

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: P1433615

Luminaire Tested: EHBR1-48-UNV-TASM-L935-UPL30

Issue Date: 3/20/2026

**Test Information**

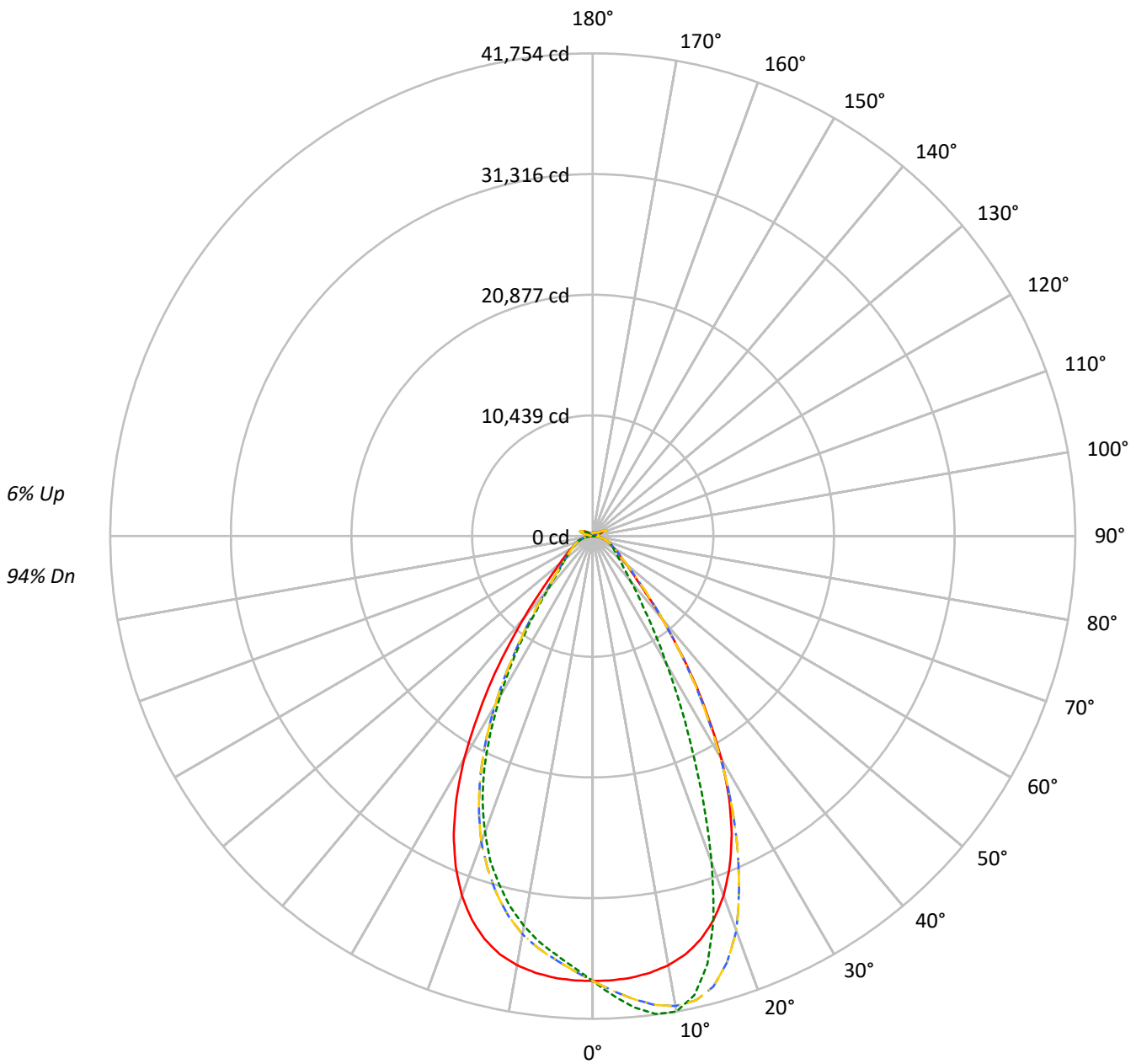
Test Method: LM-79-2019  
Report Number: P1433615  
REPORT IS A COMBINATION OF REPORTS P1431840 AND P1431635  
Test Lab: INNOVATION CENTER  
Issue Date: 3/20/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: EHBR1-48-UNV-TASM-L935-UPL30  
Description: Elevate Round Highbay at, 48000 lumens, 3500K 90CRI LEDs with TASM lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45790.6 lumens  
Efficiency: N/A  
Efficacy: 163.2 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): 280.6  
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: P1433615  
CATALOG NUMBER: EHBR1-48-UNV-TASM-L935-UPL30

