

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: EHBR1-60-UNV-TASM-L950-UPL36

Issue Date: 3/20/2026

**Test Information**

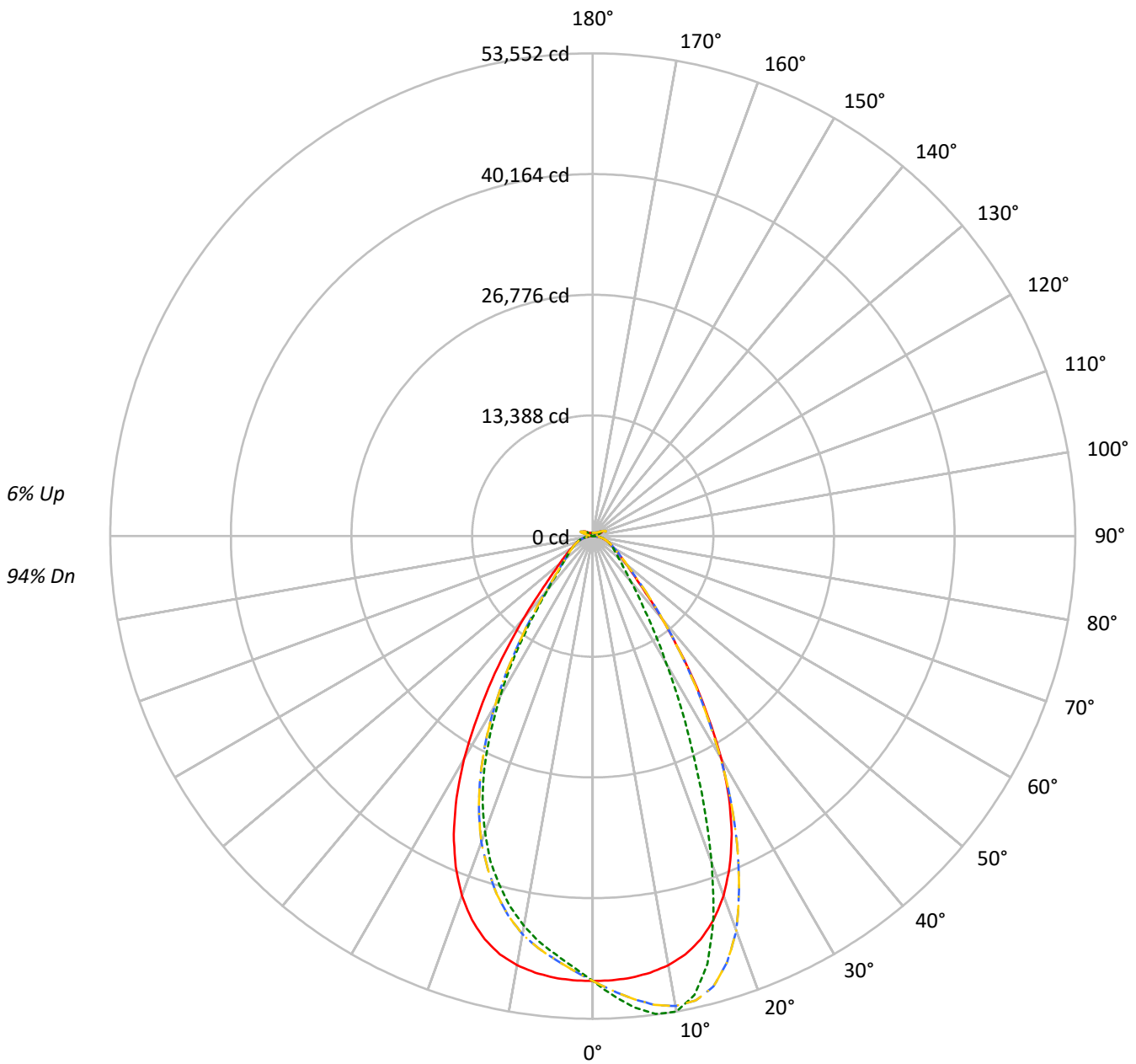
Test Method: LM-79-2019  
Report Number: REPORT IS A COMBINATION OF REPORTS P1431905 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-60-UNV-TASM-L950-UPL36  
Description: Elevate Round Highbay at, 60000 lumens, 5000K 90CRI LEDs with TASM lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 58604.9 lumens  
Efficiency: N/A  
Efficacy: 163.3 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): 358.8  
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:  
CATALOG NUMBER: EHBR1-60-UNV-TASM-L950-UPL36

