

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: P1433161

Luminaire Tested: EHBR1-24-UNV-TASM-L930

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-24-UNV-TASM-L930
Description: Elevate Round Highbay at, 24000 lumens, 3000K 90CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

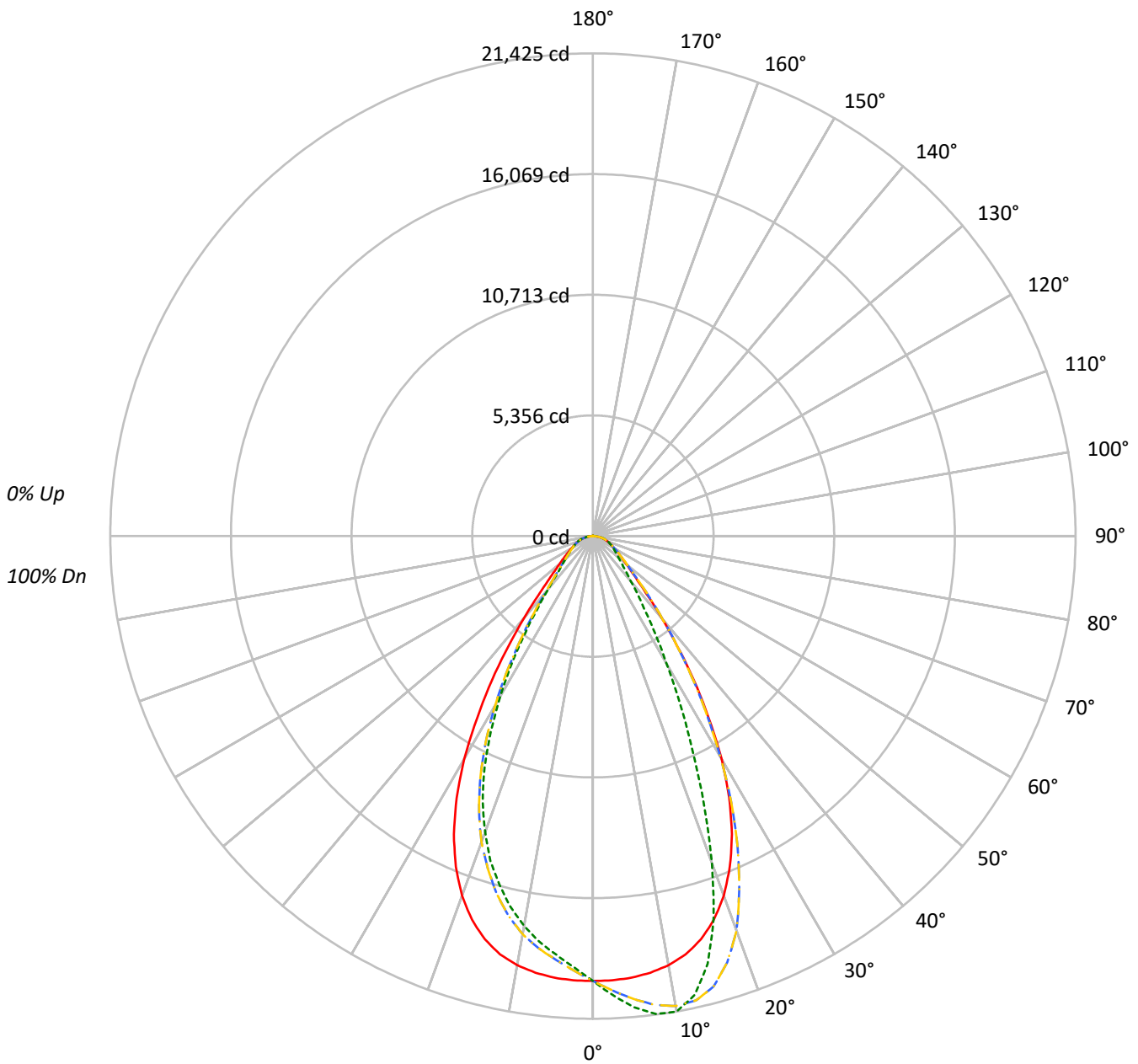
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22077.9 lumens
Efficiency: N/A
Efficacy: 172.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 0.84 / 0.9
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 128.3
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: P1433161
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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	92	90	
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	83	81	
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	76	74	
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	69	67	
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	64	62	
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	59	57	
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	55	53	
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	51	49	
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	47	46	
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	45	43	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	92725	92725	92725	92725
5°	92761	98959	92761	87948
10°	92224	102167	92224	83782
15°	90104	95586	90104	77914
20°	84861	77184	84861	69886
25°	75666	53875	75666	59003
30°	61930	35330	61930	44499
35°	44808	23081	44808	29884
40°	29254	16066	29254	19032
45°	18772	12585	18772	13714
50°	14125	10836	14125	11575
55°	11719	10030	11719	10382
60°	10356	9751	10356	9810
65°	9697	9660	9697	9620
70°	9548	9831	9548	9705
75°	9471	10090	9471	9789
80°	9262	10604	9262	9912
85°	7802	9855	7802	9397

