

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: P1432363

Luminaire Tested: EHBR1-30-UNV-TASM-L830-UPL12

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432363
REPORT IS A COMBINATION OF REPORTS P1431740 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-30-UNV-TASM-L830-UPL12
Description: Elevate Round Highbay at, 30000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

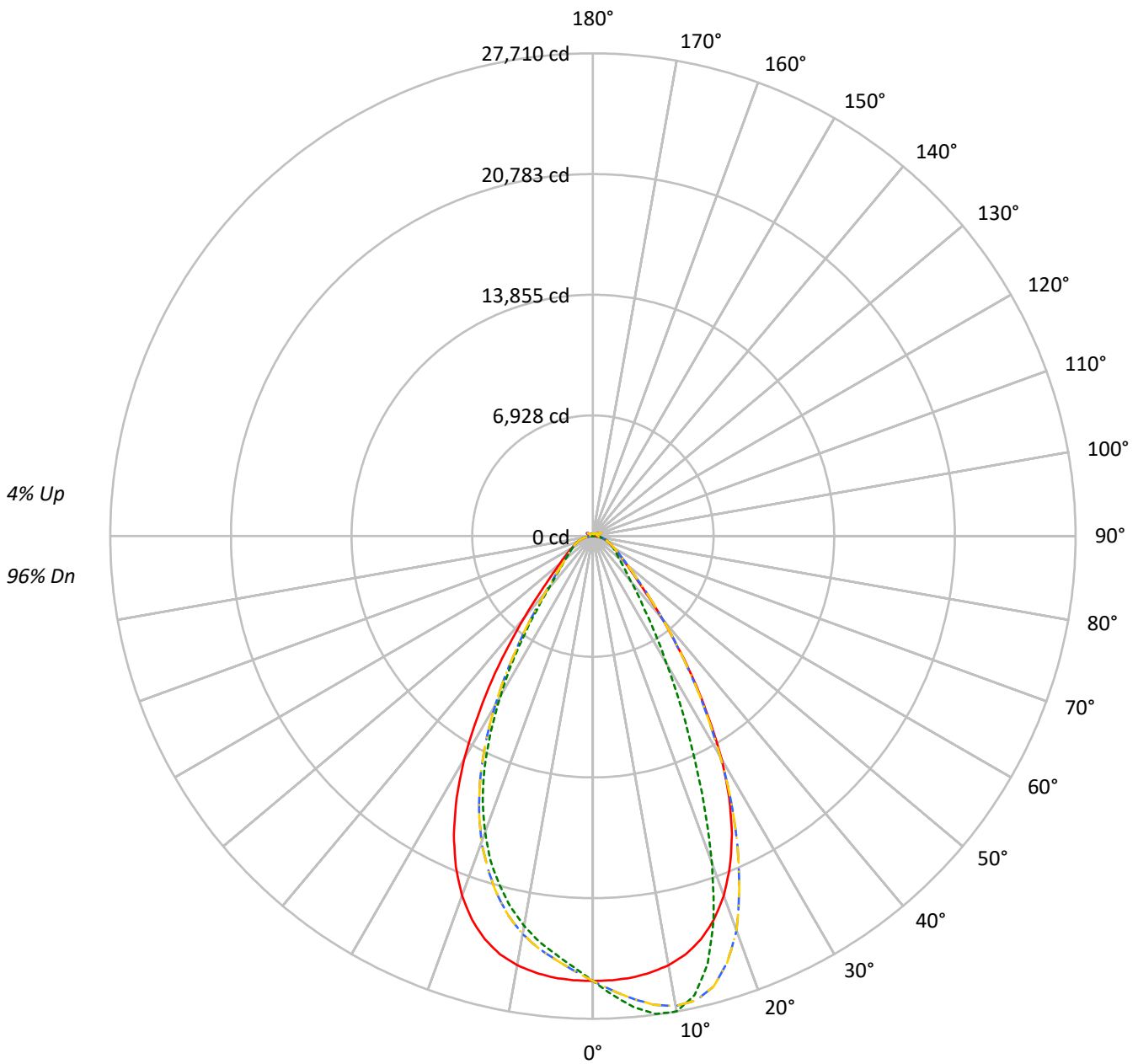
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29686.1 lumens
Efficiency: N/A
Efficacy: 177.5 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): 167.2
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



