

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: P130686

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P130686  
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-DOS  
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.  
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND DIMMING OCCUPANCY SENSOR.  
Light Source: (160) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11517.5 lumens  
Efficiency: N/A  
Efficacy: 106.6 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

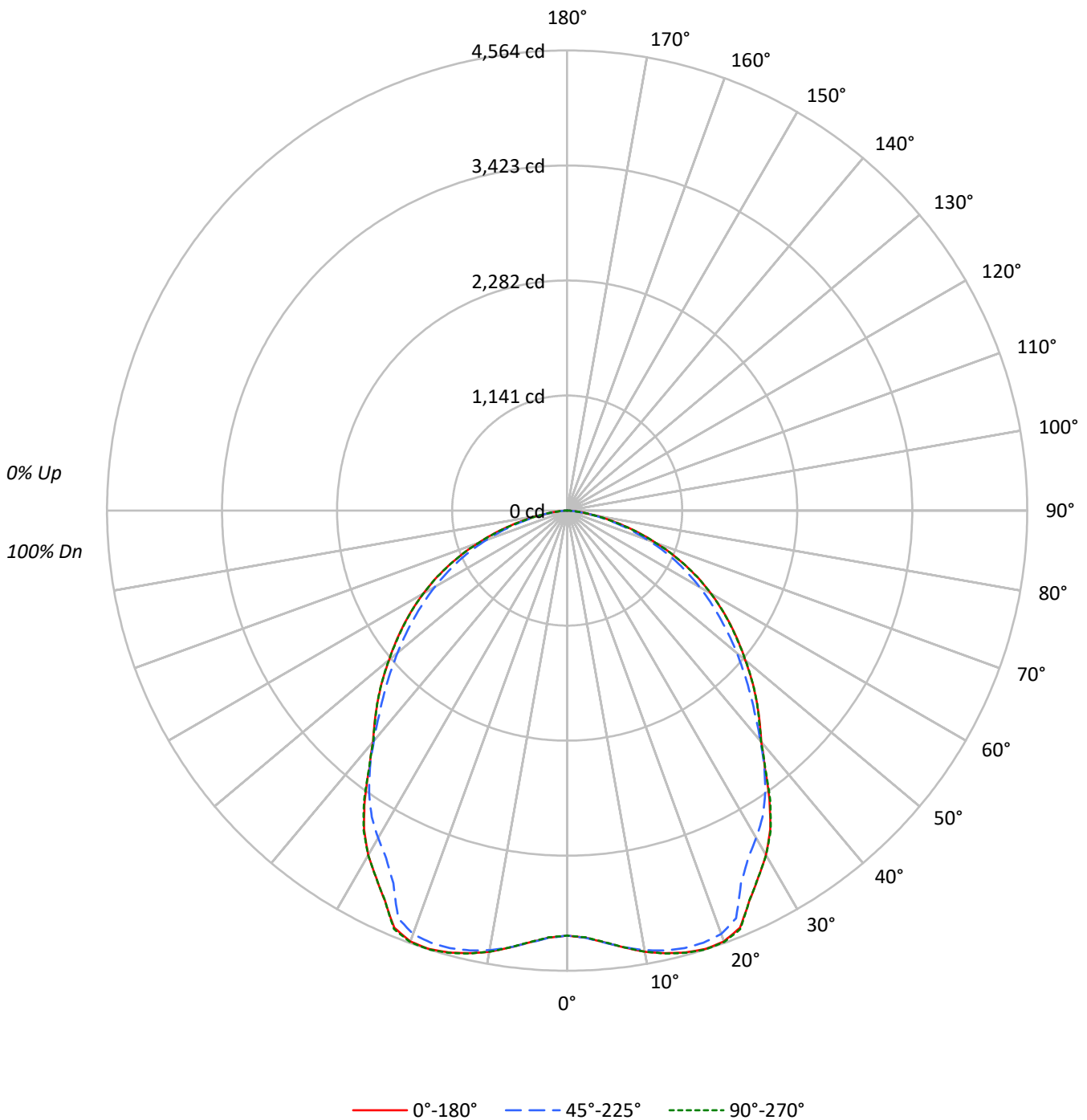
Input Watts (W): 108  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	45643	45643	45643
5°	46731	46762	46701
10°	48857	48673	48842
15°	50864	50362	50911
20°	52397	51493	52477
25°	51065	48722	51032
30°	49325	46891	49343
35°	46261	45262	46409
40°	42341	42143	42282
45°	40660	39308	40660
50°	38831	36990	38878
55°	37356	34845	37251
60°	35726	32876	35726
65°	33369	30499	33369
70°	29616	27045	29616
75°	24547	22204	24195
80°	17729	16245	17380
85°	10611	9741	10263



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	414.9	3.6
10°-20°	1277.8	11.1
20°-30°	1929.8	16.8
30°-40°	2106.9	18.3
40°-50°	2056.2	17.9
50°-60°	1766.4	15.3
60°-70°	1248.7	10.8
70°-80°	604.1	5.2
80°-90°	112.7	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°	3622.5	31.5
0°-40°	5729.4	49.7
0°-60°	9552.1	82.9
0°-90°	11517.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11517.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4215	4215	4215	4215	4215	
5°	4299	4301	4302	4300	4296	415
15°	4537	4529	4492	4530	4541	1283
25°	4274	4286	4078	4287	4271	1970
35°	3500	3318	3424	3310	3511	2177
45°	2655	2707	2567	2698	2655	2047
55°	1979	2002	1846	1997	1973	1770
65°	1302	1261	1190	1260	1302	1285
75°	587	558	531	557	578	628
85°	85	81	78	79	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°	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0
2.5°	4240.3	4238.9	4237.5	4238.9	4241.7	4241.7	4241.7	4240.3	4240.3	4241.7	4240.3
5°	4299.1	4296.3	4297.7	4296.3	4301.9	4300.5	4300.5	4301.9	4301.9	4301.9	4300.5
7.5°	4371.9	4369.1	4369.1	4369.1	4370.5	4370.5	4370.5	4370.5	4369.1	4369.1	4369.1
10°	4443.3	4439.1	4440.5	4439.1	4440.5	4437.7	4434.9	4432.1	4429.3	4426.5	4427.9
12.5°	4496.5	4495.1	4497.9	4497.9	4495.1	4490.9	4483.9	4476.9	4471.3	4468.5	4471.3
