

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: P130657

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130657
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-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH LUMAWATT WIRELESS SENSOR.
Light Source: (160) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9722.2 lumens
Efficiency: N/A
Efficacy: 90.0 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

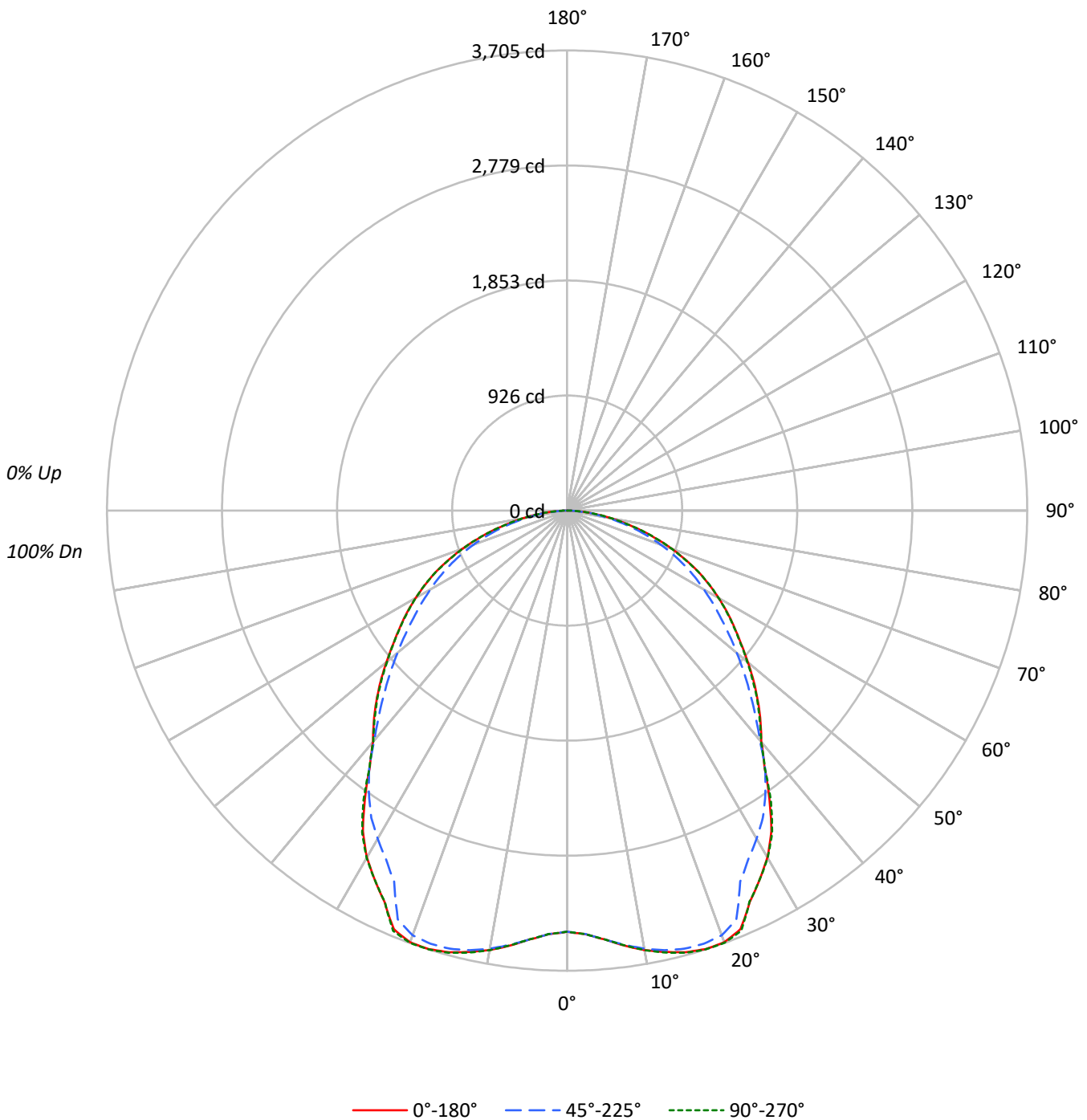
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36724	36724	36724
5°	37684	37684	37671
10°	39513	39381	39513
15°	41263	40941	41317
20°	42622	41933	42677
25°	41564	39379	41521
30°	40329	38146	40374
35°	37547	36790	37817
40°	34388	34135	34337
45°	33282	31908	33172
50°	32000	30068	31880
55°	31054	28549	30986
60°	30498	27546	30498
65°	29863	26709	29774
70°	28349	25395	28311
75°	25806	23359	25907
80°	22587	20498	22662
85°	19606	17084	19606



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.9	3.4
10°-20°	1038.0	10.7
20°-30°	1569.7	16.1
30°-40°	1713.5	17.6
40°-50°	1682.1	17.3
50°-60°	1472.5	15.1
60°-70°	1106.5	11.4
70°-80°	632.6	6.5
80°-90°	172.5	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°	2942.5	30.3
0°-40°	4656.0	47.9
0°-60°	7810.6	80.3
0°-90°	9722.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9722.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3391	3391	3391	3391	3391	
5°	3467	3467	3467	3467	3466	335
15°	3681	3678	3652	3680	3686	1041
25°	3479	3484	3296	3483	3475	1606
35°	2840	2701	2783	2690	2861	1771
45°	2173	2218	2084	2204	2166	1675
55°	1645	1671	1512	1665	1641	1475
65°	1166	1120	1042	1120	1162	1146
75°	617	593	558	594	619	655
85°	158	148	138	149	158	177
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°	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4
2.5°	3414.2	3411.8	3413.0	3411.8	3414.2	3414.2	3413.0	3414.2	3413.0	3413.0	3413.0
5°	3466.8	3464.4	3465.6	3463.2	3466.8	3467.9	3466.8	3467.9	3467.9	3466.8	3466.8
7.5°	3532.5	3527.7	3528.9	3526.5	3530.1	3530.1	3528.9	3528.9	3527.7	3526.5	3527.7
10°	3593.5	3591.1	3591.1	3589.9	3592.3	3591.1	3588.7	3587.5	3582.7	3581.5	3583.9
12.5°	3640.1	3642.5	3646.1	3646.1	3644.9	3643.7	3637.7	3634.1	3626.9	3625.7	3628.1
15°	3680.7	3681.9	3685.5	3684.3	3680.7	3674.8	3668.8	3661.6	3655.6	3652.0	3655.6
