

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: EHBR1-24-UNV-TASM-L950-UPL12

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS A COMBINATION OF REPORTS P1431708 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-24-UNV-TASM-L950-UPL12
Description: Elevate Round Highbay at, 24000 lumens, 5000K 90CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

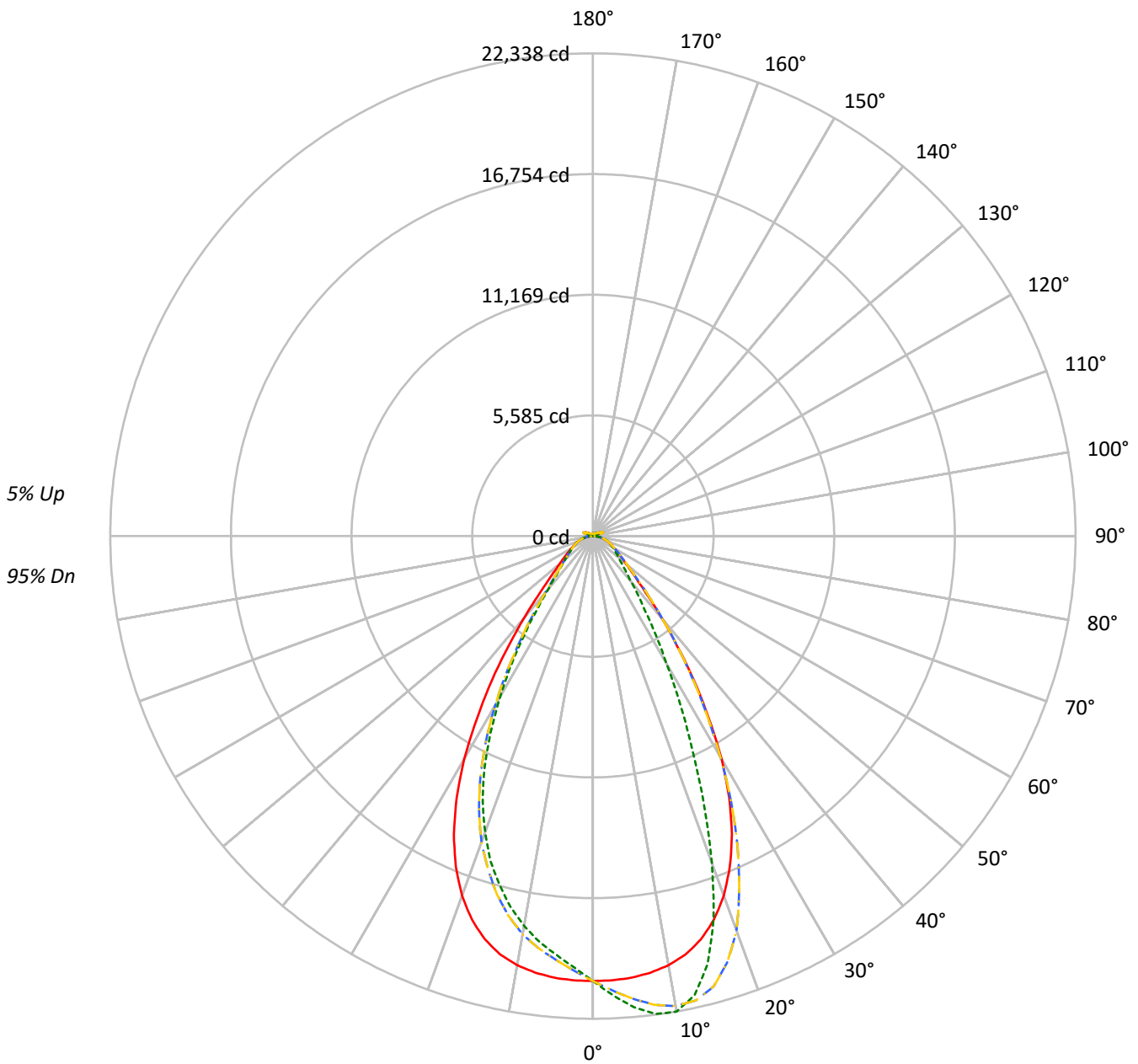
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24142.1 lumens
Efficiency: N/A
Efficacy: 177.9 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): 135.7
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	111	107	104	101	108	105	102	99	100	97	95	95	93	92	91	90	88	88	88	88	86
2	104	98	93	89	101	96	91	87	92	88	85	88	85	82	84	82	80	84	82	80	78
3	97	90	84	79	95	88	82	78	84	80	76	81	77	74	78	75	72	78	75	72	70
4	91	82	76	71	89	81	75	70	78	73	69	75	71	68	73	69	66	73	69	66	64
5	86	76	69	64	84	75	69	64	73	67	63	70	66	62	68	64	61	68	64	61	59
6	81	71	64	59	79	70	63	59	68	62	58	66	61	57	64	60	56	64	60	56	55
7	77	66	59	54	75	65	59	54	63	58	53	62	57	53	60	56	52	60	56	52	51
8	72	62	55	50	71	61	55	50	59	54	50	58	53	49	57	52	49	57	52	49	47
9	69	58	51	47	67	57	51	47	56	50	46	55	49	46	53	49	45	53	49	45	44
10	65	54	48	44	64	54	48	44	53	47	43	52	46	43	50	46	43	50	46	43	41