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26392 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1877.5	8.5
10°-20°	5107.7	23.1
20°-30°	5990.3	27.1
30°-40°	4165.9	18.9
40°-50°	2070.3	9.4
50°-60°	1238.2	5.6
60°-70°	871.5	3.9
70°-80°	561.4	2.5
80°-90°	178.3	0.8
90°-100°	1.0	0.0
100°-110°	1.2	0.0
110°-120°	1.3	0.0
120°-130°	1.6	0.0
130°-140°	2.2	0.0
140°-150°	2.6	0.0
150°-160°	2.9	0.0
160°-170°	2.8	0.0
170°-180°	1.2	0.0
0°-30°	12975.5	58.8
0°-40°	17141.4	77.6
0°-60°	20449.9	92.6
0°-90°	22061.1	99.9
90°-120°	3.5	0.0
90°-150°	9.9	0.0
90°-180°	17.0	0.1
0°-180°	22077.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	19745	19745	19745	19745	19745	
5°	19678	20992	19678	18657	19678	1867
15°	18533	19661	18533	16026	18533	5179
25°	14603	10397	14603	11387	14603	6611
35°	7816	4026	7816	5213	7816	4879
45°	2826	1895	2826	2065	2826	2313
55°	1431	1225	1431	1268	1431	1309
65°	873	869	873	866	873	876
75°	522	556	522	540	522	548
85°	145	183	145	174	145	161
90°	0	3	0	0	0	7
95°	1	3	1	0	1	1
105°	1	3	1	1	1	1
115°	1	3	1	1	1	1
125°	2	4	2	1	2	1
135°	3	4	3	2	3	2
145°	4	5	4	4	4	3
155°	6	7	6	7	6	3
165°	10	12	10	10	10	3
175°	13	16	13	13	13	1
180°	14	14	14	14	14	



