

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: P130722

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P130722  
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-DOS  
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.  
WIDE 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: 10780.9 lumens  
Efficiency: N/A  
Efficacy: 99.8 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

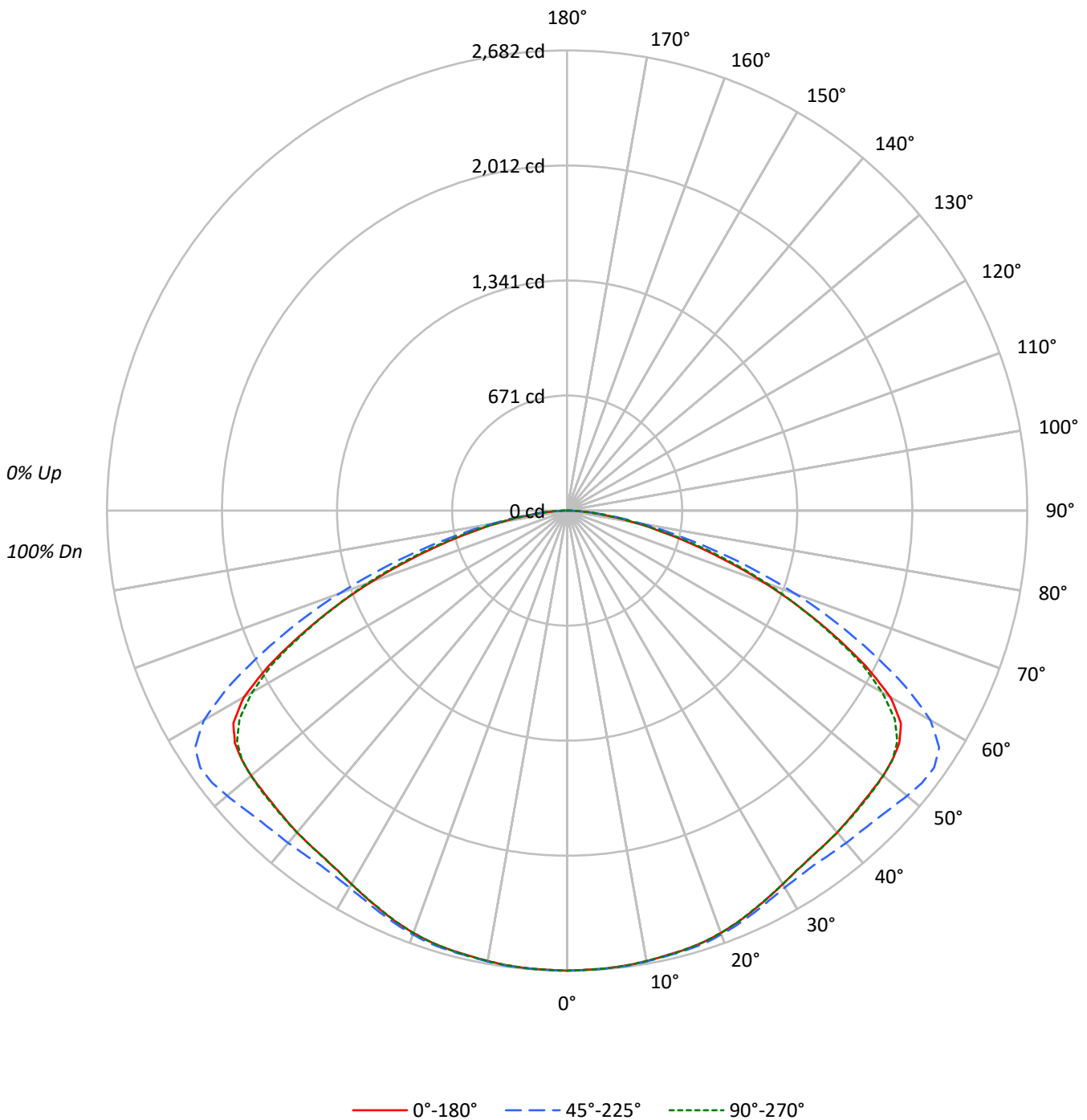
Input Watts (W): 108  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	29037	29037	29037
5°	29102	29118	29102
10°	29316	29346	29316
15°	29700	29763	29700
20°	30191	30304	30191
25°	30701	30868	30684
30°	31428	31726	31428
35°	32653	33282	32672
40°	34620	35748	34620
45°	37098	38985	37163
50°	40504	43570	40527
55°	44625	49303	44334
60°	47126	52980	45914
65°	43843	50195	43485
70°	38481	44734	39101
75°	31463	36559	32693
80°	24539	27856	25062
85°	17394	19308	17742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	255.3	2.4
10°-20°	750.6	7.0
20°-30°	1191.4	11.1
30°-40°	1570.3	14.6
40°-50°	1927.9	17.9
50°-60°	2200.6	20.4
60°-70°	1810.4	16.8
70°-80°	888.4	8.2
80°-90°	186.0	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°	2197.4	20.4
0°-40°	3767.7	34.9
0°-60°	7896.2	73.2
0°-90°	10780.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10780.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2677	2679	2679	2679	2677	255
15°	2649	2651	2655	2653	2649	750
25°	2570	2578	2584	2578	2568	1188
35°	2470	2496	2518	2495	2472	1554
45°	2422	2485	2546	2490	2427	1877
55°	2364	2497	2612	2489	2348	2095
65°	1711	1847	1959	1844	1697	1689
75°	752	825	874	835	781	814
85°	140	152	155	150	143	173
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°	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5
2.5°	2678.7	2678.7	2678.7	2678.7	2680.1	2680.1	2680.1	2680.1	2680.1	2680.1	2678.7
5°	2677.3	2677.3	2677.3	2677.3	2678.7	2678.7	2678.7	2678.7	2678.7	2678.7	2678.7
7.5°	2673.1	2673.1	2674.5	2674.5	2674.5	2674.5	2674.5	2675.9	2675.9	2675.9	2675.9
10°	2666.1	2666.1	2666.1	2666.1	2667.5	2667.5	2668.9	2668.9	2668.9	2668.9	2668.9
12.5°	2656.3	2656.3	2657.7	2657.7	2657.7	2659.1	2660.5	2660.5	2660.5	2660.5	2660.5
15°	2649.3	2649.3	2649.3	2650.7	2650.7	2652.1	2653.5	2653.5	2654.9	2654.9	2654.9
