

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P130648

Luminaire Tested: **TBLED-LD1-11-M-UNV-L835-CD1-DOS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P130648  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25346)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: TBLED-LD1-11-M-UNV-L835-CD1-DOS  
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.  
MEDIUM DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR.  
Light Source: (160) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10009.1 lumens  
Efficiency: N/A  
Efficacy: 92.7 lumens/watt  
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
CIE Type: Direct

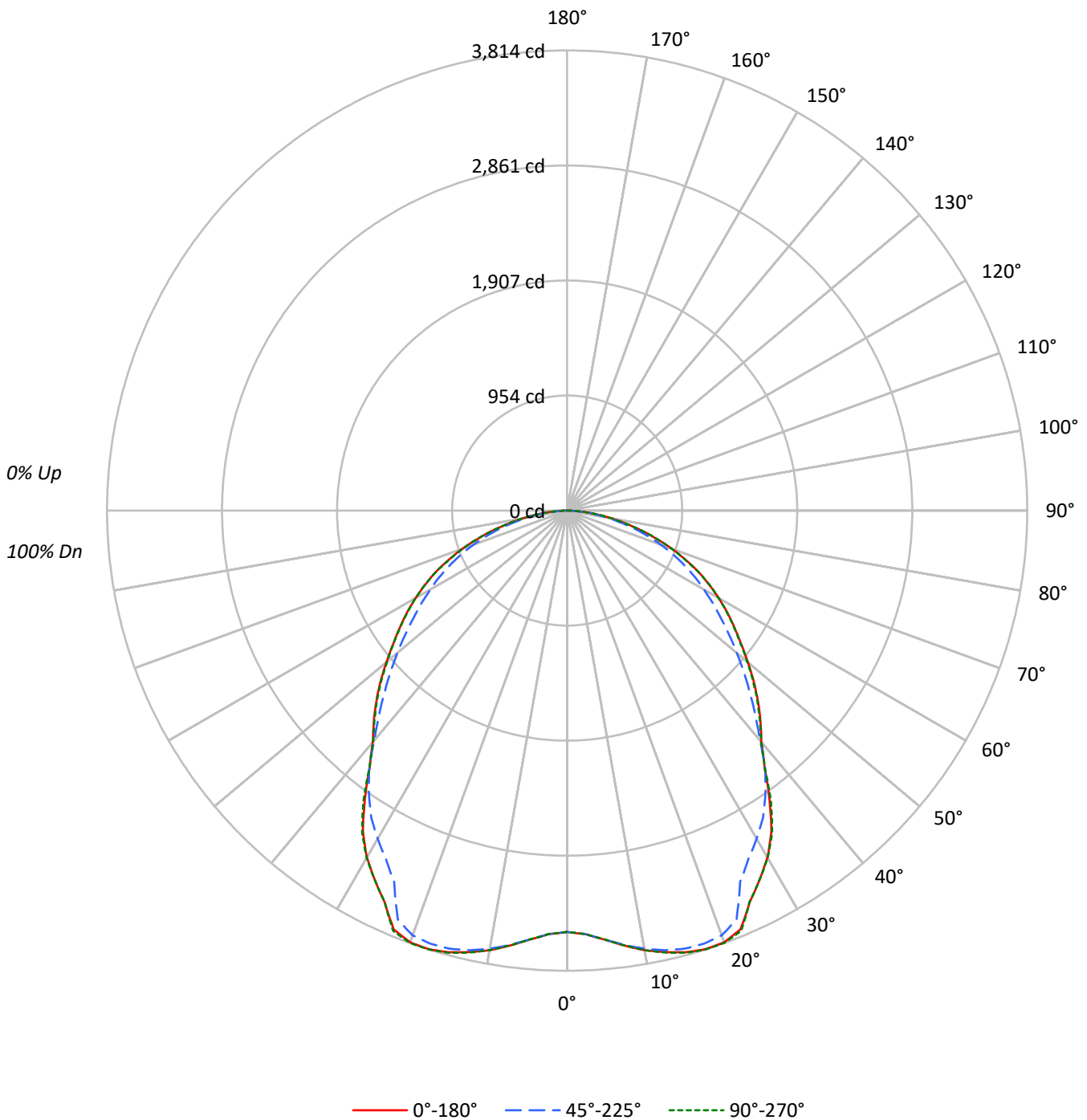
Input Watts (W): 108  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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

	0°	45°	90°
0°	37808	37808	37808
5°	38796	38796	38782
10°	40679	40543	40679
15°	42482	42150	42537
20°	43880	43171	43936
25°	42791	40541	42747
30°	41519	39272	41565
35°	38656	37875	38932
40°	35403	35142	35351
45°	34264	32850	34152
50°	32945	30955	32820
55°	31972	29393	31902
60°	31399	28360	31399
65°	30745	27498	30653
70°	29185	26146	29147
75°	26568	24045	26672
80°	23254	21103	23329
85°	20190	17581	20190



