

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: P130677

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P130677  
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  
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.  
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS.  
Light Source: (160) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12072.4 lumens  
Efficiency: N/A  
Efficacy: 111.8 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

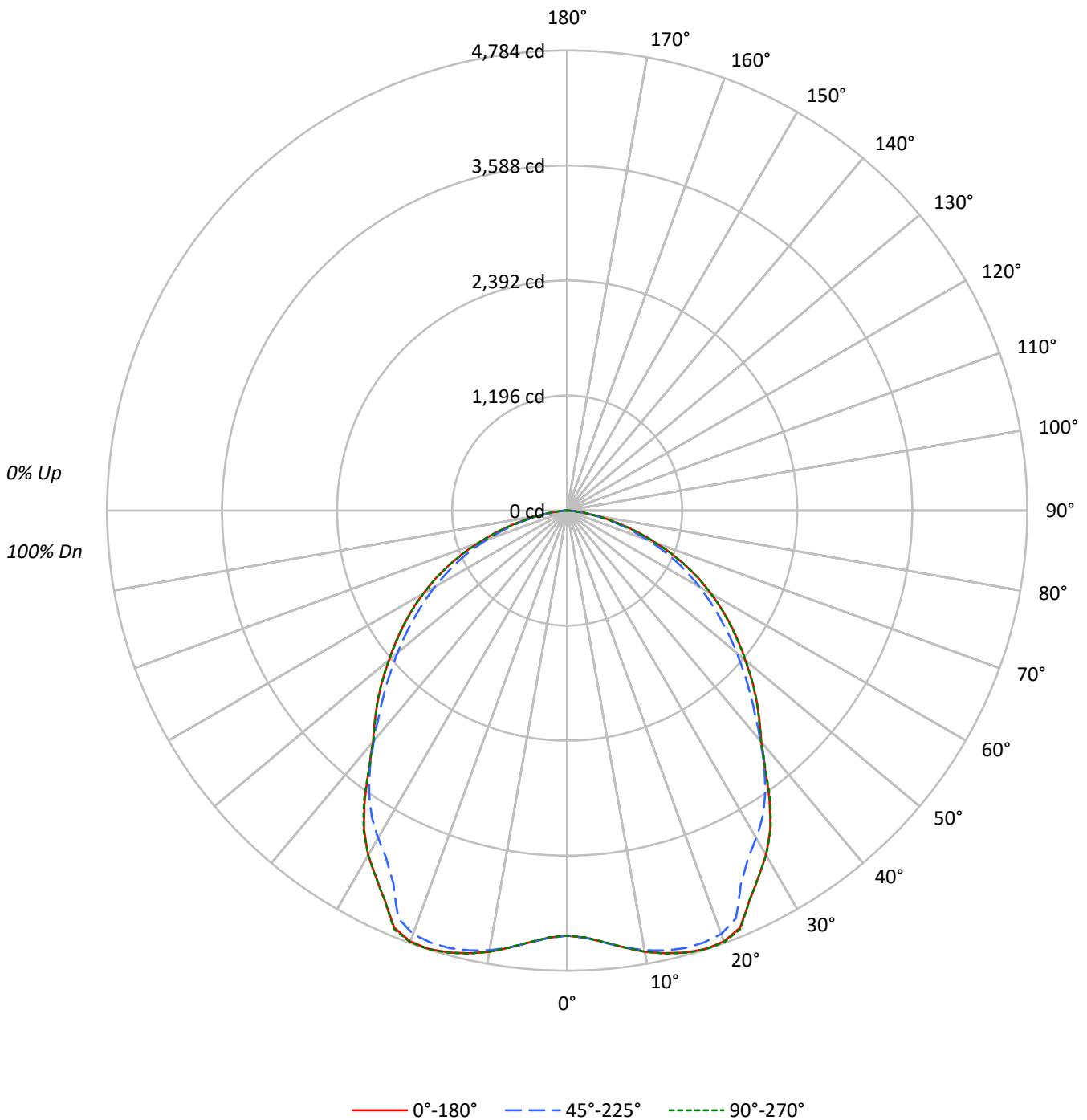
Input Watts (W): 108  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				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°	47842	47842	47842
5°	48983	49014	48951
10°	51211	51018	51195
15°	53315	52789	53364
20°	54922	53974	55007
25°	53525	51070	53491
30°	51702	49150	51720
35°	48490	47442	48645
40°	44382	44174	44320
45°	42619	41202	42619
50°	40701	38772	40752
55°	39156	36524	39046
60°	37448	34459	37448
65°	34978	31967	34978
70°	31044	28349	31044
75°	25731	23275	25363
80°	18583	17024	18215
85°	11120	10213	10760



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	434.9	3.6
10°-20°	1339.4	11.1
20°-30°	2022.8	16.8
30°-40°	2208.4	18.3
40°-50°	2155.3	17.9
50°-60°	1851.5	15.3
60°-70°	1308.8	10.8
70°-80°	633.2	5.2
80°-90°	118.1	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°	3797.1	31.5
0°-40°	6005.5	49.7
0°-60°	10012.3	82.9
0°-90°	12072.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12072.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4418	4418	4418	4418	4418	
5°	4506	4508	4509	4507	4503	435
15°	4756	4747	4709	4748	4760	1345
25°	4480	4492	4274	4494	4477	2065
35°	3668	3478	3589	3470	3680	2282
45°	2783	2837	2690	2828	2783	2145
55°	2074	2098	1935	2093	2068	1855
65°	1365	1322	1248	1321	1365	1347
75°	615	585	556	583	606	658
85°	90	85	82	83	87	122
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°	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1
2.5°	4444.6	4443.1	4441.6	4443.1	4446.0	4446.0	4446.0	4444.6	4444.6	4446.0	4444.6
5°	4506.2	4503.3	4504.7	4503.3	4509.1	4507.7	4507.7	4509.1	4509.1	4509.1	4507.7
7.5°	4582.5	4579.6	4579.6	4579.6	4581.1	4581.1	4581.1	4581.1	4579.6	4579.6	4579.6
10°	4657.4	4653.0	4654.5	4653.0	4654.5	4651.5	4648.6	4645.7	4642.7	4639.8	4641.3
12.5°	4713.2	4711.7	4714.6	4714.6	4711.7	4707.3	4700.0	4692.6	4686.8	4683.8	4686.8
