

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: P130729

Luminaire Tested: **TBLED-LD1-11-W-UNV-L835-CD1-DIMRF-LW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130729
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-L835-CD1-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
WIDE DISTRIBUTION WITH LUMAWATT WIRELESS SENSOR.
Light Source: (160) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9203.4 lumens
Efficiency: N/A
Efficacy: 85.2 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

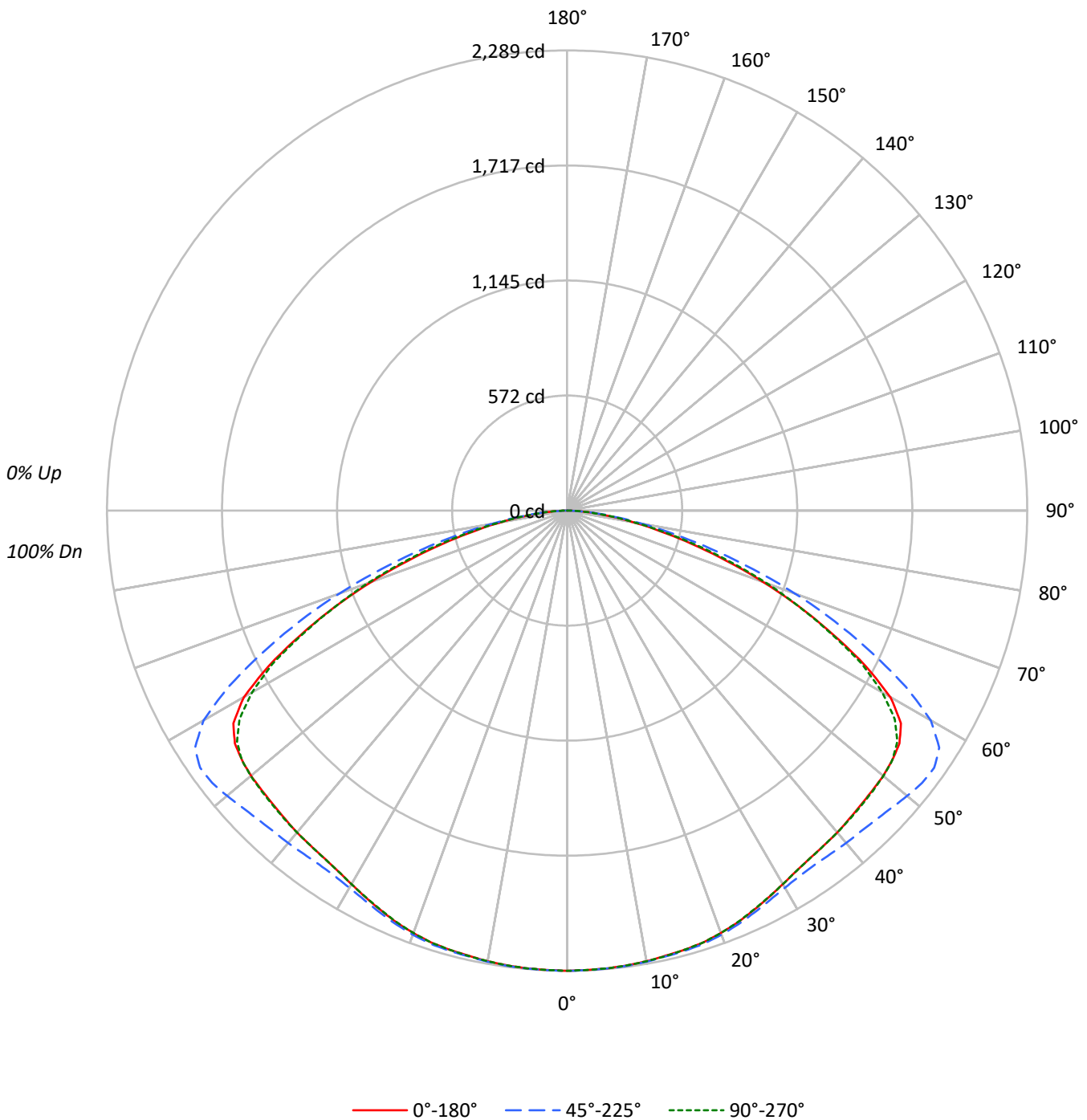
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	24789	24789	24789
5°	24845	24858	24845
10°	25026	25053	25026
15°	25355	25408	25355
20°	25774	25869	25774
25°	26208	26352	26194
30°	26830	27083	26830
35°	27876	28412	27890
40°	29554	30518	29554
45°	31669	33281	31725
50°	34577	37195	34598
55°	38094	42089	37847
60°	40231	45227	39195
65°	37430	42849	37122
70°	32851	38186	33380
75°	26856	31208	27906
80°	20947	23778	21396
85°	14847	16487	15145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.0	2.4
10°-20°	640.8	7.0
20°-30°	1017.1	11.1
30°-40°	1340.6	14.6
40°-50°	1645.8	17.9
50°-60°	1878.6	20.4
60°-70°	1545.5	16.8
70°-80°	758.4	8.2
80°-90°	158.7	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°	1875.8	20.4
0°-40°	3216.4	34.9
0°-60°	6740.8	73.2
0°-90°	9203.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9203.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2289	2289	2289	2289	2289	
5°	2286	2287	2287	2287	2286	218
15°	2262	2264	2266	2265	2262	640
25°	2194	2201	2206	2201	2192	1014
35°	2109	2131	2149	2130	2110	1326
45°	2068	2121	2173	2125	2072	1602
55°	2018	2131	2229	2125	2005	1789
65°	1461	1577	1672	1574	1449	1442
75°	642	704	746	712	667	695
85°	120	130	133	128	122	147
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°	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2
2.5°	2286.8	2286.8	2286.8	2286.8	2288.0	2288.0	2288.0	2288.0	2288.0	2288.0	2286.8
5°	2285.6	2285.6	2285.6	2285.6	2286.8	2286.8	2286.8	2286.8	2286.8	2286.8	2286.8
7.5°	2282.0	2282.0	2283.2	2283.2	2283.2	2283.2	2283.2	2284.4	2284.4	2284.4	2284.4
10°	2276.0	2276.0	2276.0	2276.0	2277.2	2277.2	2278.4	2278.4	2278.4	2278.4	2278.4
12.5°	2267.6	2267.6	2268.8	2268.8	2268.8	2270.0	2271.2	2271.2	2271.2	2271.2	2271.2
