

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: EHBR1-54-UNV-TA-L950-UPL15

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: REPORT IS A COMBINATION OF REPORTS P1431861 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-54-UNV-TA-L950-UPL15
Description: Elevate Round Highbay at, 54000 lumens, 5000K 90CRI LEDs with TA lens
Light Source: -
Ballast/Driver: -

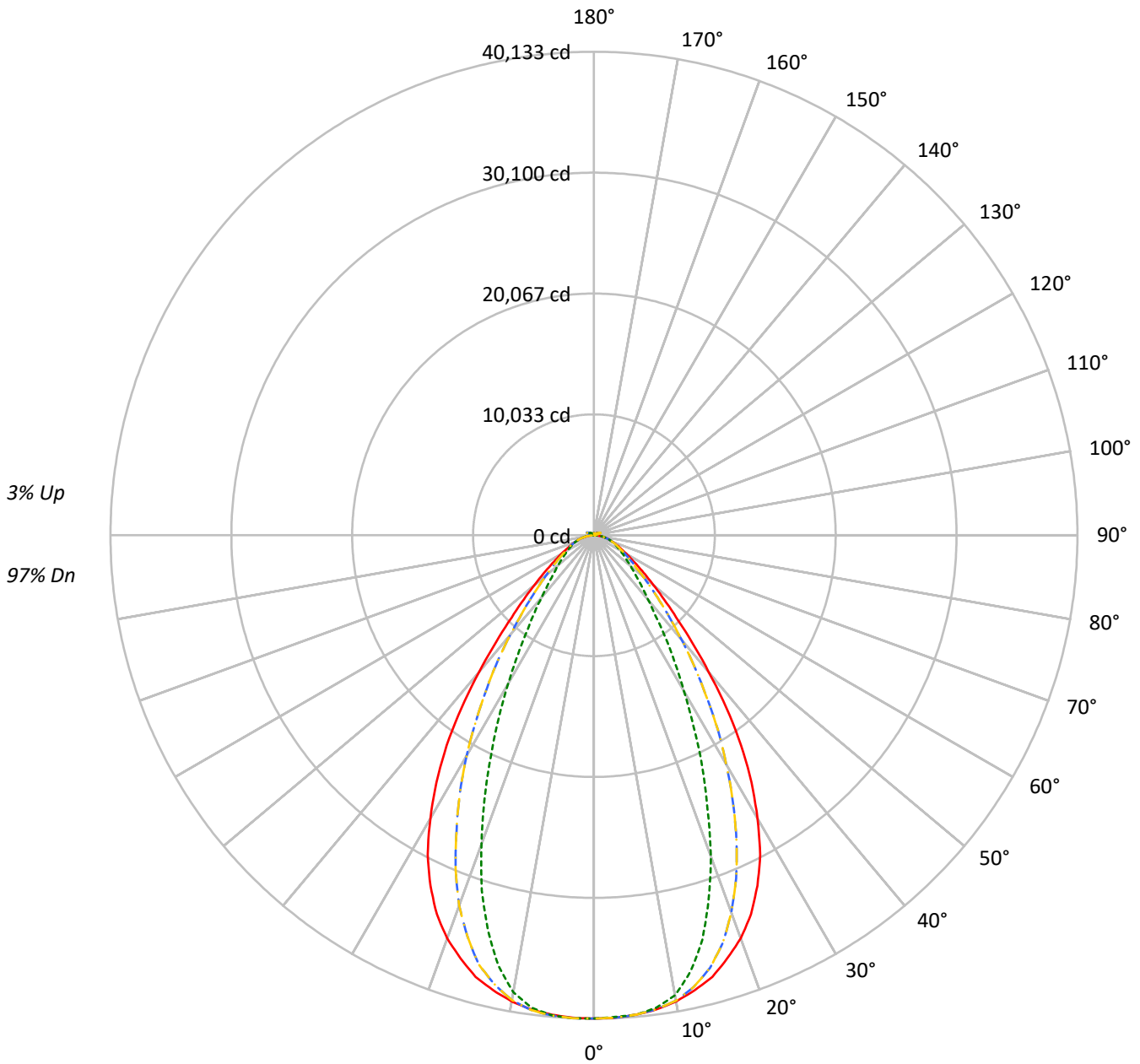
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51219.2 lumens
Efficiency: N/A
Efficacy: 167.8 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): 305.3
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: EHBR1-54-UNV-TA-L950-UPL15

