

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: P189293

Luminaire Tested: **4SWLED-LD4-48HL-LC-UNV-L840-CD2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P189293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26870)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U
Description: [LUMINAIRE]METALUX LED STAIRWELL WITH NARROW CLEAR LENS

Light Source: EATON LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

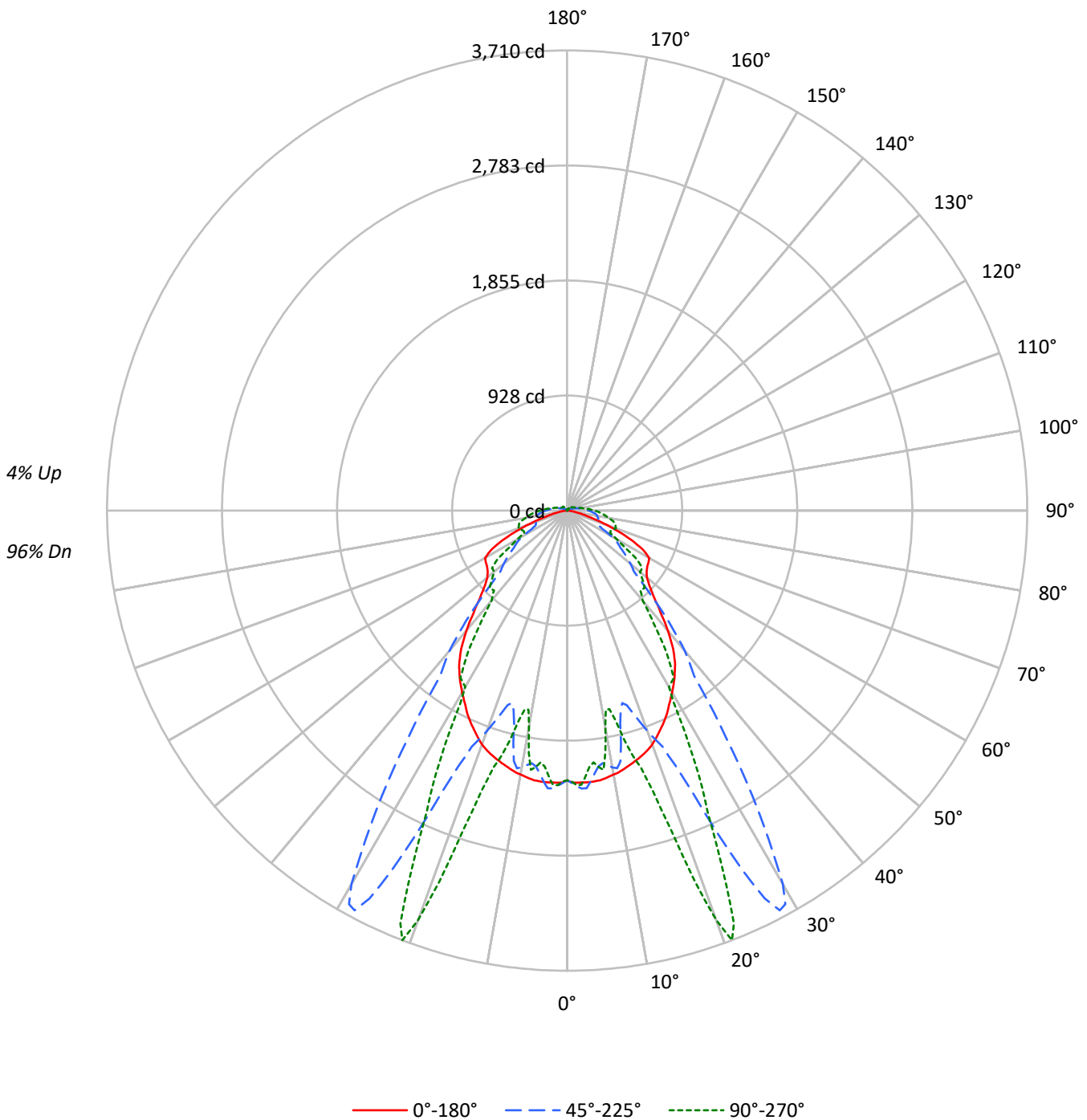
Lumens per Lamp: N/A
Luminaire Lumens: 5925.8 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.15 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.75' x H: 0.17')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

Luminous Intensity Polar Plot





TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96
1	108	103	99	96	105	101	97	94	96	93	90	91	89	86	87	85	83	81
2	99	91	85	80	96	89	83	78	85	80	76	81	77	74	78	74	71	69
3	91	81	74	68	88	79	72	67	76	70	65	73	68	63	70	65	62	59
4	84	73	65	58	81	71	64	58	68	62	56	65	60	55	63	58	54	52
5	78	66	57	51	75	64	56	50	62	55	49	59	53	49	57	52	48	46
6	72	59	51	45	70	58	50	45	56	49	44	54	48	43	52	47	42	40
7	67	54	46	40	65	53	45	40	51	44	39	49	43	39	48	42	38	36
8	62	50	41	36	61	49	41	36	47	40	35	46	39	35	44	38	34	32
9	58	46	38	32	57	45	37	32	43	37	32	42	36	31	41	35	31	29
10	55	42	35	29	53	41	34	29	40	34	29	39	33	29	38	32	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16642	16642	16642
5°	16804	16336	15324
10°	16665	15405	12753
15°	16415	12080	14484
20°	16083	13685	24636
25°	15407	20920	18747
30°	14600	25612	11544
35°	13753	16810	9945
40°	12152	11418	6904
45°	10275	7501	6619
50°	9488	5630	5976
55°	9882	4695	5611
60°	10848	3960	3979
65°	9688	2916	3590
70°	6825	3042	4205
75°	3901	3355	4454
80°	2436	3660	4221
85°	1287	3838	4082



TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.5	3.4
10°-20°	572.5	9.7
20°-30°	1127.9	19.0
30°-40°	1163.8	19.6
40°-50°	978.0	16.5
50°-60°	721.3	12.2
60°-70°	409.0	6.9
70°-80°	293.6	5.0
80°-90°	199.1	3.4
90°-100°	118.9	2.0
100°-110°	62.1	1.0
110°-120°	34.8	0.6
120°-130°	20.4	0.3
130°-140°	14.1	0.2
140°-150°	5.1	0.1
150°-160°	1.5	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	1903.9	32.1
