

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: P130666

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130666
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-CMS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH MINI SENSOR.
Light Source: (160) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10055.0 lumens
Efficiency: N/A
Efficacy: 93.1 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

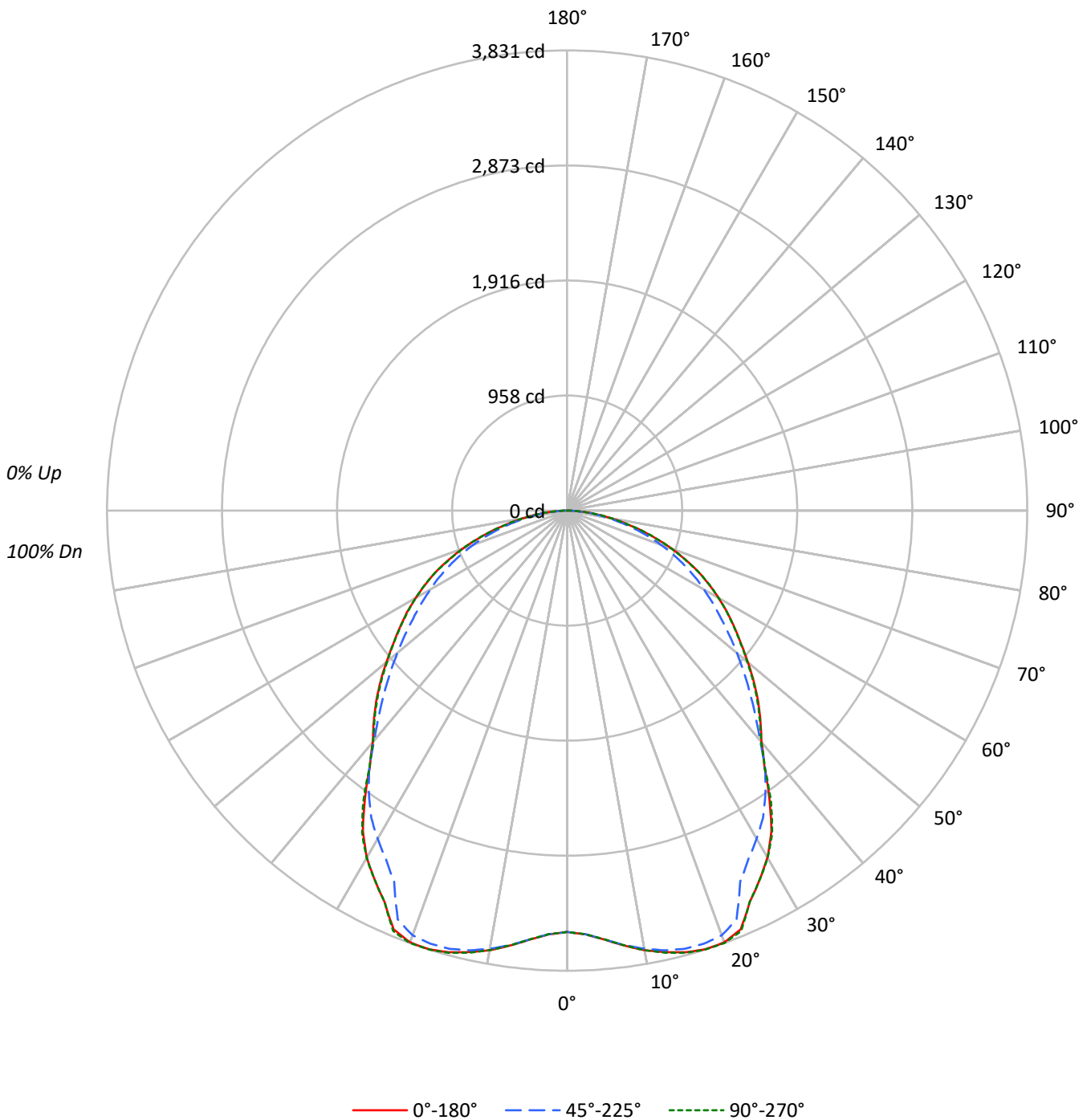
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	37982	37982	37982
5°	38973	38973	38960
10°	40866	40729	40866
15°	42676	42343	42732
20°	44081	43368	44138
25°	42987	40726	42943
30°	41709	39452	41755
35°	38833	38048	39111
40°	35566	35303	35513
45°	34421	33000	34308
50°	33096	31097	32970
55°	32117	29527	32047
60°	31542	28490	31542
65°	30886	27624	30791
70°	29318	26266	29280
75°	26693	24158	26794
80°	23360	21202	23435
85°	20277	17668	20277



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.3	3.4
10°-20°	1073.5	10.7
20°-30°	1623.4	16.1
30°-40°	1772.1	17.6
40°-50°	1739.6	17.3
50°-60°	1522.9	15.1
60°-70°	1144.4	11.4
70°-80°	654.3	6.5
80°-90°	178.4	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°	3043.2	30.3
0°-40°	4815.3	47.9
0°-60°	8077.9	80.3
0°-90°	10055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3508	3508	3508	3508	3508	
5°	3585	3586	3585	3585	3584	347
15°	3807	3804	3777	3806	3812	1077
25°	3598	3603	3409	3602	3594	1661
35°	2938	2794	2878	2782	2959	1832
45°	2248	2293	2155	2279	2240	1733
55°	1701	1728	1564	1722	1698	1526
65°	1205	1158	1078	1158	1202	1186
75°	638	613	577	614	640	677
85°	163	153	142	154	163	183
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°	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5
2.5°	3531.0	3528.5	3529.8	3528.5	3531.0	3531.0	3529.8	3531.0	3529.8	3529.8	3529.8
5°	3585.4	3582.9	3584.2	3581.7	3585.4	3586.6	3585.4	3586.6	3586.6	3585.4	3585.4
7.5°	3653.4	3648.5	3649.7	3647.2	3650.9	3650.9	3649.7	3649.7	3648.5	3647.2	3648.5
10°	3716.5	3714.0	3714.0	3712.7	3715.2	3714.0	3711.5	3710.3	3705.3	3704.1	3706.6
12.5°	3764.7	3767.1	3770.9	3770.9	3769.6	3768.4	3762.2	3758.5	3751.1	3749.8	3752.3
15°	3806.7	3807.9	3811.7	3810.4	3806.7	3800.5	3794.3	3786.9	3780.7	3777.0	3780.7
