

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: P1433902

Luminaire Tested: EHBR1-48-UNV-TASM-L940-UPL24

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433902
REPORT IS A COMBINATION OF REPORTS P1431839 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-48-UNV-TASM-L940-UPL24
Description: Elevate Round Highbay at, 48000 lumens, 4000K 90CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

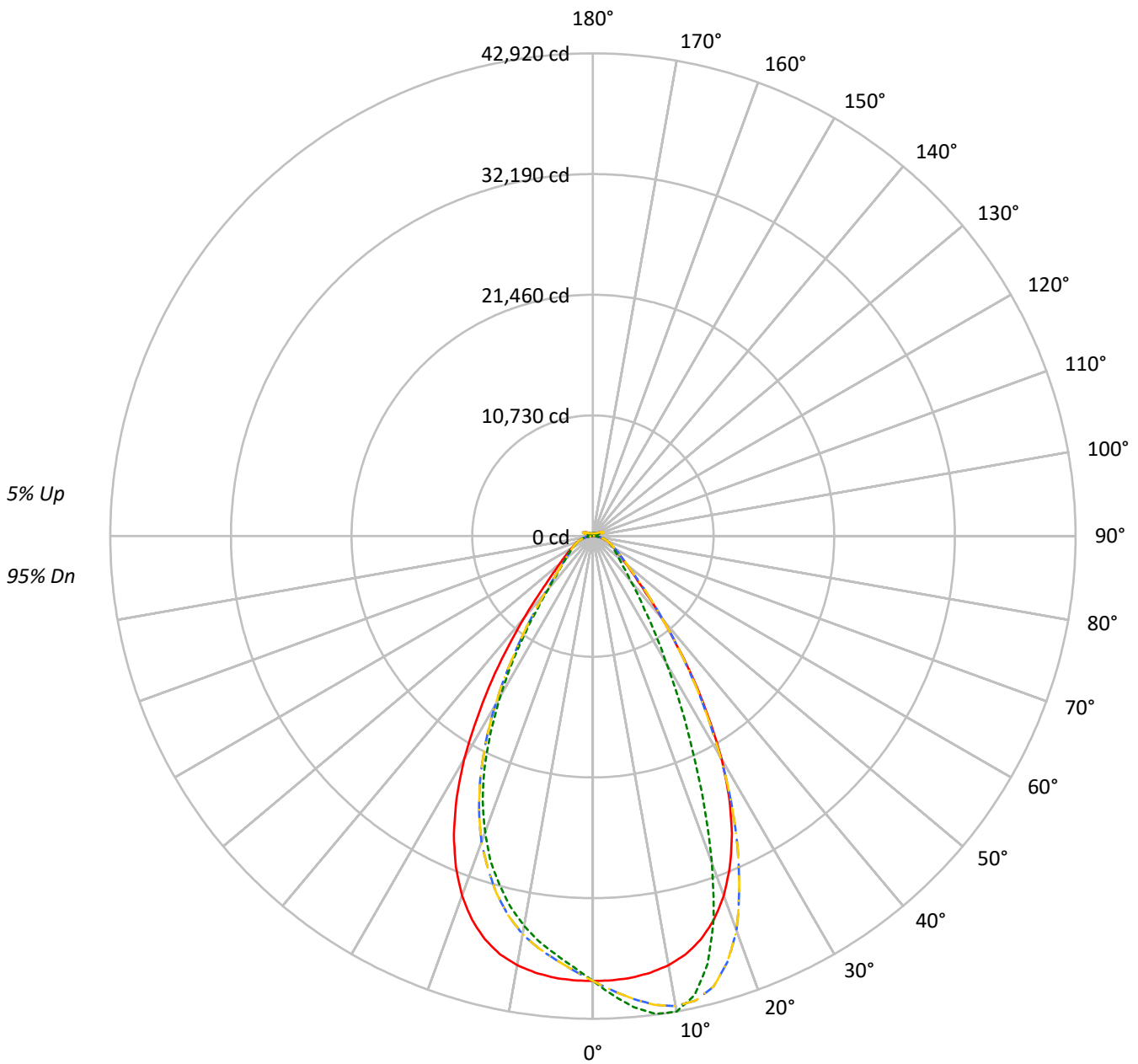
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46494.8 lumens
Efficiency: N/A
Efficacy: 169.0 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): 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: P1433902
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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	108	108	108	103	103	103	98	98	98	98	98	98	95
1	111	107	104	101	108	105	102	99	100	97	95	95	93	92	91	89	88	88	88	88	86
2	104	98	93	89	101	96	91	87	91	88	85	88	85	82	84	82	80	80	80	80	77
3	97	90	84	79	95	88	82	78	84	80	76	81	77	74	78	75	72	72	72	72	70
4	91	82	76	71	89	81	75	70	78	73	69	75	71	67	73	69	66	66	66	66	64
5	86	76	69	64	84	75	69	64	72	67	63	70	65	62	68	64	61	61	61	61	59
6	81	71	64	59	79	70	63	59	68	62	58	66	61	57	64	59	56	56	56	56	54
7	77	66	59	54	75	65	59	54	63	57	53	62	56	53	60	55	52	52	52	52	50
8	72	62	55	50	71	61	54	50	59	54	49	58	53	49	56	52	48	48	48	48	47
9	69	58	51	47	67	57	51	47	56	50	46	54	49	46	53	49	45	45	45	45	44
10	65	54	48	44	64	54	48	44	53	47	43	51	46	43	50	46	42	42	42	42	41