TEST NUMBER: P1433161
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1
2.5°	19733.6	19988.7	20195.3	20331.5	20398.9	20331.5	20195.3	19988.7	19733.6	19480.0	19305.6
5°	19677.7	20188.6	20621.4	20904.7	20992.4	20904.7	20621.4	20188.6	19677.7	19194.9	18874.6
7.5°	19544.0	20340.1	20983.1	21313.8	21394.5	21313.8	20983.1	20340.1	19544.0	18860.5	18455.9
10°	19340.1	20435.6	21178.7	21415.6	21425.2	21415.6	21178.7	20435.6	19340.1	18419.2	17941.9
12.5°	19014.5	20401.5	21113.2	21035.4	20858.7	21035.4	21113.2	20401.5	19014.5	17880.1	17278.1
15°	18533.2	20199.7	20698.1	20065.4	19660.7	20065.4	20698.1	20199.7	18533.2	17152.2	16453.9
17.5°	17855.0	19822.1	19831.7	18579.9	17816.5	18579.9	19831.7	19822.1	17855.0	16262.1	15493.1
20°	16980.8	19216.4	18638.7	16349.1	15444.6	16349.1	18638.7	19216.4	16980.8	15209.9	14455.3
22.5°	15884.8	18399.5	16977.5	14105.1	12871.0	14105.1	16977.5	18399.5	15884.8	13986.2	13200.9
25°	14603.0	17398.8	15190.3	11659.9	10397.4	11659.9	15190.3	17398.8	14603.0	12528.2	11818.0
27.5°	13095.4	16130.3	13287.2	9528.0	8363.2	9528.0	13287.2	16130.3	13095.4	11022.7	10297.4
30°	11420.8	14504.2	11306.7	7587.9	6515.3	7587.9	11306.7	14504.2	11420.8	9331.4	8682.0
32.5°	9545.8	12910.2	9404.7	6079.9	5171.3	6079.9	9404.7	12910.2	9545.8	7717.5	7038.8
35°	7816.0	10916.1	7689.7	4777.3	4026.1	4777.3	7689.7	10916.1	7816.0	6194.0	5527.5
37.5°	6133.9	9031.9	6129.9	3846.9	3265.6	3846.9	6129.9	9031.9	6133.9	4815.5	4274.5
40°	4772.1	7062.1	4802.9	3070.9	2620.7	3070.9	4802.9	7062.1	4772.1	3664.0	3317.8
42.5°	3615.9	5400.1	3775.0	2520.3	2226.0	2520.3	3775.0	5400.1	3615.9	2886.8	2627.7
45°	2826.5	3973.9	2947.9	2126.3	1894.9	2126.3	2947.9	3973.9	2826.5	2324.8	2150.8
47.5°	2301.8	3071.2	2389.2	1823.9	1661.7	1823.9	2389.2	3071.2	2301.8	1966.4	1836.1
50°	1933.4	2356.6	1983.8	1592.1	1483.2	1592.1	1983.8	2356.6	1933.4	1683.9	1596.9
52.5°	1660.9	1922.0	1689.4	1418.8	1345.5	1418.8	1689.4	1922.0	1660.9	1473.2	1419.1
55°	1431.3	1615.8	1469.1	1275.8	1225.1	1275.8	1469.1	1615.8	1431.3	1311.0	1271.0
57.5°	1257.0	1370.7	1275.8	1154.0	1120.3	1154.0	1275.8	1370.7	1257.0	1166.7	1145.2
60°	1102.6	1187.0	1126.0	1047.8	1038.2	1047.8	1126.0	1187.0	1102.6	1049.7	1035.6
62.5°	983.7	1037.1	995.6	952.3	943.8	952.3	995.6	1037.1	983.7	943.0	945.6
65°	872.7	922.3	889.7	866.4	869.3	866.4	889.7	922.3	872.7	853.8	857.9
67.5°	786.8	812.7	798.6	785.3	788.7	785.3	798.6	812.7	786.8	768.3	774.6
70°	695.4	723.1	708.6	710.5	716.0	710.5	708.6	723.1	695.4	689.7	694.6
72.5°	607.9	629.4	624.6	629.1	634.9	629.1	624.6	629.4	607.9	607.2	607.6
75°	522.0	538.3	540.6	546.9	556.1	546.9	540.6	538.3	522.0	516.5	523.2
77.5°	428.4	446.9	453.9	462.4	476.1	462.4	453.9	446.9	428.4	432.1	435.4
80°	342.5	351.0	366.5	372.9	392.1	372.9	366.5	351.0	342.5	336.2	341.0
82.5°	250.7	258.4	271.8	283.6	294.7	283.6	271.8	258.4	250.7	247.7	248.1
85°	144.8	156.6	165.5	179.6	182.9	179.6	165.5	156.6	144.8	148.1	144.8
87.5°	50.7	54.4	62.2	67.7	68.1	67.7	62.2	54.4	50.7	51.9	47.1
90°	0.4	0.7	1.1	2.2	2.9	2.2	1.1	0.7	0.4	0.4	0.4
92.5°	0.4	0.7	1.1	2.2	2.9	2.2	1.1	0.7	0.4	0.4	0.4
95°	0.7	0.7	1.1	2.2	2.9	2.2	1.1	0.7	0.7	0.4	0.4
97.5°	0.7	0.7	1.1	2.2	2.9	2.2	1.1	0.7	0.7	0.4	0.4
100°	0.7	0.7	1.1	2.2	2.9	2.2	1.1	0.7	0.7	0.7	0.4
102.5°	0.7	1.1	1.5	2.6	2.9	2.6	1.5	1.1	0.7	0.7	0.4
105°	0.7	1.1	1.5	2.6	3.3	2.6	1.5	1.1	0.7	0.7	0.4
107.5°	0.7	1.1	1.5	2.6	3.3	2.6	1.5	1.1	0.7	0.7	0.7
110°	0.7	1.1	1.5	2.6	3.3	2.6	1.5	1.1	0.7	0.7	0.7



