.1	45212.4
12.5°	47915.3	51410.3	53203.6	53007.6	52562.6	53007.6	53203.6	51410.3	47915.3	45056.5	43539.5
15°	46702.3	50901.8	52157.6	50563.2	49543.4	50563.2	52157.6	50901.8	46702.3	43222.3	41462.7
17.5°	44993.1	49950.2	49974.5	46819.9	44896.1	46819.9	49974.5	49950.2	44993.1	40979.3	39041.5
20°	42790.3	48423.7	46968.3	41198.6	38919.2	41198.6	46968.3	48423.7	42790.3	38327.8	36426.3
22.5°	40028.6	46365.6	42781.9	35543.7	32433.9	35543.7	42781.9	46365.6	40028.6	35244.1	33265.3
25°	36798.5	43843.7	38278.3	29382.1	26200.6	29382.1	38278.3	43843.7	36798.5	31570.0	29780.5
27.5°	32999.3	40647.2	33482.7	24009.9	21074.6	24009.9	33482.7	40647.2	32999.3	27776.4	25948.7
30°	28779.4	36549.4	28492.1	19120.9	16418.1	19120.9	28492.1	36549.4	28779.4	23514.5	21878.0
32.5°	24054.7	32532.8	23699.2	15320.8	13031.2	15320.8	23699.2	32532.8	24054.7	19447.5	17737.3
35°	19695.7	27507.7	19377.5	12038.5	10145.5	12038.5	19377.5	27507.7	19695.7	15608.2	13928.8
37.5°	15457.0	22759.7	15446.8	9693.9	8229.1	9693.9	15446.8	22759.7	15457.0	12134.6	10771.5
40°	12025.5	17796.1	12102.9	7738.3	6603.8	7738.3	12102.9	17796.1	12025.5	9233.0	8360.6
42.5°	9111.7	13607.9	9512.9	6351.0	5609.2	6351.0	9512.9	13607.9	9111.7	7274.6	6621.5
45°	7122.5	10013.9	7428.6	5358.3	4775.1	5358.3	7428.6	10013.9	7122.5	5858.4	5419.8
47.5°	5800.5	7739.3	6020.7	4596.0	4187.3	4596.0	6020.7	7739.3	5800.5	4955.2	4626.8
50°	4872.1	5938.5	4999.0	4011.9	3737.6	4011.9	4999.0	5938.5	4872.1	4243.3	4024.0
52.5°	4185.4	4843.3	4257.2	3575.2	3390.5	3575.2	4257.2	4843.3	4185.4	3712.5	3576.2
55°	3607.0	4071.6	3702.2	3215.2	3087.3	3215.2	3702.2	4071.6	3607.0	3303.8	3203.0
57.5°	3167.6	3454.0	3215.2	2908.2	2823.2	2908.2	3215.2	3454.0	3167.6	2939.9	2885.8
60°	2778.5	2991.2	2837.3	2640.4	2616.1	2640.4	2837.3	2991.2	2778.5	2645.1	2609.6
62.5°	2479.0	2613.3	2508.9	2399.7	2378.2	2399.7	2508.9	2613.3	2479.0	2376.3	2382.9
65°	2199.1	2324.1	2242.0	2183.2	2190.7	2183.2	2242.0	2324.1	2199.1	2151.5	2161.7
67.5°	1982.6	2047.9	2012.5	1978.9	1987.3	1978.9	2012.5	2047.9	1982.6	1936.0	1951.8
70°	1752.2	1822.2	1785.7	1790.4	1804.4	1790.4	1785.7	1822.2	1752.2	1738.2	1750.3
72.5°	1532.0	1586.1	1574.0	1585.2	1600.1	1585.2	1574.0	1586.1	1532.0	1530.1	1531.1
75°	1315.5	1356.5	1362.2	1378.1	1401.4	1378.1	1362.2	1356.5	1315.5	1301.6	1318.3
77.5°	1079.5	1126.1	1143.8	1165.4	1199.8	1165.4	1143.8	1126.1	1079.5	1088.8	1097.2
80°	863.0	884.4	923.7	939.5	988.0	939.5	923.7	884.4	863.0	847.2	859.3
82.5°	631.6	651.2	684.8	714.7	742.7	714.7	684.8	651.2	631.6	624.2	625.1
85°	364.8	394.6	417.0	452.5	460.9	452.5	417.0	394.6	364.8	373.2	364.8
87.5°	127.9	137.1	156.7	170.8	171.7	170.8	156.7	137.1	127.9	130.6	118.5
90°	17.4	29.7	51.0	30.9	24.0	30.9	51.0	29.7	17.4	30.1	46.6
92.5°	22.5	39.8	71.2	39.8	30.3	39.8	71.2	39.8	22.5	38.9	74.4
95°	33.5	48.7	90.2	43.6	35.3	43.6	90.2	48.7	33.5	51.6	103.5
97.5°	51.2	60.1	101.5	46.2	41.7	46.2	101.5	60.1	51.2	62.9	118.7
100°	67.7	67.7	183.9	52.5	46.7	52.5	183.9	67.7	67.7	77.8	184.5
102.5°	101.9	132.0	424.0	101.5	55.6	101.5	424.0	132.0	101.9	144.9	390.9
105°	184.2	299.1	744.4	254.7	98.4	254.7	744.4	299.1	184.2	301.9	696.0
107.5°	347.5	556.0	958.3	497.8	221.2	497.8	958.3	556.0	347.5	533.6	918.4
110°	555.1	776.3	1045.6	680.1	441.4	680.1	1045.6	776.3	555.1	732.4	962.7



