

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: P130641

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130641
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
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

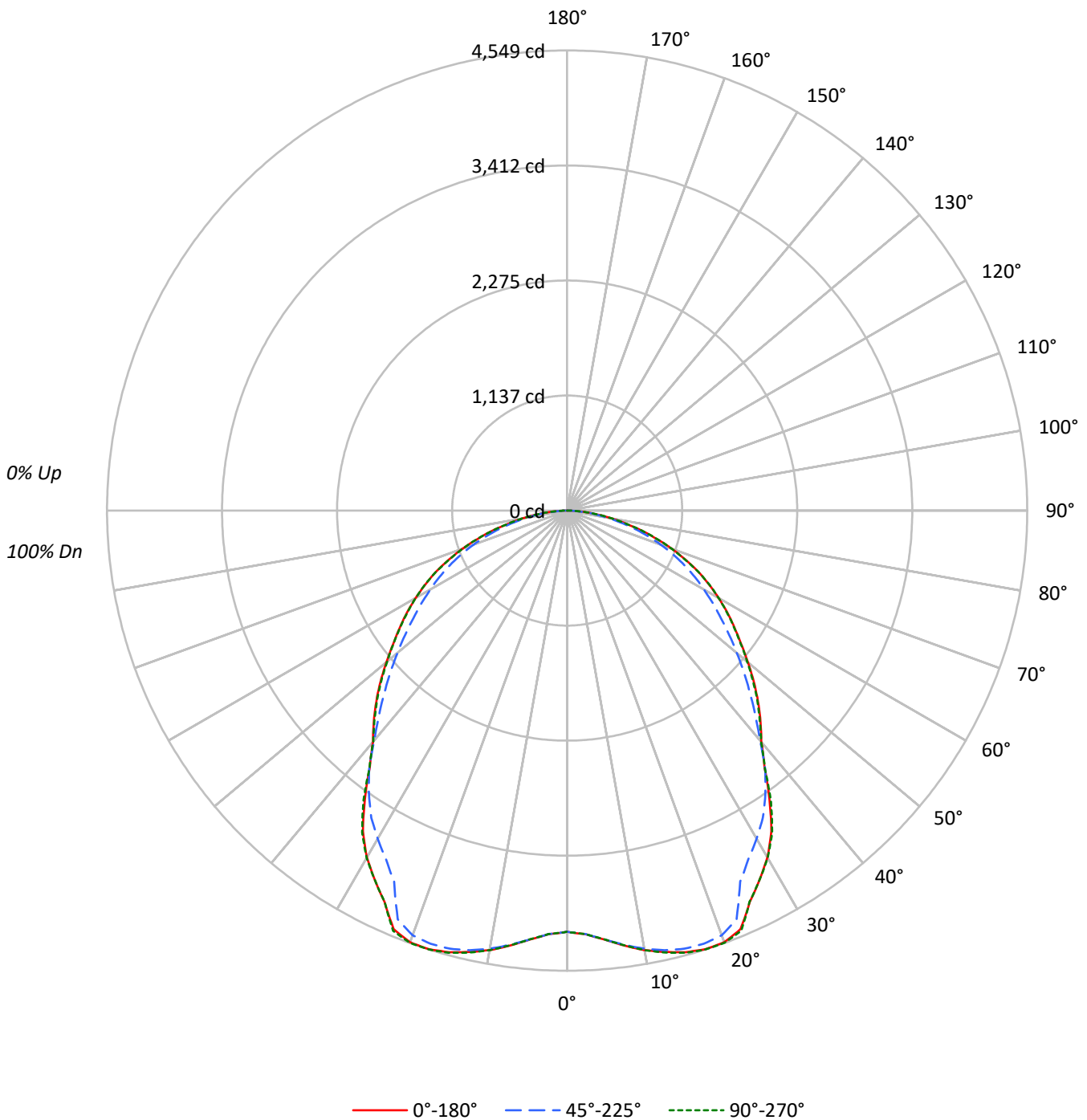
Lumens per Lamp: N/A
Luminaire Lumens: 11937.4 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

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°	45093	45093	45093
5°	46270	46270	46254
10°	48515	48355	48515
15°	50666	50271	50732
20°	52333	51488	52401
25°	51034	48352	50981
30°	49518	46838	49573
35°	46103	45172	46433
40°	42224	41913	42162
45°	40866	39179	40731
50°	39293	36917	39143
55°	38130	35055	38047
60°	37448	33824	37448
65°	36669	32795	36556
70°	34808	31183	34761
75°	31689	28680	31810
80°	27731	25168	27825
85°	24079	20973	24079



