

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: P130693

Luminaire Tested: **TBLED-LD1-11-M-UNV-L835-CD1-CG-DIMRF-LW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130693
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25358)
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-CG-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND LUMAWATT WIRELESS SENSOR.
Light Source: (160) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9832.2 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.33 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

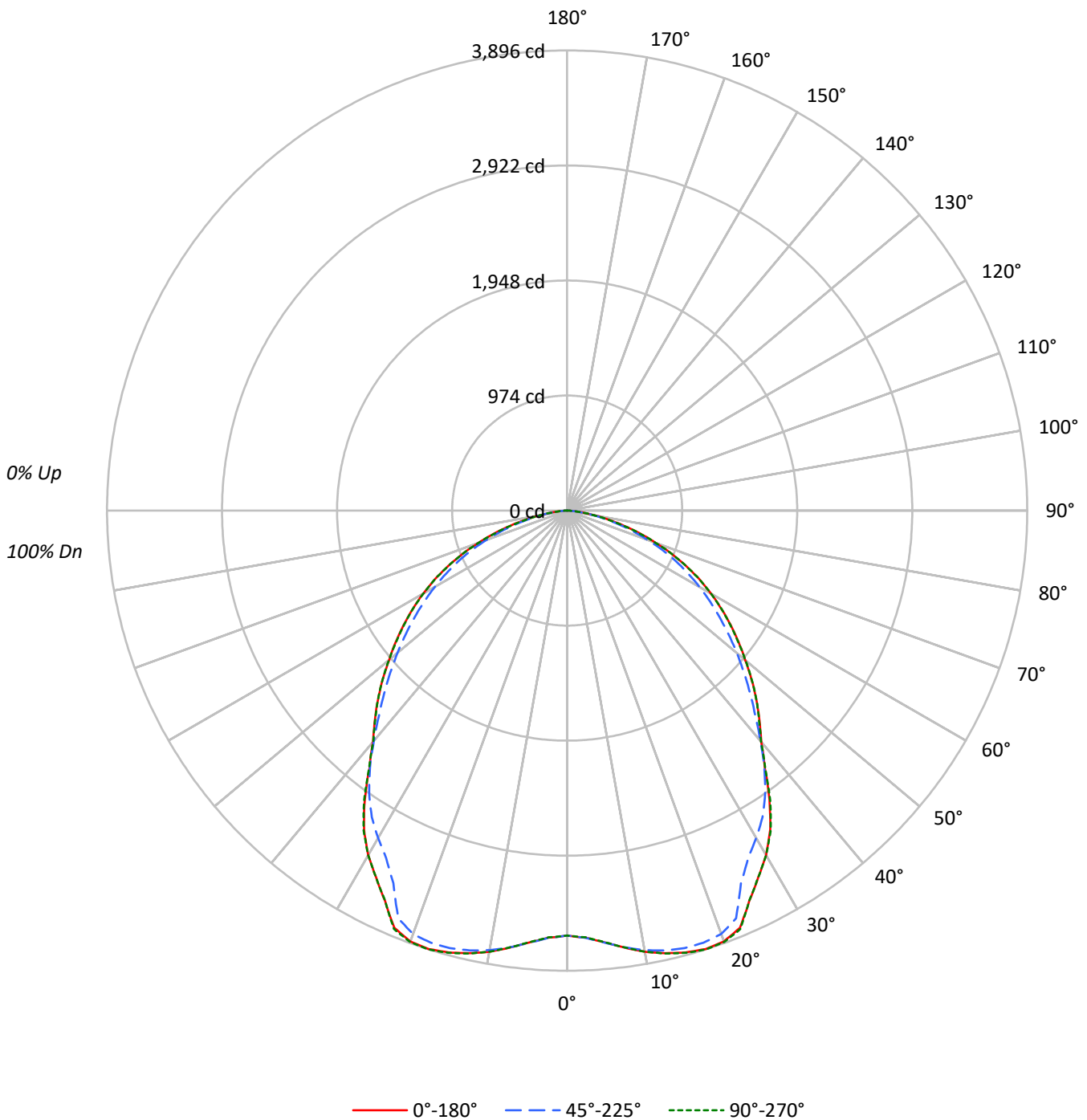
Input Watts (W): 108
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38965	38965	38965
5°	39893	39919	39867
10°	41708	41551	41695
15°	43421	42993	43462
20°	44730	43958	44799
25°	43593	41593	43564
30°	42108	40030	42123
35°	39492	38639	39618
40°	36145	35977	36096
45°	34711	33556	34711
50°	33149	31579	33189
55°	31891	29746	31800
60°	30498	28066	30498
65°	28487	26035	28487
70°	25284	23087	25284
75°	20957	18957	20656
80°	15135	13869	14835
85°	9057	8312	8759



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.2	3.6
10°-20°	1090.9	11.1
20°-30°	1647.4	16.8
30°-40°	1798.6	18.3
40°-50°	1755.3	17.9
50°-60°	1508.0	15.3
60°-70°	1065.9	10.8
70°-80°	515.7	5.2
80°-90°	96.2	1.0
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°	3092.5	31.5
0°-40°	4891.1	49.7
0°-60°	8154.3	82.9
0°-90°	9832.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9832.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3598	3598	3598	3598	3598	
5°	3670	3672	3672	3671	3668	354
15°	3873	3866	3835	3867	3877	1096
25°	3648	3659	3481	3660	3646	1682
35°	2987	2833	2923	2826	2997	1859
45°	2267	2311	2191	2303	2267	1747
55°	1689	1709	1576	1705	1684	1511
65°	1112	1076	1016	1076	1112	1097
75°	501	476	453	475	494	536
85°	73	69	67	68	70	100
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°	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3
2.5°	3619.8	3618.6	3617.4	3618.6	3621.0	3621.0	3621.0	3619.8	3619.8	3621.0	3619.8
5°	3670.0	3667.6	3668.8	3667.6	3672.4	3671.2	3671.2	3672.4	3672.4	3672.4	3671.2
7.5°	3732.2	3729.8	3729.8	3729.8	3731.0	3731.0	3731.0	3731.0	3729.8	3729.8	3729.8
10°	3793.1	3789.5	3790.7	3789.5	3790.7	3788.4	3786.0	3783.6	3781.2	3778.8	3780.0
