

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: P130704

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130704
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-L850-CD1-CG-CMS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND MINI SENSOR.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11570.2 lumens
Efficiency: N/A
Efficacy: 107.1 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

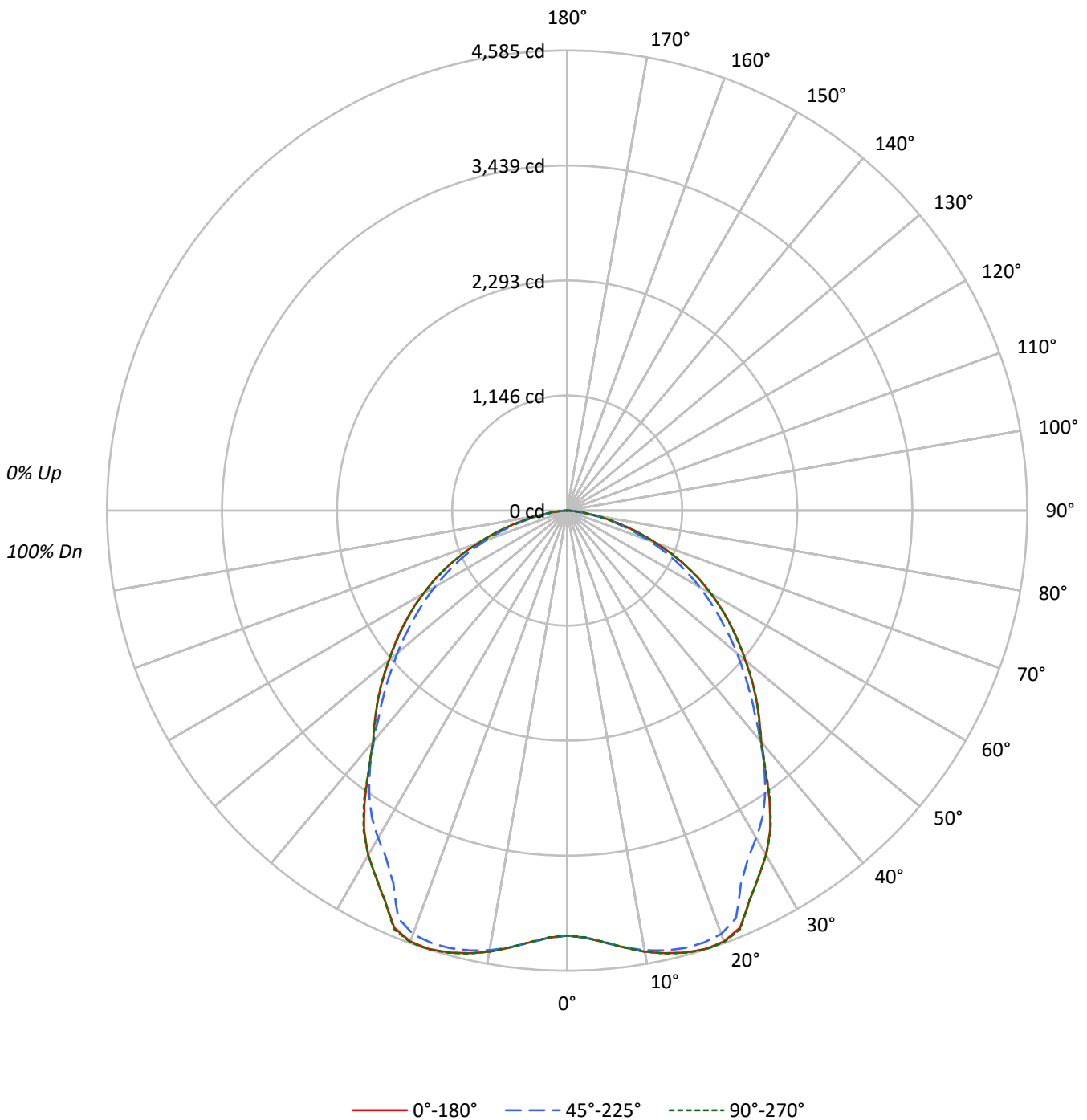
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	45852	45852	45852
5°	46944	46976	46914
10°	49081	48896	49065
15°	51097	50593	51144
20°	52637	51730	52718
25°	51298	48945	51265
30°	49550	47106	49568
35°	46473	45468	46621
40°	42536	42337	42475
45°	40846	39489	40846
50°	39008	37160	39055
55°	37526	35004	37421
60°	35891	33025	35891
65°	33522	30637	33522
70°	29752	27168	29752
75°	24660	22308	24308
80°	17810	16320	17455
85°	10660	9791	10312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.8	3.6
10°-20°	1283.7	11.1
20°-30°	1938.7	16.8
30°-40°	2116.5	18.3
40°-50°	2065.6	17.9
50°-60°	1774.5	15.3
60°-70°	1254.4	10.8
70°-80°	606.8	5.2
80°-90°	113.2	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°	3639.1	31.5
0°-40°	5755.6	49.7
0°-60°	9595.8	82.9
0°-90°	11570.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11570.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4234	4234	4234	4234	4234	
5°	4319	4321	4322	4319	4316	417
15°	4558	4549	4513	4551	4562	1289
25°	4293	4305	4096	4307	4291	1979
35°	3516	3333	3440	3326	3527	2187
45°	2667	2719	2579	2710	2667	2056
55°	1988	2011	1854	2006	1982	1778
65°	1308	1267	1196	1266	1308	1291
75°	589	561	533	559	581	630
85°	86	82	79	80	83	117
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°	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3
2.5°	4259.7	4258.3	4256.8	4258.3	4261.1	4261.1	4261.1	4259.7	4259.7	4261.1	4259.7
5°	4318.7	4315.9	4317.3	4315.9	4321.6	4320.1	4320.1	4321.6	4321.6	4321.6	4320.1
7.5°	4391.9	4389.1	4389.1	4389.1	4390.5	4390.5	4390.5	4390.5	4389.1	4389.1	4389.1
10°	4463.6	4459.4	4460.8	4459.4	4460.8	4458.0	4455.2	4452.4	4449.6	4446.8	4448.2
12.5°	4517.1	4515.7	4518.5	4518.5	4515.7	4511.5	4504.4	4497.4	4491.8	4489.0	4491.8
15°	4557.9	4560.7	4562.1	4560.7	4555.1	4543.8	4535.4	4524.1	4517.1	4512.9	4517.1