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	185752	185752	185752	185752
5°	184621	196957	184621	175040
10°	182352	202013	182352	165661
15°	176968	187733	176968	153026
20°	165509	150536	165509	136303
25°	146489	104300	146489	114228
30°	118943	67855	118943	85466
35°	85310	43945	85310	56896
40°	55156	30289	55156	35882
45°	34996	23462	34996	25566
50°	25989	19937	25989	21295
55°	21218	18161	21218	18798
60°	18374	17300	18374	17405
65°	16749	16685	16749	16614
70°	15874	16349	15874	16137
75°	14846	15815	14846	15341
80°	13042	14931	13042	13958
85°	8438	10661	8438	10166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 49202 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3761.0	8.1
10°-20°	10232.1	22.0
20°-30°	12000.2	25.8
30°-40°	8345.4	17.9
40°-50°	4147.3	8.9
50°-60°	2480.5	5.3
60°-70°	1745.9	3.8
70°-80°	1124.6	2.4
80°-90°	361.2	0.8
90°-100°	61.8	0.1
100°-110°	397.6	0.9
110°-120°	733.5	1.6
120°-130°	436.8	0.9
130°-140°	265.4	0.6
140°-150°	184.7	0.4
150°-160°	121.8	0.3
160°-170°	71.1	0.2
170°-180°	23.9	0.1
0°-30°	25993.4	55.9
0°-40°	34338.7	73.9
0°-60°	40966.5	88.1
0°-90°	44198.3	95.1
90°-120°	1192.9	2.6
90°-150°	2079.8	4.5
90°-180°	2297.0	4.9
0°-180°	46494.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	39554	39554	39554	39554	39554	
5°	39420	42053	39420	37374	39420	3741
15°	37127	39385	37127	32104	37127	10376
25°	29254	20829	29254	22811	29254	13244
35°	15657	8065	15657	10442	15657	9774
45°	5662	3796	5662	4136	5662	4633
55°	2867	2454	2867	2540	2867	2622
65°	1748	1742	1748	1734	1748	1756
75°	1046	1114	1046	1081	1046	1098
85°	290	366	290	349	290	322
90°	17	22	17	17	17	22
95°	33	34	33	28	33	35
105°	183	96	183	139	183	246
115°	780	669	780	634	780	711
125°	500	526	500	458	500	461
135°	318	368	318	335	318	252
145°	290	303	290	282	290	181
155°	260	272	260	253	260	121
165°	249	259	249	245	249	71
175°	251	258	251	247	251	24
180°	252	252	252	252	252	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5
2.5°	39531.6	40042.6	40456.4	40729.4	40864.4	40729.4	40456.4	40042.6	39531.6	39023.5	38674.1
5°	39419.6	40443.1	41310.2	41877.6	42053.4	41877.6	41310.2	40443.1	39419.6	38452.4	37810.9
7.5°	39151.8	40746.5	42034.8	42697.1	42858.9	42697.1	42034.8	40746.5	39151.8	37782.6	36971.9
10°	38743.2	40937.8	42426.4	42901.2	42920.5	42901.2	42426.4	40937.8	38743.2	36898.5	35942.4
12.5°	38091.2	40869.6	42295.1	42139.4	41785.6	42139.4	42295.1	40869.6	38091.2	35818.6	34612.6
15°	37126.9	40465.4	41463.7	40196.1	39385.4	40196.1	41463.7	40465.4	37126.9	34360.4	32961.5
17.5°	35768.1	39708.8	39728.1	37220.4	35691.0	37220.4	39728.1	39708.8	35768.1	32577.3	31036.8
20°	34017.0	38495.4	37338.3	32751.6	30939.6	32751.6	37338.3	38495.4	34017.0	30469.4	28957.8
22.5°	31821.5	36859.2	34010.3	28256.1	25784.0	28256.1	34010.3	36859.2	31821.5	28018.0	26444.9