— 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	0
RCR																					
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	98	98	98	96
1	111	108	104	102	108	105	102	100	100	98	96	96	94	92	92	90	89	89	89	89	87
2	104	98	93	89	101	96	91	88	92	88	85	88	85	83	85	83	80	80	80	80	78
3	98	90	84	79	95	88	83	78	85	80	76	82	78	75	79	76	73	73	73	73	71
4	92	83	76	71	89	81	75	71	79	73	69	76	72	68	74	70	67	67	67	67	65
5	86	77	70	65	84	75	69	64	73	67	63	71	66	62	69	65	61	61	61	61	60
6	81	71	64	59	79	70	64	59	68	62	58	66	61	57	64	60	57	57	57	57	55
7	77	66	59	55	75	65	59	54	64	58	54	62	57	53	61	56	53	53	53	53	51
8	73	62	55	51	71	61	55	50	60	54	50	58	53	49	57	52	49	49	49	49	47
9	69	58	52	47	67	57	51	47	56	50	47	55	50	46	54	49	46	46	46	46	44
10	65	55	48	44	64	54	48	44	53	47	44	52	47	43	51	46	43	43	43	43	41

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	119922	119922	119922	119922
5°	119192	127156	119192	113007
10°	117727	130420	117727	106951
15°	114251	121201	114251	98794
20°	106853	97187	106853	87998
25°	94574	67336	94574	73745
30°	76790	43807	76790	55177
35°	55076	28370	55076	36732
40°	35609	19555	35609	23165
45°	22593	15147	22593	16506
50°	16778	12871	16778	13748
55°	13698	11725	13698	12136
60°	11862	11169	11862	11236
65°	10813	10771	10813	10726
70°	10248	10555	10248	10418
75°	9585	10210	9585	9904
80°	8421	9639	8421	9012
85°	5447	6881	5447	6564

