

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: P130668

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130668
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-CMS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH MINI SENSOR.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11440.8 lumens
Efficiency: N/A
Efficacy: 105.9 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

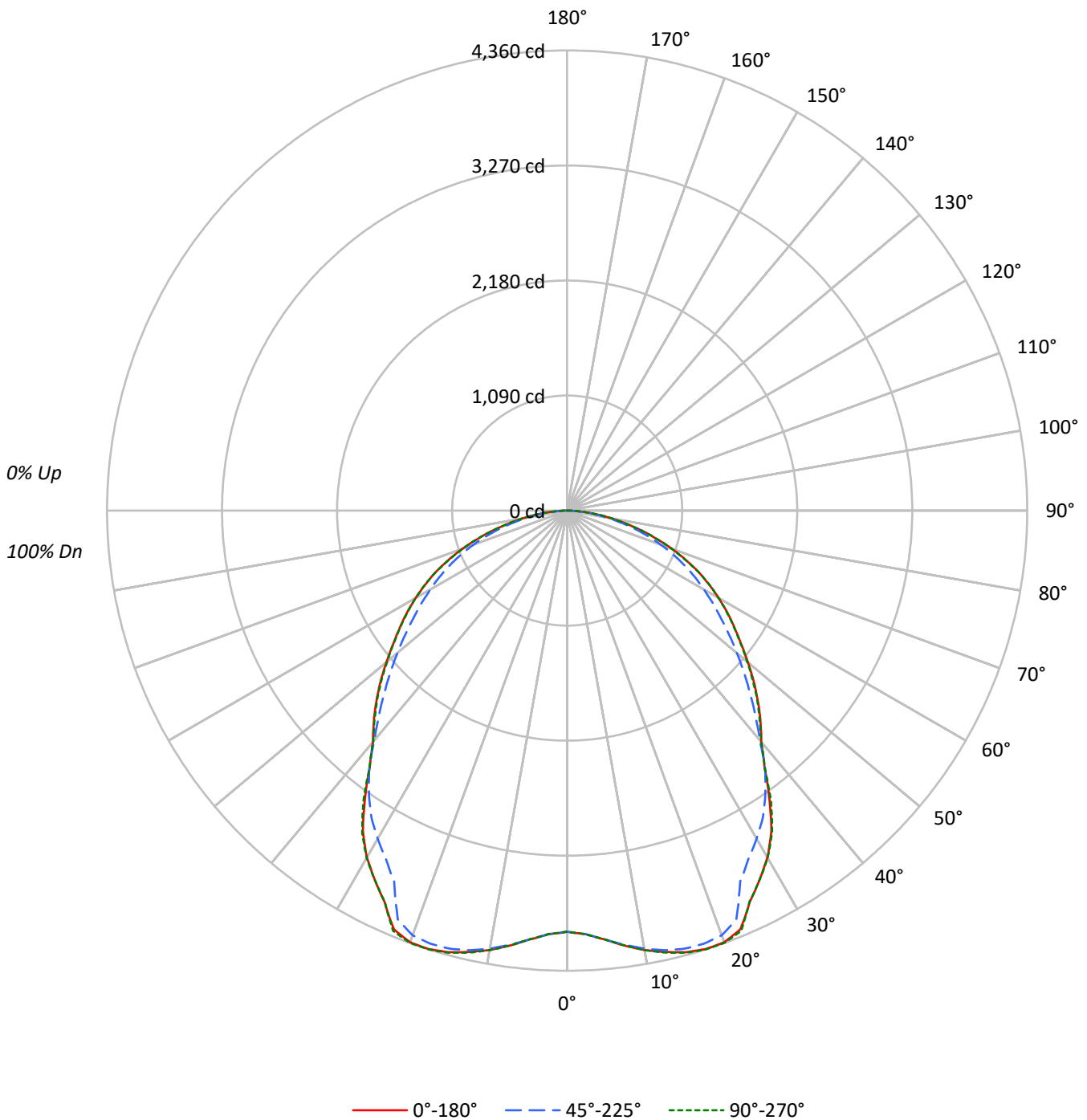
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	43216	43216	43216
5°	44345	44345	44330
10°	46498	46343	46498
15°	48558	48179	48621
20°	50157	49345	50221
25°	48911	46340	48861
30°	47457	44889	47510
35°	44184	43292	44500
40°	40467	40168	40407
45°	39166	37550	39036
50°	37657	35383	37515
55°	36545	33596	36465
60°	35888	32417	35888
65°	35144	31432	35037
70°	33361	29885	33314
75°	30371	27488	30488
80°	26578	24127	26671
85°	23072	20103	23072



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	394.0	3.4
10°-20°	1221.5	10.7
20°-30°	1847.1	16.1
30°-40°	2016.4	17.6
40°-50°	1979.4	17.3
50°-60°	1732.8	15.1
60°-70°	1302.1	11.4
70°-80°	744.4	6.5
80°-90°	203.0	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°	3462.6	30.3
0°-40°	5479.0	47.9
0°-60°	9191.2	80.3
0°-90°	11440.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11440.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3991	3991	3991	3991	3991	
5°	4080	4080	4080	4080	4078	394
15°	4331	4328	4298	4330	4337	1225
25°	4094	4099	3878	4099	4089	1890
35°	3342	3179	3275	3166	3366	2084
45°	2558	2610	2452	2593	2549	1972
55°	1936	1966	1780	1960	1932	1736
65°	1372	1318	1227	1317	1367	1349
75°	726	698	657	698	729	771
85°	186	174	162	175	186	208
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°	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9
2.5°	4017.7	4014.9	4016.3	4014.9	4017.7	4017.7	4016.3	4017.7	4016.3	4016.3	4016.3
5°	4079.6	4076.8	4078.2	4075.3	4079.6	4081.0	4079.6	4081.0	4081.0	4079.6	4079.6
7.5°	4156.9	4151.3	4152.7	4149.9	4154.1	4154.1	4152.7	4152.7	4151.3	4149.9	4151.3
10°	4228.7	4225.9	4225.9	4224.5	4227.3	4225.9	4223.1	4221.6	4216.0	4214.6	4217.4
12.5°	4283.5	4286.4	4290.6	4290.6	4289.2	4287.8	4280.7	4276.5	4268.1	4266.7	4269.5
15°	4331.4	4332.8	4337.0	4335.6	4331.4	4324.3	4317.3	4308.9	4301.8	4297.6	4301.8
