

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: P1433093

Luminaire Tested: EHBR1-12-UNV-TASM-L930-UPL24

Issue Date: 3/20/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1433093  
REPORT IS A COMBINATION OF REPORTS P1431647 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-12-UNV-TASM-L930-UPL24  
Description: Elevate Round Highbay at, 12000 lumens, 3000K 90CRI LEDs with TASM lens  
Light Source: -  
Ballast/Driver: -

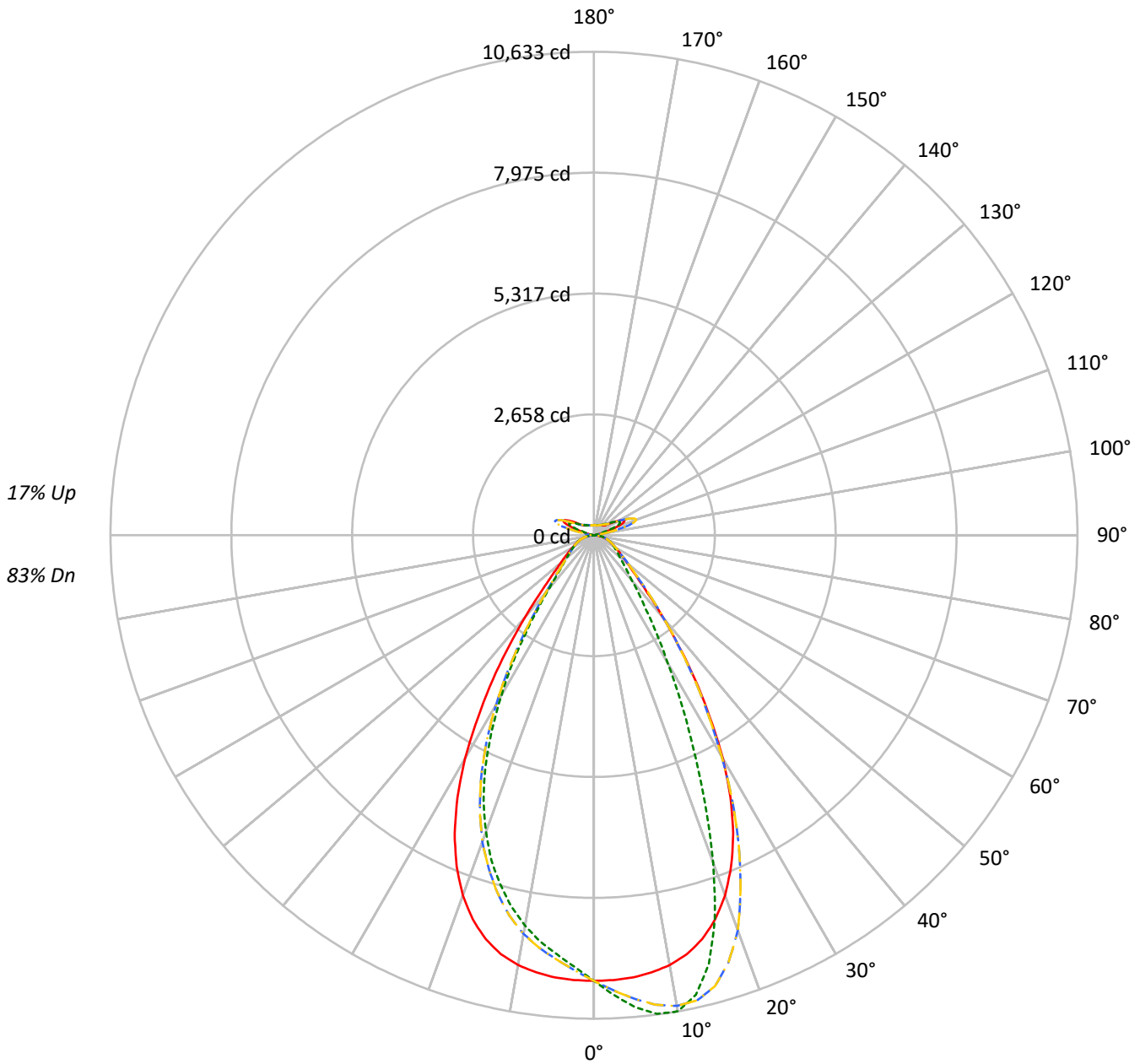
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13124.6 lumens  
Efficiency: N/A  
Efficacy: 161.6 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: Semi-Direct