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 31765 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2428.1	8.2
10°-20°	6605.9	22.3
20°-30°	7747.4	26.1
30°-40°	5387.8	18.1
40°-50°	2677.5	9.0
50°-60°	1601.4	5.4
60°-70°	1127.1	3.8
70°-80°	726.1	2.4
80°-90°	232.6	0.8
90°-100°	31.1	0.1
100°-110°	199.0	0.7
110°-120°	366.8	1.2
120°-130°	218.7	0.7
130°-140°	133.2	0.4
140°-150°	93.0	0.3
150°-160°	61.7	0.2
160°-170°	36.4	0.1
170°-180°	12.3	0.0
0°-30°	16781.4	56.5
0°-40°	22169.2	74.7
0°-60°	26448.1	89.1
0°-90°	28533.9	96.1
90°-120°	597.0	2.0
90°-150°	1041.9	3.5
90°-180°	1152.0	3.9
0°-180°	29686.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	25536	25536	25536	25536	25536	
5°	25449	27150	25449	24129	25449	2415
15°	23969	25427	23969	20726	23969	6699
25°	18886	13447	18886	14727	18886	8550
35°	10108	5207	10108	6742	10108	6310
45°	3656	2451	3656	2671	3656	2991
55°	1851	1584	1851	1640	1851	1693
65°	1129	1124	1129	1120	1129	1134
75°	675	719	675	698	675	709
85°	187	236	187	226	187	208
90°	9	12	9	9	9	13
95°	17	18	17	14	17	18
105°	92	49	92	70	92	123
115°	390	335	390	317	390	356
125°	250	264	250	229	250	231
135°	160	185	160	168	160	127
145°	146	153	146	142	146	91
155°	132	138	132	129	132	61
165°	127	133	127	125	127	36
175°	129	134	129	127	129	12
180°	130	130	130	130	130	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5
2.5°	25521.7	25851.6	26118.8	26295.0	26382.1	26295.0	26118.8	25851.6	25521.7	25193.6	24968.1
5°	25449.4	26110.2	26670.0	27036.2	27149.8	27036.2	26670.0	26110.2	25449.4	24824.9	24410.7
7.5°	25276.5	26306.0	27137.8	27565.4	27669.7	27565.4	27137.8	26306.0	25276.5	24392.6	23869.1
10°	25012.7	26429.5	27390.6	27697.1	27709.5	27697.1	27390.6	26429.5	25012.7	23821.7	23204.5
12.5°	24591.7	26385.5	27305.8	27205.3	26976.8	27205.3	27305.8	26385.5	24591.7	23124.5	22345.9
15°	23969.3	26124.5	26769.1	25950.7	25427.3	25950.7	26769.1	26124.5	23969.3	22183.1	21280.1
17.5°	23091.9	25636.1	25648.6	24029.6	23042.2	24029.6	25648.6	25636.1	23091.9	21032.0	20037.4
20°	21961.4	24852.7	24105.7	21144.5	19974.7	21144.5	24105.7	24852.7	21961.4	19671.1	18695.2
22.5°	20544.0	23796.3	21957.1	18242.2	16646.2	18242.2	21957.1	23796.3	20544.0	18088.5	17072.8
25°	18886.3	22502.0	19645.7	15079.9	13447.0	15079.9	19645.7	22502.0	18886.3	16202.8	15284.4
27.5°	16936.4	20861.5	17184.4	12322.7	10816.3	12322.7	17184.4	20861.5	16936.4	14255.8	13317.8
30°	14770.6	18758.4	14623.1	9813.5	8426.3	9813.5	14623.1	18758.4	14770.6	12068.4	11228.5