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	96676	96676	96676	96676
5°	96087	102508	96087	91101
10°	94907	105139	94907	86219
15°	92104	97707	92104	79644
20°	86141	78348	86141	70940
25°	76241	54284	76241	59451
30°	61905	35315	61905	44481
35°	44401	22871	44401	29612
40°	28706	15764	28706	18675
45°	18214	12211	18214	13306
50°	13526	10376	13526	11083
55°	11043	9452	11043	9783
60°	9563	9004	9563	9059
65°	8717	8684	8717	8647
70°	8263	8508	8263	8398
75°	7727	8231	7727	7985
80°	6788	7771	6788	7263
85°	4393	5548	4393	5290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25608 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1957.5	8.1
10°-20°	5325.4	22.1
20°-30°	6245.6	25.9
30°-40°	4343.4	18.0
40°-50°	2158.5	8.9
50°-60°	1291.0	5.3
60°-70°	908.7	3.8
70°-80°	585.3	2.4
80°-90°	187.9	0.8
90°-100°	30.6	0.1
100°-110°	197.1	0.8
110°-120°	363.5	1.5
120°-130°	216.5	0.9
130°-140°	131.6	0.5
140°-150°	91.7	0.4
150°-160°	60.5	0.3
160°-170°	35.4	0.1
170°-180°	11.9	0.0
0°-30°	13528.4	56.0
0°-40°	17871.9	74.0
0°-60°	21321.3	88.3
0°-90°	23003.2	95.3
90°-120°	591.2	2.4
90°-150°	1031.1	4.3
90°-180°	1139.0	4.7
0°-180°	24142.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	20586	20586	20586	20586	20586	
5°	20516	21887	20516	19452	20516	1947
15°	19323	20498	19323	16709	19323	5400
25°	15225	10840	15225	11872	15225	6893
35°	8149	4198	8149	5435	8149	5087
45°	2947	1976	2947	2153	2947	2411
55°	1492	1277	1492	1322	1492	1365
65°	910	906	910	902	910	914
75°	544	580	544	562	544	571
85°	151	191	151	182	151	168
90°	8	11	8	8	8	11
95°	16	17	16	14	16	17
105°	91	48	91	69	91	122
115°	387	332	387	314	387	352
125°	248	261	248	227	248	228
135°	158	183	158	166	158	125
145°	144	150	144	140	144	90
155°	129	135	129	126	129	60
165°	124	129	124	122	124	35
175°	125	129	125	123	125	12
180°	125	125	125	125	125	



