

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: P130664

Luminaire Tested: **TBLED-LD1-8-M-UNV-L840-CD1-CMS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130664
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-LD1-8-M-UNV-L840-CD1-CMS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH MINI SENSOR.
Light Source: (160) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7794.6 lumens
Efficiency: N/A
Efficacy: 101.2 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

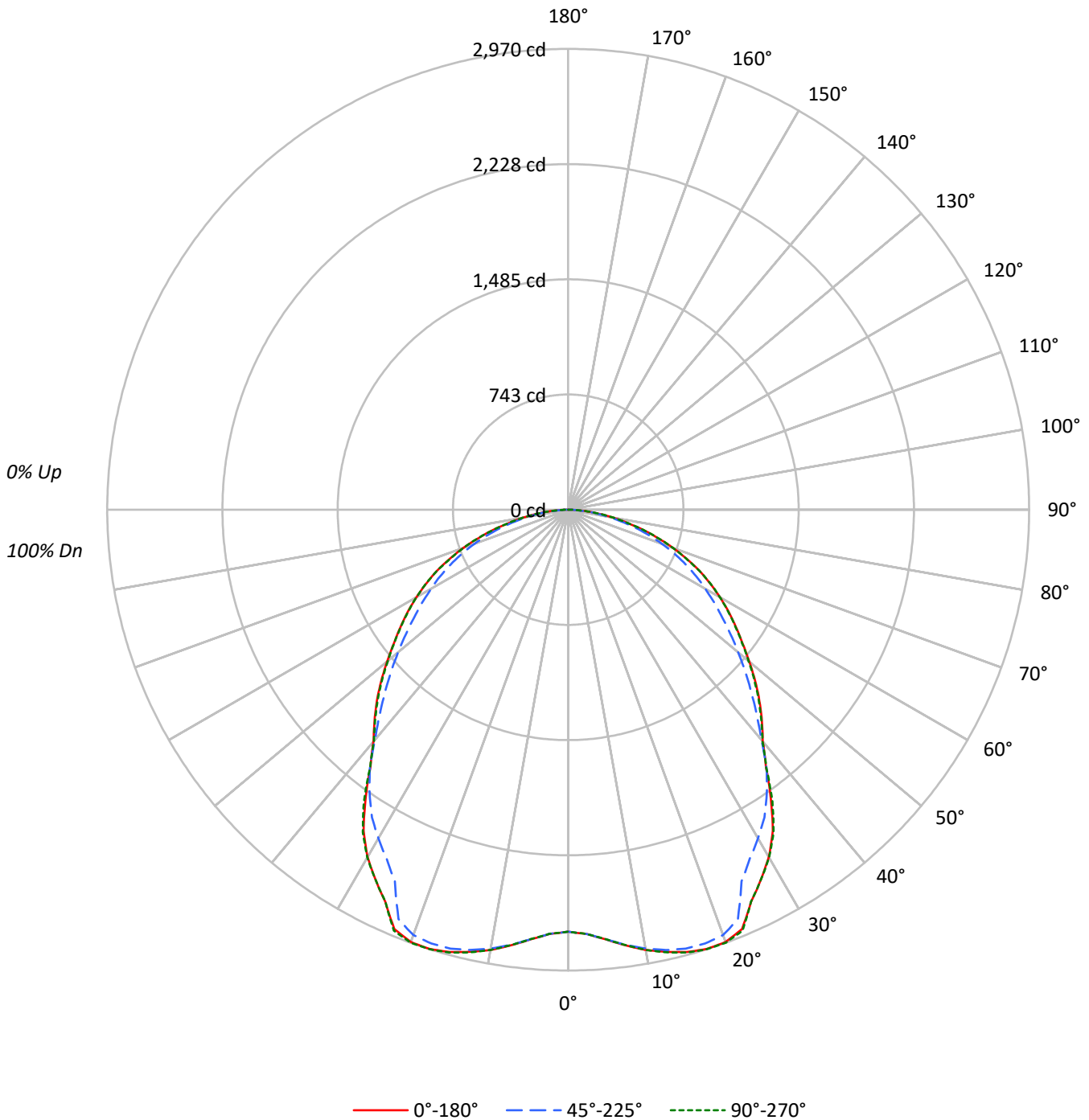
Input Watts (W): 77
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	29443	29443	29443
5°	30212	30212	30202
10°	31679	31573	31679
15°	33083	32825	33125
20°	34172	33619	34216
25°	33323	31572	33289
30°	32333	30583	32369
35°	30103	29495	30319
40°	27571	27367	27530
45°	26683	25582	26596
50°	25655	24106	25559
55°	24898	22889	24843
60°	24451	22086	24451
65°	23945	21413	23870
70°	22729	20361	22698
75°	20689	18727	20773
80°	18109	16438	18172
85°	15717	13692	15717



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.5	3.4
10°-20°	832.2	10.7
20°-30°	1258.5	16.1
30°-40°	1373.8	17.6
40°-50°	1348.6	17.3
50°-60°	1180.6	15.1
60°-70°	887.1	11.4
70°-80°	507.2	6.5
80°-90°	138.3	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°	2359.1	30.3
0°-40°	3732.9	47.9
0°-60°	6262.0	80.3
0°-90°	7794.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7794.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2719	2719	2719	2719	2719	
5°	2779	2780	2779	2779	2778	269
15°	2951	2949	2928	2950	2955	835
25°	2789	2793	2642	2792	2786	1288
35°	2277	2166	2231	2157	2294	1420
45°	1742	1778	1670	1767	1737	1343
55°	1319	1339	1212	1335	1316	1183
65°	934	898	836	898	932	919
75°	494	475	448	476	496	525
85°	126	119	110	119	126	142
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°	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0
2.5°	2737.3	2735.3	2736.3	2735.3	2737.3	2737.3	2736.3	2737.3	2736.3	2736.3	2736.3
5°	2779.4	2777.5	2778.5	2776.5	2779.4	2780.4	2779.4	2780.4	2780.4	2779.4	2779.4
7.5°	2832.1	2828.3	2829.3	2827.3	2830.2	2830.2	2829.3	2829.3	2828.3	2827.3	2828.3
10°	2881.0	2879.1	2879.1	2878.1	2880.1	2879.1	2877.2	2876.2	2872.4	2871.4	2873.3
12.5°	2918.4	2920.3	2923.2	2923.2	2922.2	2921.3	2916.5	2913.6	2907.9	2906.9	2908.8
