

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: P130695

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130695
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-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND LUMAWATT WIRELESS SENSOR.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11187.3 lumens
Efficiency: N/A
Efficacy: 103.6 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

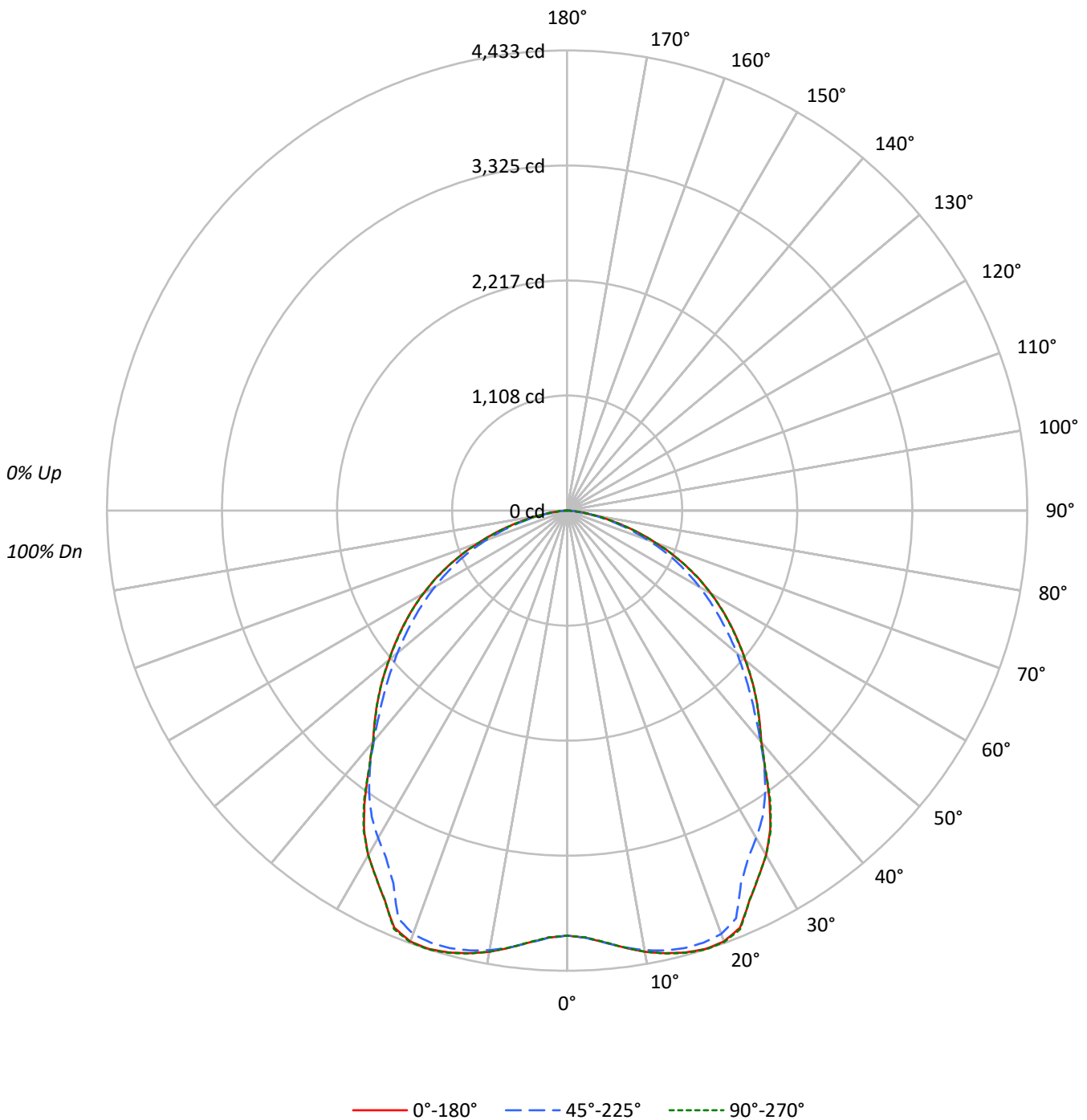
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	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°	44335	44335	44335
5°	45391	45420	45362
10°	47456	47277	47442
15°	49407	48918	49451
20°	50895	50017	50974
25°	49600	47325	49568
30°	47911	45547	47929
35°	44934	43964	45078
40°	41128	40936	41070
45°	39493	38183	39493
50°	37717	35930	37763
55°	36286	33845	36182
60°	34702	31934	34702
65°	32413	29625	32413
70°	28767	26269	28767
75°	23844	21568	23505
80°	17218	15777	16881
85°	10312	9467	9977



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	403.0	3.6
10°-20°	1241.2	11.1
20°-30°	1874.5	16.8
30°-40°	2046.5	18.3
40°-50°	1997.3	17.9
50°-60°	1715.8	15.3
60°-70°	1212.9	10.8
70°-80°	586.7	5.2
80°-90°	109.5	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°	3518.7	31.5
0°-40°	5565.2	49.7
0°-60°	9278.2	82.9
0°-90°	11187.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11187.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4094	4094	4094	4094	4094	
5°	4176	4178	4178	4176	4173	403
15°	4407	4399	4364	4400	4411	1247
25°	4151	4163	3961	4164	4149	1913
35°	3399	3223	3326	3216	3410	2115
45°	2579	2629	2493	2620	2579	1988
55°	1922	1944	1793	1940	1916	1719
65°	1265	1225	1156	1224	1265	1248
75°	570	542	516	541	562	610
85°	83	79	76	77	80	113
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°	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2
2.5°	4118.7	4117.3	4116.0	4117.3	4120.1	4120.1	4120.1	4118.7	4118.7	4120.1	4118.7
5°	4175.8	4173.1	4174.5	4173.1	4178.5	4177.2	4177.2	4178.5	4178.5	4178.5	4177.2
7.5°	4246.6	4243.8	4243.8	4243.8	4245.2	4245.2	4245.2	4245.2	4243.8	4243.8	4243.8
10°	4315.9	4311.8	4313.2	4311.8	4313.2	4310.5	4307.8	4305.0	4302.3	4299.6	4301.0
12.5°	4367.6	4366.3	4369.0	4369.0	4366.3	4362.2	4355.4	4348.6	4343.1	4340.4	4343.1