17.5°	3702.3	3702.3	3701.1	3697.5	3690.3	3683.1	3674.8	3667.6	3661.6	3656.8	3661.6
20°	3698.7	3698.7	3692.7	3685.5	3673.6	3662.8	3654.4	3647.3	3641.3	3638.9	3642.5
22.5°	3648.5	3652.0	3647.3	3646.1	3636.5	3622.2	3605.4	3587.5	3568.4	3562.4	3570.8
25°	3478.7	3476.3	3478.7	3501.4	3507.4	3459.6	3398.6	3342.4	3309.0	3295.8	3313.7
27.5°	3353.2	3350.8	3320.9	3273.1	3207.3	3176.3	3181.0	3176.3	3167.9	3161.9	3170.3
30°	3225.3	3207.3	3126.1	3038.8	2975.4	2965.9	2993.4	3028.0	3049.5	3050.7	3047.2
32.5°	3060.3	3024.4	2919.2	2852.3	2826.0	2821.2	2829.6	2865.4	2914.5	2933.6	2908.5
35°	2840.3	2820.0	2755.5	2712.4	2704.1	2698.1	2683.7	2701.7	2762.6	2783.0	2760.3
37.5°	2612.0	2631.1	2603.7	2588.1	2586.9	2575.0	2554.6	2557.0	2589.3	2618.0	2585.7
40°	2432.7	2451.8	2469.8	2468.6	2463.8	2445.9	2430.3	2421.9	2419.6	2414.8	2421.9
42.5°	2304.8	2297.6	2332.3	2351.4	2339.5	2327.5	2314.4	2308.4	2264.1	2243.8	2270.1
45°	2173.3	2170.9	2194.8	2235.5	2225.9	2209.2	2205.6	2181.7	2106.4	2083.6	2112.3
47.5°	2038.2	2047.8	2069.3	2102.8	2108.7	2094.4	2083.6	2034.6	1958.1	1930.6	1956.9
50°	1899.5	1921.1	1950.9	1964.1	1970.1	1961.7	1954.5	1891.2	1813.5	1784.8	1814.7
52.5°	1766.8	1796.7	1836.2	1825.4	1820.6	1824.2	1812.3	1754.9	1679.6	1644.9	1680.8
55°	1644.9	1673.6	1708.3	1686.8	1664.0	1677.2	1666.4	1621.0	1555.3	1512.2	1552.9
57.5°	1530.2	1548.1	1575.6	1546.9	1520.6	1536.1	1525.4	1489.5	1428.5	1391.5	1430.9
60°	1408.2	1422.6	1438.1	1410.6	1383.1	1391.5	1386.7	1354.4	1304.2	1271.9	1301.8
62.5°	1286.3	1293.5	1304.2	1274.3	1251.6	1251.6	1249.2	1218.1	1178.7	1160.8	1177.5
65°	1165.5	1164.4	1167.9	1138.1	1121.3	1118.9	1114.1	1085.5	1054.4	1042.4	1055.6
67.5°	1029.3	1031.7	1032.9	1005.4	992.2	986.2	982.6	956.3	931.2	922.9	932.4
70°	895.4	896.6	896.6	871.5	861.9	852.3	848.8	828.4	808.1	802.1	810.5
72.5°	754.3	762.7	759.1	738.8	731.6	719.6	717.3	704.1	688.6	680.2	688.6
75°	616.8	628.8	625.2	607.3	598.9	587.0	588.2	581.0	564.2	558.3	566.6
77.5°	484.1	491.3	492.5	483.0	469.8	461.4	465.0	463.8	451.9	437.5	448.3
80°	362.2	370.6	371.8	363.4	352.7	345.5	350.3	350.3	340.7	328.7	338.3
82.5°	252.2	258.2	258.2	253.4	248.6	241.5	243.9	245.1	239.1	227.1	235.5
85°	157.8	159.0	156.6	153.0	149.4	147.0	147.0	149.4	144.6	137.5	143.5
