

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: P1433804

Luminaire Tested: EHBR1-30-UNV-TASM-L940-UPL15

Issue Date: 3/20/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433804
REPORT IS A COMBINATION OF REPORTS P1431741 AND P1431635
Test Lab: INNOVATION CENTER
Issue Date: 3/20/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-30-UNV-TASM-L940-UPL15
Description: Elevate Round Highbay at, 30000 lumens, 4000K 90CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

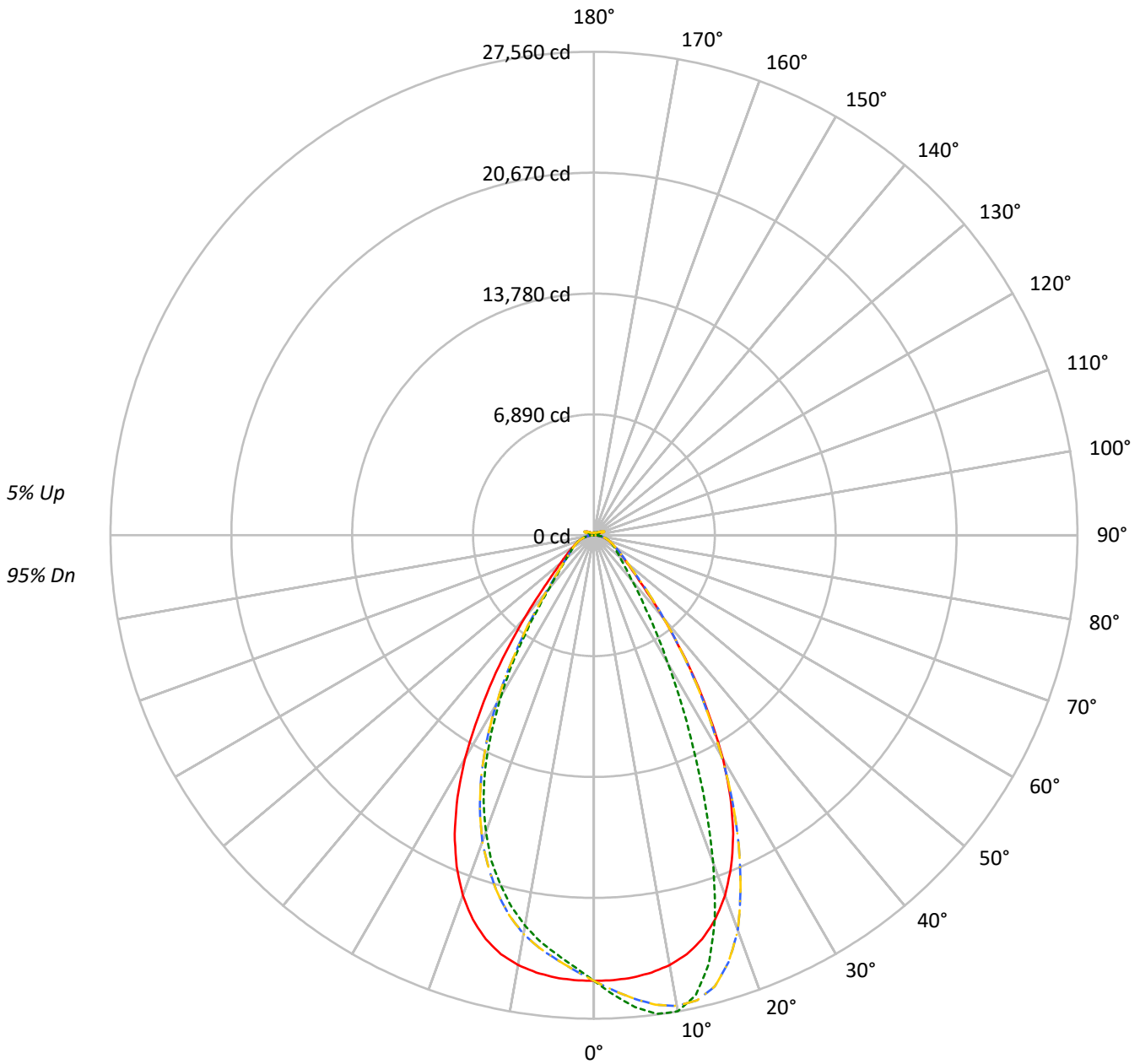
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29785.6 lumens
Efficiency: N/A
Efficacy: 176.1 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): 169.1
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°	119273	119273	119273	119273
5°	118548	126468	118548	112396
10°	117091	129715	117091	106373
15°	113633	120546	113633	98260
20°	106275	96661	106275	87522
25°	94063	66972	94063	73347
30°	76376	43570	76376	54878
35°	54779	28217	54779	36533
40°	35416	19449	35416	23040
45°	22471	15065	22471	16416
50°	16687	12802	16687	13674
55°	13624	11662	13624	12070
60°	11798	11108	11798	11176
65°	10754	10714	10754	10668
70°	10193	10498	10193	10362
75°	9532	10154	9532	9850
80°	8375	9588	8375	8963
85°	5418	6843	5418	6526

