

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: P130713

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130713
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25252)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: TBLED-LD1-11-W-UNV-L850-CD1
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
WIDE DISTRIBUTION.
Light Source: (160) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

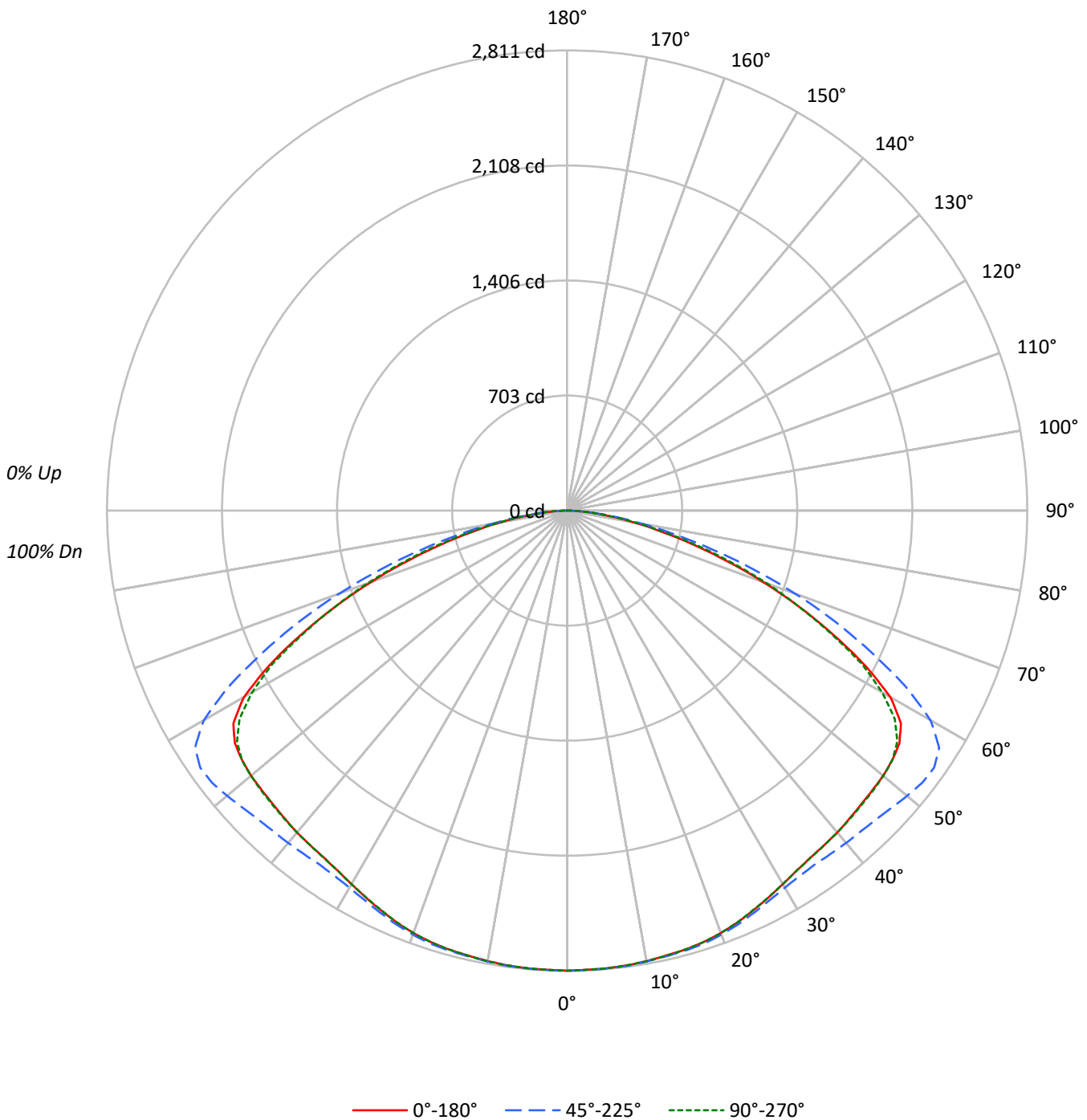
Lumens per Lamp: N/A
Luminaire Lumens: 11300.4 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.42 / 1.71
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	88	81	74	94	86	79	73	82	77	72	79	74	70	76	72	68	66
3	87	76	67	60	85	74	66	59	71	64	58	68	62	57	66	61	56	54
4	79	66	57	49	77	65	56	49	62	55	48	60	53	48	58	52	47	45
5	72	58	49	42	70	57	48	41	55	47	41	53	46	40	51	45	40	38
6	66	52	42	36	64	51	42	35	49	41	35	47	40	35	46	39	34	32
7	61	47	37	31	59	46	37	31	44	36	30	43	36	30	41	35	30	28
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24
9	53	39	30	24	51	38	30	24	37	29	24	36	29	24	35	28	23	22
10	49	35	27	22	48	35	27	21	34	26	21	33	26	21	32	26	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30436	30436	30436
5°	30505	30521	30505
10°	30729	30761	30729
15°	31132	31198	31132
20°	31646	31764	31646
25°	32180	32356	32163
30°	32943	33255	32943
35°	34226	34886	34246
40°	36288	37471	36288
45°	38885	40864	38953
50°	42455	45669	42480
55°	46775	51680	46469
60°	49398	55534	48127
65°	45957	52614	45580
70°	40336	46890	40988
75°	32977	38320	34266
80°	25717	29197	26266
85°	18239	20240	18599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.6	2.4
10°-20°	786.8	7.0
20°-30°	1248.8	11.1
30°-40°	1646.0	14.6
40°-50°	2020.7	17.9
50°-60°	2306.7	20.4
60°-70°	1897.6	16.8
70°-80°	931.2	8.2
80°-90°	194.9	1.7
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°	2303.3	20.4
0°-40°	3949.3	34.9
0°-60°	8276.7	73.2
0°-90°	11300.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11300.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2811	2811	2811	2811	2811	
5°	2806	2808	2808	2808	2806	268
15°	2777	2779	2783	2781	2777	786
25°	2693	2702	2708	2702	2692	1245
35°	2589	2616	2639	2616	2591	1629
45°	2539	2604	2668	2610	2544	1967
55°	2478	2617	2737	2609	2461	2196
65°	1794	1936	2053	1933	1779	1770
75°	788	865	916	875	819	853
85°	147	159	163	158	150	181
90°	0	0	0	0	0	