87.5°	58.6	59.8	58.6	62.2	58.6	57.4	58.6	62.2	57.4	57.4	58.6
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°	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4	3391.4
2.5°	3413.0	3414.2	3414.2	3413.0	3413.0	3413.0	3411.8	3413.0
5°	3466.8	3467.9	3467.9	3465.6	3466.8	3465.6	3464.4	3465.6
7.5°	3528.9	3531.3	3530.1	3531.3	3532.5	3530.1	3530.1	3530.1
10°	3586.3	3589.9	3592.3	3594.7	3595.9	3593.5	3594.7	3593.5
12.5°	3632.9	3640.1	3644.9	3647.3	3649.7	3649.7	3647.3	3644.9
15°	3661.6	3670.0	3676.0	3683.1	3687.9	3689.1	3686.7	3685.5
17.5°	3668.8	3676.0	3684.3	3691.5	3698.7	3703.4	3705.8	3704.6
20°	3648.5	3654.4	3664.0	3674.8	3684.3	3693.9	3701.1	3703.4
22.5°	3589.9	3606.6	3624.5	3637.7	3646.1	3650.8	3654.4	3662.8
25°	3349.6	3393.8	3458.4	3507.4	3499.0	3476.3	3467.9	3475.1
27.5°	3178.7	3173.9	3166.7	3205.0	3264.7	3317.3	3342.4	3354.4
30°	3025.6	2989.8	2956.3	2969.5	3030.4	3121.3	3197.8	3228.9
32.5°	2865.4	2816.4	2811.7	2820.0	2848.7	2909.7	3013.7	3072.3
35°	2696.9	2670.6	2684.9	2695.7	2705.3	2736.3	2808.1	2860.7
37.5°	2546.3	2541.5	2560.6	2573.8	2578.5	2594.1	2621.6	2614.4
40°	2413.6	2417.2	2433.9	2448.2	2457.8	2459.0	2442.3	2429.1
42.5°	2294.0	2309.6	2309.6	2327.5	2344.2	2321.5	2286.9	2296.4
45°	2172.1	2197.2	2196.0	2211.5	2227.1	2187.6	2158.9	2166.1
47.5°	2028.6	2076.5	2083.6	2100.4	2100.4	2059.7	2037.0	2028.6
50°	1882.8	1945.0	1953.3	1962.9	1958.1	1942.6	1912.7	1892.4
52.5°	1747.7	1806.3	1814.7	1811.1	1820.6	1827.8	1787.2	1762.1
55°	1615.0	1660.5	1671.2	1659.3	1682.0	1702.3	1664.0	1641.3
57.5°	1483.5	1518.2	1527.8	1518.2	1543.3	1566.0	1540.9	1525.4
60°	1350.8	1381.9	1387.9	1379.5	1409.4	1429.7	1417.8	1408.2
62.5°	1220.5	1242.1	1248.0	1251.6	1269.5	1293.5	1291.1	1289.9
65°	1089.0	1111.8	1114.1	1124.9	1136.9	1167.9	1162.0	1162.0
67.5°	961.1	976.7	980.3	997.0	1001.8	1031.7	1028.1	1023.3
70°	828.4	844.0	848.8	865.5	872.7	896.6	897.8	894.2
72.5°	706.5	712.5	717.3	732.8	738.8	761.5	761.5	756.7
75°	582.2	581.0	585.8	601.3	607.3	626.4	625.2	619.2
77.5°	465.0	459.0	462.6	473.4	480.6	494.9	490.1	485.3
80°	355.0	345.5	346.7	357.4	362.2	371.8	367.0	363.4
82.5°	251.0	242.7	240.3	248.6	255.8	257.0	255.8	253.4
85°	153.0	145.8	147.0	150.6	155.4	155.4	157.8	157.8
87.5°	59.8	56.2	56.2	59.8	59.8	61.0	59.8	57.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)