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.2	3.4
10°-20°	1274.5	10.7
20°-30°	1927.3	16.1
30°-40°	2103.9	17.6
40°-50°	2065.3	17.3
50°-60°	1808.0	15.1
60°-70°	1358.6	11.4
70°-80°	776.7	6.5
80°-90°	211.8	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°	3612.9	30.3
0°-40°	5716.8	47.9
0°-60°	9590.2	80.3
0°-90°	11937.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11937.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4164	4164	4164	4164	4164	
5°	4257	4257	4257	4257	4255	411
15°	4519	4516	4484	4518	4525	1278
25°	4271	4277	4047	4276	4267	1972
35°	3488	3316	3417	3303	3512	2175
45°	2668	2723	2558	2706	2660	2057
55°	2020	2051	1857	2045	2015	1811
65°	1431	1375	1280	1375	1427	1408
75°	757	728	686	729	760	804
85°	194	182	169	183	194	217
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°	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2
2.5°	4192.1	4189.1	4190.6	4189.1	4192.1	4192.1	4190.6	4192.1	4190.6	4190.6	4190.6
5°	4256.7	4253.7	4255.2	4252.2	4256.7	4258.1	4256.7	4258.1	4258.1	4256.7	4256.7
7.5°	4337.4	4331.5	4333.0	4330.0	4334.4	4334.4	4333.0	4333.0	4331.5	4330.0	4331.5
10°	4412.2	4409.3	4409.3	4407.8	4410.8	4409.3	4406.4	4404.9	4399.0	4397.6	4400.5
12.5°	4469.5	4472.4	4476.8	4476.8	4475.4	4473.9	4466.5	4462.1	4453.3	4451.9	4454.8
15°	4519.4	4520.9	4525.3	4523.8	4519.4	4512.1	4504.7	4495.9	4488.6	4484.2	4488.6
17.5°	4545.8	4545.8	4544.3	4539.9	4531.1	4522.3	4512.1	4503.2	4495.9	4490.0	4495.9
20°	4541.4	4541.4	4534.1	4525.3	4510.6	4497.4	4487.1	4478.3	4471.0	4468.0	4472.4
22.5°	4479.8	4484.2	4478.3	4476.8	4465.1	4447.5	4426.9	4404.9	4381.4	4374.1	4384.4
25°	4271.3	4268.4	4271.3	4299.2	4306.6	4247.8	4173.0	4104.0	4062.9	4046.8	4068.8
27.5°	4117.2	4114.3	4077.6	4018.9	3938.1	3900.0	3905.8	3900.0	3889.7	3882.4	3892.6
30°	3960.2	3938.1	3838.3	3731.2	3653.4	3641.6	3675.4	3718.0	3744.4	3745.9	3741.5
32.5°	3757.6	3713.6	3584.4	3502.2	3469.9	3464.0	3474.3	3518.3	3578.5	3602.0	3571.2
35°	3487.5	3462.6	3383.3	3330.5	3320.2	3312.8	3295.2	3317.3	3392.1	3417.1	3389.2
37.5°	3207.2	3230.7	3196.9	3177.8	3176.3	3161.7	3136.7	3139.6	3179.3	3214.5	3174.9
40°	2987.0	3010.5	3032.5	3031.0	3025.2	3003.1	2984.1	2973.8	2970.8	2965.0	2973.8
42.5°	2829.9	2821.1	2863.7	2887.2	2872.5	2857.8	2841.7	2834.3	2780.0	2755.1	2787.4
45°	2668.5	2665.5	2694.9	2744.8	2733.1	2712.5	2708.1	2678.8	2586.3	2558.4	2593.6
47.5°	2502.6	2514.4	2540.8	2581.9	2589.2	2571.6	2558.4	2498.2	2404.3	2370.5	2402.8
50°	2332.4	2358.8	2395.5	2411.6	2419.0	2408.7	2399.9	2322.1	2226.7	2191.4	2228.1
52.5°	2169.4	2206.1	2254.6	2241.3	2235.5	2239.9	2225.2	2154.7	2062.3	2019.7	2063.7
55°	2019.7	2054.9	2097.5	2071.1	2043.2	2059.3	2046.1	1990.4	1909.6	1856.8	1906.7
57.5°	1878.8	1900.8	1934.6	1899.3	1867.1	1886.1	1872.9	1828.9	1754.0	1708.5	1757.0
60°	1729.1	1746.7	1765.8	1732.0	1698.3	1708.5	1702.7	1663.0	1601.4	1561.8	1598.4
62.5°	1579.4	1588.2	1601.4	1564.7	1536.8	1536.8	1533.9	1495.7	1447.3	1425.2	1445.8
