

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: P130739

Luminaire Tested: **TBLED-LD1-11-W-UNV-L840-CD1-CMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P130739  
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-L840-CD1-CMS  
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.  
WIDE DISTRIBUTION WITH MINI SENSOR.  
Light Source: (160) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9739.7 lumens  
Efficiency: N/A  
Efficacy: 90.2 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

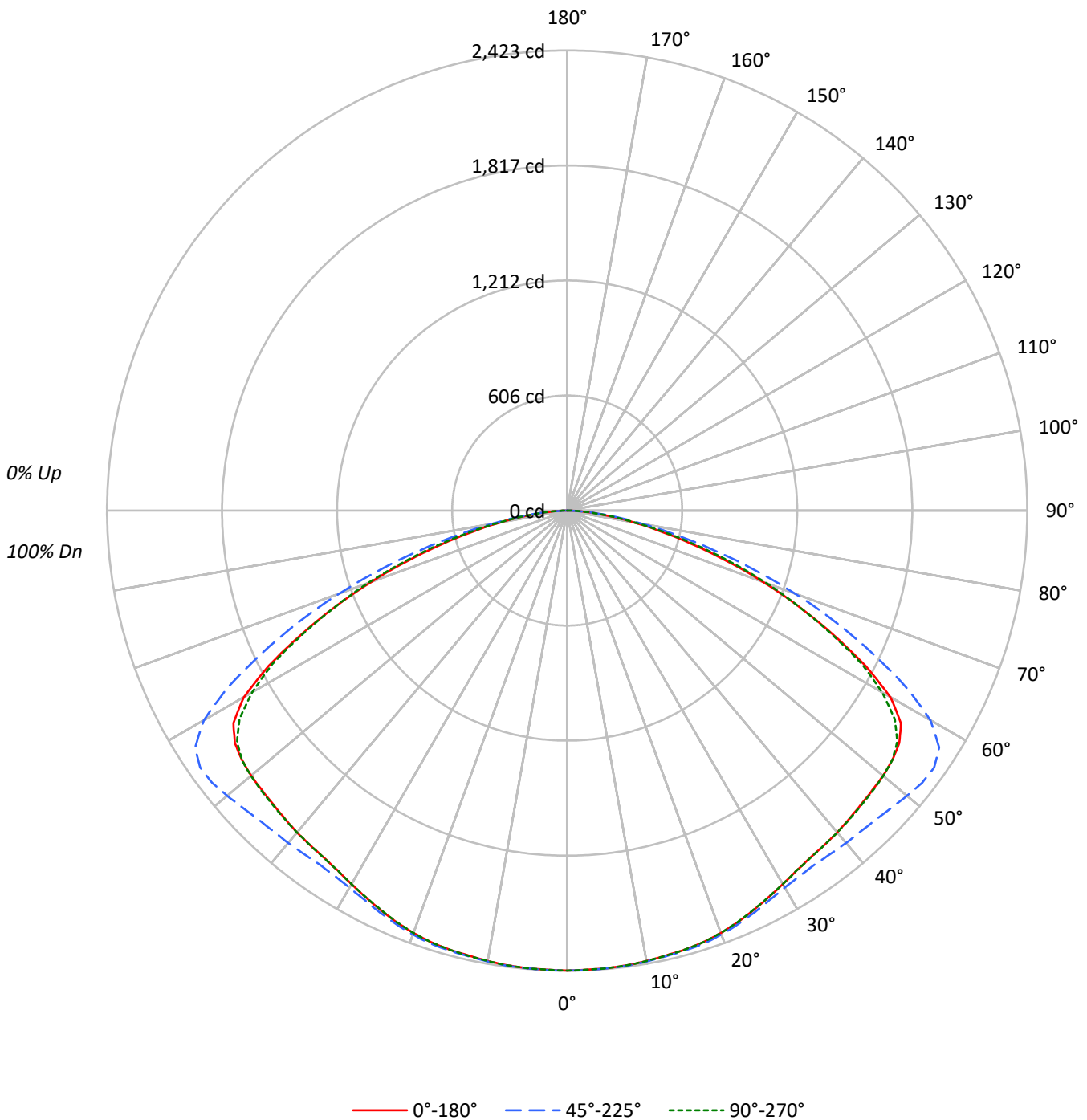
Input Watts (W): 108  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	26234	26234	26234
5°	26292	26305	26292
10°	26484	26513	26484
15°	26833	26889	26833
20°	27275	27378	27275
25°	27736	27887	27721
30°	28394	28663	28394
35°	29499	30069	29516
40°	31277	32296	31277
45°	33515	35221	33573
50°	36592	39362	36612
55°	40315	44542	40052
60°	42576	47863	41480
65°	39610	45347	39285
70°	34767	40412	35327
75°	28421	33028	29534
80°	22169	25162	22643
85°	15717	17444	16028



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.7	2.4
10°-20°	678.1	7.0
20°-30°	1076.4	11.1
30°-40°	1418.7	14.6
40°-50°	1741.7	17.9
50°-60°	1988.1	20.4
60°-70°	1635.6	16.8
70°-80°	802.6	8.2
80°-90°	168.0	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°	1985.2	20.4
0°-40°	3403.8	34.9
0°-60°	7133.6	73.2
0°-90°	9739.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9739.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2423	2423	2423	2423	2423	
5°	2419	2420	2420	2420	2419	231
15°	2394	2395	2398	2397	2394	677
25°	2321	2329	2334	2329	2320	1073
35°	2232	2255	2275	2254	2233	1404
45°	2188	2245	2300	2249	2192	1696
55°	2135	2256	2359	2249	2122	1893
65°	1546	1669	1770	1666	1533	1526
75°	679	745	789	754	706	735
85°	126	137	140	136	129	156
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°	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6
2.5°	2420.0	2420.0	2420.0	2420.0	2421.3	2421.3	2421.3	2421.3	2421.3	2421.3	2420.0
5°	2418.8	2418.8	2418.8	2418.8	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0
7.5°	2415.0	2415.0	2416.2	2416.2	2416.2	2416.2	2416.2	2417.5	2417.5	2417.5	2417.5
10°	2408.6	2408.6	2408.6	2408.6	2409.9	2409.9	2411.2	2411.2	2411.2	2411.2	2411.2
12.5°	2399.8	2399.8	2401.1	2401.1	2401.1	2402.3	2403.6	2403.6	2403.6	2403.6	2403.6