25°	29253.7	34854.4	30430.1	23357.9	20828.6	23357.9	30430.1	34854.4	29253.7	25097.1	23674.6
27.5°	26233.5	32313.3	26617.7	19087.1	16753.7	19087.1	26617.7	32313.3	26233.5	22081.4	20628.4
30°	22878.7	29055.7	22650.3	15200.5	13051.8	15200.5	22650.3	29055.7	22878.7	18693.3	17392.3
32.5°	19122.7	25862.6	18840.1	12179.6	10359.4	12179.6	18840.1	25862.6	19122.7	15460.2	14100.6
35°	15657.4	21867.8	15404.6	9570.2	8065.4	9570.2	15404.6	21867.8	15657.4	12408.0	11073.0
37.5°	12287.9	18093.2	12279.7	7706.4	6541.8	7706.4	12279.7	18093.2	12287.9	9646.6	8563.0
40°	9559.9	14147.3	9621.5	6151.8	5249.8	6151.8	9621.5	14147.3	9559.9	7340.0	6646.5
42.5°	7243.5	10817.8	7562.5	5048.8	4459.1	5048.8	7562.5	10817.8	7243.5	5783.1	5263.9
45°	5662.2	7960.7	5905.5	4259.7	3796.1	4259.7	5905.5	7960.7	5662.2	4657.2	4308.6
47.5°	4611.2	6152.5	4786.2	3653.6	3328.8	3653.6	4786.2	6152.5	4611.2	3939.2	3678.1
50°	3873.2	4720.9	3974.0	3189.3	2971.3	3189.3	3974.0	4720.9	3873.2	3373.3	3199.0
52.5°	3327.3	3850.2	3384.4	2842.3	2695.3	2842.3	3384.4	3850.2	3327.3	2951.3	2843.0
55°	2867.4	3236.8	2943.1	2556.0	2454.3	2556.0	2943.1	3236.8	2867.4	2626.4	2546.3
57.5°	2518.1	2745.8	2556.0	2311.9	2244.4	2311.9	2556.0	2745.8	2518.1	2337.1	2294.1
60°	2208.8	2377.9	2255.5	2099.0	2079.7	2099.0	2255.5	2377.9	2208.8	2102.7	2074.6
62.5°	1970.7	2077.6	1994.5	1907.6	1890.6	1907.6	1994.5	2077.6	1970.7	1889.1	1894.3
65°	1748.2	1847.6	1782.3	1735.6	1741.5	1735.6	1782.3	1847.6	1748.2	1710.4	1718.5
67.5°	1576.2	1628.1	1599.8	1573.2	1579.9	1573.2	1599.8	1628.1	1576.2	1539.1	1551.7
70°	1392.9	1448.5	1419.6	1423.4	1434.5	1423.4	1419.6	1448.5	1392.9	1381.8	1391.4
72.5°	1217.8	1260.9	1251.3	1260.1	1272.1	1260.1	1251.3	1260.9	1217.8	1216.4	1217.1
75°	1045.8	1078.5	1082.9	1095.5	1114.1	1095.5	1082.9	1078.5	1045.8	1034.7	1048.0
77.5°	858.1	895.2	909.4	926.4	953.8	926.4	909.4	895.2	858.1	865.6	872.2
80°	686.1	703.1	734.3	746.9	785.5	746.9	734.3	703.1	686.1	673.5	683.1
82.5°	502.2	517.7	544.5	568.1	590.4	568.1	544.5	517.7	502.2	496.2	496.9
85°	290.0	313.8	331.6	359.7	366.4	359.7	331.6	313.8	290.0	296.7	290.0
87.5°	101.6	109.0	124.6	135.7	136.5	135.7	124.6	109.0	101.6	103.9	94.2
90°	17.1	29.2	50.1	29.6	22.4	29.6	50.1	29.2	17.1	29.7	46.1
92.5°	22.2	39.2	70.2	38.5	28.6	38.5	70.2	39.2	22.2	38.5	73.8
95°	33.0	48.1	89.2	42.2	33.6	42.2	89.2	48.1	33.0	51.1	102.8
97.5°	50.6	59.4	100.4	44.8	40.0	44.8	100.4	59.4	50.6	62.4	117.9
100°	67.0	67.0	182.3	51.1	45.0	51.1	182.3	67.0	67.0	77.0	183.3
102.5°	101.0	130.7	421.0	99.7	53.8	99.7	421.0	130.7	101.0	143.8	388.6
105°	182.8	296.9	739.6	252.0	96.1	252.0	739.6	296.9	182.8	299.9	692.0
107.5°	345.3	552.5	952.4	493.8	218.3	493.8	952.4	552.5	345.3	530.4	913.1
110°	551.7	771.6	1039.3	675.1	437.3	675.1	1039.3	771.6	551.7	728.1	957.2



