

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: P1432907

Luminaire Tested: EHBR1-24-UNV-TASM-L850-UPL12

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432907
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-L850-UPL12
Description: Elevate Round Highbay at, 24000 lumens, 5000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

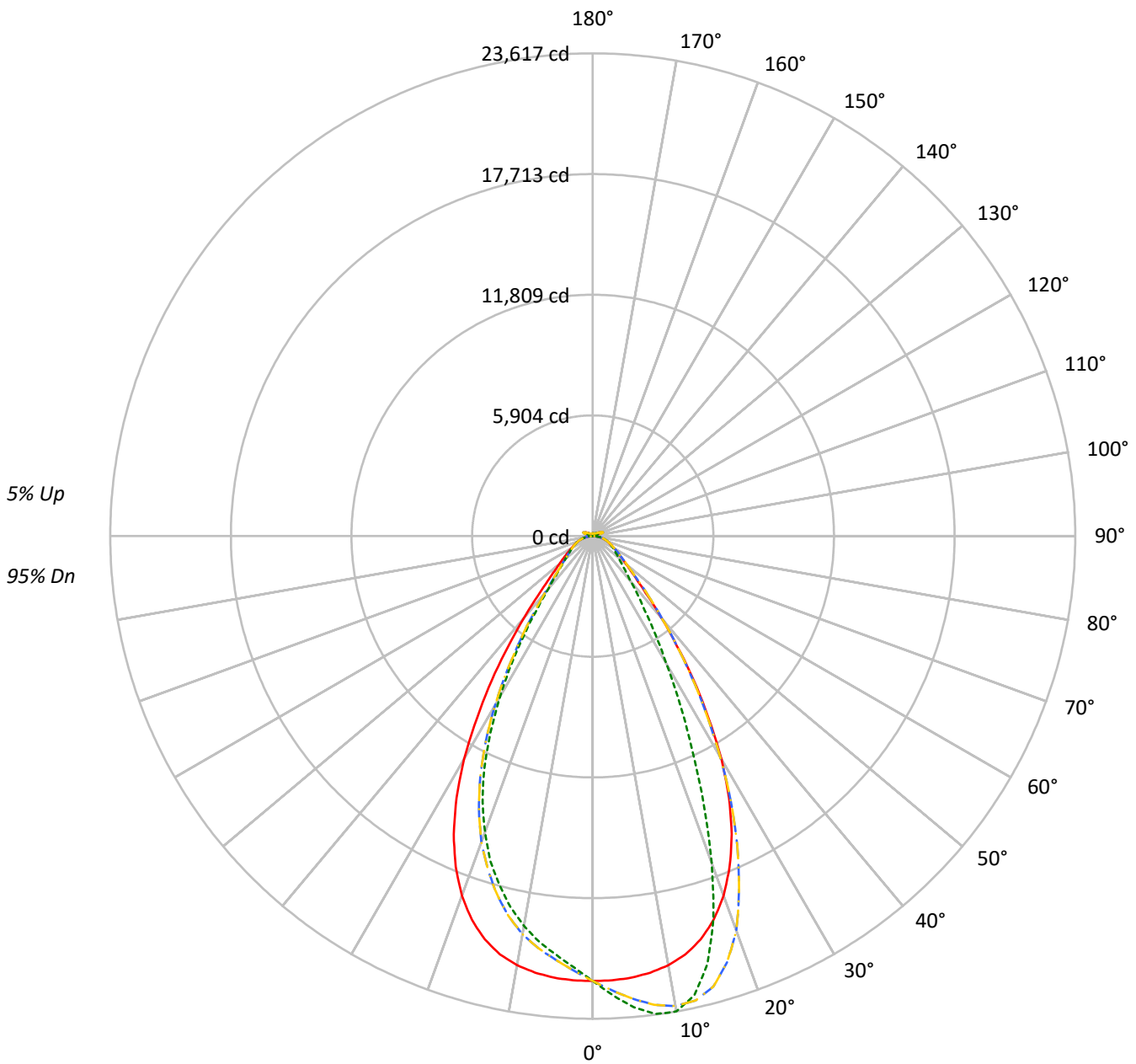
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25524.0 lumens
Efficiency: N/A
Efficacy: 188.1 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

