

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: P1432433

Luminaire Tested: EHBR1-42-UNV-TASM-L830-UPL40

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432433
REPORT IS A COMBINATION OF REPORTS P1431810 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-42-UNV-TASM-L830-UPL40
Description: Elevate Round Highbay at, 42000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

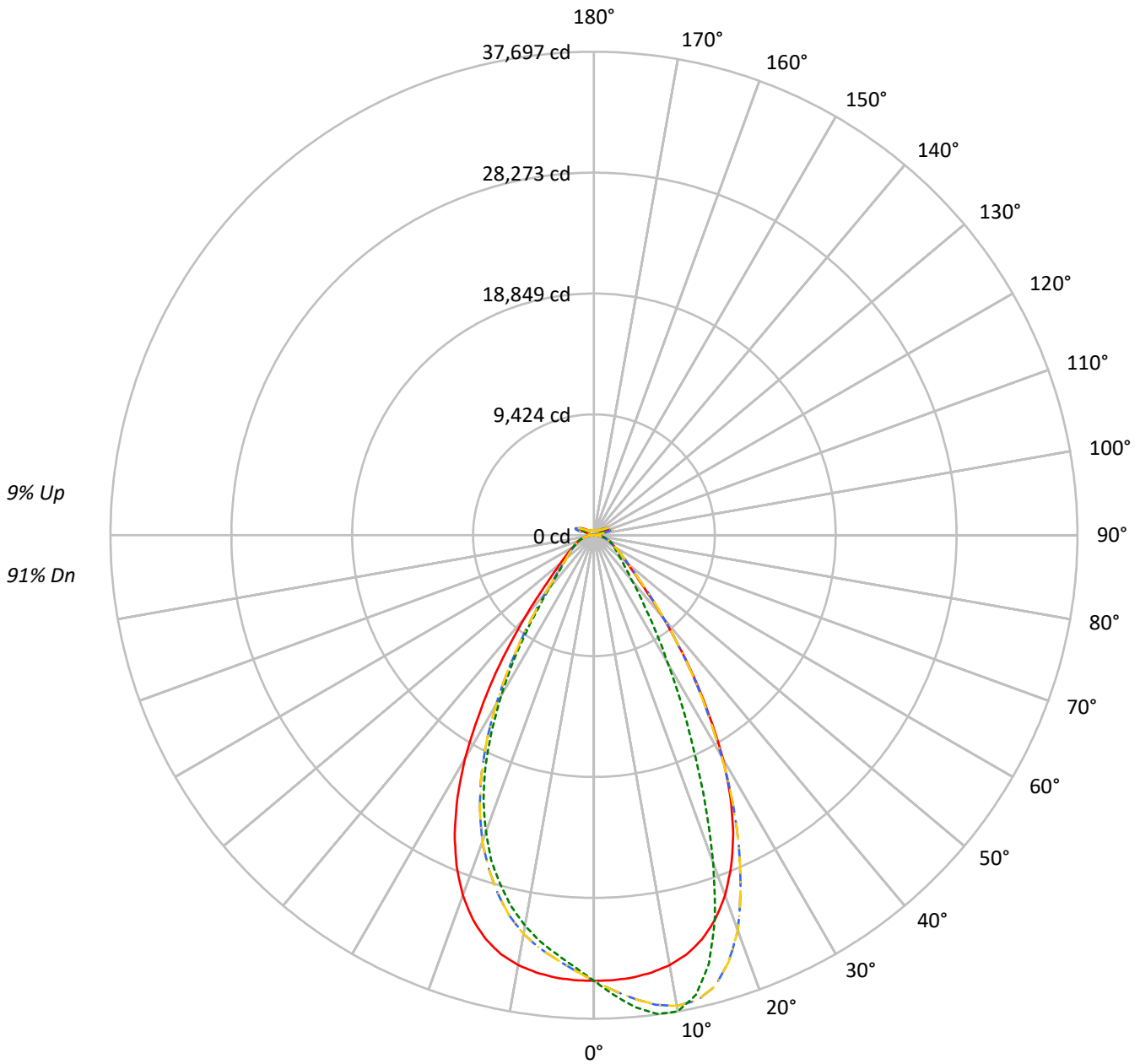
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42478.9 lumens
Efficiency: N/A
Efficacy: 166.6 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): 255
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: P1432433
CATALOG NUMBER: EHBR1-42-UNV-TASM-L830-UPL40