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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°	717.9	859.7	1015.4	748.1	603.5	748.1	1015.4	859.7	717.9	803.5	916.9
115°	780.4	847.1	907.1	745.6	669.0	745.6	907.1	847.1	780.4	784.7	818.7
117.5°	754.0	775.4	783.7	700.3	672.8	700.3	783.7	775.4	754.0	706.1	695.3
120°	680.9	672.1	661.0	633.5	635.0	633.5	661.0	672.1	680.9	616.7	580.7
122.5°	589.7	570.9	559.0	566.3	583.4	566.3	559.0	570.9	589.7	525.5	498.3
125°	500.4	481.5	488.0	508.4	526.2	508.4	488.0	481.5	500.4	447.0	439.9
127.5°	425.6	416.7	436.4	459.3	474.6	459.3	436.4	416.7	425.6	391.6	398.4
130°	372.2	374.0	399.9	419.7	429.3	419.7	399.9	374.0	372.2	355.8	372.7
132.5°	338.9	348.2	372.9	390.3	396.0	390.3	372.9	348.2	338.9	334.6	355.2
135°	318.3	331.9	354.8	365.6	368.3	365.6	354.8	331.9	318.3	320.2	338.9
137.5°	306.4	320.0	337.2	346.2	344.4	346.2	337.2	320.0	306.4	310.9	325.2
140°	299.6	313.2	320.8	331.1	330.0	331.1	320.8	313.2	299.6	302.1	313.4
142.5°	292.8	305.1	308.9	316.7	314.9	316.7	308.9	305.1	292.8	295.3	302.9
145°	289.7	299.1	295.8	305.4	303.0	305.4	295.8	299.1	289.7	290.3	294.8
147.5°	283.4	290.3	286.5	294.8	292.4	294.8	286.5	290.3	283.4	283.4	285.4
150°	276.5	281.5	275.9	285.4	285.5	285.4	275.9	281.5	276.5	275.3	277.3
152.5°	267.2	272.2	267.2	278.0	277.5	278.0	267.2	272.2	267.2	266.0	267.9
155°	259.9	262.4	259.9	270.7	271.5	270.7	259.9	262.4	259.9	259.2	260.7
157.5°	255.1	257.1	255.8	265.4	266.2	265.4	255.8	257.1	255.1	255.1	255.8
160°	251.7	254.2	253.8	262.1	262.8	262.1	253.8	254.2	251.7	252.3	253.0
162.5°	250.7	250.7	251.0	259.3	260.8	259.3	251.0	250.7	250.7	250.7	252.0
165°	249.2	250.4	249.4	255.9	258.7	255.9	249.4	250.4	249.2	249.7	249.7
167.5°	249.4	248.2	249.7	255.6	258.4	255.6	249.7	248.2	249.4	250.0	250.0
170°	247.6	248.4	248.7	254.6	257.4	254.6	248.7	248.4	247.6	248.9	249.4
172.5°	249.9	249.9	249.6	254.2	258.3	254.2	249.6	249.9	249.9	250.4	251.6
175°	251.4	250.9	251.1	254.5	258.5	254.5	251.1	250.9	251.4	250.6	250.6
177.5°	250.1	251.6	253.0	256.5	261.8	256.5	253.0	251.6	250.1	250.6	250.6
