

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:

Luminaire Tested: EHBR1-48-UNV-TA-L950-UPL24

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS A COMBINATION OF REPORTS P1431831 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-48-UNV-TA-L950-UPL24
Description: Elevate Round Highbay at, 48000 lumens, 5000K 90CRI LEDs with TA lens
Light Source: -
Ballast/Driver: -

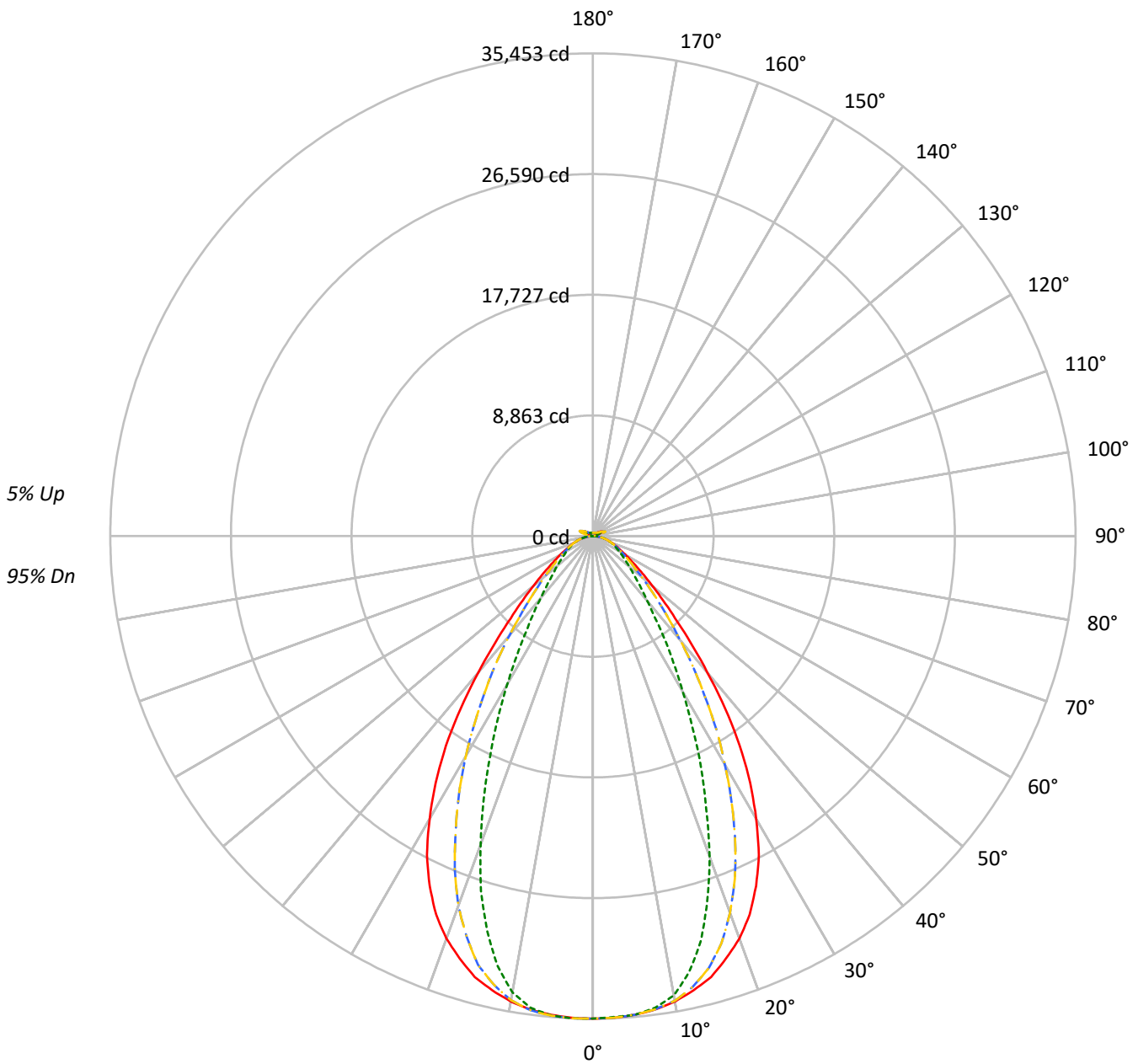
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46285.7 lumens
Efficiency: N/A
Efficacy: 168.3 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.8 / 0.93
Luminous Opening: Vertical Cylinder (Dia: 1.71' x H: 0.1')
CIE Type: Direct