12.5°	3838.6	3837.4	3839.8	3839.8	3837.4	3833.8	3827.8	3821.8	3817.0	3814.6	3817.0
15°	3873.2	3875.6	3876.8	3875.6	3870.8	3861.3	3854.1	3844.5	3838.6	3835.0	3838.6
17.5°	3892.4	3892.4	3890.0	3882.8	3874.4	3866.1	3855.3	3845.7	3839.8	3836.2	3840.9
20°	3881.6	3880.4	3872.0	3861.3	3848.1	3837.4	3827.8	3819.4	3815.8	3814.6	3817.0
22.5°	3823.0	3825.4	3820.6	3813.5	3803.9	3788.4	3770.4	3753.7	3740.5	3735.8	3740.5
25°	3648.5	3647.3	3655.7	3670.0	3679.6	3637.7	3581.5	3527.7	3490.7	3481.1	3490.7
27.5°	3502.6	3501.4	3482.3	3440.5	3391.5	3353.2	3342.5	3336.5	3323.3	3317.3	3325.7
30°	3367.6	3355.6	3287.5	3200.2	3138.0	3122.5	3146.4	3178.7	3196.6	3201.4	3193.0
32.5°	3201.4	3169.1	3077.1	3000.6	2973.1	2961.1	2969.5	3011.3	3054.3	3078.3	3052.0
35°	2987.4	2959.9	2887.0	2845.1	2839.2	2826.0	2815.3	2840.4	2893.0	2922.9	2887.0
37.5°	2750.7	2763.9	2732.8	2711.3	2711.3	2698.1	2676.6	2685.0	2714.8	2743.5	2712.5
40°	2557.0	2581.0	2588.1	2582.2	2579.8	2563.0	2542.7	2537.9	2539.1	2545.1	2535.5
42.5°	2408.8	2412.4	2444.7	2455.4	2445.9	2427.9	2416.0	2408.8	2374.1	2358.6	2378.9
45°	2266.6	2268.9	2295.2	2326.3	2320.3	2301.2	2291.7	2268.9	2208.0	2191.2	2212.8
47.5°	2118.3	2131.5	2150.6	2182.9	2188.9	2169.7	2156.6	2117.1	2044.2	2029.9	2045.4
50°	1967.7	1992.8	2015.5	2031.1	2039.4	2022.7	2008.3	1961.7	1891.2	1874.5	1890.0
52.5°	1830.2	1852.9	1882.8	1878.0	1874.5	1870.9	1861.3	1813.5	1746.5	1723.8	1745.3
55°	1689.2	1711.9	1741.8	1721.4	1705.9	1711.9	1701.1	1661.7	1604.3	1575.6	1604.3
57.5°	1549.3	1567.2	1591.1	1566.0	1543.3	1550.5	1543.3	1515.8	1462.0	1434.5	1462.0
60°	1408.2	1419.0	1435.7	1409.4	1385.5	1390.3	1387.9	1359.2	1317.4	1295.9	1317.4
62.5°	1263.6	1269.6	1277.9	1252.8	1232.5	1231.3	1232.5	1203.8	1171.5	1157.2	1172.7
65°	1111.8	1114.2	1118.9	1093.8	1079.5	1073.5	1075.9	1049.6	1025.7	1016.1	1026.9
67.5°	956.4	958.7	959.9	936.0	926.5	918.1	919.3	900.2	878.6	872.7	881.0
70°	798.6	802.1	802.1	780.6	774.6	763.9	763.9	751.9	734.0	729.2	735.2
72.5°	650.3	647.9	647.9	630.0	625.2	614.5	613.3	609.7	592.9	588.2	594.1
75°	500.9	498.5	499.7	485.3	480.6	472.2	471.0	471.0	457.9	453.1	459.0
77.5°	362.2	364.6	363.4	352.7	347.9	344.3	347.9	347.9	335.9	331.1	337.1
80°	242.7	245.1	245.1	236.7	233.1	230.7	235.5	233.1	227.1	222.4	227.1
82.5°	147.0	147.0	147.0	144.6	139.9	139.9	143.5	143.5	137.5	133.9	137.5
85°	72.9	72.9	71.7	71.7	69.3	69.3	71.7	71.7	68.1	66.9	68.1