17.5°	4580.4	4580.4	4577.6	4569.1	4559.3	4549.5	4536.8	4525.5	4518.5	4514.3	4519.9
20°	4567.7	4566.3	4556.5	4543.8	4528.3	4515.7	4504.4	4494.6	4490.4	4489.0	4491.8
22.5°	4498.8	4501.6	4496.0	4487.6	4476.3	4458.0	4436.9	4417.2	4401.7	4396.1	4401.7
25°	4293.4	4292.0	4301.9	4318.7	4330.0	4280.8	4214.6	4151.3	4107.7	4096.5	4107.7
27.5°	4121.8	4120.4	4097.9	4048.6	3991.0	3946.0	3933.3	3926.3	3910.8	3903.7	3913.6
30°	3962.8	3948.8	3868.6	3765.9	3692.7	3674.4	3702.6	3740.6	3761.7	3767.3	3757.4
32.5°	3767.3	3729.3	3621.0	3531.0	3498.6	3484.5	3494.4	3543.6	3594.3	3622.4	3591.4
35°	3515.5	3483.1	3397.3	3348.1	3341.0	3325.6	3312.9	3342.5	3404.4	3439.5	3397.3
37.5°	3236.9	3252.4	3215.8	3190.5	3190.5	3175.0	3149.7	3159.6	3194.7	3228.5	3191.9
40°	3009.1	3037.2	3045.6	3038.6	3035.8	3016.1	2992.2	2986.5	2988.0	2995.0	2983.7
42.5°	2834.6	2838.8	2876.8	2889.5	2878.2	2857.1	2843.1	2834.6	2793.8	2775.5	2799.4
45°	2667.2	2670.0	2701.0	2737.5	2730.5	2708.0	2696.8	2670.0	2598.3	2578.6	2603.9
47.5°	2492.8	2508.2	2530.8	2568.7	2575.8	2553.3	2537.8	2491.4	2405.6	2388.7	2407.0
50°	2315.5	2345.1	2371.8	2390.1	2399.9	2380.2	2363.4	2308.5	2225.5	2205.8	2224.1
52.5°	2153.7	2180.5	2215.6	2210.0	2205.8	2201.6	2190.3	2134.0	2055.3	2028.5	2053.9
55°	1987.7	2014.5	2049.6	2025.7	2007.4	2014.5	2001.8	1955.4	1887.9	1854.1	1887.9
57.5°	1823.2	1844.3	1872.4	1842.9	1816.1	1824.6	1816.1	1783.8	1720.5	1688.1	1720.5
60°	1657.2	1669.8	1689.5	1658.6	1630.4	1636.1	1633.2	1599.5	1550.2	1524.9	1550.2
62.5°	1486.9	1494.0	1503.8	1474.3	1450.4	1449.0	1450.4	1416.6	1378.6	1361.7	1380.0
65°	1308.3	1311.1	1316.7	1287.2	1270.3	1263.3	1266.1	1235.1	1207.0	1195.7	1208.4
67.5°	1125.4	1128.2	1129.6	1101.5	1090.2	1080.4	1081.8	1059.3	1034.0	1026.9	1036.8
70°	939.7	943.9	943.9	918.6	911.6	898.9	898.9	884.8	863.7	858.1	865.2
72.5°	765.3	762.5	762.5	741.4	735.7	723.1	721.7	717.4	697.8	692.1	699.2
75°	589.4	586.6	588.0	571.1	565.5	555.7	554.3	554.3	538.8	533.2	540.2
77.5°	426.2	429.1	427.7	415.0	409.4	405.1	409.4	409.4	395.3	389.7	396.7
80°	285.6	288.4	288.4	278.5	274.3	271.5	277.1	274.3	267.3	261.7	267.3
82.5°	173.0	173.0	173.0	170.2	164.6	164.6	168.8	168.8	161.8	157.6	161.8
85°	85.8	85.8	84.4	84.4	81.6	81.6	84.4	84.4	80.2	78.8	80.2
87.5°	29.5	28.1	28.1	28.1	26.7	28.1	28.1	28.1	26.7	26.7	26.7
