

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: P1433041

Luminaire Tested: EHBR1-48-UNV-TASM-L850-UPL40

Issue Date: 3/20/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1433041  
REPORT IS A COMBINATION OF REPORTS P1431842 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-48-UNV-TASM-L850-UPL40  
Description: Elevate Round Highbay at, 48000 lumens, 5000K 80CRI LEDs with TASM lens  
Light Source: -  
Ballast/Driver: -

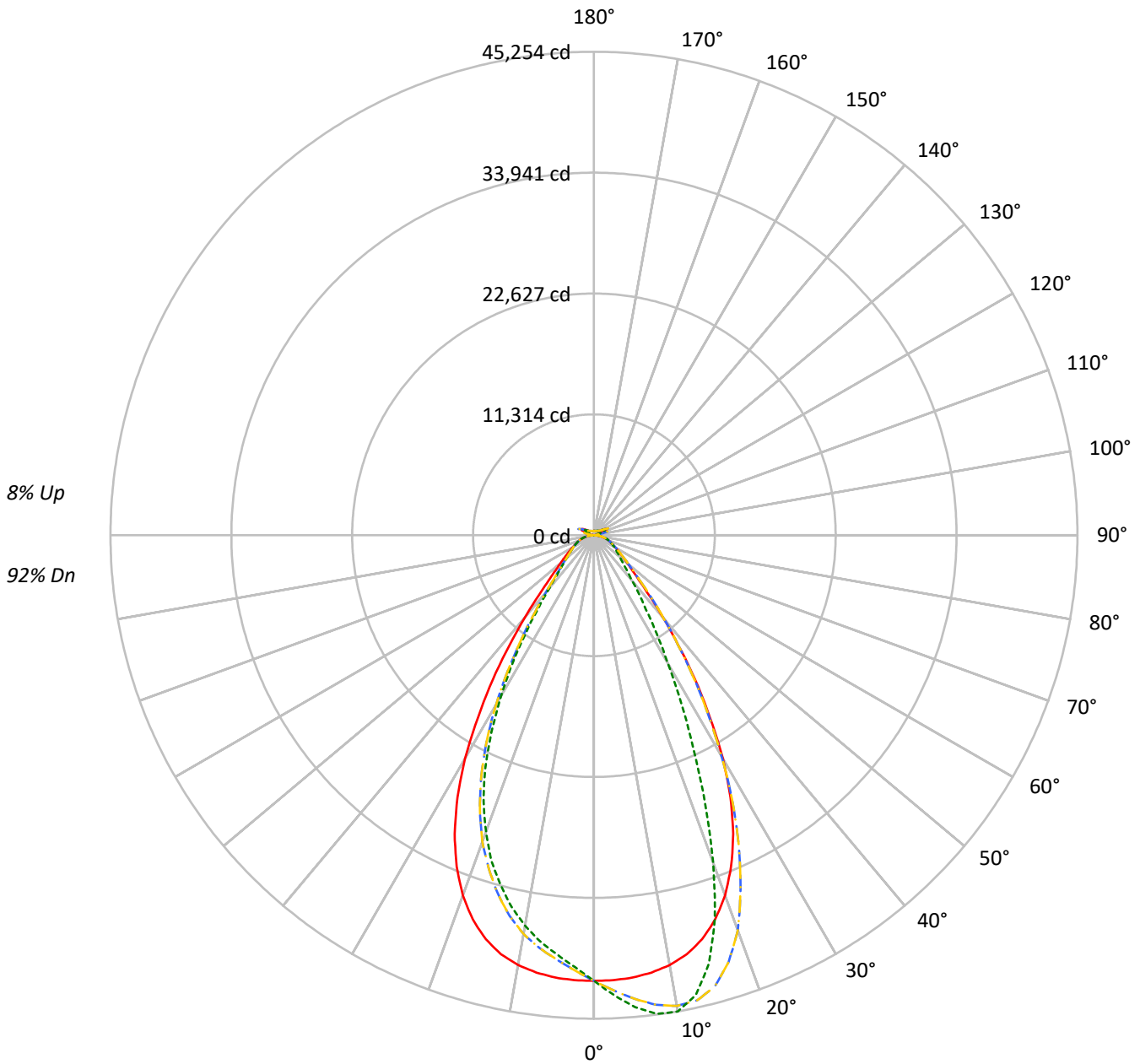
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 50443.2 lumens  
Efficiency: N/A  
Efficacy: 174.4 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): 289.2  
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

