

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: P130634

Luminaire Tested: **TBLED-LD1-6-M-UNV-L840-CD1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25346)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: TBLED-LD1-6-M-UNV-L840-CD1
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION.
Light Source: (160) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

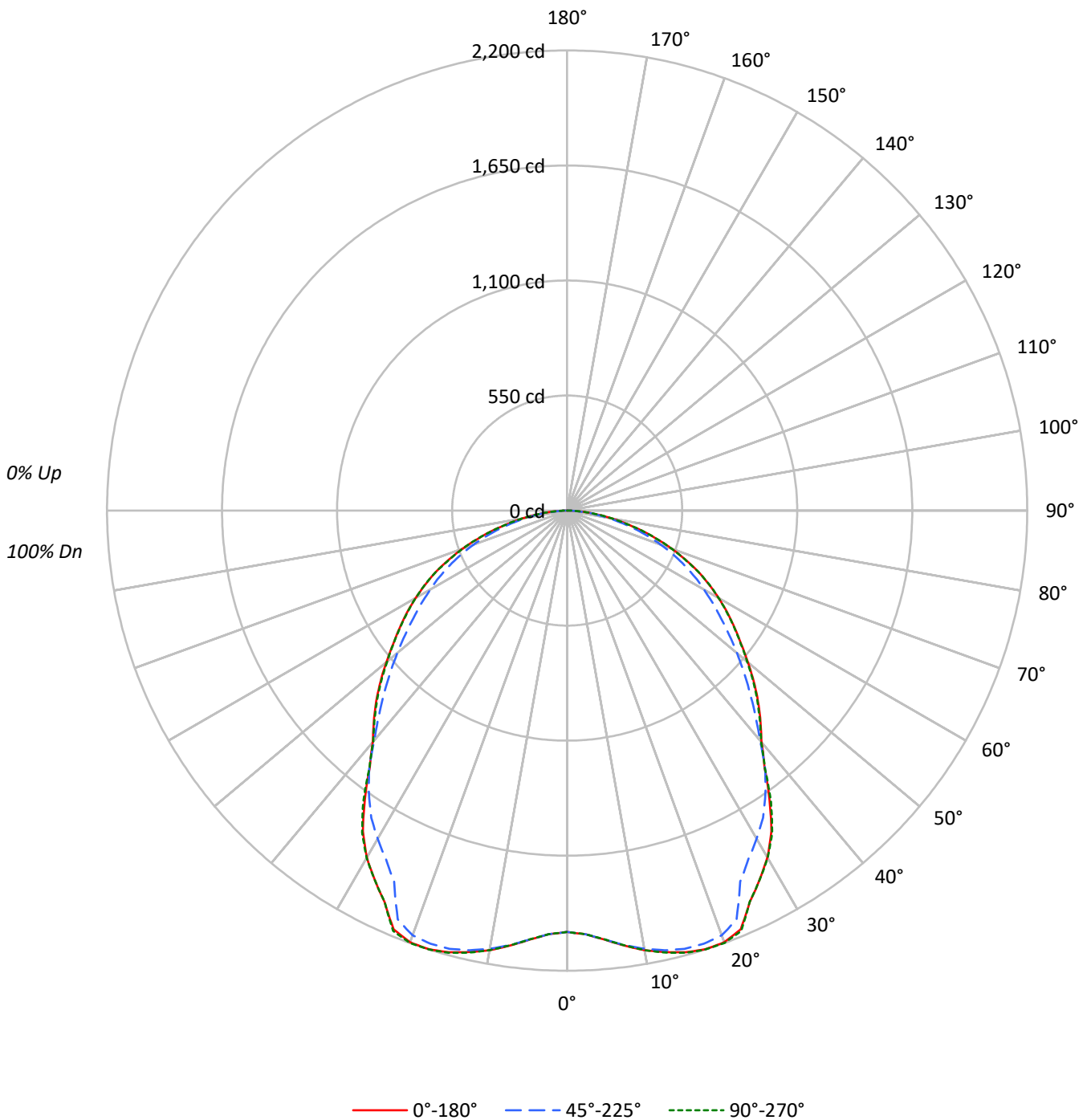
Lumens per Lamp: N/A
Luminaire Lumens: 5773.9 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.34 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

Input Watts (W): 51
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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64		73	68	63		71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42		53	47	42		52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	38		49	42	37		48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28		38	32	28		38	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21810	21810	21810
5°	22380	22380	22373
10°	23466	23388	23466
15°	24507	24315	24538
20°	25313	24904	25345
25°	24685	23386	24659
30°	23951	22655	23977
35°	22300	21849	22458
40°	20423	20272	20392
45°	19766	18951	19700
50°	19004	17857	18934
55°	18443	16955	18403
60°	18112	16360	18112
65°	17736	15863	17682
70°	16837	15083	16812
75°	15326	13870	15388
80°	13414	12173	13457
85°	11642	10138	11642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.9	3.4
10°-20°	616.4	10.7
20°-30°	932.2	16.1
30°-40°	1017.6	17.6
40°-50°	999.0	17.3
50°-60°	874.5	15.1
60°-70°	657.2	11.4
70°-80°	375.7	6.5
80°-90°	102.5	1.8
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°	1747.5	30.3
0°-40°	2765.1	47.9
0°-60°	4638.6	80.3
0°-90°	5773.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5773.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2014	2014	2014	2014	2014	
5°	2059	2059	2059	2059	2058	199
15°	2186	2184	2169	2185	2189	618
25°	2066	2069	1957	2068	2064	954
35°	1687	1604	1653	1598	1699	1052
45°	1291	1317	1238	1309	1286	995
55°	977	992	898	989	975	876
65°	692	665	619	665	690	681
75°	366	352	332	352	368	389
85°	94	88	82	88	94	105
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°	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1
2.5°	2027.6	2026.2	2026.9	2026.2	2027.6	2027.6	2026.9	2027.6	2026.9	2026.9	2026.9
5°	2058.9	2057.5	2058.2	2056.7	2058.9	2059.6	2058.9	2059.6	2059.6	2058.9	2058.9