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 CATALOG NUMBER: EHBR1-60-UNV-TASM-L830-UPL24

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	722.2	865.0	1021.7	753.5	608.5	753.5	1021.7	865.0	722.2	808.3	922.3
115°	785.2	852.3	912.7	751.0	674.3	751.0	912.7	852.3	785.2	789.4	823.6
117.5°	758.6	780.2	788.7	705.4	678.2	705.4	788.7	780.2	758.6	710.5	699.4
120°	685.2	676.3	665.5	638.3	640.1	638.3	665.5	676.3	685.2	620.7	584.2
122.5°	593.7	574.8	563.0	570.8	588.3	570.8	563.0	574.8	593.7	529.1	501.6
125°	503.9	484.8	491.8	512.7	530.9	512.7	491.8	484.8	503.9	450.4	443.1
127.5°	428.8	419.9	439.9	463.3	479.0	463.3	439.9	419.9	428.8	394.6	401.3
130°	375.3	376.9	403.2	423.7	433.5	423.7	403.2	376.9	375.3	358.9	375.6
132.5°	342.1	351.3	376.3	394.3	400.3	394.3	376.3	351.3	342.1	338.0	358.5
135°	321.5	334.8	358.2	369.3	372.3	369.3	358.2	334.8	321.5	323.6	342.1
137.5°	309.8	323.1	340.5	350.0	348.4	350.0	340.5	323.1	309.8	314.5	328.7
140°	303.1	316.4	324.0	334.8	334.0	334.8	324.0	316.4	303.1	305.6	317.0
142.5°	296.5	308.5	312.3	320.4	318.9	320.4	312.3	308.5	296.5	299.0	306.6
145°	293.6	302.7	299.3	309.1	307.1	309.1	299.3	302.7	293.6	293.9	298.6
147.5°	287.2	293.9	290.1	298.6	296.7	298.6	290.1	293.9	287.2	287.2	289.3
150°	280.5	285.5	279.6	289.3	289.9	289.3	279.6	285.5	280.5	279.2	281.4
152.5°	271.3	276.3	271.3	282.3	282.0	282.3	271.3	276.3	271.3	270.1	272.2
155°	264.3	266.9	264.3	275.4	276.3	275.4	264.3	266.9	264.3	263.4	265.3
157.5°	259.8	262.1	260.8	270.6	271.6	270.6	260.8	262.1	259.8	259.8	260.8
160°	257.2	259.7	259.5	268.0	268.9	268.0	259.5	259.7	257.2	257.6	258.5
162.5°	256.6	256.6	257.2	265.7	267.6	265.7	257.2	256.6	256.6	256.6	257.9
165°	255.6	256.8	256.2	263.1	266.3	263.1	256.2	256.8	255.6	255.9	255.9
167.5°	256.2	255.0	256.8	263.4	266.6	263.4	256.8	255.0	256.2	256.6	256.6
170°	254.6	255.5	256.2	262.7	265.8	262.7	256.2	255.5	254.6	255.9	256.2
172.5°	257.4	257.4	257.7	262.9	267.3	262.9	257.7	257.4	257.4	257.8	259.0
175°	259.3	259.0	259.5	263.6	268.0	263.6	259.5	259.0	259.3	258.3	258.3
177.5°	258.1	259.9	261.7	265.7	271.5	265.7	261.7	259.9	258.1	258.3	258.3