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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°	0.7	1.1	1.5	2.6	3.3	2.6	1.5	1.1	0.7	0.7	0.7
115°	1.1	1.1	1.5	2.6	3.3	2.6	1.5	1.1	1.1	0.7	0.7
117.5°	1.1	1.1	1.5	2.6	3.3	2.6	1.5	1.1	1.1	1.1	0.7
120°	1.1	1.1	1.9	2.6	3.3	2.6	1.9	1.1	1.1	1.1	0.7
122.5°	1.5	1.5	1.9	2.9	3.3	2.9	1.9	1.5	1.5	1.5	1.1
125°	1.5	1.5	2.2	2.9	3.7	2.9	2.2	1.5	1.5	1.9	1.5
127.5°	1.9	1.9	2.2	2.9	3.7	2.9	2.2	1.9	1.9	1.9	1.5
130°	2.2	1.9	2.2	3.3	3.7	3.3	2.2	1.9	2.2	2.2	1.9
132.5°	2.6	2.2	2.6	3.7	4.1	3.7	2.6	2.2	2.6	2.9	2.6
135°	2.9	2.2	2.9	3.3	4.1	3.3	2.9	2.2	2.9	3.3	2.6
137.5°	3.3	2.6	2.9	3.7	4.1	3.7	2.9	2.6	3.3	3.7	3.3
140°	3.7	2.9	2.9	3.7	4.5	3.7	2.9	2.9	3.7	3.7	3.7
142.5°	4.1	3.3	3.3	4.1	4.5	4.1	3.3	3.3	4.1	4.1	4.1
145°	4.5	4.1	3.7	4.1	4.8	4.1	3.7	4.1	4.5	4.1	4.5
147.5°	4.5	4.1	4.1	4.5	5.2	4.5	4.1	4.1	4.5	4.5	4.8
150°	4.8	4.8	4.5	4.8	5.5	4.8	4.5	4.8	4.8	4.8	5.2
152.5°	5.2	5.2	5.2	5.5	5.9	5.5	5.2	5.2	5.2	5.2	5.5
155°	5.9	5.9	5.9	6.3	6.7	6.3	5.9	5.9	5.9	5.5	6.3
157.5°	6.7	7.0	7.0	7.4	7.8	7.4	7.0	7.0	6.7	6.7	7.0
160°	8.1	8.1	8.6	8.9	9.3	8.9	8.6	8.1	8.1	7.8	8.1
162.5°	8.9	8.9	9.6	10.0	10.7	10.0	9.6	8.9	8.9	8.9	8.9
165°	10.0	10.0	10.7	11.5	12.2	11.5	10.7	10.0	10.0	9.6	9.6
167.5°	10.7	10.7	11.5	12.6	13.4	12.6	11.5	10.7	10.7	10.3	10.3
170°	11.1	11.5	12.2	13.4	14.1	13.4	12.2	11.5	11.1	11.1	10.7
172.5°	12.2	12.2	13.4	14.4	15.1	14.4	13.4	12.2	12.2	11.9	11.9
175°	12.9	13.4	14.1	15.1	16.0	15.1	14.1	13.4	12.9	12.6	12.6
177.5°	12.9	13.7	14.4	15.6	16.3	15.6	14.4	13.7	12.9	12.6	12.6
180°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	19745.1	19745.1	19745.1	19745.1	19745.1	19745.1
2.5°	19171.5	19159.0	19171.5	19305.6	19480.0	19733.6
5°	18726.1	18656.6	18726.1	18874.6	19194.9	19677.7
7.5°	18207.4	18167.0	18207.4	18455.9	18860.5	19544.0
10°	17661.3	17569.8	17661.3	17941.9	18419.2	19340.1
12.5°	16988.2	16867.1	16988.2	17278.1	17880.1	19014.5
15°	16132.1	16025.9	16132.1	16453.9	17152.2	18533.2
17.5°	15213.5	15117.3	15213.5	15493.1	16262.1	17855.0
20°	14059.9	13984.3	14059.9	14455.3	15209.9	16980.8
22.5°	12849.5	12778.8	12849.5	13200.9	13986.2	15884.8
25°	11425.6	11387.1	11425.6	11818.0	12528.2	14603.0
27.5°	9886.8	9821.3	9886.8	10297.4	11022.7	13095.4
30°	8314.7	8206.2	8314.7	8682.0	9331.4	11420.8
32.5°	6777.0	6699.0	6777.0	7038.8	7717.5	9545.8
35°	5290.9	5212.7	5290.9	5527.5	6194.0	7816.0
37.5°	4122.8	3984.6	4122.8	4274.5	4815.5	6133.9
40°	3126.7	3104.6	3126.7	3317.8	3664.0	4772.1
42.5°	2545.5	2485.1	2545.5	2627.7	2886.8	3615.9
45°	2088.6	2064.9	2088.6	2150.8	2324.8	2826.5
47.5°	1796.1	1806.4	1796.1	1836.1	1966.4	2301.8
50°	1578.0	1584.3	1578.0	1596.9	1683.9	1933.4
52.5°	1417.4	1411.7	1417.4	1419.1	1473.2	1660.9
55°	1275.1	1268.1	1275.1	1271.0	1311.0	1431.3
57.5°	1150.7	1155.9	1150.7	1145.2	1166.7	1257.0
60°	1039.7	1044.5	1039.7	1035.6	1049.7	1102.6
62.5°	945.9	949.0	945.9	945.6	943.0	983.7
65°	862.4	865.7	862.4	857.9	853.8	872.7
67.5°	782.3	782.3	782.3	774.6	768.3	786.8
70°	707.2	706.8	707.2	694.6	689.7	695.4
72.5°	616.8	625.8	616.8	607.6	607.2	607.9
75°	529.1	539.5	529.1	523.2	516.5	522.0
77.5°	440.2	456.2	440.2	435.4	432.1	428.4
80°	349.1	366.5	349.1	341.0	336.2	342.5
82.5°	258.1	271.0	258.1	248.1	247.7	250.7
85°	153.6	174.4	153.6	144.8	148.1	144.8
87.5°	49.3	62.9	49.3	47.1	51.9	50.7
90°	0.4	0.4	0.4	0.4	0.4	0.4
92.5°	0.4	0.4	0.4	0.4	0.4	0.4
95°	0.4	0.4	0.4	0.4	0.4	0.7
97.5°	0.4	0.7	0.4	0.4	0.4	0.7
100°	0.4	0.7	0.4	0.4	0.7	0.7
102.5°	0.4	0.7	0.4	0.4	0.7	0.7
105°	0.4	0.7	0.4	0.4	0.7	0.7
107.5°	0.4	0.7	0.4	0.7	0.7	0.7
110°	0.4	0.7	0.4	0.7	0.7	0.7