17.5°	3829.0	3829.0	3827.7	3824.0	3816.6	3809.2	3800.5	3793.1	3786.9	3782.0	3786.9
20°	3825.3	3825.3	3819.1	3811.7	3799.3	3788.2	3779.5	3772.1	3765.9	3763.4	3767.1
22.5°	3773.3	3777.0	3772.1	3770.9	3761.0	3746.1	3728.8	3710.3	3690.5	3684.3	3693.0
25°	3597.8	3595.3	3597.8	3621.3	3627.4	3578.0	3514.9	3456.8	3422.2	3408.6	3427.1
27.5°	3467.9	3465.5	3434.6	3385.1	3317.1	3285.0	3289.9	3285.0	3276.3	3270.1	3278.8
30°	3335.7	3317.1	3233.0	3142.8	3077.3	3067.4	3095.8	3131.7	3153.9	3155.2	3151.4
32.5°	3165.0	3128.0	3019.2	2949.9	2922.7	2917.8	2926.4	2963.5	3014.2	3034.0	3008.0
35°	2937.6	2916.5	2849.8	2805.3	2796.6	2790.4	2775.6	2794.1	2857.2	2878.2	2854.7
37.5°	2701.4	2721.2	2692.8	2676.7	2675.5	2663.1	2642.1	2644.5	2677.9	2707.6	2674.2
40°	2516.0	2535.7	2554.3	2553.1	2548.1	2529.6	2513.5	2504.8	2502.4	2497.4	2504.8
42.5°	2383.7	2376.3	2412.1	2431.9	2419.5	2407.2	2393.6	2387.4	2341.6	2320.6	2347.8
45°	2247.7	2245.2	2269.9	2312.0	2302.1	2284.8	2281.1	2256.3	2178.4	2154.9	2184.6
47.5°	2108.0	2117.9	2140.1	2174.7	2180.9	2166.1	2154.9	2104.3	2025.1	1996.7	2023.9
50°	1964.6	1986.8	2017.7	2031.3	2037.5	2028.8	2021.4	1955.9	1875.5	1845.9	1876.8
52.5°	1827.3	1858.2	1899.0	1887.9	1883.0	1886.7	1874.3	1815.0	1737.1	1701.2	1738.3
55°	1701.2	1730.9	1766.7	1744.5	1721.0	1734.6	1723.5	1676.5	1608.5	1564.0	1606.0
57.5°	1582.5	1601.1	1629.5	1599.8	1572.6	1588.7	1577.6	1540.5	1477.4	1439.1	1479.9
60°	1456.4	1471.3	1487.3	1458.9	1430.5	1439.1	1434.2	1400.8	1348.9	1315.5	1346.4
62.5°	1330.3	1337.7	1348.9	1317.9	1294.5	1294.5	1292.0	1259.8	1219.0	1200.5	1217.8
65°	1205.4	1204.2	1207.9	1177.0	1159.7	1157.2	1152.3	1122.6	1090.5	1078.1	1091.7
67.5°	1064.5	1067.0	1068.2	1039.8	1026.2	1020.0	1016.3	989.1	963.1	954.5	964.3
70°	926.0	927.3	927.3	901.3	891.4	881.5	877.8	856.8	835.8	829.6	838.2
72.5°	780.1	788.8	785.1	764.1	756.6	744.3	741.8	728.2	712.1	703.5	712.1
75°	638.0	650.3	646.6	628.1	619.4	607.0	608.3	600.9	583.6	577.4	586.0
77.5°	500.7	508.1	509.4	499.5	485.9	477.2	480.9	479.7	467.3	452.5	463.6
80°	374.6	383.3	384.5	375.8	364.7	357.3	362.2	362.2	352.4	340.0	349.9
82.5°	260.9	267.1	267.1	262.1	257.2	249.7	252.2	253.5	247.3	234.9	243.6
85°	163.2	164.4	162.0	158.3	154.5	152.1	152.1	154.5	149.6	142.2	148.4
87.5°	60.6	61.8	60.6	64.3	60.6	59.3	60.6	64.3	59.3	59.3	60.6
