

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: P130659

Luminaire Tested: **TBLED-LD1-11-M-UNV-L850-CD1-DIMRF-LW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130659
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-L850-CD1-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH LUMAWATT WIRELESS SENSOR.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11062.2 lumens
Efficiency: N/A
Efficacy: 102.4 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

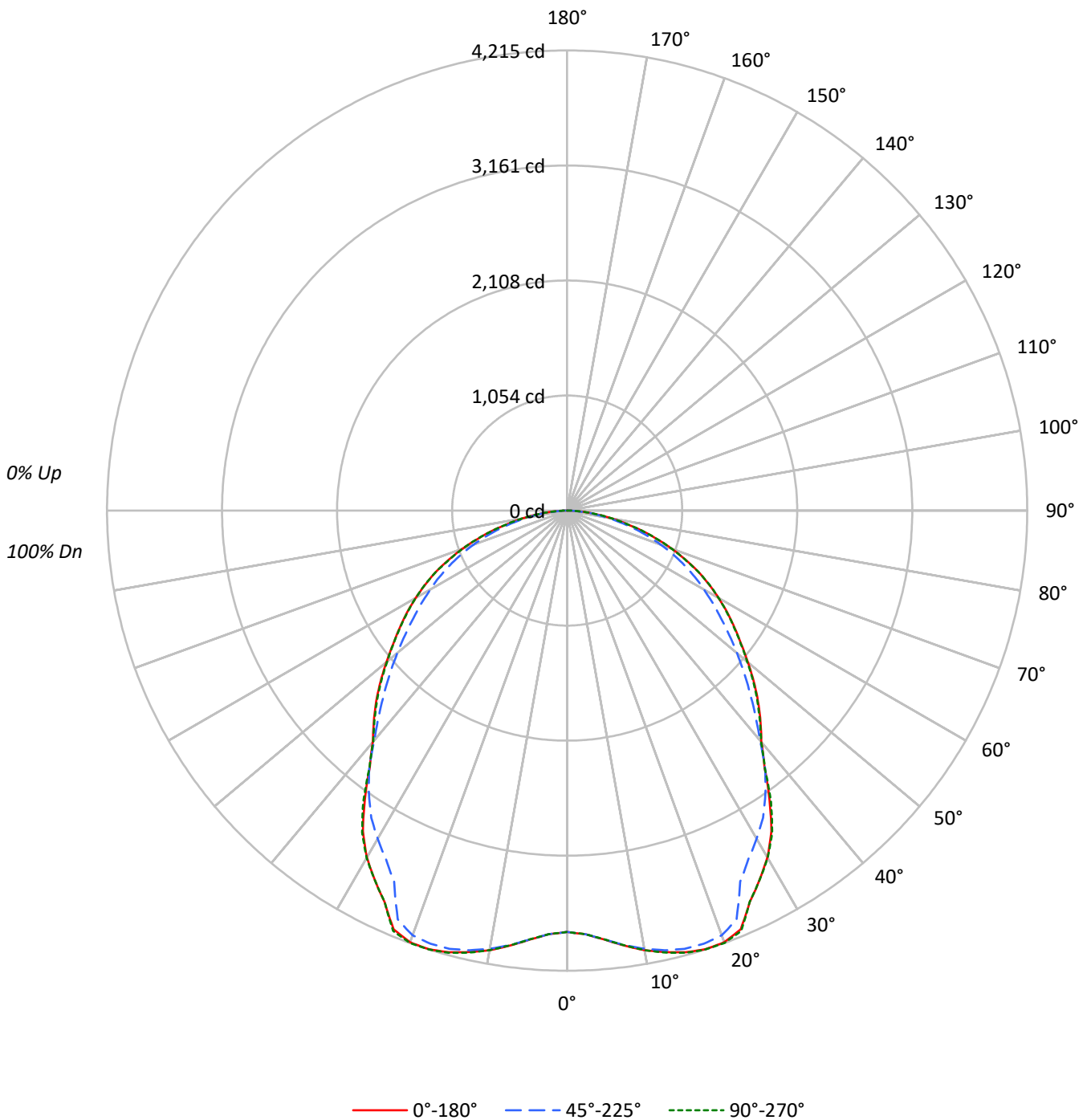
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	41787	41787	41787
5°	42878	42878	42863
10°	44958	44809	44958
15°	46950	46585	47012
20°	48496	47712	48559
25°	47293	44807	47244
30°	45887	43403	45938
35°	42722	41859	43028
40°	39128	38840	39070
45°	37869	36307	37745
50°	36410	34212	36274
55°	35334	32484	35257
60°	34702	31343	34702
65°	33981	30391	33876
70°	32256	28897	32212
75°	29367	26576	29480
80°	25698	23329	25786
85°	22302	19432	22302



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.0	3.4
10°-20°	1181.0	10.7
20°-30°	1786.0	16.1
30°-40°	1949.6	17.6
40°-50°	1913.9	17.3
50°-60°	1675.5	15.1
60°-70°	1259.0	11.4
70°-80°	719.8	6.5
80°-90°	196.3	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°	3348.1	30.3
0°-40°	5297.7	47.9
0°-60°	8887.1	80.3
0°-90°	11062.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11062.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3859	3859	3859	3859	3859	
5°	3945	3945	3945	3945	3943	381
15°	4188	4185	4155	4187	4194	1185
25°	3958	3964	3750	3963	3954	1828
35°	3232	3073	3166	3061	3255	2015
45°	2473	2523	2371	2508	2465	1906
55°	1872	1901	1721	1895	1868	1679
65°	1326	1274	1186	1274	1322	1304
75°	702	675	635	675	705	745
85°	180	169	156	169	180	201
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°	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9
2.5°	3884.7	3882.0	3883.4	3882.0	3884.7	3884.7	3883.4	3884.7	3883.4	3883.4	3883.4
5°	3944.6	3941.8	3943.2	3940.5	3944.6	3945.9	3944.6	3945.9	3945.9	3944.6	3944.6
7.5°	4019.4	4013.9	4015.3	4012.6	4016.7	4016.7	4015.3	4015.3	4013.9	4012.6	4013.9
10°	4088.7	4086.0	4086.0	4084.7	4087.4	4086.0	4083.3	4081.9	4076.5	4075.1	4077.9
12.5°	4141.8	4144.5	4148.6	4148.6	4147.2	4145.9	4139.1	4135.0	4126.8	4125.5	4128.2