Luminous Intensity Polar Plot



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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3788.3	7.4
10°-20°	10181.7	19.9
20°-30°	12380.9	24.2
30°-40°	10085.1	19.7
40°-50°	6055.1	11.8
50°-60°	3484.8	6.8
60°-70°	2180.9	4.3
70°-80°	1284.4	2.5
80°-90°	378.1	0.7
90°-100°	36.6	0.1
100°-110°	241.2	0.5
110°-120°	446.1	0.9
120°-130°	265.1	0.5
130°-140°	161.7	0.3
140°-150°	114.0	0.2
150°-160°	75.8	0.1
160°-170°	44.5	0.1
170°-180°	15.0	0.0
0°-30°	26350.9	51.4
0°-40°	36436.0	71.1
0°-60°	45975.9	89.8
0°-90°	49819.3	97.3
90°-120°	723.8	1.4
90°-150°	1264.7	2.5
90°-180°	1400.0	2.7
0°-180°	51219.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	40116	40116	40116	40116	40116	
5°	39954	39958	39954	40000	39954	3793
15°	37953	34762	37953	33964	37953	10641
25°	32095	21325	32095	20220	32095	14631
35°	21295	10298	21295	9625	21295	13149
45°	9662	5146	9662	4968	9662	7698
55°	4424	3115	4424	3073	4424	4068
65°	2288	2029	2288	2048	2288	2312
75°	1213	1213	1213	1225	1213	1281
85°	311	370	311	382	311	341
90°	10	12	10	11	10	18
95°	19	19	19	18	19	21
105°	111	85	111	56	111	149
115°	475	387	475	406	475	433
125°	303	280	303	319	303	279
135°	194	207	194	224	194	153
145°	178	174	178	187	178	112
155°	160	159	160	171	160	75
165°	154	156	154	162	154	44
175°	156	160	156	163	156	15
180°	159	159	159	159	159	



