

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: P130643

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130643
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-DOS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR.
Light Source: (160) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5508.5 lumens
Efficiency: N/A
Efficacy: 108.0 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

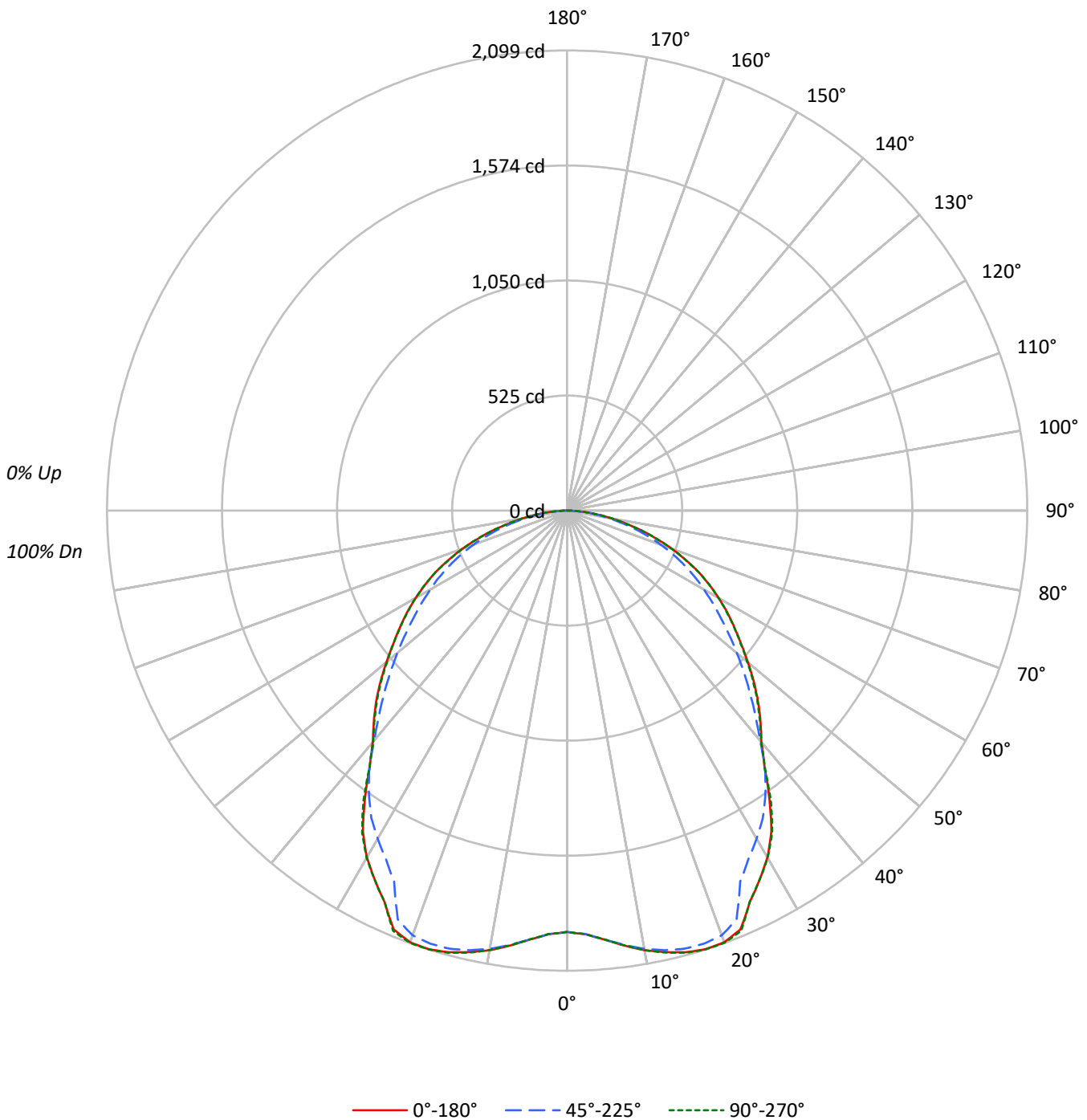
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20808	20808	20808
5°	21351	21351	21344
10°	22387	22314	22387
15°	23380	23197	23410
20°	24149	23759	24180
25°	23550	22312	23526
30°	22850	21613	22875
35°	21274	20844	21426
40°	19483	19341	19455
45°	18858	18080	18795
50°	18132	17035	18063
55°	17595	16176	17558
60°	17280	15608	17280
65°	16921	15133	16870
70°	16062	14390	16039
75°	14623	13234	14681
80°	12796	11618	12840
85°	11108	9679	11108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.7	3.4
10°-20°	588.1	10.7
20°-30°	889.4	16.1
30°-40°	970.8	17.6
40°-50°	953.0	17.3
50°-60°	834.3	15.1
60°-70°	627.0	11.4
70°-80°	358.4	6.5
80°-90°	97.7	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°	1667.2	30.3
0°-40°	2638.0	47.9
0°-60°	4425.4	80.3
0°-90°	5508.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5508.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1922	1922	1922	1922	1922	
5°	1964	1965	1964	1964	1964	190
15°	2086	2084	2069	2085	2088	590
25°	1971	1974	1867	1973	1969	910
35°	1609	1530	1577	1524	1621	1003
45°	1231	1256	1181	1249	1227	949
55°	932	947	857	944	930	836
65°	660	635	591	634	658	650
75°	350	336	316	336	351	371
85°	89	84	78	84	89	100
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°	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6
2.5°	1934.4	1933.1	1933.8	1933.1	1934.4	1934.4	1933.8	1934.4	1933.8	1933.8	1933.8
5°	1964.2	1962.9	1963.6	1962.2	1964.2	1964.9	1964.2	1964.9	1964.9	1964.2	1964.2
7.5°	2001.5	1998.8	1999.5	1998.1	2000.1	2000.1	1999.5	1999.5	1998.8	1998.1	1998.8
10°	2036.0	2034.7	2034.7	2034.0	2035.3	2034.7	2033.3	2032.6	2029.9	2029.3	2030.6
12.5°	2062.4	2063.8	2065.8	2065.8	2065.2	2064.5	2061.1	2059.1	2055.0	2054.3	2055.7
15°	2085.5	2086.1	2088.2	2087.5	2085.5	2082.1	2078.7	2074.6	2071.2	2069.2	2071.2