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°	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5
2.5°	20574.5	20840.5	21055.9	21197.9	21268.2	21197.9	21055.9	20840.5	20574.5	20310.1	20128.2
5°	20516.2	21048.9	21500.2	21795.5	21887.0	21795.5	21500.2	21048.9	20516.2	20012.8	19678.9
7.5°	20376.9	21206.8	21877.3	22222.1	22306.2	22222.1	21877.3	21206.8	20376.9	19664.2	19242.3
10°	20164.2	21306.4	22081.1	22328.2	22338.2	22328.2	22081.1	21306.4	20164.2	19204.1	18706.5
12.5°	19824.8	21270.9	22012.8	21931.7	21747.6	21931.7	22012.8	21270.9	19824.8	18642.0	18014.4
15°	19323.0	21060.5	21580.1	20920.4	20498.5	20920.4	21580.1	21060.5	19323.0	17883.1	17155.1
17.5°	18615.8	20666.7	20676.8	19371.7	18575.7	19371.7	20676.8	20666.7	18615.8	16955.1	16153.3
20°	17704.4	20035.2	19433.0	17045.8	16102.8	17045.8	19433.0	20035.2	17704.4	15858.0	15071.3
22.5°	16561.7	19183.6	17700.9	14706.1	13419.5	14706.1	17700.9	19183.6	16561.7	14582.2	13763.4
25°	15225.3	18140.2	15837.6	12156.8	10840.4	12156.8	15837.6	18140.2	15225.3	13062.0	12321.6
27.5°	13653.4	16817.7	13853.4	9934.0	8719.5	9934.0	13853.4	16817.7	13653.4	11492.4	10736.2
30°	11907.4	15122.3	11788.5	7911.2	6792.9	7911.2	11788.5	15122.3	11907.4	9729.0	9052.0
32.5°	9952.6	13460.4	9805.5	6339.0	5391.6	6339.0	9805.5	13460.4	9952.6	8046.3	7338.8
35°	8149.1	11381.3	8017.4	4980.9	4197.6	4980.9	8017.4	11381.3	8149.1	6457.9	5763.0
37.5°	6395.3	9416.8	6391.1	4010.8	3404.7	4010.8	6391.1	9416.8	6395.3	5020.7	4456.7
40°	4975.5	7363.0	5007.6	3201.7	2732.3	3201.7	5007.6	7363.0	4975.5	3820.1	3459.2
42.5°	3770.0	5630.2	3935.9	2627.7	2320.8	2627.7	3935.9	5630.2	3770.0	3009.9	2739.7
45°	2947.0	4143.2	3073.5	2217.0	1975.7	2217.0	3073.5	4143.2	2947.0	2423.9	2242.4
47.5°	2399.9	3202.1	2491.0	1901.6	1732.5	1901.6	2491.0	3202.1	2399.9	2050.2	1914.3
50°	2015.8	2457.0	2068.3	1660.0	1546.4	1660.0	2068.3	2457.0	2015.8	1755.7	1665.0
52.5°	1731.7	2003.9	1761.4	1479.2	1402.9	1479.2	1761.4	2003.9	1731.7	1536.0	1479.6
55°	1492.3	1684.7	1531.7	1330.2	1277.3	1330.2	1531.7	1684.7	1492.3	1366.9	1325.2
57.5°	1310.6	1429.1	1330.2	1203.2	1168.1	1203.2	1330.2	1429.1	1310.6	1216.4	1194.0
60°	1149.6	1237.6	1173.9	1092.5	1082.4	1092.5	1173.9	1237.6	1149.6	1094.4	1079.7
62.5°	1025.6	1081.3	1038.0	992.9	984.0	992.9	1038.0	1081.3	1025.6	983.2	985.9
65°	909.9	961.6	927.6	903.3	906.4	903.3	927.6	961.6	909.9	890.2	894.5
67.5°	820.3	847.4	832.7	818.7	822.3	818.7	832.7	847.4	820.3	801.0	807.6
70°	725.0	753.9	738.8	740.8	746.5	740.8	738.8	753.9	725.0	719.1	724.2
72.5°	633.8	656.2	651.2	655.9	662.0	655.9	651.2	656.2	633.8	633.1	633.5
75°	544.3	561.3	563.6	570.2	579.8	570.2	563.6	561.3	544.3	538.5	545.5
77.5°	446.6	466.0	473.3	482.1	496.4	482.1	473.3	466.0	446.6	450.5	454.0
80°	357.1	366.0	382.1	388.7	408.8	388.7	382.1	366.0	357.1	350.6	355.6
82.5°	261.4	269.4	283.4	295.7	307.3	295.7	283.4	269.4	261.4	258.3	258.7
85°	151.0	163.2	172.5	187.2	190.7	187.2	172.5	163.2	151.0	154.4	151.0
87.5°	52.9	56.8	64.9	70.6	71.0	70.6	64.9	56.8	52.9	54.1	49.1
90°	8.5	14.5	24.8	14.8	11.1	14.8	24.8	14.5	8.5	14.7	22.9
92.5°	11.0	19.4	34.8	19.1	14.3	19.1	34.8	19.4	11.0	19.0	36.6
95°	16.4	23.8	44.1	21.0	16.8	21.0	44.1	23.8	16.4	25.4	50.9
97.5°	25.1	29.5	49.8	22.3	19.9	22.3	49.8	29.5	25.1	30.9	58.4
100°	33.2	33.2	90.3	25.4	22.4	25.4	90.3	33.2	33.2	38.2	90.9
102.5°	50.1	64.8	208.8	49.5	26.8	49.5	208.8	64.8	50.1	71.3	192.6
105°	90.6	147.2	366.6	125.0	47.8	125.0	366.6	147.2	90.6	148.7	342.9
107.5°	171.1	273.8	472.1	244.8	108.2	244.8	472.1	273.8	171.1	262.8	452.5
110°	273.4	382.4	515.1	334.7	216.9	334.7	515.1	382.4	273.4	360.8	474.4



TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-TASM-L950-UPL12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	355.8	426.1	503.3	370.9	299.2	370.9	503.3	426.1	355.8	398.2	454.4
115°	386.8	419.9	449.6	369.6	331.7	369.6	449.6	419.9	386.8	388.8	405.7
117.5°	373.7	384.3	388.5	347.1	333.6	347.1	388.5	384.3	373.7	349.9	344.6
120°	337.5	333.1	327.7	314.0	314.8	314.0	327.7	333.1	337.5	305.6	287.7
122.5°	292.4	283.0	277.2	280.8	289.2	280.8	277.2	283.0	292.4	260.5	247.0
125°	248.1	238.7	241.9	252.1	261.0	252.1	241.9	238.7	248.1	221.6	218.2
127.5°	211.0	206.6	216.4	227.7	235.4	227.7	216.4	206.6	211.0	194.2	197.5
130°	184.5	185.5	198.3	208.1	213.0	208.1	198.3	185.5	184.5	176.4	184.8
132.5°	168.1	172.7	184.9	193.6	196.5	193.6	184.9	172.7	168.1	165.9	176.2
135°	157.9	164.5	175.9	181.3	182.8	181.3	175.9	164.5	157.9	158.8	168.1
137.5°	151.9	158.7	167.1	171.8	170.9	171.8	167.1	158.7	151.9	154.3	161.3
140°	148.7	155.3	159.1	164.3	163.8	164.3	159.1	155.3	148.7	150.0	155.5
142.5°	145.3	151.4	153.2	157.1	156.3	157.1	153.2	151.4	145.3	146.5	150.3
145°	143.8	148.4	146.8	151.5	150.4	151.5	146.8	148.4	143.8	144.0	146.3
147.5°	140.7	144.0	142.2	146.3	145.1	146.3	142.2	144.0	140.7	140.7	141.7
150°	137.3	139.8	137.0	141.7	141.8	141.7	137.0	139.8	137.3	136.7	137.7
152.5°	132.7	135.2	132.7	138.1	137.8	138.1	132.7	135.2	132.7	132.0	133.0
155°	129.1	130.4	129.1	134.5	134.9	134.5	129.1	130.4	129.1	128.7	129.5
157.5°	126.8	127.8	127.2	131.9	132.3	131.9	127.2	127.8	126.8	126.8	127.2
160°	125.2	126.4	126.3	130.4	130.7	130.4	126.3	126.4	125.2	125.4	125.8
162.5°	124.7	124.7	124.9	129.0	129.7	129.0	124.9	124.7	124.7	124.7	125.3
165°	123.9	124.6	124.1	127.4	128.8	127.4	124.1	124.6	123.9	124.2	124.2
167.5°	124.1	123.5	124.3	127.3	128.8	127.3	124.3	123.5	124.1	124.3	124.3
170°	123.3	123.7	123.8	126.9	128.2	126.9	123.8	123.7	123.3	123.9	124.1
172.5°	124.4	124.4	124.4	126.7	128.8	126.7	124.4	124.4	124.4	124.7	125.3
175°	125.2	125.0	125.2	126.8	129.0	126.8	125.2	125.0	125.2	124.8	124.8
177.5°	124.5	125.3	126.1	127.9	130.5	127.9	126.1	125.3	124.5	124.8	124.8
180°	125.3	125.3	125.3	125.3	125.3	125.3	125.3	125.3	125.3	125.3	125.3



TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-TASM-L950-UPL12

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	20586.5	20586.5	20586.5	20586.5	20586.5	20586.5
2.5°	19988.5	19975.4	19988.5	20128.2	20310.1	20574.5
5°	19524.1	19451.6	19524.1	19678.9	20012.8	20516.2
7.5°	18983.3	18941.2	18983.3	19242.3	19664.2	20376.9
10°	18413.9	18318.5	18413.9	18706.5	19204.1	20164.2
12.5°	17712.1	17585.9	17712.1	18014.4	18642.0	19824.8
15°	16819.6	16708.8	16819.6	17155.1	17883.1	19323.0
17.5°	15861.8	15761.5	15861.8	16153.3	16955.1	18615.8
20°	14659.0	14580.2	14659.0	15071.3	15858.0	17704.4
22.5°	13397.1	13323.3	13397.1	13763.4	14582.2	16561.7
25°	11912.4	11872.3	11912.4	12321.6	13062.0	15225.3
27.5°	10308.1	10239.8	10308.1	10736.2	11492.4	13653.4
30°	8669.0	8555.9	8669.0	9052.0	9729.0	11907.4
32.5°	7065.8	6984.4	7065.8	7338.8	8046.3	9952.6
35°	5516.3	5434.9	5516.3	5763.0	6457.9	8149.1
37.5°	4298.5	4154.4	4298.5	4456.7	5020.7	6395.3
40°	3260.0	3236.8	3260.0	3459.2	3820.1	4975.5
42.5°	2653.9	2591.0	2653.9	2739.7	3009.9	3770.0
45°	2177.6	2152.9	2177.6	2242.4	2423.9	2947.0
47.5°	1872.6	1883.4	1872.6	1914.3	2050.2	2399.9
50°	1645.3	1651.8	1645.3	1665.0	1755.7	2015.8
52.5°	1477.8	1471.9	1477.8	1479.6	1536.0	1731.7
55°	1329.5	1322.1	1329.5	1325.2	1366.9	1492.3
57.5°	1199.8	1205.2	1199.8	1194.0	1216.4	1310.6
60°	1084.0	1089.0	1084.0	1079.7	1094.4	1149.6
62.5°	986.3	989.4	986.3	985.9	983.2	1025.6
65°	899.1	902.5	899.1	894.5	890.2	909.9
67.5°	815.7	815.7	815.7	807.6	801.0	820.3
70°	737.3	736.9	737.3	724.2	719.1	725.0
72.5°	643.1	652.4	643.1	633.5	633.1	633.8
75°	551.6	562.5	551.6	545.5	538.5	544.3
77.5°	459.0	475.6	459.0	454.0	450.5	446.6
80°	364.0	382.1	364.0	355.6	350.6	357.1
82.5°	269.1	282.5	269.1	258.7	258.3	261.4
85°	160.2	181.8	160.2	151.0	154.4	151.0
87.5°	51.4	65.6	51.4	49.1	54.1	52.9
90°	13.5	8.5	13.5	22.9	14.7	8.5
92.5°	20.3	12.3	20.3	36.6	19.0	11.0
95°	23.4	14.1	23.4	50.9	25.4	16.4
97.5°	25.9	18.2	25.9	58.4	30.9	25.1
100°	30.3	23.8	30.3	90.9	38.2	33.2
102.5°	64.0	40.0	64.0	192.6	71.3	50.1
105°	134.5	68.8	134.5	342.9	148.7	90.6
107.5°	240.6	118.6	240.6	452.5	262.8	171.1
110°	319.2	221.0	319.2	474.4	360.8	273.4



TEST NUMBER:

