

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: P130688

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130688
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25358)
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-CG-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND LUMAWATT WIRELESS SENSOR.
Light Source: (160) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5411.1 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.33 / 1.33
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

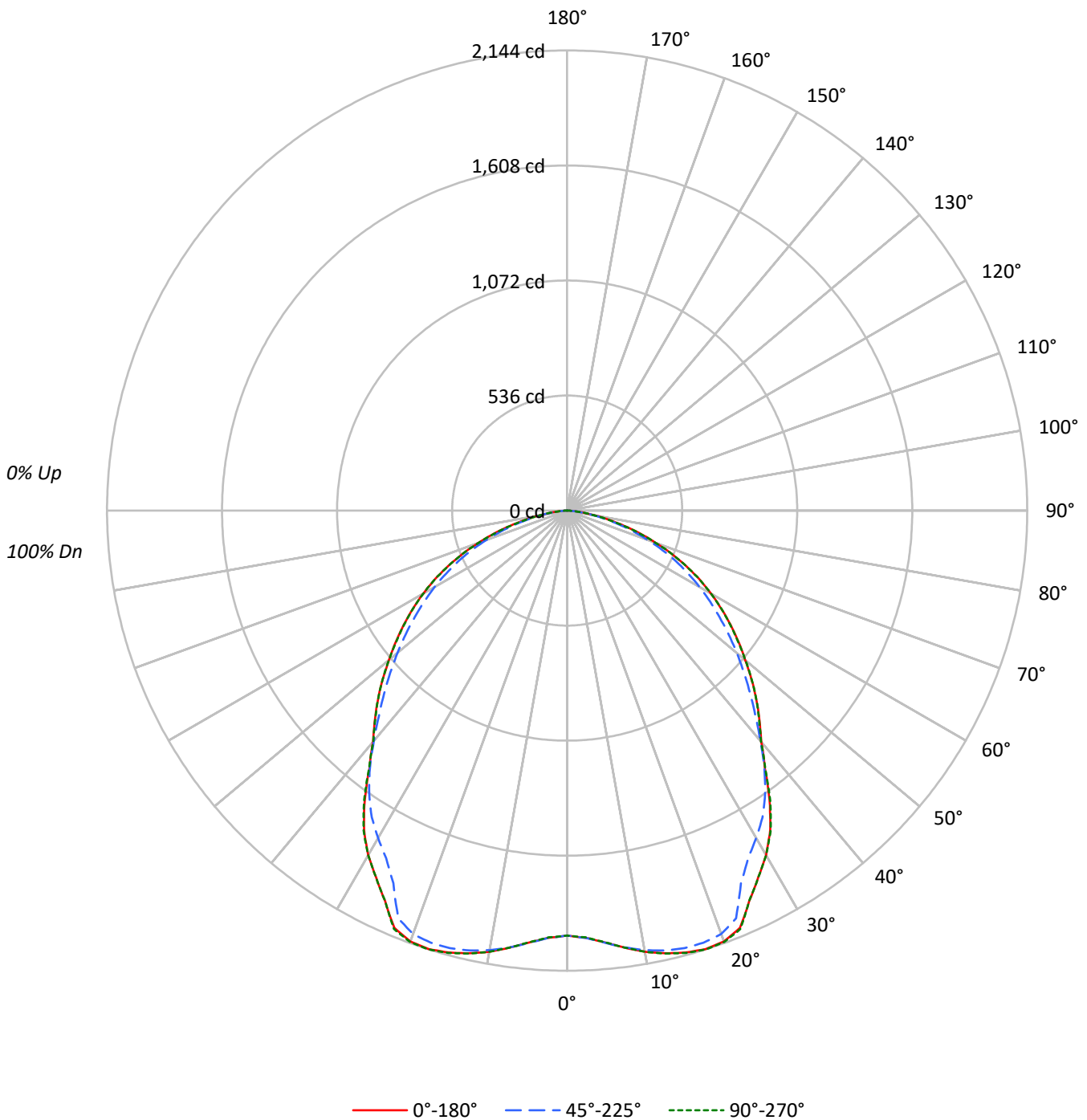
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85					85			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36					36			
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33					33			
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21444	21444	21444
5°	21955	21969	21941
10°	22954	22867	22947
15°	23897	23661	23919
20°	24617	24193	24655
25°	23991	22890	23975
30°	23173	22031	23182
35°	21734	21265	21804
40°	19893	19800	19865
45°	19103	18467	19103
50°	18243	17379	18265
55°	17550	16370	17501
60°	16784	15446	16784
65°	15679	14328	15679
70°	13915	12706	13915
75°	11535	10430	11368
80°	8331	7633	8163
85°	4982	4572	4821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.9	3.6
10°-20°	600.4	11.1
20°-30°	906.7	16.8
30°-40°	989.8	18.3
40°-50°	966.1	17.9
50°-60°	829.9	15.3
60°-70°	586.6	10.8
70°-80°	283.8	5.2
80°-90°	53.0	1.0
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°	1701.9	31.5
0°-40°	2691.8	49.7
0°-60°	4487.7	82.9
0°-90°	5411.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5411.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1980	1980	1980	1980	1980	
5°	2020	2021	2021	2020	2018	195
15°	2132	2128	2111	2128	2134	603
25°	2008	2014	1916	2014	2007	925
35°	1644	1559	1609	1555	1649	1023
45°	1247	1272	1206	1267	1247	962
55°	930	940	867	938	927	831
65°	612	592	559	592	612	604
75°	276	262	249	262	272	295
85°	40	38	37	37	39	55
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°	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3
2.5°	1992.1	1991.5	1990.8	1991.5	1992.8	1992.8	1992.8	1992.1	1992.1	1992.8	1992.1
5°	2019.8	2018.5	2019.1	2018.5	2021.1	2020.4	2020.4	2021.1	2021.1	2021.1	2020.4
7.5°	2054.0	2052.7	2052.7	2052.7	2053.3	2053.3	2053.3	2053.3	2052.7	2052.7	2052.7