### Luminous Intensity Polar Plot



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



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	96	96	96	94
1	110	107	104	101	107	104	101	99	99	97	95	94	92	91	90	88	87	87	87	87	85
2	103	97	92	88	101	95	91	87	91	87	84	87	84	81	83	81	79	79	79	79	77
3	97	89	83	78	94	87	82	77	84	79	75	80	77	73	77	74	71	71	71	71	69
4	91	82	76	71	89	80	74	70	77	72	68	75	70	67	72	68	65	65	65	65	63
5	86	76	69	64	83	75	68	63	72	66	62	70	65	61	67	63	60	60	60	60	58
6	81	70	64	59	79	69	63	58	67	61	57	65	60	56	63	59	55	55	55	55	54
7	76	66	59	54	74	65	58	54	63	57	53	61	56	52	59	55	51	51	51	51	50
8	72	61	55	50	70	60	54	50	59	53	49	57	52	48	56	51	48	48	48	48	46
9	68	58	51	46	67	57	50	46	55	50	46	54	49	45	53	48	45	45	45	45	43
10	65	54	48	43	63	53	47	43	52	47	43	51	46	42	50	45	42	42	42	42	40

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

	0°	90°	180°	270°
0°	180704	180704	180704	180704
5°	179605	191605	179605	170284
10°	177397	196524	177397	161160
15°	172159	182632	172159	148868
20°	161012	146446	161012	132600
25°	142508	101466	142508	111124
30°	115711	66011	115711	83143
35°	82992	42750	82992	55351
40°	53657	29466	53657	34907
45°	34045	22824	34045	24871
50°	25283	19395	25283	20717
55°	20642	17668	20642	18287
60°	17874	16830	17874	16932
65°	16294	16231	16294	16162
70°	15444	15904	15444	15698
75°	14443	15385	14443	14924
80°	12687	14525	12687	13580
85°	8208	10373	8208	9890

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 47865 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	3658.8	8.0
10°-20°	9954.1	21.7
20°-30°	11674.1	25.5
30°-40°	8118.6	17.7
40°-50°	4034.6	8.8
50°-60°	2413.1	5.3
60°-70°	1698.4	3.7
70°-80°	1094.1	2.4
80°-90°	352.4	0.8
90°-100°	74.8	0.2
100°-110°	484.3	1.1
110°-120°	893.9	2.0
120°-130°	531.9	1.2
130°-140°	322.5	0.7
140°-150°	224.0	0.5
150°-160°	147.1	0.3
160°-170°	85.3	0.2
170°-180°	28.6	0.1
0°-30°	25287.0	55.2
0°-40°	33405.7	73.0
0°-60°	39853.3	87.0
0°-90°	42998.3	93.9
90°-120°	1453.0	3.2
90°-150°	2531.4	5.5
90°-180°	2792.0	6.1
0°-180°	45790.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	38480	38480	38480	38480	38480	
5°	38348	40911	38348	36358	38348	3639
15°	36118	38315	36118	31232	36118	10094
25°	28459	20263	28459	22191	28459	12884
35°	15232	7846	15232	10159	15232	9509
45°	5508	3693	5508	4024	5508	4507
55°	2790	2388	2790	2471	2790	2551
65°	1701	1694	1701	1687	1701	1708
75°	1017	1084	1017	1051	1017	1068
85°	282	356	282	340	282	314
90°	21	26	21	21	21	23
95°	40	40	40	34	40	42
105°	223	116	223	169	223	300
115°	951	814	951	772	951	867
125°	610	640	610	558	610	561
135°	387	447	387	408	387	307
145°	351	367	351	341	351	220
155°	314	328	314	305	314	147
165°	299	309	299	294	299	85
175°	300	307	300	295	300	29
180°	300	300	300	300	300	