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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	94	94	94	91
1	110	106	103	100	106	103	100	98	98	95	93	92	91	89	88	86	85	85	85	85	83
2	103	97	92	88	100	94	90	86	90	86	83	85	82	80	81	79	77	77	77	77	74
3	96	89	82	78	93	86	81	76	82	78	74	79	75	72	75	72	70	70	70	70	68
4	90	81	75	70	88	80	74	69	76	71	67	73	69	65	70	67	64	64	64	64	62
5	85	75	68	63	83	74	67	63	71	65	61	68	64	60	66	62	59	59	59	59	57
6	80	70	63	58	78	68	62	57	66	60	56	64	59	55	62	57	54	54	54	54	52
7	76	65	58	53	74	64	57	53	62	56	52	60	55	51	58	53	50	50	50	50	48
8	71	61	54	49	70	60	53	49	58	52	48	56	51	47	54	50	47	47	47	47	45
9	68	57	50	46	66	56	50	45	54	49	45	53	48	44	51	47	44	44	44	44	42
10	64	53	47	43	63	53	47	42	51	46	42	50	45	41	49	44	41	41	41	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	163146	163146	163146	163146
5°	162152	172987	162152	153738
10°	160159	177427	160159	145500
15°	155430	164885	155430	134402
20°	145366	132215	145366	119715
25°	128661	91606	128661	100326
30°	104468	59597	104468	75064
35°	74928	38596	74928	49972
40°	48443	26603	48443	31515
45°	30737	20606	30737	22455
50°	22826	17511	22826	18704
55°	18636	15951	18636	16510
60°	16138	15195	16138	15287
65°	14711	14655	14711	14592
70°	13943	14359	13943	14173
75°	13039	13891	13039	13475
80°	11455	13114	11455	12259
85°	7411	9366	7411	8929

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 43214 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3303.3	7.8
10°-20°	8986.8	21.2
20°-30°	10539.7	24.8
30°-40°	7329.7	17.3
40°-50°	3642.5	8.6
50°-60°	2178.6	5.1
60°-70°	1533.4	3.6
70°-80°	987.8	2.3
80°-90°	320.2	0.8
90°-100°	97.5	0.2
100°-110°	635.6	1.5
110°-120°	1174.0	2.8
120°-130°	697.9	1.6
130°-140°	422.2	1.0
140°-150°	292.3	0.7
150°-160°	191.0	0.4
160°-170°	109.9	0.3
170°-180°	36.6	0.1
0°-30°	22829.9	53.7
0°-40°	30159.6	71.0
0°-60°	35980.7	84.7
0°-90°	38822.1	91.4
90°-120°	1907.0	4.5
90°-150°	3319.4	7.8
90°-180°	3657.0	8.6
0°-180°	42478.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	34741	34741	34741	34741	34741	
5°	34622	36935	34622	32825	34622	3286
15°	32608	34592	32608	28197	32608	9113
25°	25694	18294	25694	20035	25694	11632
35°	13752	7084	13752	9172	13752	8585
45°	4973	3334	4973	3633	4973	4069
55°	2518	2156	2518	2231	2518	2303
65°	1536	1530	1536	1523	1536	1542
75°	918	978	918	949	918	964
85°	255	322	255	307	255	283
90°	27	32	27	27	27	24
95°	52	50	52	45	52	55
105°	292	149	292	221	292	394
115°	1249	1068	1249	1014	1249	1139
125°	800	838	800	733	800	737
135°	506	584	506	536	506	401
145°	458	479	458	445	458	287
155°	408	426	408	396	408	191
165°	385	397	385	378	385	110
175°	384	391	384	377	384	37
180°	383	383	383	383	383	