180°	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	49756.1	49756.1	49756.1	49756.1	49756.1	49756.1
2.5°	48310.9	48279.1	48310.9	48648.6	49088.0	49727.2
5°	47188.5	47013.1	47188.5	47562.6	48369.7	49586.3
7.5°	45881.3	45779.6	45881.3	46507.4	47527.1	49249.4
10°	44505.2	44274.7	44505.2	45212.4	46415.1	48735.4
12.5°	42808.9	42503.8	42808.9	43539.5	45056.5	47915.3
15°	40651.9	40384.1	40651.9	41462.7	43222.3	46702.3
17.5°	38337.1	38094.5	38337.1	39041.5	40979.3	44993.1
20°	35429.8	35239.5	35429.8	36426.3	38327.8	42790.3
22.5°	32379.9	32201.6	32379.9	33265.3	35244.1	40028.6
25°	28791.5	28694.5	28791.5	29780.5	31570.0	36798.5
27.5°	24913.9	24748.8	24913.9	25948.7	27776.4	32999.3
30°	20952.4	20679.1	20952.4	21878.0	23514.5	28779.4
32.5°	17077.7	16880.8	17077.7	17737.3	19447.5	24054.7
35°	13332.6	13135.8	13332.6	13928.8	15608.2	19695.7
37.5°	10388.9	10041.0	10388.9	10771.5	12134.6	15457.0
40°	7879.2	7823.2	7879.2	8360.6	9233.0	12025.5
42.5°	6414.4	6262.3	6414.4	6621.5	7274.6	9111.7
45°	5263.1	5203.3	5263.1	5419.8	5858.4	7122.5
47.5°	4526.0	4552.1	4526.0	4626.8	4955.2	5800.5
50°	3976.4	3992.3	3976.4	4024.0	4243.3	4872.1
52.5°	3571.6	3557.5	3571.6	3576.2	3712.5	4185.4
55°	3213.3	3195.5	3213.3	3203.0	3303.8	3607.0
57.5°	2899.8	2912.8	2899.8	2885.8	2939.9	3167.6
60°	2619.9	2632.0	2619.9	2609.6	2645.1	2778.5
62.5°	2383.8	2391.3	2383.8	2382.9	2376.3	2479.0
65°	2173.0	2181.3	2173.0	2161.7	2151.5	2199.1
67.5°	1971.4	1971.4	1971.4	1951.8	1936.0	1982.6
70°	1782.0	1781.1	1782.0	1750.3	1738.2	1752.2
72.5°	1554.4	1576.8	1554.4	1531.1	1530.1	1532.0
75°	1333.2	1359.4	1333.2	1318.3	1301.6	1315.5
77.5°	1109.3	1149.4	1109.3	1097.2	1088.8	1079.5
80°	879.9	923.7	879.9	859.3	847.2	863.0
82.5°	650.3	683.0	650.3	625.1	624.2	631.6
85°	387.2	439.4	387.2	364.8	373.2	364.8
87.5°	124.1	158.6	124.1	118.5	130.6	127.9
90°	27.5	17.4	27.5	46.6	30.1	17.4
92.5°	41.5	25.0	41.5	74.4	38.9	22.5
95°	47.8	28.8	47.8	103.5	51.6	33.5
97.5°	52.8	37.3	52.8	118.7	62.9	51.2
100°	61.7	48.7	61.7	184.5	77.8	67.7
102.5°	130.1	81.6	130.1	390.9	144.9	101.9
105°	273.1	139.9	273.1	696.0	301.9	184.2
107.5°	488.4	241.1	488.4	918.4	533.6	347.5
110°	647.8	448.8	647.8	962.7	732.4	555.1