TEST NUMBER: P1433615  
 CATALOG NUMBER: EHBR1-48-UNV-TASM-L935-UPL30

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7
2.5°	38457.4	38954.5	39357.1	39622.7	39754.0	39622.7	39357.1	38954.5	38457.4	37963.1	37623.2
5°	38348.5	39344.1	40187.7	40739.6	40910.6	40739.6	40187.7	39344.1	38348.5	37407.5	36783.4
7.5°	38087.9	39639.2	40892.6	41536.9	41694.3	41536.9	40892.6	39639.2	38087.9	36755.9	35967.3
10°	37690.4	39825.4	41273.5	41735.4	41754.2	41735.4	41273.5	39825.4	37690.4	35895.8	34965.8
12.5°	37056.1	39759.1	41145.8	40994.3	40650.2	40994.3	41145.8	39759.1	37056.1	34845.3	33672.1
15°	36118.1	39365.8	40337.0	39103.9	38315.2	39103.9	40337.0	39365.8	36118.1	33426.7	32065.9
17.5°	34796.2	38629.8	38648.5	36209.0	34721.1	36209.0	38648.5	38629.8	34796.2	31692.1	30193.4
20°	33092.6	37449.4	36323.7	31861.7	30098.9	31861.7	36323.7	37449.4	33092.6	29641.4	28170.9
22.5°	30956.8	35857.6	33086.1	27488.3	25083.4	27488.3	33086.1	35857.6	30956.8	27256.7	25726.3
25°	28458.8	33907.3	29603.2	22723.1	20262.6	22723.1	29603.2	33907.3	28458.8	24415.2	23031.3
27.5°	25520.6	31435.2	25894.4	18568.4	16298.4	18568.4	25894.4	31435.2	25520.6	21481.4	20067.9
30°	22257.0	28266.2	22034.8	14787.5	12697.1	14787.5	22034.8	28266.2	22257.0	18185.3	16919.7
32.5°	18603.1	25159.8	18328.2	11848.6	10077.9	11848.6	18328.2	25159.8	18603.1	15040.1	13717.5
35°	15232.0	21273.6	14986.0	9310.2	7846.2	9310.2	14986.0	21273.6	15232.0	12070.9	10772.1
37.5°	11953.9	17601.6	11946.1	7497.0	6364.1	7497.0	11946.1	17601.6	11953.9	9384.5	8330.4
40°	9300.1	13762.9	9360.0	5984.6	5107.2	5984.6	9360.0	13762.9	9300.1	7140.5	6465.8
42.5°	7046.7	10523.9	7357.0	4911.6	4338.0	4911.6	7357.0	10523.9	7046.7	5626.0	5120.9
45°	5508.3	7744.4	5745.0	4143.9	3692.9	4143.9	5745.0	7744.4	5508.3	4530.7	4191.5
47.5°	4485.9	5985.3	4656.2	3554.4	3238.3	3554.4	4656.2	5985.3	4485.9	3832.1	3578.2
50°	3768.0	4592.6	3866.0	3102.6	2890.6	3102.6	3866.0	4592.6	3768.0	3281.6	3112.1
52.5°	3236.9	3745.6	3292.4	2765.0	2622.1	2765.0	3292.4	3745.6	3236.9	2871.1	2765.8
55°	2789.5	3148.9	2863.1	2486.5	2387.6	2486.5	2863.1	3148.9	2789.5	2555.0	2477.1
57.5°	2449.7	2671.2	2486.5	2249.1	2183.4	2249.1	2486.5	2671.2	2449.7	2273.6	2231.7
60°	2148.8	2313.3	2194.2	2042.0	2023.2	2042.0	2194.2	2313.3	2148.8	2045.6	2018.2
62.5°	1917.2	2021.1	1940.3	1855.8	1839.2	1855.8	1940.3	2021.1	1917.2	1837.8	1842.8
65°	1700.7	1797.4	1733.9	1688.4	1694.2	1688.4	1733.9	1797.4	1700.7	1663.9	1671.8
67.5°	1533.3	1583.8	1556.3	1530.4	1537.0	1530.4	1556.3	1583.8	1533.3	1497.3	1509.5
70°	1355.1	1409.2	1381.1	1384.7	1395.5	1384.7	1381.1	1409.2	1355.1	1344.3	1353.6
72.5°	1184.8	1226.6	1217.3	1225.9	1237.5	1225.9	1217.3	1226.6	1184.8	1183.3	1184.0
75°	1017.4	1049.2	1053.4	1065.8	1083.8	1065.8	1053.4	1049.2	1017.4	1006.6	1019.5
77.5°	834.8	870.9	884.7	901.3	927.9	901.3	884.7	870.9	834.8	842.1	848.5
80°	667.4	684.0	714.4	726.6	764.1	726.6	714.4	684.0	667.4	655.2	664.5
82.5°	488.5	503.6	529.7	552.7	574.3	552.7	529.7	503.6	488.5	482.7	483.4
85°	282.1	305.3	322.6	349.9	356.5	349.9	322.6	305.3	282.1	288.7	282.1
87.5°	98.9	106.0	121.2	132.1	132.8	132.1	121.2	106.0	98.9	101.1	91.6
90°	20.7	35.3	60.5	35.1	25.7	35.1	60.5	35.3	20.7	36.1	56.0
92.5°	26.8	47.5	85.1	45.8	33.4	45.8	85.1	47.5	26.8	46.8	89.8
95°	39.9	58.3	108.1	50.4	39.6	50.4	108.1	58.3	39.9	62.2	125.1
97.5°	61.4	72.1	122.0	53.5	47.2	53.5	122.0	72.1	61.4	76.0	143.6
100°	81.3	81.3	221.8	61.2	53.4	61.2	221.8	81.3	81.3	93.6	223.4
102.5°	122.8	158.8	512.7	120.3	64.2	120.3	512.7	158.8	122.8	175.0	473.6
105°	222.6	361.5	901.3	306.1	115.6	306.1	901.3	361.5	222.6	365.4	843.8
107.5°	420.6	673.2	1160.7	600.9	264.5	600.9	1160.7	673.2	420.6	646.4	1113.2
110°	672.5	940.4	1266.7	822.0	531.7	822.0	1266.7	940.4	672.5	887.5	1167.0