TEST NUMBER: P1432433
 CATALOG NUMBER: EHBR1-42-UNV-TASM-L830-UPL40

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7
2.5°	34720.4	35169.3	35532.7	35772.5	35891.0	35772.5	35532.7	35169.3	34720.4	34274.2	33967.4
5°	34622.1	35521.0	36282.6	36780.9	36935.4	36780.9	36282.6	35521.0	34622.1	33772.6	33209.1
7.5°	34386.9	35787.5	36919.1	37500.8	37642.8	37500.8	36919.1	35787.5	34386.9	33184.3	32472.3
10°	34027.9	35955.6	37263.0	37680.0	37696.8	37680.0	37263.0	35955.6	34027.9	32407.8	31568.1
12.5°	33455.3	35895.6	37147.7	37010.9	36700.2	37010.9	37147.7	35895.6	33455.3	31459.4	30400.0
15°	32608.4	35540.6	36417.5	35304.1	34592.1	35304.1	36417.5	35540.6	32608.4	30178.6	28950.0
17.5°	31415.1	34876.1	34893.1	32690.6	31347.2	32690.6	34893.1	34876.1	31415.1	28612.5	27259.5
20°	29877.0	33810.4	32794.1	28765.6	27174.1	28765.6	32794.1	33810.4	29877.0	26761.1	25433.5
22.5°	27948.7	32373.3	29871.1	24817.3	22646.0	24817.3	29871.1	32373.3	27948.7	24608.1	23226.4
25°	25693.5	30612.5	26726.6	20515.1	18293.7	20515.1	26726.6	30612.5	25693.5	22042.7	20793.3
27.5°	23040.8	28380.6	23378.2	16764.2	14714.8	16764.2	23378.2	28380.6	23040.8	19394.0	18117.8
30°	20094.3	25519.5	19893.6	13350.6	11463.4	13350.6	19893.6	25519.5	20094.3	16418.3	15275.6
32.5°	16795.4	22715.1	16547.2	10697.3	9098.6	10697.3	16547.2	22715.1	16795.4	13578.6	12384.5
35°	13751.9	19206.4	13529.7	8405.6	7083.8	8405.6	13529.7	19206.4	13751.9	10898.0	9725.4
37.5°	10792.4	15891.3	10785.3	6768.5	5745.7	6768.5	10785.3	15891.3	10792.4	8472.6	7520.8
40°	8396.4	12425.5	8450.5	5403.0	4610.9	5403.0	8450.5	12425.5	8396.4	6446.6	5837.6
42.5°	6361.9	9501.2	6642.1	4434.4	3916.5	4434.4	6642.1	9501.2	6361.9	5079.3	4623.3
45°	4973.1	6991.9	5186.7	3741.2	3334.0	3741.2	5186.7	6991.9	4973.1	4090.4	3784.2
47.5°	4050.0	5403.7	4203.8	3209.0	2923.7	3209.0	4203.8	5403.7	4050.0	3459.8	3230.5
50°	3401.8	4146.4	3490.5	2801.2	2609.7	2801.2	3490.5	4146.4	3401.8	2962.7	2809.7
52.5°	2922.3	3381.6	2972.6	2496.3	2367.3	2496.3	2972.6	3381.6	2922.3	2592.1	2497.0
55°	2518.4	2842.9	2584.9	2244.8	2155.6	2244.8	2584.9	2842.9	2518.4	2306.7	2236.4
57.5°	2211.7	2411.7	2244.8	2030.5	1971.2	2030.5	2244.8	2411.7	2211.7	2052.7	2014.9
60°	1940.0	2088.5	1981.0	1843.5	1826.7	1843.5	1981.0	2088.5	1940.0	1846.8	1822.1
62.5°	1730.9	1824.7	1751.7	1675.5	1660.5	1675.5	1751.7	1824.7	1730.9	1659.2	1663.8
65°	1535.5	1622.8	1565.4	1524.4	1529.6	1524.4	1565.4	1622.8	1535.5	1502.2	1509.4
67.5°	1384.3	1429.9	1405.2	1381.7	1387.5	1381.7	1405.2	1429.9	1384.3	1351.8	1362.8
70°	1223.4	1272.2	1246.9	1250.1	1259.9	1250.1	1246.9	1272.2	1223.4	1213.6	1222.1
72.5°	1069.6	1107.5	1098.9	1106.8	1117.2	1106.8	1098.9	1107.5	1069.6	1068.3	1069.0
75°	918.5	947.2	951.1	962.2	978.5	962.2	951.1	947.2	918.5	908.8	920.5
77.5°	753.7	786.3	798.6	813.6	837.8	813.6	798.6	786.3	753.7	760.2	766.1
80°	602.6	617.6	644.9	656.0	689.9	656.0	644.9	617.6	602.6	591.5	600.0
82.5°	441.0	454.7	478.2	499.0	518.6	499.0	478.2	454.7	441.0	435.9	436.5
85°	254.7	275.6	291.2	316.0	321.9	316.0	291.2	275.6	254.7	260.6	254.7
87.5°	89.3	95.7	109.4	119.2	119.9	119.2	109.4	95.7	89.3	91.2	82.7
90°	26.9	45.7	78.7	44.3	31.5	44.3	78.7	45.7	26.9	47.1	73.3
92.5°	34.9	61.8	111.0	58.5	41.6	58.5	111.0	61.8	34.9	61.2	117.7
95°	51.8	76.0	141.3	64.4	49.6	64.4	141.3	76.0	51.8	81.4	164.1
97.5°	80.0	94.1	159.4	68.6	59.8	68.6	159.4	94.1	80.0	99.6	188.4
100°	106.3	106.3	290.6	78.6	67.8	78.6	290.6	106.3	106.3	122.4	293.4
102.5°	160.7	207.9	672.7	156.0	82.0	156.0	672.7	207.9	160.7	229.4	622.3
105°	292.0	474.3	1183.4	400.2	149.2	400.2	1183.4	474.3	292.0	479.7	1108.8
107.5°	552.4	884.1	1524.5	787.8	345.0	787.8	1524.5	884.1	552.4	849.0	1462.7
110°	883.4	1235.2	1663.8	1078.4	696.3	1078.4	1663.8	1235.2	883.4	1165.9	1533.3