15°	2261.7	2261.7	2261.7	2262.9	2262.9	2264.1	2265.2	2265.2	2266.4	2266.4	2266.4
17.5°	2252.1	2253.3	2253.3	2253.3	2254.5	2255.7	2258.1	2258.1	2259.3	2259.3	2259.3
20°	2236.6	2236.6	2237.8	2239.0	2240.1	2241.3	2243.7	2244.9	2244.9	2244.9	2246.1
22.5°	2217.4	2217.4	2218.6	2219.8	2222.2	2223.4	2225.8	2227.0	2227.0	2227.0	2227.0
25°	2193.5	2194.7	2195.9	2197.1	2199.5	2201.9	2204.3	2206.7	2206.7	2205.5	2206.7
27.5°	2169.6	2170.8	2172.0	2174.4	2176.8	2179.2	2181.6	2184.0	2184.0	2184.0	2185.2
30°	2145.7	2146.9	2149.3	2151.7	2155.3	2157.7	2161.3	2164.8	2166.0	2166.0	2164.8
32.5°	2124.2	2125.4	2129.0	2132.6	2137.3	2142.1	2146.9	2150.5	2154.1	2154.1	2151.7
35°	2108.7	2109.8	2114.6	2120.6	2127.8	2133.8	2139.7	2144.5	2149.3	2149.3	2148.1
37.5°	2099.1	2100.3	2106.3	2113.4	2124.2	2132.6	2140.9	2146.9	2151.7	2152.9	2151.7
40°	2090.7	2091.9	2099.1	2108.7	2120.6	2132.6	2143.3	2151.7	2156.5	2158.9	2158.9
42.5°	2078.8	2081.2	2088.3	2101.5	2115.8	2130.2	2143.3	2155.3	2161.3	2163.6	2162.4
45°	2068.0	2070.4	2080.0	2095.5	2112.2	2130.2	2146.9	2161.3	2169.6	2173.2	2170.8
47.5°	2059.6	2063.2	2075.2	2093.1	2113.4	2136.1	2156.5	2173.2	2184.0	2188.7	2185.2
50°	2052.5	2057.3	2070.4	2091.9	2118.2	2146.9	2170.8	2189.9	2203.1	2207.9	2204.3
52.5°	2039.3	2047.7	2063.2	2089.5	2121.8	2154.1	2182.8	2205.5	2221.0	2225.8	2221.0
55°	2017.8	2026.2	2044.1	2074.0	2113.4	2149.3	2184.0	2209.1	2223.4	2229.4	2222.2
57.5°	1968.8	1977.2	1995.1	2029.8	2069.2	2109.8	2145.7	2173.2	2191.1	2194.7	2180.4
60°	1857.6	1863.6	1891.1	1925.8	1964.0	2003.5	2040.5	2071.6	2087.1	2088.3	2068.0
62.5°	1673.5	1683.1	1710.6	1747.6	1783.5	1815.8	1850.5	1882.7	1894.7	1899.5	1883.9
65°	1460.8	1473.9	1494.2	1527.7	1563.6	1589.9	1628.1	1655.6	1667.6	1672.3	1666.4
67.5°	1249.2	1261.1	1271.9	1304.2	1336.4	1361.5	1398.6	1423.7	1433.3	1440.4	1436.8
70°	1037.6	1048.4	1057.9	1084.2	1109.3	1141.6	1163.1	1187.0	1193.0	1206.1	1200.2
72.5°	832.0	840.4	849.9	875.0	890.6	925.2	934.8	955.1	965.9	969.5	963.5
75°	641.9	647.9	658.7	679.0	690.9	717.2	720.8	738.7	745.9	745.9	743.5
77.5°	475.8	480.5	492.5	504.5	516.4	534.3	530.7	542.7	547.5	549.9	547.5
80°	335.9	341.9	344.3	353.8	364.6	371.8	369.4	375.4	376.5	381.3	380.1
82.5°	215.2	221.1	217.6	223.5	230.7	235.5	236.7	236.7	236.7	240.3	239.1
85°	119.5	124.3	121.9	124.3	127.9	131.5	129.1	130.3	131.5	132.7	131.5