32.5°	12345.6	16696.9	12163.3	7863.2	6688.1	7863.2	12163.3	16696.9	12345.6	9981.1	9103.4
35°	10108.5	14117.9	9945.2	6178.6	5207.0	6178.6	9945.2	14117.9	10108.5	8010.6	7148.7
37.5°	7933.1	11681.0	7927.8	4975.2	4223.4	4975.2	7927.8	11681.0	7933.1	6227.9	5528.3
40°	6171.9	9133.6	6211.6	3971.6	3389.3	3971.6	6211.6	9133.6	6171.9	4738.7	4291.0
42.5°	4676.4	6984.0	4882.3	3259.6	2878.9	3259.6	4882.3	6984.0	4676.4	3733.5	3398.4
45°	3655.5	5139.4	3812.6	2750.0	2450.7	2750.0	3812.6	5139.4	3655.5	3006.6	2781.7
47.5°	2977.0	3972.0	3090.0	2358.8	2149.1	2358.8	3090.0	3972.0	2977.0	2543.2	2374.7
50°	2500.5	3047.9	2565.6	2059.1	1918.3	2059.1	2565.6	3047.9	2500.5	2177.8	2065.3
52.5°	2148.2	2485.7	2185.0	1834.9	1740.1	1834.9	2185.0	2485.7	2148.2	1905.4	1835.4
55°	1851.2	2089.7	1900.1	1650.1	1584.5	1650.1	1900.1	2089.7	1851.2	1695.6	1643.9
57.5°	1625.7	1772.7	1650.1	1492.6	1449.0	1492.6	1650.1	1772.7	1625.7	1508.9	1481.1
60°	1426.0	1535.2	1456.2	1355.1	1342.7	1355.1	1456.2	1535.2	1426.0	1357.6	1339.3
62.5°	1272.3	1341.3	1287.6	1231.6	1220.6	1231.6	1287.6	1341.3	1272.3	1219.6	1223.0
65°	1128.6	1192.8	1150.7	1120.5	1124.3	1120.5	1150.7	1192.8	1128.6	1104.2	1109.5
67.5°	1017.5	1051.1	1032.9	1015.7	1020.0	1015.7	1032.9	1051.1	1017.5	993.6	1001.7
70°	899.2	935.2	916.5	918.9	926.1	918.9	916.5	935.2	899.2	892.1	898.3
72.5°	786.3	814.0	807.8	813.5	821.2	813.5	807.8	814.0	786.3	785.3	785.8
75°	675.2	696.3	699.2	707.2	719.2	707.2	699.2	696.3	675.2	668.0	676.6
77.5°	554.1	577.9	587.0	598.1	615.8	598.1	587.0	577.9	554.1	558.8	563.1
80°	443.0	453.9	474.1	482.2	507.1	482.2	474.1	453.9	443.0	434.8	441.0
82.5°	324.2	334.2	351.5	366.8	381.1	366.8	351.5	334.2	324.2	320.4	320.8
85°	187.2	202.5	214.0	232.2	236.5	232.2	214.0	202.5	187.2	191.6	187.2
87.5°	65.6	70.3	80.5	87.7	88.1	87.7	80.5	70.3	65.6	67.1	60.8
90°	8.6	14.8	25.3	15.5	12.0	15.5	25.3	14.8	8.6	14.9	23.1
92.5°	11.1	19.8	35.4	19.9	15.2	19.9	35.4	19.8	11.1	19.3	37.0
95°	16.7	24.2	44.8	21.7	17.7	21.7	44.8	24.2	16.7	25.7	51.4
97.5°	25.5	29.9	50.5	23.0	20.8	23.0	50.5	29.9	25.5	31.3	59.0
100°	33.6	33.6	91.3	26.1	23.3	26.1	91.3	33.6	33.6	38.7	91.7
102.5°	50.7	65.6	210.8	50.6	27.7	50.6	210.8	65.6	50.7	72.0	194.3
105°	91.5	148.7	369.9	126.6	49.0	126.6	369.9	148.7	91.5	150.1	345.8
107.5°	172.7	276.3	476.2	247.5	110.0	247.5	476.2	276.3	172.7	265.2	456.4
110°	275.9	385.8	519.6	338.1	219.5	338.1	519.6	385.8	275.9	363.9	478.5