TEST NUMBER: P1433041  
CATALOG NUMBER: EHBR1-48-UNV-TASM-L850-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	114	114	114	114	107	107	107	101	101	101	95	95	95	95	95	95	92
1	110	107	103	101	107	104	101	98	98	96	94	93	91	90	88	87	86	88	87	86	83
2	103	97	92	88	100	95	90	86	90	86	83	86	83	80	82	80	77	82	80	77	75
3	97	89	83	78	94	87	81	77	83	78	75	79	76	72	76	73	70	76	73	70	68
4	91	82	75	70	88	80	74	69	77	72	68	74	69	66	71	67	64	71	67	64	62
5	85	75	69	64	83	74	68	63	71	66	62	69	64	60	66	62	59	66	62	59	57
6	80	70	63	58	78	69	62	58	66	61	57	64	59	56	62	58	55	62	58	55	53
7	76	65	58	54	74	64	58	53	62	56	52	60	55	51	58	54	51	58	54	51	49
8	72	61	54	50	70	60	54	49	58	53	49	57	52	48	55	50	47	55	50	47	46
9	68	57	50	46	66	56	50	46	55	49	45	53	48	45	52	47	44	52	47	44	43
10	64	54	47	43	63	53	47	43	52	46	42	50	45	42	49	45	41	49	45	41	40

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	195851	195851	195851	195851
5°	194660	207665	194660	184557
10°	192266	212997	192266	174668
15°	186590	197940	186590	161347
20°	174508	158721	174508	143714
25°	154453	109971	154453	120439
30°	125410	71544	125410	90113
35°	89948	46334	89948	59990
40°	58155	31936	58155	37832
45°	36898	24738	36898	26956
50°	27402	21021	27402	22453
55°	22372	19149	22372	19819
60°	19373	18240	19373	18351
65°	17660	17592	17660	17517
70°	16737	17236	16737	17014
75°	15652	16674	15652	16176
80°	13751	15743	13751	14717
85°	8897	11240	8897	10719

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 51878 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	3965.5	7.9
10°-20°	10788.5	21.4
20°-30°	12652.7	25.1
30°-40°	8799.1	17.4
40°-50°	4372.7	8.7
50°-60°	2615.4	5.2
60°-70°	1840.8	3.6
70°-80°	1185.8	2.4
80°-90°	383.4	0.8
90°-100°	102.5	0.2
100°-110°	666.8	1.3
110°-120°	1231.5	2.4
120°-130°	732.3	1.5
130°-140°	443.4	0.9
140°-150°	307.2	0.6
150°-160°	201.0	0.4
160°-170°	116.0	0.2
170°-180°	38.7	0.1
0°-30°	27406.6	54.3
0°-40°	36205.8	71.8
0°-60°	43193.9	85.6
0°-90°	46603.9	92.4
90°-120°	2000.8	4.0
90°-150°	3483.6	6.9
90°-180°	3839.0	7.6
0°-180°	50443.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	41705	41705	41705	41705	41705	
5°	41563	44340	41563	39406	41563	3944
15°	39146	41527	39146	33850	39146	10940
25°	30844	21961	30844	24052	30844	13964
35°	16509	8504	16509	11010	16509	10306
45°	5970	4002	5970	4361	5970	4885
55°	3023	2588	3023	2678	3023	2765
65°	1843	1836	1843	1828	1843	1851
75°	1103	1175	1103	1140	1103	1157
85°	306	386	306	368	306	340
90°	28	34	28	28	28	27
95°	54	53	54	47	54	58
105°	306	157	306	232	306	413
115°	1310	1120	1310	1064	1310	1194
125°	839	880	839	769	839	773
135°	531	614	531	562	531	421
145°	481	503	481	468	481	302
155°	430	448	430	417	430	201
165°	406	420	406	399	406	116
175°	406	415	406	399	406	39
180°	406	406	406	406	406	