0°-40°	3067.7	51.8
0°-60°	4767.0	80.4
0°-90°	5668.6	95.7
90°-120°	215.8	3.6
90°-150°	255.4	4.3
90°-180°	257.0	4.3
0°-180°	5925.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2174	2174	2174	2174	2174	
5°	2196	2228	2190	2087	2072	209
15°	2096	2006	1666	1875	2045	591
25°	1862	1662	2876	3230	2680	855
35°	1518	1870	2234	1515	1396	938
45°	991	2496	932	842	883	781
55°	788	1401	526	663	687	711
65°	586	562	280	344	387	567
75°	154	227	260	373	400	184
85°	22	95	216	265	283	28
90°	2	69	172	213	219	2
95°	1	55	135	156	163	1
105°	1	29	71	84	90	1
115°	2	13	39	55	62	1
125°	2	6	23	36	44	1
135°	2	3	17	35	43	1
145°	2	2	7	12	16	1
155°	2	2	3	4	5	1
165°	2	2	2	1	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2
1°	2192.6	2191.1	2182.3	2177.8	2177.1	2175.6	2176.4	2177.8	2181.5	2181.5	2198.4
2°	2194.8	2194.0	2188.1	2185.2	2185.2	2185.2	2186.7	2191.1	2194.0	2194.8	2220.5
3°	2195.5	2196.2	2192.6	2190.4	2195.5	2195.5	2197.7	2203.6	2213.9	2217.6	2244.1
4°	2197.0	2199.9	2197.7	2197.0	2207.3	2214.6	2219.1	2227.2	2233.8	2234.5	2244.8
5°	2195.5	2199.2	2199.2	2208.0	2222.0	2227.9	2231.6	2236.7	2226.4	2198.4	2190.4
6°	2194.0	2199.9	2203.6	2219.8	2232.3	2237.5	2238.2	2215.4	2188.1	2155.8	2129.3
7°	2190.4	2196.2	2208.0	2229.4	2237.5	2236.7	2224.2	2177.1	2129.3	2088.0	2076.3
8°	2181.5	2190.4	2213.9	2231.6	2225.7	2202.9	2179.3	2127.8	2082.9	2053.5	2055.7
9°	2171.2	2180.8	2213.9	2226.4	2197.7	2165.3	2135.9	2071.9	2043.2	2038.7	2078.5
10°	2160.9	2176.4	2214.6	2215.4	2152.8	2119.7	2079.2	2035.8	2035.1	2059.3	2102.8
11°	2152.1	2170.5	2210.2	2193.3	2114.5	2077.7	2036.5	2024.0	2052.7	2080.0	2116.8
12°	2139.6	2164.6	2200.7	2163.9	2065.2	2029.9	2008.6	2032.1	2066.7	2091.7	2063.8
13°	2124.8	2152.8	2182.3	2119.7	2024.8	2000.5	2008.6	2047.6	2069.6	2054.9	1930.5
14°	2109.4	2145.5	2160.2	2080.7	1988.0	1993.8	2019.6	2050.5	2054.2	1926.9	1770.8
15°	2096.1	2135.9	2136.6	2037.3	1975.4	2005.6	2025.5	2040.2	1982.1	1803.2	1665.6
16°	2080.7	2125.6	2110.9	2006.4	1987.2	2015.2	2026.2	2013.7	1845.2	1670.7	1614.1
17°	2065.2	2110.9	2078.5	1979.1	2001.2	2016.7	2015.9	1937.2	1743.6	1611.9	1639.1
18°	2047.6	2092.5	2049.0	1960.0	2007.1	2007.8	1990.9	1847.4	1642.0	1600.1	1715.6