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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°	358.9	429.9	507.7	374.6	302.5	374.6	507.7	429.9	358.9	401.7	458.3
115°	390.2	423.6	453.6	373.3	335.2	373.3	453.6	423.6	390.2	392.2	409.2
117.5°	377.0	387.7	391.9	350.6	337.1	350.6	391.9	387.7	377.0	353.0	347.6
120°	340.5	336.1	330.8	317.3	318.2	317.3	330.8	336.1	340.5	308.4	290.3
122.5°	295.1	285.6	279.9	283.8	292.4	283.8	279.9	285.6	295.1	262.9	249.3
125°	250.4	240.9	244.5	254.9	264.0	254.9	244.5	240.9	250.4	223.9	220.2
127.5°	213.2	208.8	218.7	230.3	238.2	230.3	218.7	208.8	213.2	196.2	199.4
130°	186.6	187.4	200.5	210.7	215.5	210.7	200.5	187.4	186.6	178.4	186.8
132.5°	170.1	174.7	187.1	196.1	199.1	196.1	187.1	174.7	170.1	168.0	178.3
135°	159.9	166.5	178.1	183.6	185.2	183.6	178.1	166.5	159.9	160.9	170.1
137.5°	154.0	160.6	169.3	174.0	173.2	174.0	169.3	160.6	154.0	156.4	163.5
140°	150.7	157.4	161.1	166.5	166.2	166.5	161.1	157.4	150.7	152.0	157.6
142.5°	147.4	153.4	155.3	159.3	158.6	159.3	155.3	153.4	147.4	148.7	152.5
145°	146.0	150.5	148.8	153.7	152.8	153.7	148.8	150.5	146.0	146.1	148.6
147.5°	142.8	146.1	144.3	148.6	147.6	148.6	144.3	146.1	142.8	142.8	144.0
150°	139.6	142.1	139.1	144.0	144.3	144.0	139.1	142.1	139.6	138.9	140.1
152.5°	135.1	137.6	135.1	140.6	140.4	140.6	135.1	137.6	135.1	134.4	135.5
155°	131.6	132.9	131.6	137.1	137.6	137.1	131.6	132.9	131.6	131.1	132.1
157.5°	129.5	130.5	129.9	134.8	135.3	134.8	129.9	130.5	129.5	129.5	129.9
160°	128.1	129.4	129.4	133.6	134.0	133.6	129.4	129.4	128.1	128.3	128.8
162.5°	127.9	127.9	128.2	132.5	133.4	132.5	128.2	127.9	127.9	127.9	128.5
165°	127.4	128.0	127.8	131.1	132.8	131.1	127.8	128.0	127.4	127.6	127.6
167.5°	127.8	127.1	128.0	131.4	133.0	131.4	128.0	127.1	127.8	127.9	127.9
170°	126.9	127.4	127.8	131.1	132.6	131.1	127.8	127.4	126.9	127.6	127.8
172.5°	128.4	128.4	128.6	131.2	133.6	131.2	128.6	128.4	128.4	128.6	129.3
175°	129.4	129.2	129.5	131.6	133.9	131.6	129.5	129.2	129.4	128.9	128.9
177.5°	128.7	129.6	130.6	132.7	135.5	132.7	130.6	129.6	128.7	128.9	128.9
180°	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	25536.5	25536.5	25536.5	25536.5	25536.5	25536.5
2.5°	24794.8	24778.5	24794.8	24968.1	25193.6	25521.7
5°	24218.7	24128.7	24218.7	24410.7	24824.9	25449.4
7.5°	23547.8	23495.7	23547.8	23869.1	24392.6	25276.5
10°	22841.6	22723.2	22841.6	23204.5	23821.7	25012.7
12.5°	21971.0	21814.5	21971.0	22345.9	23124.5	24591.7
15°	20863.9	20726.5	20863.9	21280.1	22183.1	23969.3
17.5°	19675.9	19551.4	19675.9	20037.4	21032.0	23091.9
20°	18183.8	18086.1	18183.8	18695.2	19671.1	21961.4
22.5°	16618.4	16527.0	16618.4	17072.8	18088.5	20544.0
25°	14776.8	14726.9	14776.8	15284.4	16202.8	18886.3
27.5°	12786.7	12702.0	12786.7	13317.8	14255.8	16936.4
30°	10753.5	10613.2	10753.5	11228.5	12068.4	14770.6
32.5°	8764.9	8663.8	8764.9	9103.4	9981.1	12345.6
35°	6842.8	6741.7	6842.8	7148.7	8010.6	10108.5
37.5°	5331.9	5153.4	5331.9	5528.3	6227.9	7933.1
40°	4043.9	4015.1	4043.9	4291.0	4738.7	6171.9
42.5°	3292.1	3214.0	3292.1	3398.4	3733.5	4676.4
45°	2701.2	2670.6	2701.2	2781.7	3006.6	3655.5
47.5°	2322.9	2336.3	2322.9	2374.7	2543.2	2977.0
50°	2040.8	2049.0	2040.8	2065.3	2177.8	2500.5
52.5°	1833.0	1825.8	1833.0	1835.4	1905.4	2148.2
55°	1649.2	1640.1	1649.2	1643.9	1695.6	1851.2
57.5°	1488.2	1495.0	1488.2	1481.1	1508.9	1625.7
60°	1344.6	1350.8	1344.6	1339.3	1357.6	1426.0
62.5°	1223.4	1227.3	1223.4	1223.0	1219.6	1272.3
65°	1115.2	1119.6	1115.2	1109.5	1104.2	1128.6
67.5°	1011.8	1011.8	1011.8	1001.7	993.6	1017.5
70°	914.6	914.1	914.6	898.3	892.1	899.2
72.5°	797.8	809.2	797.8	785.8	785.3	786.3
75°	684.3	697.7	684.3	676.6	668.0	675.2
77.5°	569.3	589.9	569.3	563.1	558.8	554.1
80°	451.6	474.1	451.6	441.0	434.8	443.0
82.5°	333.7	350.5	333.7	320.8	320.4	324.2
85°	198.7	225.6	198.7	187.2	191.6	187.2
87.5°	63.7	81.4	63.7	60.8	67.1	65.6
90°	13.7	8.6	13.7	23.1	14.9	8.6
92.5°	20.6	12.5	20.6	37.0	19.3	11.1
95°	23.7	14.3	23.7	51.4	25.7	16.7
97.5°	26.2	18.5	26.2	59.0	31.3	25.5
100°	30.6	24.2	30.6	91.7	38.7	33.6
102.5°	64.6	40.6	64.6	194.3	72.0	50.7
105°	135.7	69.5	135.7	345.8	150.1	91.5
107.5°	242.7	119.8	242.7	456.4	265.2	172.7
110°	321.9	223.0	321.9	478.5	363.9	275.9