TEST NUMBER: P1433041  
 CATALOG NUMBER: EHBR1-48-UNV-TASM-L850-UPL40

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1
2.5°	41681.0	42219.7	42656.1	42943.9	43086.2	42943.9	42656.1	42219.7	41681.0	41145.2	40776.8
5°	41562.9	42642.0	43556.3	44154.5	44339.8	44154.5	43556.3	42642.0	41562.9	40543.1	39866.6
7.5°	41280.5	42961.9	44320.3	45018.6	45189.1	45018.6	44320.3	42961.9	41280.5	39836.9	38982.1
10°	40849.6	43163.6	44733.2	45233.7	45254.1	45233.7	44733.2	43163.6	40849.6	38904.7	37896.6
12.5°	40162.2	43091.7	44594.8	44430.5	44057.5	44430.5	44594.8	43091.7	40162.2	37766.1	36494.5
15°	39145.5	42665.5	43718.1	42381.6	41526.8	42381.6	43718.1	42665.5	39145.5	36228.6	34753.7
17.5°	37712.9	41867.8	41888.1	39244.1	37631.5	39244.1	41888.1	41867.8	37712.9	34348.6	32724.2
20°	35866.5	40588.4	39368.4	34532.4	32621.8	34532.4	39368.4	40588.4	35866.5	32126.0	30532.2
22.5°	33551.6	38863.2	35859.5	29792.4	27185.9	29792.4	35859.5	38863.2	33551.6	29541.4	27882.7
25°	30844.2	36749.4	32084.6	24627.8	21961.1	24627.8	32084.6	36749.4	30844.2	26461.7	24961.8
27.5°	27659.8	34070.2	28064.9	20124.9	17664.6	20124.9	28064.9	34070.2	27659.8	23282.0	21750.0
30°	24122.6	30635.5	23881.8	16027.0	13761.4	16027.0	23881.8	30635.5	24122.6	19709.7	18338.0
32.5°	20162.4	27268.7	19864.5	12841.8	10922.7	12841.8	19864.5	27268.7	20162.4	16300.8	14867.3
35°	16508.7	23056.7	16242.1	10090.6	8503.9	10090.6	16242.1	23056.7	16508.7	13082.7	11675.0
37.5°	12955.9	19077.0	12947.4	8125.4	6897.5	8125.4	12947.4	19077.0	12955.9	10171.1	9028.6
40°	10079.7	14916.5	10144.6	6486.2	5535.3	6486.2	10144.6	14916.5	10079.7	7739.1	7007.8
42.5°	7637.4	11406.0	7973.6	5323.3	4701.6	5323.3	7973.6	11406.0	7637.4	6097.5	5550.1
45°	5970.0	8393.6	6226.6	4491.3	4002.5	4491.3	6226.6	8393.6	5970.0	4910.4	4542.8
47.5°	4861.9	6487.0	5046.5	3852.3	3509.8	3852.3	5046.5	6487.0	4861.9	4153.4	3878.1
50°	4083.8	4977.6	4190.1	3362.7	3132.8	3362.7	4190.1	4977.6	4083.8	3556.7	3372.9
52.5°	3508.2	4059.6	3568.4	2996.8	2841.9	2996.8	3568.4	4059.6	3508.2	3111.7	2997.6
55°	3023.3	3412.8	3103.1	2694.9	2587.8	2694.9	3103.1	3412.8	3023.3	2769.2	2684.7
57.5°	2655.1	2895.1	2694.9	2437.6	2366.5	2437.6	2694.9	2895.1	2655.1	2464.2	2418.8
60°	2328.9	2507.2	2378.1	2213.1	2192.8	2213.1	2378.1	2507.2	2328.9	2217.1	2187.4
62.5°	2077.9	2190.5	2102.9	2011.4	1993.4	2011.4	2102.9	2190.5	2077.9	1991.8	1997.3
65°	1843.3	1948.1	1879.2	1829.9	1836.2	1829.9	1879.2	1948.1	1843.3	1803.4	1812.0
67.5°	1661.9	1716.6	1686.8	1658.7	1665.8	1658.7	1686.8	1716.6	1661.9	1622.8	1636.0
70°	1468.6	1527.3	1496.8	1500.8	1512.4	1500.8	1496.8	1527.3	1468.6	1456.9	1467.1
72.5°	1284.1	1329.4	1319.3	1328.7	1341.2	1328.7	1319.3	1329.4	1284.1	1282.5	1283.3
75°	1102.6	1137.1	1141.7	1155.1	1174.6	1155.1	1141.7	1137.1	1102.6	1090.9	1105.0
77.5°	904.8	943.9	958.8	976.8	1005.7	976.8	958.8	943.9	904.8	912.7	919.6
80°	723.4	741.3	774.2	787.5	828.2	787.5	774.2	741.3	723.4	710.1	720.2
82.5°	529.5	545.9	574.1	599.0	622.5	599.0	574.1	545.9	529.5	523.2	524.0
85°	305.8	330.8	349.6	379.3	386.3	379.3	349.6	330.8	305.8	312.9	305.8
87.5°	107.2	114.9	131.3	143.1	143.9	143.1	131.3	114.9	107.2	109.5	99.3
90°	28.3	48.1	82.8	47.1	33.8	47.1	82.8	48.1	28.3	49.5	77.0
92.5°	36.7	65.0	116.7	61.9	44.4	61.9	116.7	65.0	36.7	64.2	123.6
95°	54.5	79.9	148.4	68.2	52.8	68.2	148.4	79.9	54.5	85.5	172.2
97.5°	84.1	98.9	167.5	72.5	63.5	72.5	167.5	98.9	84.1	104.5	197.6
100°	111.7	111.7	305.0	83.0	71.9	83.0	305.0	111.7	111.7	128.6	307.8
102.5°	168.8	218.3	705.9	164.2	86.7	164.2	705.9	218.3	168.8	240.8	652.7
105°	306.4	497.6	1241.4	420.3	157.4	420.3	1241.4	497.6	306.4	503.2	1162.8
107.5°	579.5	927.4	1599.1	826.8	362.7	826.8	1599.1	927.4	579.5	890.6	1534.1
110°	926.6	1295.7	1745.2	1131.6	731.0	1131.6	1745.2	1295.7	926.6	1222.9	1608.1