CATALOG NUMBER: EHBR1-24-UNV-TASM-L950-UPL12

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	342.9	298.4	342.9	454.4	398.2	355.8
115°	329.8	314.0	329.8	405.7	388.8	386.8
117.5°	301.1	303.4	301.1	344.6	349.9	373.7
120°	268.0	281.0	268.0	287.7	305.6	337.5
122.5°	237.9	252.8	237.9	247.0	260.5	292.4
125°	211.7	227.0	211.7	218.2	221.6	248.1
127.5°	193.5	203.9	193.5	197.5	194.2	211.0
130°	179.6	188.3	179.6	184.8	176.4	184.5
132.5°	170.0	175.7	170.0	176.2	165.9	168.1
135°	161.7	166.3	161.7	168.1	158.8	157.9
137.5°	154.6	158.6	154.6	161.3	154.3	151.9
140°	148.5	151.8	148.5	155.5	150.0	148.7
142.5°	142.0	144.5	142.0	150.3	146.5	145.3
145°	137.8	139.6	137.8	146.3	144.0	143.8
147.5°	134.2	135.5	134.2	141.7	140.7	140.7
150°	130.5	131.8	130.5	137.7	136.7	137.3
152.5°	126.5	128.3	126.5	133.0	132.0	132.7
155°	124.3	125.9	124.3	129.5	128.7	129.1
157.5°	123.1	124.5	123.1	127.2	126.8	126.8
160°	122.5	123.5	122.5	125.8	125.4	125.2
162.5°	121.3	122.4	121.3	125.3	124.7	124.7
165°	121.4	121.8	121.4	124.2	124.2	123.9
167.5°	121.2	121.8	121.2	124.3	124.3	124.1
170°	121.6	122.1	121.6	124.1	123.9	123.3
172.5°	122.5	122.8	122.5	125.3	124.7	124.4
175°	122.6	122.9	122.6	124.8	124.8	125.2
177.5°	123.6	123.9	123.6	124.8	124.8	124.5
180°	125.3	125.3	125.3	125.3	125.3	125.3



TEST NUMBER: CATALOG
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L950-UPL12

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	16.68	17.81	17.13	18.23	18.66	16.00	17.13	16.45	17.54	17.98
	3H	18.23	19.23	18.69	19.67	20.15	17.84	18.85	18.31	19.28	19.77
	4H	18.86	19.80	19.35	20.25	20.75	18.63	19.57	19.12	20.02	20.52
	6H	19.34	20.21	19.84	20.68	21.19	19.27	20.14	19.77	20.60	21.11
	8H	19.50	20.31	20.01	20.80	21.32	19.49	20.31	20.01	20.80	21.32
	12H	19.57	20.35	20.09	20.83	21.37	19.62	20.40	20.14	20.88	21.42
4H	2H	17.09	18.04	17.58	18.48	18.99	16.57	17.51	17.06	17.96	18.46
	3H	18.89	19.67	19.39	20.17	20.69	18.63	19.41	19.13	19.91	20.42
	4H	19.67	20.37	20.19	20.87	21.43	19.54	20.24	20.06	20.75	21.30
	6H	20.28	20.88	20.83	21.42	22.00	20.31	20.91	20.86	21.45	22.03
	8H	20.48	21.04	21.03	21.58	22.16	20.58	21.14	21.13	21.68	22.26
	12H	20.59	21.08	21.15	21.65	22.23	20.75	21.25	21.32	21.81	22.40
8H	4H	19.92	20.48	20.47	21.01	21.60	19.82	20.38	20.37	20.92	21.50
	6H	20.66	21.12	21.24	21.70	22.29	20.72	21.18	21.31	21.76	22.35
	8H	20.93	21.34	21.53	21.93	22.54	21.08	21.48	21.68	22.08	22.68
	12H	21.10	21.46	21.70	22.04	22.71	21.33	21.68	21.92	22.26	22.94
12H	4H	19.93	20.42	20.50	20.99	21.58	19.83	20.33	20.40	20.89	21.48
	6H	20.70	21.11	21.30	21.71	22.31	20.77	21.18	21.37	21.77	22.38
	8H	21.02	21.38	21.62	21.95	22.63	21.17	21.53	21.77	22.11	22.79

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

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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

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			

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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

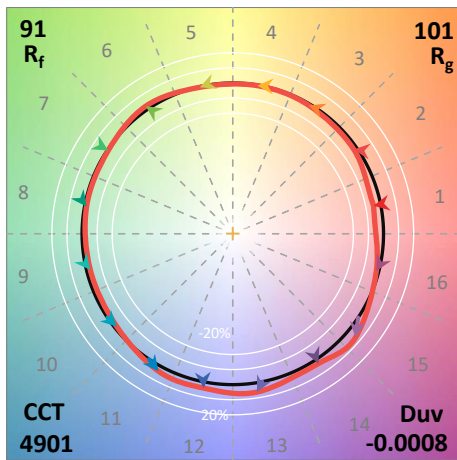
λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	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