TEST NUMBER: P1432363
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L830-UPL12

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	345.8	301.1	345.8	458.3	401.7	358.9
115°	332.6	316.8	332.6	409.2	392.2	390.2
117.5°	303.7	306.0	303.7	347.6	353.0	377.0
120°	270.3	283.4	270.3	290.3	308.4	340.5
122.5°	240.0	255.1	240.0	249.3	262.9	295.1
125°	213.6	229.1	213.6	220.2	223.9	250.4
127.5°	195.3	205.9	195.3	199.4	196.2	213.2
130°	181.3	190.2	181.3	186.8	178.4	186.6
132.5°	171.7	177.4	171.7	178.3	168.0	170.1
135°	163.5	168.0	163.5	170.1	160.9	159.9
137.5°	156.4	160.4	156.4	163.5	156.4	154.0
140°	150.4	153.7	150.4	157.6	152.0	150.7
142.5°	144.0	146.5	144.0	152.5	148.7	147.4
145°	139.9	141.7	139.9	148.6	146.1	146.0
147.5°	136.4	137.7	136.4	144.0	142.8	142.8
150°	133.0	134.3	133.0	140.1	138.9	139.6
152.5°	129.1	130.9	129.1	135.5	134.4	135.1
155°	126.9	128.6	126.9	132.1	131.1	131.6
157.5°	125.9	127.5	125.9	129.9	129.5	129.5
160°	125.5	126.6	125.5	128.8	128.3	128.1
162.5°	124.6	125.7	124.6	128.5	127.9	127.9
165°	124.9	125.3	124.9	127.6	127.6	127.4
167.5°	124.8	125.3	124.8	127.9	127.9	127.8
170°	125.2	125.7	125.2	127.8	127.6	126.9
172.5°	126.2	126.7	126.2	129.3	128.6	128.4
175°	126.5	127.0	126.5	128.9	128.9	129.4
177.5°	127.7	128.1	127.7	128.9	128.9	128.7
180°	129.6	129.6	129.6	129.6	129.6	129.6



TEST NUMBER: P1432363
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L830-UPL12

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	17.49	18.64	17.93	19.04	19.45	16.81	17.96	17.25	18.35	18.77
	3H	19.04	20.06	19.49	20.48	20.94	18.66	19.68	19.11	20.09	20.56
	4H	19.68	20.63	20.15	21.06	21.54	19.44	20.39	19.92	20.83	21.31
	6H	20.16	21.04	20.65	21.49	21.98	20.09	20.96	20.57	21.41	21.90
	8H	20.31	21.14	20.81	21.61	22.11	20.31	21.14	20.81	21.61	22.11
	12H	20.39	21.18	20.89	21.64	22.16	20.44	21.23	20.94	21.69	22.21
4H	2H	17.91	18.86	18.39	19.29	19.78	17.39	18.34	17.86	18.77	19.25
	3H	19.71	20.49	20.19	20.98	21.48	19.45	20.23	19.93	20.72	21.21
	4H	20.48	21.19	20.99	21.68	22.22	20.36	21.06	20.86	21.56	22.09
	6H	21.10	21.71	21.63	22.23	22.79	21.13	21.74	21.66	22.26	22.82
	8H	21.30	21.86	21.83	22.38	22.95	21.40	21.97	21.94	22.49	23.05
	12H	21.40	21.90	21.96	22.46	23.02	21.57	22.07	22.12	22.62	23.19
8H	4H	20.74	21.30	21.27	21.82	22.39	20.64	21.20	21.17	21.72	22.29
	6H	21.48	21.94	22.05	22.51	23.08	21.54	22.00	22.11	22.57	23.14
	8H	21.75	22.16	22.34	22.74	23.33	21.89	22.31	22.48	22.89	23.47
	12H	21.92	22.28	22.50	22.84	23.50	22.14	22.50	22.73	23.07	23.73
12H	4H	20.75	21.25	21.30	21.80	22.37	20.65	21.15	21.20	21.70	22.27
	6H	21.52	21.93	22.11	22.51	23.10	21.59	22.00	22.18	22.58	23.17
	8H	21.84	22.20	22.42	22.76	23.42	21.99	22.35	22.57	22.92	23.58