TEST NUMBER:
 CATALOG NUMBER: EHBR1-54-UNV-TA-L950-UPL15

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0
2.5°	40096.7	40087.4	40079.0	40063.9	40027.7	40063.9	40079.0	40087.4	40096.7	40121.8	40132.7
5°	39953.8	39989.9	39952.1	39960.5	39957.9	39960.5	39952.1	39989.9	39953.8	39979.0	40024.4
7.5°	39704.2	39697.5	39684.9	39635.4	39551.4	39635.4	39684.9	39697.5	39704.2	39735.3	39767.3
10°	39292.5	39319.5	39230.4	38918.6	38778.3	38918.6	39230.4	39319.5	39292.5	39343.0	39181.7
12.5°	38681.7	38747.2	38386.8	37576.8	37083.6	37576.8	38386.8	38747.2	38681.7	38726.2	38176.7
15°	37953.3	37898.7	37187.8	35485.6	34762.1	35485.6	37187.8	37898.7	37953.3	37898.7	36889.5
17.5°	36818.9	36897.9	35518.3	33012.0	31676.0	33012.0	35518.3	36897.9	36818.9	36845.0	34929.3
20°	35607.4	35631.7	33330.4	29803.2	28379.0	29803.2	33330.4	35631.7	35607.4	35461.2	32702.8
22.5°	34065.6	34074.8	30823.2	26486.9	24650.1	26486.9	30823.2	34074.8	34065.6	33821.9	29991.4
25°	32095.3	32167.5	28001.7	23126.0	21324.6	23126.0	28001.7	32167.5	32095.3	31818.0	26979.2
27.5°	29883.0	29932.6	24989.6	19759.3	17886.5	19759.3	24989.6	29932.6	29883.0	29580.5	24099.8
30°	27155.7	27473.3	21964.8	16684.1	14971.7	16684.1	21964.8	27473.3	27155.7	27121.2	21131.3
32.5°	24339.3	24901.4	19113.2	13942.5	12474.7	13942.5	19113.2	24901.4	24339.3	24499.7	18172.9
35°	21295.2	21927.0	16153.9	11590.7	10297.6	11590.7	16153.9	21927.0	21295.2	21502.8	15458.2
37.5°	18067.9	19034.2	13645.9	9601.1	8357.6	9601.1	13645.9	19034.2	18067.9	18459.5	13070.3
40°	14820.5	15859.9	11267.3	7982.9	6996.4	7982.9	11267.3	15859.9	14820.5	15458.2	10791.7
42.5°	12031.8	12829.2	9299.5	6672.2	6028.6	6672.2	9299.5	12829.2	12031.8	12483.9	8894.5
45°	9662.4	10123.7	7694.6	5659.7	5146.3	5659.7	7694.6	10123.7	9662.4	10081.7	7361.1
47.5°	7888.7	8175.3	6334.3	4890.9	4495.1	4890.9	6334.3	8175.3	7888.7	8021.5	6147.9
50°	6441.9	6598.2	5325.3	4238.9	3933.0	4238.9	5325.3	6598.2	6441.9	6523.4	5149.7
52.5°	5345.5	5422.8	4466.5	3720.5	3496.2	3720.5	4466.5	5422.8	5345.5	5358.0	4388.4
55°	4423.7	4442.2	3812.9	3270.9	3114.7	3270.9	3812.9	4442.2	4423.7	4427.0	3749.1
57.5°	3704.5	3731.4	3276.8	2910.5	2781.1	2910.5	3276.8	3731.4	3704.5	3710.4	3246.6
60°	3135.7	3153.3	2831.5	2585.4	2498.8	2585.4	2831.5	3153.3	3135.7	3128.1	2813.9
62.5°	2669.3	2703.0	2474.4	2303.8	2248.4	2303.8	2474.4	2703.0	2669.3	2677.0	2473.6
65°	2287.9	2309.8	2168.6	2048.4	2029.1	2048.4	2168.6	2309.8	2287.9	2306.3	2175.3
67.5°	1974.5	1999.7	1904.8	1834.2	1814.8	1834.2	1904.8	1999.7	1974.5	1989.6	1906.4
70°	1709.8	1709.8	1658.6	1619.1	1619.9	1619.1	1658.6	1709.8	1709.8	1712.4	1667.9
72.5°	1450.2	1459.5	1425.0	1413.3	1418.3	1413.3	1425.0	1459.5	1450.2	1482.1	1435.1
75°	1213.2	1223.4	1205.7	1199.0	1213.2	1199.0	1205.7	1223.4	1213.2	1230.1	1209.1
77.5°	968.8	987.3	984.8	993.1	1020.0	993.1	984.8	987.3	968.8	994.0	999.0
80°	742.7	758.7	759.6	780.5	818.4	780.5	759.6	758.7	742.7	758.7	771.4
82.5°	522.6	532.7	539.4	574.7	607.5	574.7	539.4	532.7	522.6	531.8	548.6
85°	310.9	302.5	314.2	336.1	370.5	336.1	314.2	302.5	310.9	310.9	319.2
87.5°	99.1	96.6	95.8	116.8	133.6	116.8	95.8	96.6	99.1	102.5	106.7
90°	9.9	17.7	27.7	16.2	11.6	16.2	27.7	17.7	9.9	16.9	29.2
92.5°	13.1	23.0	44.5	24.6	15.4	24.6	44.5	23.0	13.1	23.0	41.4
95°	19.2	30.8	62.3	28.4	18.6	28.4	62.3	30.8	19.2	28.4	53.0
97.5°	29.9	37.6	71.4	31.5	23.1	31.5	71.4	37.6	29.9	35.3	59.9
100°	40.0	46.1	111.4	36.9	30.1	36.9	111.4	46.1	40.0	40.0	109.8
102.5°	60.7	86.8	236.6	78.3	50.1	78.3	236.6	86.8	60.7	78.3	254.9
105°	110.6	182.0	421.6	165.1	85.4	165.1	421.6	182.0	110.6	179.7	449.3
107.5°	209.7	322.6	556.1	295.6	146.8	295.6	556.1	322.6	209.7	335.6	579.1
110°	335.6	443.1	582.9	392.5	272.8	392.5	582.9	443.1	335.6	469.3	632.1