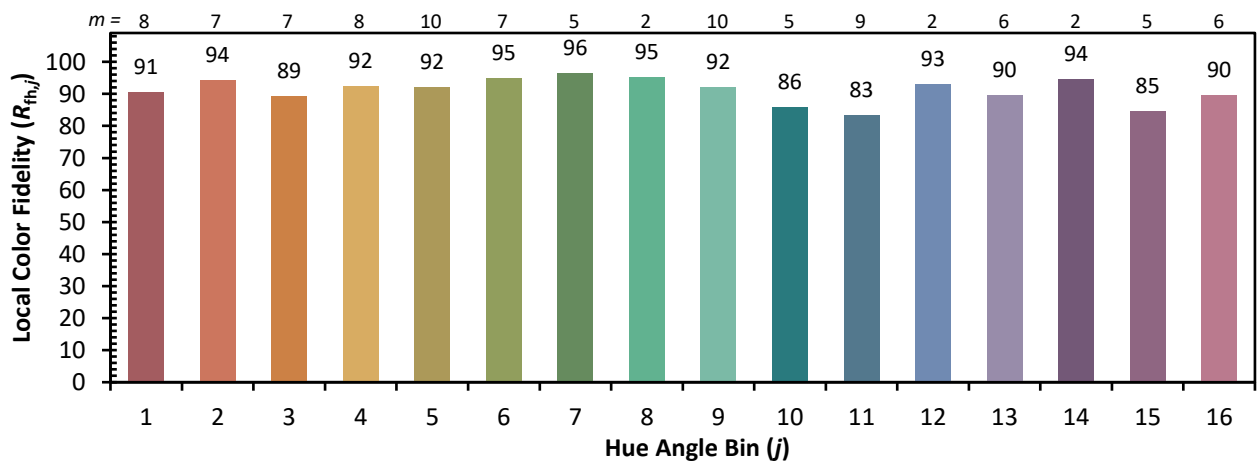
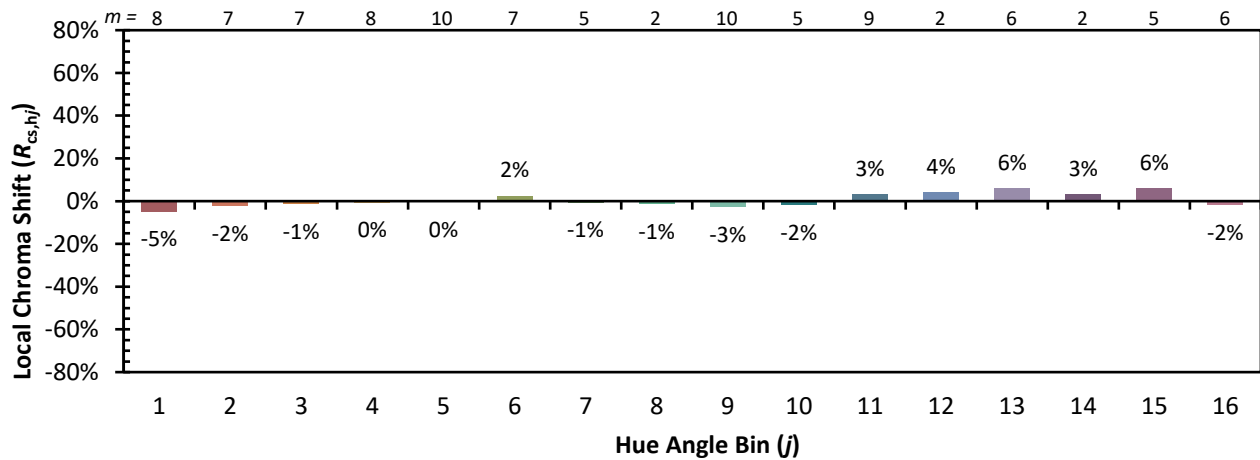


Individual Sample Fidelity Index ($R_{f,i}$)

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)