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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	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°	102210	102210	102210	102210
5°	101588	108375	101588	96316
10°	100339	111157	100339	91155
15°	97377	103300	97377	84203
20°	91071	82833	91071	75001
25°	80606	57391	80606	62854
30°	65449	37337	65449	47027
35°	46942	24180	46942	31307
40°	30349	16666	30349	19744
45°	19257	12910	19257	14068
50°	14300	10970	14300	11717
55°	11675	9993	11675	10343
60°	10110	9520	10110	9578
65°	9217	9180	9217	9142
70°	8736	8995	8736	8879
75°	8168	8702	8168	8442
80°	7176	8216	7176	7680
85°	4644	5866	4644	5592

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 27074 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2069.5	8.1
10°-20°	5630.2	22.1
20°-30°	6603.1	25.9
30°-40°	4592.1	18.0
40°-50°	2282.0	8.9
50°-60°	1364.9	5.3
60°-70°	960.7	3.8
70°-80°	618.8	2.4
80°-90°	198.7	0.8
90°-100°	32.4	0.1
100°-110°	208.4	0.8
110°-120°	384.4	1.5
120°-130°	228.9	0.9
130°-140°	139.1	0.5
140°-150°	96.9	0.4
150°-160°	64.0	0.3
160°-170°	37.4	0.1
170°-180°	12.6	0.0
0°-30°	14302.9	56.0
0°-40°	18894.9	74.0
0°-60°	22541.8	88.3
0°-90°	24320.0	95.3
90°-120°	625.1	2.4
90°-150°	1090.1	4.3
90°-180°	1204.0	4.7
0°-180°	25524.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	21765	21765	21765	21765	21765	
5°	21691	23140	21691	20565	21691	2058
15°	20429	21672	20429	17665	20429	5709
25°	16097	11461	16097	12552	16097	7288
35°	8616	4438	8616	5746	8616	5378
45°	3116	2089	3116	2276	3116	2550
55°	1578	1350	1578	1398	1578	1443
65°	962	958	962	954	962	966
75°	575	613	575	595	575	604
85°	160	202	160	192	160	177
90°	9	12	9	9	9	12
95°	17	18	17	15	17	18
105°	96	50	96	73	96	129
115°	409	351	409	332	409	373
125°	262	276	262	240	262	242
135°	167	193	167	176	167	132
145°	152	159	152	148	152	95
155°	136	143	136	133	136	64
165°	131	136	131	129	131	37
175°	132	136	132	130	132	13
180°	132	132	132	132	132	