180°	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	39554.5	39554.5	39554.5	39554.5	39554.5	39554.5
2.5°	38405.6	38380.5	38405.6	38674.1	39023.5	39531.6
5°	37513.4	37373.9	37513.4	37810.9	38452.4	39419.6
7.5°	36474.2	36393.4	36474.2	36971.9	37782.6	39151.8
10°	35380.2	35197.0	35380.2	35942.4	36898.5	38743.2
12.5°	34031.8	33789.3	34031.8	34612.6	35818.6	38091.2
15°	32316.9	32104.1	32316.9	32961.5	34360.4	37126.9
17.5°	30476.8	30284.0	30476.8	31036.8	32577.3	35768.1
20°	28165.6	28014.3	28165.6	28957.8	30469.4	34017.0
22.5°	25741.0	25599.3	25741.0	26444.9	28018.0	31821.5
25°	22888.4	22811.3	22888.4	23674.6	25097.1	29253.7
27.5°	19805.9	19674.6	19805.9	20628.4	22081.4	26233.5
30°	16656.5	16439.3	16656.5	17392.3	18693.3	22878.7
32.5°	13576.2	13419.7	13576.2	14100.6	15460.2	19122.7
35°	10599.1	10442.5	10599.1	11073.0	12408.0	15657.4
37.5°	8258.9	7982.2	8258.9	8563.0	9646.6	12287.9
40°	6263.7	6219.2	6263.7	6646.5	7340.0	9559.9
42.5°	5099.3	4978.3	5099.3	5263.9	5783.1	7243.5
45°	4184.0	4136.5	4184.0	4308.6	4657.2	5662.2
47.5°	3598.0	3618.8	3598.0	3678.1	3939.2	4611.2
50°	3161.2	3173.7	3161.2	3199.0	3373.3	3873.2
52.5°	2839.3	2828.1	2839.3	2843.0	2951.3	3327.3
55°	2554.5	2540.3	2554.5	2546.3	2626.4	2867.4
57.5°	2305.3	2315.6	2305.3	2294.1	2337.1	2518.1
60°	2082.7	2092.4	2082.7	2074.6	2102.7	2208.8
62.5°	1895.1	1901.0	1895.1	1894.3	1889.1	1970.7
65°	1727.5	1734.1	1727.5	1718.5	1710.4	1748.2
67.5°	1567.2	1567.2	1567.2	1551.7	1539.1	1576.2
70°	1416.7	1415.9	1416.7	1391.4	1381.8	1392.9
72.5°	1235.6	1253.5	1235.6	1217.1	1216.4	1217.8
75°	1059.9	1080.7	1059.9	1048.0	1034.7	1045.8
77.5°	881.9	913.8	881.9	872.2	865.6	858.1
80°	699.4	734.3	699.4	683.1	673.5	686.1
82.5°	517.0	543.0	517.0	496.9	496.2	502.2
85°	307.8	349.4	307.8	290.0	296.7	290.0
87.5°	98.7	126.1	98.7	94.2	103.9	101.6
90°	27.2	17.1	27.2	46.1	29.7	17.1
92.5°	41.1	24.7	41.1	73.8	38.5	22.2
95°	47.3	28.4	47.3	102.8	51.1	33.0
97.5°	52.4	36.7	52.4	117.9	62.4	50.6
100°	61.2	48.1	61.2	183.3	77.0	67.0
102.5°	129.2	80.8	129.2	388.6	143.8	101.0
105°	271.5	138.7	271.5	692.0	299.9	182.8
107.5°	485.6	239.4	485.6	913.1	530.4	345.3
110°	644.1	446.0	644.1	957.2	728.1	551.7