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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°	1206.0	1443.8	1705.0	1254.4	1010.4	1254.4	1705.0	1443.8	1206.0	1349.9	1540.4
115°	1310.5	1422.7	1523.0	1250.1	1120.4	1250.1	1523.0	1422.7	1310.5	1318.1	1375.3
117.5°	1266.0	1302.0	1315.5	1173.9	1126.8	1173.9	1315.5	1302.0	1266.0	1185.6	1167.9
120°	1143.3	1128.5	1108.8	1061.8	1063.3	1061.8	1108.8	1128.5	1143.3	1035.3	975.2
122.5°	989.6	957.7	937.4	948.2	976.5	948.2	937.4	957.7	989.6	881.6	836.3
125°	839.3	807.5	817.6	850.9	879.9	850.9	817.6	807.5	839.3	749.0	737.6
127.5°	713.1	698.2	730.7	768.3	793.1	768.3	730.7	698.2	713.1	655.9	667.8
130°	622.8	626.2	669.3	701.4	717.0	701.4	669.3	626.2	622.8	595.3	624.2
132.5°	566.4	582.6	623.6	651.4	660.6	651.4	623.6	582.6	566.4	558.7	593.9
135°	531.2	555.1	592.6	610.3	614.0	610.3	592.6	555.1	531.2	534.2	566.4
137.5°	510.9	534.7	563.0	577.3	573.8	577.3	563.0	534.7	510.9	518.0	542.6
140°	498.9	522.8	535.5	551.9	549.2	551.9	535.5	522.8	498.9	503.1	522.2
142.5°	487.0	508.7	515.1	527.2	523.8	527.2	515.1	508.7	487.0	491.2	503.9
145°	481.4	497.6	492.6	508.1	503.3	508.1	492.6	497.6	481.4	482.8	489.9
147.5°	470.9	482.8	476.4	489.9	485.1	489.9	476.4	482.8	470.9	470.9	473.7
150°	458.8	467.3	458.1	473.7	473.2	473.7	458.1	467.3	458.8	456.8	459.6
152.5°	442.7	451.2	442.7	460.4	459.1	460.4	442.7	451.2	442.7	440.6	443.5
155°	429.5	433.7	429.5	447.1	447.9	447.1	429.5	433.7	429.5	428.7	430.2
157.5°	420.4	423.4	421.2	436.8	437.6	436.8	421.2	423.4	420.4	420.4	421.2
160°	413.1	417.3	415.9	429.4	430.1	429.4	415.9	417.3	413.1	414.3	415.1
162.5°	410.3	410.3	409.8	423.3	424.8	423.3	409.8	410.3	410.3	410.3	412.5
165°	406.4	408.4	405.8	415.8	419.5	415.8	405.8	408.4	406.4	407.7	407.7
167.5°	405.8	403.7	405.3	413.9	417.7	413.9	405.3	403.7	405.8	407.2	407.2
170°	402.4	403.1	402.6	411.3	415.0	411.3	402.6	403.1	402.4	404.5	405.8
172.5°	404.7	404.7	402.8	409.3	415.1	409.3	402.8	404.7	404.7	406.1	408.1
175°	406.3	405.0	404.4	408.8	414.6	408.8	404.4	405.0	406.3	405.5	405.5
177.5°	404.2	405.8	407.3	411.7	419.6	411.7	407.3	405.8	404.2	405.5	405.5
