

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: P130661

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130661
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-CMS
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH MINI SENSOR.
Light Source: (160) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5533.7 lumens
Efficiency: N/A
Efficacy: 108.5 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

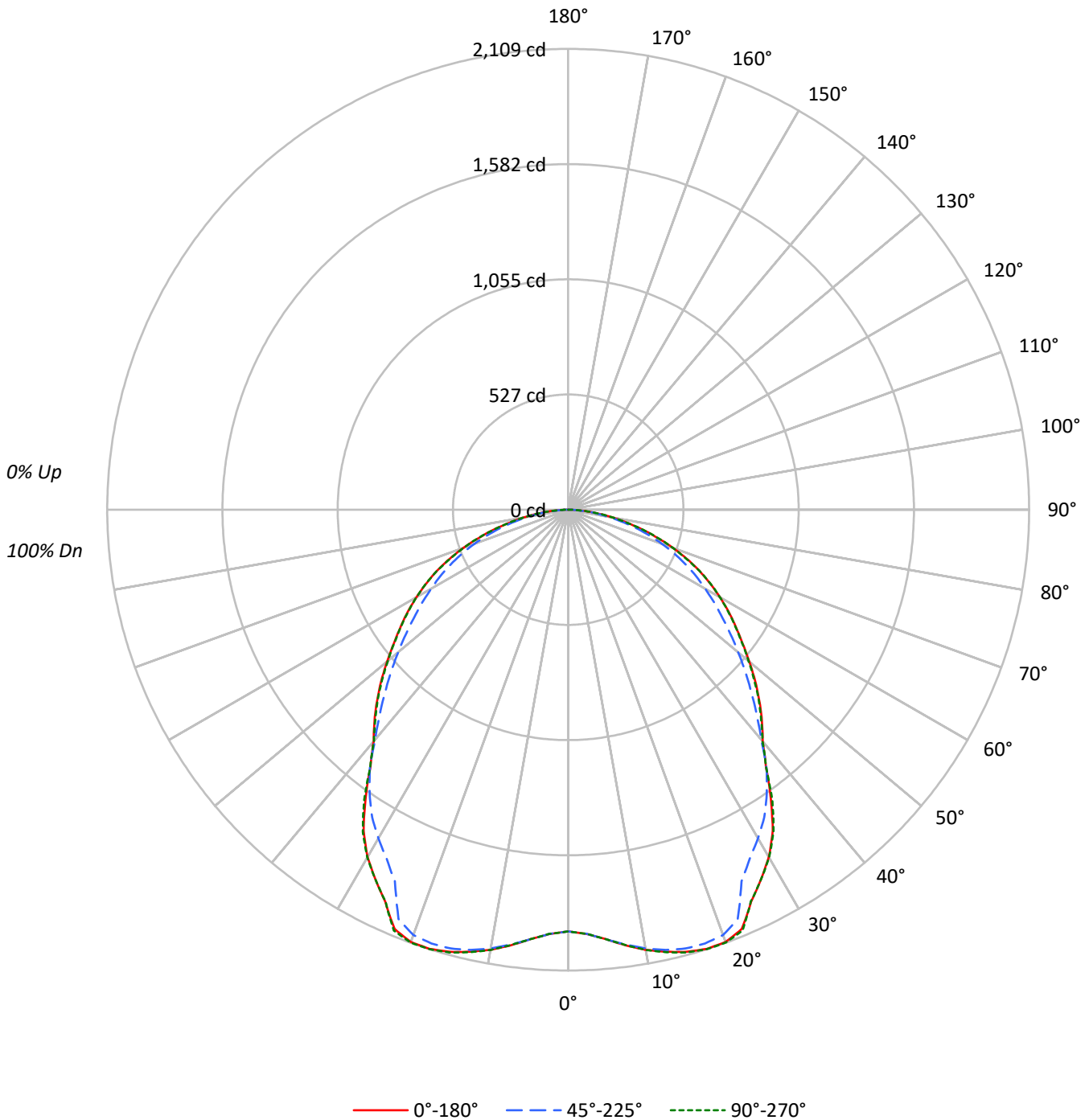
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	20904	20904	20904
5°	21449	21449	21441
10°	22490	22415	22490
15°	23486	23304	23517
20°	24260	23868	24291
25°	23657	22413	23633
30°	22955	21712	22980
35°	21372	20939	21524
40°	19574	19428	19544
45°	18943	18162	18881
50°	18214	17114	18145
55°	17677	16249	17637
60°	17358	15680	17358
65°	16998	15202	16947
70°	16134	14456	16115
75°	14690	13296	14748
80°	12859	11668	12896
85°	11157	9716	11157



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.6	3.4
10°-20°	590.8	10.7
20°-30°	893.4	16.1
30°-40°	975.3	17.6
40°-50°	957.4	17.3
50°-60°	838.1	15.1
60°-70°	629.8	11.4
70°-80°	360.1	6.5
80°-90°	98.2	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°	1674.8	30.3
0°-40°	2650.1	47.9
0°-60°	4445.6	80.3
0°-90°	5533.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5533.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1930	1930	1930	1930	1930	
5°	1973	1974	1973	1973	1972	191
15°	2095	2093	2079	2094	2098	593
25°	1980	1983	1876	1982	1978	914
35°	1617	1537	1584	1531	1628	1008
45°	1237	1262	1186	1254	1233	954
55°	936	951	861	948	934	840
65°	663	638	593	637	661	653
75°	351	338	318	338	352	373
85°	90	84	78	85	90	101
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°	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4
2.5°	1943.3	1941.9	1942.6	1941.9	1943.3	1943.3	1942.6	1943.3	1942.6	1942.6	1942.6
5°	1973.2	1971.9	1972.5	1971.2	1973.2	1973.9	1973.2	1973.9	1973.9	1973.2	1973.2
7.5°	2010.6	2007.9	2008.6	2007.2	2009.3	2009.3	2008.6	2008.6	2007.9	2007.2	2007.9
10°	2045.3	2044.0	2044.0	2043.3	2044.7	2044.0	2042.6	2041.9	2039.2	2038.5	2039.9
12.5°	2071.9	2073.2	2075.3	2075.3	2074.6	2073.9	2070.5	2068.5	2064.4	2063.7	2065.1
15°	2095.0	2095.7	2097.7	2097.1	2095.0	2091.6	2088.2	2084.1	2080.7	2078.7	2080.7