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°	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5	3507.5
2.5°	3529.8	3531.0	3531.0	3529.8	3529.8	3529.8	3528.5	3529.8
5°	3585.4	3586.6	3586.6	3584.2	3585.4	3584.2	3582.9	3584.2
7.5°	3649.7	3652.2	3650.9	3652.2	3653.4	3650.9	3650.9	3650.9
10°	3709.0	3712.7	3715.2	3717.7	3718.9	3716.5	3717.7	3716.5
12.5°	3757.3	3764.7	3769.6	3772.1	3774.6	3774.6	3772.1	3769.6
15°	3786.9	3795.6	3801.8	3809.2	3814.1	3815.4	3812.9	3811.7
17.5°	3794.3	3801.8	3810.4	3817.8	3825.3	3830.2	3832.7	3831.4
20°	3773.3	3779.5	3789.4	3800.5	3810.4	3820.3	3827.7	3830.2
22.5°	3712.7	3730.1	3748.6	3762.2	3770.9	3775.8	3779.5	3788.2
25°	3464.2	3510.0	3576.7	3627.4	3618.8	3595.3	3586.6	3594.1
27.5°	3287.4	3282.5	3275.1	3314.6	3376.5	3430.9	3456.8	3469.2
30°	3129.2	3092.1	3057.5	3071.1	3134.1	3228.1	3307.2	3339.4
32.5°	2963.5	2912.8	2907.9	2916.5	2946.2	3009.3	3116.8	3177.4
35°	2789.2	2762.0	2776.8	2788.0	2797.8	2830.0	2904.2	2958.6
37.5°	2633.4	2628.5	2648.3	2661.9	2666.8	2682.9	2711.3	2703.9
40°	2496.2	2499.9	2517.2	2532.0	2541.9	2543.2	2525.9	2512.3
42.5°	2372.5	2388.6	2388.6	2407.2	2424.5	2401.0	2365.1	2375.0
45°	2246.4	2272.4	2271.2	2287.2	2303.3	2262.5	2232.8	2240.3
47.5°	2098.1	2147.5	2154.9	2172.3	2172.3	2130.2	2106.7	2098.1
50°	1947.2	2011.5	2020.2	2030.1	2025.1	2009.1	1978.2	1957.1
52.5°	1807.5	1868.1	1876.8	1873.1	1883.0	1890.4	1848.3	1822.4
55°	1670.3	1717.3	1728.4	1716.0	1739.5	1760.6	1721.0	1697.5
57.5°	1534.3	1570.2	1580.0	1570.2	1596.1	1619.6	1593.6	1577.6
60°	1397.1	1429.2	1435.4	1426.7	1457.7	1478.7	1466.3	1456.4
62.5°	1262.3	1284.6	1290.7	1294.5	1313.0	1337.7	1335.3	1334.0
65°	1126.3	1149.8	1152.3	1163.4	1175.8	1207.9	1201.7	1201.7
67.5°	994.0	1010.1	1013.8	1031.1	1036.1	1067.0	1063.3	1058.3
70°	856.8	872.9	877.8	895.1	902.5	927.3	928.5	924.8
72.5°	730.7	736.9	741.8	757.9	764.1	787.6	787.6	782.6
75°	602.1	600.9	605.8	621.9	628.1	647.8	646.6	640.4
77.5°	480.9	474.8	478.5	489.6	497.0	511.8	506.9	502.0
80°	367.2	357.3	358.5	369.7	374.6	384.5	379.6	375.8
82.5°	259.6	251.0	248.5	257.2	264.6	265.8	264.6	262.1
85°	158.3	150.8	152.1	155.8	160.7	160.7	163.2	163.2
87.5°	61.8	58.1	58.1	61.8	61.8	63.1	61.8	59.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)