TEST NUMBER: P130713

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7
2.5°	2807.8	2807.8	2807.8	2807.8	2809.3	2809.3	2809.3	2809.3	2809.3	2809.3	2807.8
5°	2806.3	2806.3	2806.3	2806.3	2807.8	2807.8	2807.8	2807.8	2807.8	2807.8	2807.8
7.5°	2801.9	2801.9	2803.4	2803.4	2803.4	2803.4	2803.4	2804.9	2804.9	2804.9	2804.9
10°	2794.6	2794.6	2794.6	2794.6	2796.1	2796.1	2797.5	2797.5	2797.5	2797.5	2797.5
12.5°	2784.3	2784.3	2785.8	2785.8	2785.8	2787.3	2788.7	2788.7	2788.7	2788.7	2788.7
15°	2777.0	2777.0	2777.0	2778.5	2778.5	2779.9	2781.4	2781.4	2782.9	2782.9	2782.9
17.5°	2765.2	2766.7	2766.7	2766.7	2768.2	2769.6	2772.6	2772.6	2774.0	2774.0	2774.0
20°	2746.2	2746.2	2747.6	2749.1	2750.6	2752.0	2755.0	2756.4	2756.4	2756.4	2757.9
22.5°	2722.7	2722.7	2724.1	2725.6	2728.5	2730.0	2733.0	2734.4	2734.4	2734.4	2734.4
25°	2693.3	2694.8	2696.3	2697.7	2700.7	2703.6	2706.5	2709.5	2709.5	2708.0	2709.5
27.5°	2664.0	2665.4	2666.9	2669.8	2672.8	2675.7	2678.6	2681.6	2681.6	2681.6	2683.0
30°	2634.6	2636.1	2639.0	2642.0	2646.4	2649.3	2653.7	2658.1	2659.6	2659.6	2658.1
32.5°	2608.2	2609.7	2614.1	2618.5	2624.3	2630.2	2636.1	2640.5	2644.9	2644.9	2642.0
35°	2589.1	2590.6	2596.5	2603.8	2612.6	2619.9	2627.3	2633.1	2639.0	2639.0	2637.5
37.5°	2577.4	2578.8	2586.2	2595.0	2608.2	2618.5	2628.7	2636.1	2642.0	2643.4	2642.0
40°	2567.1	2568.6	2577.4	2589.1	2603.8	2618.5	2631.7	2642.0	2647.8	2650.8	2650.8
42.5°	2552.4	2555.4	2564.2	2580.3	2597.9	2615.5	2631.7	2646.4	2653.7	2656.6	2655.2
45°	2539.2	2542.1	2553.9	2573.0	2593.5	2615.5	2636.1	2653.7	2664.0	2668.4	2665.4
47.5°	2528.9	2533.3	2548.0	2570.0	2595.0	2622.9	2647.8	2668.4	2681.6	2687.5	2683.0
50°	2520.1	2526.0	2542.1	2568.6	2600.9	2636.1	2665.4	2688.9	2705.1	2710.9	2706.5
52.5°	2504.0	2514.3	2533.3	2565.6	2605.3	2644.9	2680.1	2708.0	2727.1	2733.0	2727.1
55°	2477.6	2487.8	2509.9	2546.5	2595.0	2639.0	2681.6	2712.4	2730.0	2737.4	2728.5
57.5°	2417.4	2427.7	2449.7	2492.2	2540.7	2590.6	2634.6	2668.4	2690.4	2694.8	2677.2
60°	2280.9	2288.2	2322.0	2364.5	2411.5	2459.9	2505.4	2543.6	2562.7	2564.2	2539.2
62.5°	2054.9	2066.6	2100.4	2145.9	2189.9	2229.5	2272.1	2311.7	2326.4	2332.3	2313.2
65°	1793.6	1809.7	1834.7	1875.8	1919.8	1952.1	1999.1	2032.8	2047.5	2053.4	2046.0
67.5°	1533.8	1548.5	1561.7	1601.3	1640.9	1671.8	1717.3	1748.1	1759.8	1768.6	1764.2
70°	1274.0	1287.2	1299.0	1331.2	1362.1	1401.7	1428.1	1457.5	1464.8	1481.0	1473.6
72.5°	1021.6	1031.8	1043.6	1074.4	1093.5	1136.0	1147.8	1172.7	1185.9	1190.3	1183.0
75°	788.2	795.5	808.7	833.7	848.4	880.7	885.1	907.1	915.9	915.9	912.9
77.5°	584.2	590.0	604.7	619.4	634.1	656.1	651.7	666.4	672.2	675.2	672.2
80°	412.4	419.8	422.7	434.5	447.7	456.5	453.5	460.9	462.3	468.2	466.7
82.5°	264.2	271.5	267.1	274.5	283.3	289.1	290.6	290.6	290.6	295.0	293.6
85°	146.8	152.6	149.7	152.6	157.0	161.5	158.5	160.0	161.5	162.9	161.5
87.5°	48.4	54.3	49.9	51.4	54.3	57.2	58.7	54.3	57.2	57.2	57.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P130713