17.5°	2107.3	2107.3	2106.6	2104.5	2100.5	2096.4	2091.6	2087.5	2084.1	2081.4	2084.1
20°	2105.2	2105.2	2101.8	2097.7	2090.9	2084.8	2080.0	2076.0	2072.6	2071.2	2073.2
22.5°	2076.6	2078.7	2076.0	2075.3	2069.8	2061.7	2052.1	2041.9	2031.1	2027.7	2032.4
25°	1980.0	1978.7	1980.0	1993.0	1996.4	1969.1	1934.4	1902.5	1883.4	1875.9	1886.1
27.5°	1908.6	1907.2	1890.2	1863.0	1825.6	1807.9	1810.6	1807.9	1803.1	1799.7	1804.5
30°	1835.8	1825.6	1779.3	1729.6	1693.6	1688.1	1703.8	1723.5	1735.8	1736.4	1734.4
32.5°	1741.9	1721.5	1661.6	1623.5	1608.5	1605.8	1610.6	1631.0	1658.9	1669.8	1655.5
35°	1616.7	1605.1	1568.4	1543.9	1539.1	1535.7	1527.5	1537.8	1572.5	1584.0	1571.1
37.5°	1486.7	1497.6	1482.0	1473.1	1472.4	1465.6	1454.1	1455.4	1473.8	1490.1	1471.7
40°	1384.7	1395.5	1405.7	1405.1	1402.3	1392.1	1383.3	1378.5	1377.2	1374.4	1378.5
42.5°	1311.9	1307.8	1327.5	1338.4	1331.6	1324.8	1317.3	1313.9	1288.7	1277.1	1292.1
45°	1237.0	1235.6	1249.3	1272.4	1266.9	1257.4	1255.4	1241.8	1198.9	1186.0	1202.3
47.5°	1160.1	1165.6	1177.8	1196.9	1200.3	1192.1	1186.0	1158.1	1114.5	1098.9	1113.8
50°	1081.2	1093.4	1110.4	1117.9	1121.3	1116.6	1112.5	1076.4	1032.2	1015.9	1032.9
52.5°	1005.7	1022.7	1045.1	1039.0	1036.3	1038.3	1031.5	998.9	956.0	936.3	956.7
55°	936.3	952.6	972.3	960.1	947.1	954.6	948.5	922.7	885.2	860.7	883.9
57.5°	870.9	881.1	896.8	880.5	865.5	874.3	868.2	847.8	813.1	792.0	814.5
60°	801.5	809.7	818.5	802.9	787.2	792.0	789.3	770.9	742.3	724.0	741.0
62.5°	732.1	736.2	742.3	725.3	712.4	712.4	711.0	693.3	670.9	660.7	670.2
65°	663.4	662.7	664.8	647.8	638.2	636.9	634.2	617.8	600.1	593.3	600.8
67.5°	585.8	587.2	587.9	572.2	564.7	561.3	559.3	544.3	530.0	525.3	530.7
70°	509.6	510.3	510.3	496.0	490.6	485.1	483.1	471.5	460.0	456.6	461.3
72.5°	429.3	434.1	432.1	420.5	416.4	409.6	408.3	400.8	391.9	387.2	391.9
75°	351.1	357.9	355.9	345.7	340.9	334.1	334.8	330.7	321.2	317.8	322.5
77.5°	275.6	279.7	280.3	274.9	267.4	262.6	264.7	264.0	257.2	249.0	255.2
80°	206.2	210.9	211.6	206.8	200.7	196.6	199.4	199.4	193.9	187.1	192.6
82.5°	143.6	147.0	147.0	144.2	141.5	137.4	138.8	139.5	136.1	129.3	134.0
85°	89.8	90.5	89.1	87.1	85.1	83.7	83.7	85.1	82.3	78.2	81.7