15°	4537.1	4539.9	4541.3	4539.9	4534.3	4523.1	4514.7	4503.5	4496.5	4492.3	4496.5
17.5°	4559.5	4559.5	4556.7	4548.3	4538.5	4528.7	4516.1	4504.9	4497.9	4493.7	4499.3
20°	4546.9	4545.5	4535.7	4523.1	4507.7	4495.1	4483.9	4474.1	4469.9	4468.5	4471.3
22.5°	4478.3	4481.1	4475.5	4467.1	4455.9	4437.7	4416.7	4397.1	4381.7	4376.1	4381.7
25°	4273.9	4272.5	4282.3	4299.1	4310.3	4261.3	4195.4	4132.4	4089.0	4077.8	4089.0
27.5°	4103.0	4101.6	4079.2	4030.2	3972.8	3928.0	3915.4	3908.4	3893.0	3886.0	3895.8
30°	3944.8	3930.8	3851.0	3748.7	3675.9	3657.7	3685.7	3723.5	3744.5	3750.1	3740.3
32.5°	3750.1	3712.3	3604.5	3514.9	3482.7	3468.7	3478.5	3527.5	3577.9	3605.9	3575.1
35°	3499.5	3467.3	3381.8	3332.8	3325.8	3310.4	3297.8	3327.2	3388.8	3423.9	3381.8
37.5°	3222.2	3237.6	3201.2	3176.0	3176.0	3160.6	3135.4	3145.2	3180.2	3213.8	3177.4
40°	2995.3	3023.4	3031.8	3024.8	3022.0	3002.3	2978.5	2972.9	2974.3	2981.3	2970.1
42.5°	2821.7	2825.9	2863.7	2876.3	2865.1	2844.1	2830.1	2821.7	2781.1	2762.9	2786.7
45°	2655.1	2657.9	2688.7	2725.1	2718.1	2695.7	2684.5	2657.9	2586.4	2566.8	2592.0
47.5°	2481.4	2496.8	2519.2	2557.0	2564.0	2541.6	2526.2	2480.0	2394.6	2377.8	2396.0
50°	2305.0	2334.4	2361.0	2379.2	2389.0	2369.4	2352.6	2298.0	2215.4	2195.7	2214.0
52.5°	2143.9	2170.5	2205.5	2199.9	2195.7	2191.5	2180.3	2124.3	2045.9	2019.3	2044.5
55°	1978.7	2005.3	2040.3	2016.5	1998.3	2005.3	1992.7	1946.5	1879.3	1845.7	1879.3
57.5°	1814.9	1835.9	1863.9	1834.5	1807.8	1816.3	1807.8	1775.6	1712.6	1680.4	1712.6
60°	1649.6	1662.2	1681.8	1651.0	1623.0	1628.6	1625.8	1592.2	1543.2	1518.0	1543.2
62.5°	1480.2	1487.2	1497.0	1467.6	1443.8	1442.4	1443.8	1410.2	1372.3	1355.5	1373.7
65°	1302.3	1305.1	1310.7	1281.3	1264.5	1257.5	1260.3	1229.5	1201.5	1190.3	1202.9
67.5°	1120.3	1123.1	1124.5	1096.5	1085.3	1075.5	1076.9	1054.5	1029.3	1022.3	1032.1
70°	935.4	939.6	939.6	914.4	907.4	894.8	894.8	880.8	859.8	854.2	861.2
72.5°	761.8	759.0	759.0	738.0	732.4	719.8	718.4	714.2	694.6	689.0	696.0
75°	586.7	583.9	585.3	568.5	562.9	553.1	551.7	551.7	536.3	530.7	537.7
77.5°	424.3	427.1	425.7	413.1	407.5	403.3	407.5	407.5	393.5	387.9	394.9
80°	284.3	287.1	287.1	277.3	273.1	270.3	275.9	273.1	266.1	260.5	266.1
82.5°	172.2	172.2	172.2	169.4	163.8	163.8	168.0	168.0	161.0	156.8	161.0
85°	85.4	85.4	84.0	84.0	81.2	81.2	84.0	84.0	79.8	78.4	79.8