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 CATALOG NUMBER: EHBR1-24-UNV-TASM-L850-UPL12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9
2.5°	21752.2	22033.5	22261.2	22411.4	22485.6	22411.4	22261.2	22033.5	21752.2	21472.7	21280.4
5°	21690.7	22253.8	22730.9	23043.2	23139.8	23043.2	22730.9	22253.8	21690.7	21158.4	20805.4
7.5°	21543.3	22420.8	23129.6	23494.2	23583.1	23494.2	23129.6	22420.8	21543.3	20789.9	20343.8
10°	21318.5	22526.1	23345.1	23606.3	23616.9	23606.3	23345.1	22526.1	21318.5	20303.5	19777.3
12.5°	20959.6	22488.5	23272.9	23187.2	22992.5	23187.2	23272.9	22488.5	20959.6	19709.2	19045.6
15°	20429.1	22266.1	22815.4	22118.0	21671.9	22118.0	22815.4	22266.1	20429.1	18906.8	18137.1
17.5°	19681.5	21849.8	21860.4	20480.6	19639.0	20480.6	21860.4	21849.8	19681.5	17925.7	17078.0
20°	18717.8	21182.1	20545.4	18021.6	17024.5	18021.6	20545.4	21182.1	18717.8	16765.8	15934.0
22.5°	17509.8	20281.7	18714.2	15547.9	14187.7	15547.9	18714.2	20281.7	17509.8	15416.9	14551.3
25°	16096.9	19178.6	16744.2	12852.7	11461.0	12852.7	16744.2	19178.6	16096.9	13809.8	13027.0
27.5°	14435.0	17780.4	14646.4	10502.7	9218.7	10502.7	14646.4	17780.4	14435.0	12150.3	11350.8
30°	12589.1	15987.9	12463.3	8364.1	7181.8	8364.1	12463.3	15987.9	12589.1	10286.0	9570.2
32.5°	10522.3	14230.9	10366.8	6701.8	5700.3	6701.8	10366.8	14230.9	10522.3	8506.9	7758.9
35°	8615.6	12032.8	8476.4	5266.0	4437.9	5266.0	8476.4	12032.8	8615.6	6827.6	6092.9
37.5°	6761.4	9955.8	6756.9	4240.4	3599.6	4240.4	6756.9	9955.8	6761.4	5308.1	4711.8
40°	5260.3	7784.5	5294.2	3385.0	2888.7	3385.0	5294.2	7784.5	5260.3	4038.8	3657.2
42.5°	3985.8	5952.5	4161.2	2778.1	2453.7	2778.1	4161.2	5952.5	3985.8	3182.2	2896.5
45°	3115.7	4380.4	3249.4	2343.9	2088.8	2343.9	3249.4	4380.4	3115.7	2562.6	2370.8
47.5°	2537.3	3385.4	2633.6	2010.5	1831.7	2010.5	2633.6	3385.4	2537.3	2167.5	2023.9
50°	2131.2	2597.7	2186.7	1755.0	1634.9	1755.0	2186.7	2597.7	2131.2	1856.2	1760.3
52.5°	1830.8	2118.6	1862.2	1563.9	1483.2	1563.9	1862.2	2118.6	1830.8	1623.9	1564.3
55°	1577.8	1781.1	1619.4	1406.4	1350.5	1406.4	1619.4	1781.1	1577.8	1445.2	1401.1
57.5°	1385.6	1510.9	1406.4	1272.1	1234.9	1272.1	1406.4	1510.9	1385.6	1286.0	1262.4
60°	1215.4	1308.4	1241.1	1155.0	1144.4	1155.0	1241.1	1308.4	1215.4	1157.1	1141.5
62.5°	1084.4	1143.2	1097.4	1049.7	1040.4	1049.7	1097.4	1143.2	1084.4	1039.5	1042.3
65°	962.0	1016.7	980.7	955.0	958.2	955.0	980.7	1016.7	962.0	941.1	945.7
67.5°	867.3	895.9	880.3	865.6	869.3	865.6	880.3	895.9	867.3	846.8	853.8
70°	766.5	797.0	781.1	783.2	789.3	783.2	781.1	797.0	766.5	760.3	765.6
72.5°	670.1	693.8	688.5	693.4	699.9	693.4	688.5	693.8	670.1	669.3	669.7
75°	575.4	593.4	595.9	602.8	613.0	602.8	595.9	593.4	575.4	569.3	576.7
77.5°	472.2	492.6	500.4	509.7	524.8	509.7	500.4	492.6	472.2	476.3	480.0
80°	377.5	386.9	404.0	411.0	432.2	411.0	404.0	386.9	377.5	370.6	375.9
82.5°	276.3	284.9	299.6	312.7	324.8	312.7	299.6	284.9	276.3	273.1	273.5
85°	159.6	172.6	182.4	197.9	201.6	197.9	182.4	172.6	159.6	163.3	159.6
87.5°	55.9	60.0	68.6	74.7	75.0	74.7	68.6	60.0	55.9	57.2	51.9
90°	8.9	15.3	26.2	15.6	11.8	15.6	26.2	15.3	8.9	15.5	24.2
92.5°	11.6	20.5	36.8	20.2	15.1	20.2	36.8	20.5	11.6	20.1	38.7
95°	17.3	25.1	46.7	22.2	17.8	22.2	46.7	25.1	17.3	26.8	53.8
97.5°	26.5	31.1	52.7	23.6	21.0	23.6	52.7	31.1	26.5	32.7	61.8
100°	35.1	35.1	95.5	26.8	23.7	26.8	95.5	35.1	35.1	40.4	96.1
102.5°	52.9	68.5	220.7	52.4	28.3	52.4	220.7	68.5	52.9	75.3	203.6
105°	95.8	155.6	387.6	132.1	50.5	132.1	387.6	155.6	95.8	157.2	362.6
107.5°	180.9	289.5	499.1	258.8	114.4	258.8	499.1	289.5	180.9	277.9	478.4
110°	289.1	404.3	544.6	353.8	229.3	353.8	544.6	404.3	289.1	381.4	501.6