15°	2393.5	2393.5	2393.5	2394.7	2394.7	2396.0	2397.3	2397.3	2398.5	2398.5	2398.5
17.5°	2383.3	2384.6	2384.6	2384.6	2385.9	2387.1	2389.7	2389.7	2390.9	2390.9	2390.9
20°	2366.9	2366.9	2368.2	2369.4	2370.7	2372.0	2374.5	2375.8	2375.8	2375.8	2377.0
22.5°	2346.7	2346.7	2347.9	2349.2	2351.7	2353.0	2355.5	2356.8	2356.8	2356.8	2356.8
25°	2321.4	2322.6	2323.9	2325.2	2327.7	2330.2	2332.7	2335.3	2335.3	2334.0	2335.3
27.5°	2296.1	2297.3	2298.6	2301.1	2303.6	2306.2	2308.7	2311.2	2311.2	2311.2	2312.5
30°	2270.8	2272.0	2274.6	2277.1	2280.9	2283.4	2287.2	2291.0	2292.3	2292.3	2291.0
32.5°	2248.0	2249.2	2253.0	2256.8	2261.9	2267.0	2272.0	2275.8	2279.6	2279.6	2277.1
35°	2231.5	2232.8	2237.9	2244.2	2251.8	2258.1	2264.4	2269.5	2274.6	2274.6	2273.3
37.5°	2221.4	2222.7	2229.0	2236.6	2248.0	2256.8	2265.7	2272.0	2277.1	2278.3	2277.1
40°	2212.6	2213.8	2221.4	2231.5	2244.2	2256.8	2268.2	2277.1	2282.1	2284.7	2284.7
42.5°	2199.9	2202.4	2210.0	2223.9	2239.1	2254.3	2268.2	2280.9	2287.2	2289.7	2288.5
45°	2188.5	2191.1	2201.2	2217.6	2235.3	2254.3	2272.0	2287.2	2296.1	2299.9	2297.3
47.5°	2179.7	2183.5	2196.1	2215.1	2236.6	2260.6	2282.1	2299.9	2311.2	2316.3	2312.5
50°	2172.1	2177.1	2191.1	2213.8	2241.7	2272.0	2297.3	2317.6	2331.5	2336.5	2332.7
52.5°	2158.2	2167.0	2183.5	2211.3	2245.5	2279.6	2310.0	2334.0	2350.5	2355.5	2350.5
55°	2135.4	2144.3	2163.2	2194.9	2236.6	2274.6	2311.2	2337.8	2353.0	2359.3	2351.7
57.5°	2083.5	2092.4	2111.4	2148.0	2189.8	2232.8	2270.8	2299.9	2318.8	2322.6	2307.4
60°	1965.9	1972.2	2001.3	2038.0	2078.5	2120.2	2159.4	2192.3	2208.8	2210.0	2188.5
62.5°	1771.1	1781.2	1810.3	1849.5	1887.4	1921.6	1958.3	1992.4	2005.1	2010.2	1993.7
65°	1545.9	1559.8	1581.3	1616.7	1654.7	1682.5	1723.0	1752.1	1764.7	1769.8	1763.5
67.5°	1322.0	1334.6	1346.0	1380.2	1414.3	1440.9	1480.1	1506.7	1516.8	1524.4	1520.6
70°	1098.1	1109.4	1119.6	1147.4	1174.0	1208.1	1230.9	1256.2	1262.5	1276.4	1270.1
72.5°	880.5	889.3	899.4	926.0	942.5	979.1	989.3	1010.8	1022.2	1026.0	1019.6
75°	679.3	685.7	697.0	718.5	731.2	759.0	762.8	781.8	789.4	789.4	786.9
77.5°	503.5	508.5	521.2	533.8	546.5	565.5	561.7	574.3	579.4	581.9	579.4
80°	355.5	361.8	364.3	374.5	385.8	393.4	390.9	397.2	398.5	403.5	402.3
82.5°	227.7	234.0	230.2	236.6	244.2	249.2	250.5	250.5	250.5	254.3	253.0
85°	126.5	131.6	129.0	131.6	135.4	139.2	136.6	137.9	139.2	140.4	139.2
