Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P130710

Luminaire Tested: **TBLED-LD1-8-W-UNV-L850-CD1**

Issue Date: 3/3/2020

Report Generated By E9911574 / USPTCWHP6081592

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Peachtree City, GA 30269

Test Information

Test Method:	LM-79-08
Report Number:	P130710
	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-LD1-8-W-UNV-L850-CD1
Description:	METALUX TOP BAY LED LOW-BAY LUMINAIRE. WIDE DISTRIBUITON.
Light Source:	(160) 5000K CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8561.0 lumens
Efficiency:	N/A
Efficacy:	111.2 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):	77
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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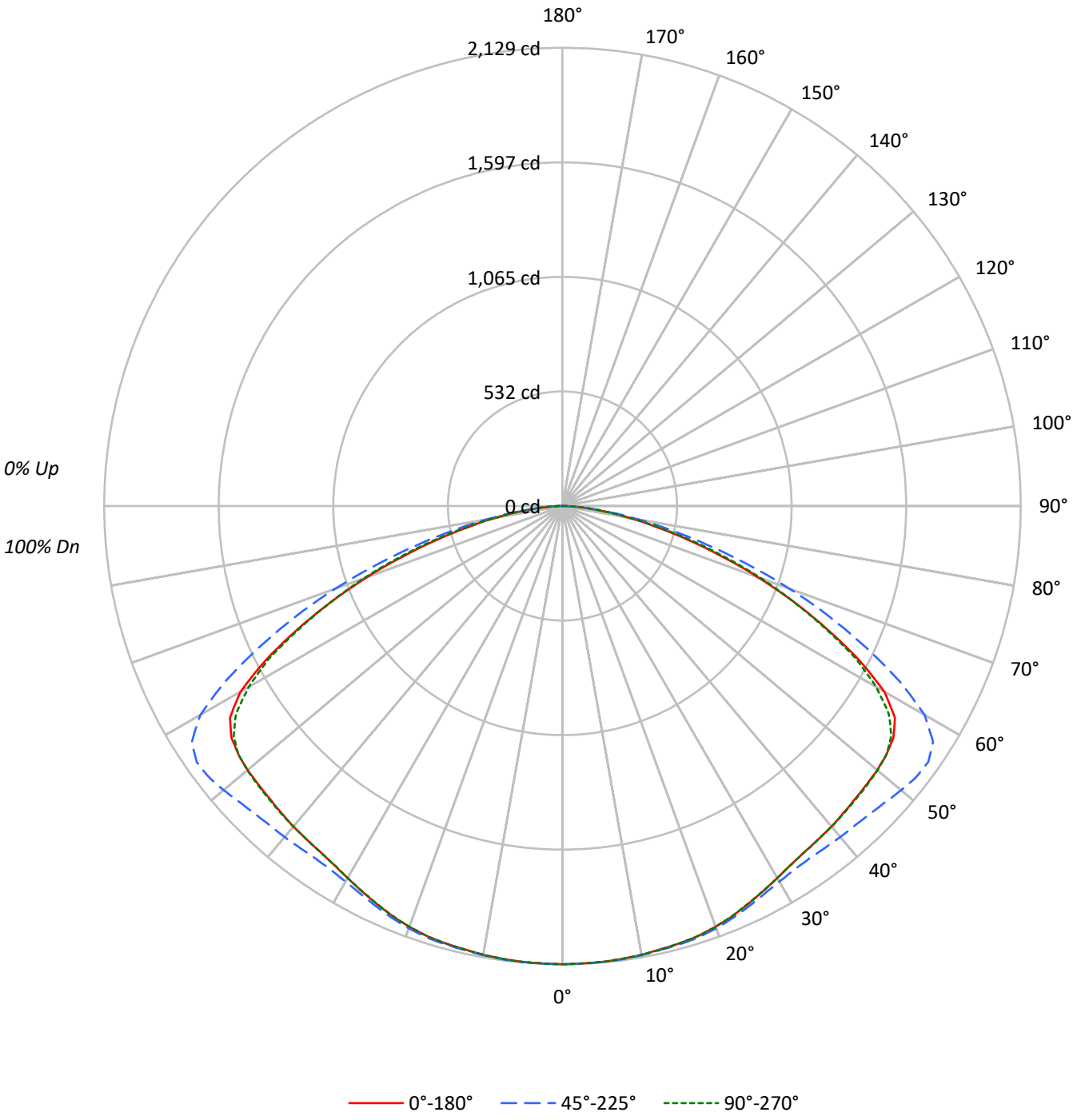
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	23059	23059	23059
5°	23110	23123	23110
10°	23280	23304	23280
15°	23585	23635	23585
20°	23975	24064	23975
25°	24379	24512	24366
30°	24956	25194	24956
35°	25930	26429	25944
40°	27491	28388	27491
45°	29460	30957	29510
50°	32163	34599	32182
55°	35436	39152	35204
60°	37424	42072	36460
65°	34816	39859	34532
70°	30559	35524	31050
75°	24982	29032	25961
80°	19487	22119	19899
85°	13816	15332	14089