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - · - · 90°-270°    - · - · 135°-315°





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4692.7	8.0
10°-20°	12766.7	21.8
20°-30°	14972.8	25.5
30°-40°	10412.6	17.8
40°-50°	5174.6	8.8
50°-60°	3094.9	5.3
60°-70°	2178.3	3.7
70°-80°	1403.2	2.4
80°-90°	451.8	0.8
90°-100°	92.7	0.2
100°-110°	599.4	1.0
110°-120°	1106.4	1.9
120°-130°	658.4	1.1
130°-140°	399.4	0.7
140°-150°	277.4	0.5
150°-160°	182.2	0.3
160°-170°	105.8	0.2
170°-180°	35.5	0.1
0°-30°	32432.2	55.3
0°-40°	42844.8	73.1
0°-60°	51114.3	87.2
0°-90°	55147.7	94.1
90°-120°	1798.5	3.1
90°-150°	3133.7	5.3
90°-180°	3457.0	5.9
0°-180°	58604.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	49353	49353	49353	49353	49353	
5°	49184	52470	49184	46632	49184	4668
15°	46324	49142	46324	40057	46324	12946
25°	36500	25988	36500	28462	36500	16525
35°	19536	10063	19536	13029	19536	12196
45°	7065	4736	7065	5161	7065	5781
55°	3578	3062	3578	3170	3578	3272
65°	2181	2173	2181	2164	2181	2191
75°	1305	1390	1305	1348	1305	1370
85°	362	457	362	436	362	402
90°	26	32	26	26	26	29
95°	49	49	49	43	49	52
105°	276	143	276	209	276	371
115°	1177	1008	1177	956	1177	1073
125°	754	792	754	691	754	695
135°	479	554	479	505	479	380
145°	435	455	435	423	435	272
155°	389	406	389	379	389	182
165°	371	384	371	364	371	106
175°	373	382	373	366	373	35
180°	373	373	373	373	373	



TEST NUMBER:

CATALOG NUMBER: EHBR1-60-UNV-TASM-L950-UPL36

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7
2.5°	49324.0	49961.6	50478.0	50818.5	50987.0	50818.5	50478.0	49961.6	49324.0	48690.0	48254.2
5°	49184.2	50461.3	51543.2	52251.1	52470.5	52251.1	51543.2	50461.3	49184.2	47977.5	47177.0
7.5°	48850.1	50839.8	52447.4	53273.7	53475.5	53273.7	52447.4	50839.8	48850.1	47141.8	46130.3
10°	48340.2	51078.6	52936.0	53528.2	53552.3	53528.2	52936.0	51078.6	48340.2	46038.7	44845.8
12.5°	47526.8	50993.5	52772.2	52577.8	52136.4	52577.8	52772.2	50993.5	47526.8	44691.2	43186.4
15°	46323.7	50489.1	51734.7	50153.2	49141.7	50153.2	51734.7	50489.1	46323.7	42871.8	41126.5
17.5°	44628.3	49545.2	49569.3	46440.3	44532.1	46440.3	49569.3	49545.2	44628.3	40647.1	38724.9
20°	42443.3	48031.1	46587.4	40864.6	38603.7	40864.6	46587.4	48031.1	42443.3	38017.0	36130.9
22.5°	39704.0	45989.7	42435.1	35255.5	32170.9	35255.5	42435.1	45989.7	39704.0	34958.4	32995.5
25°	36500.2	43488.2	37968.0	29143.9	25988.2	29143.9	37968.0	43488.2	36500.2	31314.0	29539.0
27.5°	32731.8	40317.6	33211.2	23815.2	20903.8	23815.2	33211.2	40317.6	32731.8	27551.2	25738.3
30°	28546.0	36253.1	28261.0	18965.9	16285.0	18965.9	28261.0	36253.1	28546.0	23323.8	21700.6
32.5°	23859.6	32269.1	23507.0	15196.6	12925.6	15196.6	23507.0	32269.1	23859.6	19289.8	17593.5
35°	19536.0	27284.6	19220.4	11940.9	10063.2	11940.9	19220.4	27284.6	19536.0	15481.6	13815.8
37.5°	15331.7	22575.1	15321.6	9615.3	8162.4	9615.3	15321.6	22575.1	15331.7	12036.2	10684.2
40°	11928.0	17651.8	12004.8	7675.6	6550.3	7675.6	12004.8	17651.8	11928.0	9158.1	8292.8
42.5°	9037.9	13497.5	9435.8	6299.5	5563.7	6299.5	9435.8	13497.5	9037.9	7215.6	6567.8
45°	7064.8	9932.7	7368.3	5314.8	4736.3	5314.8	7368.3	9932.7	7064.8	5810.9	5375.9
47.5°	5753.4	7676.5	5971.9	4558.7	4153.3	4558.7	5971.9	7676.5	5753.4	4915.0	4589.3
50°	4832.6	5890.4	4958.5	3979.4	3707.3	3979.4	4958.5	5890.4	4832.6	4208.9	3991.4
52.5°	4151.5	4804.0	4222.7	3546.2	3363.0	3546.2	4222.7	4804.0	4151.5	3682.4	3547.2
55°	3577.7	4038.6	3672.1	3189.1	3062.3	3189.1	3672.1	4038.6	3577.7	3277.0	3177.0
57.5°	3141.9	3426.0	3189.1	2884.6	2800.3	2884.6	3189.1	3426.0	3141.9	2916.0	2862.4
60°	2755.9	2966.9	2814.3	2619.0	2594.9	2619.0	2814.3	2966.9	2755.9	2623.6	2588.4
62.5°	2458.9	2592.1	2488.5	2380.2	2358.9	2380.2	2488.5	2592.1	2458.9	2357.1	2363.6
65°	2181.3	2305.2	2223.8	2165.5	2172.9	2165.5	2223.8	2305.2	2181.3	2134.1	2144.2
67.5°	1966.6	2031.3	1996.2	1962.8	1971.2	1962.8	1996.2	2031.3	1966.6	1920.3	1936.0
70°	1738.0	1807.4	1771.3	1775.9	1789.8	1775.9	1771.3	1807.4	1738.0	1724.1	1736.1
72.5°	1519.6	1573.3	1561.2	1572.3	1587.1	1572.3	1561.2	1573.3	1519.6	1517.7	1518.6
75°	1304.8	1345.5	1351.1	1366.9	1390.0	1366.9	1351.1	1345.5	1304.8	1291.0	1307.6
77.5°	1070.7	1117.0	1134.5	1155.9	1190.1	1155.9	1134.5	1117.0	1070.7	1080.0	1088.3
80°	856.0	877.3	916.2	931.9	980.0	931.9	916.2	877.3	856.0	840.3	852.4
82.5°	626.5	645.9	679.3	708.9	736.7	708.9	679.3	645.9	626.5	619.2	620.0
85°	361.9	391.4	413.6	448.9	457.1	448.9	413.6	391.4	361.9	370.2	361.9
87.5°	126.8	136.0	155.4	169.4	170.3	169.4	155.4	136.0	126.8	129.5	117.5
90°	25.6	43.7	75.0	43.6	32.1	43.6	75.0	43.7	25.6	44.6	69.3
92.5°	33.3	58.9	105.5	56.9	41.6	56.9	105.5	58.9	33.3	58.0	111.1
95°	49.3	72.2	133.9	62.6	49.2	62.6	133.9	72.2	49.3	76.9	154.9
97.5°	76.0	89.3	151.0	66.4	58.7	66.4	151.0	89.3	76.0	94.0	177.6
100°	100.7	100.7	274.6	75.9	66.3	75.9	274.6	100.7	100.7	115.9	276.5
102.5°	152.0	196.6	634.7	149.0	79.6	149.0	634.7	196.6	152.0	216.6	586.3
105°	275.5	447.5	1115.5	379.0	143.3	379.0	1115.5	447.5	275.5	452.3	1044.2
107.5°	520.7	833.2	1436.6	743.8	327.6	743.8	1436.6	833.2	520.7	800.1	1377.8
110°	832.3	1163.9	1567.8	1017.6	658.3	1017.6	1567.8	1163.9	832.3	1098.4	1444.3