TEST NUMBER: P1433902

CATALOG NUMBER: EHBR1-48-UNV-TASM-L940-UPL24

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	692.0	602.1	692.0	916.9	803.5	717.9
115°	665.6	633.6	665.6	818.7	784.7	780.4
117.5°	607.7	612.2	607.7	695.3	706.1	754.0
120°	540.9	566.9	540.9	580.7	616.7	680.9
122.5°	480.0	510.2	480.0	498.3	525.5	589.7
125°	427.1	458.1	427.1	439.9	447.0	500.4
127.5°	390.5	411.5	390.5	398.4	391.6	425.6
130°	362.3	380.0	362.3	372.7	355.8	372.2
132.5°	342.9	354.3	342.9	355.2	334.6	338.9
135°	326.1	335.4	326.1	338.9	320.2	318.3
137.5°	311.7	319.7	311.7	325.2	310.9	306.4
140°	299.3	306.1	299.3	313.4	302.1	299.6
142.5°	286.2	291.3	286.2	302.9	295.3	292.8
145°	277.6	281.5	277.6	294.8	290.3	289.7
147.5°	270.3	272.8	270.3	285.4	283.4	283.4
150°	262.9	265.4	262.9	277.3	275.3	276.5
152.5°	254.9	258.2	254.9	267.9	266.0	267.2
155°	250.1	253.3	250.1	260.7	259.2	259.9
157.5°	247.7	250.5	247.7	255.8	255.1	255.1
160°	246.2	248.2	246.2	253.0	252.3	251.7
162.5°	243.9	246.0	243.9	252.0	250.7	250.7
165°	244.2	244.9	244.2	249.7	249.7	249.2
167.5°	243.6	244.9	243.6	250.0	250.0	249.4
170°	244.4	245.1	244.4	249.4	248.9	247.6
172.5°	245.9	246.6	245.9	251.6	250.4	249.9
175°	246.1	246.9	246.1	250.6	250.6	251.4
177.5°	248.1	248.8	248.1	250.6	250.6	250.1
180°	251.6	251.6	251.6	251.6	251.6	251.6