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	344.7	3.4
10°-20°	1068.6	10.7
20°-30°	1616.0	16.1
30°-40°	1764.1	17.6
40°-50°	1731.7	17.3
50°-60°	1516.0	15.1
60°-70°	1139.2	11.4
70°-80°	651.3	6.5
80°-90°	177.6	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3029.3	30.3
0°-40°	4793.4	47.9
0°-60°	8041.1	80.3
0°-90°	10009.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10009.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3492	3492	3492	3492	3492	
5°	3569	3570	3569	3569	3568	345
15°	3789	3786	3760	3788	3794	1072
25°	3581	3586	3393	3586	3578	1654
35°	2924	2781	2865	2770	2945	1823
45°	2237	2283	2145	2269	2230	1725
55°	1694	1720	1557	1714	1690	1519
65°	1200	1153	1073	1153	1196	1180
75°	635	610	575	611	638	674
85°	162	153	142	153	162	182
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5
2.5°	3514.9	3512.5	3513.7	3512.5	3514.9	3514.9	3513.7	3514.9	3513.7	3513.7	3513.7
5°	3569.1	3566.6	3567.8	3565.4	3569.1	3570.3	3569.1	3570.3	3570.3	3569.1	3569.1
7.5°	3636.8	3631.8	3633.1	3630.6	3634.3	3634.3	3633.1	3633.1	3631.8	3630.6	3631.8
10°	3699.5	3697.1	3697.1	3695.8	3698.3	3697.1	3694.6	3693.4	3688.4	3687.2	3689.7
12.5°	3747.5	3750.0	3753.7	3753.7	3752.4	3751.2	3745.1	3741.4	3734.0	3732.8	3735.2
15°	3789.4	3790.6	3794.3	3793.1	3789.4	3783.2	3777.1	3769.7	3763.5	3759.8	3763.5
17.5°	3811.5	3811.5	3810.3	3806.6	3799.2	3791.8	3783.2	3775.8	3769.7	3764.8	3769.7
20°	3807.8	3807.8	3801.7	3794.3	3782.0	3770.9	3762.3	3754.9	3748.8	3746.3	3750.0
22.5°	3756.1	3759.8	3754.9	3753.7	3743.8	3729.1	3711.8	3693.4	3673.7	3667.5	3676.1
25°	3581.4	3578.9	3581.4	3604.8	3610.9	3561.7	3498.9	3441.1	3406.6	3393.1	3411.5
27.5°	3452.2	3449.7	3418.9	3369.7	3302.0	3270.0	3274.9	3270.0	3261.4	3255.2	3263.9
30°	3320.5	3302.0	3218.3	3128.5	3063.2	3053.4	3081.7	3117.4	3139.5	3140.8	3137.1
32.5°	3150.6	3113.7	3005.4	2936.5	2909.4	2904.5	2913.1	2950.0	3000.5	3020.2	2994.3
35°	2924.2	2903.3	2836.8	2792.5	2783.9	2777.7	2763.0	2781.4	2844.2	2865.1	2841.7
37.5°	2689.1	2708.8	2680.5	2664.5	2663.3	2651.0	2630.0	2632.5	2665.7	2695.3	2662.0
40°	2504.5	2524.2	2542.7	2541.4	2536.5	2518.0	2502.0	2493.4	2491.0	2486.0	2493.4
42.5°	2372.8	2365.4	2401.1	2420.8	2408.5	2396.2	2382.7	2376.5	2331.0	2310.0	2337.1
45°	2237.4	2235.0	2259.6	2301.4	2291.6	2274.4	2270.7	2246.1	2168.5	2145.1	2174.7
47.5°	2098.4	2108.2	2130.4	2164.8	2171.0	2156.2	2145.1	2094.7	2015.9	1987.6	2014.7
50°	1955.6	1977.8	2008.5	2022.1	2028.2	2019.6	2012.2	1947.0	1867.0	1837.5	1868.2
52.5°	1819.0	1849.8	1890.4	1879.3	1874.4	1878.1	1865.8	1806.7	1729.2	1693.5	1730.4
55°	1693.5	1723.0	1758.7	1736.5	1713.2	1726.7	1715.6	1668.8	1601.2	1556.9	1598.7
57.5°	1575.3	1593.8	1622.1	1592.5	1565.5	1581.5	1570.4	1533.5	1470.7	1432.6	1473.2
60°	1449.8	1464.5	1480.5	1452.2	1423.9	1432.6	1427.6	1394.4	1342.7	1309.5	1340.2
62.5°	1324.2	1331.6	1342.7	1311.9	1288.6	1288.6	1286.1	1254.1	1213.5	1195.0	1212.3