7.5°	2097.9	2095.1	2095.8	2094.4	2096.5	2096.5	2095.8	2095.8	2095.1	2094.4	2095.1
10°	2134.1	2132.7	2132.7	2132.0	2133.4	2132.7	2131.3	2130.6	2127.7	2127.0	2128.4
12.5°	2161.8	2163.2	2165.4	2165.4	2164.7	2163.9	2160.4	2158.3	2154.0	2153.3	2154.7
15°	2186.0	2186.7	2188.8	2188.1	2186.0	2182.4	2178.9	2174.6	2171.0	2168.9	2171.0
17.5°	2198.7	2198.7	2198.0	2195.9	2191.6	2187.4	2182.4	2178.1	2174.6	2171.8	2174.6
20°	2196.6	2196.6	2193.1	2188.8	2181.7	2175.3	2170.3	2166.1	2162.5	2161.1	2163.2
22.5°	2166.8	2168.9	2166.1	2165.4	2159.7	2151.2	2141.2	2130.6	2119.2	2115.7	2120.6
25°	2066.0	2064.6	2066.0	2079.5	2083.0	2054.6	2018.4	1985.0	1965.2	1957.3	1968.0
27.5°	1991.4	1990.0	1972.3	1943.9	1904.8	1886.4	1889.2	1886.4	1881.4	1877.8	1882.8
30°	1915.5	1904.8	1856.5	1804.7	1767.1	1761.4	1777.7	1798.3	1811.1	1811.8	1809.7
32.5°	1817.5	1796.2	1733.7	1694.0	1678.3	1675.5	1680.5	1701.8	1730.9	1742.2	1727.3
35°	1686.9	1674.8	1636.4	1610.9	1605.9	1602.4	1593.9	1604.5	1640.7	1652.8	1639.3
37.5°	1551.3	1562.6	1546.3	1537.1	1536.3	1529.2	1517.2	1518.6	1537.8	1554.8	1535.6
40°	1444.8	1456.1	1466.8	1466.1	1463.2	1452.6	1443.3	1438.4	1437.0	1434.1	1438.4
42.5°	1368.8	1364.5	1385.1	1396.5	1389.4	1382.3	1374.5	1370.9	1344.7	1332.6	1348.2
45°	1290.7	1289.3	1303.5	1327.6	1321.9	1312.0	1309.9	1295.7	1250.9	1237.5	1254.5
47.5°	1210.5	1216.2	1228.9	1248.8	1252.4	1243.8	1237.5	1208.3	1162.9	1146.6	1162.2
50°	1128.1	1140.9	1158.6	1166.5	1170.0	1165.0	1160.8	1123.2	1077.0	1060.0	1077.7
52.5°	1049.3	1067.1	1090.5	1084.1	1081.3	1083.4	1076.3	1042.2	997.5	976.9	998.2
55°	976.9	993.9	1014.5	1001.7	988.3	996.1	989.7	962.7	923.7	898.1	922.2
57.5°	908.7	919.4	935.7	918.7	903.1	912.3	905.9	884.6	848.4	826.4	849.8
60°	836.3	844.8	854.1	837.7	821.4	826.4	823.5	804.4	774.6	755.4	773.1
62.5°	763.9	768.2	774.6	756.8	743.3	743.3	741.9	723.4	700.0	689.4	699.3
65°	692.2	691.5	693.6	675.9	665.9	664.5	661.7	644.6	626.2	619.1	626.9
67.5°	611.3	612.7	613.4	597.1	589.3	585.7	583.6	568.0	553.1	548.1	553.8
70°	531.8	532.5	532.5	517.6	511.9	506.2	504.1	492.0	479.9	476.4	481.4
72.5°	448.0	453.0	450.8	438.8	434.5	427.4	426.0	418.2	408.9	404.0	408.9
75°	366.3	373.4	371.3	360.7	355.7	348.6	349.3	345.0	335.1	331.5	336.5
77.5°	287.5	291.8	292.5	286.8	279.0	274.0	276.2	275.5	268.4	259.8	266.2
80°	215.1	220.1	220.8	215.8	209.4	205.2	208.0	208.0	202.3	195.2	200.9