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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°	376.1	450.5	532.1	392.1	316.3	392.1	532.1	450.5	376.1	421.0	480.4
115°	408.9	443.9	475.3	390.8	350.7	390.8	475.3	443.9	408.9	411.1	429.0
117.5°	395.1	406.3	410.7	367.0	352.6	367.0	410.7	406.3	395.1	369.9	364.3
120°	356.8	352.2	346.5	332.0	332.8	332.0	346.5	352.2	356.8	323.1	304.2
122.5°	309.1	299.2	293.0	296.9	305.8	296.9	293.0	299.2	309.1	275.4	261.1
125°	262.3	252.4	255.8	266.5	275.9	266.5	255.8	252.4	262.3	234.3	230.6
127.5°	223.1	218.5	228.8	240.8	248.9	240.8	228.8	218.5	223.1	205.3	208.8
130°	195.1	196.1	209.6	220.0	225.1	220.0	209.6	196.1	195.1	186.5	195.4
132.5°	177.7	182.6	195.5	204.7	207.8	204.7	195.5	182.6	177.7	175.4	186.2
135°	166.9	174.0	185.9	191.6	193.2	191.6	185.9	174.0	166.9	167.9	177.7
137.5°	160.6	167.8	176.7	181.6	180.6	181.6	176.7	167.8	160.6	163.2	170.5
140°	157.2	164.2	168.2	173.7	173.2	173.7	168.2	164.2	157.2	158.5	164.4
142.5°	153.6	160.0	162.0	166.1	165.2	166.1	162.0	160.0	153.6	154.9	158.9
145°	152.1	156.9	155.2	160.2	159.0	160.2	155.2	156.9	152.1	152.3	154.7
147.5°	148.7	152.3	150.3	154.7	153.4	154.7	150.3	152.3	148.7	148.7	149.8
150°	145.2	147.8	144.8	149.8	149.9	149.8	144.8	147.8	145.2	144.5	145.6
152.5°	140.3	142.9	140.3	146.0	145.7	146.0	140.3	142.9	140.3	139.6	140.7
155°	136.4	137.8	136.4	142.2	142.6	142.2	136.4	137.8	136.4	136.0	136.9
157.5°	134.1	135.1	134.5	139.5	139.9	139.5	134.5	135.1	134.1	134.1	134.5
160°	132.3	133.6	133.5	137.8	138.2	137.8	133.5	133.6	132.3	132.6	133.0
162.5°	131.8	131.8	132.0	136.3	137.1	136.3	132.0	131.8	131.8	131.8	132.5
165°	131.0	131.7	131.2	134.7	136.1	134.7	131.2	131.7	131.0	131.3	131.3
167.5°	131.2	130.5	131.4	134.6	136.1	134.6	131.4	130.5	131.2	131.4	131.4
170°	130.4	130.7	130.8	134.2	135.6	134.2	130.8	130.7	130.4	131.0	131.2
172.5°	131.5	131.5	131.5	134.0	136.1	134.0	131.5	131.5	131.5	131.8	132.5
175°	132.3	132.1	132.3	134.1	136.3	134.1	132.3	132.1	132.3	131.9	131.9
177.5°	131.6	132.5	133.3	135.3	138.0	135.3	133.3	132.5	131.6	131.9	131.9
180°	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.5	132.5