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 31594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2415.0	8.1
10°-20°	6570.2	22.1
20°-30°	7705.5	25.9
30°-40°	5358.7	18.0
40°-50°	2663.0	8.9
50°-60°	1592.8	5.3
60°-70°	1121.0	3.8
70°-80°	722.2	2.4
80°-90°	231.8	0.8
90°-100°	37.8	0.1
100°-110°	243.2	0.8
110°-120°	448.7	1.5
120°-130°	267.2	0.9
130°-140°	162.4	0.5
140°-150°	113.1	0.4
150°-160°	74.6	0.3
160°-170°	43.7	0.1
170°-180°	14.7	0.0
0°-30°	16690.7	56.0
0°-40°	22049.3	74.0
0°-60°	26305.1	88.3
0°-90°	28380.1	95.3
90°-120°	729.7	2.4
90°-150°	1272.4	4.3
90°-180°	1405.0	4.7
0°-180°	29785.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	25398	25398	25398	25398	25398	
5°	25312	27003	25312	23998	25312	2402
15°	23840	25290	23840	20614	23840	6662
25°	18784	13374	18784	14647	18784	8504
35°	10054	5179	10054	6705	10054	6276
45°	3636	2438	3636	2656	3636	2975
55°	1841	1576	1841	1631	1841	1684
65°	1122	1118	1122	1114	1122	1127
75°	672	715	672	694	672	705
85°	186	235	186	224	186	207
90°	10	14	10	10	10	14
95°	20	21	20	17	20	21
105°	112	59	112	85	112	151
115°	477	409	477	388	477	435
125°	306	322	306	280	306	282
135°	195	226	195	205	195	154
145°	177	186	177	172	177	111
155°	159	166	159	155	159	74
165°	153	159	153	150	153	43
175°	155	159	155	152	155	15
180°	155	155	155	155	155	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4
2.5°	25383.7	25711.8	25977.6	26152.9	26239.5	26152.9	25977.6	25711.8	25383.7	25057.5	24833.1
5°	25311.8	25969.1	26525.8	26890.1	27003.0	26890.1	26525.8	25969.1	25311.8	24690.8	24278.8
7.5°	25139.9	26163.8	26991.1	27416.4	27520.2	27416.4	26991.1	26163.8	25139.9	24260.7	23740.1
10°	24877.5	26286.7	27242.5	27547.4	27559.8	27547.4	27242.5	26286.7	24877.5	23693.0	23079.1
12.5°	24458.8	26242.9	27158.2	27058.3	26831.0	27058.3	27158.2	26242.9	24458.8	22999.5	22225.2
15°	23839.7	25983.3	26624.4	25810.4	25289.9	25810.4	26624.4	25983.3	23839.7	22063.2	21165.0
17.5°	22967.1	25497.6	25510.0	23899.7	22917.7	23899.7	25510.0	25497.6	22967.1	20918.3	19929.1
20°	21842.7	24718.3	23975.4	21030.2	19866.7	21030.2	23975.4	24718.3	21842.7	19564.8	18594.2
22.5°	20433.0	23667.7	21838.4	18143.6	16556.2	18143.6	21838.4	23667.7	20433.0	17990.7	16980.6
25°	18784.2	22380.4	19539.5	14998.4	13374.3	14998.4	19539.5	22380.4	18784.2	16115.2	15201.8
27.5°	16844.8	20748.8	17091.5	12256.1	10757.8	12256.1	17091.5	20748.8	16844.8	14178.7	13245.8
30°	14690.8	18657.0	14544.0	9760.5	8380.7	9760.5	14544.0	18657.0	14690.8	12003.1	11167.8