Input Watts (W): 275.1
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:
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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				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	108	108	108	103	103	103	98	98	98	98	98	98	95
1	110	107	104	101	107	104	101	99	99	97	95	95	93	91	90	89	88	88	88	88	85
2	103	97	92	87	100	95	90	86	91	87	83	87	84	81	83	81	78	78	78	78	76
3	96	88	82	77	94	86	81	76	83	78	74	80	76	72	77	74	71	71	71	71	69
4	90	81	74	69	88	79	73	68	76	71	67	74	69	65	71	67	64	64	64	64	62
5	85	74	67	62	82	73	66	62	71	65	61	68	63	59	66	62	59	59	59	59	57
6	79	69	62	56	77	68	61	56	66	60	55	64	58	54	62	57	54	54	54	54	52
7	75	64	57	52	73	63	56	51	61	55	51	59	54	50	58	53	49	49	49	49	48
8	71	59	52	48	69	59	52	47	57	51	47	55	50	46	54	49	46	46	46	46	44
9	67	55	49	44	65	55	48	44	53	47	43	52	47	43	51	46	43	43	43	43	41
10	63	52	45	41	62	51	45	41	50	44	40	49	44	40	48	43	40	40	40	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	166420	166420	166420	166420
5°	165302	165319	165302	165494
10°	163371	161233	163371	160178
15°	159810	146374	159810	143013
20°	153045	121976	153045	117227
25°	141977	94331	141977	89444
30°	124716	68759	124716	65264
35°	102497	49564	102497	46329
40°	75535	35659	75535	34558
45°	52756	28098	52756	27126
50°	38184	23313	38184	22958
55°	28917	20360	28917	20085
60°	23042	18362	23042	18492
65°	19363	17172	19363	17336
70°	17215	16309	17215	16469
75°	15215	15215	15215	15361
80°	12472	13742	12472	13742
85°	7990	9523	7990	9805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 55275 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3346.6	7.2
10°-20°	8994.4	19.4
20°-30°	10937.1	23.6
30°-40°	8909.1	19.2
40°-50°	5349.0	11.6
50°-60°	3078.4	6.7
60°-70°	1926.6	4.2
70°-80°	1134.7	2.5
80°-90°	335.8	0.7
90°-100°	59.7	0.1
100°-110°	394.2	0.9
110°-120°	729.2	1.6
120°-130°	433.0	0.9
130°-140°	262.6	0.6
140°-150°	183.1	0.4
150°-160°	120.1	0.3
160°-170°	69.3	0.1
170°-180°	23.1	0.0
0°-30°	23278.0	50.3
0°-40°	32187.1	69.5
0°-60°	40614.5	87.7
0°-90°	44011.6	95.1
90°-120°	1183.1	2.6
90°-150°	2061.7	4.5
90°-180°	2274.0	4.9
0°-180°	46285.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	35438	35438	35438	35438	35438	
5°	35295	35298	35295	35336	35295	3351
15°	33527	30708	33527	30003	33527	9400
25°	28353	18838	28353	17862	28353	12925
35°	18812	9097	18812	8503	18812	11615
45°	8536	4546	8536	4389	8536	6800
55°	3908	2752	3908	2714	3908	3593
65°	2021	1792	2021	1810	2021	2043
75°	1072	1072	1072	1082	1072	1132
85°	275	327	275	337	275	301
90°	16	18	16	17	16	19
95°	31	29	31	28	31	34
105°	181	138	181	91	181	244
115°	776	632	776	662	776	707
125°	496	457	496	520	496	457
135°	314	335	314	363	314	249
145°	286	279	286	300	286	179
155°	255	250	255	269	255	119
165°	241	241	241	251	241	69
175°	241	243	241	248	241	23
180°	244	244	244	244	244	



