

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: P130650

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130650
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-DOS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11388.6 lumens
Efficiency: N/A
Efficacy: 105.5 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

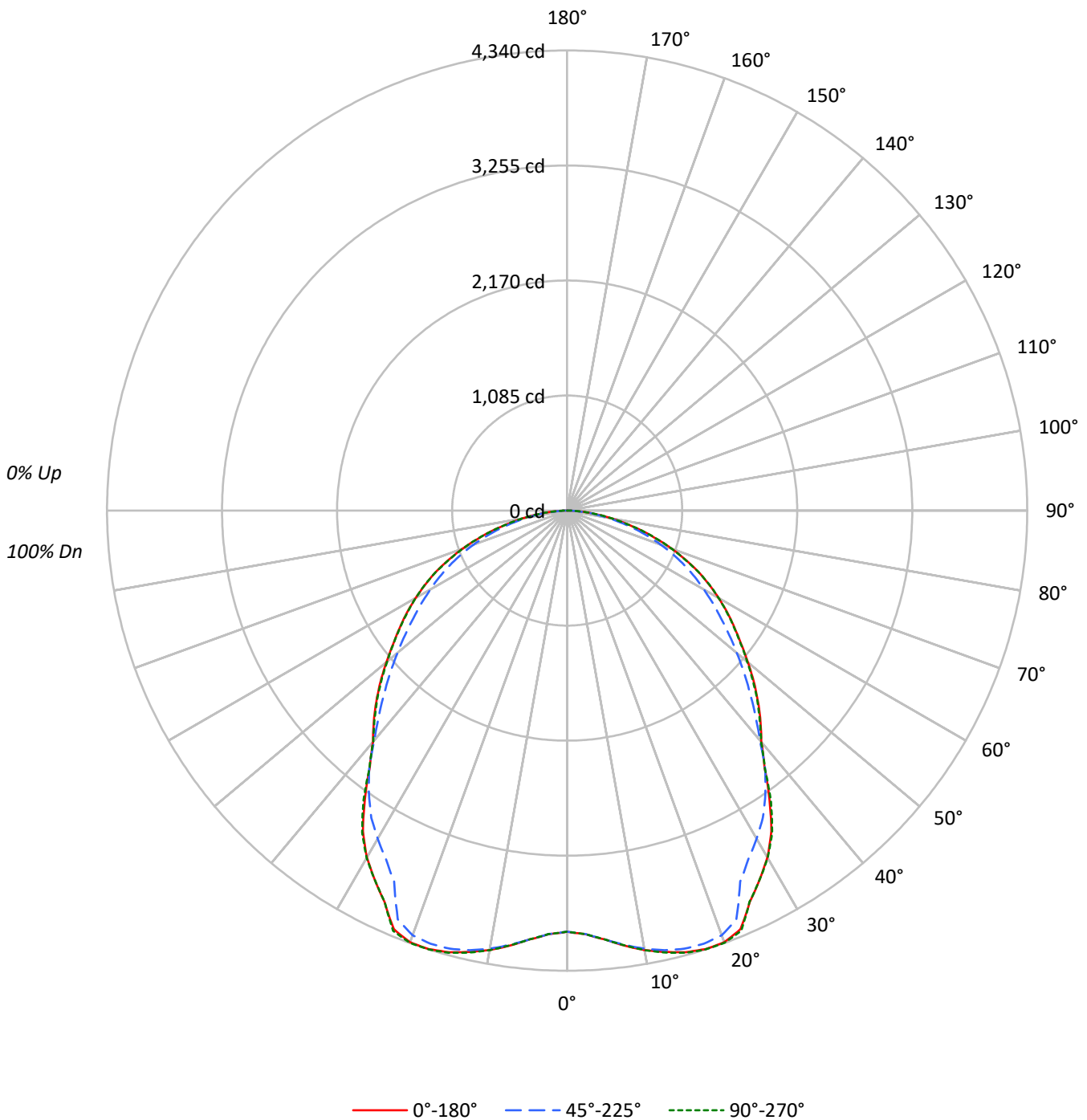
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	43020	43020	43020
5°	44143	44143	44128
10°	46285	46131	46285
15°	48336	47959	48399
20°	49927	49121	49992
25°	48689	46128	48638
30°	47241	44685	47293
35°	43983	43095	44298
40°	40283	39986	40224
45°	38987	37379	38858
50°	37485	35221	37343
55°	36378	33443	36299
60°	35726	32269	35726
65°	34983	31288	34875
70°	33209	29749	33165
75°	30233	27363	30350
80°	26459	24015	26547
85°	22960	20003	22960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.3	3.4
10°-20°	1215.9	10.7
20°-30°	1838.7	16.1
30°-40°	2007.2	17.6
40°-50°	1970.4	17.3
50°-60°	1724.9	15.1
60°-70°	1296.2	11.4
70°-80°	741.0	6.5
80°-90°	202.1	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°	3446.8	30.3
0°-40°	5454.0	47.9
0°-60°	9149.3	80.3
0°-90°	11388.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11388.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3973	3973	3973	3973	3973	
5°	4061	4062	4061	4061	4060	392
15°	4312	4308	4278	4310	4317	1220
25°	4075	4081	3861	4080	4071	1882
35°	3327	3164	3260	3152	3351	2075
45°	2546	2598	2441	2582	2537	1963
55°	1927	1957	1771	1951	1923	1728
65°	1365	1312	1221	1311	1361	1343
75°	723	695	654	695	725	767
85°	185	174	161	174	185	207
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°	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8
2.5°	3999.4	3996.6	3998.0	3996.6	3999.4	3999.4	3998.0	3999.4	3998.0	3998.0	3998.0
5°	4061.0	4058.2	4059.6	4056.8	4061.0	4062.4	4061.0	4062.4	4062.4	4061.0	4061.0
7.5°	4138.0	4132.4	4133.8	4131.0	4135.2	4135.2	4133.8	4133.8	4132.4	4131.0	4132.4
10°	4209.4	4206.6	4206.6	4205.2	4208.0	4206.6	4203.8	4202.4	4196.8	4195.4	4198.2
12.5°	4264.0	4266.8	4271.0	4271.0	4269.6	4268.2	4261.2	4257.0	4248.6	4247.2	4250.0
15°	4311.6	4313.0	4317.2	4315.8	4311.6	4304.6	4297.6	4289.2	4282.2	4278.0	4282.2
17.5°	4336.8	4336.8	4335.4	4331.2	4322.8	4314.4	4304.6	4296.2	4289.2	4283.6	4289.2