TEST NUMBER:

CATALOG NUMBER: EHBR1-60-UNV-TASM-L950-UPL36

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1083.2	1297.0	1531.6	1127.8	909.1	1127.8	1531.6	1297.0	1083.2	1212.4	1383.5
115°	1177.3	1278.0	1368.2	1123.9	1008.0	1123.9	1368.2	1278.0	1177.3	1183.9	1235.3
117.5°	1137.3	1169.7	1181.9	1055.6	1013.7	1055.6	1181.9	1169.7	1137.3	1065.1	1049.0
120°	1027.1	1013.8	996.7	954.9	956.7	954.9	996.7	1013.8	1027.1	930.2	876.1
122.5°	889.3	860.8	842.7	853.1	878.8	853.1	842.7	860.8	889.3	792.3	751.6
125°	754.3	725.9	735.3	765.7	792.3	765.7	735.3	725.9	754.3	673.6	663.2
127.5°	641.3	628.0	657.4	691.5	714.3	691.5	657.4	628.0	641.3	590.0	600.5
130°	560.5	563.3	602.3	631.7	645.9	631.7	602.3	563.3	560.5	535.8	561.5
132.5°	510.1	524.4	561.5	587.0	595.6	587.0	561.5	524.4	510.1	503.4	534.8
135°	478.8	499.7	533.9	549.9	553.8	549.9	533.9	499.7	478.8	481.6	510.1
137.5°	460.7	481.6	507.2	520.5	517.6	520.5	507.2	481.6	460.7	467.3	489.2
140°	450.2	471.2	482.5	497.7	495.8	497.7	482.5	471.2	450.2	454.0	471.1
142.5°	439.7	458.8	464.5	475.8	472.9	475.8	464.5	458.8	439.7	443.6	454.9
145°	434.9	449.2	444.5	458.7	454.8	458.7	444.5	449.2	434.9	435.9	442.5
147.5°	425.4	435.9	430.2	442.5	438.6	442.5	430.2	435.9	425.4	425.4	428.1
150°	414.8	422.5	414.0	428.1	428.1	428.1	414.0	422.5	414.8	413.0	415.8
152.5°	400.6	408.2	400.6	416.7	415.8	416.7	400.6	408.2	400.6	398.7	401.6
155°	389.1	392.9	389.1	405.3	406.2	405.3	389.1	392.9	389.1	388.2	390.0
157.5°	381.5	384.4	382.4	396.6	397.6	396.6	382.4	384.4	381.5	381.5	382.4
160°	375.7	379.5	378.5	390.9	391.8	390.9	378.5	379.5	375.7	376.7	377.6
162.5°	373.8	373.8	373.8	386.0	387.9	386.0	373.8	373.8	373.8	373.8	375.6
165°	370.9	372.8	370.8	380.3	384.0	380.3	370.8	372.8	370.9	371.8	371.8
167.5°	370.8	369.0	370.8	379.3	383.1	379.3	370.8	369.0	370.8	371.8	371.8
170°	367.9	368.9	368.9	377.3	381.0	377.3	368.9	368.9	367.9	369.9	370.8
172.5°	370.7	370.7	369.7	376.2	381.9	376.2	369.7	370.7	370.7	371.7	373.6
175°	372.6	371.6	371.5	376.2	381.9	376.2	371.5	371.6	372.6	371.6	371.6
177.5°	370.7	372.6	374.3	379.0	386.6	379.0	374.3	372.6	370.7	371.6	371.6
180°	372.6	372.6	372.6	372.6	372.6	372.6	372.6	372.6	372.6	372.6	372.6