17.5°	4356.7	4356.7	4355.3	4351.1	4342.6	4334.2	4324.3	4315.9	4308.9	4303.2	4308.9
20°	4352.5	4352.5	4345.4	4337.0	4322.9	4310.3	4300.4	4292.0	4284.9	4282.1	4286.4
22.5°	4293.4	4297.6	4292.0	4290.6	4279.3	4262.4	4242.7	4221.6	4199.1	4192.1	4202.0
25°	4093.6	4090.8	4093.6	4120.4	4127.4	4071.1	3999.4	3933.3	3893.9	3878.4	3899.5
27.5°	3945.9	3943.1	3907.9	3851.7	3774.3	3737.7	3743.4	3737.7	3727.9	3720.8	3730.7
30°	3795.4	3774.3	3678.6	3575.9	3501.4	3490.1	3522.5	3563.3	3588.6	3590.0	3585.8
32.5°	3601.3	3559.1	3435.3	3356.5	3325.5	3319.9	3329.8	3372.0	3429.6	3452.2	3422.6
35°	3342.4	3318.5	3242.6	3191.9	3182.1	3175.0	3158.1	3179.2	3251.0	3274.9	3248.2
37.5°	3073.7	3096.2	3063.9	3045.6	3044.2	3030.1	3006.2	3009.0	3047.0	3080.8	3042.8
40°	2862.7	2885.2	2906.3	2904.9	2899.3	2878.2	2859.9	2850.1	2847.3	2841.6	2850.1
42.5°	2712.2	2703.8	2744.6	2767.1	2753.0	2738.9	2723.5	2716.4	2664.4	2640.5	2671.4
45°	2557.5	2554.7	2582.8	2630.6	2619.4	2599.7	2595.4	2567.3	2478.7	2452.0	2485.7
47.5°	2398.5	2409.8	2435.1	2474.5	2481.5	2464.6	2452.0	2394.3	2304.3	2271.9	2302.8
50°	2235.3	2260.6	2295.8	2311.3	2318.3	2308.5	2300.0	2225.5	2134.0	2100.3	2135.4
52.5°	2079.2	2114.3	2160.8	2148.1	2142.5	2146.7	2132.6	2065.1	1976.5	1935.7	1977.9
55°	1935.7	1969.4	2010.2	1984.9	1958.2	1973.7	1961.0	1907.5	1830.2	1779.5	1827.4
57.5°	1800.6	1821.7	1854.1	1820.3	1789.4	1807.7	1795.0	1752.8	1681.1	1637.5	1683.9
60°	1657.1	1674.0	1692.3	1660.0	1627.6	1637.5	1631.8	1593.8	1534.8	1496.8	1531.9
62.5°	1513.7	1522.1	1534.8	1499.6	1472.9	1472.9	1470.1	1433.5	1387.1	1366.0	1385.6
65°	1371.6	1370.2	1374.4	1339.2	1319.5	1316.7	1311.1	1277.3	1240.8	1226.7	1242.2
67.5°	1211.2	1214.0	1215.4	1183.1	1167.6	1160.6	1156.3	1125.4	1095.9	1086.0	1097.3
70°	1053.7	1055.1	1055.1	1025.5	1014.3	1003.0	998.8	974.9	951.0	943.9	953.8
72.5°	887.7	897.5	893.3	869.4	860.9	846.9	844.0	828.6	810.3	800.4	810.3
75°	725.9	739.9	735.7	714.6	704.8	690.7	692.1	683.7	664.0	657.0	666.8
77.5°	569.7	578.2	579.6	568.3	552.9	543.0	547.2	545.8	531.8	514.9	527.5
80°	426.2	436.1	437.5	427.7	415.0	406.5	412.2	412.2	400.9	386.9	398.1
82.5°	296.8	303.9	303.9	298.2	292.6	284.2	287.0	288.4	281.3	267.3	277.1
85°	185.7	187.1	184.3	180.1	175.8	173.0	173.0	175.8	170.2	161.8	168.8
87.5°	68.9	70.3	68.9	73.2	68.9	67.5	68.9	73.2	67.5	67.5	68.9