TEST NUMBER: P1433161
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.4	0.7	0.4	0.7	0.7	0.7
115°	0.4	0.7	0.4	0.7	0.7	1.1
117.5°	0.4	0.7	0.4	0.7	1.1	1.1
120°	0.4	0.7	0.4	0.7	1.1	1.1
122.5°	0.7	0.7	0.7	1.1	1.5	1.5
125°	0.7	1.1	0.7	1.5	1.9	1.5
127.5°	0.7	1.1	0.7	1.5	1.9	1.9
130°	1.1	1.1	1.1	1.9	2.2	2.2
132.5°	1.5	1.5	1.5	2.6	2.9	2.6
135°	1.9	1.5	1.9	2.6	3.3	2.9
137.5°	2.2	1.9	2.2	3.3	3.7	3.3
140°	2.9	2.6	2.9	3.7	3.7	3.7
142.5°	3.3	3.3	3.3	4.1	4.1	4.1
145°	4.1	4.1	4.1	4.5	4.1	4.5
147.5°	4.8	4.8	4.8	4.8	4.5	4.5
150°	5.5	5.5	5.5	5.2	4.8	4.8
152.5°	5.9	6.3	5.9	5.5	5.2	5.2
155°	6.7	7.0	6.7	6.3	5.5	5.9
157.5°	7.4	8.1	7.4	7.0	6.7	6.7
160°	8.6	8.9	8.6	8.1	7.8	8.1
162.5°	9.3	9.6	9.3	8.9	8.9	8.9
165°	10.0	10.3	10.0	9.6	9.6	10.0
167.5°	10.3	10.3	10.3	10.3	10.3	10.7
170°	10.7	11.1	10.7	10.7	11.1	11.1
172.5°	11.5	11.9	11.5	11.9	11.9	12.2
175°	12.2	12.6	12.2	12.6	12.6	12.9
177.5°	12.6	12.9	12.6	12.6	12.6	12.9
180°	13.7	13.7	13.7	13.7	13.7	13.7