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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°	1149.8	1376.5	1625.5	1195.5	962.7	1195.5	1625.5	1376.5	1149.8	1287.0	1468.8
115°	1249.4	1356.4	1451.9	1191.4	1067.6	1191.4	1451.9	1356.4	1249.4	1256.8	1311.3
117.5°	1206.9	1241.3	1254.1	1118.8	1073.7	1118.8	1254.1	1241.3	1206.9	1130.3	1113.5
120°	1090.0	1075.8	1056.9	1011.8	1013.1	1011.8	1056.9	1075.8	1090.0	987.0	929.8
122.5°	943.3	912.9	893.4	903.5	930.3	903.5	893.4	912.9	943.3	840.3	797.2
125°	799.9	769.6	779.1	810.6	838.2	810.6	779.1	769.6	799.9	713.8	703.0
127.5°	679.5	665.3	696.3	731.9	755.4	731.9	696.3	665.3	679.5	625.0	636.4
130°	593.3	596.7	637.7	668.0	682.8	668.0	637.7	596.7	593.3	567.1	594.7
132.5°	539.5	555.0	594.0	620.2	628.9	620.2	594.0	555.0	539.5	532.1	565.7
135°	505.8	528.8	564.4	581.1	584.5	581.1	564.4	528.8	505.8	508.5	539.5
137.5°	486.3	509.2	536.1	549.6	546.1	549.6	536.1	509.2	486.3	493.0	516.6
140°	474.8	497.8	509.9	525.3	522.5	525.3	509.9	497.8	474.8	478.8	497.0
142.5°	463.4	484.3	490.4	501.7	498.2	501.7	490.4	484.3	463.4	467.4	479.5
145°	457.9	473.5	468.8	483.5	478.8	483.5	468.8	473.5	457.9	459.4	465.9
147.5°	447.8	459.4	453.3	465.9	461.2	465.9	453.3	459.4	447.8	447.8	450.5
150°	436.3	444.4	435.7	450.5	449.8	450.5	435.7	444.4	436.3	434.4	437.0
152.5°	420.9	428.9	420.9	437.6	436.3	437.6	420.9	428.9	420.9	418.8	421.5
155°	408.0	412.1	408.0	424.8	425.5	424.8	408.0	412.1	408.0	407.4	408.7
157.5°	399.2	401.9	399.9	414.7	415.3	414.7	399.9	401.9	399.2	399.2	399.9
160°	391.8	395.9	394.4	407.2	407.8	407.2	394.4	395.9	391.8	393.1	393.8
162.5°	389.0	389.0	388.4	401.1	402.4	401.1	388.4	389.0	389.0	389.0	391.1
165°	385.0	387.0	384.2	393.6	397.0	393.6	384.2	387.0	385.0	386.3	386.3
167.5°	384.2	382.3	383.6	391.5	394.8	391.5	383.6	382.3	384.2	385.6	385.6
170°	380.9	381.5	380.9	388.7	392.1	388.7	380.9	381.5	380.9	382.9	384.2
172.5°	382.8	382.8	380.7	386.7	392.0	386.7	380.7	382.8	382.8	384.2	386.2
175°	384.1	382.7	382.0	386.0	391.4	386.0	382.0	382.7	384.1	383.4	383.4
177.5°	382.1	383.4	384.7	388.6	396.0	388.6	384.7	383.4	382.1	383.4	383.4
180°	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4	383.4