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	21764.9	21764.9	21764.9	21764.9	21764.9	21764.9
2.5°	21132.7	21118.9	21132.7	21280.4	21472.7	21752.2
5°	20641.8	20565.0	20641.8	20805.4	21158.4	21690.7
7.5°	20070.0	20025.5	20070.0	20343.8	20789.9	21543.3
10°	19468.0	19367.1	19468.0	19777.3	20303.5	21318.5
12.5°	18726.0	18592.6	18726.0	19045.6	19709.2	20959.6
15°	17782.4	17665.3	17782.4	18137.1	18906.8	20429.1
17.5°	16769.8	16663.7	16769.8	17078.0	17925.7	19681.5
20°	15498.1	15414.8	15498.1	15934.0	16765.8	18717.8
22.5°	14164.0	14086.0	14164.0	14551.3	15416.9	17509.8
25°	12594.4	12551.9	12594.4	13027.0	13809.8	16096.9
27.5°	10898.1	10825.9	10898.1	11350.8	12150.3	14435.0
30°	9165.3	9045.7	9165.3	9570.2	10286.0	12589.1
32.5°	7470.3	7384.2	7470.3	7758.9	8506.9	10522.3
35°	5832.1	5746.0	5832.1	6092.9	6827.6	8615.6
37.5°	4544.5	4392.3	4544.5	4711.8	5308.1	6761.4
40°	3446.6	3422.1	3446.6	3657.2	4038.8	5260.3
42.5°	2805.8	2739.3	2805.8	2896.5	3182.2	3985.8
45°	2302.2	2276.1	2302.2	2370.8	2562.6	3115.7
47.5°	1979.8	1991.2	1979.8	2023.9	2167.5	2537.3
50°	1739.5	1746.3	1739.5	1760.3	1856.2	2131.2
52.5°	1562.3	1556.2	1562.3	1564.3	1623.9	1830.8
55°	1405.6	1397.8	1405.6	1401.1	1445.2	1577.8
57.5°	1268.4	1274.1	1268.4	1262.4	1286.0	1385.6
60°	1146.0	1151.4	1146.0	1141.5	1157.1	1215.4
62.5°	1042.7	1046.1	1042.7	1042.3	1039.5	1084.4
65°	950.6	954.2	950.6	945.7	941.1	962.0
67.5°	862.4	862.4	862.4	853.8	846.8	867.3
70°	779.6	779.1	779.6	765.6	760.3	766.5
72.5°	679.9	689.8	679.9	669.7	669.3	670.1
75°	583.2	594.7	583.2	576.7	569.3	575.4
77.5°	485.3	502.8	485.3	480.0	476.3	472.2
80°	384.9	404.0	384.9	375.9	370.6	377.5
82.5°	284.5	298.7	284.5	273.5	273.1	276.3
85°	169.3	192.2	169.3	159.6	163.3	159.6
87.5°	54.3	69.4	54.3	51.9	57.2	55.9
90°	14.2	8.9	14.2	24.2	15.5	8.9
92.5°	21.5	13.0	21.5	38.7	20.1	11.6
95°	24.8	14.9	24.8	53.8	26.8	17.3
97.5°	27.4	19.3	27.4	61.8	32.7	26.5
100°	32.0	25.1	32.0	96.1	40.4	35.1
102.5°	67.7	42.3	67.7	203.6	75.3	52.9
105°	142.2	72.7	142.2	362.6	157.2	95.8
107.5°	254.4	125.4	254.4	478.4	277.9	180.9
110°	337.5	233.7	337.5	501.6	381.4	289.1