180°	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	41705.1	41705.1	41705.1	41705.1	41705.1	41705.1
2.5°	40493.7	40467.2	40493.7	40776.8	41145.2	41681.0
5°	39553.0	39405.9	39553.0	39866.6	40543.1	41562.9
7.5°	38457.3	38372.2	38457.3	38982.1	39836.9	41280.5
10°	37303.8	37110.7	37303.8	37896.6	38904.7	40849.6
12.5°	35882.1	35626.4	35882.1	36494.5	37766.1	40162.2
15°	34074.0	33849.7	34074.0	34753.7	36228.6	39145.5
17.5°	32133.9	31930.5	32133.9	32724.2	34348.6	37712.9
20°	29697.0	29537.5	29697.0	30532.2	32126.0	35866.5
22.5°	27140.6	26991.1	27140.6	27882.7	29541.4	33551.6
25°	24132.9	24051.5	24132.9	24961.8	26461.7	30844.2
27.5°	20882.7	20744.3	20882.7	21750.0	23282.0	27659.8
30°	17562.1	17333.1	17562.1	18338.0	19709.7	24122.6
32.5°	14314.4	14149.3	14314.4	14867.3	16300.8	20162.4
35°	11175.3	11010.3	11175.3	11675.0	13082.7	16508.7
37.5°	8708.0	8416.2	8708.0	9028.6	10171.1	12955.9
40°	6604.3	6557.3	6604.3	7007.8	7739.1	10079.7
42.5°	5376.5	5249.0	5376.5	5550.1	6097.5	7637.4
45°	4411.5	4361.4	4411.5	4542.8	4910.4	5970.0
47.5°	3793.6	3815.5	3793.6	3878.1	4153.4	4861.9
50°	3333.0	3346.3	3333.0	3372.9	3556.7	4083.8
52.5°	2993.7	2981.9	2993.7	2997.6	3111.7	3508.2
55°	2693.4	2678.4	2693.4	2684.7	2769.2	3023.3
57.5°	2430.6	2441.5	2430.6	2418.8	2464.2	2655.1
60°	2195.9	2206.1	2195.9	2187.4	2217.1	2328.9
62.5°	1998.1	2004.4	1998.1	1997.3	1991.8	2077.9
65°	1821.4	1828.4	1821.4	1812.0	1803.4	1843.3
67.5°	1652.4	1652.4	1652.4	1636.0	1622.8	1661.9
70°	1493.7	1492.9	1493.7	1467.1	1456.9	1468.6
72.5°	1302.8	1321.7	1302.8	1283.3	1282.5	1284.1
75°	1117.6	1139.5	1117.6	1105.0	1090.9	1102.6
77.5°	929.8	963.4	929.8	919.6	912.7	904.8
80°	737.4	774.2	737.4	720.2	710.1	723.4
82.5°	545.1	572.5	545.1	524.0	523.2	529.5
85°	324.6	368.4	324.6	305.8	312.9	305.8
87.5°	104.0	132.9	104.0	99.3	109.5	107.2
90°	45.3	28.3	45.3	77.0	49.5	28.3
92.5°	68.6	41.0	68.6	123.6	64.2	36.7
95°	79.1	47.3	79.1	172.2	85.5	54.5
97.5°	87.5	60.8	87.5	197.6	104.5	84.1
100°	102.4	79.9	102.4	307.8	128.6	111.7
102.5°	216.7	135.0	216.7	652.7	240.8	168.8
105°	455.9	232.3	455.9	1162.8	503.2	306.4
107.5°	815.7	401.7	815.7	1534.1	890.6	579.5
110°	1082.4	748.8	1082.4	1608.1	1222.9	926.6