87.5°	29.4	28.0	28.0	28.0	26.6	28.0	28.0	28.0	26.6	26.6	26.6
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°	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0	4215.0
2.5°	4241.7	4241.7	4240.3	4240.3	4240.3	4238.9	4237.5	4236.1
5°	4303.3	4301.9	4299.1	4300.5	4299.1	4299.1	4297.7	4296.3
7.5°	4371.9	4373.3	4370.5	4373.3	4373.3	4373.3	4371.9	4370.5
10°	4432.1	4436.3	4437.7	4441.9	4443.3	4444.7	4443.3	4441.9
12.5°	4478.3	4485.3	4490.9	4497.9	4502.1	4503.5	4500.7	4499.3
15°	4504.9	4514.7	4524.5	4535.7	4542.7	4545.5	4544.1	4541.3
17.5°	4506.3	4517.5	4530.1	4539.9	4549.7	4556.7	4562.3	4563.7
20°	4475.5	4485.3	4496.5	4509.1	4524.5	4537.1	4549.7	4553.9
22.5°	4392.9	4416.7	4440.5	4453.1	4465.7	4474.1	4481.1	4490.9
25°	4122.6	4194.0	4271.1	4303.3	4297.7	4271.1	4266.9	4271.1
27.5°	3911.2	3919.6	3929.4	3967.2	4020.4	4069.4	4097.4	4103.0
30°	3722.1	3681.5	3650.7	3668.9	3738.9	3835.6	3922.4	3946.2
32.5°	3526.1	3472.9	3460.3	3472.9	3503.7	3583.5	3702.5	3757.1
35°	3317.4	3295.0	3304.8	3316.0	3323.0	3366.4	3454.7	3510.7
37.5°	3134.0	3131.2	3150.8	3164.8	3164.8	3181.6	3226.4	3227.8
40°	2961.7	2975.7	2991.1	3010.7	3015.0	3022.0	3010.7	2991.1
42.5°	2810.5	2825.9	2835.7	2855.3	2866.5	2851.1	2814.7	2817.5
45°	2652.3	2681.7	2687.3	2708.3	2716.7	2676.1	2648.1	2655.1
47.5°	2474.4	2523.4	2534.6	2557.0	2550.0	2510.8	2491.2	2482.8
50°	2291.0	2355.4	2365.2	2380.6	2372.2	2352.6	2327.4	2307.8
52.5°	2125.7	2177.5	2184.5	2190.1	2197.1	2201.3	2169.1	2138.3
55°	1949.3	1989.9	1999.7	1994.1	2013.7	2036.1	2003.9	1973.1
57.5°	1778.4	1806.4	1813.5	1803.6	1831.7	1861.1	1837.3	1813.5
60°	1596.4	1624.4	1625.8	1621.6	1649.6	1674.8	1665.0	1649.6
62.5°	1417.2	1442.4	1438.2	1442.4	1464.8	1497.0	1490.0	1480.2
65°	1235.1	1258.9	1256.1	1264.5	1281.3	1310.7	1310.7	1302.3
67.5°	1061.5	1075.5	1074.1	1085.3	1097.9	1125.9	1128.7	1120.3
70°	887.8	894.8	893.4	906.0	915.8	945.2	945.2	935.4
72.5°	719.8	724.0	718.4	735.2	739.4	764.6	764.6	753.4
75°	558.7	557.3	551.7	561.5	574.1	592.3	588.1	578.3
77.5°	408.9	404.7	399.1	410.3	417.3	431.3	427.1	417.3
80°	277.3	273.1	266.1	275.9	281.5	289.9	285.7	278.7
82.5°	169.4	165.2	159.6	166.6	169.4	175.0	172.2	166.6
85°	84.0	81.2	78.4	79.8	84.0	85.4	84.0	82.6
87.5°	28.0	26.6	25.2	26.6	26.6	28.0	28.0	26.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)