15°	4755.7	4758.7	4760.1	4758.7	4752.8	4741.1	4732.3	4720.5	4713.2	4708.8	4713.2
17.5°	4779.2	4779.2	4776.3	4767.5	4757.2	4746.9	4733.7	4722.0	4714.6	4710.2	4716.1
20°	4766.0	4764.5	4754.3	4741.1	4724.9	4711.7	4700.0	4689.7	4685.3	4683.8	4686.8
22.5°	4694.1	4697.0	4691.2	4682.4	4670.6	4651.5	4629.5	4609.0	4592.8	4586.9	4592.8
25°	4479.8	4478.3	4488.6	4506.2	4518.0	4466.6	4397.6	4331.5	4286.0	4274.3	4286.0
27.5°	4300.7	4299.2	4275.8	4224.4	4164.2	4117.2	4104.0	4096.7	4080.5	4073.2	4083.5
30°	4134.9	4120.2	4036.5	3929.4	3853.0	3833.9	3863.3	3902.9	3925.0	3930.8	3920.6
32.5°	3930.8	3891.2	3778.2	3684.2	3650.5	3635.8	3646.1	3697.4	3750.3	3779.6	3747.3
35°	3668.1	3634.3	3544.8	3493.4	3486.1	3469.9	3456.7	3487.5	3552.1	3588.8	3544.8
37.5°	3377.5	3393.6	3355.4	3329.0	3329.0	3312.9	3286.5	3296.7	3333.4	3368.7	3330.5
40°	3139.7	3169.0	3177.8	3170.5	3167.6	3147.0	3122.1	3116.2	3117.7	3125.0	3113.2
42.5°	2957.7	2962.1	3001.7	3014.9	3003.2	2981.1	2966.5	2957.7	2915.1	2896.0	2921.0
45°	2783.0	2785.9	2818.2	2856.4	2849.0	2825.6	2813.8	2785.9	2711.1	2690.5	2716.9
47.5°	2601.0	2617.1	2640.6	2680.2	2687.6	2664.1	2648.0	2599.5	2510.0	2492.4	2511.4
50°	2416.0	2446.9	2474.7	2493.8	2504.1	2483.6	2465.9	2408.7	2322.1	2301.5	2320.6
52.5°	2247.2	2275.1	2311.8	2305.9	2301.5	2297.1	2285.4	2226.7	2144.5	2116.6	2143.0
55°	2074.0	2101.9	2138.6	2113.7	2094.6	2101.9	2088.7	2040.3	1969.8	1934.6	1969.8
57.5°	1902.3	1924.3	1953.7	1922.8	1895.0	1903.8	1895.0	1861.2	1795.1	1761.4	1795.1
60°	1729.1	1742.3	1762.9	1730.6	1701.2	1707.1	1704.1	1668.9	1617.5	1591.1	1617.5
62.5°	1551.5	1558.8	1569.1	1538.3	1513.3	1511.9	1513.3	1478.1	1438.5	1420.9	1439.9
65°	1365.1	1368.0	1373.9	1343.1	1325.4	1318.1	1321.0	1288.7	1259.4	1247.6	1260.9
67.5°	1174.3	1177.2	1178.7	1149.3	1137.6	1127.3	1128.8	1105.3	1078.8	1071.5	1081.8
70°	980.5	984.9	984.9	958.5	951.1	937.9	937.9	923.3	901.2	895.4	902.7
72.5°	798.5	795.6	795.6	773.5	767.7	754.5	753.0	748.6	728.0	722.2	729.5
75°	615.0	612.1	613.5	595.9	590.1	579.8	578.3	578.3	562.2	556.3	563.6
77.5°	444.7	447.7	446.2	433.0	427.1	422.7	427.1	427.1	412.5	406.6	413.9
80°	298.0	300.9	300.9	290.6	286.2	283.3	289.2	286.2	278.9	273.0	278.9
82.5°	180.5	180.5	180.5	177.6	171.7	171.7	176.1	176.1	168.8	164.4	168.8
85°	89.5	89.5	88.1	88.1	85.1	85.1	88.1	88.1	83.7	82.2	83.7