TEST NUMBER: P1433041

CATALOG NUMBER: EHBR1-48-UNV-TASM-L850-UPL40

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1162.8	1011.3	1162.8	1540.4	1349.9	1206.0
115°	1118.4	1064.1	1118.4	1375.3	1318.1	1310.5
117.5°	1021.0	1028.2	1021.0	1167.9	1185.6	1266.0
120°	908.8	951.9	908.8	975.2	1035.3	1143.3
122.5°	805.9	856.8	805.9	836.3	881.6	989.6
125°	717.0	768.6	717.0	737.6	749.0	839.3
127.5°	655.6	690.3	655.6	667.8	655.9	713.1
130°	607.7	637.4	607.7	624.2	595.3	622.8
132.5°	574.6	593.7	574.6	593.9	558.7	566.4
135°	545.8	562.0	545.8	566.4	534.2	531.2
137.5°	521.2	535.3	521.2	542.6	518.0	510.9
140°	499.5	511.4	499.5	522.2	503.1	498.9
142.5°	477.0	485.5	477.0	503.9	491.2	487.0
145°	461.6	468.0	461.6	489.9	482.8	481.4
147.5°	448.3	452.5	448.3	473.7	470.9	470.9
150°	435.1	439.3	435.1	459.6	456.8	458.8
152.5°	421.0	426.0	421.0	443.5	440.6	442.7
155°	412.0	417.0	412.0	430.2	428.7	429.5
157.5°	407.2	410.9	407.2	421.2	420.4	420.4
160°	403.2	406.1	403.2	415.1	414.3	413.1
162.5°	398.4	401.4	398.4	412.5	410.3	410.3
165°	397.9	398.7	397.9	407.7	407.7	406.4
167.5°	396.6	398.7	396.6	407.2	407.2	405.8
170°	397.3	398.1	397.3	405.8	404.5	402.4
172.5°	398.9	399.7	398.9	408.1	406.1	404.7
175°	398.4	399.2	398.4	405.5	405.5	406.3
177.5°	401.3	402.1	401.3	405.5	405.5	404.2
180°	405.8	405.8	405.8	405.8	405.8	405.8



TEST NUMBER: P1433041  
 CATALOG NUMBER: EHBR1-48-UNV-TASM-L850-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	18.90	19.99	19.40	20.46	20.97	18.22	19.31	18.72	19.78	20.29
	3H	20.45	21.42	20.96	21.90	22.46	20.07	21.04	20.58	21.52	22.07
	4H	21.08	21.99	21.62	22.49	23.06	20.85	21.75	21.38	22.26	22.83
	6H	21.56	22.40	22.11	22.92	23.49	21.49	22.32	22.04	22.84	23.42
	8H	21.71	22.50	22.28	23.04	23.63	21.71	22.50	22.27	23.04	23.62
	12H	21.79	22.54	22.35	23.07	23.68	21.84	22.59	22.40	23.12	23.73
4H	2H	19.31	20.22	19.85	20.72	21.29	18.79	19.70	19.33	20.20	20.77
	3H	21.11	21.86	21.66	22.41	22.99	20.85	21.60	21.39	22.15	22.73
	4H	21.88	22.56	22.45	23.12	23.74	21.76	22.43	22.32	22.99	23.61
	6H	22.50	23.08	23.09	23.66	24.30	22.53	23.11	23.12	23.69	24.33
	8H	22.69	23.24	23.29	23.82	24.46	22.80	23.34	23.39	23.92	24.57
	12H	22.80	23.28	23.41	23.89	24.54	22.96	23.44	23.58	24.06	24.71
8H	4H	22.13	22.68	22.73	23.26	23.90	22.03	22.58	22.63	23.16	23.81
	6H	22.87	23.32	23.50	23.94	24.60	22.94	23.38	23.57	24.01	24.66
	8H	23.14	23.54	23.79	24.18	24.84	23.29	23.69	23.94	24.33	24.99
	12H	23.32	23.66	23.96	24.28	25.02	23.54	23.88	24.18	24.51	25.25
12H	4H	22.14	22.62	22.75	23.23	23.88	22.05	22.52	22.66	23.14	23.79
	6H	22.92	23.31	23.56	23.95	24.62	22.98	23.38	23.63	24.02	24.68
	8H	23.23	23.58	23.87	24.20	24.94	23.39	23.73	24.03	24.35	25.09

