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: P130719

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

Issue Date: 3/3/2020

Report Generated By E9911574 / USPTCWHP6081592

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

Test Information

Test Method:	LM-79-08
Report Number:	P130719
	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-DOS
Description:	METALUX TOP BAY LED LOW-BAY LUMINAIRE. WIDE DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR.
Light Source:	(160) 5000K CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8167.5 lumens
Efficiency:	N/A
Efficacy:	106.1 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

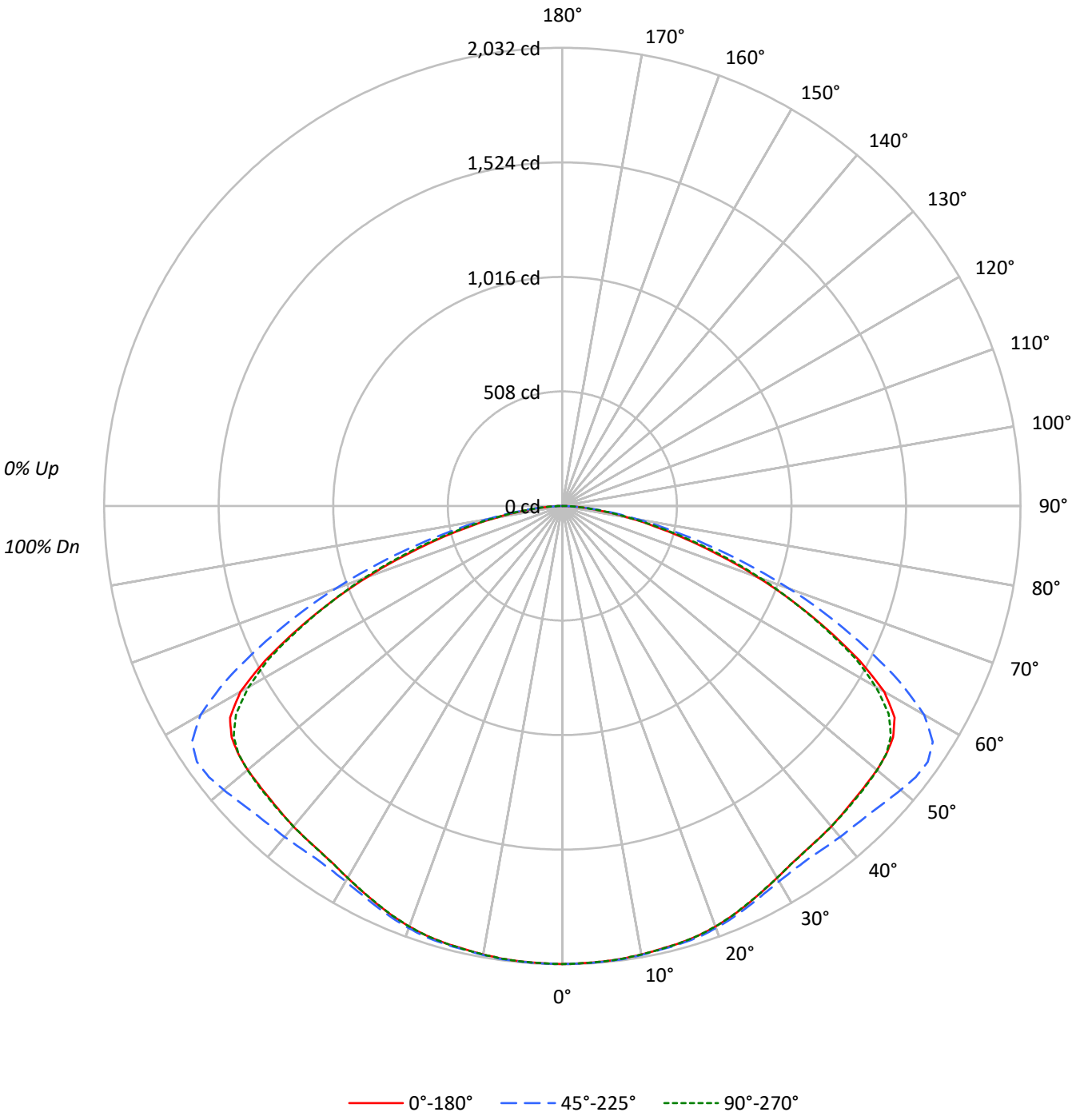
Input Watts (W):	77
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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