32.5°	12278.9	16606.7	12097.5	7820.7	6652.0	7820.7	12097.5	16606.7	12278.9	9927.2	9054.2
35°	10053.9	14041.6	9891.5	6145.2	5178.8	6145.2	9891.5	14041.6	10053.9	7967.3	7110.0
37.5°	7890.2	11617.9	7885.0	4948.3	4200.6	4948.3	7885.0	11617.9	7890.2	6194.2	5498.4
40°	6138.5	9084.2	6178.0	3950.1	3371.0	3950.1	6178.0	9084.2	6138.5	4713.1	4267.8
42.5°	4651.1	6946.3	4855.9	3241.9	2863.3	3241.9	4855.9	6946.3	4651.1	3713.4	3380.0
45°	3635.7	5111.7	3792.0	2735.1	2437.5	2735.1	3792.0	5111.7	3635.7	2990.4	2766.6
47.5°	2960.9	3950.6	3073.3	2346.1	2137.5	2346.1	3073.3	3950.6	2960.9	2529.4	2361.8
50°	2487.0	3031.4	2551.8	2047.9	1907.9	2047.9	2551.8	3031.4	2487.0	2166.1	2054.1
52.5°	2136.5	2472.3	2173.2	1825.0	1730.7	1825.0	2173.2	2472.3	2136.5	1895.1	1825.5
55°	1841.2	2078.4	1889.8	1641.2	1576.0	1641.2	1889.8	2078.4	1841.2	1686.5	1635.0
57.5°	1616.9	1763.1	1641.2	1484.5	1441.2	1484.5	1641.2	1763.1	1616.9	1500.7	1473.1
60°	1418.3	1526.9	1448.3	1347.8	1335.4	1347.8	1448.3	1526.9	1418.3	1350.2	1332.1
62.5°	1265.5	1334.0	1280.6	1224.9	1214.0	1224.9	1280.6	1334.0	1265.5	1213.0	1216.4
65°	1122.5	1186.4	1144.4	1114.4	1118.3	1114.4	1144.4	1186.4	1122.5	1098.2	1103.5
67.5°	1012.0	1045.4	1027.3	1010.2	1014.5	1010.2	1027.3	1045.4	1012.0	988.2	996.3
70°	894.4	930.2	911.5	913.9	921.1	913.9	911.5	930.2	894.4	887.3	893.4
72.5°	782.0	809.6	803.5	809.1	816.8	809.1	803.5	809.6	782.0	781.1	781.6
75°	671.5	692.5	695.4	703.4	715.3	703.4	695.4	692.5	671.5	664.4	672.9
77.5°	551.1	574.8	583.9	594.9	612.5	594.9	583.9	574.8	551.1	555.8	560.1
80°	440.6	451.5	471.5	479.6	504.4	479.6	471.5	451.5	440.6	432.5	438.6
82.5°	322.4	332.4	349.6	364.8	379.1	364.8	349.6	332.4	322.4	318.6	319.1
85°	186.2	201.4	212.9	231.0	235.2	231.0	212.9	201.4	186.2	190.5	186.2
87.5°	65.2	70.0	80.0	87.2	87.7	87.2	80.0	70.0	65.2	66.7	60.5
90°	10.4	17.9	30.7	18.3	13.8	18.3	30.7	17.9	10.4	18.2	28.2
92.5°	13.6	24.0	42.9	23.7	17.7	23.7	42.9	24.0	13.6	23.6	45.1
95°	20.2	29.4	54.5	26.0	20.8	26.0	54.5	29.4	20.2	31.3	62.9
97.5°	30.9	36.3	61.5	27.6	24.6	27.6	61.5	36.3	30.9	38.2	72.1
100°	41.0	41.0	111.5	31.4	27.7	31.4	111.5	41.0	41.0	47.1	112.2
102.5°	61.8	79.9	257.5	61.1	33.1	61.1	257.5	79.9	61.8	87.9	237.7
105°	111.8	181.6	452.4	154.3	59.0	154.3	452.4	181.6	111.8	183.4	423.2
107.5°	211.2	337.9	582.6	302.1	133.7	302.1	582.6	337.9	211.2	324.4	558.5
110°	337.4	472.0	635.7	413.1	267.7	413.1	635.7	472.0	337.4	445.2	585.4