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 CATALOG NUMBER: EHBR1-48-UNV-TASM-L935-UPL30

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	875.2	1047.9	1237.5	911.0	734.4	911.0	1237.5	1047.9	875.2	979.7	1117.9
115°	951.2	1032.6	1105.5	908.1	814.2	908.1	1105.5	1032.6	951.2	956.6	998.1
117.5°	918.9	945.0	955.0	852.8	818.9	852.8	955.0	945.0	918.9	860.6	847.6
120°	829.8	819.1	805.2	771.4	772.8	771.4	805.2	819.1	829.8	751.5	707.8
122.5°	718.5	695.4	680.8	689.2	709.8	689.2	680.8	695.4	718.5	640.1	607.2
125°	609.5	586.4	594.0	618.5	640.0	618.5	594.0	586.4	609.5	544.2	535.7
127.5°	518.1	507.3	531.0	558.7	577.0	558.7	531.0	507.3	518.1	476.5	485.1
130°	452.7	455.1	486.5	510.2	521.7	510.2	486.5	455.1	452.7	432.8	453.5
132.5°	412.0	423.5	453.4	474.1	480.9	474.1	453.4	423.5	412.0	406.6	432.0
135°	386.6	403.6	431.1	444.2	447.2	444.2	431.1	403.6	386.6	388.9	412.0
137.5°	372.0	389.0	409.7	420.4	418.0	420.4	409.7	389.0	372.0	377.3	395.1
140°	363.5	380.5	389.7	401.9	400.3	401.9	389.7	380.5	363.5	366.6	380.4
142.5°	355.0	370.5	375.0	384.2	381.8	384.2	375.0	370.5	355.0	358.1	367.3
145°	351.1	362.7	358.9	370.4	367.2	370.4	358.9	362.7	351.1	351.9	357.3
147.5°	343.5	351.9	347.3	357.3	354.0	357.3	347.3	351.9	343.5	343.5	345.7
150°	334.9	341.1	334.3	345.7	345.6	345.7	334.3	341.1	334.9	333.3	335.6
152.5°	323.3	329.5	323.3	336.3	335.5	336.3	323.3	329.5	323.3	321.7	324.0
155°	314.0	317.1	314.0	327.0	327.7	327.0	314.0	317.1	314.0	313.3	314.8
157.5°	307.8	310.1	308.5	320.0	320.8	320.0	308.5	310.1	307.8	307.8	308.5
160°	303.0	306.1	305.3	315.2	315.9	315.2	305.3	306.1	303.0	303.8	304.5
162.5°	301.4	301.4	301.4	311.2	312.7	311.2	301.4	301.4	301.4	301.4	302.9
165°	299.0	300.5	298.9	306.4	309.4	306.4	298.9	300.5	299.0	299.8	299.8
167.5°	298.9	297.4	298.8	305.6	308.6	305.6	298.8	297.4	298.9	299.7	299.7
170°	296.6	297.3	297.2	304.0	307.0	304.0	297.2	297.3	296.6	298.1	298.9
172.5°	298.7	298.7	297.8	303.0	307.5	303.0	297.8	298.7	298.7	299.5	301.1
175°	300.2	299.4	299.3	302.9	307.4	302.9	299.3	299.4	300.2	299.5	299.5
177.5°	298.6	300.1	301.4	305.2	311.2	305.2	301.4	300.1	298.6	299.5	299.5
180°	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1