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7
2.5°	33731.5	33709.4	33731.5	33967.4	34274.2	34720.4
5°	32947.9	32825.4	32947.9	33209.1	33772.6	34622.1
7.5°	32035.2	31964.2	32035.2	32472.3	33184.3	34386.9
10°	31074.3	30913.5	31074.3	31568.1	32407.8	34027.9
12.5°	29890.0	29677.0	29890.0	30400.0	31459.4	33455.3
15°	28383.9	28196.9	28383.9	28950.0	30178.6	32608.4
17.5°	26767.7	26598.3	26767.7	27259.5	28612.5	31415.1
20°	24737.7	24604.9	24737.7	25433.5	26761.1	29877.0
22.5°	22608.2	22483.8	22608.2	23226.4	24608.1	27948.7
25°	20102.8	20035.0	20102.8	20793.3	22042.7	25693.5
27.5°	17395.4	17280.1	17395.4	18117.8	19394.0	23040.8
30°	14629.4	14438.5	14629.4	15275.6	16418.3	20094.3
32.5°	11923.9	11786.5	11923.9	12384.5	13578.6	16795.4
35°	9309.1	9171.6	9309.1	9725.4	10898.0	13751.9
37.5°	7253.8	7010.8	7253.8	7520.8	8472.6	10792.4
40°	5501.4	5462.3	5501.4	5837.6	6446.6	8396.4
42.5°	4478.7	4372.5	4478.7	4623.3	5079.3	6361.9
45°	3674.8	3633.1	3674.8	3784.2	4090.4	4973.1
47.5°	3160.2	3178.3	3160.2	3230.5	3459.8	4050.0
50°	2776.4	2787.6	2776.4	2809.7	2962.7	3401.8
52.5°	2493.7	2484.0	2493.7	2497.0	2592.1	2922.3
55°	2243.6	2231.1	2243.6	2236.4	2306.7	2518.4
57.5°	2024.7	2033.8	2024.7	2014.9	2052.7	2211.7
60°	1829.2	1837.7	1829.2	1822.1	1846.8	1940.0
62.5°	1664.4	1669.7	1664.4	1663.8	1659.2	1730.9
65°	1517.2	1523.1	1517.2	1509.4	1502.2	1535.5
67.5°	1376.5	1376.5	1376.5	1362.8	1351.8	1384.3
70°	1244.2	1243.6	1244.2	1222.1	1213.6	1223.4
72.5°	1085.3	1100.9	1085.3	1069.0	1068.3	1069.6
75°	930.9	949.2	930.9	920.5	908.8	918.5
77.5°	774.6	802.6	774.6	766.1	760.2	753.7
80°	614.3	644.9	614.3	600.0	591.5	602.6
82.5°	454.0	476.9	454.0	436.5	435.9	441.0
85°	270.3	306.9	270.3	254.7	260.6	254.7
87.5°	86.6	110.7	86.6	82.7	91.2	89.3
90°	43.1	26.9	43.1	73.3	47.1	26.9
92.5°	65.3	39.0	65.3	117.7	61.2	34.9
95°	75.3	45.1	75.3	164.1	81.4	51.8
97.5°	83.4	57.8	83.4	188.4	99.6	80.0
100°	97.5	76.0	97.5	293.4	122.4	106.3
102.5°	206.5	128.5	206.5	622.3	229.4	160.7
105°	434.6	221.3	434.6	1108.8	479.7	292.0
107.5°	777.7	382.8	777.7	1462.7	849.0	552.4
110°	1032.1	713.9	1032.1	1533.3	1165.9	883.4