TEST NUMBER:

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9
2.5°	35420.8	35412.7	35405.3	35391.9	35359.9	35391.9	35405.3	35412.7	35420.8	35443.1	35452.8
5°	35294.6	35326.6	35293.1	35300.6	35298.3	35300.6	35293.1	35326.6	35294.6	35316.9	35357.0
7.5°	35074.2	35068.3	35057.1	35013.4	34939.1	35013.4	35057.1	35068.3	35074.2	35101.6	35129.9
10°	34710.5	34734.3	34655.6	34380.2	34256.2	34380.2	34655.6	34734.3	34710.5	34755.1	34612.6
12.5°	34171.0	34228.8	33910.4	33194.9	32759.2	33194.9	33910.4	34228.8	34171.0	34210.3	33724.8
15°	33527.4	33479.1	32851.2	31347.5	30708.4	31347.5	32851.2	33479.1	33527.4	33479.1	32587.7
17.5°	32525.4	32595.2	31376.4	29162.3	27982.2	29162.3	31376.4	32595.2	32525.4	32548.4	30856.1
20°	31455.1	31476.6	29443.6	26327.7	25069.6	26327.7	29443.6	31476.6	31455.1	31325.9	28889.2
22.5°	30093.1	30101.2	27228.8	23398.2	21775.6	23398.2	27228.8	30101.2	30093.1	29877.8	26494.0
25°	28352.6	28416.4	24736.4	20429.2	18837.9	20429.2	24736.4	28416.4	28352.6	28107.6	23833.1
27.5°	26398.3	26442.0	22075.5	17455.1	15800.7	17455.1	22075.5	26442.0	26398.3	26131.1	21289.4
30°	23989.0	24269.6	19403.4	14738.5	13225.8	14738.5	19403.4	24269.6	23989.0	23958.5	18667.2
32.5°	21501.0	21997.5	16884.3	12316.6	11019.9	12316.6	16884.3	21997.5	21501.0	21642.8	16053.8
35°	18811.9	19370.1	14270.2	10239.1	9096.8	10239.1	14270.2	19370.1	18811.9	18995.2	13655.6
37.5°	15961.0	16814.5	12054.6	8481.5	7383.0	8481.5	12054.6	16814.5	15961.0	16306.9	11546.2
40°	13092.2	14010.4	9953.3	7052.0	6180.6	7052.0	9953.3	14010.4	13092.2	13655.6	9533.3
42.5°	10628.8	11333.1	8215.0	5894.1	5325.5	5894.1	8215.0	11333.1	10628.8	11028.1	7857.2
45°	8535.7	8943.2	6797.4	4999.7	4546.2	4999.7	6797.4	8943.2	8535.7	8906.0	6502.7
47.5°	6968.8	7221.9	5595.7	4320.6	3970.9	4320.6	5595.7	7221.9	6968.8	7086.1	5431.0
50°	5690.7	5828.8	4704.3	3744.6	3474.4	3744.6	4704.3	5828.8	5690.7	5762.7	4549.1
52.5°	4722.1	4790.3	3945.7	3286.6	3088.5	3286.6	3945.7	4790.3	4722.1	4733.2	3876.7
55°	3907.9	3924.2	3368.2	2889.5	2751.5	2889.5	3368.2	3924.2	3907.9	3910.8	3311.8
57.5°	3272.5	3296.2	2894.7	2571.1	2456.8	2571.1	2894.7	3296.2	3272.5	3277.7	2868.0
60°	2770.0	2785.6	2501.4	2283.9	2207.4	2283.9	2501.4	2785.6	2770.0	2763.4	2485.8
62.5°	2358.1	2387.7	2185.8	2035.2	1986.3	2035.2	2185.8	2387.7	2358.1	2364.8	2185.1
65°	2021.1	2040.4	1915.7	1809.5	1792.4	1809.5	1915.7	2040.4	2021.1	2037.5	1921.7
67.5°	1744.2	1766.5	1682.6	1620.3	1603.2	1620.3	1682.6	1766.5	1744.2	1757.6	1684.1
70°	1510.5	1510.5	1465.2	1430.3	1431.0	1430.3	1465.2	1510.5	1510.5	1512.7	1473.3
72.5°	1281.1	1289.2	1258.9	1248.5	1252.9	1248.5	1258.9	1289.2	1281.1	1309.3	1267.8
75°	1071.8	1080.7	1065.1	1059.2	1071.8	1059.2	1065.1	1080.7	1071.8	1086.6	1068.1
77.5°	855.8	872.2	869.9	877.4	901.1	877.4	869.9	872.2	855.8	878.1	882.5
80°	656.1	670.3	671.0	689.5	722.9	689.5	671.0	670.3	656.1	670.3	681.4
82.5°	461.7	470.6	476.5	507.7	536.7	507.7	476.5	470.6	461.7	469.9	484.7
85°	274.6	267.2	277.6	296.9	327.3	296.9	277.6	267.2	274.6	274.6	282.1
87.5°	87.6	85.4	84.6	103.1	118.0	103.1	84.6	85.4	87.6	90.6	94.3
90°	16.4	28.9	45.2	26.4	17.8	26.4	45.2	28.9	16.4	27.6	47.8
92.5°	21.4	37.6	72.8	40.2	24.6	40.2	72.8	37.6	21.4	37.6	67.8
95°	31.4	50.3	101.7	46.5	29.1	46.5	101.7	50.3	31.4	46.5	86.7
97.5°	49.0	61.5	116.8	51.5	36.6	51.5	116.8	61.5	49.0	57.8	97.9
100°	65.3	75.4	182.1	60.3	47.9	60.3	182.1	75.4	65.3	65.3	179.6
102.5°	99.2	141.9	386.8	128.1	80.6	128.1	386.8	141.9	99.2	128.1	416.9
105°	180.8	297.6	689.4	270.0	138.3	270.0	689.4	297.6	180.8	293.9	734.7
107.5°	342.8	527.5	909.1	483.5	238.8	483.5	909.1	527.5	342.8	548.7	946.9
110°	548.7	724.6	953.1	641.6	444.8	641.6	953.1	724.6	548.7	767.3	1033.5



