

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: P130684

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130684
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-DOS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND DIMMING OCCUPANCY SENSOR.
Light Source: (160) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10122.4 lumens
Efficiency: N/A
Efficacy: 93.7 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

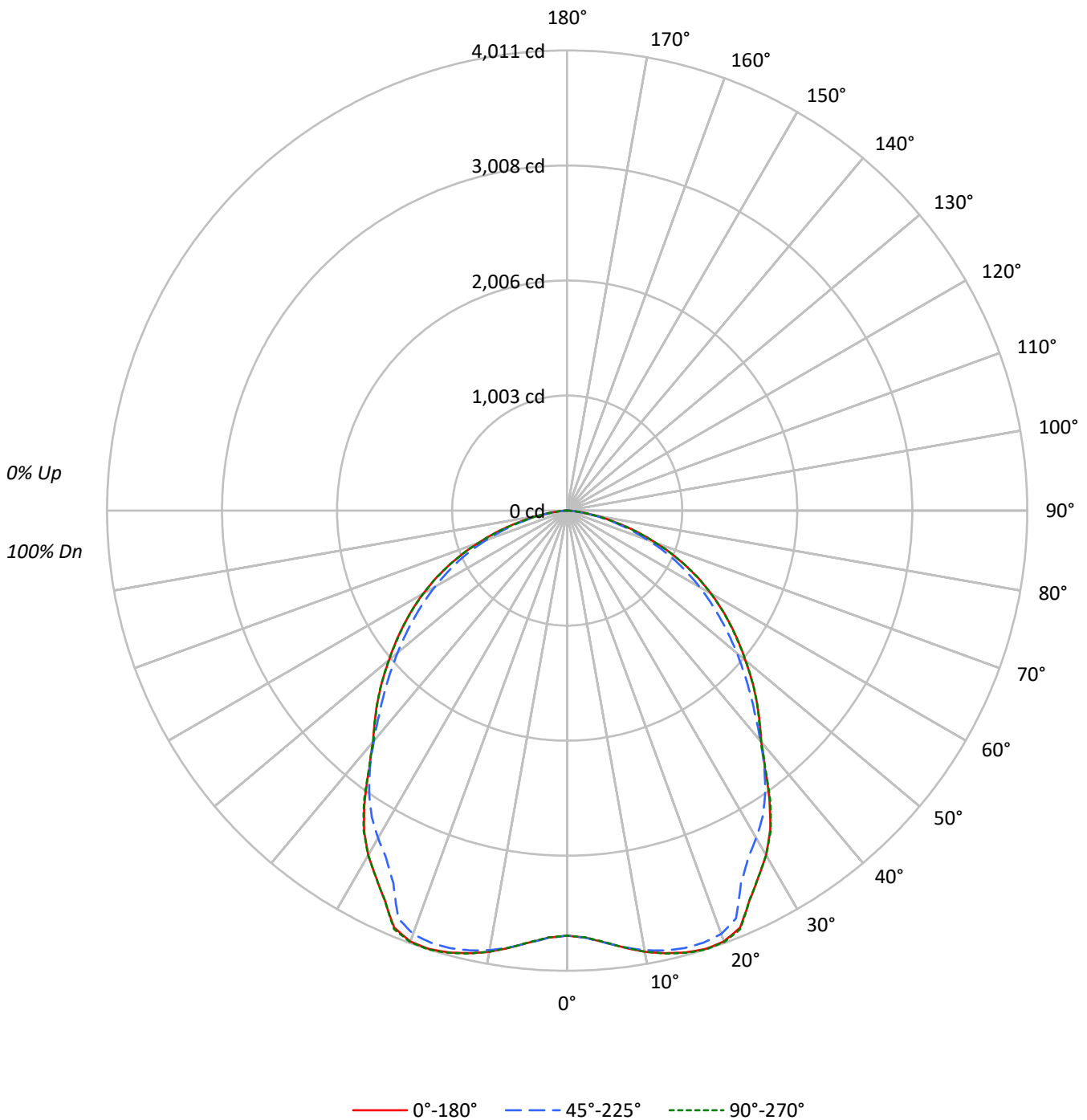
Input Watts (W): 108
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	40115	40115	40115
5°	41070	41097	41044
10°	42939	42777	42926
15°	44703	44262	44744
20°	46051	45256	46121
25°	44880	42821	44850
30°	43350	41212	43366
35°	40657	39778	40787
40°	37213	37039	37160
45°	35734	34547	35734
50°	34127	32510	34168
55°	32831	30624	32738
60°	31399	28893	31399
65°	29328	26804	29328
70°	26028	23768	26028
75°	21576	19514	21267
80°	15577	14274	15272
85°	9331	8560	9020



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.6	3.6
10°-20°	1123.1	11.1
20°-30°	1696.1	16.8
30°-40°	1851.7	18.3
40°-50°	1807.2	17.9
50°-60°	1552.5	15.3
60°-70°	1097.4	10.8
70°-80°	530.9	5.2
80°-90°	99.0	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°	3183.7	31.5
0°-40°	5035.4	49.7
0°-60°	8395.0	82.9
0°-90°	10122.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10122.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3704	3704	3704	3704	3704	
5°	3778	3780	3781	3779	3776	365
15°	3988	3980	3948	3981	3991	1128
25°	3756	3767	3584	3768	3754	1731
35°	3076	2916	3009	2909	3085	1914
45°	2333	2379	2256	2371	2333	1799
55°	1739	1759	1622	1755	1734	1555
65°	1145	1108	1046	1108	1145	1129
75°	516	490	466	489	508	552
85°	75	71	69	70	73	103
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°	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5
2.5°	3726.6	3725.4	3724.2	3725.4	3727.9	3727.9	3727.9	3726.6	3726.6	3727.9	3726.6
5°	3778.3	3775.9	3777.1	3775.9	3780.8	3779.5	3779.5	3780.8	3780.8	3780.8	3779.5
7.5°	3842.3	3839.9	3839.9	3839.9	3841.1	3841.1	3841.1	3841.1	3839.9	3839.9	3839.9
10°	3905.1	3901.4	3902.6	3901.4	3902.6	3900.2	3897.7	3895.2	3892.8	3890.3	3891.5
12.5°	3951.8	3950.6	3953.1	3953.1	3950.6	3946.9	3940.8	3934.6	3929.7	3927.2	3929.7