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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°	439.1	525.8	621.0	457.7	369.3	457.7	621.0	525.8	439.1	491.4	560.8
115°	477.3	518.2	554.8	456.1	409.4	456.1	554.8	518.2	477.3	479.9	500.8
117.5°	461.2	474.2	479.3	428.5	411.7	428.5	479.3	474.2	461.2	431.9	425.3
120°	416.4	411.1	404.4	387.7	388.6	387.7	404.4	411.1	416.4	377.2	355.1
122.5°	360.7	349.2	342.0	346.5	357.0	346.5	342.0	349.2	360.7	321.4	304.8
125°	306.0	294.5	298.6	311.1	322.1	311.1	298.6	294.5	306.0	273.5	269.1
127.5°	260.4	255.0	267.0	281.1	290.5	281.1	267.0	255.0	260.4	239.6	243.7
130°	227.8	228.8	244.7	256.9	262.7	256.9	244.7	228.8	227.8	217.7	228.1
132.5°	207.4	213.2	228.3	238.9	242.4	238.9	228.3	213.2	207.4	204.8	217.4
135°	194.8	203.1	217.2	223.8	225.5	223.8	217.2	203.1	194.8	196.0	207.4
137.5°	187.5	195.9	206.4	211.9	210.8	211.9	206.4	195.9	187.5	190.3	199.1
140°	183.4	191.7	196.4	202.6	202.1	202.6	196.4	191.7	183.4	184.9	191.9
142.5°	179.2	186.8	189.1	193.9	192.9	193.9	189.1	186.8	179.2	180.8	185.4
145°	177.4	183.1	181.1	187.0	185.6	187.0	181.1	183.1	177.4	177.8	180.5
147.5°	173.6	177.8	175.4	180.5	179.2	180.5	175.4	177.8	173.6	173.6	174.8
150°	169.4	172.4	168.9	174.8	175.1	174.8	168.9	172.4	169.4	168.6	169.9
152.5°	163.8	166.9	163.8	170.4	170.1	170.4	163.8	166.9	163.8	163.0	164.2
155°	159.3	160.9	159.3	166.0	166.5	166.0	159.3	160.9	159.3	158.8	159.8
157.5°	156.4	157.6	156.9	162.8	163.2	162.8	156.9	157.6	156.4	156.4	156.9
160°	154.5	156.0	155.8	160.9	161.4	160.9	155.8	156.0	154.5	154.7	155.2
162.5°	153.9	153.9	154.1	159.2	160.1	159.2	154.1	153.9	153.9	153.9	154.7
165°	153.0	153.8	153.2	157.2	158.9	157.2	153.2	153.8	153.0	153.3	153.3
167.5°	153.2	152.4	153.3	157.2	158.8	157.2	153.3	152.4	153.2	153.4	153.4
170°	152.1	152.6	152.8	156.5	158.2	156.5	152.8	152.6	152.1	152.9	153.2
172.5°	153.6	153.6	153.4	156.4	158.9	156.4	153.4	153.6	153.6	153.9	154.7
175°	154.6	154.2	154.4	156.6	159.1	156.6	154.4	154.2	154.6	154.1	154.1
177.5°	153.7	154.7	155.6	157.9	161.1	157.9	155.6	154.7	153.7	154.1	154.1
180°	154.7	154.7	154.7	154.7	154.7	154.7	154.7	154.7	154.7	154.7	154.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	25398.4	25398.4	25398.4	25398.4	25398.4	25398.4
2.5°	24660.8	24644.6	24660.8	24833.1	25057.5	25383.7
5°	24087.8	23998.3	24087.8	24278.8	24690.8	25311.8
7.5°	23420.6	23368.7	23420.6	23740.1	24260.7	25139.9
10°	22718.1	22600.4	22718.1	23079.1	23693.0	24877.5
12.5°	21852.2	21696.5	21852.2	22225.2	22999.5	24458.8
15°	20751.1	20614.4	20751.1	21165.0	22063.2	23839.7
17.5°	19569.5	19445.7	19569.5	19929.1	20918.3	22967.1
20°	18085.5	17988.3	18085.5	18594.2	19564.8	21842.7
22.5°	16528.6	16437.7	16528.6	16980.6	17990.7	20433.0
25°	14696.9	14647.3	14696.9	15201.8	16115.2	18784.2
27.5°	12717.6	12633.3	12717.6	13245.8	14178.7	16844.8
30°	10695.4	10555.8	10695.4	11167.8	12003.1	14690.8
32.5°	8717.5	8617.0	8717.5	9054.2	9927.2	12278.9
35°	6805.8	6705.2	6805.8	7110.0	7967.3	10053.9
37.5°	5303.1	5125.5	5303.1	5498.4	6194.2	7890.2
40°	4022.0	3993.4	4022.0	4267.8	4713.1	6138.5
42.5°	3274.3	3196.7	3274.3	3380.0	3713.4	4651.1
45°	2686.6	2656.1	2686.6	2766.6	2990.4	3635.7
47.5°	2310.3	2323.7	2310.3	2361.8	2529.4	2960.9
50°	2029.8	2037.9	2029.8	2054.1	2166.1	2487.0
52.5°	1823.1	1816.0	1823.1	1825.5	1895.1	2136.5
55°	1640.3	1631.2	1640.3	1635.0	1686.5	1841.2
57.5°	1480.2	1486.9	1480.2	1473.1	1500.7	1616.9
60°	1337.4	1343.5	1337.4	1332.1	1350.2	1418.3
62.5°	1216.8	1220.6	1216.8	1216.4	1213.0	1265.5
65°	1109.2	1113.5	1109.2	1103.5	1098.2	1122.5
67.5°	1006.4	1006.4	1006.4	996.3	988.2	1012.0
70°	909.7	909.2	909.7	893.4	887.3	894.4
72.5°	793.5	804.8	793.5	781.6	781.1	782.0
75°	680.6	693.9	680.6	672.9	664.4	671.5
77.5°	566.3	586.8	566.3	560.1	555.8	551.1
80°	449.1	471.5	449.1	438.6	432.5	440.6
82.5°	331.9	348.6	331.9	319.1	318.6	322.4
85°	197.6	224.3	197.6	186.2	190.5	186.2
87.5°	63.4	81.0	63.4	60.5	66.7	65.2
90°	16.7	10.4	16.7	28.2	18.2	10.4
92.5°	25.2	15.1	25.2	45.1	23.6	13.6
95°	29.0	17.4	29.0	62.9	31.3	20.2
97.5°	32.0	22.5	32.0	72.1	38.2	30.9
100°	37.5	29.4	37.5	112.2	47.1	41.0
102.5°	79.0	49.5	79.0	237.7	87.9	61.8
105°	166.0	84.9	166.0	423.2	183.4	111.8
107.5°	296.9	146.5	296.9	558.5	324.4	211.2
110°	394.0	272.8	394.0	585.4	445.2	337.4