TEST NUMBER:

CATALOG NUMBER: EHBR1-60-UNV-TASM-L950-UPL36

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	49352.7	49352.7	49352.7	49352.7	49352.7	49352.7
2.5°	47919.1	47887.7	47919.1	48254.2	48690.0	49324.0
5°	46805.9	46631.9	46805.9	47177.0	47977.5	49184.2
7.5°	45509.3	45408.4	45509.3	46130.3	47141.8	48850.1
10°	44144.3	43915.7	44144.3	44845.8	46038.7	48340.2
12.5°	42461.8	42159.2	42461.8	43186.4	44691.2	47526.8
15°	40322.2	40056.6	40322.2	41126.5	42871.8	46323.7
17.5°	38026.2	37785.6	38026.2	38724.9	40647.1	44628.3
20°	35142.5	34953.7	35142.5	36130.9	38017.0	42443.3
22.5°	32117.3	31940.5	32117.3	32995.5	34958.4	39704.0
25°	28558.1	28461.8	28558.1	29539.0	31314.0	36500.2
27.5°	24711.9	24548.1	24711.9	25738.3	27551.2	32731.8
30°	20782.5	20511.4	20782.5	21700.6	23323.8	28546.0
32.5°	16939.2	16743.9	16939.2	17593.5	19289.8	23859.6
35°	13224.5	13029.2	13224.5	13815.8	15481.6	19536.0
37.5°	10304.7	9959.5	10304.7	10684.2	12036.2	15331.7
40°	7815.3	7759.8	7815.3	8292.8	9158.1	11928.0
42.5°	6362.4	6211.5	6362.4	6567.8	7215.6	9037.9
45°	5220.4	5161.1	5220.4	5375.9	5810.9	7064.8
47.5°	4489.3	4515.2	4489.3	4589.3	4915.0	5753.4
50°	3944.2	3960.0	3944.2	3991.4	4208.9	4832.6
52.5°	3542.6	3528.7	3542.6	3547.2	3682.4	4151.5
55°	3187.2	3169.6	3187.2	3177.0	3277.0	3577.7
57.5°	2876.3	2889.2	2876.3	2862.4	2916.0	3141.9
60°	2598.6	2610.6	2598.6	2588.4	2623.6	2755.9
62.5°	2364.5	2371.9	2364.5	2363.6	2357.1	2458.9
65°	2155.4	2163.6	2155.4	2144.2	2134.1	2181.3
67.5°	1955.4	1955.4	1955.4	1936.0	1920.3	1966.6
70°	1767.5	1766.6	1767.5	1736.1	1724.1	1738.0
72.5°	1541.8	1564.0	1541.8	1518.6	1517.7	1519.6
75°	1322.4	1348.3	1322.4	1307.6	1291.0	1304.8
77.5°	1100.3	1140.1	1100.3	1088.3	1080.0	1070.7
80°	872.7	916.2	872.7	852.4	840.3	856.0
82.5°	645.0	677.4	645.0	620.0	619.2	626.5
85°	384.1	435.8	384.1	361.9	370.2	361.9
87.5°	123.1	157.3	123.1	117.5	129.5	126.8
90°	40.9	25.6	40.9	69.3	44.6	25.6
92.5°	61.8	37.1	61.8	111.1	58.0	33.3
95°	71.3	42.7	71.3	154.9	76.9	49.3
97.5°	78.9	55.1	78.9	177.6	94.0	76.0
100°	92.2	72.2	92.2	276.5	115.9	100.7
102.5°	194.7	121.6	194.7	586.3	216.6	152.0
105°	409.6	209.0	409.6	1044.2	452.3	275.5
107.5°	732.6	361.1	732.6	1377.8	800.1	520.7
110°	972.0	672.7	972.0	1444.3	1098.4	832.3