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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°	714.5	799.9	912.9	689.4	600.5	689.4	912.9	799.9	714.5	855.2	1009.7
115°	776.1	781.1	815.0	663.0	631.9	663.0	815.0	781.1	776.1	842.6	901.6
117.5°	749.7	701.9	691.9	605.3	611.3	605.3	691.9	701.9	749.7	771.1	778.6
120°	676.9	612.8	577.6	538.7	565.4	538.7	577.6	612.8	676.9	668.0	655.5
122.5°	585.2	521.1	494.8	477.9	509.5	477.9	494.8	521.1	585.2	566.4	553.8
125°	496.1	442.1	435.8	425.2	456.8	425.2	435.8	442.1	496.1	477.2	483.0
127.5°	420.7	386.8	394.3	388.7	410.4	388.7	394.3	386.8	420.7	411.9	431.5
130°	367.5	350.4	368.7	360.6	379.0	360.6	368.7	350.4	367.5	370.0	395.8
132.5°	334.3	329.3	351.3	341.3	353.3	341.3	351.3	329.3	334.3	345.1	369.0
135°	314.4	314.9	335.8	324.4	335.2	324.4	335.8	314.9	314.4	329.5	350.8
137.5°	302.6	306.3	321.4	310.1	318.9	310.1	321.4	306.3	302.6	317.7	334.0
140°	295.8	298.3	309.6	297.0	305.3	297.0	309.6	298.3	295.8	310.9	318.4
142.5°	289.0	291.6	299.1	284.7	289.8	284.7	299.1	291.6	289.0	303.5	307.4
145°	286.0	287.3	291.0	275.4	279.2	275.4	291.0	287.3	286.0	296.8	294.3
147.5°	280.4	280.4	281.7	268.1	271.4	268.1	281.7	280.4	280.4	288.0	285.0
150°	273.6	272.4	273.6	260.1	263.3	260.1	273.6	272.4	273.6	278.6	274.4
152.5°	263.6	262.4	264.3	252.1	255.3	252.1	264.3	262.4	263.6	268.6	265.1
155°	254.9	254.9	256.3	246.5	249.7	246.5	256.3	254.9	254.9	258.1	257.1
157.5°	250.0	250.0	251.5	244.2	247.0	244.2	251.5	250.0	250.0	252.1	252.3
160°	245.2	246.5	248.0	241.9	244.6	241.9	248.0	246.5	245.2	248.4	248.7
162.5°	243.4	244.2	246.2	239.6	242.4	239.6	246.2	244.2	243.4	244.2	244.4
165°	241.2	242.4	243.9	239.2	240.6	239.2	243.9	242.4	241.2	242.4	242.1
167.5°	240.6	241.9	243.4	239.3	241.4	239.3	243.4	241.9	240.6	239.4	241.7
170°	238.1	240.2	242.9	240.1	240.8	240.1	242.9	240.2	238.1	238.9	239.9
172.5°	239.6	241.7	244.4	241.6	242.3	241.6	244.4	241.7	239.6	240.4	240.1
175°	241.1	241.8	244.1	241.8	243.3	241.8	244.1	241.8	241.1	240.6	241.6
177.5°	240.6	242.6	244.8	243.8	245.3	243.8	244.8	242.6	240.6	241.4	243.6