10°	2087.5	2085.6	2086.2	2085.6	2086.2	2084.9	2083.6	2082.3	2081.0	2079.6	2080.3
12.5°	2112.5	2111.9	2113.2	2113.2	2111.9	2109.9	2106.6	2103.3	2100.7	2099.4	2100.7
15°	2131.6	2132.9	2133.6	2132.9	2130.3	2125.0	2121.1	2115.8	2112.5	2110.6	2112.5
17.5°	2142.2	2142.2	2140.8	2136.9	2132.3	2127.7	2121.8	2116.5	2113.2	2111.2	2113.9
20°	2136.2	2135.6	2131.0	2125.0	2117.8	2111.9	2106.6	2102.0	2100.0	2099.4	2100.7
22.5°	2104.0	2105.3	2102.7	2098.7	2093.5	2084.9	2075.0	2065.8	2058.6	2056.0	2058.6
25°	2007.9	2007.3	2011.9	2019.8	2025.0	2002.0	1971.1	1941.5	1921.1	1915.8	1921.1
27.5°	1927.7	1927.0	1916.5	1893.5	1866.5	1845.4	1839.5	1836.2	1829.0	1825.7	1830.3
30°	1853.3	1846.7	1809.2	1761.2	1727.0	1718.5	1731.6	1749.4	1759.2	1761.9	1757.3
32.5°	1761.9	1744.1	1693.5	1651.4	1636.2	1629.6	1634.2	1657.3	1681.0	1694.1	1679.6
35°	1644.1	1629.0	1588.8	1565.8	1562.5	1555.3	1549.4	1563.2	1592.1	1608.6	1588.8
37.5°	1513.8	1521.1	1504.0	1492.1	1492.1	1484.9	1473.1	1477.7	1494.1	1509.9	1492.8
40°	1407.3	1420.4	1424.4	1421.1	1419.8	1410.6	1399.4	1396.7	1397.4	1400.7	1395.4
42.5°	1325.7	1327.7	1345.4	1351.3	1346.1	1336.2	1329.6	1325.7	1306.6	1298.1	1309.2
45°	1247.4	1248.7	1263.2	1280.3	1277.0	1266.5	1261.2	1248.7	1215.2	1205.9	1217.8
47.5°	1165.8	1173.1	1183.6	1201.3	1204.6	1194.1	1186.9	1165.2	1125.0	1117.1	1125.7
50°	1082.9	1096.7	1109.2	1117.8	1122.4	1113.2	1105.3	1079.6	1040.8	1031.6	1040.2
52.5°	1007.3	1019.8	1036.2	1033.6	1031.6	1029.6	1024.4	998.0	961.2	948.7	960.5
55°	929.6	942.1	958.6	947.4	938.8	942.1	936.2	914.5	882.9	867.1	882.9
57.5°	852.6	862.5	875.7	861.9	849.4	853.3	849.4	834.2	804.6	789.5	804.6
60°	775.0	780.9	790.1	775.7	762.5	765.1	763.8	748.0	725.0	713.2	725.0
62.5°	695.4	698.7	703.3	689.5	678.3	677.6	678.3	662.5	644.8	636.9	645.4
65°	611.9	613.2	615.8	602.0	594.1	590.8	592.1	577.6	564.5	559.2	565.1
67.5°	526.3	527.6	528.3	515.1	509.9	505.3	505.9	495.4	483.6	480.3	484.9
70°	439.5	441.5	441.5	429.6	426.3	420.4	420.4	413.8	404.0	401.3	404.6
72.5°	357.9	356.6	356.6	346.7	344.1	338.2	337.5	335.5	326.3	323.7	327.0
75°	275.7	274.3	275.0	267.1	264.5	259.9	259.2	259.2	252.0	249.3	252.6
77.5°	199.3	200.7	200.0	194.1	191.5	189.5	191.5	191.5	184.9	182.2	185.5
80°	133.6	134.9	134.9	130.3	128.3	127.0	129.6	128.3	125.0	122.4	125.0
82.5°	80.9	80.9	80.9	79.6	77.0	77.0	78.9	78.9	75.7	73.7	75.7