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.7	2.4
10°-20°	596.1	7.0
20°-30°	946.1	11.1
30°-40°	1247.0	14.6
40°-50°	1530.9	17.9
50°-60°	1747.5	20.4
60°-70°	1437.6	16.8
70°-80°	705.4	8.2
80°-90°	147.7	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°	1744.9	20.4
0°-40°	2991.9	34.9
0°-60°	6270.3	73.2
0°-90°	8561.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8561.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2129	2129	2129	2129	2129	
5°	2126	2127	2127	2127	2126	203
15°	2104	2105	2108	2107	2104	595
25°	2040	2047	2052	2047	2039	943
35°	1962	1982	1999	1982	1963	1234
45°	1924	1973	2022	1977	1927	1490
55°	1877	1983	2074	1976	1865	1664
65°	1359	1467	1556	1464	1348	1341
75°	597	655	694	663	620	646
85°	111	121	123	120	113	137
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°	2129.4	2129.4	2129.4	2129.4	2129.4	2129.4	2129.4	2129.4	2129.4	2129.4	2129.4
2.5°	2127.2	2127.2	2127.2	2127.2	2128.3	2128.3	2128.3	2128.3	2128.3	2128.3	2127.2
5°	2126.0	2126.0	2126.0	2126.0	2127.2	2127.2	2127.2	2127.2	2127.2	2127.2	2127.2
7.5°	2122.7	2122.7	2123.8	2123.8	2123.8	2123.8	2123.8	2124.9	2124.9	2124.9	2124.9
10°	2117.2	2117.2	2117.2	2117.2	2118.3	2118.3	2119.4	2119.4	2119.4	2119.4	2119.4
12.5°	2109.4	2109.4	2110.5	2110.5	2110.5	2111.6	2112.7	2112.7	2112.7	2112.7	2112.7
15°	2103.8	2103.8	2103.8	2104.9	2104.9	2106.0	2107.1	2107.1	2108.3	2108.3	2108.3
17.5°	2094.9	2096.0	2096.0	2096.0	2097.1	2098.2	2100.5	2100.5	2101.6	2101.6	2101.6
20°	2080.5	2080.5	2081.6	2082.7	2083.8	2084.9	2087.1	2088.2	2088.2	2088.2	2089.4
22.5°	2062.7	2062.7	2063.8	2064.9	2067.1	2068.2	2070.4	2071.6	2071.6	2071.6	2071.6
25°	2040.4	2041.5	2042.7	2043.8	2046.0	2048.2	2050.4	2052.7	2052.7	2051.5	2052.7
27.5°	2018.2	2019.3	2020.4	2022.6	2024.9	2027.1	2029.3	2031.5	2031.5	2031.5	2032.6
30°	1995.9	1997.1	1999.3	2001.5	2004.8	2007.1	2010.4	2013.7	2014.9	2014.9	2013.7
32.5°	1975.9	1977.0	1980.4	1983.7	1988.2	1992.6	1997.1	2000.4	2003.7	2003.7	2001.5
35°	1961.5	1962.6	1967.0	1972.6	1979.3	1984.8	1990.4	1994.8	1999.3	1999.3	1998.2
37.5°	1952.6	1953.7	1959.3	1965.9	1975.9	1983.7	1991.5	1997.1	2001.5	2002.6	2001.5
40°	1944.8	1945.9	1952.6	1961.5	1972.6	1983.7	1993.7	2001.5	2006.0	2008.2	2008.2
42.5°	1933.7	1935.9	1942.6	1954.8	1968.2	1981.5	1993.7	2004.8	2010.4	2012.6	2011.5
45°	1923.7	1925.9	1934.8	1949.2	1964.8	1981.5	1997.1	2010.4	2018.2	2021.5	2019.3
47.5°	1915.9	1919.2	1930.3	1947.0	1965.9	1987.1	2006.0	2021.5	2031.5	2036.0	2032.6
50°	1909.2	1913.7	1925.9	1945.9	1970.4	1997.1	2019.3	2037.1	2049.3	2053.8	2050.4
52.5°	1897.0	1904.8	1919.2	1943.7	1973.7	2003.7	2030.4	2051.5	2066.0	2070.4	2066.0
55°	1877.0	1884.8	1901.4	1929.2	1965.9	1999.3	2031.5	2054.9	2068.2	2073.8	2067.1
57.5°	1831.4	1839.2	1855.8	1888.1	1924.8	1962.6	1995.9	2021.5	2038.2	2041.5	2028.2
60°	1728.0	1733.5	1759.1	1791.4	1826.9	1863.6	1898.1	1927.0	1941.5	1942.6	1923.7
62.5°	1556.7	1565.6	1591.2	1625.7	1659.0	1689.1	1721.3	1751.3	1762.4	1766.9	1752.4