17.5°	2638.1	2639.5	2639.5	2639.5	2640.9	2642.3	2645.1	2645.1	2646.5	2646.5	2646.5
20°	2619.9	2619.9	2621.3	2622.7	2624.1	2625.5	2628.3	2629.7	2629.7	2629.7	2631.1
22.5°	2597.5	2597.5	2598.9	2600.3	2603.1	2604.5	2607.3	2608.7	2608.7	2608.7	2608.7
25°	2569.5	2570.9	2572.3	2573.7	2576.5	2579.3	2582.1	2584.9	2584.9	2583.5	2584.9
27.5°	2541.5	2542.9	2544.3	2547.1	2549.9	2552.7	2555.5	2558.3	2558.3	2558.3	2559.7
30°	2513.5	2514.9	2517.7	2520.5	2524.7	2527.5	2531.7	2535.9	2537.3	2537.3	2535.9
32.5°	2488.3	2489.7	2493.9	2498.1	2503.7	2509.3	2514.9	2519.1	2523.3	2523.3	2520.5
35°	2470.1	2471.5	2477.1	2484.1	2492.5	2499.5	2506.5	2512.1	2517.7	2517.7	2516.3
37.5°	2458.9	2460.3	2467.3	2475.7	2488.3	2498.1	2507.9	2514.9	2520.5	2521.9	2520.5
40°	2449.1	2450.5	2458.9	2470.1	2484.1	2498.1	2510.7	2514.9	2520.5	2526.1	2528.9
42.5°	2435.1	2437.9	2446.3	2461.7	2478.5	2495.3	2510.7	2524.7	2531.7	2534.5	2533.1
45°	2422.5	2425.3	2436.5	2454.7	2474.3	2495.3	2514.9	2531.7	2541.5	2545.7	2542.9
47.5°	2412.7	2416.9	2430.9	2451.9	2475.7	2502.3	2526.1	2545.7	2558.3	2563.9	2559.7
50°	2404.3	2409.9	2425.3	2450.5	2481.3	2514.9	2542.9	2565.3	2580.7	2586.3	2582.1
52.5°	2388.9	2398.7	2416.9	2447.7	2485.5	2523.3	2556.9	2583.5	2601.7	2607.3	2601.7
55°	2363.7	2373.5	2394.5	2429.5	2475.7	2517.7	2558.3	2587.7	2604.5	2611.5	2603.1
57.5°	2306.3	2316.1	2337.1	2377.7	2423.9	2471.5	2513.5	2545.7	2566.7	2570.9	2554.1
60°	2176.0	2183.0	2215.2	2255.9	2300.7	2346.9	2390.3	2426.7	2444.9	2446.3	2422.5
62.5°	1960.4	1971.6	2003.8	2047.2	2089.2	2127.0	2167.6	2205.4	2219.4	2225.0	2206.8
65°	1711.1	1726.5	1750.4	1789.6	1831.6	1862.4	1907.2	1939.4	1953.4	1959.0	1952.0
67.5°	1463.3	1477.3	1489.9	1527.7	1565.5	1594.9	1638.3	1667.7	1678.9	1687.3	1683.1
70°	1215.4	1228.0	1239.2	1270.1	1299.5	1337.3	1362.5	1390.5	1397.5	1412.9	1405.9
72.5°	974.6	984.4	995.6	1025.0	1043.2	1083.8	1095.0	1118.8	1131.4	1135.6	1128.6
75°	752.0	759.0	771.6	795.4	809.4	840.2	844.4	865.4	873.8	873.8	871.0
77.5°	557.3	562.9	576.9	590.9	604.9	625.9	621.7	635.7	641.3	644.1	641.3
80°	393.5	400.5	403.3	414.5	427.1	435.5	432.7	439.7	441.1	446.7	445.3
82.5°	252.1	259.1	254.9	261.9	270.3	275.9	277.3	277.3	277.3	281.5	280.1
85°	140.0	145.6	142.8	145.6	149.8	154.0	151.2	152.6	154.0	155.4	154.0
87.5°	46.2	51.8	47.6	49.0	51.8	54.6	56.0	51.8	54.6	54.6	54.6