TEST NUMBER: P1432433

CATALOG NUMBER: EHBR1-42-UNV-TASM-L830-UPL40

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1108.8	964.2	1108.8	1468.8	1287.0	1149.8
115°	1066.4	1014.5	1066.4	1311.3	1256.8	1249.4
117.5°	973.5	980.3	973.5	1113.5	1130.3	1206.9
120°	866.5	907.6	866.5	929.8	987.0	1090.0
122.5°	768.3	816.8	768.3	797.2	840.3	943.3
125°	683.5	732.6	683.5	703.0	713.8	799.9
127.5°	625.0	657.9	625.0	636.4	625.0	679.5
130°	579.3	607.5	579.3	594.7	567.1	593.3
132.5°	547.6	565.8	547.6	565.7	532.1	539.5
135°	520.0	535.5	520.0	539.5	508.5	505.8
137.5°	496.5	509.9	496.5	516.6	493.0	486.3
140°	475.6	487.0	475.6	497.0	478.8	474.8
142.5°	454.0	462.1	454.0	479.5	467.4	463.4
145°	439.1	445.2	439.1	465.9	459.4	457.9
147.5°	426.3	430.3	426.3	450.5	447.8	447.8
150°	413.5	417.5	413.5	437.0	434.4	436.3
152.5°	400.0	404.7	400.0	421.5	418.8	420.9
155°	391.2	395.9	391.2	408.7	407.4	408.0
157.5°	386.4	389.8	386.4	399.9	399.2	399.2
160°	382.4	385.0	382.4	393.8	393.1	391.8
162.5°	377.6	380.3	377.6	391.1	389.0	389.0
165°	376.9	377.6	376.9	386.3	386.3	385.0
167.5°	375.5	377.6	375.5	385.6	385.6	384.2
170°	376.2	376.8	376.2	384.2	382.9	380.9
172.5°	377.5	378.1	377.5	386.2	384.2	382.8
175°	376.8	377.4	376.8	383.4	383.4	384.1
177.5°	379.4	380.0	379.4	383.4	383.4	382.1
180°	383.4	383.4	383.4	383.4	383.4	383.4