87.5°	25.1	23.9	23.9	23.9	22.7	23.9	23.9	23.9	22.7	22.7	22.7
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°	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3	3598.3
2.5°	3621.0	3621.0	3619.8	3619.8	3619.8	3618.6	3617.4	3616.2
5°	3673.6	3672.4	3670.0	3671.2	3670.0	3670.0	3668.8	3667.6
7.5°	3732.2	3733.4	3731.0	3733.4	3733.4	3733.4	3732.2	3731.0
10°	3783.6	3787.2	3788.4	3791.9	3793.1	3794.3	3793.1	3791.9
12.5°	3823.0	3829.0	3833.8	3839.8	3843.3	3844.5	3842.1	3840.9
15°	3845.7	3854.1	3862.5	3872.0	3878.0	3880.4	3879.2	3876.8
17.5°	3846.9	3856.5	3867.2	3875.6	3884.0	3890.0	3894.7	3895.9
20°	3820.6	3829.0	3838.6	3849.3	3862.5	3873.2	3884.0	3887.6
22.5°	3750.1	3770.4	3790.7	3801.5	3812.3	3819.4	3825.4	3833.8
25°	3519.4	3580.3	3646.1	3673.6	3668.8	3646.1	3642.5	3646.1
27.5°	3338.9	3346.0	3354.4	3386.7	3432.1	3473.9	3497.9	3502.6
30°	3177.5	3142.8	3116.5	3132.1	3191.8	3274.3	3348.4	3368.8
32.5°	3010.1	2964.7	2953.9	2964.7	2991.0	3059.1	3160.7	3207.4
35°	2832.0	2812.9	2821.2	2830.8	2836.8	2873.8	2949.2	2997.0
37.5°	2675.4	2673.0	2689.7	2701.7	2701.7	2716.0	2754.3	2755.5
40°	2528.4	2540.3	2553.5	2570.2	2573.8	2579.8	2570.2	2553.5
42.5°	2399.2	2412.4	2420.8	2437.5	2447.1	2433.9	2402.8	2405.2
45°	2264.2	2289.3	2294.0	2312.0	2319.2	2284.5	2260.6	2266.6
47.5°	2112.3	2154.2	2163.7	2182.9	2176.9	2143.4	2126.7	2119.5
50°	1955.7	2010.7	2019.1	2032.2	2025.1	2008.3	1986.8	1970.1
52.5°	1814.7	1858.9	1864.9	1869.7	1875.6	1879.2	1851.7	1825.4
55°	1664.1	1698.7	1707.1	1702.3	1719.0	1738.2	1710.7	1684.4
57.5°	1518.2	1542.1	1548.1	1539.7	1563.6	1588.7	1568.4	1548.1
60°	1362.8	1386.7	1387.9	1384.3	1408.2	1429.7	1421.4	1408.2
62.5°	1209.8	1231.3	1227.7	1231.3	1250.4	1277.9	1271.9	1263.6
65°	1054.4	1074.7	1072.3	1079.5	1093.8	1118.9	1118.9	1111.8
67.5°	906.1	918.1	916.9	926.5	937.2	961.1	963.5	956.4
70°	757.9	763.9	762.7	773.4	781.8	806.9	806.9	798.6
72.5°	614.5	618.0	613.3	627.6	631.2	652.7	652.7	643.1
75°	477.0	475.8	471.0	479.4	490.1	505.7	502.1	493.7
77.5°	349.1	345.5	340.7	350.3	356.2	368.2	364.6	356.2
80°	236.7	233.1	227.1	235.5	240.3	247.5	243.9	237.9
82.5°	144.6	141.1	136.3	142.3	144.6	149.4	147.0	142.3
85°	71.7	69.3	66.9	68.1	71.7	72.9	71.7	70.5
87.5°	23.9	22.7	21.5	22.7	22.7	23.9	23.9	22.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)