15°	2951.0	2951.9	2954.8	2953.9	2951.0	2946.2	2941.4	2935.6	2930.9	2928.0	2930.9
17.5°	2968.2	2968.2	2967.3	2964.4	2958.6	2952.9	2946.2	2940.4	2935.6	2931.8	2935.6
20°	2965.4	2965.4	2960.6	2954.8	2945.2	2936.6	2929.9	2924.1	2919.4	2917.4	2920.3
22.5°	2925.1	2928.0	2924.1	2923.2	2915.5	2904.0	2890.6	2876.2	2860.9	2856.1	2862.8
25°	2789.0	2787.1	2789.0	2807.2	2812.0	2773.7	2724.8	2679.7	2652.9	2642.4	2656.7
27.5°	2688.4	2686.5	2662.5	2624.2	2571.4	2546.5	2550.4	2546.5	2539.8	2535.0	2541.7
30°	2585.8	2571.4	2506.3	2436.3	2385.5	2377.8	2399.9	2427.7	2444.9	2445.9	2443.0
32.5°	2453.6	2424.8	2340.5	2286.8	2265.7	2261.9	2268.6	2297.3	2336.6	2352.0	2331.8
35°	2277.2	2260.9	2209.2	2174.7	2168.0	2163.2	2151.7	2166.0	2214.9	2231.2	2213.0
37.5°	2094.2	2109.5	2087.4	2075.0	2074.0	2064.4	2048.1	2050.1	2075.9	2098.9	2073.1
40°	1950.4	1965.7	1980.1	1979.1	1975.3	1960.9	1948.5	1941.8	1939.8	1936.0	1941.8
42.5°	1847.8	1842.1	1869.9	1885.2	1875.6	1866.0	1855.5	1850.7	1815.3	1799.0	1820.0
45°	1742.4	1740.5	1759.7	1792.2	1784.6	1771.2	1768.3	1749.1	1688.7	1670.5	1693.5
47.5°	1634.1	1641.8	1659.0	1685.9	1690.7	1679.2	1670.5	1631.2	1569.9	1547.9	1568.9
50°	1522.9	1540.2	1564.1	1574.7	1579.5	1572.8	1567.0	1516.2	1453.9	1430.9	1454.9
52.5°	1416.5	1440.5	1472.1	1463.5	1459.7	1462.6	1453.0	1407.0	1346.6	1318.8	1347.5
55°	1318.8	1341.8	1369.6	1352.3	1334.1	1344.7	1336.0	1299.6	1246.9	1212.4	1245.0
57.5°	1226.8	1241.2	1263.2	1240.2	1219.1	1231.6	1222.9	1194.2	1145.3	1115.6	1147.2
60°	1129.0	1140.5	1153.0	1130.9	1108.9	1115.6	1111.8	1085.9	1045.6	1019.8	1043.7
62.5°	1031.3	1037.0	1045.6	1021.7	1003.5	1003.5	1001.6	976.6	945.0	930.6	944.0
65°	934.5	933.5	936.4	912.4	899.0	897.1	893.2	870.2	845.3	835.7	846.3
67.5°	825.2	827.1	828.1	806.0	795.5	790.7	787.8	766.7	746.6	739.9	747.6
70°	717.9	718.8	718.8	698.7	691.0	683.4	680.5	664.2	647.9	643.1	649.8
72.5°	604.8	611.5	608.6	592.3	586.6	577.0	575.1	564.5	552.1	545.3	552.1
75°	494.5	504.1	501.3	486.9	480.2	470.6	471.5	465.8	452.4	447.6	454.3
77.5°	388.2	393.9	394.9	387.2	376.7	370.0	372.8	371.9	362.3	350.8	359.4
80°	290.4	297.1	298.1	291.4	282.7	277.0	280.8	280.8	273.2	263.6	271.2
82.5°	202.2	207.0	207.0	203.2	199.4	193.6	195.5	196.5	191.7	182.1	188.8
85°	126.5	127.5	125.6	122.7	119.8	117.9	117.9	119.8	116.0	110.2	115.0