Input Watts (W): 81.2  
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: P1433093  
CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

### Luminous Intensity Polar Plot



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



TEST NUMBER: P1433093  
 CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**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	115	115	115	115	111	111	111	111	102	102	102	94	94	94	87	87	87	87	87	87	83
1	108	104	101	98	103	100	98	95	93	91	89	87	85	84	81	79	78	78	78	78	75
2	101	95	90	85	97	91	87	83	85	82	79	80	77	75	75	73	71	71	71	71	68
3	94	86	80	75	91	84	78	74	79	74	70	74	70	67	69	67	64	64	64	64	62
4	88	79	73	67	85	77	71	66	72	67	64	68	64	61	65	61	59	59	59	59	56
5	83	73	66	61	80	71	65	60	67	62	58	64	59	56	60	57	54	54	54	54	52
6	78	67	61	56	75	66	59	55	62	57	53	59	55	51	57	53	50	50	50	50	48
7	73	63	56	51	71	61	55	50	58	53	49	56	51	47	53	49	46	46	46	46	44
8	69	58	52	47	67	57	51	46	55	49	45	52	47	44	50	46	43	43	43	43	41
9	65	55	48	44	63	53	47	43	51	46	42	49	44	41	47	43	40	40	40	40	38
10	62	51	45	41	60	50	44	40	48	43	39	46	42	38	45	40	38	38	38	38	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	46016	46016	46016	46016
5°	45736	48792	45736	43363
10°	45174	50044	45174	41039
15°	43840	46507	43840	37909
20°	41002	37292	41002	33766
25°	36290	25838	36290	28298
30°	29466	16810	29466	21172
35°	21134	10886	21134	14095
40°	13664	7503	13664	8889
45°	8670	5812	8670	6333
50°	6438	4939	6438	5276
55°	5256	4499	5256	4657
60°	4552	4286	4552	4312
65°	4149	4133	4149	4116
70°	3932	4050	3932	3998
75°	3678	3918	3678	3800
80°	3230	3699	3230	3458
85°	2089	2642	2089	2517

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 12189 cd/sqm



TEST NUMBER: P1433093  
 CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	931.7	7.1
10°-20°	2534.8	19.3
20°-30°	2972.8	22.7
30°-40°	2067.4	15.8
40°-50°	1027.4	7.8
50°-60°	614.5	4.7
60°-70°	432.5	3.3
70°-80°	278.6	2.1
80°-90°	92.3	0.7
90°-100°	57.6	0.4
100°-110°	378.5	2.9
110°-120°	699.8	5.3
120°-130°	415.5	3.2
130°-140°	250.7	1.9
140°-150°	173.0	1.3
150°-160°	112.3	0.9
160°-170°	64.0	0.5
170°-180°	21.1	0.2
0°-30°	6439.3	49.1
0°-40°	8506.7	64.8
0°-60°	10148.6	77.3
0°-90°	10952.0	83.4
90°-120°	1135.9	8.7
90°-150°	1975.2	15.0
90°-180°	2173.0	16.6
0°-180°	13124.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	9799	9799	9799	9799	9799	
5°	9765	10418	9765	9259	9765	927
15°	9198	9757	9198	7953	9198	2570
25°	7247	5160	7247	5651	7247	3281
35°	3879	1998	3879	2587	3879	2421
45°	1403	940	1403	1025	1403	1148
55°	710	608	710	629	710	650
65°	433	431	433	430	433	435
75°	259	276	259	268	259	272
85°	72	91	72	86	72	80
90°	16	17	16	16	16	11
95°	30	28	30	27	30	33
105°	174	87	174	132	174	234
115°	745	635	745	605	745	679
125°	476	498	476	437	476	439
135°	300	346	300	319	300	238
145°	271	283	271	263	271	170
155°	240	250	240	232	240	112
165°	224	230	224	220	224	64
175°	222	225	222	218	222	21
180°	221	221	221	221	221	