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9
2.5°	35437.2	35450.5	35437.2	35452.8	35443.1	35420.8
5°	35341.5	35335.5	35341.5	35357.0	35316.9	35294.6
7.5°	34970.3	34946.6	34970.3	35129.9	35101.6	35074.2
10°	34195.4	34032.1	34195.4	34612.6	34755.1	34710.5
12.5°	32844.6	32338.4	32844.6	33724.8	34210.3	34171.0
15°	30872.4	30003.3	30872.4	32587.7	33479.1	33527.4
17.5°	28320.6	27326.1	28320.6	30856.1	32548.4	32525.4
20°	25545.4	24093.6	25545.4	28889.2	31325.9	31455.1
22.5°	22514.8	20951.7	22514.8	26494.0	29877.8	30093.1
25°	19491.8	17861.8	19491.8	23833.1	28107.6	28352.6
27.5°	16666.1	15114.8	16666.1	21289.4	26131.1	26398.3
30°	14049.7	12553.4	14049.7	18667.2	23958.5	23989.0
32.5°	11861.6	10378.7	11861.6	16053.8	21642.8	21501.0
35°	9732.9	8503.1	9732.9	13655.6	18995.2	18811.9
37.5°	8128.2	7142.5	8128.2	11546.2	16306.9	15961.0
40°	6779.6	5989.8	6779.6	9533.3	13655.6	13092.2
42.5°	5667.7	5076.9	5667.7	7857.2	11028.1	10628.8
45°	4832.7	4388.9	4832.7	6502.7	8906.0	8535.7
47.5°	4217.3	3856.7	4217.3	5431.0	7086.1	6968.8
50°	3669.6	3421.6	3669.6	4549.1	5762.7	5690.7
52.5°	3227.9	3048.3	3227.9	3876.7	4733.2	4722.1
55°	2860.6	2714.3	2860.6	3311.8	3910.8	3907.9
57.5°	2540.7	2446.4	2540.7	2868.0	3277.7	3272.5
60°	2255.6	2223.0	2255.6	2485.8	2763.4	2770.0
62.5°	2037.5	1989.1	2037.5	2185.1	2364.8	2358.1
65°	1820.7	1809.5	1820.7	1921.7	2037.5	2021.1
67.5°	1624.7	1615.1	1624.7	1684.1	1757.6	1744.2
70°	1437.7	1445.1	1437.7	1473.3	1512.7	1510.5
72.5°	1256.6	1258.1	1256.6	1267.8	1309.3	1281.1
75°	1082.1	1082.1	1082.1	1068.1	1086.6	1071.8
77.5°	892.1	914.4	892.1	882.5	878.1	855.8
80°	701.4	722.9	701.4	681.4	670.3	656.1
82.5°	508.4	543.3	508.4	484.7	469.9	461.7
85°	315.4	337.0	315.4	282.1	274.6	274.6
87.5°	118.7	129.9	118.7	94.3	90.6	87.6
90°	25.1	17.1	25.1	47.8	27.6	16.4
92.5°	33.9	23.3	33.9	67.8	37.6	21.4
95°	37.6	28.3	37.6	86.7	46.5	31.4
97.5°	40.2	34.7	40.2	97.9	57.8	49.0
100°	46.5	40.4	46.5	179.6	65.3	65.3
102.5°	94.2	49.2	94.2	416.9	128.1	99.2
105°	246.1	90.7	246.1	734.7	293.9	180.8
107.5°	487.2	212.5	487.2	946.9	548.7	342.8
110°	668.0	430.9	668.0	1033.5	767.3	548.7