20°	4332.6	4332.6	4325.6	4317.2	4303.2	4290.6	4280.8	4272.4	4265.4	4262.6	4266.8
22.5°	4273.8	4278.0	4272.4	4271.0	4259.8	4243.0	4223.4	4202.4	4180.0	4173.0	4182.8
25°	4075.0	4072.2	4075.0	4101.6	4108.6	4052.6	3981.2	3915.3	3876.1	3860.7	3881.7
27.5°	3927.9	3925.1	3890.1	3834.1	3757.1	3720.7	3726.3	3720.7	3710.9	3703.9	3713.7
30°	3778.1	3757.1	3661.9	3559.7	3485.4	3474.2	3506.4	3547.1	3572.3	3573.7	3569.5
32.5°	3584.9	3542.9	3419.6	3341.2	3310.4	3304.8	3314.6	3356.6	3414.0	3436.4	3407.0
35°	3327.2	3303.4	3227.8	3177.4	3167.6	3160.6	3143.8	3164.8	3236.2	3260.0	3233.4
37.5°	3059.7	3082.1	3049.9	3031.7	3030.3	3016.3	2992.5	2995.3	3033.1	3066.7	3028.9
40°	2849.7	2872.1	2893.1	2891.7	2886.1	2865.1	2846.9	2837.1	2834.3	2828.7	2837.1
42.5°	2699.9	2691.5	2732.1	2754.5	2740.5	2726.5	2711.1	2704.1	2652.2	2628.4	2659.2
45°	2545.8	2543.0	2571.0	2618.6	2607.4	2587.8	2583.6	2555.6	2467.4	2440.8	2474.4
47.5°	2387.6	2398.8	2424.0	2463.2	2470.2	2453.4	2440.8	2383.4	2293.8	2261.5	2292.4
50°	2225.1	2250.3	2285.4	2300.8	2307.8	2298.0	2289.6	2215.3	2124.3	2090.7	2125.7
52.5°	2069.7	2104.7	2150.9	2138.3	2132.7	2136.9	2122.9	2055.7	1967.5	1926.9	1968.9
55°	1926.9	1960.5	2001.1	1975.9	1949.3	1964.7	1952.1	1898.9	1821.8	1771.4	1819.0
57.5°	1792.4	1813.4	1845.6	1812.0	1781.2	1799.4	1786.8	1744.8	1673.4	1630.0	1676.2
60°	1649.6	1666.4	1684.6	1652.4	1620.2	1630.0	1624.4	1586.6	1527.8	1490.0	1525.0
62.5°	1506.8	1515.2	1527.8	1492.8	1466.2	1466.2	1463.4	1426.9	1380.7	1359.7	1379.3
65°	1365.3	1363.9	1368.1	1333.1	1313.5	1310.7	1305.1	1271.5	1235.1	1221.1	1236.5
67.5°	1205.7	1208.5	1209.9	1177.7	1162.3	1155.3	1151.1	1120.3	1090.9	1081.1	1092.3
70°	1048.9	1050.3	1050.3	1020.8	1009.6	998.4	994.2	970.4	946.6	939.6	949.4
72.5°	883.6	893.4	889.2	865.4	857.0	843.0	840.2	824.8	806.6	796.8	806.6
75°	722.6	736.6	732.4	711.4	701.6	687.6	689.0	680.6	661.0	654.0	663.8
77.5°	567.1	575.5	576.9	565.7	550.3	540.5	544.7	543.3	529.3	512.5	525.1
80°	424.3	434.1	435.5	425.7	413.1	404.7	410.3	410.3	399.1	385.1	396.3
82.5°	295.5	302.5	302.5	296.9	291.3	282.9	285.7	287.1	280.1	266.1	275.9
85°	184.8	186.2	183.4	179.2	175.0	172.2	172.2	175.0	169.4	161.0	168.0
87.5°	68.6	70.0	68.6	72.8	68.6	67.2	68.6	72.8	67.2	67.2	68.6