Scaled Data Report

TEST NUMBER: P130719
CATALOG NUMBER: TBLED-LD1-8-W-UNV-L850-CD1-DOS

Luminous Intensity Polar Plot



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

Scaled Data Report

TEST NUMBER: P130719
CATALOG NUMBER: TBLED-LD1-8-W-UNV-L850-CD1-DOS

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°	21998	21998	21998
5°	22048	22060	22048
10°	22209	22233	22209
15°	22501	22548	22501
20°	22872	22957	22872
25°	23258	23385	23246
30°	23810	24035	23810
35°	24737	25215	24752
40°	26228	27083	26228
45°	28104	29535	28153
50°	30686	33009	30703
55°	33807	37353	33586
60°	35702	40138	34784
65°	33215	38027	32943
70°	29153	33890	29625
75°	23836	27697	24764
80°	18589	21103	18989
85°	13182	14636	13443

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

Scaled Data Report

TEST NUMBER: P130719
CATALOG NUMBER: TBLED-LD1-8-W-UNV-L850-CD1-DOS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	2.4
10°-20°	568.7	7.0
20°-30°	902.6	11.1
30°-40°	1189.7	14.6
40°-50°	1460.5	17.9
50°-60°	1667.2	20.4
60°-70°	1371.5	16.8
70°-80°	673.0	8.2
80°-90°	140.9	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°	1664.7	20.4
0°-40°	2854.4	34.9
0°-60°	5982.1	73.2
0°-90°	8167.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8167.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2032	2032	2032	2032	2032	
5°	2028	2029	2029	2029	2028	193
15°	2007	2009	2011	2010	2007	568
25°	1947	1953	1957	1953	1946	900
35°	1871	1891	1907	1890	1872	1177
45°	1835	1882	1929	1886	1838	1422
55°	1791	1892	1978	1886	1779	1587
65°	1296	1399	1484	1397	1286	1279
75°	570	625	662	632	592	616
85°	106	115	118	114	108	131
90°	0	0	0	0	0	