15°	4188.0	4189.4	4193.5	4192.1	4188.0	4181.2	4174.4	4166.3	4159.5	4155.4	4159.5
17.5°	4212.5	4212.5	4211.2	4207.1	4198.9	4190.8	4181.2	4173.1	4166.3	4160.8	4166.3
20°	4208.4	4208.4	4201.6	4193.5	4179.9	4167.6	4158.1	4150.0	4143.2	4140.4	4144.5
22.5°	4151.3	4155.4	4150.0	4148.6	4137.7	4121.4	4102.3	4081.9	4060.2	4053.4	4062.9
25°	3958.2	3955.4	3958.2	3984.0	3990.8	3936.4	3867.0	3803.1	3765.0	3750.1	3770.5
27.5°	3815.3	3812.6	3778.6	3724.2	3649.4	3614.0	3619.5	3614.0	3604.5	3597.7	3607.2
30°	3669.8	3649.4	3556.9	3457.6	3385.5	3374.6	3405.9	3445.4	3469.9	3471.2	3467.1
32.5°	3482.1	3441.3	3321.6	3245.4	3215.5	3210.1	3219.6	3260.4	3316.2	3337.9	3309.4
35°	3231.8	3208.7	3135.2	3086.3	3076.8	3070.0	3053.6	3074.0	3143.4	3166.5	3140.7
37.5°	2972.0	2993.8	2962.5	2944.8	2943.5	2929.9	2906.7	2909.5	2946.2	2978.8	2942.1
40°	2768.0	2789.8	2810.2	2808.8	2803.4	2783.0	2765.3	2755.8	2753.0	2747.6	2755.8
42.5°	2622.5	2614.3	2653.7	2675.5	2661.9	2648.3	2633.3	2626.5	2576.2	2553.1	2583.0
45°	2472.8	2470.1	2497.3	2543.6	2532.7	2513.6	2509.6	2482.4	2396.7	2370.8	2403.5
47.5°	2319.1	2330.0	2354.5	2392.6	2399.4	2383.1	2370.8	2315.1	2228.0	2196.7	2226.6
50°	2161.3	2185.8	2219.8	2234.8	2241.6	2232.1	2223.9	2151.8	2063.4	2030.8	2064.8
52.5°	2010.4	2044.4	2089.3	2077.0	2071.6	2075.7	2062.1	1996.8	1911.1	1871.6	1912.4
55°	1871.6	1904.3	1943.7	1919.2	1893.4	1908.4	1896.1	1844.4	1769.6	1720.6	1766.9
57.5°	1741.0	1761.5	1792.7	1760.1	1730.2	1747.8	1735.6	1694.8	1625.4	1583.3	1628.2
60°	1602.3	1618.6	1636.3	1605.0	1573.7	1583.3	1577.8	1541.1	1484.0	1447.2	1481.3
62.5°	1463.6	1471.7	1484.0	1450.0	1424.1	1424.1	1421.4	1386.0	1341.2	1320.7	1339.8
65°	1326.2	1324.8	1328.9	1294.9	1275.9	1273.1	1267.7	1235.1	1199.7	1186.1	1201.1
67.5°	1171.1	1173.8	1175.2	1143.9	1129.0	1122.2	1118.1	1088.2	1059.6	1050.1	1061.0
70°	1018.8	1020.1	1020.1	991.6	980.7	969.8	965.7	942.6	919.5	912.7	922.2
72.5°	858.3	867.8	863.7	840.6	832.4	818.8	816.1	801.2	783.5	774.0	783.5
75°	701.9	715.5	711.4	691.0	681.5	667.9	669.2	661.1	642.0	635.2	644.7
77.5°	550.9	559.0	560.4	549.5	534.6	525.0	529.1	527.8	514.2	497.8	510.1
80°	412.1	421.7	423.0	413.5	401.3	393.1	398.5	398.5	387.7	374.1	384.9
82.5°	287.0	293.8	293.8	288.4	282.9	274.8	277.5	278.8	272.0	258.4	268.0
85°	179.5	180.9	178.2	174.1	170.0	167.3	167.3	170.0	164.6	156.4	163.2