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°	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8	3972.8
2.5°	3998.0	3999.4	3999.4	3998.0	3998.0	3998.0	3996.6	3998.0
5°	4061.0	4062.4	4062.4	4059.6	4061.0	4059.6	4058.2	4059.6
7.5°	4133.8	4136.6	4135.2	4136.6	4138.0	4135.2	4135.2	4135.2
10°	4201.0	4205.2	4208.0	4210.8	4212.2	4209.4	4210.8	4209.4
12.5°	4255.6	4264.0	4269.6	4272.4	4275.2	4275.2	4272.4	4269.6
15°	4289.2	4299.0	4306.0	4314.4	4320.0	4321.4	4318.6	4317.2
17.5°	4297.6	4306.0	4315.8	4324.2	4332.6	4338.2	4341.0	4339.6
20°	4273.8	4280.8	4292.0	4304.6	4315.8	4327.0	4335.4	4338.2
22.5°	4205.2	4224.8	4245.8	4261.2	4271.0	4276.6	4280.8	4290.6
25°	3923.7	3975.6	4051.2	4108.6	4098.8	4072.2	4062.4	4070.8
27.5°	3723.5	3717.9	3709.5	3754.3	3824.3	3885.9	3915.3	3929.3
30°	3544.3	3502.2	3463.0	3478.4	3549.9	3656.3	3745.9	3782.3
32.5°	3356.6	3299.2	3293.6	3303.4	3337.0	3408.4	3530.3	3598.9
35°	3159.2	3128.4	3145.2	3157.8	3169.0	3205.4	3289.4	3351.0
37.5°	2982.7	2977.1	2999.5	3014.9	3020.5	3038.7	3070.9	3062.5
40°	2827.3	2831.5	2851.1	2867.9	2879.1	2880.5	2860.9	2845.5
42.5°	2687.2	2705.5	2705.5	2726.5	2746.1	2719.5	2678.8	2690.1
45°	2544.4	2573.8	2572.4	2590.6	2608.8	2562.6	2529.0	2537.4
47.5°	2376.4	2432.4	2440.8	2460.4	2460.4	2412.8	2386.2	2376.4
50°	2205.5	2278.4	2288.2	2299.4	2293.8	2275.6	2240.5	2216.7
52.5°	2047.3	2115.9	2125.7	2121.5	2132.7	2141.1	2093.5	2064.1
55°	1891.9	1945.1	1957.7	1943.7	1970.3	1994.1	1949.3	1922.7
57.5°	1737.8	1778.4	1789.6	1778.4	1807.8	1834.4	1805.0	1786.8
60°	1582.4	1618.8	1625.8	1616.0	1651.0	1674.8	1660.8	1649.6
62.5°	1429.7	1455.0	1462.0	1466.2	1487.2	1515.2	1512.4	1511.0
65°	1275.7	1302.3	1305.1	1317.7	1331.7	1368.1	1361.1	1361.1
67.5°	1125.9	1144.1	1148.3	1167.9	1173.5	1208.5	1204.3	1198.7
70°	970.4	988.6	994.2	1013.8	1022.2	1050.3	1051.7	1047.5
72.5°	827.6	834.6	840.2	858.4	865.4	892.0	892.0	886.4
75°	682.0	680.6	686.2	704.4	711.4	733.8	732.4	725.4
77.5°	544.7	537.7	541.9	554.5	562.9	579.7	574.1	568.5
80°	415.9	404.7	406.1	418.7	424.3	435.5	429.9	425.7
82.5°	294.1	284.3	281.5	291.3	299.7	301.1	299.7	296.9
85°	179.2	170.8	172.2	176.4	182.0	182.0	184.8	184.8
87.5°	70.0	65.8	65.8	70.0	70.0	71.4	70.0	67.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)