87.5°	30.8	29.4	29.4	29.4	27.9	29.4	29.4	29.4	27.9	27.9	27.9
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°	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1	4418.1
2.5°	4446.0	4446.0	4444.6	4444.6	4444.6	4443.1	4441.6	4440.2
5°	4510.6	4509.1	4506.2	4507.7	4506.2	4506.2	4504.7	4503.3
7.5°	4582.5	4584.0	4581.1	4584.0	4584.0	4584.0	4582.5	4581.1
10°	4645.7	4650.1	4651.5	4655.9	4657.4	4658.9	4657.4	4655.9
12.5°	4694.1	4701.4	4707.3	4714.6	4719.0	4720.5	4717.6	4716.1
15°	4722.0	4732.3	4742.5	4754.3	4761.6	4764.5	4763.1	4760.1
17.5°	4723.4	4735.2	4748.4	4758.7	4769.0	4776.3	4782.2	4783.6
20°	4691.2	4701.4	4713.2	4726.4	4742.5	4755.7	4769.0	4773.4
22.5°	4604.6	4629.5	4654.5	4667.7	4680.9	4689.7	4697.0	4707.3
25°	4321.3	4396.1	4476.9	4510.6	4504.7	4476.9	4472.5	4476.9
27.5°	4099.6	4108.4	4118.7	4158.3	4214.1	4265.5	4294.8	4300.7
30°	3901.5	3858.9	3826.6	3845.7	3919.1	4020.4	4111.4	4136.3
32.5°	3696.0	3640.2	3627.0	3640.2	3672.5	3756.2	3880.9	3938.2
35°	3477.3	3453.8	3464.1	3475.8	3483.1	3528.6	3621.1	3679.8
37.5°	3285.0	3282.0	3302.6	3317.3	3317.3	3334.9	3381.9	3383.3
40°	3104.4	3119.1	3135.3	3155.8	3160.2	3167.6	3155.8	3135.3
42.5°	2945.9	2962.1	2972.3	2992.9	3004.6	2988.5	2950.3	2953.3
45°	2780.1	2810.9	2816.7	2838.8	2847.6	2805.0	2775.7	2783.0
47.5°	2593.6	2645.0	2656.8	2680.2	2672.9	2631.8	2611.3	2602.4
50°	2401.4	2468.9	2479.2	2495.3	2486.5	2465.9	2439.5	2419.0
52.5°	2228.2	2282.5	2289.8	2295.7	2303.0	2307.4	2273.7	2241.4
55°	2043.2	2085.8	2096.0	2090.2	2110.7	2134.2	2100.5	2068.2
57.5°	1864.1	1893.5	1900.8	1890.6	1919.9	1950.7	1925.8	1900.8
60°	1673.3	1702.7	1704.1	1699.7	1729.1	1755.5	1745.2	1729.1
62.5°	1485.4	1511.9	1507.5	1511.9	1535.3	1569.1	1561.8	1551.5
65°	1294.6	1319.6	1316.6	1325.4	1343.1	1373.9	1373.9	1365.1
67.5°	1112.6	1127.3	1125.8	1137.6	1150.8	1180.1	1183.1	1174.3
70°	930.6	937.9	936.5	949.7	960.0	990.8	990.8	980.5
72.5°	754.5	758.9	753.0	770.6	775.0	801.4	801.4	789.7
75°	585.7	584.2	578.3	588.6	601.8	620.9	616.5	606.2
77.5°	428.6	424.2	418.3	430.1	437.4	452.1	447.7	437.4
80°	290.6	286.2	278.9	289.2	295.0	303.8	299.4	292.1
82.5°	177.6	173.2	167.3	174.7	177.6	183.5	180.5	174.7
85°	88.1	85.1	82.2	83.7	88.1	89.5	88.1	86.6
87.5°	29.4	27.9	26.4	27.9	27.9	29.4	29.4	27.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)