TEST NUMBER: P1433615

CATALOG NUMBER: EHBR1-48-UNV-TASM-L935-UPL30

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	38479.7	38479.7	38479.7	38479.7	38479.7	38479.7
2.5°	37362.0	37337.5	37362.0	37623.2	37963.1	38457.4
5°	36494.0	36358.3	36494.0	36783.4	37407.5	38348.5
7.5°	35483.1	35404.5	35483.1	35967.3	36755.9	38087.9
10°	34418.8	34240.6	34418.8	34965.8	35895.8	37690.4
12.5°	33107.1	32871.1	33107.1	33672.1	34845.3	37056.1
15°	31438.8	31231.8	31438.8	32065.9	33426.7	36118.1
17.5°	29648.7	29461.1	29648.7	30193.4	31692.1	34796.2
20°	27400.3	27253.1	27400.3	28170.9	29641.4	33092.6
22.5°	25041.5	24903.7	25041.5	25726.3	27256.7	30956.8
25°	22266.4	22191.4	22266.4	23031.3	24415.2	28458.8
27.5°	19267.7	19140.0	19267.7	20067.9	21481.4	25520.6
30°	16203.9	15992.6	16203.9	16919.7	18185.3	22257.0
32.5°	13207.3	13055.0	13207.3	13717.5	15040.1	18603.1
35°	10311.0	10158.8	10311.0	10772.1	12070.9	15232.0
37.5°	8034.5	7765.3	8034.5	8330.4	9384.5	11953.9
40°	6093.5	6050.2	6093.5	6465.8	7140.5	9300.1
42.5°	4960.7	4843.1	4960.7	5120.9	5626.0	7046.7
45°	4070.3	4024.1	4070.3	4191.5	4530.7	5508.3
47.5°	3500.2	3520.5	3500.2	3578.2	3832.1	4485.9
50°	3075.3	3087.5	3075.3	3112.1	3281.6	3768.0
52.5°	2762.1	2751.3	2762.1	2765.8	2871.1	3236.9
55°	2485.1	2471.3	2485.1	2477.1	2555.0	2789.5
57.5°	2242.6	2252.7	2242.6	2231.7	2273.6	2449.7
60°	2026.1	2035.5	2026.1	2018.2	2045.6	2148.8
62.5°	1843.6	1849.4	1843.6	1842.8	1837.8	1917.2
65°	1680.5	1687.0	1680.5	1671.8	1663.9	1700.7
67.5°	1524.6	1524.6	1524.6	1509.5	1497.3	1533.3
70°	1378.2	1377.4	1378.2	1353.6	1344.3	1355.1
72.5°	1202.1	1219.5	1202.1	1184.0	1183.3	1184.8
75°	1031.1	1051.3	1031.1	1019.5	1006.6	1017.4
77.5°	857.9	888.9	857.9	848.5	842.1	834.8
80°	680.4	714.4	680.4	664.5	655.2	667.4
82.5°	502.9	528.2	502.9	483.4	482.7	488.5
85°	299.5	339.9	299.5	282.1	288.7	282.1
87.5°	96.0	122.6	96.0	91.6	101.1	98.9
90°	33.0	20.7	33.0	56.0	36.1	20.7
92.5°	49.8	29.9	49.8	89.8	46.8	26.8
95°	57.6	34.5	57.6	125.1	62.2	39.9
97.5°	63.7	44.4	63.7	143.6	76.0	61.4
100°	74.4	58.3	74.4	223.4	93.6	81.3
102.5°	157.3	98.2	157.3	473.6	175.0	122.8
105°	330.9	168.8	330.9	843.8	365.4	222.6
107.5°	591.9	291.7	591.9	1113.2	646.4	420.6
110°	785.4	543.5	785.4	1167.0	887.5	672.5