85°	40.1	40.1	39.5	39.5	38.2	38.2	39.5	39.5	37.5	36.8	37.5
87.5°	13.8	13.2	13.2	13.2	12.5	13.2	13.2	13.2	12.5	12.5	12.5
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°	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3	1980.3
2.5°	1992.8	1992.8	1992.1	1992.1	1992.1	1991.5	1990.8	1990.2
5°	2021.8	2021.1	2019.8	2020.4	2019.8	2019.8	2019.1	2018.5
7.5°	2054.0	2054.6	2053.3	2054.6	2054.6	2054.6	2054.0	2053.3
10°	2082.3	2084.3	2084.9	2086.9	2087.5	2088.2	2087.5	2086.9
12.5°	2104.0	2107.3	2109.9	2113.2	2115.2	2115.8	2114.5	2113.9
15°	2116.5	2121.1	2125.7	2131.0	2134.3	2135.6	2134.9	2133.6
17.5°	2117.1	2122.4	2128.3	2132.9	2137.5	2140.8	2143.5	2144.1
20°	2102.7	2107.3	2112.5	2118.5	2125.7	2131.6	2137.5	2139.5
22.5°	2063.9	2075.0	2086.2	2092.1	2098.1	2102.0	2105.3	2109.9
25°	1936.9	1970.4	2006.6	2021.8	2019.1	2006.6	2004.6	2006.6
27.5°	1837.5	1841.5	1846.1	1863.9	1888.9	1911.9	1925.0	1927.7
30°	1748.7	1729.6	1715.2	1723.7	1756.6	1802.0	1842.8	1854.0
32.5°	1656.6	1631.6	1625.7	1631.6	1646.1	1683.6	1739.5	1765.2
35°	1558.6	1548.1	1552.7	1557.9	1561.2	1581.6	1623.1	1649.4
37.5°	1472.4	1471.1	1480.3	1486.9	1486.9	1494.8	1515.8	1516.5
40°	1391.5	1398.1	1405.3	1414.5	1416.5	1419.8	1414.5	1405.3
42.5°	1320.4	1327.7	1332.3	1341.5	1346.7	1339.5	1322.4	1323.7
45°	1246.1	1259.9	1262.5	1272.4	1276.3	1257.3	1244.1	1247.4
47.5°	1162.5	1185.6	1190.8	1201.3	1198.1	1179.6	1170.4	1166.5
50°	1076.3	1106.6	1111.2	1118.4	1114.5	1105.3	1093.4	1084.2
52.5°	998.7	1023.0	1026.3	1029.0	1032.3	1034.2	1019.1	1004.6
55°	915.8	934.9	939.5	936.9	946.1	956.6	941.5	927.0
57.5°	835.5	848.7	852.0	847.4	860.5	874.4	863.2	852.0
60°	750.0	763.2	763.8	761.9	775.0	786.9	782.3	775.0
62.5°	665.8	677.6	675.7	677.6	688.2	703.3	700.0	695.4
65°	580.3	591.5	590.1	594.1	602.0	615.8	615.8	611.9
67.5°	498.7	505.3	504.6	509.9	515.8	529.0	530.3	526.3
70°	417.1	420.4	419.7	425.7	430.3	444.1	444.1	439.5
72.5°	338.2	340.1	337.5	345.4	347.4	359.2	359.2	354.0
75°	262.5	261.8	259.2	263.8	269.7	278.3	276.3	271.7
77.5°	192.1	190.1	187.5	192.8	196.1	202.6	200.7	196.1
80°	130.3	128.3	125.0	129.6	132.2	136.2	134.2	130.9
82.5°	79.6	77.6	75.0	78.3	79.6	82.2	80.9	78.3
85°	39.5	38.2	36.8	37.5	39.5	40.1	39.5	38.8
87.5°	13.2	12.5	11.8	12.5	12.5	13.2	13.2	12.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)