TEST NUMBER: P1432526
 CATALOG NUMBER: EHBR1-60-UNV-TASM-L830-UPL24

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	696.0	605.8	696.0	922.3	808.3	722.2
115°	669.4	637.4	669.4	823.6	789.4	785.2
117.5°	611.2	615.9	611.2	699.4	710.5	758.6
120°	544.0	570.4	544.0	584.2	620.7	685.2
122.5°	483.0	513.3	483.0	501.6	529.1	593.7
125°	429.8	461.1	429.8	443.1	450.4	503.9
127.5°	393.0	414.3	393.0	401.3	394.6	428.8
130°	364.8	382.6	364.8	375.6	358.9	375.3
132.5°	345.6	357.0	345.6	358.5	338.0	342.1
135°	328.8	338.0	328.8	342.1	323.6	321.5
137.5°	314.5	322.4	314.5	328.7	314.5	309.8
140°	302.5	309.1	302.5	317.0	305.6	303.1
142.5°	289.4	294.6	289.4	306.6	299.0	296.5
145°	281.2	285.0	281.2	298.6	293.9	293.6
147.5°	274.2	276.7	274.2	289.3	287.2	287.2
150°	267.1	269.7	267.1	281.4	279.2	280.5
152.5°	259.3	262.7	259.3	272.2	270.1	271.3
155°	254.8	258.3	254.8	265.3	263.4	264.3
157.5°	252.8	256.0	252.8	260.8	259.8	259.8
160°	251.9	254.0	251.9	258.5	257.6	257.2
162.5°	249.9	252.2	249.9	257.9	256.6	256.6
165°	250.6	251.5	250.6	255.9	255.9	255.6
167.5°	250.2	251.5	250.2	256.6	256.6	256.2
170°	251.1	252.1	251.1	256.2	255.9	254.6
172.5°	253.0	253.9	253.0	259.0	257.8	257.4
175°	253.7	254.6	253.7	258.3	258.3	259.3
177.5°	255.8	256.8	255.8	258.3	258.3	258.1
180°	259.9	259.9	259.9	259.9	259.9	259.9



TEST NUMBER: P1432526
 CATALOG NUMBER: EHBR1-60-UNV-TASM-L830-UPL24

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	19.80	20.95	20.24	21.34	21.76	19.12	20.26	19.56	20.66	21.08
	3H	21.35	22.37	21.80	22.78	23.25	20.97	21.99	21.42	22.40	22.87
	4H	21.99	22.94	22.46	23.37	23.86	21.75	22.70	22.23	23.14	23.62
	6H	22.47	23.34	22.96	23.79	24.29	22.40	23.27	22.88	23.72	24.21
	8H	22.62	23.45	23.12	23.92	24.42	22.62	23.44	23.12	23.92	24.42
	12H	22.69	23.48	23.20	23.95	24.47	22.75	23.53	23.25	24.00	24.53
4H	2H	20.22	21.17	20.69	21.60	22.09	19.70	20.65	20.17	21.08	21.57
	3H	22.02	22.80	22.50	23.29	23.79	21.76	22.54	22.24	23.02	23.53
	4H	22.79	23.50	23.30	23.99	24.53	22.66	23.37	23.17	23.86	24.41
	6H	23.41	24.02	23.94	24.54	25.10	23.44	24.04	23.97	24.57	25.13
	8H	23.60	24.17	24.14	24.69	25.26	23.71	24.27	24.25	24.80	25.36
	12H	23.71	24.21	24.27	24.77	25.33	23.88	24.38	24.43	24.93	25.50
8H	4H	23.04	23.61	23.58	24.13	24.70	22.94	23.51	23.48	24.03	24.60
	6H	23.78	24.24	24.36	24.82	25.39	23.85	24.31	24.42	24.88	25.45
	8H	24.05	24.47	24.64	25.05	25.64	24.20	24.61	24.79	25.20	25.78
	12H	24.23	24.59	24.81	25.15	25.82	24.45	24.81	25.04	25.38	26.04
12H	4H	23.05	23.55	23.61	24.11	24.68	22.96	23.46	23.51	24.01	24.58
	6H	23.83	24.24	24.42	24.82	25.41	23.89	24.31	24.48	24.89	25.48
	8H	24.15	24.51	24.73	25.07	25.73	24.30	24.66	24.88	25.22	25.89