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-4

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L850-N

Data in this report applies to families of products including EHBR-60-L850-N

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2506-472-4  
 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-L850-N**  
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 80CRI LEDs with N lens

**Spectral Parameters**

CCT (K): 4875  
 CIE u': 0.2124  
 CIE v': 0.4871  
 Duv: 0.0005  
 CIE x: 0.3488  
 CIE y: 0.3555  
 CIE z: 0.2957  
 Peak Wavelength (nm): 630  
 Dominant Wavelength (nm): 573  
 Purity: 11.33556  
 Rf: 80  
 Rg: 102.3

CRI (Ra):	82.3		
R1:	85.0	R9:	43.9
R2:	83.1	R10:	57.4
R3:	78.8	R11:	83.1
R4:	84.0	R12:	51.0
R5:	83.0	R13:	83.4
R6:	76.3	R14:	87.4
R7:	86.8	R15:	83.4
R8:	81.7		



**Test Conditions**

Stabilization Time: 39M  
 Operation Time: 1H 39M  
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-4

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: SP1-2506-472-4

CIE 1931 Chromaticity Diagram



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



CCT = 4875K  
 CIE x = 0.3488  
 CIE y = 0.3555  
 Duv = 0.0005

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-4

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-4

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.82**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-4

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 3.71**

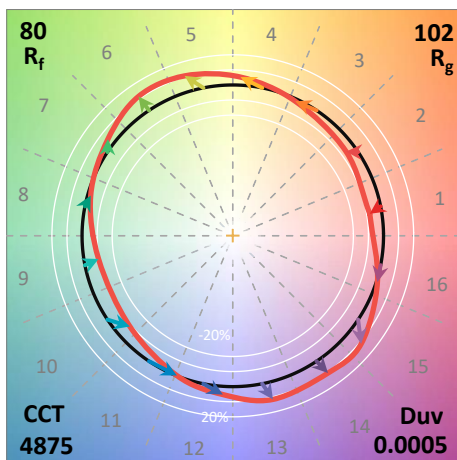
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