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°	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5	2681.5
2.5°	2678.7	2678.7	2678.7	2678.7	2678.7	2678.7	2678.7	2678.7
5°	2678.7	2678.7	2678.7	2678.7	2677.3	2677.3	2677.3	2677.3
7.5°	2674.5	2674.5	2674.5	2674.5	2673.1	2673.1	2673.1	2673.1
10°	2667.5	2667.5	2667.5	2666.1	2666.1	2666.1	2666.1	2666.1
12.5°	2660.5	2659.1	2659.1	2659.1	2659.1	2657.7	2657.7	2657.7
15°	2654.9	2653.5	2653.5	2652.1	2650.7	2650.7	2649.3	2649.3
17.5°	2645.1	2645.1	2643.7	2642.3	2640.9	2639.5	2639.5	2638.1
20°	2629.7	2628.3	2625.5	2624.1	2624.1	2622.7	2621.3	2619.9
22.5°	2607.3	2605.9	2604.5	2601.7	2600.3	2598.9	2597.5	2596.1
25°	2582.1	2580.7	2579.3	2576.5	2575.1	2572.3	2570.9	2568.1
27.5°	2556.9	2556.9	2552.7	2549.9	2547.1	2544.3	2542.9	2540.1
30°	2534.5	2533.1	2530.3	2524.7	2521.9	2517.7	2514.9	2513.5
32.5°	2517.7	2516.3	2510.7	2503.7	2498.1	2492.5	2491.1	2488.3
35°	2513.5	2507.9	2499.5	2491.1	2484.1	2477.1	2472.9	2471.5
37.5°	2517.7	2507.9	2498.1	2486.9	2477.1	2467.3	2461.7	2458.9
40°	2521.9	2512.1	2500.9	2485.5	2471.5	2460.3	2453.3	2449.1
42.5°	2524.7	2513.5	2499.5	2481.3	2464.5	2450.5	2442.1	2437.9
45°	2531.7	2519.1	2500.9	2478.5	2457.5	2442.1	2432.3	2426.7
47.5°	2547.1	2528.9	2506.5	2479.9	2454.7	2433.7	2422.5	2416.9
50°	2566.7	2544.3	2516.3	2484.1	2453.3	2426.7	2412.7	2405.7
52.5°	2584.9	2558.3	2524.7	2486.9	2447.7	2416.9	2395.9	2388.9
55°	2584.9	2552.7	2510.7	2467.3	2422.5	2386.1	2358.1	2348.3
57.5°	2530.3	2495.3	2443.5	2395.9	2346.9	2303.5	2274.1	2264.3
60°	2390.3	2359.5	2299.3	2253.1	2198.4	2150.8	2128.4	2120.0
62.5°	2176.0	2153.6	2099.0	2058.4	1999.6	1961.8	1935.2	1936.6
65°	1926.8	1907.2	1862.4	1826.0	1772.8	1743.3	1716.7	1697.1
67.5°	1664.9	1642.5	1606.1	1573.9	1530.5	1509.5	1480.1	1461.9
70°	1390.5	1373.7	1340.1	1317.7	1281.3	1263.1	1235.0	1235.0
72.5°	1116.0	1107.6	1083.8	1064.2	1036.2	1019.4	997.0	1001.2
75°	861.2	865.4	841.6	827.6	805.2	791.2	774.4	781.4
77.5°	645.5	639.9	623.1	614.7	595.1	589.5	572.7	578.3
80°	446.7	445.3	431.3	425.7	414.5	411.7	397.7	401.9
82.5°	281.5	281.5	275.9	270.3	266.1	263.3	253.5	256.3
85°	155.4	154.0	152.6	148.4	145.6	147.0	140.0	142.8
87.5°	54.6	53.2	53.2	50.4	47.6	51.8	46.2	47.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)