TEST NUMBER:

CATALOG NUMBER: EHBR1-60-UNV-TASM-L950-UPL36

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1044.2	908.4	1044.2	1383.5	1212.4	1083.2
115°	1004.4	955.9	1004.4	1235.3	1183.9	1177.3
117.5°	916.9	923.5	916.9	1049.0	1065.1	1137.3
120°	816.2	855.2	816.2	876.1	930.2	1027.1
122.5°	724.1	769.6	724.1	751.6	792.3	889.3
125°	644.2	690.7	644.2	663.2	673.6	754.3
127.5°	589.1	620.5	589.1	600.5	590.0	641.3
130°	546.3	572.9	546.3	561.5	535.8	560.5
132.5°	516.9	534.0	516.9	534.8	503.4	510.1
135°	491.1	505.4	491.1	510.1	481.6	478.8
137.5°	469.3	481.7	469.3	489.2	467.3	460.7
140°	450.2	460.7	450.2	471.1	454.0	450.2
142.5°	430.3	437.9	430.3	454.9	443.6	439.7
145°	416.9	422.7	416.9	442.5	435.9	434.9
147.5°	405.4	409.2	405.4	428.1	425.4	425.4
150°	393.9	397.8	393.9	415.8	413.0	414.8
152.5°	381.6	386.3	381.6	401.6	398.7	400.6
155°	373.9	378.6	373.9	390.0	388.2	389.1
157.5°	370.1	373.8	370.1	382.4	381.5	381.5
160°	367.2	370.0	367.2	377.6	376.7	375.7
162.5°	363.3	366.2	363.3	375.6	373.8	373.8
165°	363.3	364.2	363.3	371.8	371.8	370.9
167.5°	362.3	364.2	362.3	371.8	371.8	370.8
170°	363.2	364.1	363.2	370.8	369.9	367.9
172.5°	365.0	366.0	365.0	373.6	371.7	370.7
175°	365.0	366.0	365.0	371.6	371.6	372.6
177.5°	367.8	368.8	367.8	371.6	371.6	370.7
180°	372.6	372.6	372.6	372.6	372.6	372.6