TEST NUMBER: P1432907

CATALOG NUMBER: EHBR1-24-UNV-TASM-L850-UPL12

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	362.6	315.5	362.6	480.4	421.0	376.1
115°	348.7	332.0	348.7	429.0	411.1	408.9
117.5°	318.4	320.7	318.4	364.3	369.9	395.1
120°	283.4	297.0	283.4	304.2	323.1	356.8
122.5°	251.5	267.3	251.5	261.1	275.4	309.1
125°	223.8	240.0	223.8	230.6	234.3	262.3
127.5°	204.6	215.6	204.6	208.8	205.3	223.1
130°	189.9	199.1	189.9	195.4	186.5	195.1
132.5°	179.8	185.8	179.8	186.2	175.4	177.7
135°	170.9	175.8	170.9	177.7	167.9	166.9
137.5°	163.5	167.7	163.5	170.5	163.2	160.6
140°	157.0	160.5	157.0	164.4	158.5	157.2
142.5°	150.1	152.7	150.1	158.9	154.9	153.6
145°	145.7	147.6	145.7	154.7	152.3	152.1
147.5°	141.8	143.2	141.8	149.8	148.7	148.7
150°	138.0	139.4	138.0	145.6	144.5	145.2
152.5°	133.8	135.7	133.8	140.7	139.6	140.3
155°	131.4	133.1	131.4	136.9	136.0	136.4
157.5°	130.2	131.6	130.2	134.5	134.1	134.1
160°	129.5	130.5	129.5	133.0	132.6	132.3
162.5°	128.3	129.4	128.3	132.5	131.8	131.8
165°	128.4	128.8	128.4	131.3	131.3	131.0
167.5°	128.2	128.8	128.2	131.4	131.4	131.2
170°	128.6	129.1	128.6	131.2	131.0	130.4
172.5°	129.5	129.9	129.5	132.5	131.8	131.5
175°	129.6	130.0	129.6	131.9	131.9	132.3
177.5°	130.6	131.0	130.6	131.9	131.9	131.6
180°	132.5	132.5	132.5	132.5	132.5	132.5



TEST NUMBER: P1432907
 CATALOG NUMBER: EHBR1-24-UNV-TASM-L850-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	16.87	18.00	17.32	18.42	18.86	16.19	17.32	16.64	17.74	18.17
	3H	18.42	19.43	18.89	19.86	20.34	18.04	19.05	18.50	19.48	19.96
	4H	19.06	20.00	19.54	20.45	20.95	18.82	19.76	19.31	20.21	20.71
	6H	19.54	20.40	20.04	20.87	21.38	19.46	20.33	19.96	20.80	21.31
	8H	19.69	20.51	20.20	20.99	21.51	19.69	20.50	20.20	20.99	21.51
	12H	19.76	20.54	20.28	21.02	21.57	19.81	20.60	20.33	21.07	21.62
4H	2H	17.29	18.23	17.78	18.68	19.18	16.77	17.71	17.25	18.16	18.66
	3H	19.09	19.86	19.58	20.36	20.88	18.82	19.60	19.32	20.10	20.62
	4H	19.86	20.56	20.38	21.07	21.62	19.73	20.43	20.25	20.94	21.50
	6H	20.48	21.08	21.02	21.61	22.19	20.50	21.11	21.05	21.64	22.22
	8H	20.67	21.23	21.22	21.77	22.35	20.77	21.34	21.33	21.87	22.45
	12H	20.78	21.27	21.35	21.84	22.43	20.94	21.44	21.51	22.01	22.59
8H	4H	20.11	20.67	20.66	21.21	21.79	20.01	20.57	20.56	21.11	21.69
	6H	20.85	21.31	21.44	21.89	22.48	20.92	21.37	21.50	21.96	22.55
	8H	21.12	21.53	21.72	22.13	22.73	21.27	21.68	21.87	22.27	22.88
	12H	21.30	21.65	21.89	22.23	22.91	21.52	21.88	22.12	22.45	23.13
12H	4H	20.12	20.62	20.69	21.18	21.77	20.02	20.52	20.59	21.09	21.67
	6H	20.90	21.30	21.50	21.90	22.50	20.96	21.37	21.56	21.97	22.57
	8H	21.21	21.57	21.81	22.15	22.83	21.37	21.72	21.96	22.30	22.98

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-4

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L850-N

Data in this report applies to families of products including EHBR-60-L850-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-4
 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-L850-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 4875
 CIE u': 0.2124
 CIE v': 0.4871
 Duv: 0.0005
 CIE x: 0.3488
 CIE y: 0.3555
 CIE z: 0.2957
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 573
 Purity: 11.33556
 Rf: 80
 Rg: 102.3

CRI (Ra):	82.3		
R1:	85.0	R9:	43.9
R2:	83.1	R10:	57.4
R3:	78.8	R11:	83.1
R4:	84.0	R12:	51.0
R5:	83.0	R13:	83.4
R6:	76.3	R14:	87.4
R7:	86.8	R15:	83.4
R8:	81.7		



Test Conditions

Stabilization Time: 39M
 Operation Time: 1H 39M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-4