65°	1358.8	1371.0	1389.9	1421.1	1454.4	1478.9	1514.5	1540.0	1551.2	1555.6	1550.1
67.5°	1162.0	1173.1	1183.1	1213.1	1243.2	1266.5	1301.0	1324.3	1333.2	1339.9	1336.6
70°	965.2	975.2	984.1	1008.5	1031.9	1061.9	1081.9	1104.2	1109.7	1122.0	1116.4
72.5°	773.9	781.7	790.6	813.9	828.4	860.6	869.5	888.4	898.5	901.8	896.2
75°	597.1	602.7	612.7	631.6	642.7	667.2	670.5	687.2	693.9	693.9	691.6
77.5°	442.6	447.0	458.1	469.2	480.4	497.0	493.7	504.8	509.3	511.5	509.3
80°	312.5	318.0	320.2	329.1	339.1	345.8	343.6	349.2	350.3	354.7	353.6
82.5°	200.2	205.7	202.4	207.9	214.6	219.1	220.2	220.2	220.2	223.5	222.4
85°	111.2	115.6	113.4	115.6	119.0	122.3	120.1	121.2	122.3	123.4	122.3
87.5°	36.7	41.1	37.8	38.9	41.1	43.4	44.5	41.1	43.4	43.4	43.4
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°	*2129.4*	*2129.4*	*2129.4*	*2129.4*	*2129.4*	*2129.4*	*2129.4*	*2129.4*
2.5°	2127.2	2127.2	2127.2	2127.2	2127.2	2127.2	2127.2	2127.2
5°	2127.2	2127.2	2127.2	2127.2	2126.0	2126.0	2126.0	2126.0
7.5°	2123.8	2123.8	2123.8	2123.8	2122.7	2122.7	2122.7	2122.7
10°	2118.3	2118.3	2118.3	2117.2	2117.2	2117.2	2117.2	2117.2
12.5°	2112.7	2111.6	2111.6	2111.6	2111.6	2110.5	2110.5	2110.5
15°	2108.3	2107.1	2107.1	2106.0	2104.9	2104.9	2103.8	2103.8
17.5°	2100.5	2100.5	2099.4	2098.2	2097.1	2096.0	2096.0	2094.9
20°	2088.2	2087.1	2084.9	2083.8	2083.8	2082.7	2081.6	2080.5
22.5°	2070.4	2069.3	2068.2	2066.0	2064.9	2063.8	2062.7	2061.6
25°	2050.4	2049.3	2048.2	2046.0	2044.9	2042.7	2041.5	2039.3
27.5°	2030.4	2030.4	2027.1	2024.9	2022.6	2020.4	2019.3	2017.1
30°	2012.6	2011.5	2009.3	2004.8	2002.6	1999.3	1997.1	1995.9
32.5°	1999.3	1998.2	1993.7	1988.2	1983.7	1979.3	1978.2	1975.9
35°	1995.9	1991.5	1984.8	1978.2	1972.6	1967.0	1963.7	1962.6
37.5°	1999.3	1991.5	1983.7	1974.8	1967.0	1959.3	1954.8	1952.6
40°	2002.6	1994.8	1985.9	1973.7	1962.6	1953.7	1948.1	1944.8
42.5°	2004.8	1995.9	1984.8	1970.4	1957.0	1945.9	1939.2	1935.9
45°	2010.4	2000.4	1985.9	1968.2	1951.5	1939.2	1931.5	1927.0
47.5°	2022.6	2008.2	1990.4	1969.3	1949.2	1932.6	1923.7	1919.2
50°	2038.2	2020.4	1998.2	1972.6	1948.1	1927.0	1915.9	1910.3
52.5°	2052.7	2031.5	2004.8	1974.8	1943.7	1919.2	1902.5	1897.0
55°	2052.7	2027.1	1993.7	1959.3	1923.7	1894.8	1872.5	1864.7
57.5°	2009.3	1981.5	1940.4	1902.5	1863.6	1829.2	1805.8	1798.0
60°	1898.1	1873.6	1825.8	1789.1	1745.8	1708.0	1690.2	1683.5
62.5°	1728.0	1710.2	1666.8	1634.6	1587.9	1557.8	1536.7	1537.8
65°	1530.0	1514.5	1478.9	1450.0	1407.7	1384.4	1363.2	1347.7
67.5°	1322.1	1304.3	1275.4	1249.8	1215.4	1198.7	1175.3	1160.9
70°	1104.2	1090.8	1064.1	1046.3	1017.4	1003.0	980.7	980.7
72.5°	886.2	879.6	860.6	845.1	822.8	809.5	791.7	795.0
75°	683.8	687.2	668.3	657.2	639.4	628.3	614.9	620.5
77.5°	512.6	508.2	494.8	488.1	472.6	468.1	454.8	459.2
80°	354.7	353.6	342.5	338.0	329.1	326.9	315.8	319.1
82.5°	223.5	223.5	219.1	214.6	211.3	209.0	201.3	203.5
85°	123.4	122.3	121.2	117.9	115.6	116.8	111.2	113.4
87.5°	43.4	42.3	42.3	40.0	37.8	41.1	36.7	37.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)