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

Scaled Data Report

TEST NUMBER: P130719
CATALOG NUMBER: TBLED-LD1-8-W-UNV-L850-CD1-DOS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2031.5	2031.5	2031.5	2031.5	2031.5	2031.5	2031.5	2031.5	2031.5	2031.5	2031.5
2.5°	2029.4	2029.4	2029.4	2029.4	2030.4	2030.4	2030.4	2030.4	2030.4	2030.4	2029.4
5°	2028.3	2028.3	2028.3	2028.3	2029.4	2029.4	2029.4	2029.4	2029.4	2029.4	2029.4
7.5°	2025.1	2025.1	2026.2	2026.2	2026.2	2026.2	2026.2	2027.3	2027.3	2027.3	2027.3
10°	2019.8	2019.8	2019.8	2019.8	2020.9	2020.9	2022.0	2022.0	2022.0	2022.0	2022.0
12.5°	2012.4	2012.4	2013.5	2013.5	2013.5	2014.5	2015.6	2015.6	2015.6	2015.6	2015.6
15°	2007.1	2007.1	2007.1	2008.2	2008.2	2009.2	2010.3	2010.3	2011.3	2011.3	2011.3
17.5°	1998.6	1999.7	1999.7	1999.7	2000.7	2001.8	2003.9	2003.9	2005.0	2005.0	2005.0
20°	1984.8	1984.8	1985.9	1986.9	1988.0	1989.1	1991.2	1992.2	1992.2	1992.2	1993.3
22.5°	1967.8	1967.8	1968.9	1970.0	1972.1	1973.2	1975.3	1976.3	1976.3	1976.3	1976.3
25°	1946.6	1947.7	1948.8	1949.8	1951.9	1954.1	1956.2	1958.3	1958.3	1957.2	1958.3
27.5°	1925.4	1926.5	1927.5	1929.7	1931.8	1933.9	1936.0	1938.1	1938.1	1938.1	1939.2
30°	1904.2	1905.3	1907.4	1909.5	1912.7	1914.8	1918.0	1921.2	1922.2	1922.2	1921.2
32.5°	1885.1	1886.2	1889.3	1892.5	1896.8	1901.0	1905.3	1908.4	1911.6	1911.6	1909.5
35°	1871.3	1872.4	1876.6	1881.9	1888.3	1893.6	1898.9	1903.1	1907.4	1907.4	1906.3
37.5°	1862.8	1863.9	1869.2	1875.6	1885.1	1892.5	1900.0	1905.3	1909.5	1910.6	1909.5
40°	1855.4	1856.5	1862.8	1871.3	1881.9	1892.5	1902.1	1909.5	1913.7	1915.9	1915.9
42.5°	1844.8	1846.9	1853.3	1864.9	1877.7	1890.4	1902.1	1912.7	1918.0	1920.1	1919.1
45°	1835.2	1837.4	1845.9	1859.6	1874.5	1890.4	1905.3	1918.0	1925.4	1928.6	1926.5
47.5°	1827.8	1831.0	1841.6	1857.5	1875.6	1895.7	1913.7	1928.6	1938.1	1942.4	1939.2
50°	1821.5	1825.7	1837.4	1856.5	1879.8	1905.3	1926.5	1943.4	1955.1	1959.4	1956.2
52.5°	1809.8	1817.2	1831.0	1854.3	1883.0	1911.6	1937.1	1957.2	1971.0	1975.3	1971.0
55°	1790.7	1798.1	1814.0	1840.5	1875.6	1907.4	1938.1	1960.4	1973.2	1978.5	1972.1
57.5°	1747.2	1754.6	1770.5	1801.3	1836.3	1872.4	1904.2	1928.6	1944.5	1947.7	1935.0
60°	1648.5	1653.8	1678.2	1709.0	1743.0	1778.0	1810.8	1838.4	1852.2	1853.3	1835.2
62.5°	1485.2	1493.7	1518.1	1550.9	1582.8	1611.4	1642.2	1670.8	1681.4	1685.7	1671.9
65°	1296.3	1308.0	1326.0	1355.7	1387.6	1410.9	1444.9	1469.3	1479.9	1484.1	1478.8
67.5°	1108.6	1119.2	1128.7	1157.4	1186.0	1208.3	1241.2	1263.5	1271.9	1278.3	1275.1
70°	920.8	930.4	938.8	962.2	984.5	1013.1	1032.2	1053.4	1058.7	1070.4	1065.1
72.5°	738.3	745.8	754.3	776.5	790.3	821.1	829.6	847.6	857.2	860.3	855.0
75°	569.7	575.0	584.5	602.6	613.2	636.5	639.7	655.6	662.0	662.0	659.8
77.5°	422.2	426.5	437.1	447.7	458.3	474.2	471.0	481.6	485.9	488.0	485.9
80°	298.1	303.4	305.5	314.0	323.6	329.9	327.8	333.1	334.2	338.4	337.3
82.5°	191.0	196.3	193.1	198.4	204.7	209.0	210.0	210.0	210.0	213.2	212.2
85°	106.1	110.3	108.2	110.3	113.5	116.7	114.6	115.6	116.7	117.8	116.7
87.5°	35.0	39.3	36.1	37.1	39.3	41.4	42.4	39.3	41.4	41.4	41.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