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: SP1-2506-472-4

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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.82

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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-4

Melanopic Flux vs. Wavelength



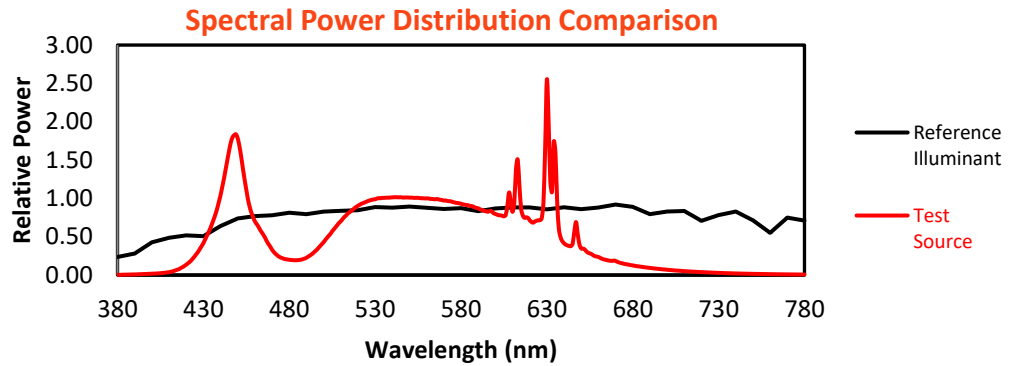
Melanopic Lumens: NR

M/P: 3.71

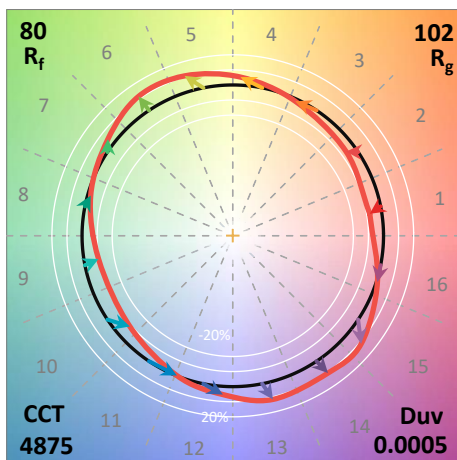
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