TEST NUMBER:

CATALOG NUMBER: EHBR1-48-UNV-TA-L950-UPL24

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	740.9	596.7	740.9	1009.7	855.2	714.5
115°	738.4	662.0	738.4	901.6	842.6	776.1
117.5°	693.2	665.8	693.2	778.6	771.1	749.7
120°	627.3	628.1	627.3	655.5	668.0	676.9
122.5°	559.5	577.4	559.5	553.8	566.4	585.2
125°	501.8	519.6	501.8	483.0	477.2	496.1
127.5°	453.6	468.1	453.6	431.5	411.9	420.7
130°	413.4	422.9	413.4	395.8	370.0	367.5
132.5°	384.7	389.8	384.7	369.0	345.1	334.3
135°	360.9	362.8	360.9	350.8	329.5	314.4
137.5°	341.5	339.8	341.5	334.0	317.7	302.6
140°	328.0	325.4	328.0	318.4	310.9	295.8
142.5°	313.6	311.8	313.6	307.4	303.5	289.0
145°	303.8	300.0	303.8	294.3	296.8	286.0
147.5°	293.2	290.3	293.2	285.0	288.0	280.4
150°	284.7	284.1	284.7	274.4	278.6	273.6
152.5°	275.9	276.1	275.9	265.1	268.6	263.6
155°	268.6	269.4	268.6	257.1	258.1	254.9
157.5°	262.6	263.3	262.6	252.3	252.1	250.0
160°	257.7	258.5	257.7	248.7	248.4	245.2
162.5°	254.2	254.9	254.2	244.4	244.2	243.4
165°	248.6	250.7	248.6	242.1	242.4	241.2
167.5°	246.9	248.9	246.9	241.7	239.4	240.6
170°	245.1	247.1	245.1	239.9	238.9	238.1
172.5°	244.1	247.3	244.1	240.1	240.4	239.6
175°	244.4	248.4	244.4	241.6	240.6	241.1
177.5°	246.3	251.6	246.3	243.6	241.4	240.6
180°	243.6	243.6	243.6	243.6	243.6	243.6