TEST NUMBER: P1433093  
 CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8
2.5°	9793.1	9919.7	10022.2	10089.8	10123.3	10089.8	10022.2	9919.7	9793.1	9667.3	9580.7
5°	9765.4	10018.9	10233.8	10374.3	10417.9	10374.3	10233.8	10018.9	9765.4	9525.8	9366.9
7.5°	9699.1	10094.1	10413.2	10577.3	10617.4	10577.3	10413.2	10094.1	9699.1	9359.8	9159.0
10°	9597.8	10141.5	10510.3	10627.8	10632.6	10627.8	10510.3	10141.5	9597.8	9140.9	8904.0
12.5°	9436.3	10124.6	10477.8	10439.2	10351.5	10439.2	10477.8	10124.6	9436.3	8873.3	8574.5
15°	9197.5	10024.4	10271.7	9957.8	9756.9	9957.8	10271.7	10024.4	9197.5	8512.1	8165.5
17.5°	8860.8	9837.0	9841.8	9220.5	8841.7	9220.5	9841.8	9837.0	8860.8	8070.3	7688.8
20°	8427.0	9536.4	9249.8	8113.6	7664.6	8113.6	9249.8	9536.4	8427.0	7548.1	7173.7
22.5°	7883.1	9131.1	8425.4	6999.9	6387.4	6999.9	8425.4	9131.1	7883.1	6940.9	6551.1
25°	7247.0	8634.4	7538.4	5786.4	5159.9	5786.4	7538.4	8634.4	7247.0	6217.3	5864.9
27.5°	6498.8	8004.9	6594.0	4728.5	4150.4	4728.5	6594.0	8004.9	6498.8	5470.2	5110.2
30°	5667.7	7197.9	5611.2	3765.6	3233.3	3765.6	5611.2	7197.9	5667.7	4630.9	4308.6
32.5°	4737.2	6406.9	4667.3	3017.2	2566.3	3017.2	4667.3	6406.9	4737.2	3829.9	3493.1
35°	3878.8	5417.3	3816.1	2370.8	1998.0	2370.8	3816.1	5417.3	3878.8	3073.8	2743.1
37.5°	3044.0	4482.3	3042.1	1909.1	1620.6	1909.1	3042.1	4482.3	3044.0	2389.8	2121.3
40°	2368.3	3504.7	2383.5	1523.9	1300.5	1523.9	2383.5	3504.7	2368.3	1818.3	1646.6
42.5°	1794.4	2679.9	1873.4	1250.7	1104.7	1250.7	1873.4	2679.9	1794.4	1432.7	1304.0
45°	1402.7	1972.1	1463.0	1055.2	940.4	1055.2	1463.0	1972.1	1402.7	1153.8	1067.3
47.5°	1142.4	1524.1	1185.7	905.1	824.7	905.1	1185.7	1524.1	1142.4	975.9	911.2
50°	959.5	1169.5	984.5	790.1	736.1	790.1	984.5	1169.5	959.5	835.6	792.5
52.5°	824.3	953.8	838.4	704.1	667.7	704.1	838.4	953.8	824.3	731.1	704.3
55°	710.3	801.8	729.1	633.2	608.0	633.2	729.1	801.8	710.3	650.6	630.7
57.5°	623.8	680.2	633.2	572.7	556.0	572.7	633.2	680.2	623.8	579.0	568.3
60°	547.2	589.0	558.7	520.0	515.3	520.0	558.7	589.0	547.2	520.9	513.9
62.5°	488.2	514.6	494.0	472.6	468.4	472.6	494.0	514.6	488.2	468.0	469.3
65°	433.1	457.7	441.6	430.0	431.4	430.0	441.6	457.7	433.1	423.7	425.7
67.5°	390.5	403.3	396.3	389.7	391.4	389.7	396.3	403.3	390.5	381.2	384.3
70°	345.0	358.9	351.6	352.6	355.4	352.6	351.6	358.9	345.0	342.3	344.7
72.5°	301.7	312.3	309.9	312.2	315.1	312.2	309.9	312.3	301.7	301.3	301.6
75°	259.1	267.2	268.2	271.4	276.0	271.4	268.2	267.2	259.1	256.3	259.6
77.5°	212.6	221.8	225.3	229.5	236.3	229.5	225.3	221.8	212.6	214.4	216.1
80°	169.9	174.2	181.9	185.0	194.6	185.0	181.9	174.2	169.9	166.8	169.2
82.5°	124.4	128.2	134.8	140.7	146.2	140.7	134.8	128.2	124.4	122.9	123.1
85°	71.8	77.7	82.2	89.1	90.8	89.1	82.2	77.7	71.8	73.5	71.8
87.5°	25.1	27.0	30.8	33.6	33.8	33.6	30.8	27.0	25.1	25.8	23.3
90°	15.9	26.8	46.3	25.1	17.1	25.1	46.3	26.8	15.9	27.9	43.6
92.5°	20.7	36.4	65.6	33.6	23.1	33.6	65.6	36.4	20.7	36.3	70.0
95°	30.5	44.9	83.7	37.2	27.9	37.2	83.7	44.9	30.5	48.4	97.8
97.5°	47.3	55.8	94.5	39.7	34.0	39.7	94.5	55.8	47.3	59.2	112.2
100°	63.0	63.0	172.8	45.6	38.8	45.6	172.8	63.0	63.0	72.6	174.8
102.5°	95.5	123.4	400.6	91.6	47.2	91.6	400.6	123.4	95.5	136.4	371.2
105°	173.8	282.4	705.3	237.3	87.2	237.3	705.3	282.4	173.8	285.8	661.4
107.5°	329.2	526.8	908.9	468.6	204.1	468.6	908.9	526.8	329.2	506.3	872.3
110°	526.7	736.4	991.9	642.0	413.6	642.0	991.9	736.4	526.7	695.4	914.5