19°	2027.7	2071.1	2017.4	1948.2	1999.7	1983.5	1939.4	1747.3	1603.0	1645.0	1802.5
20°	2006.4	2046.8	1988.7	1949.7	1981.3	1945.3	1878.3	1669.3	1600.8	1717.1	1891.5
21°	1979.9	2018.1	1961.5	1957.0	1947.5	1884.2	1800.3	1623.6	1636.1	1784.1	1972.5
22°	1951.2	1988.0	1940.1	1957.0	1896.0	1825.3	1730.3	1605.2	1696.5	1854.0	2052.7
23°	1920.2	1960.0	1920.2	1947.5	1832.7	1759.8	1673.7	1621.4	1739.9	1922.4	2233.0
24°	1892.3	1928.3	1907.0	1924.7	1776.0	1704.6	1638.3	1656.7	1780.4	1999.7	2484.8
25°	1862.1	1898.2	1895.2	1887.9	1724.5	1661.9	1631.0	1685.5	1834.1	2188.9	2876.3
26°	1829.0	1865.8	1884.2	1834.1	1685.5	1639.8	1641.3	1706.8	1906.3	2426.6	3228.9
27°	1793.6	1835.6	1862.8	1775.2	1658.2	1637.6	1662.6	1722.3	2073.3	2799.0	3510.0
28°	1758.3	1801.0	1832.7	1716.4	1642.0	1652.3	1671.5	1755.4	2286.8	3119.2	3650.6
29°	1724.5	1768.6	1798.8	1670.7	1639.8	1670.7	1670.0	1853.3	2618.7	3395.2	3628.5
30°	1694.3	1736.2	1759.8	1640.6	1651.6	1672.9	1669.3	2015.2	2902.1	3536.5	3476.2
32.5°	1608.9	1642.0	1642.8	1613.3	1670.7	1667.1	1798.8	2663.6	3376.1	3396.7	2866.7
35°	1517.6	1527.9	1542.7	1632.5	1683.2	1869.5	2308.9	3086.1	3346.6	2824.1	2234.5
37.5°	1404.3	1402.8	1502.2	1646.4	1932.8	2363.3	2714.4	3153.0	2866.0	2186.7	1682.5
40°	1261.5	1277.7	1494.8	1701.6	2336.8	2575.3	2750.5	2955.1	2222.0	1685.5	1474.2
42.5°	1115.8	1189.4	1494.8	1927.6	2415.6	2547.3	2725.4	2467.8	1759.8	1437.4	1205.6
45°	991.4	1143.0	1505.9	2114.5	2338.3	2496.5	2524.5	1970.3	1458.8	1112.8	932.5
47.5°	899.4	1099.6	1601.5	2041.7	2257.3	2295.6	2190.4	1644.2	1088.6	817.7	730.9
50°	839.0	1048.1	1642.8	1898.2	2089.5	2041.7	1886.4	1212.9	751.5	661.7	667.6
52.5°	807.4	1037.0	1530.2	1764.2	1877.6	1774.5	1487.5	820.6	605.7	592.5	596.2
55°	787.5	1003.9	1365.3	1580.9	1611.9	1400.6	1098.1	617.5	518.1	510.8	525.5
57.5°	778.0	909.7	1202.6	1340.3	1265.9	1078.2	833.9	471.0	421.7	436.5	480.6
60°	763.2	811.1	965.6	1054.0	1008.3	853.8	632.2	374.6	366.5	393.8	413.6
62.5°	694.1	696.3	675.7	832.4	825.1	692.6	499.7	320.9	306.9	315.0	319.4
65°	585.9	540.2	467.4	684.5	680.8	562.3	398.2	254.7	248.0	266.4	280.4



TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
67.5°	465.2	389.3	350.3	547.6	541.0	445.3	318.7	219.3	231.8	251.0	271.6