**Summary**

$R_f = 80$   
 $R_g = 102.3$   
 $CIE R_a = 82.3$   
 $R_9 = 43.9$

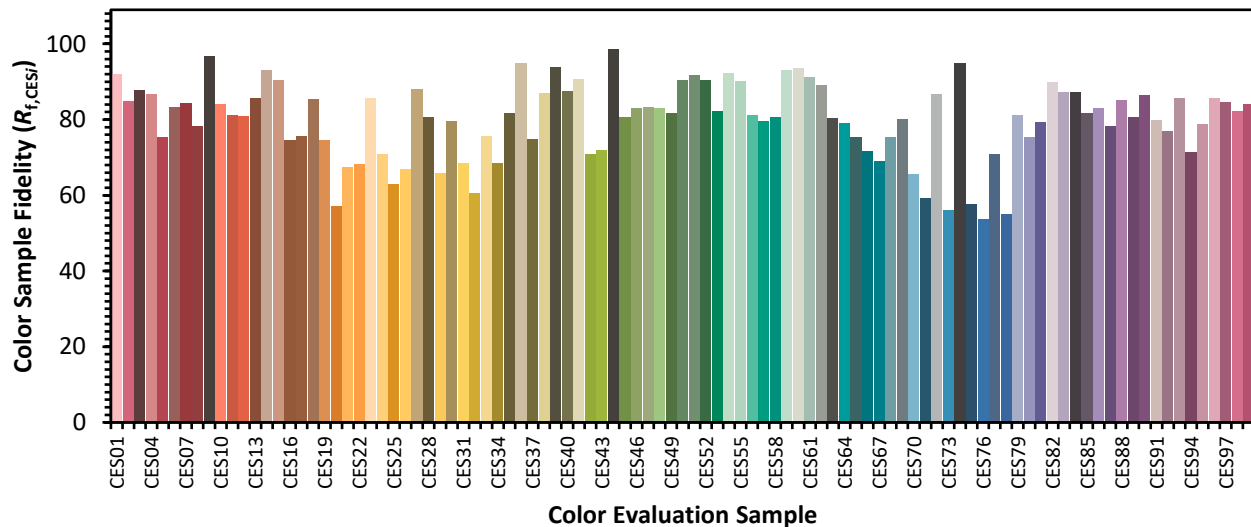


**Color Vector Graphics**

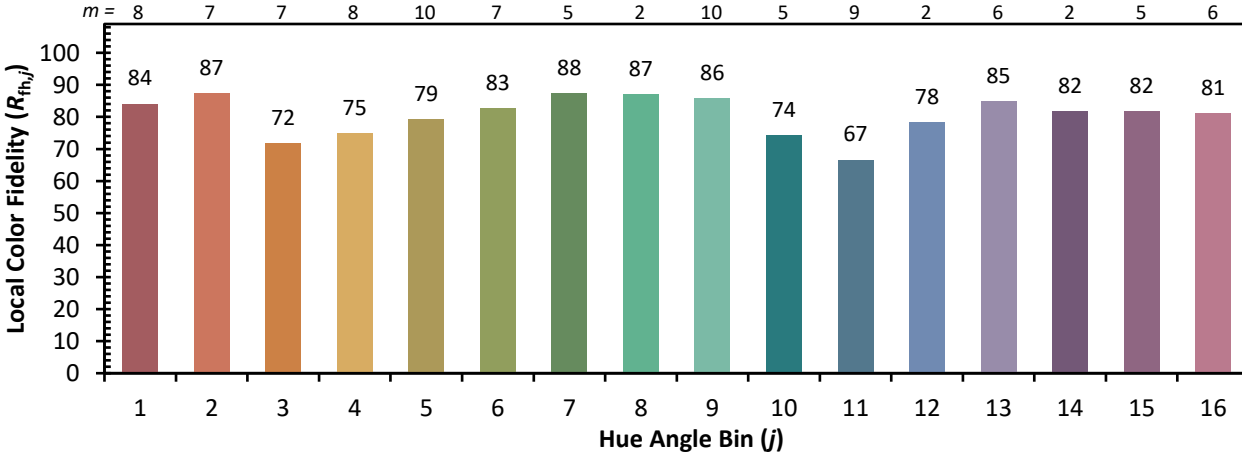


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 85	CES26 = 67	CES51 = 92	CES76 = 54
CES02 = 60	CES27 = 88	CES52 = 91	CES77 = 71
CES03 = 31	CES28 = 81	CES53 = 82	CES78 = 55
CES04 = 69	CES29 = 66	CES54 = 92	CES79 = 81
CES05 = 47	CES30 = 80	CES55 = 90	CES80 = 75
CES06 = 50	CES31 = 69	CES56 = 81	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 80	CES82 = 90
CES08 = 39	CES33 = 76	CES58 = 81	CES83 = 87
CES09 = 29	CES34 = 68	CES59 = 93	CES84 = 87
CES10 = 73	CES35 = 82	CES60 = 94	CES85 = 82
CES11 = 56	CES36 = 95	CES61 = 91	CES86 = 83
CES12 = 62	CES37 = 75	CES62 = 89	CES87 = 78
CES13 = 42	CES38 = 87	CES63 = 80	CES88 = 85
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 81
CES15 = 71	CES40 = 87	CES65 = 75	CES90 = 86
CES16 = 46	CES41 = 91	CES66 = 72	CES91 = 80
CES17 = 48	CES42 = 71	CES67 = 69	CES92 = 77
CES18 = 56	CES43 = 72	CES68 = 75	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 80	CES94 = 71
CES20 = 65	CES45 = 81	CES70 = 66	CES95 = 79
CES21 = 85	CES46 = 83	CES71 = 59	CES96 = 86
CES22 = 77	CES47 = 83	CES72 = 87	CES97 = 85
CES23 = 91	CES48 = 83	CES73 = 56	CES98 = 82
CES24 = 90	CES49 = 82	CES74 = 95	CES99 = 84
CES25 = 71	CES50 = 91	CES75 = 58	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)