82.5°	149.8	153.4	153.4	150.5	147.7	143.4	144.8	145.5	142.0	134.9	139.9
85°	93.7	94.4	93.0	90.9	88.7	87.3	87.3	88.7	85.9	81.6	85.2
87.5°	34.8	35.5	34.8	36.9	34.8	34.1	34.8	36.9	34.1	34.1	34.8
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°	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1	2014.1
2.5°	2026.9	2027.6	2027.6	2026.9	2026.9	2026.9	2026.2	2026.9
5°	2058.9	2059.6	2059.6	2058.2	2058.9	2058.2	2057.5	2058.2
7.5°	2095.8	2097.2	2096.5	2097.2	2097.9	2096.5	2096.5	2096.5
10°	2129.9	2132.0	2133.4	2134.8	2135.5	2134.1	2134.8	2134.1
12.5°	2157.6	2161.8	2164.7	2166.1	2167.5	2167.5	2166.1	2164.7
15°	2174.6	2179.6	2183.1	2187.4	2190.2	2190.9	2189.5	2188.8
17.5°	2178.9	2183.1	2188.1	2192.3	2196.6	2199.4	2200.9	2200.2
20°	2166.8	2170.3	2176.0	2182.4	2188.1	2193.8	2198.0	2199.4
22.5°	2132.0	2141.9	2152.6	2160.4	2165.4	2168.2	2170.3	2175.3
25°	1989.3	2015.6	2053.9	2083.0	2078.0	2064.6	2059.6	2063.8
27.5°	1887.8	1884.9	1880.7	1903.4	1938.9	1970.1	1985.0	1992.1
30°	1796.9	1775.6	1755.7	1763.5	1799.7	1853.7	1899.1	1917.6
32.5°	1701.8	1672.7	1669.8	1674.8	1691.8	1728.0	1789.8	1824.6
35°	1601.7	1586.0	1594.6	1601.0	1606.6	1625.1	1667.7	1698.9
37.5°	1512.2	1509.4	1520.7	1528.5	1531.4	1540.6	1556.9	1552.7
40°	1433.4	1435.5	1445.5	1454.0	1459.7	1460.4	1450.4	1442.6
42.5°	1362.4	1371.6	1371.6	1382.3	1392.2	1378.7	1358.1	1363.8
45°	1290.0	1304.9	1304.2	1313.4	1322.6	1299.2	1282.2	1286.4
47.5°	1204.8	1233.2	1237.5	1247.4	1247.4	1223.3	1209.8	1204.8
50°	1118.2	1155.1	1160.1	1165.7	1162.9	1153.7	1135.9	1123.9
52.5°	1038.0	1072.7	1077.7	1075.6	1081.3	1085.5	1061.4	1046.5
55°	959.2	986.1	992.5	985.4	998.9	1011.0	988.3	974.8
57.5°	881.1	901.6	907.3	901.6	916.6	930.0	915.1	905.9
60°	802.3	820.7	824.3	819.3	837.0	849.1	842.0	836.3
62.5°	724.9	737.6	741.2	743.3	754.0	768.2	766.8	766.0
65°	646.8	660.3	661.7	668.1	675.2	693.6	690.1	690.1
67.5°	570.8	580.0	582.2	592.1	594.9	612.7	610.6	607.7
70°	492.0	501.2	504.1	514.0	518.3	532.5	533.2	531.0
72.5°	419.6	423.1	426.0	435.2	438.8	452.2	452.2	449.4
75°	345.7	345.0	347.9	357.1	360.7	372.0	371.3	367.8
77.5°	276.2	272.6	274.8	281.1	285.4	293.9	291.1	288.2
80°	210.9	205.2	205.9	212.3	215.1	220.8	218.0	215.8
82.5°	149.1	144.1	142.7	147.7	151.9	152.6	151.9	150.5
85°	90.9	86.6	87.3	89.5	92.3	92.3	93.7	93.7
87.5°	35.5	33.4	33.4	35.5	35.5	36.2	35.5	34.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)