TEST NUMBER: P1432433
 CATALOG NUMBER: EHBR1-42-UNV-TASM-L830-UPL40

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	18.19	19.27	18.70	19.75	20.28	17.50	18.58	18.02	19.07	19.60
	3H	19.73	20.69	20.26	21.20	21.77	19.35	20.31	19.88	20.81	21.39
	4H	20.37	21.26	20.92	21.78	22.38	20.13	21.03	20.68	21.55	22.14
	6H	20.85	21.67	21.41	22.21	22.81	20.77	21.60	21.34	22.13	22.73
	8H	21.00	21.78	21.57	22.33	22.94	20.99	21.77	21.57	22.33	22.94
	12H	21.07	21.81	21.65	22.36	22.99	21.12	21.87	21.70	22.41	23.04
4H	2H	18.60	19.50	19.15	20.02	20.61	18.08	18.97	18.63	19.49	20.08
	3H	20.39	21.14	20.96	21.70	22.31	20.13	20.87	20.69	21.44	22.05
	4H	21.17	21.84	21.75	22.41	23.05	21.04	21.71	21.62	22.28	22.93
	6H	21.78	22.36	22.39	22.96	23.62	21.81	22.39	22.42	22.98	23.65
	8H	21.98	22.51	22.59	23.11	23.78	22.08	22.62	22.69	23.21	23.88
	12H	22.08	22.56	22.71	23.18	23.86	22.25	22.72	22.88	23.35	24.02
8H	4H	21.42	21.95	22.03	22.55	23.22	21.32	21.86	21.93	22.45	23.12
	6H	22.16	22.59	22.80	23.24	23.91	22.22	22.66	22.86	23.30	23.98
	8H	22.43	22.82	23.09	23.47	24.16	22.58	22.96	23.24	23.62	24.31
	12H	22.60	22.94	23.25	23.58	24.34	22.82	23.16	23.48	23.80	24.56
12H	4H	21.42	21.90	22.05	22.53	23.20	21.33	21.80	21.96	22.43	23.10
	6H	22.20	22.59	22.86	23.25	23.93	22.27	22.66	22.93	23.31	24.00
	8H	22.52	22.86	23.17	23.49	24.25	22.67	23.01	23.32	23.65	24.41

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

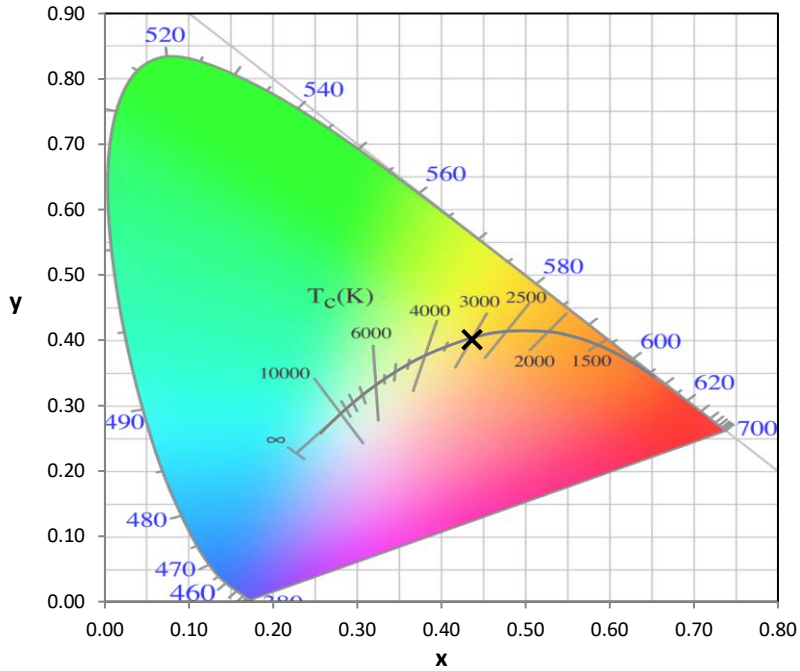
Stabilization Time: 38M
 Operation Time: 1H 38M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-2