Summary

$R_f = 80$
 $R_g = 102.3$
 $CIE R_a = 82.3$
 $R_9 = 43.9$

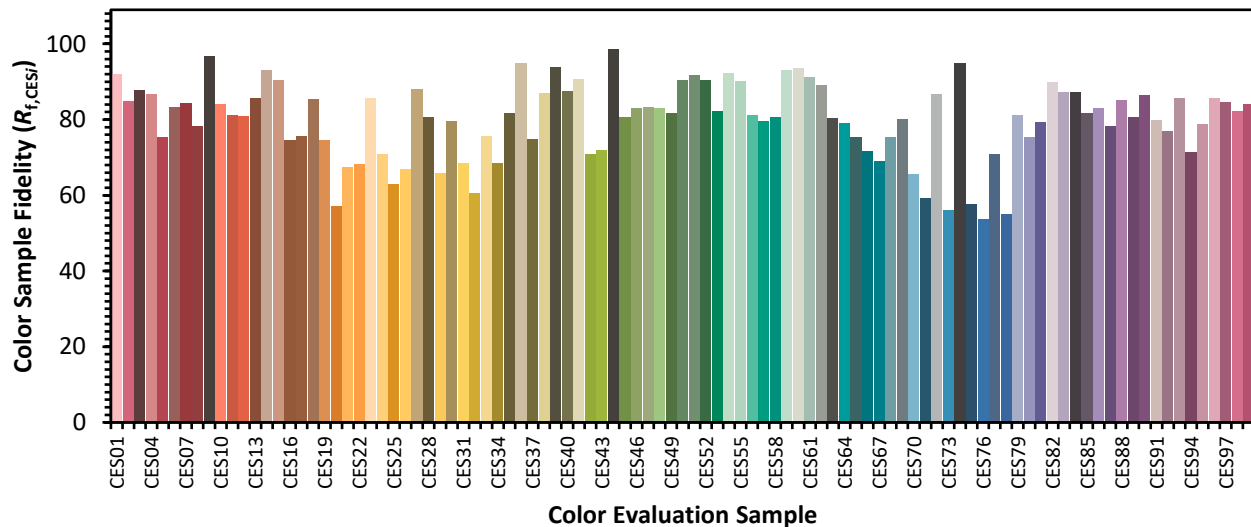


Color Vector Graphics

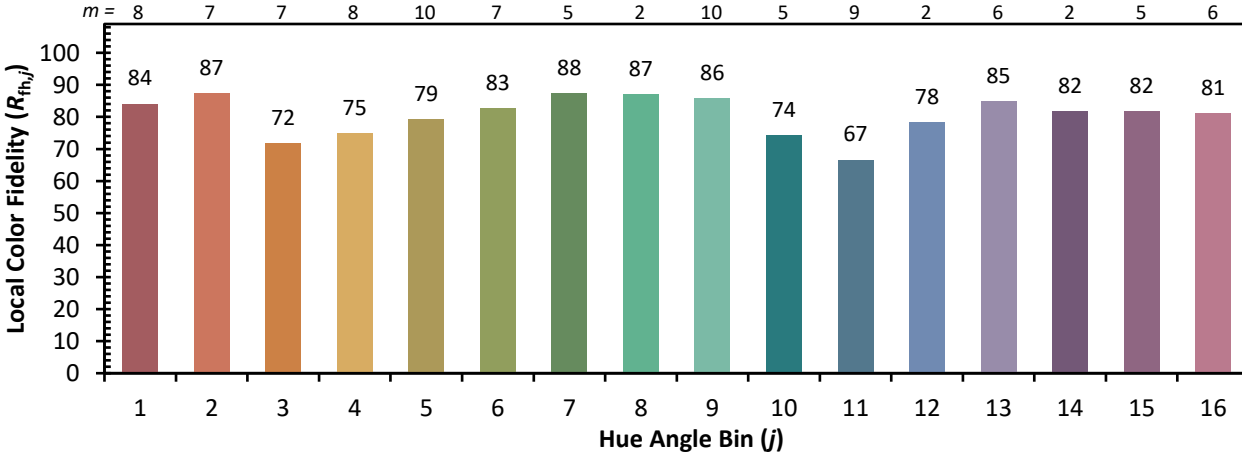


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 67	CES51 = 92	CES76 = 54
CES02 = 60	CES27 = 88	CES52 = 91	CES77 = 71
CES03 = 31	CES28 = 81	CES53 = 82	CES78 = 55
CES04 = 69	CES29 = 66	CES54 = 92	CES79 = 81
CES05 = 47	CES30 = 80	CES55 = 90	CES80 = 75
CES06 = 50	CES31 = 69	CES56 = 81	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 80	CES82 = 90
CES08 = 39	CES33 = 76	CES58 = 81	CES83 = 87
CES09 = 29	CES34 = 68	CES59 = 93	CES84 = 87
CES10 = 73	CES35 = 82	CES60 = 94	CES85 = 82
CES11 = 56	CES36 = 95	CES61 = 91	CES86 = 83
CES12 = 62	CES37 = 75	CES62 = 89	CES87 = 78
CES13 = 42	CES38 = 87	CES63 = 80	CES88 = 85
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 81
CES15 = 71	CES40 = 87	CES65 = 75	CES90 = 86
CES16 = 46	CES41 = 91	CES66 = 72	CES91 = 80
CES17 = 48	CES42 = 71	CES67 = 69	CES92 = 77
CES18 = 56	CES43 = 72	CES68 = 75	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 80	CES94 = 71
CES20 = 65	CES45 = 81	CES70 = 66	CES95 = 79
CES21 = 85	CES46 = 83	CES71 = 59	CES96 = 86
CES22 = 77	CES47 = 83	CES72 = 87	CES97 = 85
CES23 = 91	CES48 = 83	CES73 = 56	CES98 = 82
CES24 = 90	CES49 = 82	CES74 = 95	CES99 = 84
CES25 = 71	CES50 = 91	CES75 = 58	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)