TEST NUMBER: P1433804
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L940-UPL15

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	423.2	368.3	423.2	560.8	491.4	439.1
115°	407.0	387.6	407.0	500.8	479.9	477.3
117.5°	371.6	374.4	371.6	425.3	431.9	461.2
120°	330.8	346.7	330.8	355.1	377.2	416.4
122.5°	293.6	312.0	293.6	304.8	321.4	360.7
125°	261.2	280.1	261.2	269.1	273.5	306.0
127.5°	238.9	251.6	238.9	243.7	239.6	260.4
130°	221.6	232.4	221.6	228.1	217.7	227.8
132.5°	209.8	216.7	209.8	217.4	204.8	207.4
135°	199.6	205.1	199.6	207.4	196.0	194.8
137.5°	190.8	195.7	190.8	199.1	190.3	187.5
140°	183.3	187.4	183.3	191.9	184.9	183.4
142.5°	175.2	178.3	175.2	185.4	180.8	179.2
145°	170.0	172.4	170.0	180.5	177.8	177.4
147.5°	165.6	167.1	165.6	174.8	173.6	173.6
150°	161.2	162.8	161.2	169.9	168.6	169.4
152.5°	156.2	158.3	156.2	164.2	163.0	163.8
155°	153.3	155.4	153.3	159.8	158.8	159.3
157.5°	152.0	153.6	152.0	156.9	156.4	156.4
160°	151.1	152.4	151.1	155.2	154.7	154.5
162.5°	149.8	151.0	149.8	154.7	153.9	153.9
165°	149.9	150.4	149.9	153.3	153.3	153.0
167.5°	149.6	150.4	149.6	153.4	153.4	153.2
170°	150.1	150.6	150.1	153.2	152.9	152.1
172.5°	151.0	151.6	151.0	154.7	153.9	153.6
175°	151.3	151.8	151.3	154.1	154.1	154.6
177.5°	152.5	153.0	152.5	154.1	154.1	153.7
180°	154.7	154.7	154.7	154.7	154.7	154.7