17.5°	2097.7	2097.7	2097.0	2095.0	2090.9	2086.8	2082.1	2078.0	2074.6	2071.9	2074.6
20°	2095.6	2095.6	2092.2	2088.2	2081.4	2075.3	2070.6	2066.5	2063.1	2061.8	2063.8
22.5°	2067.2	2069.2	2066.5	2065.8	2060.4	2052.3	2042.8	2032.6	2021.8	2018.4	2023.2
25°	1971.0	1969.6	1971.0	1983.9	1987.3	1960.2	1925.6	1893.8	1874.8	1867.4	1877.5
27.5°	1899.9	1898.5	1881.6	1854.5	1817.3	1799.6	1802.4	1799.6	1794.9	1791.5	1796.3
30°	1827.4	1817.3	1771.2	1721.8	1685.9	1680.4	1696.0	1715.7	1727.8	1728.5	1726.5
32.5°	1733.9	1713.6	1654.0	1616.1	1601.2	1598.5	1603.2	1623.5	1651.3	1662.1	1647.9
35°	1609.3	1597.8	1561.2	1536.8	1532.1	1528.7	1520.6	1530.7	1565.3	1576.8	1563.9
37.5°	1479.9	1490.8	1475.2	1466.4	1465.7	1458.9	1447.4	1448.8	1467.1	1483.3	1465.0
40°	1378.3	1389.2	1399.3	1398.7	1396.0	1385.8	1377.0	1372.3	1370.9	1368.2	1372.3
42.5°	1305.9	1301.8	1321.5	1332.3	1325.5	1318.7	1311.3	1307.9	1282.8	1271.3	1286.2
45°	1231.4	1230.0	1243.6	1266.6	1261.2	1251.7	1249.7	1236.1	1193.4	1180.6	1196.8
47.5°	1154.8	1160.3	1172.4	1191.4	1194.8	1186.7	1180.6	1152.8	1109.5	1093.9	1108.8
50°	1076.3	1088.5	1105.4	1112.8	1116.2	1111.5	1107.4	1071.5	1027.5	1011.2	1028.2
52.5°	1001.1	1018.0	1040.4	1034.3	1031.6	1033.6	1026.8	994.3	951.6	932.0	952.3
55°	932.0	948.2	967.9	955.7	942.8	950.3	944.2	918.4	881.2	856.8	879.8
57.5°	867.0	877.1	892.7	876.5	861.6	870.4	864.3	843.9	809.4	788.4	810.8
60°	797.9	806.0	814.8	799.2	783.7	788.4	785.7	767.4	739.0	720.7	737.6
62.5°	728.8	732.9	739.0	722.0	709.2	709.2	707.8	690.2	667.8	657.7	667.2
65°	660.4	659.7	661.7	644.8	635.3	634.0	631.3	615.0	597.4	590.6	598.1
67.5°	583.2	584.5	585.2	569.6	562.2	558.8	556.8	541.9	527.6	522.9	528.3
70°	507.3	508.0	508.0	493.8	488.3	482.9	480.9	469.4	457.9	454.5	459.2
72.5°	427.4	432.1	430.1	418.6	414.5	407.7	406.4	398.9	390.1	385.4	390.1
75°	349.5	356.3	354.2	344.1	339.3	332.6	333.2	329.2	319.7	316.3	321.1
77.5°	274.3	278.4	279.1	273.6	266.2	261.4	263.5	262.8	256.0	247.9	254.0
80°	205.2	210.0	210.6	205.9	199.8	195.7	198.5	198.5	193.0	186.3	191.7
82.5°	142.9	146.3	146.3	143.6	140.9	136.8	138.2	138.9	135.5	128.7	133.4
85°	89.4	90.1	88.7	86.7	84.7	83.3	83.3	84.7	82.0	77.9	81.3
87.5°	33.2	33.9	33.2	35.2	33.2	32.5	33.2	35.2	32.5	32.5	33.2