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°	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3	4234.3
2.5°	4261.1	4261.1	4259.7	4259.7	4259.7	4258.3	4256.8	4255.4
5°	4323.0	4321.6	4318.7	4320.1	4318.7	4318.7	4317.3	4315.9
7.5°	4391.9	4393.3	4390.5	4393.3	4393.3	4393.3	4391.9	4390.5
10°	4452.4	4456.6	4458.0	4462.2	4463.6	4465.0	4463.6	4462.2
12.5°	4498.8	4505.8	4511.5	4518.5	4522.7	4524.1	4521.3	4519.9
15°	4525.5	4535.4	4545.2	4556.5	4563.5	4566.3	4564.9	4562.1
17.5°	4526.9	4538.2	4550.9	4560.7	4570.6	4577.6	4583.2	4584.6
20°	4496.0	4505.8	4517.1	4529.8	4545.2	4557.9	4570.6	4574.8
22.5°	4413.0	4436.9	4460.8	4473.5	4486.1	4494.6	4501.6	4511.5
25°	4141.5	4213.2	4290.6	4323.0	4317.3	4290.6	4286.4	4290.6
27.5°	3929.1	3937.5	3947.4	3985.3	4038.8	4088.0	4116.2	4121.8
30°	3739.2	3698.4	3667.4	3685.7	3756.0	3853.1	3940.3	3964.2
32.5°	3542.2	3488.8	3476.1	3488.8	3519.7	3599.9	3719.5	3774.3
35°	3332.6	3310.1	3319.9	3331.2	3338.2	3381.8	3470.5	3526.7
37.5°	3148.3	3145.5	3165.2	3179.3	3179.3	3196.2	3241.2	3242.6
40°	2975.3	2989.4	3004.8	3024.5	3028.7	3035.8	3024.5	3004.8
42.5°	2823.4	2838.8	2848.7	2868.4	2879.6	2864.2	2827.6	2830.4
45°	2664.4	2693.9	2699.6	2720.7	2729.1	2688.3	2660.2	2667.2
47.5°	2485.7	2535.0	2546.2	2568.7	2561.7	2522.3	2502.6	2494.2
50°	2301.5	2366.2	2376.0	2391.5	2383.0	2363.4	2338.0	2318.3
52.5°	2135.5	2187.5	2194.5	2200.2	2207.2	2211.4	2179.1	2148.1
55°	1958.2	1999.0	2008.8	2003.2	2022.9	2045.4	2013.1	1982.1
57.5°	1786.6	1814.7	1821.7	1811.9	1840.0	1869.6	1845.7	1821.7
60°	1603.7	1631.8	1633.2	1629.0	1657.2	1682.5	1672.6	1657.2
62.5°	1423.6	1449.0	1444.7	1449.0	1471.5	1503.8	1496.8	1486.9
65°	1240.8	1264.7	1261.9	1270.3	1287.2	1316.7	1316.7	1308.3
67.5°	1066.3	1080.4	1079.0	1090.2	1102.9	1131.0	1133.8	1125.4
70°	891.9	898.9	897.5	910.2	920.0	949.6	949.6	939.7
72.5°	723.1	727.3	721.7	738.5	742.8	768.1	768.1	756.8
75°	561.3	559.9	554.3	564.1	576.8	595.1	590.8	581.0
77.5°	410.8	406.6	400.9	412.2	419.2	433.3	429.1	419.2
80°	278.5	274.3	267.3	277.1	282.8	291.2	287.0	279.9
82.5°	170.2	166.0	160.4	167.4	170.2	175.8	173.0	167.4
85°	84.4	81.6	78.8	80.2	84.4	85.8	84.4	83.0
87.5°	28.1	26.7	25.3	26.7	26.7	28.1	28.1	26.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)