87.5°	33.3	34.0	33.3	35.4	33.3	32.7	33.3	35.4	32.7	32.7	33.3
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°	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4	1930.4
2.5°	1942.6	1943.3	1943.3	1942.6	1942.6	1942.6	1941.9	1942.6
5°	1973.2	1973.9	1973.9	1972.5	1973.2	1972.5	1971.9	1972.5
7.5°	2008.6	2010.0	2009.3	2010.0	2010.6	2009.3	2009.3	2009.3
10°	2041.3	2043.3	2044.7	2046.0	2046.7	2045.3	2046.0	2045.3
12.5°	2067.8	2071.9	2074.6	2076.0	2077.3	2077.3	2076.0	2074.6
15°	2084.1	2088.9	2092.3	2096.4	2099.1	2099.8	2098.4	2097.7
17.5°	2088.2	2092.3	2097.1	2101.1	2105.2	2107.9	2109.3	2108.6
20°	2076.6	2080.0	2085.5	2091.6	2097.1	2102.5	2106.6	2107.9
22.5°	2043.3	2052.8	2063.0	2070.5	2075.3	2078.0	2080.0	2084.8
25°	1906.5	1931.7	1968.5	1996.4	1991.6	1978.7	1973.9	1978.0
27.5°	1809.2	1806.5	1802.4	1824.2	1858.2	1888.2	1902.5	1909.3
30°	1722.1	1701.7	1682.7	1690.2	1724.9	1776.6	1820.1	1837.8
32.5°	1631.0	1603.1	1600.3	1605.1	1621.4	1656.1	1715.3	1748.7
35°	1535.0	1520.1	1528.2	1534.3	1539.8	1557.5	1598.3	1628.2
37.5°	1449.3	1446.6	1457.5	1464.9	1467.7	1476.5	1492.2	1488.1
40°	1373.8	1375.8	1385.3	1393.5	1398.9	1399.6	1390.1	1382.6
42.5°	1305.7	1314.6	1314.6	1324.8	1334.3	1321.4	1301.6	1307.1
45°	1236.3	1250.6	1249.9	1258.8	1267.6	1245.2	1228.8	1232.9
47.5°	1154.7	1181.9	1186.0	1195.5	1195.5	1172.4	1159.4	1154.7
50°	1071.7	1107.0	1111.8	1117.3	1114.5	1105.7	1088.7	1077.1
52.5°	994.8	1028.1	1032.9	1030.8	1036.3	1040.4	1017.2	1002.9
55°	919.2	945.1	951.2	944.4	957.4	968.9	947.1	934.2
57.5°	844.4	864.1	869.6	864.1	878.4	891.4	877.1	868.2
60°	768.9	786.6	790.0	785.2	802.2	813.8	807.0	801.5
62.5°	694.7	707.0	710.4	712.4	722.6	736.2	734.9	734.2
65°	619.9	632.8	634.2	640.3	647.1	664.8	661.4	661.4
67.5°	547.1	555.9	557.9	567.5	570.2	587.2	585.2	582.4
70°	471.5	480.4	483.1	492.6	496.7	510.3	511.0	509.0
72.5°	402.1	405.5	408.3	417.1	420.5	433.4	433.4	430.7
75°	331.4	330.7	333.4	342.3	345.7	356.5	355.9	352.5
77.5°	264.7	261.3	263.3	269.4	273.5	281.7	279.0	276.3
80°	202.1	196.6	197.3	203.4	206.2	211.6	208.9	206.8
82.5°	142.9	138.1	136.8	141.5	145.6	146.3	145.6	144.2
85°	87.1	83.0	83.7	85.7	88.5	88.5	89.8	89.8
87.5°	34.0	32.0	32.0	34.0	34.0	34.7	34.0	32.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)