TEST NUMBER: P1433093

CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	685.6	820.7	969.1	711.8	572.6	711.8	969.1	820.7	685.6	767.5	876.0
115°	744.9	808.7	865.5	709.4	635.2	709.4	865.5	808.7	744.9	749.5	782.1
117.5°	719.6	740.1	747.5	666.1	638.9	666.1	747.5	740.1	719.6	673.8	664.0
120°	649.7	641.3	629.6	602.2	602.7	602.2	629.6	641.3	649.7	588.3	554.4
122.5°	562.0	544.0	532.0	537.4	553.3	537.4	532.0	544.0	562.0	500.6	475.1
125°	476.5	458.4	463.6	482.0	498.1	482.0	463.6	458.4	476.5	424.9	418.7
127.5°	404.4	395.9	414.2	435.1	448.7	435.1	414.2	395.9	404.4	371.9	378.9
130°	352.8	355.0	379.3	396.7	405.4	396.7	379.3	355.0	352.8	337.1	353.8
132.5°	320.5	329.9	353.0	368.0	373.0	368.0	353.0	329.9	320.5	315.8	336.0
135°	300.1	314.2	335.1	345.0	346.5	345.0	335.1	314.2	300.1	301.6	320.5
137.5°	288.4	302.4	318.2	325.9	323.7	325.9	318.2	302.4	288.4	292.1	306.4
140°	281.3	295.3	302.5	311.5	309.3	311.5	302.5	295.3	281.3	283.7	294.5
142.5°	274.3	287.1	290.8	297.1	294.9	297.1	290.8	287.1	274.3	276.7	283.9
145°	270.8	280.3	277.7	286.3	283.0	286.3	277.7	280.3	270.8	271.9	275.6
147.5°	264.8	271.9	268.2	275.6	272.4	275.6	268.2	271.9	264.8	264.8	266.2
150°	257.7	262.5	257.5	266.2	265.3	266.2	257.5	262.5	257.7	256.6	257.9
152.5°	248.3	253.1	248.3	258.1	257.1	258.1	248.3	253.1	248.3	247.1	248.4
155°	240.3	242.7	240.3	250.1	250.2	250.1	240.3	242.7	240.3	240.1	240.4
157.5°	234.5	236.0	234.7	243.4	243.5	243.4	234.7	236.0	234.5	234.5	234.7
160°	229.2	231.6	230.6	238.0	238.3	238.0	230.6	231.6	229.2	230.3	230.4
162.5°	227.2	227.2	226.4	233.8	234.2	233.8	226.4	227.2	227.2	227.2	228.4
165°	224.2	225.4	223.3	228.5	230.1	228.5	223.3	225.4	224.2	225.2	225.2
167.5°	223.3	222.2	222.5	226.6	228.2	226.6	222.5	222.2	223.3	224.4	224.4
170°	221.1	221.3	220.5	224.6	226.2	224.6	220.5	221.3	221.1	222.3	223.3
172.5°	221.6	221.6	219.8	222.7	225.5	222.7	219.8	221.6	221.6	222.7	223.9
175°	222.0	221.0	220.1	222.0	224.7	222.0	220.1	221.0	222.0	221.8	221.8
177.5°	220.8	221.2	221.5	223.3	227.3	223.3	221.5	221.2	220.8	221.8	221.8