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7	2810.7
2.5°	2807.8	2807.8	2807.8	2807.8	2807.8	2807.8	2807.8	2807.8
5°	2807.8	2807.8	2807.8	2807.8	2806.3	2806.3	2806.3	2806.3
7.5°	2803.4	2803.4	2803.4	2803.4	2801.9	2801.9	2801.9	2801.9
10°	2796.1	2796.1	2796.1	2794.6	2794.6	2794.6	2794.6	2794.6
12.5°	2788.7	2787.3	2787.3	2787.3	2787.3	2785.8	2785.8	2785.8
15°	2782.9	2781.4	2781.4	2779.9	2778.5	2778.5	2777.0	2777.0
17.5°	2772.6	2772.6	2771.1	2769.6	2768.2	2766.7	2766.7	2765.2
20°	2756.4	2755.0	2752.0	2750.6	2750.6	2749.1	2747.6	2746.2
22.5°	2733.0	2731.5	2730.0	2727.1	2725.6	2724.1	2722.7	2721.2
25°	2706.5	2705.1	2703.6	2700.7	2699.2	2696.3	2694.8	2691.9
27.5°	2680.1	2680.1	2675.7	2672.8	2669.8	2666.9	2665.4	2662.5
30°	2656.6	2655.2	2652.2	2646.4	2643.4	2639.0	2636.1	2634.6
32.5°	2639.0	2637.5	2631.7	2624.3	2618.5	2612.6	2611.1	2608.2
35°	2634.6	2628.7	2619.9	2611.1	2603.8	2596.5	2592.0	2590.6
37.5°	2639.0	2628.7	2618.5	2606.7	2596.5	2586.2	2580.3	2577.4
40°	2643.4	2633.1	2621.4	2605.3	2590.6	2578.8	2571.5	2567.1
42.5°	2646.4	2634.6	2619.9	2600.9	2583.2	2568.6	2559.8	2555.4
45°	2653.7	2640.5	2621.4	2597.9	2575.9	2559.8	2549.5	2543.6
47.5°	2669.8	2650.8	2627.3	2599.4	2573.0	2551.0	2539.2	2533.3
50°	2690.4	2666.9	2637.5	2603.8	2571.5	2543.6	2528.9	2521.6
52.5°	2709.5	2681.6	2646.4	2606.7	2565.6	2533.3	2511.3	2504.0
55°	2709.5	2675.7	2631.7	2586.2	2539.2	2501.0	2471.7	2461.4
57.5°	2652.2	2615.5	2561.2	2511.3	2459.9	2414.4	2383.6	2373.4
60°	2505.4	2473.2	2410.0	2361.6	2304.4	2254.5	2231.0	2222.2
62.5°	2280.9	2257.4	2200.2	2157.6	2095.9	2056.3	2028.4	2029.9
65°	2019.6	1999.1	1952.1	1913.9	1858.2	1827.3	1799.5	1778.9
67.5°	1745.2	1721.7	1683.5	1649.8	1604.3	1582.2	1551.4	1532.3
70°	1457.5	1439.9	1404.6	1381.2	1343.0	1323.9	1294.6	1294.6
72.5°	1169.8	1161.0	1136.0	1115.5	1086.1	1068.5	1045.0	1049.4
75°	902.7	907.1	882.1	867.4	844.0	829.3	811.7	819.0
77.5°	676.6	670.8	653.1	644.3	623.8	617.9	600.3	606.2
80°	468.2	466.7	452.1	446.2	434.5	431.5	416.8	421.2
82.5°	295.0	295.0	289.1	283.3	278.9	275.9	265.7	268.6
85°	162.9	161.5	160.0	155.6	152.6	154.1	146.8	149.7
87.5°	57.2	55.8	55.8	52.8	49.9	54.3	48.4	49.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)