TEST NUMBER: P1433902
 CATALOG NUMBER: EHBR1-48-UNV-TASM-L940-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	18.93	20.06	19.38	20.48	20.92	18.25	19.38	18.70	19.80	20.24
	3H	20.48	21.48	20.95	21.92	22.41	20.10	21.10	20.57	21.54	22.03
	4H	21.11	22.05	21.61	22.51	23.01	20.88	21.82	21.37	22.27	22.78
	6H	21.60	22.46	22.10	22.93	23.44	21.52	22.38	22.03	22.85	23.37
	8H	21.75	22.56	22.27	23.05	23.58	21.74	22.56	22.26	23.05	23.57
	12H	21.82	22.60	22.34	23.08	23.63	21.87	22.65	22.39	23.13	23.68
4H	2H	19.35	20.28	19.84	20.74	21.24	18.82	19.76	19.32	20.21	20.72
	3H	21.14	21.92	21.65	22.42	22.94	20.88	21.66	21.38	22.16	22.68
	4H	21.92	22.61	22.44	23.13	23.69	21.79	22.49	22.31	23.00	23.56
	6H	22.53	23.13	23.08	23.67	24.26	22.56	23.16	23.11	23.70	24.28
	8H	22.73	23.29	23.28	23.83	24.41	22.83	23.39	23.39	23.93	24.52
	12H	22.84	23.33	23.41	23.90	24.49	23.00	23.49	23.57	24.07	24.66
8H	4H	22.17	22.73	22.72	23.27	23.85	22.07	22.63	22.62	23.17	23.76
	6H	22.91	23.37	23.50	23.95	24.55	22.97	23.43	23.56	24.02	24.61
	8H	23.18	23.59	23.78	24.19	24.79	23.33	23.73	23.93	24.33	24.94
	12H	23.35	23.71	23.95	24.29	24.97	23.58	23.93	24.18	24.51	25.20
12H	4H	22.18	22.67	22.75	23.24	23.83	22.08	22.58	22.65	23.15	23.74
	6H	22.95	23.36	23.56	23.96	24.57	23.02	23.43	23.62	24.03	24.63
	8H	23.27	23.63	23.87	24.21	24.89	23.42	23.78	24.02	24.36	25.04

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-6
 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-L935-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 3406
 CIE u': 0.2394
 CIE v': 0.5094
 Duv: -0.0028
 CIE x: 0.4076
 CIE y: 0.3856
 CIE z: 0.2068
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 582
 Purity: 38.0517
 Rf: 91.3
 Rg: 100

CRI (Ra):	94.6		
R1:	96.6	R9:	63.8
R2:	98.4	R10:	94.7
R3:	98.1	R11:	96.6
R4:	95.8	R12:	80.9
R5:	96.2	R13:	97.4
R6:	95.4	R14:	98.3
R7:	91.8	R15:	93.1
R8:	84.4		



Test Conditions

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

REPORT NUMBER: SP1-2506-472-6

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: SP1-2506-472-6

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.62

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.3

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

Summary

$R_f = 91.3$
 $R_g = 100$
 $CIE R_a = 94.6$
 $R_9 = 63.8$



Color Vector Graphics



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

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 95	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 97	CES60 = 92	CES85 = 79
CES11 = 58	CES36 = 81	CES61 = 93	CES86 = 79
CES12 = 64	CES37 = 96	CES62 = 86	CES87 = 92
CES13 = 44	CES38 = 87	CES63 = 94	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 84
CES15 = 72	CES40 = 97	CES65 = 90	CES90 = 96
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 75
CES17 = 49	CES42 = 94	CES67 = 88	CES92 = 76
CES18 = 56	CES43 = 93	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 90	CES94 = 74
CES20 = 67	CES45 = 97	CES70 = 88	CES95 = 83
CES21 = 86	CES46 = 97	CES71 = 83	CES96 = 92
CES22 = 78	CES47 = 91	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 91	CES73 = 83	CES98 = 95
CES24 = 90	CES49 = 96	CES74 = 90	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 85	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)