65°	1431.1	1429.6	1434.1	1397.4	1376.8	1373.9	1368.0	1332.8	1294.6	1279.9	1296.1
67.5°	1263.8	1266.7	1268.2	1234.4	1218.3	1210.9	1206.5	1174.2	1143.4	1133.2	1144.9
70°	1099.4	1100.9	1100.9	1070.0	1058.3	1046.5	1042.1	1017.2	992.2	984.9	995.2
72.5°	926.2	936.5	932.1	907.1	898.3	883.6	880.7	864.5	845.5	835.2	845.5
75°	757.4	772.1	767.7	745.6	735.4	720.7	722.2	713.4	692.8	685.5	695.7
77.5°	594.5	603.3	604.7	593.0	576.8	566.6	571.0	569.5	554.8	537.2	550.4
80°	444.7	455.0	456.5	446.2	433.0	424.2	430.1	430.1	418.3	403.6	415.4
82.5°	309.7	317.0	317.0	311.2	305.3	296.5	299.4	300.9	293.6	278.9	289.2
85°	193.8	195.2	192.3	187.9	183.5	180.5	180.5	183.5	177.6	168.8	176.1
87.5°	71.9	73.4	71.9	76.3	71.9	70.5	71.9	76.3	70.5	70.5	71.9
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°	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2	4164.2
2.5°	4190.6	4192.1	4192.1	4190.6	4190.6	4190.6	4189.1	4190.6
5°	4256.7	4258.1	4258.1	4255.2	4256.7	4255.2	4253.7	4255.2
7.5°	4333.0	4335.9	4334.4	4335.9	4337.4	4334.4	4334.4	4334.4
10°	4403.4	4407.8	4410.8	4413.7	4415.2	4412.2	4413.7	4412.2
12.5°	4460.7	4469.5	4475.4	4478.3	4481.2	4481.2	4478.3	4475.4
15°	4495.9	4506.2	4513.5	4522.3	4528.2	4529.7	4526.7	4525.3
17.5°	4504.7	4513.5	4523.8	4532.6	4541.4	4547.3	4550.2	4548.7
20°	4479.8	4487.1	4498.8	4512.1	4523.8	4535.5	4544.3	4547.3
22.5°	4407.8	4428.4	4450.4	4466.5	4476.8	4482.7	4487.1	4497.4
25°	4112.8	4167.1	4246.4	4306.6	4296.3	4268.4	4258.1	4266.9
27.5°	3902.9	3897.0	3888.2	3935.2	4008.6	4073.2	4104.0	4118.7
30°	3715.0	3671.0	3629.9	3646.0	3720.9	3832.5	3926.4	3964.6
32.5°	3518.3	3458.2	3452.3	3462.6	3497.8	3572.7	3700.4	3772.3
35°	3311.4	3279.1	3296.7	3309.9	3321.7	3359.8	3447.9	3512.5
37.5°	3126.4	3120.6	3144.1	3160.2	3166.1	3185.1	3218.9	3210.1
40°	2963.5	2967.9	2988.5	3006.1	3017.8	3019.3	2998.7	2982.6
42.5°	2816.7	2835.8	2835.8	2857.8	2878.4	2850.5	2807.9	2819.7
45°	2667.0	2697.8	2696.4	2715.5	2734.5	2686.1	2650.9	2659.7
47.5°	2490.9	2549.6	2558.4	2578.9	2578.9	2529.0	2501.2	2490.9
50°	2311.8	2388.1	2398.4	2410.1	2404.3	2385.2	2348.5	2323.5
52.5°	2145.9	2217.9	2228.1	2223.7	2235.5	2244.3	2194.4	2163.6
55°	1983.0	2038.8	2052.0	2037.3	2065.2	2090.2	2043.2	2015.3
57.5°	1821.6	1864.1	1875.9	1864.1	1894.9	1922.8	1892.0	1872.9
60°	1658.6	1696.8	1704.1	1693.9	1730.5	1755.5	1740.8	1729.1
62.5°	1498.6	1525.1	1532.4	1536.8	1558.8	1588.2	1585.2	1583.8
65°	1337.2	1365.1	1368.0	1381.2	1395.9	1434.1	1426.7	1426.7
67.5°	1180.1	1199.2	1203.6	1224.2	1230.0	1266.7	1262.3	1256.4
70°	1017.2	1036.3	1042.1	1062.7	1071.5	1100.9	1102.3	1097.9
72.5°	867.5	874.8	880.7	899.8	907.1	935.0	935.0	929.1
75°	714.8	713.4	719.2	738.3	745.6	769.1	767.7	760.3
77.5°	571.0	563.6	568.0	581.3	590.1	607.7	601.8	595.9
80°	435.9	424.2	425.7	438.9	444.7	456.5	450.6	446.2
82.5°	308.2	298.0	295.0	305.3	314.1	315.6	314.1	311.2
85°	187.9	179.1	180.5	184.9	190.8	190.8	193.8	193.8
87.5°	73.4	69.0	69.0	73.4	73.4	74.9	73.4	70.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)