TEST NUMBER: P1433615

CATALOG NUMBER: EHBR1-48-UNV-TASM-L935-UPL30

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	843.8	733.9	843.8	1117.9	979.7	875.2
115°	811.5	772.3	811.5	998.1	956.6	951.2
117.5°	740.9	746.2	740.9	847.6	860.6	918.9
120°	659.5	690.9	659.5	707.8	751.5	829.8
122.5°	584.9	621.8	584.9	607.2	640.1	718.5
125°	520.5	558.0	520.5	535.7	544.2	609.5
127.5°	475.9	501.3	475.9	485.1	476.5	518.1
130°	441.4	462.9	441.4	453.5	432.8	452.7
132.5°	417.5	431.3	417.5	432.0	406.6	412.0
135°	396.7	408.3	396.7	412.0	388.9	386.6
137.5°	379.0	389.1	379.0	395.1	377.3	372.0
140°	363.6	372.0	363.6	380.4	366.6	363.5
142.5°	347.4	353.6	347.4	367.3	358.1	355.0
145°	336.6	341.2	336.6	357.3	351.9	351.1
147.5°	327.2	330.3	327.2	345.7	343.5	343.5
150°	317.9	321.0	317.9	335.6	333.3	334.9
152.5°	307.9	311.7	307.9	324.0	321.7	323.3
155°	301.6	305.4	301.6	314.8	313.3	314.0
157.5°	298.5	301.4	298.5	308.5	307.8	307.8
160°	296.1	298.4	296.1	304.5	303.8	303.0
162.5°	292.9	295.2	292.9	302.9	301.4	301.4
165°	292.8	293.6	292.8	299.8	299.8	299.0
167.5°	292.0	293.6	292.0	299.7	299.7	298.9
170°	292.7	293.5	292.7	298.9	298.1	296.6
172.5°	294.2	294.9	294.2	301.1	299.5	298.7
175°	294.1	294.8	294.1	299.5	299.5	300.2
177.5°	296.4	297.1	296.4	299.5	299.5	298.6
180°	300.1	300.1	300.1	300.1	300.1	300.1



TEST NUMBER: P1433615  
 CATALOG NUMBER: EHBR1-48-UNV-TASM-L935-UPL30

**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	18.74	19.85	19.21	20.30	20.77	18.06	19.17	18.53	19.61	20.08
	3H	20.29	21.28	20.78	21.74	22.25	19.91	20.90	20.40	21.36	21.87
	4H	20.92	21.85	21.44	22.32	22.86	20.69	21.61	21.20	22.09	22.62
	6H	21.41	22.26	21.93	22.75	23.29	21.33	22.18	21.85	22.67	23.22
	8H	21.56	22.36	22.09	22.87	23.42	21.55	22.36	22.09	22.87	23.42
	12H	21.63	22.40	22.17	22.90	23.48	21.68	22.45	22.22	22.95	23.53
4H	2H	19.16	20.08	19.67	20.56	21.09	18.63	19.56	19.15	20.03	20.57
	3H	20.95	21.72	21.47	22.24	22.79	20.69	21.46	21.21	21.98	22.53
	4H	21.73	22.41	22.27	22.95	23.54	21.60	22.29	22.14	22.82	23.41
	6H	22.34	22.93	22.91	23.49	24.10	22.37	22.96	22.94	23.52	24.13
	8H	22.54	23.09	23.11	23.65	24.26	22.64	23.19	23.21	23.75	24.36
	12H	22.64	23.13	23.23	23.72	24.34	22.81	23.30	23.40	23.89	24.50
8H	4H	21.98	22.53	22.55	23.09	23.70	21.88	22.43	22.45	22.99	23.60
	6H	22.72	23.17	23.32	23.77	24.39	22.78	23.23	23.39	23.84	24.46
	8H	22.99	23.39	23.61	24.01	24.64	23.14	23.54	23.76	24.16	24.79
	12H	23.16	23.51	23.78	24.11	24.82	23.39	23.74	24.00	24.34	25.04
12H	4H	21.99	22.47	22.58	23.06	23.68	21.89	22.38	22.48	22.97	23.58
	6H	22.76	23.16	23.38	23.78	24.41	22.83	23.23	23.45	23.85	24.48
	8H	23.08	23.43	23.70	24.03	24.74	23.23	23.58	23.85	24.18	24.89