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°	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6	1921.6
2.5°	1933.8	1934.4	1934.4	1933.8	1933.8	1933.8	1933.1	1933.8
5°	1964.2	1964.9	1964.9	1963.6	1964.2	1963.6	1962.9	1963.6
7.5°	1999.5	2000.8	2000.1	2000.8	2001.5	2000.1	2000.1	2000.1
10°	2032.0	2034.0	2035.3	2036.7	2037.4	2036.0	2036.7	2036.0
12.5°	2058.4	2062.4	2065.2	2066.5	2067.9	2067.9	2066.5	2065.2
15°	2074.6	2079.4	2082.8	2086.8	2089.5	2090.2	2088.9	2088.2
17.5°	2078.7	2082.8	2087.5	2091.6	2095.6	2098.3	2099.7	2099.0
20°	2067.2	2070.6	2076.0	2082.1	2087.5	2092.9	2097.0	2098.3
22.5°	2034.0	2043.5	2053.6	2061.1	2065.8	2068.5	2070.6	2075.3
25°	1897.9	1922.9	1959.5	1987.3	1982.5	1969.6	1964.9	1969.0
27.5°	1801.0	1798.3	1794.2	1815.9	1849.8	1879.6	1893.8	1900.6
30°	1714.3	1694.0	1675.0	1682.5	1717.0	1768.5	1811.8	1829.4
32.5°	1623.5	1595.8	1593.1	1597.8	1614.1	1648.6	1707.5	1740.7
35°	1528.0	1513.1	1521.3	1527.4	1532.8	1550.4	1591.0	1620.8
37.5°	1442.7	1440.0	1450.8	1458.3	1461.0	1469.8	1485.4	1481.3
40°	1367.5	1369.5	1379.0	1387.2	1392.6	1393.2	1383.8	1376.3
42.5°	1299.8	1308.6	1308.6	1318.7	1328.2	1315.4	1295.7	1301.1
45°	1230.7	1244.9	1244.2	1253.0	1261.8	1239.5	1223.2	1227.3
47.5°	1149.4	1176.5	1180.6	1190.1	1190.1	1167.0	1154.2	1149.4
50°	1066.8	1102.0	1106.7	1112.2	1109.5	1100.6	1083.7	1072.2
52.5°	990.2	1023.4	1028.2	1026.1	1031.6	1035.6	1012.6	998.4
55°	915.1	940.8	946.9	940.1	953.0	964.5	942.8	930.0
57.5°	840.6	860.2	865.6	860.2	874.4	887.3	873.1	864.3
60°	765.4	783.0	786.4	781.6	798.6	810.1	803.3	797.9
62.5°	691.5	703.7	707.1	709.2	719.3	732.9	731.5	730.8
65°	617.0	629.9	631.3	637.4	644.1	661.7	658.4	658.4
67.5°	544.6	553.4	555.4	564.9	567.6	584.5	582.5	579.8
70°	469.4	478.2	480.9	490.4	494.4	508.0	508.7	506.6
72.5°	400.3	403.7	406.4	415.2	418.6	431.5	431.5	428.7
75°	329.9	329.2	331.9	340.7	344.1	354.9	354.2	350.9
77.5°	263.5	260.1	262.1	268.2	272.3	280.4	277.7	275.0
80°	201.2	195.7	196.4	202.5	205.2	210.6	207.9	205.9
82.5°	142.2	137.5	136.1	140.9	144.9	145.6	144.9	143.6
85°	86.7	82.6	83.3	85.3	88.1	88.1	89.4	89.4
87.5°	33.9	31.8	31.8	33.9	33.9	34.5	33.9	32.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)