87.5°	39.4	44.2	40.6	41.8	44.2	46.6	47.8	44.2	46.6	46.6	46.6
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°	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2	2289.2
2.5°	2286.8	2286.8	2286.8	2286.8	2286.8	2286.8	2286.8	2286.8
5°	2286.8	2286.8	2286.8	2286.8	2285.6	2285.6	2285.6	2285.6
7.5°	2283.2	2283.2	2283.2	2283.2	2282.0	2282.0	2282.0	2282.0
10°	2277.2	2277.2	2277.2	2276.0	2276.0	2276.0	2276.0	2276.0
12.5°	2271.2	2270.0	2270.0	2270.0	2270.0	2268.8	2268.8	2268.8
15°	2266.4	2265.2	2265.2	2264.1	2262.9	2262.9	2261.7	2261.7
17.5°	2258.1	2258.1	2256.9	2255.7	2254.5	2253.3	2253.3	2252.1
20°	2244.9	2243.7	2241.3	2240.1	2240.1	2239.0	2237.8	2236.6
22.5°	2225.8	2224.6	2223.4	2221.0	2219.8	2218.6	2217.4	2216.2
25°	2204.3	2203.1	2201.9	2199.5	2198.3	2195.9	2194.7	2192.3
27.5°	2182.8	2182.8	2179.2	2176.8	2174.4	2172.0	2170.8	2168.4
30°	2163.6	2162.4	2160.1	2155.3	2152.9	2149.3	2146.9	2145.7
32.5°	2149.3	2148.1	2143.3	2137.3	2132.6	2127.8	2126.6	2124.2
35°	2145.7	2140.9	2133.8	2126.6	2120.6	2114.6	2111.0	2109.8
37.5°	2149.3	2140.9	2132.6	2123.0	2114.6	2106.3	2101.5	2099.1
40°	2152.9	2144.5	2135.0	2121.8	2109.8	2100.3	2094.3	2090.7
42.5°	2155.3	2145.7	2133.8	2118.2	2103.9	2091.9	2084.7	2081.2
45°	2161.3	2150.5	2135.0	2115.8	2097.9	2084.7	2076.4	2071.6
47.5°	2174.4	2158.9	2139.7	2117.0	2095.5	2077.6	2068.0	2063.2
50°	2191.1	2172.0	2148.1	2120.6	2094.3	2071.6	2059.6	2053.7
52.5°	2206.7	2184.0	2155.3	2123.0	2089.5	2063.2	2045.3	2039.3
55°	2206.7	2179.2	2143.3	2106.3	2068.0	2036.9	2013.0	2004.7
57.5°	2160.1	2130.2	2085.9	2045.3	2003.5	1966.4	1941.3	1932.9
60°	2040.5	2014.2	1962.8	1923.4	1876.8	1836.1	1817.0	1809.8
62.5°	1857.6	1838.5	1791.9	1757.2	1707.0	1674.7	1652.0	1653.2
65°	1644.8	1628.1	1589.9	1558.8	1513.4	1488.3	1465.5	1448.8
67.5°	1421.3	1402.2	1371.1	1343.6	1306.6	1288.6	1263.5	1248.0
70°	1187.0	1172.7	1144.0	1124.9	1093.8	1078.2	1054.3	1054.3
72.5°	952.7	945.5	925.2	908.5	884.6	870.2	851.1	854.7
75°	735.2	738.7	718.4	706.5	687.3	675.4	661.0	667.0
77.5°	551.1	546.3	531.9	524.8	508.0	503.3	488.9	493.7
80°	381.3	380.1	368.2	363.4	353.8	351.4	339.5	343.1
82.5°	240.3	240.3	235.5	230.7	227.1	224.7	216.4	218.8
85°	132.7	131.5	130.3	126.7	124.3	125.5	119.5	121.9
87.5°	46.6	45.4	45.4	43.0	40.6	44.2	39.4	40.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)