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

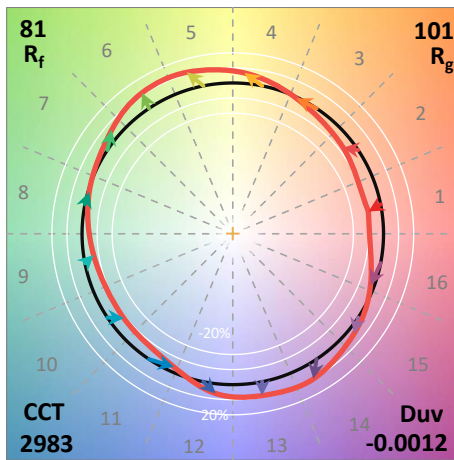
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	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 ($R_{f,i}$)

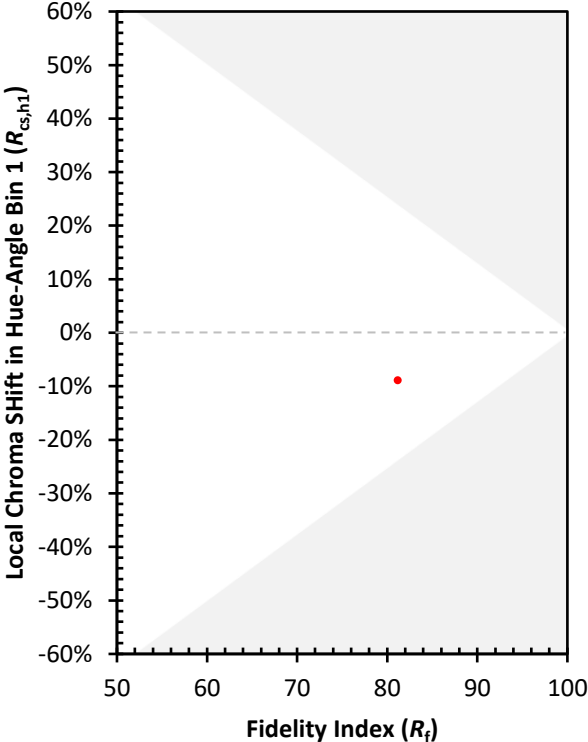
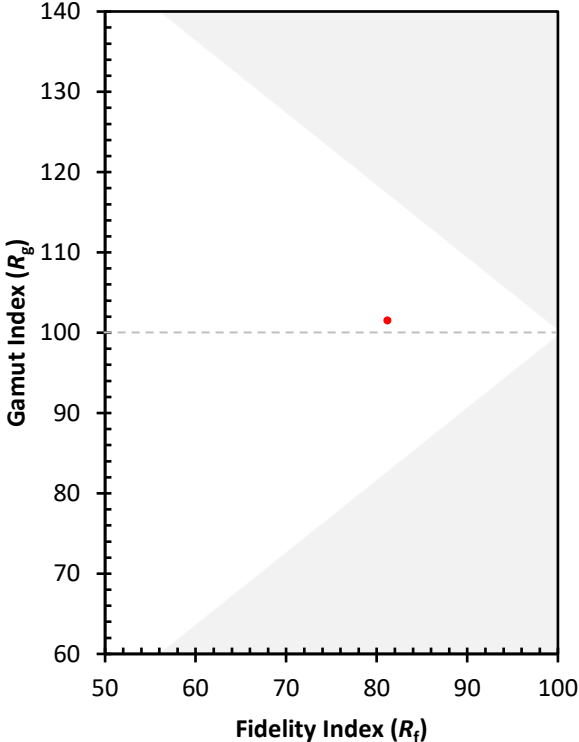
CES01 = 86	CES26 = 71	CES51 = 89	CES76 = 65
CES02 = 63	CES27 = 89	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 86	CES53 = 80	CES78 = 67
CES04 = 70	CES29 = 68	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 77	CES55 = 90	CES80 = 85
CES06 = 51	CES31 = 70	CES56 = 81	CES81 = 75
CES07 = 43	CES32 = 64	CES57 = 79	CES82 = 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)