TEST NUMBER: P130719
CATALOG NUMBER: TBLED-LD1-8-W-UNV-L850-CD1-DOS

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	*2031.5*	*2031.5*	*2031.5*	*2031.5*	*2031.5*	*2031.5*	*2031.5*	*2031.5*
2.5°	2029.4	2029.4	2029.4	2029.4	2029.4	2029.4	2029.4	2029.4
5°	2029.4	2029.4	2029.4	2029.4	2028.3	2028.3	2028.3	2028.3
7.5°	2026.2	2026.2	2026.2	2026.2	2025.1	2025.1	2025.1	2025.1
10°	2020.9	2020.9	2020.9	2019.8	2019.8	2019.8	2019.8	2019.8
12.5°	2015.6	2014.5	2014.5	2014.5	2014.5	2013.5	2013.5	2013.5
15°	2011.3	2010.3	2010.3	2009.2	2008.2	2008.2	2007.1	2007.1
17.5°	2003.9	2003.9	2002.9	2001.8	2000.7	1999.7	1999.7	1998.6
20°	1992.2	1991.2	1989.1	1988.0	1988.0	1986.9	1985.9	1984.8
22.5°	1975.3	1974.2	1973.2	1971.0	1970.0	1968.9	1967.8	1966.8
25°	1956.2	1955.1	1954.1	1951.9	1950.9	1948.8	1947.7	1945.6
27.5°	1937.1	1937.1	1933.9	1931.8	1929.7	1927.5	1926.5	1924.4
30°	1920.1	1919.1	1916.9	1912.7	1910.6	1907.4	1905.3	1904.2
32.5°	1907.4	1906.3	1902.1	1896.8	1892.5	1888.3	1887.2	1885.1
35°	1904.2	1900.0	1893.6	1887.2	1881.9	1876.6	1873.4	1872.4
37.5°	1907.4	1900.0	1892.5	1884.0	1876.6	1869.2	1864.9	1862.8
40°	1910.6	1903.1	1894.7	1883.0	1872.4	1863.9	1858.6	1855.4
42.5°	1912.7	1904.2	1893.6	1879.8	1867.1	1856.5	1850.1	1846.9
45°	1918.0	1908.4	1894.7	1877.7	1861.8	1850.1	1842.7	1838.4
47.5°	1929.7	1915.9	1898.9	1878.7	1859.6	1843.7	1835.2	1831.0
50°	1944.5	1927.5	1906.3	1881.9	1858.6	1838.4	1827.8	1822.5
52.5°	1958.3	1938.1	1912.7	1884.0	1854.3	1831.0	1815.1	1809.8
55°	1958.3	1933.9	1902.1	1869.2	1835.2	1807.7	1786.4	1779.0
57.5°	1916.9	1890.4	1851.2	1815.1	1778.0	1745.1	1722.8	1715.4
60°	1810.8	1787.5	1741.9	1706.9	1665.5	1629.4	1612.5	1606.1
62.5°	1648.5	1631.6	1590.2	1559.4	1514.9	1486.2	1466.1	1467.1
65°	1459.7	1444.9	1410.9	1383.3	1343.0	1320.7	1300.6	1285.7
67.5°	1261.3	1244.4	1216.8	1192.4	1159.5	1143.6	1121.3	1107.5
70°	1053.4	1040.7	1015.2	998.2	970.7	956.9	935.7	935.7
72.5°	845.5	839.1	821.1	806.2	785.0	772.3	755.3	758.5
75°	652.4	655.6	637.6	627.0	610.0	599.4	586.6	591.9
77.5°	489.0	484.8	472.1	465.7	450.9	446.6	433.9	438.1
80°	338.4	337.3	326.7	322.5	314.0	311.9	301.3	304.5
82.5°	213.2	213.2	209.0	204.7	201.6	199.4	192.0	194.1
85°	117.8	116.7	115.6	112.4	110.3	111.4	106.1	108.2
87.5°	41.4	40.3	40.3	38.2	36.1	39.3	35.0	36.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)