15°	4407.1	4409.8	4411.1	4409.8	4404.3	4393.5	4385.3	4374.4	4367.6	4363.5	4367.6
17.5°	4428.8	4428.8	4426.1	4417.9	4408.4	4398.9	4386.7	4375.8	4369.0	4364.9	4370.3
20°	4416.6	4415.2	4405.7	4393.5	4378.5	4366.3	4355.4	4345.9	4341.8	4340.4	4343.1
22.5°	4349.9	4352.7	4347.2	4339.1	4328.2	4310.5	4290.1	4271.0	4256.1	4250.6	4256.1
25°	4151.3	4150.0	4159.5	4175.8	4186.7	4139.1	4075.2	4014.0	3971.8	3960.9	3971.8
27.5°	3985.4	3984.0	3962.3	3914.7	3858.9	3815.4	3803.1	3796.3	3781.4	3774.6	3784.1
30°	3831.7	3818.1	3740.6	3641.3	3570.5	3552.9	3580.1	3616.8	3637.2	3642.6	3633.1
32.5°	3642.6	3605.9	3501.2	3414.1	3382.8	3369.2	3378.7	3426.4	3475.3	3502.5	3472.6
35°	3399.1	3367.9	3284.9	3237.3	3230.5	3215.5	3203.3	3231.8	3291.7	3325.7	3284.9
37.5°	3129.8	3144.8	3109.4	3084.9	3084.9	3070.0	3045.5	3055.0	3089.0	3121.7	3086.3
40°	2909.5	2936.7	2944.8	2938.0	2935.3	2916.3	2893.2	2887.7	2889.1	2895.9	2885.0
42.5°	2740.8	2744.9	2781.6	2793.9	2783.0	2762.6	2749.0	2740.8	2701.4	2683.7	2706.8
45°	2578.9	2581.7	2611.6	2647.0	2640.2	2618.4	2607.5	2581.7	2512.3	2493.3	2517.7
47.5°	2410.3	2425.2	2447.0	2483.7	2490.5	2468.8	2453.8	2408.9	2325.9	2309.6	2327.3
50°	2238.9	2267.5	2293.3	2311.0	2320.5	2301.5	2285.1	2232.1	2151.8	2132.8	2150.5
52.5°	2082.5	2108.3	2142.3	2136.9	2132.8	2128.7	2117.8	2063.4	1987.3	1961.4	1985.9
55°	1922.0	1947.8	1981.8	1958.7	1941.0	1947.8	1935.6	1890.7	1825.4	1792.7	1825.4
57.5°	1762.8	1783.2	1810.4	1781.9	1756.0	1764.2	1756.0	1724.7	1663.5	1632.2	1663.5
60°	1602.3	1614.6	1633.6	1603.7	1576.5	1581.9	1579.2	1546.6	1498.9	1474.5	1498.9
62.5°	1437.7	1444.5	1454.1	1425.5	1402.4	1401.0	1402.4	1369.7	1333.0	1316.7	1334.4
65°	1265.0	1267.7	1273.2	1244.6	1228.3	1221.5	1224.2	1194.3	1167.1	1156.2	1168.4
67.5°	1088.2	1090.9	1092.2	1065.0	1054.2	1044.6	1046.0	1024.2	999.7	992.9	1002.5
70°	908.6	912.7	912.7	888.2	881.4	869.2	869.2	855.6	835.2	829.7	836.5
72.5°	740.0	737.2	737.2	716.8	711.4	699.1	697.8	693.7	674.7	669.2	676.0
75°	569.9	567.2	568.6	552.2	546.8	537.3	535.9	535.9	521.0	515.5	522.3
77.5°	412.1	414.9	413.5	401.3	395.8	391.7	395.8	395.8	382.2	376.8	383.6
80°	276.1	278.8	278.8	269.3	265.2	262.5	268.0	265.2	258.4	253.0	258.4
82.5°	167.3	167.3	167.3	164.6	159.1	159.1	163.2	163.2	156.4	152.3	156.4
85°	83.0	83.0	81.6	81.6	78.9	78.9	81.6	81.6	77.5	76.2	77.5