70°	342.2	286.3	276.0	431.3	426.1	357.0	267.2	203.1	223.7	243.6	265.0
72.5°	233.3	212.0	217.1	325.3	333.4	285.6	226.7	192.8	211.2	234.0	266.4
75°	153.8	155.3	167.1	239.2	255.4	226.7	191.4	179.6	199.5	226.7	259.8
77.5°	105.2	110.4	124.4	171.5	190.6	176.6	162.7	165.6	186.9	218.6	253.2
80°	69.2	74.3	89.1	121.4	141.3	140.6	139.8	153.8	178.1	212.0	245.8
82.5°	42.0	47.1	61.1	86.1	106.7	113.3	122.2	142.8	172.2	209.8	237.0
85°	22.1	27.2	40.5	61.8	83.2	94.9	107.5	134.0	169.3	201.7	216.4
87.5°	8.8	14.0	26.5	44.9	67.7	81.0	95.7	127.3	164.1	185.5	193.6
90°	1.5	6.6	16.9	33.9	55.9	69.2	85.4	122.2	152.4	161.9	172.2
92.5°	0.7	3.7	11.8	25.8	47.1	61.1	78.0	113.3	133.2	142.8	152.4
95°	0.7	2.2	8.8	20.6	40.5	55.2	71.4	99.4	114.1	123.6	134.7
97.5°	0.7	2.2	6.6	16.9	36.8	50.0	64.0	83.9	96.4	107.5	117.0
100°	0.7	1.5	5.9	14.7	32.4	42.7	53.0	68.4	79.5	91.3	100.1
102.5°	0.7	1.5	5.2	13.2	28.0	36.1	43.4	55.2	67.0	76.5	85.4
105°	0.7	1.5	4.4	11.8	22.8	28.7	34.6	45.6	55.9	64.8	70.7
107.5°	0.7	1.5	3.7	9.6	18.4	23.6	28.7	38.3	47.1	53.7	59.6
110°	0.7	0.7	2.9	8.1	15.5	19.9	23.6	31.6	39.0	45.6	50.8
112.5°	1.5	1.5	2.9	6.6	12.5	16.2	19.9	26.5	33.1	39.0	44.2
115°	1.5	1.5	2.2	5.2	10.3	13.2	16.2	22.1	28.0	33.9	39.0
117.5°	1.5	1.5	2.2	4.4	8.1	11.0	13.2	18.4	23.6	29.4	34.6
120°	1.5	1.5	1.5	3.7	7.4	8.8	11.0	15.5	20.6	25.8	30.2
122.5°	1.5	1.5	1.5	2.9	5.9	7.4	8.8	13.2	17.7	22.1	26.5
125°	1.5	1.5	1.5	2.2	4.4	5.9	7.4	11.0	14.7	19.1	22.8
127.5°	1.5	1.5	1.5	2.2	3.7	5.2	5.9	8.8	12.5	15.5	19.9
130°	1.5	1.5	1.5	1.5	2.9	3.7	5.2	7.4	10.3	14.0	17.7
132.5°	1.5	1.5	1.5	1.5	2.9	3.7	4.4	6.6	10.3	13.2	16.9
135°	1.5	1.5	1.5	1.5	2.2	2.9	4.4	6.6	9.6	13.2	16.9
137.5°	1.5	1.5	1.5	1.5	2.2	2.9	3.7	5.9	8.8	12.5	15.5
140°	1.5	1.5	1.5	1.5	1.5	2.2	2.9	5.2	7.4	9.6	12.5
142.5°	1.5	1.5	1.5	1.5	1.5	1.5	2.2	3.7	5.2	7.4	9.6
145°	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.9	3.7	5.2	6.6
147.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.9	3.7	5.2
150°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.9	3.7
152.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9
155°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9
157.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
160°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