87.5°	47.0	47.9	47.0	49.8	47.0	46.0	47.0	49.8	46.0	46.0	47.0
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°	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0	2719.0
2.5°	2736.3	2737.3	2737.3	2736.3	2736.3	2736.3	2735.3	2736.3
5°	2779.4	2780.4	2780.4	2778.5	2779.4	2778.5	2777.5	2778.5
7.5°	2829.3	2831.2	2830.2	2831.2	2832.1	2830.2	2830.2	2830.2
10°	2875.3	2878.1	2880.1	2882.0	2882.9	2881.0	2882.0	2881.0
12.5°	2912.6	2918.4	2922.2	2924.1	2926.1	2926.1	2924.1	2922.2
15°	2935.6	2942.4	2947.1	2952.9	2956.7	2957.7	2955.8	2954.8
17.5°	2941.4	2947.1	2953.9	2959.6	2965.4	2969.2	2971.1	2970.1
20°	2925.1	2929.9	2937.6	2946.2	2953.9	2961.5	2967.3	2969.2
22.5°	2878.1	2891.6	2905.9	2916.5	2923.2	2927.0	2929.9	2936.6
25°	2685.5	2721.0	2772.7	2812.0	2805.3	2787.1	2780.4	2786.1
27.5°	2548.4	2544.6	2538.9	2569.5	2617.5	2659.6	2679.7	2689.3
30°	2425.8	2397.0	2370.2	2380.7	2429.6	2502.4	2563.8	2588.7
32.5°	2297.3	2258.0	2254.2	2260.9	2283.9	2332.8	2416.2	2463.1
35°	2162.2	2141.1	2152.6	2161.2	2168.9	2193.8	2251.3	2293.5
37.5°	2041.4	2037.6	2052.9	2063.5	2067.3	2079.8	2101.8	2096.1
40°	1935.1	1937.9	1951.3	1962.8	1970.5	1971.5	1958.1	1947.5
42.5°	1839.2	1851.7	1851.7	1866.0	1879.5	1861.3	1833.5	1841.1
45°	1741.5	1761.6	1760.6	1773.1	1785.5	1753.9	1730.9	1736.7
47.5°	1626.4	1664.8	1670.5	1683.9	1683.9	1651.4	1633.2	1626.4
50°	1509.5	1559.4	1566.1	1573.7	1569.9	1557.4	1533.5	1517.2
52.5°	1401.2	1448.2	1454.9	1452.0	1459.7	1465.4	1432.8	1412.7
55°	1294.8	1331.2	1339.9	1330.3	1348.5	1364.8	1334.1	1315.9
57.5°	1189.4	1217.2	1224.9	1217.2	1237.3	1255.5	1235.4	1222.9
60°	1083.0	1107.9	1112.7	1106.0	1130.0	1146.3	1136.7	1129.0
62.5°	978.5	995.8	1000.6	1003.5	1017.8	1037.0	1035.1	1034.1
65°	873.1	891.3	893.2	901.9	911.5	936.4	931.6	931.6
67.5°	770.6	783.0	785.9	799.3	803.2	827.1	824.2	820.4
70°	664.2	676.6	680.5	693.9	699.6	718.8	719.8	716.9
72.5°	566.4	571.2	575.1	587.5	592.3	610.5	610.5	606.7
75°	466.8	465.8	469.6	482.1	486.9	502.2	501.3	496.5
77.5°	372.8	368.0	370.9	379.5	385.3	396.8	393.0	389.1
80°	284.7	277.0	277.9	286.6	290.4	298.1	294.2	291.4
82.5°	201.3	194.6	192.6	199.4	205.1	206.1	205.1	203.2
85°	122.7	116.9	117.9	120.8	124.6	124.6	126.5	126.5
87.5°	47.9	45.0	45.0	47.9	47.9	48.9	47.9	46.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)