87.5°	66.6	68.0	66.6	70.7	66.6	65.3	66.6	70.7	65.3	65.3	66.6
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°	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9	3858.9
2.5°	3883.4	3884.7	3884.7	3883.4	3883.4	3883.4	3882.0	3883.4
5°	3944.6	3945.9	3945.9	3943.2	3944.6	3943.2	3941.8	3943.2
7.5°	4015.3	4018.0	4016.7	4018.0	4019.4	4016.7	4016.7	4016.7
10°	4080.6	4084.7	4087.4	4090.1	4091.5	4088.7	4090.1	4088.7
12.5°	4133.6	4141.8	4147.2	4150.0	4152.7	4152.7	4150.0	4147.2
15°	4166.3	4175.8	4182.6	4190.8	4196.2	4197.6	4194.8	4193.5
17.5°	4174.4	4182.6	4192.1	4200.3	4208.4	4213.9	4216.6	4215.2
20°	4151.3	4158.1	4169.0	4181.2	4192.1	4203.0	4211.2	4213.9
22.5°	4084.7	4103.7	4124.1	4139.1	4148.6	4154.0	4158.1	4167.6
25°	3811.3	3861.6	3935.0	3990.8	3981.3	3955.4	3945.9	3954.1
27.5°	3616.8	3611.3	3603.2	3646.7	3714.7	3774.5	3803.1	3816.7
30°	3442.7	3401.8	3363.8	3378.7	3448.1	3551.5	3638.5	3673.9
32.5°	3260.4	3204.6	3199.2	3208.7	3241.3	3310.7	3429.0	3495.7
35°	3068.6	3038.7	3055.0	3067.2	3078.1	3113.5	3195.1	3254.9
37.5°	2897.2	2891.8	2913.5	2928.5	2933.9	2951.6	2982.9	2974.7
40°	2746.2	2750.3	2769.4	2785.7	2796.6	2797.9	2778.9	2763.9
42.5°	2610.2	2627.9	2627.9	2648.3	2667.3	2641.5	2602.1	2612.9
45°	2471.5	2500.0	2498.7	2516.4	2534.0	2489.2	2456.5	2464.7
47.5°	2308.2	2362.7	2370.8	2389.9	2389.9	2343.6	2317.8	2308.2
50°	2142.3	2213.0	2222.6	2233.4	2228.0	2210.3	2176.3	2153.2
52.5°	1988.6	2055.3	2064.8	2060.7	2071.6	2079.7	2033.5	2004.9
55°	1837.6	1889.3	1901.6	1887.9	1913.8	1936.9	1893.4	1867.5
57.5°	1688.0	1727.4	1738.3	1727.4	1756.0	1781.9	1753.3	1735.6
60°	1537.0	1572.4	1579.2	1569.7	1603.7	1626.8	1613.2	1602.3
62.5°	1388.8	1413.2	1420.0	1424.1	1444.5	1471.7	1469.0	1467.6
65°	1239.1	1265.0	1267.7	1279.9	1293.5	1328.9	1322.1	1322.1
67.5°	1093.6	1111.3	1115.4	1134.4	1139.8	1173.8	1169.8	1164.3
70°	942.6	960.3	965.7	984.8	992.9	1020.1	1021.5	1017.4
72.5°	803.9	810.7	816.1	833.8	840.6	866.4	866.4	861.0
75°	662.4	661.1	666.5	684.2	691.0	712.7	711.4	704.6
77.5°	529.1	522.3	526.4	538.6	546.8	563.1	557.7	552.2
80°	404.0	393.1	394.5	406.7	412.1	423.0	417.6	413.5
82.5°	285.6	276.1	273.4	282.9	291.1	292.4	291.1	288.4
85°	174.1	165.9	167.3	171.4	176.8	176.8	179.5	179.5
87.5°	68.0	63.9	63.9	68.0	68.0	69.4	68.0	65.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)