87.5°	28.6	27.2	27.2	27.2	25.8	27.2	27.2	27.2	25.8	25.8	25.8
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°	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2	4094.2
2.5°	4120.1	4120.1	4118.7	4118.7	4118.7	4117.3	4116.0	4114.6
5°	4179.9	4178.5	4175.8	4177.2	4175.8	4175.8	4174.5	4173.1
7.5°	4246.6	4247.9	4245.2	4247.9	4247.9	4247.9	4246.6	4245.2
10°	4305.0	4309.1	4310.5	4314.6	4315.9	4317.3	4315.9	4314.6
12.5°	4349.9	4356.7	4362.2	4369.0	4373.1	4374.4	4371.7	4370.3
15°	4375.8	4385.3	4394.8	4405.7	4412.5	4415.2	4413.9	4411.1
17.5°	4377.1	4388.0	4400.3	4409.8	4419.3	4426.1	4431.5	4432.9
20°	4347.2	4356.7	4367.6	4379.9	4394.8	4407.1	4419.3	4423.4
22.5°	4267.0	4290.1	4313.2	4325.4	4337.7	4345.9	4352.7	4362.2
25°	4004.4	4073.8	4148.6	4179.9	4174.5	4148.6	4144.5	4148.6
27.5°	3799.0	3807.2	3816.7	3853.5	3905.1	3952.8	3980.0	3985.4
30°	3615.4	3576.0	3546.1	3563.7	3631.7	3725.6	3809.9	3833.1
32.5°	3425.0	3373.3	3361.1	3373.3	3403.2	3480.8	3596.4	3649.4
35°	3222.3	3200.6	3210.1	3221.0	3227.8	3269.9	3355.6	3410.0
37.5°	3044.1	3041.4	3060.5	3074.1	3074.1	3090.4	3133.9	3135.3
40°	2876.8	2890.4	2905.4	2924.4	2928.5	2935.3	2924.4	2905.4
42.5°	2729.9	2744.9	2754.4	2773.5	2784.3	2769.4	2734.0	2736.7
45°	2576.2	2604.8	2610.2	2630.6	2638.8	2599.3	2572.1	2578.9
47.5°	2403.5	2451.1	2462.0	2483.7	2476.9	2438.8	2419.8	2411.6
50°	2225.3	2287.9	2297.4	2312.3	2304.2	2285.1	2260.7	2241.6
52.5°	2064.8	2115.1	2121.9	2127.4	2134.2	2138.2	2107.0	2077.0
55°	1893.4	1932.8	1942.4	1936.9	1956.0	1977.7	1946.5	1916.5
57.5°	1727.5	1754.7	1761.5	1751.9	1779.1	1807.7	1784.6	1761.5
60°	1550.6	1577.8	1579.2	1575.1	1602.3	1626.8	1617.3	1602.3
62.5°	1376.5	1401.0	1396.9	1401.0	1422.8	1454.1	1447.3	1437.7
65°	1199.7	1222.8	1220.1	1228.3	1244.6	1273.2	1273.2	1265.0
67.5°	1031.0	1044.6	1043.3	1054.2	1066.4	1093.6	1096.3	1088.2
70°	862.4	869.2	867.8	880.1	889.6	918.1	918.1	908.6
72.5°	699.1	703.2	697.8	714.1	718.2	742.7	742.7	731.8
75°	542.7	541.4	535.9	545.4	557.7	575.4	571.3	561.8
77.5°	397.2	393.1	387.7	398.5	405.3	418.9	414.9	405.3
80°	269.3	265.2	258.4	268.0	273.4	281.6	277.5	270.7
82.5°	164.6	160.5	155.1	161.9	164.6	170.0	167.3	161.9
85°	81.6	78.9	76.2	77.5	81.6	83.0	81.6	80.3
87.5°	27.2	25.8	24.5	25.8	25.8	27.2	27.2	25.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)