TEST NUMBER: P1433161
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L930

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	17.39	18.60	17.76	18.91	19.23	16.71	17.91	17.07	18.23	18.54
	3H	19.03	20.10	19.41	20.43	20.80	18.66	19.73	19.04	20.06	20.43
	4H	19.73	20.73	20.14	21.09	21.47	19.52	20.52	19.92	20.87	21.26
	6H	20.30	21.22	20.72	21.60	21.99	20.27	21.19	20.69	21.56	21.96
	8H	20.51	21.38	20.94	21.77	22.18	20.56	21.43	20.99	21.82	22.23
	12H	20.63	21.46	21.07	21.85	22.28	20.75	21.58	21.19	21.97	22.40
4H	2H	17.85	18.85	18.26	19.20	19.59	17.34	18.34	17.74	18.69	19.08
	3H	19.76	20.59	20.18	20.99	21.40	19.51	20.34	19.93	20.75	21.15
	4H	20.62	21.36	21.06	21.78	22.23	20.51	21.25	20.95	21.67	22.12
	6H	21.34	21.98	21.81	22.43	22.90	21.41	22.04	21.87	22.49	22.96
	8H	21.60	22.20	22.07	22.64	23.12	21.75	22.35	22.22	22.80	23.27
	12H	21.77	22.29	22.26	22.78	23.26	22.00	22.53	22.49	23.01	23.49
8H	4H	20.93	21.52	21.40	21.97	22.45	20.85	21.45	21.32	21.90	22.37
	6H	21.80	22.29	22.31	22.79	23.27	21.90	22.39	22.41	22.89	23.37
	8H	22.15	22.59	22.68	23.10	23.60	22.35	22.78	22.88	23.30	23.80
	12H	22.41	22.79	22.93	23.29	23.86	22.71	23.09	23.23	23.58	24.16
12H	4H	20.96	21.48	21.44	21.97	22.44	20.88	21.41	21.37	21.89	22.37
	6H	21.87	22.31	22.40	22.82	23.32	21.98	22.41	22.50	22.93	23.42
	8H	22.29	22.67	22.81	23.16	23.74	22.49	22.87	23.01	23.37	23.94

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-5

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L930-N

Data in this report applies to families of products including EHBR-60-L930-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-5
 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-L930-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 2996
 CIE u': 0.2519
 CIE v': 0.5169
 Duv: -0.0033
 CIE x: 0.4325
 CIE y: 0.3945
 CIE z: 0.1730
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 584
 Purity: 48.21818
 Rf: 91.3
 Rg: 102

CRI (Ra):	94.4		
R1:	96.8	R9:	61.4
R2:	98.1	R10:	94.4
R3:	97.8	R11:	95.7
R4:	95.6	R12:	88.5
R5:	96.9	R13:	97.3
R6:	95.7	R14:	97.8
R7:	90.9	R15:	92.3
R8:	83.0		



Test Conditions

Stabilization Time: 40M
 Operation Time: 1H 40M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-5