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

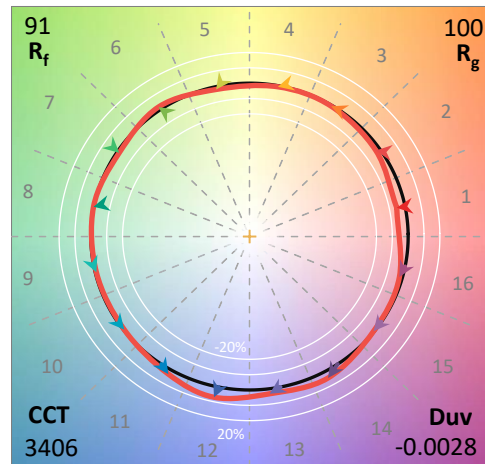
**Test Information**

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

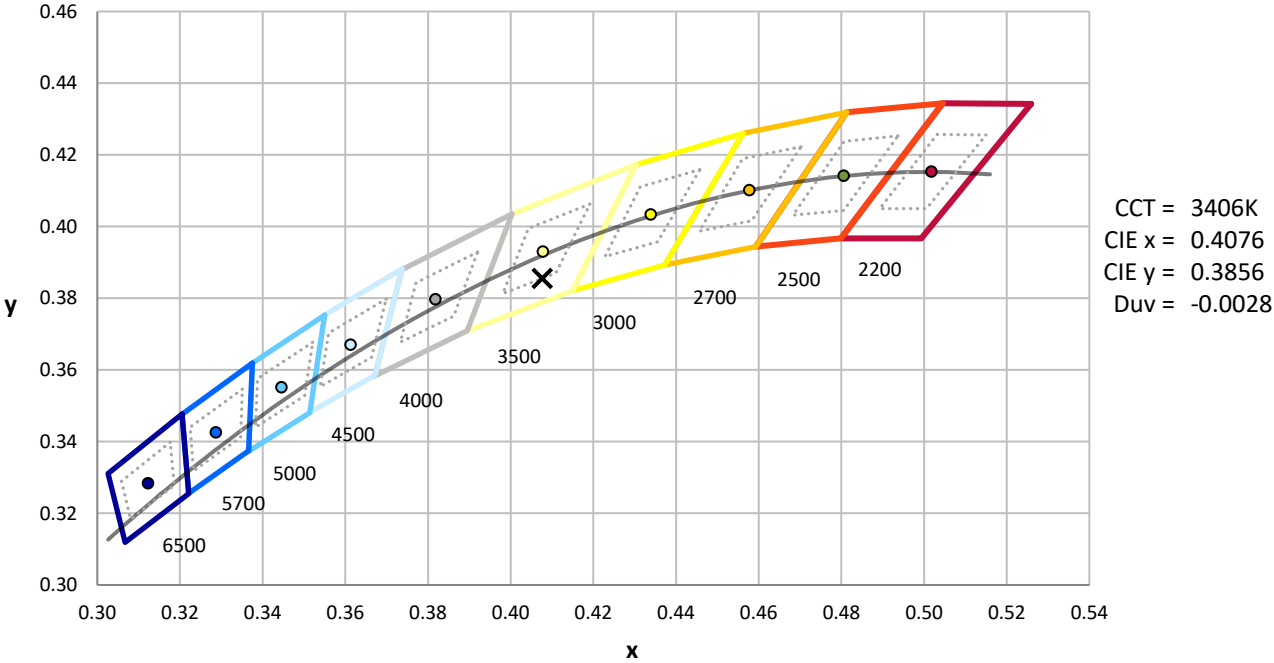
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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