15°	3987.5	3990.0	3991.2	3990.0	3985.1	3975.2	3967.8	3958.0	3951.8	3948.2	3951.8
17.5°	4007.2	4007.2	4004.8	3997.4	3988.8	3980.2	3969.1	3959.2	3953.1	3949.4	3954.3
20°	3996.2	3994.9	3986.3	3975.2	3961.7	3950.6	3940.8	3932.2	3928.5	3927.2	3929.7
22.5°	3935.8	3938.3	3933.4	3926.0	3916.2	3900.2	3881.7	3864.5	3850.9	3846.0	3850.9
25°	3756.2	3754.9	3763.5	3778.3	3788.2	3745.1	3687.2	3631.9	3593.7	3583.9	3593.7
27.5°	3606.0	3604.8	3585.1	3542.0	3491.6	3452.2	3441.1	3434.9	3421.4	3415.3	3423.9
30°	3466.9	3454.6	3384.5	3294.6	3230.6	3214.6	3239.3	3272.5	3291.0	3295.9	3287.3
32.5°	3295.9	3262.6	3167.9	3089.1	3060.8	3048.5	3057.1	3100.2	3144.5	3169.1	3142.0
35°	3075.6	3047.3	2972.2	2929.1	2923.0	2909.4	2898.4	2924.2	2978.3	3009.1	2972.2
37.5°	2831.9	2845.4	2813.4	2791.3	2791.3	2777.7	2755.6	2764.2	2795.0	2824.5	2792.5
40°	2632.5	2657.1	2664.5	2658.4	2655.9	2638.7	2617.7	2612.8	2614.1	2620.2	2610.4
42.5°	2479.9	2483.6	2516.8	2527.9	2518.1	2499.6	2487.3	2479.9	2444.2	2428.2	2449.1
45°	2333.4	2335.9	2363.0	2395.0	2388.8	2369.1	2359.3	2335.9	2273.1	2255.9	2278.1
47.5°	2180.8	2194.4	2214.1	2247.3	2253.5	2233.8	2220.2	2179.6	2104.5	2089.8	2105.8
50°	2025.8	2051.6	2075.0	2091.0	2099.6	2082.4	2067.6	2019.6	1947.0	1929.8	1945.8
52.5°	1884.2	1907.6	1938.4	1933.5	1929.8	1926.1	1916.2	1867.0	1798.1	1774.7	1796.9
55°	1739.0	1762.4	1793.2	1772.2	1756.2	1762.4	1751.3	1710.7	1651.6	1622.1	1651.6
57.5°	1595.0	1613.5	1638.1	1612.2	1588.9	1596.2	1588.9	1560.6	1505.2	1476.9	1505.2
60°	1449.8	1460.9	1478.1	1451.0	1426.4	1431.3	1428.9	1399.3	1356.3	1334.1	1356.3
62.5°	1300.9	1307.0	1315.6	1289.8	1268.9	1267.6	1268.9	1239.3	1206.1	1191.3	1207.3
65°	1144.6	1147.0	1152.0	1126.1	1111.3	1105.2	1107.6	1080.6	1056.0	1046.1	1057.2
67.5°	984.6	987.0	988.3	963.7	953.8	945.2	946.4	926.7	904.6	898.4	907.0
70°	822.1	825.8	825.8	803.7	797.5	786.4	786.4	774.1	755.7	750.7	756.9
72.5°	669.5	667.1	667.1	648.6	643.7	632.6	631.4	627.7	610.4	605.5	611.7
75°	515.7	513.2	514.4	499.7	494.8	486.1	484.9	484.9	471.4	466.4	472.6
77.5°	372.9	375.4	374.1	363.1	358.1	354.4	358.1	358.1	345.8	340.9	347.1
80°	249.8	252.3	252.3	243.7	240.0	237.5	242.5	240.0	233.8	228.9	233.8
82.5°	151.4	151.4	151.4	148.9	144.0	144.0	147.7	147.7	141.5	137.8	141.5
85°	75.1	75.1	73.8	73.8	71.4	71.4	73.8	73.8	70.2	68.9	70.2