TEST NUMBER: CATALOG  
 CATALOG NUMBER: EHBR1-60-UNV-TASM-L950-UPL36

**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	19.62	20.74	20.09	21.18	21.64	18.94	20.06	19.41	20.49	20.96
	3H	21.17	22.16	21.65	22.62	23.13	20.79	21.78	21.27	22.23	22.75
	4H	21.81	22.73	22.31	23.20	23.73	21.57	22.50	22.08	22.97	23.50
	6H	22.29	23.14	22.81	23.63	24.17	22.21	23.06	22.73	23.55	24.09
	8H	22.44	23.24	22.97	23.75	24.30	22.43	23.24	22.97	23.75	24.30
	12H	22.51	23.28	23.05	23.78	24.35	22.56	23.33	23.10	23.83	24.40
4H	2H	20.04	20.96	20.55	21.43	21.96	19.52	20.44	20.02	20.91	21.44
	3H	21.83	22.60	22.35	23.12	23.66	21.57	22.34	22.09	22.86	23.40
	4H	22.61	23.30	23.15	23.83	24.41	22.48	23.17	23.02	23.70	24.28
	6H	23.22	23.82	23.79	24.37	24.98	23.25	23.85	23.82	24.40	25.00
	8H	23.42	23.97	23.99	24.53	25.14	23.52	24.08	24.09	24.63	25.24
	12H	23.53	24.01	24.11	24.60	25.21	23.69	24.18	24.28	24.77	25.38
8H	4H	22.86	23.41	23.43	23.97	24.57	22.76	23.31	23.33	23.87	24.48
	6H	23.60	24.05	24.20	24.65	25.27	23.66	24.11	24.27	24.72	25.33
	8H	23.87	24.27	24.49	24.89	25.51	24.02	24.42	24.64	25.03	25.66
	12H	24.04	24.39	24.66	24.99	25.69	24.27	24.62	24.88	25.21	25.92
12H	4H	22.87	23.36	23.45	23.94	24.55	22.77	23.26	23.36	23.85	24.46
	6H	23.64	24.04	24.26	24.66	25.29	23.71	24.11	24.33	24.73	25.35
	8H	23.96	24.31	24.57	24.91	25.61	24.11	24.47	24.73	25.06	25.76

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**



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-8

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**



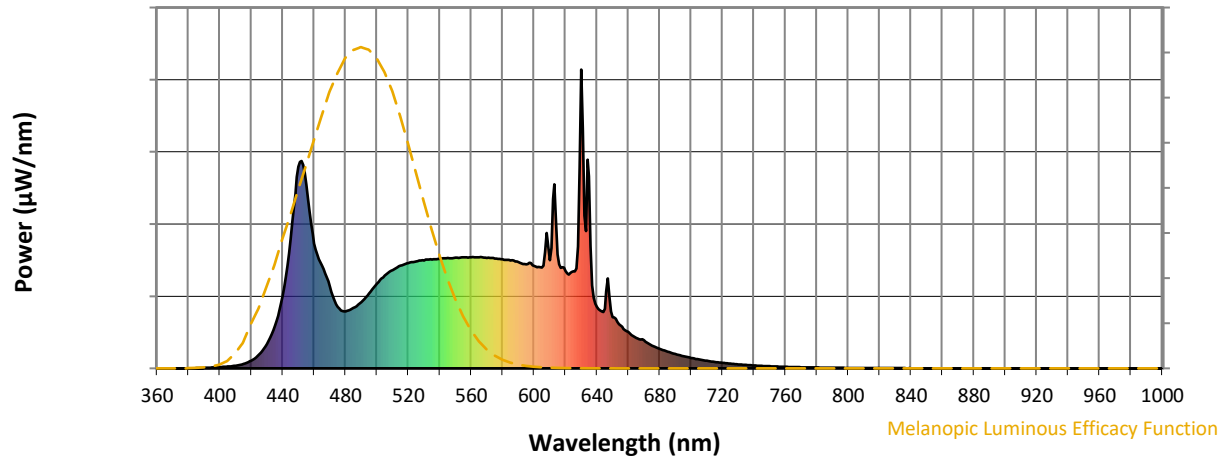
**Scotopic Lumens: NR**

**S/P: 2.04**

λ (nm)	Power W <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	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

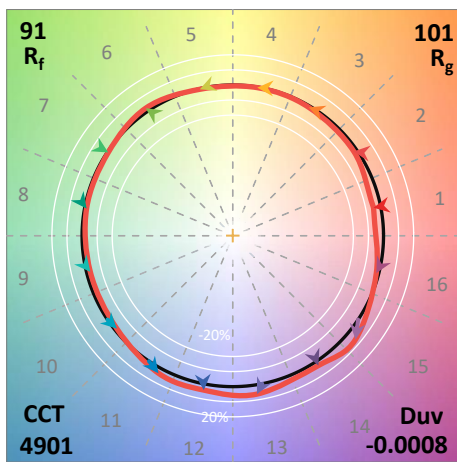
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	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)