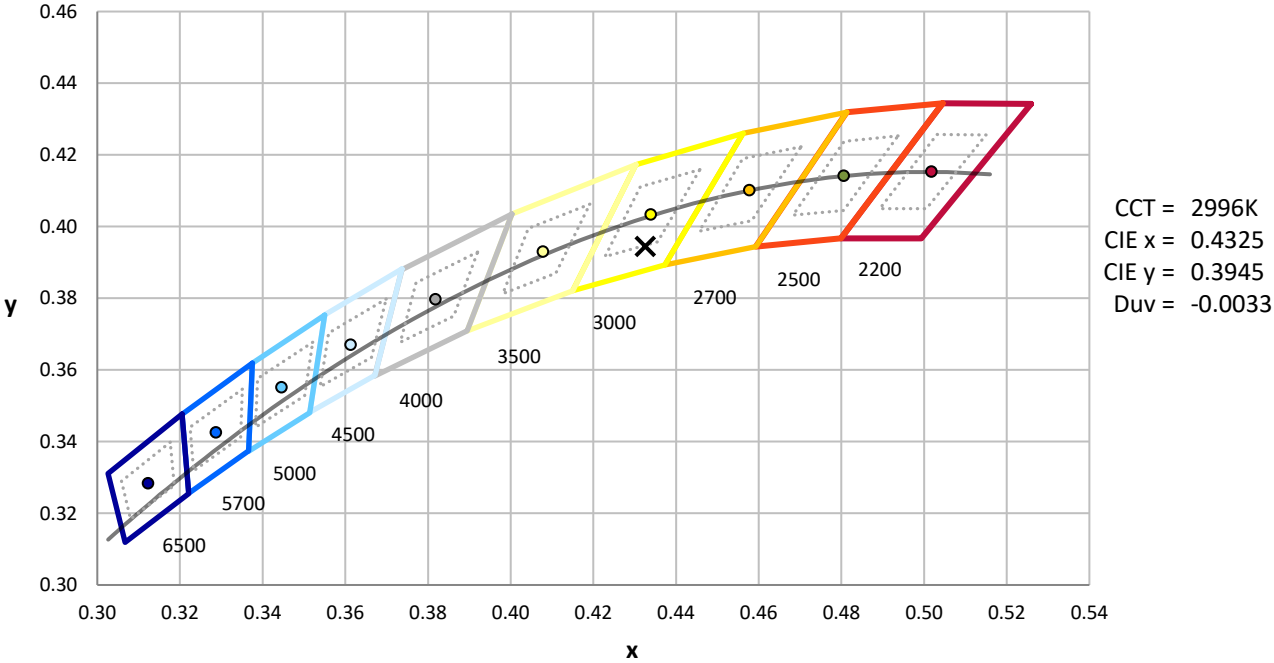
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	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: SP1-2506-472-5