87.5°	25.8	24.6	24.6	24.6	23.4	24.6	24.6	24.6	23.4	23.4	23.4
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°	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5	3704.5
2.5°	3727.9	3727.9	3726.6	3726.6	3726.6	3725.4	3724.2	3722.9
5°	3782.0	3780.8	3778.3	3779.5	3778.3	3778.3	3777.1	3775.9
7.5°	3842.3	3843.5	3841.1	3843.5	3843.5	3843.5	3842.3	3841.1
10°	3895.2	3898.9	3900.2	3903.9	3905.1	3906.3	3905.1	3903.9
12.5°	3935.8	3942.0	3946.9	3953.1	3956.8	3958.0	3955.5	3954.3
15°	3959.2	3967.8	3976.5	3986.3	3992.5	3994.9	3993.7	3991.2
17.5°	3960.5	3970.3	3981.4	3990.0	3998.6	4004.8	4009.7	4010.9
20°	3933.4	3942.0	3951.8	3962.9	3976.5	3987.5	3998.6	4002.3
22.5°	3860.8	3881.7	3902.6	3913.7	3924.8	3932.2	3938.3	3946.9
25°	3623.2	3686.0	3753.7	3782.0	3777.1	3753.7	3750.0	3753.7
27.5°	3437.4	3444.8	3453.4	3486.6	3533.4	3576.5	3601.1	3606.0
30°	3271.3	3235.6	3208.5	3224.5	3286.0	3370.9	3447.3	3468.2
32.5°	3099.0	3052.2	3041.1	3052.2	3079.3	3149.4	3254.0	3302.0
35°	2915.6	2895.9	2904.5	2914.3	2920.5	2958.7	3036.2	3085.4
37.5°	2754.4	2751.9	2769.1	2781.4	2781.4	2796.2	2835.6	2836.8
40°	2603.0	2615.3	2628.8	2646.1	2649.7	2655.9	2646.1	2628.8
42.5°	2470.1	2483.6	2492.2	2509.4	2519.3	2505.8	2473.8	2476.2
45°	2331.0	2356.8	2361.8	2380.2	2387.6	2351.9	2327.3	2333.4
47.5°	2174.7	2217.8	2227.6	2247.3	2241.1	2206.7	2189.5	2182.1
50°	2013.5	2070.1	2078.7	2092.2	2084.8	2067.6	2045.5	2028.2
52.5°	1868.2	1913.8	1919.9	1924.8	1931.0	1934.7	1906.4	1879.3
55°	1713.2	1748.9	1757.5	1752.5	1769.8	1789.5	1761.2	1734.1
57.5°	1563.0	1587.6	1593.8	1585.2	1609.8	1635.6	1614.7	1593.8
60°	1403.0	1427.6	1428.9	1425.2	1449.8	1471.9	1463.3	1449.8
62.5°	1245.5	1267.6	1264.0	1267.6	1287.3	1315.6	1309.5	1300.9
65°	1085.5	1106.4	1104.0	1111.3	1126.1	1152.0	1152.0	1144.6
67.5°	932.9	945.2	944.0	953.8	964.9	989.5	992.0	984.6
70°	780.3	786.4	785.2	796.3	804.9	830.7	830.7	822.1
72.5°	632.6	636.3	631.4	646.1	649.8	672.0	672.0	662.1
75°	491.1	489.8	484.9	493.5	504.6	520.6	516.9	508.3
77.5°	359.4	355.7	350.8	360.6	366.8	379.1	375.4	366.8
80°	243.7	240.0	233.8	242.5	247.4	254.8	251.1	244.9
82.5°	148.9	145.2	140.3	146.5	148.9	153.8	151.4	146.5
85°	73.8	71.4	68.9	70.2	73.8	75.1	73.8	72.6
87.5°	24.6	23.4	22.2	23.4	23.4	24.6	24.6	23.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)