TEST NUMBER: P1433804
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L940-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	17.41	18.54	17.86	18.95	19.39	16.73	17.86	17.18	18.27	18.71
	3H	18.96	19.96	19.42	20.39	20.88	18.57	19.58	19.04	20.01	20.50
	4H	19.59	20.53	20.08	20.98	21.48	19.36	20.30	19.84	20.75	21.25
	6H	20.07	20.94	20.57	21.41	21.92	20.00	20.87	20.50	21.33	21.84
	8H	20.23	21.04	20.74	21.53	22.05	20.22	21.04	20.74	21.53	22.05
	12H	20.30	21.08	20.82	21.56	22.10	20.35	21.13	20.87	21.61	22.15
4H	2H	17.82	18.76	18.31	19.21	19.71	17.30	18.24	17.79	18.69	19.19
	3H	19.62	20.40	20.12	20.90	21.42	19.36	20.14	19.86	20.64	21.15
	4H	20.40	21.10	20.92	21.60	22.16	20.27	20.97	20.79	21.48	22.03
	6H	21.01	21.61	21.56	22.15	22.73	21.04	21.64	21.59	22.18	22.76
	8H	21.21	21.77	21.76	22.30	22.89	21.31	21.87	21.86	22.41	22.99
	12H	21.32	21.81	21.88	22.38	22.96	21.48	21.98	22.05	22.54	23.13
8H	4H	20.65	21.21	21.20	21.74	22.33	20.55	21.11	21.10	21.65	22.23
	6H	21.39	21.85	21.97	22.43	23.02	21.45	21.91	22.04	22.49	23.08
	8H	21.66	22.07	22.26	22.66	23.27	21.81	22.21	22.41	22.81	23.41
	12H	21.83	22.19	22.43	22.77	23.44	22.06	22.41	22.65	22.99	23.67
12H	4H	20.66	21.15	21.23	21.72	22.31	20.56	21.06	21.13	21.62	22.21
	6H	21.43	21.84	22.03	22.44	23.04	21.50	21.91	22.10	22.50	23.11
	8H	21.75	22.11	22.35	22.68	23.36	21.90	22.26	22.50	22.84	23.52

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-6

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L935-N

Data in this report applies to families of products including EHBR-60-L935-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-6
 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-L935-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3500K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 3406
 CIE u': 0.2394
 CIE v': 0.5094
 Duv: -0.0028
 CIE x: 0.4076
 CIE y: 0.3856
 CIE z: 0.2068
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 582
 Purity: 38.0517
 Rf: 91.3
 Rg: 100

CRI (Ra):	94.6		
R1:	96.6	R9:	63.8
R2:	98.4	R10:	94.7
R3:	98.1	R11:	96.6
R4:	95.8	R12:	80.9
R5:	96.2	R13:	97.4
R6:	95.4	R14:	98.3
R7:	91.8	R15:	93.1
R8:	84.4		



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-6

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: SP1-2506-472-6

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-6

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.62

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.3

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	140	NR	620	338	NR	750	8	NR	880	0	NR
365	0	NR	495	159	NR	625	339	NR	755	7	NR	885	0	NR
370	0	NR	500	182	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	202	NR	635	653	NR	765	5	NR	895	0	NR
380	0	NR	510	216	NR	640	222	NR	770	4	NR	900	0	NR
385	0	NR	515	228	NR	645	214	NR	775	3	NR	905	0	NR
390	0	NR	520	236	NR	650	185	NR	780	3	NR	910	0	NR
395	1	NR	525	242	NR	655	157	NR	785	3	NR	915	0	NR
400	2	NR	530	248	NR	660	133	NR	790	2	NR	920	0	NR
405	3	NR	535	253	NR	665	113	NR	795	2	NR	925	0	NR
410	4	NR	540	258	NR	670	103	NR	800	2	NR	930	0	NR
415	7	NR	545	264	NR	675	85	NR	805	1	NR	935	0	NR
420	13	NR	550	270	NR	680	72	NR	810	1	NR	940	0	NR
425	22	NR	555	278	NR	685	62	NR	815	1	NR	945	0	NR
430	38	NR	560	286	NR	690	53	NR	820	1	NR	950	0	NR
435	65	NR	565	295	NR	695	45	NR	825	1	NR	955	0	NR
440	108	NR	570	303	NR	700	39	NR	830	1	NR	960	0	NR
445	193	NR	575	311	NR	705	33	NR	835	1	NR	965	0	NR
450	312	NR	580	319	NR	710	28	NR	840	1	NR	970	0	NR
455	300	NR	585	326	NR	715	24	NR	845	0	NR	975	0	NR
460	214	NR	590	332	NR	720	20	NR	850	0	NR	980	0	NR
465	184	NR	595	333	NR	725	17	NR	855	0	NR	985	0	NR
470	153	NR	600	336	NR	730	15	NR	860	0	NR	990	0	NR
475	122	NR	605	337	NR	735	12	NR	865	0	NR	995	0	NR
480	115	NR	610	367	NR	740	10	NR	870	0	NR	1000	0	NR
485	125	NR	615	390	NR	745	9	NR	875	0	NR			