180°	221.2	221.2	221.2	221.2	221.2	221.2	221.2	221.2	221.2	221.2	221.2



TEST NUMBER: P1433093

CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	9798.8	9798.8	9798.8	9798.8	9798.8	9798.8
2.5°	9514.2	9507.9	9514.2	9580.7	9667.3	9793.1
5°	9293.2	9258.6	9293.2	9366.9	9525.8	9765.4
7.5°	9035.7	9015.7	9035.7	9159.0	9359.8	9699.1
10°	8764.7	8719.4	8764.7	8904.0	9140.9	9597.8
12.5°	8430.6	8370.6	8430.6	8574.5	8873.3	9436.3
15°	8005.8	7953.2	8005.8	8165.5	8512.1	9197.5
17.5°	7550.0	7502.2	7550.0	7688.8	8070.3	8860.8
20°	6977.4	6939.9	6977.4	7173.7	7548.1	8427.0
22.5°	6376.8	6341.7	6376.8	6551.1	6940.9	7883.1
25°	5670.1	5651.0	5670.1	5864.9	6217.3	7247.0
27.5°	4906.4	4874.0	4906.4	5110.2	5470.2	6498.8
30°	4126.3	4072.5	4126.3	4308.6	4630.9	5667.7
32.5°	3363.3	3324.5	3363.3	3493.1	3829.9	4737.2
35°	2625.7	2586.9	2625.7	2743.1	3073.8	3878.8
37.5°	2046.0	1977.4	2046.0	2121.3	2389.8	3044.0
40°	1551.7	1540.7	1551.7	1646.6	1818.3	2368.3
42.5°	1263.2	1233.2	1263.2	1304.0	1432.7	1794.4
45°	1036.5	1024.7	1036.5	1067.3	1153.8	1402.7
47.5°	891.3	896.5	891.3	911.2	975.9	1142.4
50°	783.1	786.3	783.1	792.5	835.6	959.5
52.5°	703.4	700.6	703.4	704.3	731.1	824.3
55°	632.8	629.3	632.8	630.7	650.6	710.3
57.5°	571.0	573.6	571.0	568.3	579.0	623.8
60°	516.0	518.4	516.0	513.9	520.9	547.2
62.5°	469.5	471.0	469.5	469.3	468.0	488.2
65°	427.9	429.6	427.9	425.7	423.7	433.1
67.5°	388.3	388.3	388.3	384.3	381.2	390.5
70°	350.9	350.8	350.9	344.7	342.3	345.0
72.5°	306.1	310.6	306.1	301.6	301.3	301.7
75°	262.5	267.7	262.5	259.6	256.3	259.1
77.5°	218.5	226.3	218.5	216.1	214.4	212.6
80°	173.2	181.9	173.2	169.2	166.8	169.9
82.5°	128.1	134.5	128.1	123.1	122.9	124.4
85°	76.3	86.5	76.3	71.8	73.5	71.8
87.5°	24.4	31.3	24.4	23.3	25.8	25.1
90°	25.5	15.9	25.5	43.6	27.9	15.9
92.5°	38.8	23.1	38.8	70.0	36.3	20.7
95°	44.7	26.6	44.7	97.8	48.4	30.5
97.5°	49.5	34.0	49.5	112.2	59.2	47.3
100°	58.0	44.9	58.0	174.8	72.6	63.0
102.5°	123.1	76.2	123.1	371.2	136.4	95.5
105°	259.1	131.6	259.1	661.4	285.8	173.8
107.5°	463.9	228.0	463.9	872.3	506.3	329.2
110°	615.6	425.5	615.6	914.5	695.4	526.7