TEST NUMBER:

CATALOG NUMBER: EHBR1-54-UNV-TA-L950-UPL15

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	437.0	489.2	558.3	421.6	368.0	421.6	558.3	489.2	437.0	523.0	617.5
115°	474.6	477.7	498.5	405.5	387.3	405.5	498.5	477.7	474.6	515.4	551.4
117.5°	458.5	429.3	423.2	370.2	375.0	370.2	423.2	429.3	458.5	471.5	476.2
120°	413.9	374.8	353.2	329.5	346.5	329.5	353.2	374.8	413.9	408.6	400.9
122.5°	357.9	318.7	302.6	292.7	312.7	292.7	302.6	318.7	357.9	346.4	338.7
125°	303.4	270.4	266.5	260.4	280.5	260.4	266.5	270.4	303.4	291.8	295.7
127.5°	257.3	236.6	241.2	238.1	252.1	238.1	241.2	236.6	257.3	251.9	264.2
130°	225.1	214.3	225.9	221.3	232.9	221.3	225.9	214.3	225.1	226.6	242.9
132.5°	205.1	202.1	216.0	209.9	217.6	209.9	216.0	202.1	205.1	212.2	226.8
135°	193.8	193.7	206.8	199.9	206.9	199.9	206.8	193.7	193.8	203.0	216.1
137.5°	186.9	189.3	198.5	191.6	197.0	191.6	198.5	189.3	186.9	196.2	206.2
140°	183.2	184.7	191.7	184.0	189.4	184.0	191.7	184.7	183.2	192.4	197.1
142.5°	179.4	181.0	185.5	177.2	180.2	177.2	185.5	181.0	179.4	188.7	191.0
145°	177.9	178.8	181.0	171.9	174.2	171.9	181.0	178.8	177.9	184.9	183.4
147.5°	175.0	175.0	175.7	168.2	170.7	168.2	175.7	175.0	175.0	179.6	178.1
150°	171.1	170.4	171.1	163.7	166.1	163.7	171.1	170.4	171.1	174.2	172.0
152.5°	165.0	164.3	165.8	159.2	161.6	159.2	165.8	164.3	165.0	168.1	166.8
155°	159.6	159.6	161.4	156.2	158.6	156.2	161.4	159.6	159.6	162.0	162.2
157.5°	157.6	157.6	159.3	155.5	157.9	155.5	159.3	157.6	157.6	159.2	160.1
160°	155.4	156.2	157.9	154.9	157.4	154.9	157.9	156.2	155.4	157.8	158.7
162.5°	154.7	155.5	157.1	154.3	156.7	154.3	157.1	155.5	154.7	155.5	156.5
165°	154.0	154.9	156.6	154.3	156.0	154.3	156.6	154.9	154.0	154.9	155.8
167.5°	154.1	154.9	156.6	155.3	156.8	155.3	156.6	154.9	154.1	153.4	155.9
170°	152.7	154.2	156.6	156.1	156.9	156.1	156.6	154.2	152.7	153.5	155.2
172.5°	154.3	155.9	158.3	157.8	158.6	157.8	158.3	155.9	154.3	155.2	156.1
175°	156.0	156.8	159.3	158.7	160.4	158.7	159.3	156.8	156.0	156.0	157.8
177.5°	156.0	157.7	160.2	160.3	161.9	160.3	160.2	157.7	156.0	156.8	159.3
180°	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3



TEST NUMBER:

CATALOG NUMBER: EHBR1-54-UNV-TA-L950-UPL15

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	40116.0	40116.0	40116.0	40116.0	40116.0	40116.0
2.5°	40115.1	40130.2	40115.1	40132.7	40121.8	40096.7
5°	40006.7	40000.0	40006.7	40024.4	39979.0	39953.8
7.5°	39586.6	39559.7	39586.6	39767.3	39735.3	39704.2
10°	38709.4	38524.6	38709.4	39181.7	39343.0	39292.5
12.5°	37180.3	36607.2	37180.3	38176.7	38726.2	38681.7
15°	34947.8	33963.9	34947.8	36889.5	37898.7	37953.3
17.5°	32059.2	30933.3	32059.2	34929.3	36845.0	36818.9
20°	28917.6	27274.1	28917.6	32702.8	35461.2	35607.4
22.5°	25487.0	23717.5	25487.0	29991.4	33821.9	34065.6
25°	22064.8	20219.8	22064.8	26979.2	31818.0	32095.3
27.5°	18866.1	17110.1	18866.1	24099.8	29580.5	29883.0
30°	15904.4	14210.5	15904.4	21131.3	27121.2	27155.7
32.5°	13427.5	11748.6	13427.5	18172.9	24499.7	24339.3
35°	11017.7	9625.4	11017.7	15458.2	21502.8	21295.2
37.5°	9201.2	8085.3	9201.2	13070.3	18459.5	18067.9
40°	7674.5	6780.5	7674.5	10791.7	15458.2	14820.5
42.5°	6415.9	5747.0	6415.9	8894.5	12483.9	12031.8
45°	5470.6	4968.2	5470.6	7361.1	10081.7	9662.4
47.5°	4774.1	4365.7	4774.1	6147.9	8021.5	7888.7
50°	4154.0	3873.4	4154.0	5149.7	6523.4	6441.9
52.5°	3654.1	3450.7	3654.1	4388.4	5358.0	5345.5
55°	3238.1	3072.7	3238.1	3749.1	4427.0	4423.7
57.5°	2876.1	2769.3	2876.1	3246.6	3710.4	3704.5
60°	2553.4	2516.4	2553.4	2813.9	3128.1	3135.7
62.5°	2306.3	2251.8	2306.3	2473.6	2677.0	2669.3
65°	2061.1	2048.4	2061.1	2175.3	2306.3	2287.9
67.5°	1839.2	1828.3	1839.2	1906.4	1989.6	1974.5
70°	1627.5	1635.9	1627.5	1667.9	1712.4	1709.8
72.5°	1422.5	1424.1	1422.5	1435.1	1482.1	1450.2
75°	1225.0	1225.0	1225.0	1209.1	1230.1	1213.2
77.5°	1009.9	1035.1	1009.9	999.0	994.0	968.8
80°	794.0	818.4	794.0	771.4	758.7	742.7
82.5°	575.6	615.1	575.6	548.6	531.8	522.6
85°	357.1	381.5	357.1	319.2	310.9	310.9
87.5°	134.4	147.1	134.4	106.7	102.5	99.1
90°	15.3	10.8	15.3	29.2	16.9	9.9
92.5°	20.7	14.7	20.7	41.4	23.0	13.1
95°	23.0	17.7	23.0	53.0	28.4	19.2
97.5°	24.6	21.6	24.6	59.9	35.3	29.9
100°	28.4	25.5	28.4	109.8	40.0	40.0
102.5°	57.6	30.8	57.6	254.9	78.3	60.7
105°	150.5	56.2	150.5	449.3	179.7	110.6
107.5°	298.0	130.7	298.0	579.1	335.6	209.7
110°	408.6	264.3	408.6	632.1	469.3	335.6



TEST NUMBER:

CATALOG NUMBER: EHBR1-54-UNV-TA-L950-UPL15

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	453.1	365.7	453.1	617.5	523.0	437.0
115°	451.5	405.7	451.5	551.4	515.4	474.6
117.5°	424.0	408.0	424.0	476.2	471.5	458.5
120°	384.1	384.9	384.1	400.9	408.6	413.9
122.5°	342.6	354.3	342.6	338.7	346.4	357.9
125°	307.3	319.0	307.3	295.7	291.8	303.4
127.5°	278.2	287.5	278.2	264.2	251.9	257.3
130°	253.6	259.8	253.6	242.9	226.6	225.1
132.5°	236.8	239.9	236.8	226.8	212.2	205.1
135°	222.2	223.8	222.2	216.1	203.0	193.8
137.5°	210.8	210.1	210.8	206.2	196.2	186.9
140°	203.2	201.7	203.2	197.1	192.4	183.2
142.5°	194.8	194.2	194.8	191.0	188.7	179.4
145°	189.6	187.3	189.6	183.4	184.9	177.9
147.5°	183.5	182.2	183.5	178.1	179.6	175.0
150°	179.1	179.2	179.1	172.0	174.2	171.1
152.5°	173.7	174.7	173.7	166.8	168.1	165.0
155°	170.1	171.0	170.1	162.2	162.0	159.6
157.5°	167.1	168.0	167.1	160.1	159.2	157.6
160°	165.0	165.8	165.0	158.7	157.8	155.4
162.5°	163.6	164.5	163.6	156.5	155.5	154.7
165°	160.6	162.1	160.6	155.8	154.9	154.0
167.5°	159.9	161.5	159.9	155.9	153.4	154.1
170°	159.2	160.7	159.2	155.2	153.5	152.7
172.5°	159.3	161.7	159.3	156.1	155.2	154.3
175°	160.2	163.4	160.2	157.8	156.0	156.0
177.5°	161.9	165.8	161.9	159.3	156.8	156.0
180°	159.3	159.3	159.3	159.3	159.3	159.3



TEST NUMBER: CATALOG
 CATALOG NUMBER: EHBR1-54-UNV-TA-L950-UPL15

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	21.24	22.46	21.66	22.83	23.22	19.51	20.73	19.92	21.10	21.49
	3H	22.40	23.49	22.83	23.88	24.31	21.11	22.19	21.54	22.58	23.02
	4H	22.86	23.87	23.31	24.28	24.73	21.76	22.78	22.22	23.18	23.64
	6H	23.18	24.11	23.64	24.53	25.00	22.28	23.21	22.74	23.64	24.10
	8H	23.26	24.14	23.74	24.59	25.06	22.45	23.33	22.93	23.77	24.25
	12H	23.30	24.14	23.78	24.58	25.08	22.54	23.38	23.02	23.82	24.32
4H	2H	21.50	22.51	21.95	22.92	23.37	20.06	21.07	20.51	21.48	21.93
	3H	22.90	23.73	23.36	24.19	24.66	21.87	22.70	22.33	23.16	23.63
	4H	23.49	24.23	23.97	24.70	25.21	22.63	23.38	23.12	23.85	24.36
	6H	23.93	24.57	24.44	25.07	25.60	23.27	23.91	23.78	24.41	24.94
	8H	24.05	24.65	24.57	25.15	25.69	23.48	24.08	23.99	24.58	25.11
	12H	24.11	24.64	24.65	25.18	25.72	23.60	24.13	24.13	24.66	25.20
8H	4H	23.65	24.25	24.16	24.75	25.28	22.88	23.48	23.40	23.98	24.51
	6H	24.19	24.68	24.74	25.23	25.78	23.62	24.11	24.17	24.66	25.20
	8H	24.37	24.81	24.94	25.37	25.93	23.90	24.34	24.47	24.90	25.46
	12H	24.49	24.87	25.05	25.42	26.05	24.09	24.47	24.65	25.02	25.65
12H	4H	23.64	24.17	24.18	24.71	25.25	22.88	23.41	23.42	23.95	24.49
	6H	24.21	24.65	24.78	25.21	25.77	23.65	24.09	24.22	24.65	25.21
	8H	24.43	24.82	24.99	25.36	25.99	23.97	24.36	24.53	24.90	25.54

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: SP1-2506-472-8

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)