65°	1199.9	1198.7	1202.4	1171.6	1154.4	1151.9	1147.0	1117.5	1085.5	1073.2	1086.7
67.5°	1059.6	1062.1	1063.3	1035.0	1021.5	1015.3	1011.6	984.6	958.7	950.1	960.0
70°	921.8	923.0	923.0	897.2	887.3	877.5	873.8	852.9	832.0	825.8	834.4
72.5°	776.6	785.2	781.5	760.6	753.2	740.9	738.4	724.9	708.9	700.3	708.9
75°	635.0	647.4	643.7	625.2	616.6	604.3	605.5	598.1	580.9	574.7	583.4
77.5°	498.4	505.8	507.1	497.2	483.7	475.1	478.7	477.5	465.2	450.4	461.5
80°	372.9	381.5	382.8	374.1	363.1	355.7	360.6	360.6	350.8	338.4	348.3
82.5°	259.7	265.8	265.8	260.9	256.0	248.6	251.1	252.3	246.1	233.8	242.5
85°	162.5	163.7	161.2	157.5	153.8	151.4	151.4	153.8	148.9	141.5	147.7
87.5°	60.3	61.5	60.3	64.0	60.3	59.1	60.3	64.0	59.1	59.1	60.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5
2.5°	3513.7	3514.9	3514.9	3513.7	3513.7	3513.7	3512.5	3513.7
5°	3569.1	3570.3	3570.3	3567.8	3569.1	3567.8	3566.6	3567.8
7.5°	3633.1	3635.5	3634.3	3635.5	3636.8	3634.3	3634.3	3634.3
10°	3692.1	3695.8	3698.3	3700.8	3702.0	3699.5	3700.8	3699.5
12.5°	3740.1	3747.5	3752.4	3754.9	3757.4	3757.4	3754.9	3752.4
15°	3769.7	3778.3	3784.4	3791.8	3796.8	3798.0	3795.5	3794.3
17.5°	3777.1	3784.4	3793.1	3800.4	3807.8	3812.7	3815.2	3814.0
20°	3756.1	3762.3	3772.1	3783.2	3793.1	3802.9	3810.3	3812.7
22.5°	3695.8	3713.1	3731.5	3745.1	3753.7	3758.6	3762.3	3770.9
25°	3448.5	3494.0	3560.5	3610.9	3602.3	3578.9	3570.3	3577.7
27.5°	3272.5	3267.5	3260.2	3299.5	3361.1	3415.2	3441.1	3453.4
30°	3114.9	3078.0	3043.6	3057.1	3119.9	3213.4	3292.2	3324.2
32.5°	2950.0	2899.6	2894.6	2903.3	2932.8	2995.6	3102.6	3162.9
35°	2776.5	2749.4	2764.2	2775.3	2785.1	2817.1	2890.9	2945.1
37.5°	2621.4	2616.5	2636.2	2649.7	2654.6	2670.6	2699.0	2691.6
40°	2484.8	2488.5	2505.7	2520.5	2530.3	2531.6	2514.3	2500.8
42.5°	2361.7	2377.7	2377.7	2396.2	2413.4	2390.0	2354.4	2364.2
45°	2236.2	2262.1	2260.8	2276.8	2292.8	2252.2	2222.7	2230.1
47.5°	2088.5	2137.7	2145.1	2162.4	2162.4	2120.5	2097.1	2088.5
50°	1938.4	2002.4	2011.0	2020.8	2015.9	1999.9	1969.1	1948.2
52.5°	1799.3	1859.6	1868.2	1864.5	1874.4	1881.8	1839.9	1814.1
55°	1662.7	1709.5	1720.5	1708.2	1731.6	1752.5	1713.2	1689.8
57.5°	1527.3	1563.0	1572.9	1563.0	1588.9	1612.2	1586.4	1570.4
60°	1390.7	1422.7	1428.9	1420.2	1451.0	1471.9	1459.6	1449.8
62.5°	1256.6	1278.7	1284.9	1288.6	1307.0	1331.6	1329.2	1327.9
65°	1121.2	1144.6	1147.0	1158.1	1170.4	1202.4	1196.3	1196.3
67.5°	989.5	1005.5	1009.2	1026.4	1031.3	1062.1	1058.4	1053.5
70°	852.9	868.9	873.8	891.0	898.4	923.0	924.3	920.6
72.5°	727.4	733.5	738.4	754.4	760.6	784.0	784.0	779.0
75°	599.4	598.1	603.0	619.0	625.2	644.9	643.7	637.5
77.5°	478.7	472.6	476.3	487.4	494.7	509.5	504.6	499.7
80°	365.5	355.7	356.9	368.0	372.9	382.8	377.8	374.1
82.5°	258.4	249.8	247.4	256.0	263.4	264.6	263.4	260.9
85°	157.5	150.1	151.4	155.1	160.0	160.0	162.5	162.5
87.5°	61.5	57.8	57.8	61.5	61.5	62.8	61.5	59.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)