TEST NUMBER: P1433093

CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	661.4	574.9	661.4	876.0	767.5	685.6
115°	636.1	605.0	636.1	782.1	749.5	744.9
117.5°	580.8	584.5	580.8	664.0	673.8	719.6
120°	516.9	541.2	516.9	554.4	588.3	649.7
122.5°	458.0	486.9	458.0	475.1	500.6	562.0
125°	407.4	436.6	407.4	418.7	424.9	476.5
127.5°	372.5	392.0	372.5	378.9	371.9	404.4
130°	345.0	361.9	345.0	353.8	337.1	352.8
132.5°	325.9	336.8	325.9	336.0	315.8	320.5
135°	309.2	318.7	309.2	320.5	301.6	300.1
137.5°	295.0	303.2	295.0	306.4	292.1	288.4
140°	282.0	289.1	282.0	294.5	283.7	281.3
142.5°	269.0	273.9	269.0	283.9	276.7	274.3
145°	259.8	263.4	259.8	275.6	271.9	270.8
147.5°	251.7	254.2	251.7	266.2	264.8	264.8
150°	243.6	246.0	243.6	257.9	256.6	257.7
152.5°	235.4	238.0	235.4	248.4	247.1	248.3
155°	229.7	232.3	229.7	240.4	240.1	240.3
157.5°	226.4	228.0	226.4	234.7	234.5	234.5
160°	223.4	224.7	223.4	230.4	230.3	229.2
162.5°	220.2	221.6	220.2	228.4	227.2	227.2
165°	219.4	219.6	219.4	225.2	225.2	224.2
167.5°	218.3	219.6	218.3	224.4	224.4	223.3
170°	218.5	218.7	218.5	223.3	222.3	221.1
172.5°	218.9	219.0	218.9	223.9	222.7	221.6
175°	218.1	218.2	218.1	221.8	221.8	222.0
177.5°	219.4	219.6	219.4	221.8	221.8	220.8
180°	221.2	221.2	221.2	221.2	221.2	221.2