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

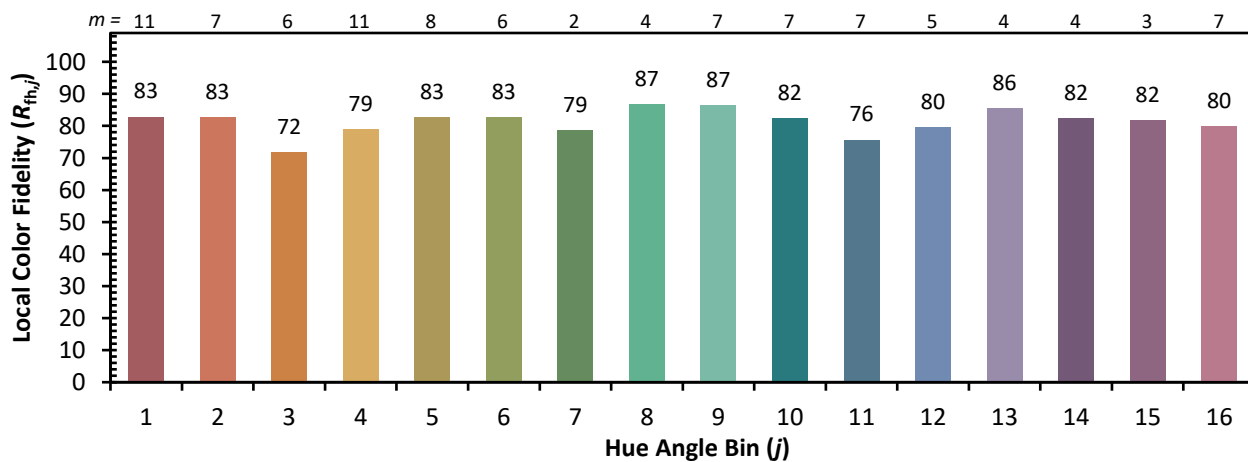


Individual Sample Fidelity Index ($R_{f,i}$)

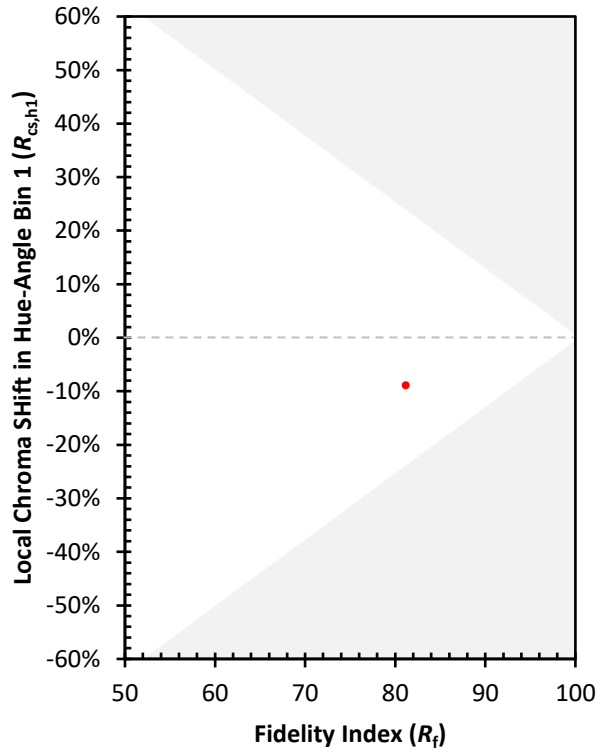
CES01 = 86	CES26 = 71	CES51 = 89	CES76 = 65
CES02 = 63	CES27 = 89	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 86	CES53 = 80	CES78 = 67
CES04 = 70	CES29 = 68	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 77	CES55 = 90	CES80 = 85
CES06 = 51	CES31 = 70	CES56 = 81	CES81 = 75
CES07 = 43	CES32 = 64	CES57 = 79	CES82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