Summary

$R_f = 91.3$
 $R_g = 100$
 $CIE R_a = 94.6$
 $R_9 = 63.8$



Color Vector Graphics

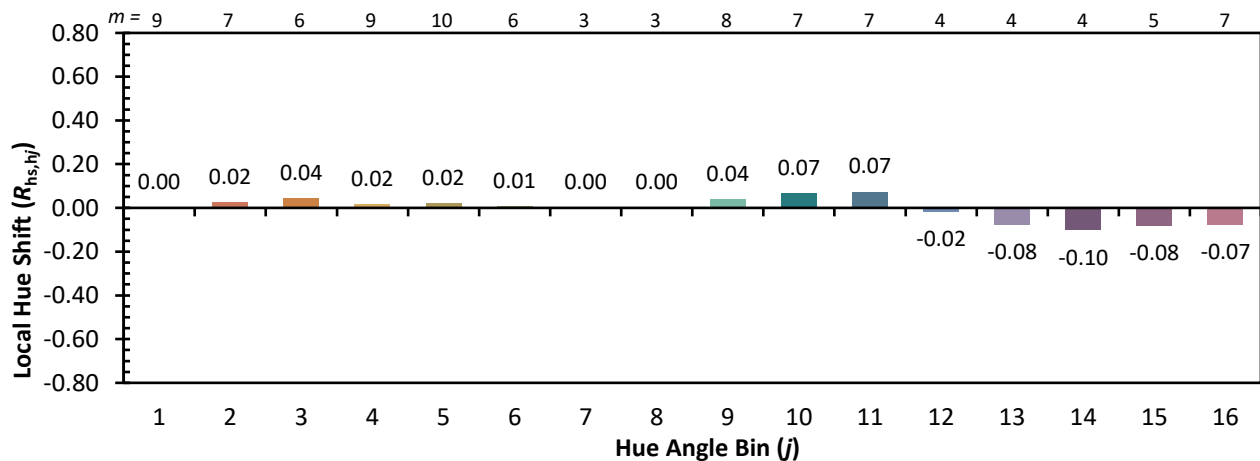


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 94	CES51 = 97	CES76 = 90
CES02 = 63	CES27 = 92	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 98	CES78 = 86
CES04 = 70	CES29 = 97	CES54 = 93	CES79 = 90
CES05 = 50	CES30 = 92	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 97	CES56 = 96	CES81 = 74
CES07 = 43	CES32 = 89	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 95	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 97	CES60 = 92	CES85 = 79
CES11 = 58	CES36 = 81	CES61 = 93	CES86 = 79
CES12 = 64	CES37 = 96	CES62 = 86	CES87 = 92
CES13 = 44	CES38 = 87	CES63 = 94	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 84
CES15 = 72	CES40 = 97	CES65 = 90	CES90 = 96
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 75
CES17 = 49	CES42 = 94	CES67 = 88	CES92 = 76
CES18 = 56	CES43 = 93	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 90	CES94 = 74
CES20 = 67	CES45 = 97	CES70 = 88	CES95 = 83
CES21 = 86	CES46 = 97	CES71 = 83	CES96 = 92
CES22 = 78	CES47 = 91	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 91	CES73 = 83	CES98 = 95
CES24 = 90	CES49 = 96	CES74 = 90	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 85	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)