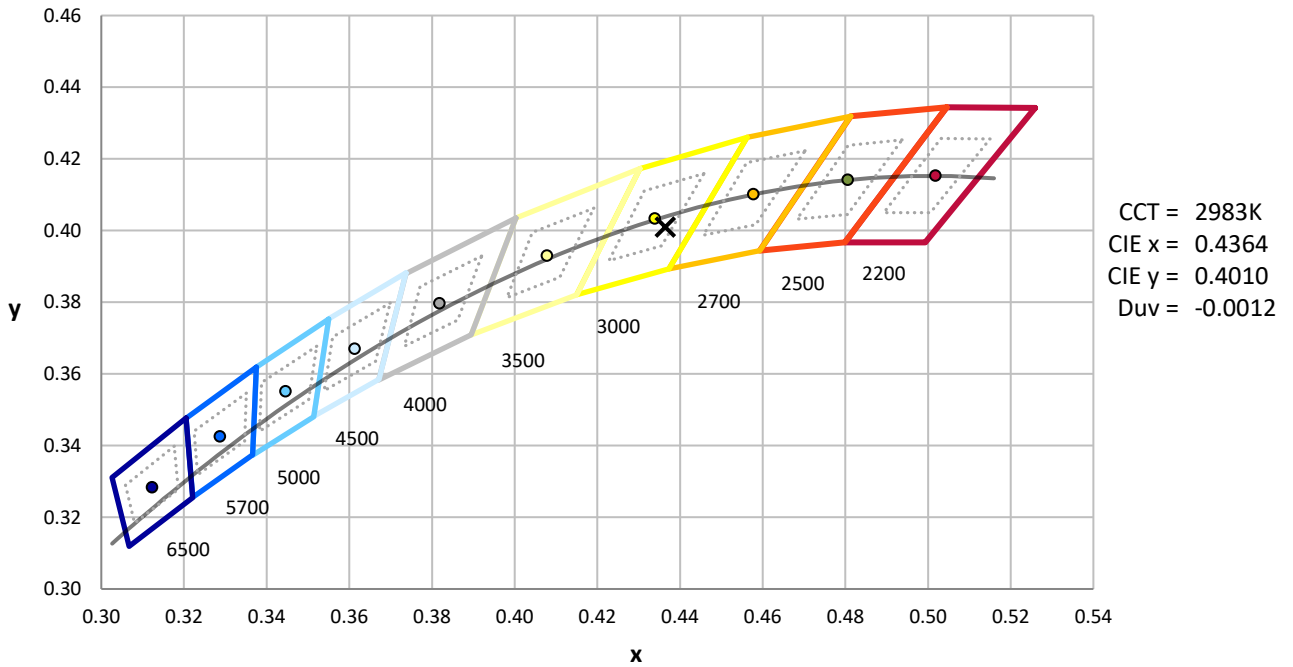
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	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

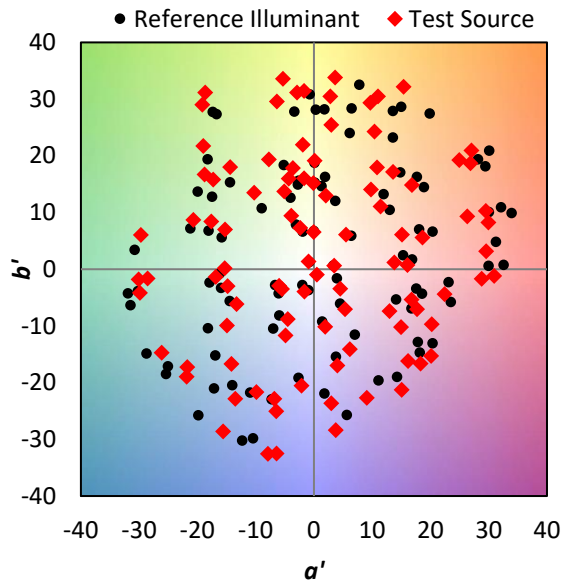
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630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