87.5°	41.7	46.8	43.0	44.3	46.8	49.3	50.6	46.8	49.3	49.3	49.3
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°	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6	2422.6
2.5°	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0	2420.0
5°	2420.0	2420.0	2420.0	2420.0	2418.8	2418.8	2418.8	2418.8
7.5°	2416.2	2416.2	2416.2	2416.2	2415.0	2415.0	2415.0	2415.0
10°	2409.9	2409.9	2409.9	2408.6	2408.6	2408.6	2408.6	2408.6
12.5°	2403.6	2402.3	2402.3	2402.3	2402.3	2401.1	2401.1	2401.1
15°	2398.5	2397.3	2397.3	2396.0	2394.7	2394.7	2393.5	2393.5
17.5°	2389.7	2389.7	2388.4	2387.1	2385.9	2384.6	2384.6	2383.3
20°	2375.8	2374.5	2372.0	2370.7	2370.7	2369.4	2368.2	2366.9
22.5°	2355.5	2354.2	2353.0	2350.5	2349.2	2347.9	2346.7	2345.4
25°	2332.7	2331.5	2330.2	2327.7	2326.4	2323.9	2322.6	2320.1
27.5°	2310.0	2310.0	2306.2	2303.6	2301.1	2298.6	2297.3	2294.8
30°	2289.7	2288.5	2285.9	2280.9	2278.3	2274.6	2272.0	2270.8
32.5°	2274.6	2273.3	2268.2	2261.9	2256.8	2251.8	2250.5	2248.0
35°	2270.8	2265.7	2258.1	2250.5	2244.2	2237.9	2234.1	2232.8
37.5°	2274.6	2265.7	2256.8	2246.7	2237.9	2229.0	2223.9	2221.4
40°	2278.3	2269.5	2259.4	2245.5	2232.8	2222.7	2216.4	2212.6
42.5°	2280.9	2270.8	2258.1	2241.7	2226.5	2213.8	2206.2	2202.4
45°	2287.2	2275.8	2259.4	2239.1	2220.2	2206.2	2197.4	2192.3
47.5°	2301.1	2284.7	2264.4	2240.4	2217.6	2198.6	2188.5	2183.5
50°	2318.8	2298.6	2273.3	2244.2	2216.4	2192.3	2179.7	2173.3
52.5°	2335.3	2311.2	2280.9	2246.7	2211.3	2183.5	2164.5	2158.2
55°	2335.3	2306.2	2268.2	2229.0	2188.5	2155.6	2130.3	2121.5
57.5°	2285.9	2254.3	2207.5	2164.5	2120.2	2081.0	2054.4	2045.6
60°	2159.4	2131.6	2077.2	2035.5	1986.1	1943.1	1922.9	1915.3
62.5°	1965.9	1945.6	1896.3	1859.6	1806.5	1772.3	1748.3	1749.6
65°	1740.7	1723.0	1682.5	1649.6	1601.5	1575.0	1550.9	1533.2
67.5°	1504.1	1483.9	1451.0	1421.9	1382.7	1363.7	1337.2	1320.7
70°	1256.2	1241.0	1210.6	1190.4	1157.5	1141.1	1115.8	1115.8
72.5°	1008.2	1000.7	979.1	961.4	936.1	921.0	900.7	904.5
75°	778.0	781.8	760.3	747.6	727.4	714.8	699.6	705.9
77.5°	583.2	578.1	562.9	555.4	537.6	532.6	517.4	522.5
80°	403.5	402.3	389.6	384.6	374.5	371.9	359.3	363.1
82.5°	254.3	254.3	249.2	244.2	240.4	237.8	229.0	231.5
85°	140.4	139.2	137.9	134.1	131.6	132.8	126.5	129.0
87.5°	49.3	48.1	48.1	45.5	43.0	46.8	41.7	43.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)