CIE 1931 Chromaticity Diagram



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



CCT = 2996K
 CIE x = 0.4325
 CIE y = 0.3945
 Duv = -0.0033

Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-472-5

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-5

Scotopic Flux vs. Wavelength



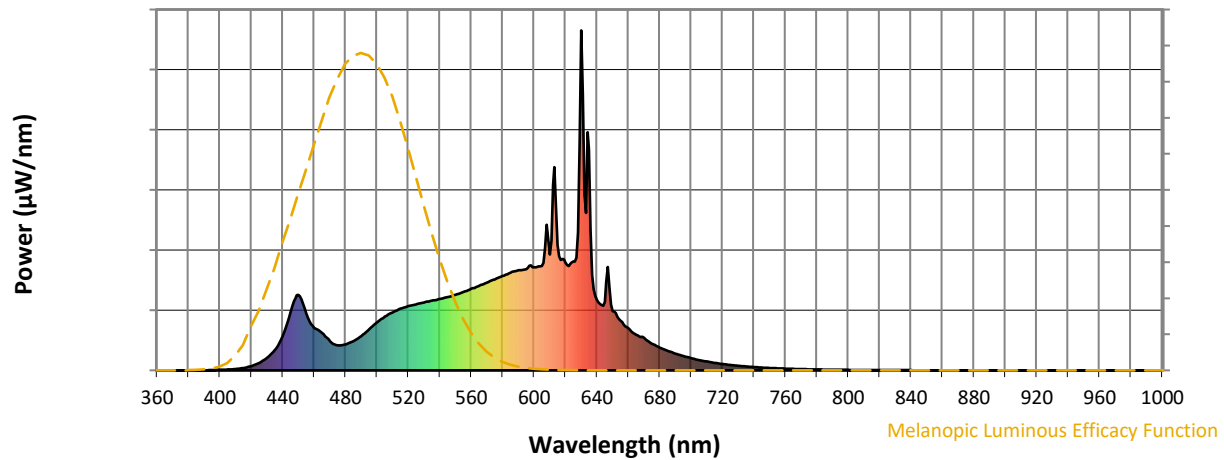
Scotopic Lumens: NR

S/P: 1.44

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.85

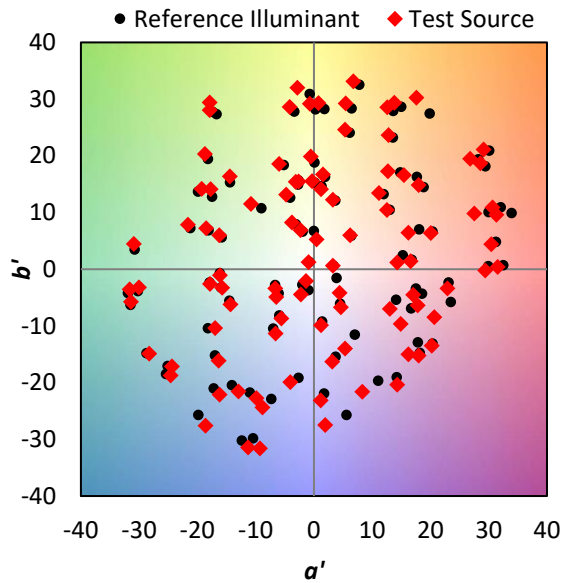
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

Summary

$R_f = 91.3$
 $R_g = 102$
 CIE $R_a = 94.4$
 $R_9 = 61.4$



Color Vector Graphics



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

CES01 = 86	CES26 = 91	CES51 = 96	CES76 = 89
CES02 = 63	CES27 = 96	CES52 = 95	CES77 = 85
CES03 = 32	CES28 = 96	CES53 = 93	CES78 = 86
CES04 = 70	CES29 = 90	CES54 = 98	CES79 = 89
CES05 = 51	CES30 = 96	CES55 = 98	CES80 = 91
CES06 = 51	CES31 = 90	CES56 = 95	CES81 = 72
CES07 = 44	CES32 = 84	CES57 = 95	CES82 = 95
CES08 = 42	CES33 = 91	CES58 = 95	CES83 = 93
CES09 = 29	CES34 = 92	CES59 = 99	CES84 = 96
CES10 = 76	CES35 = 96	CES60 = 96	CES85 = 80
CES11 = 59	CES36 = 90	CES61 = 96	CES86 = 77
CES12 = 65	CES37 = 94	CES62 = 95	CES87 = 91
CES13 = 44	CES38 = 99	CES63 = 94	CES88 = 96
CES14 = 74	CES39 = 97	CES64 = 96	CES89 = 82
CES15 = 72	CES40 = 94	CES65 = 92	CES90 = 97
CES16 = 48	CES41 = 94	CES66 = 95	CES91 = 82
CES17 = 50	CES42 = 91	CES67 = 94	CES92 = 78
CES18 = 57	CES43 = 88	CES68 = 93	CES93 = 87
CES19 = 72	CES44 = 99	CES69 = 94	CES94 = 73
CES20 = 67	CES45 = 93	CES70 = 90	CES95 = 85
CES21 = 86	CES46 = 93	CES71 = 90	CES96 = 92
CES22 = 79	CES47 = 86	CES72 = 96	CES97 = 93
CES23 = 92	CES48 = 95	CES73 = 85	CES98 = 94
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 93
CES25 = 72	CES50 = 96	CES75 = 90	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)