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°	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9	3990.9
2.5°	4016.3	4017.7	4017.7	4016.3	4016.3	4016.3	4014.9	4016.3
5°	4079.6	4081.0	4081.0	4078.2	4079.6	4078.2	4076.8	4078.2
7.5°	4152.7	4155.5	4154.1	4155.5	4156.9	4154.1	4154.1	4154.1
10°	4220.2	4224.5	4227.3	4230.1	4231.5	4228.7	4230.1	4228.7
12.5°	4275.1	4283.5	4289.2	4292.0	4294.8	4294.8	4292.0	4289.2
15°	4308.9	4318.7	4325.7	4334.2	4339.8	4341.2	4338.4	4337.0
17.5°	4317.3	4325.7	4335.6	4344.0	4352.5	4358.1	4360.9	4359.5
20°	4293.4	4300.4	4311.7	4324.3	4335.6	4346.8	4355.3	4358.1
22.5°	4224.5	4244.2	4265.3	4280.7	4290.6	4296.2	4300.4	4310.3
25°	3941.7	3993.8	4069.7	4127.4	4117.5	4090.8	4081.0	4089.4
27.5°	3740.5	3734.9	3726.5	3771.5	3841.8	3903.7	3933.3	3947.3
30°	3560.5	3518.3	3478.9	3494.4	3566.1	3673.0	3763.0	3799.6
32.5°	3372.0	3314.3	3308.7	3318.5	3352.3	3424.0	3546.4	3615.3
35°	3173.6	3142.7	3159.6	3172.2	3183.5	3220.0	3304.4	3366.3
37.5°	2996.4	2990.7	3013.3	3028.7	3034.4	3052.6	3085.0	3076.6
40°	2840.2	2844.4	2864.1	2881.0	2892.3	2893.7	2874.0	2858.5
42.5°	2699.5	2717.8	2717.8	2738.9	2758.6	2731.9	2691.1	2702.4
45°	2556.1	2585.6	2584.2	2602.5	2620.8	2574.3	2540.6	2549.0
47.5°	2387.2	2443.5	2452.0	2471.7	2471.7	2423.8	2397.1	2387.2
50°	2215.6	2288.8	2298.6	2309.9	2304.3	2286.0	2250.8	2226.9
52.5°	2056.7	2125.6	2135.4	2131.2	2142.5	2150.9	2103.1	2073.5
55°	1900.5	1954.0	1966.6	1952.6	1979.3	2003.2	1958.2	1931.5
57.5°	1745.8	1786.6	1797.8	1786.6	1816.1	1842.8	1813.3	1795.0
60°	1589.6	1626.2	1633.2	1623.4	1658.6	1682.5	1668.4	1657.1
62.5°	1436.3	1461.6	1468.6	1472.9	1494.0	1522.1	1519.3	1517.9
65°	1281.5	1308.3	1311.1	1323.7	1337.8	1374.4	1367.4	1367.4
67.5°	1131.0	1149.3	1153.5	1173.2	1178.9	1214.0	1209.8	1204.2
70°	974.9	993.2	998.8	1018.5	1026.9	1055.1	1056.5	1052.2
72.5°	831.4	838.4	844.0	862.3	869.4	896.1	896.1	890.5
75°	685.1	683.7	689.3	707.6	714.6	737.1	735.7	728.7
77.5°	547.2	540.2	544.4	557.1	565.5	582.4	576.8	571.1
80°	417.8	406.5	408.0	420.6	426.2	437.5	431.9	427.7
82.5°	295.4	285.6	282.8	292.6	301.0	302.5	301.0	298.2
85°	180.1	171.6	173.0	177.3	182.9	182.9	185.7	185.7
87.5°	70.3	66.1	66.1	70.3	70.3	71.7	70.3	67.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)