TEST NUMBER: CATALOG
 CATALOG NUMBER: EHBR1-48-UNV-TA-L950-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	20.64	21.82	21.09	22.24	22.68	18.91	20.09	19.36	20.51	20.95
	3H	21.80	22.85	22.27	23.29	23.77	20.51	21.56	20.97	21.99	22.48
	4H	22.25	23.24	22.74	23.69	24.19	21.16	22.14	21.65	22.59	23.10
	6H	22.57	23.47	23.07	23.94	24.46	21.67	22.58	22.17	23.04	23.56
	8H	22.66	23.51	23.17	24.00	24.52	21.84	22.70	22.36	23.18	23.71
	12H	22.69	23.51	23.21	23.99	24.54	21.93	22.75	22.45	23.23	23.78
4H	2H	20.90	21.88	21.39	22.33	22.83	19.46	20.44	19.95	20.89	21.39
	3H	22.29	23.10	22.79	23.60	24.12	21.26	22.07	21.76	22.57	23.09
	4H	22.88	23.60	23.40	24.12	24.68	22.03	22.75	22.55	23.26	23.83
	6H	23.32	23.95	23.87	24.48	25.06	22.66	23.28	23.20	23.82	24.40
	8H	23.44	24.03	23.99	24.56	25.15	22.87	23.45	23.42	23.99	24.57
	12H	23.50	24.02	24.07	24.59	25.18	22.99	23.51	23.56	24.08	24.67
8H	4H	23.04	23.62	23.59	24.16	24.75	22.27	22.85	22.82	23.39	23.98
	6H	23.58	24.06	24.17	24.64	25.24	23.01	23.49	23.60	24.07	24.67
	8H	23.76	24.19	24.37	24.79	25.39	23.29	23.72	23.89	24.32	24.92
	12H	23.88	24.25	24.47	24.83	25.51	23.48	23.85	24.07	24.43	25.11
12H	4H	23.03	23.55	23.60	24.12	24.71	22.27	22.79	22.84	23.36	23.95
	6H	23.60	24.03	24.20	24.62	25.23	23.04	23.47	23.64	24.06	24.67
	8H	23.82	24.19	24.42	24.77	25.46	23.36	23.74	23.96	24.32	25.00

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-8

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L950-N

Data in this report applies to families of products including EHBR-60-L950-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-8
 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-L950-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 4901
 CIE u': 0.2131
 CIE v': 0.4853
 Duv: -0.0008
 CIE x: 0.3477
 CIE y: 0.3520
 CIE z: 0.3003
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 574
 Purity: 9.953987
 Rf: 90.7
 Rg: 100.5

CRI (Ra):	94.3		
R1:	95.8	R9:	72.3
R2:	96.5	R10:	89.1
R3:	94.4	R11:	94.9
R4:	95.3	R12:	68.4
R5:	94.1	R13:	96.4
R6:	92.5	R14:	96.4
R7:	95.5	R15:	93.9
R8:	90.1		



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-8

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: SP1-2506-472-8

CIE 1931 Chromaticity Diagram



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



CCT = 4901K
 CIE x = 0.3477
 CIE y = 0.3520
 Duv = -0.0008

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-8

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-8

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 2.04

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.41

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

Summary

$R_f = 90.7$
 $R_g = 100.5$
 CIE $R_a = 94.3$
 $R_9 = 72.3$



Color Vector Graphics



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

CES01 = 85	CES26 = 91	CES51 = 98	CES76 = 83
CES02 = 61	CES27 = 92	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 97	CES78 = 80
CES04 = 69	CES29 = 94	CES54 = 93	CES79 = 94
CES05 = 48	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 50	CES31 = 95	CES56 = 95	CES81 = 84
CES07 = 41	CES32 = 86	CES57 = 94	CES82 = 96
CES08 = 40	CES33 = 99	CES58 = 94	CES83 = 96
CES09 = 29	CES34 = 90	CES59 = 97	CES84 = 93
CES10 = 73	CES35 = 94	CES60 = 92	CES85 = 83
CES11 = 56	CES36 = 81	CES61 = 92	CES86 = 86
CES12 = 62	CES37 = 92	CES62 = 86	CES87 = 91
CES13 = 43	CES38 = 88	CES63 = 92	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 89	CES89 = 87
CES15 = 71	CES40 = 97	CES65 = 88	CES90 = 98
CES16 = 47	CES41 = 97	CES66 = 85	CES91 = 73
CES17 = 48	CES42 = 90	CES67 = 84	CES92 = 79
CES18 = 56	CES43 = 91	CES68 = 86	CES93 = 87
CES19 = 70	CES44 = 99	CES69 = 87	CES94 = 78
CES20 = 65	CES45 = 95	CES70 = 83	CES95 = 83
CES21 = 85	CES46 = 97	CES71 = 77	CES96 = 92
CES22 = 77	CES47 = 95	CES72 = 92	CES97 = 95
CES23 = 91	CES48 = 93	CES73 = 77	CES98 = 95
CES24 = 90	CES49 = 95	CES74 = 92	CES99 = 94
CES25 = 70	CES50 = 98	CES75 = 79	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)