TEST NUMBER: P1433093  
 CATALOG NUMBER: EHBR1-12-UNV-TASM-L930-UPL24

**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	13.16	14.14	13.79	14.76	15.47	12.48	13.46	13.11	14.08	14.79
	3H	14.70	15.58	15.35	16.21	16.95	14.32	15.19	14.97	15.83	16.57
	4H	15.33	16.15	16.00	16.80	17.56	15.10	15.92	15.76	16.56	17.32
	6H	15.81	16.56	16.49	17.22	17.99	15.74	16.49	16.41	17.15	17.92
	8H	15.96	16.67	16.65	17.35	18.12	15.95	16.67	16.64	17.34	18.12
	12H	16.03	16.71	16.72	17.38	18.17	16.08	16.76	16.77	17.43	18.23
4H	2H	13.56	14.38	14.23	15.03	15.79	13.04	13.86	13.71	14.51	15.27
	3H	15.35	16.03	16.03	16.72	17.49	15.09	15.77	15.77	16.46	17.23
	4H	16.13	16.74	16.82	17.43	18.24	16.00	16.61	16.69	17.30	18.11
	6H	16.74	17.27	17.45	17.98	18.80	16.77	17.29	17.48	18.01	18.83
	8H	16.93	17.43	17.65	18.14	18.96	17.04	17.53	17.75	18.24	19.07
	12H	17.03	17.47	17.77	18.21	19.04	17.20	17.64	17.94	18.37	19.20
8H	4H	16.37	16.86	17.09	17.57	18.40	16.27	16.77	16.99	17.48	18.31
	6H	17.11	17.51	17.86	18.27	19.10	17.18	17.58	17.92	18.33	19.17
	8H	17.38	17.74	18.15	18.50	19.35	17.53	17.89	18.29	18.65	19.49
	12H	17.55	17.86	18.31	18.61	19.52	17.78	18.09	18.53	18.83	19.74
12H	4H	16.38	16.81	17.11	17.55	18.38	16.28	16.72	17.02	17.45	18.29
	6H	17.16	17.51	17.92	18.27	19.12	17.22	17.58	17.99	18.34	19.19
	8H	17.47	17.78	18.23	18.53	19.44	17.62	17.93	18.38	18.68	19.59

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



Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2506-472-5

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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  $R_a = 94.4$   
 $R_9 = 61.4$

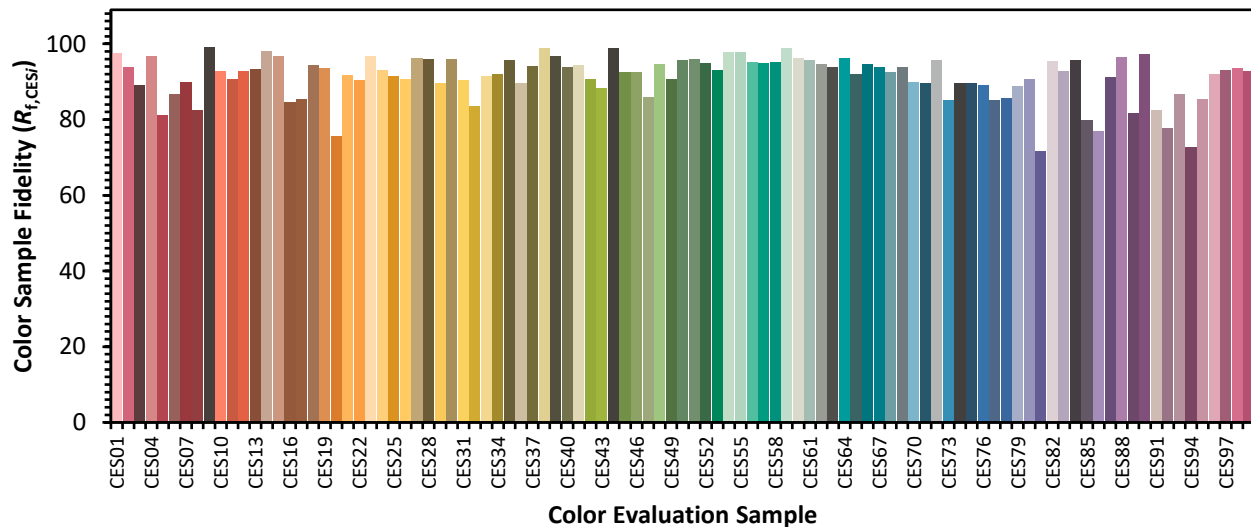


**Color Vector Graphics**



**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)