165°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
180°	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2	2174.2
1°	2204.3	2201.4	2199.2	2196.2	2193.3	2192.6	2191.1	2190.4	2184.5	2185.2
2°	2225.7	2227.9	2226.4	2223.5	2225.7	2222.7	2221.3	2218.3	2216.1	2216.8
3°	2251.4	2250.7	2244.1	2236.0	2230.8	2230.8	2219.8	2215.4	2202.1	2213.9
4°	2228.6	2213.2	2188.1	2176.4	2165.3	2163.9	2150.6	2138.1	2131.5	2143.2
5°	2166.8	2144.0	2112.3	2099.8	2087.3	2088.8	2077.7	2069.6	2064.5	2071.9
6°	2105.0	2084.4	2062.3	2049.0	2043.9	2040.2	2038.7	2040.9	2042.4	2041.7
7°	2061.6	2057.1	2054.9	2060.8	2066.0	2066.0	2074.8	2082.2	2084.4	2082.9
8°	2069.6	2084.4	2093.9	2097.6	2098.4	2099.8	2113.8	2113.8	2109.4	2110.9
9°	2102.8	2113.1	2123.4	2110.1	2084.4	2079.2	2030.6	2001.9	1961.5	1973.2
10°	2128.5	2109.4	2029.9	1964.4	1920.2	1905.5	1831.9	1799.5	1757.6	1769.4
11°	2084.4	1981.3	1861.4	1779.7	1737.7	1713.4	1665.6	1645.7	1637.6	1635.4
12°	1920.2	1800.3	1692.8	1645.7	1626.6	1619.2	1614.1	1619.9	1633.2	1636.9
13°	1770.8	1671.5	1622.2	1625.8	1635.4	1647.2	1688.4	1712.7	1736.2	1737.0
14°	1650.1	1619.9	1659.7	1709.7	1738.4	1756.8	1814.3	1854.0	1897.4	1905.5
15°	1618.5	1668.5	1762.7	1839.3	1875.3	1914.4	1990.2	2022.5	2046.8	2045.4
16°	1672.9	1759.1	1890.1	1979.9	2016.7	2042.4	2091.0	2120.4	2149.1	2153.6
17°	1764.2	1896.0	2016.7	2085.8	2112.3	2141.8	2231.6	2293.4	2345.7	2362.6
18°	1859.9	1998.3	2093.9	2205.8	2275.7	2333.1	2458.3	2572.3	2682.0	2702.6
19°	1966.6	2087.3	2247.0	2439.1	2525.2	2654.0	2877.0	3016.2	3127.3	3163.4
20°	2036.5	2227.2	2475.2	2836.6	2958.0	3100.8	3314.2	3420.2	3496.8	3513.7
21°	2159.4	2472.2	2898.4	3255.4	3378.3	3457.8	3599.1	3666.0	3685.2	3710.2
22°	2363.3	2860.9	3298.8	3558.6	3641.0	3686.7	3702.1	3652.1	3607.2	3589.5
23°	2737.2	3243.6	3563.7	3708.0	3699.9	3644.0	3518.1	3399.6	3322.3	3289.9
24°	3143.5	3538.0	3696.2	3574.0	3504.1	3384.9	3224.4	3105.2	3022.8	2983.0
25°	3430.5	3683.7	3549.8	3318.7	3229.6	3105.9	2911.6	2797.6	2716.6	2679.8
26°	3645.4	3613.1	3302.5	3037.5	2933.0	2813.8	2643.0	2579.0	2519.3	2484.0
27°	3665.3	3402.6	3039.7	2747.5	2654.0	2569.4	2441.3	2349.3	2286.8	2253.6
28°	3505.6	3156.7	2760.0	2526.0	2450.2	2347.1	2202.1	2111.6	2067.4	2017.4
29°	3301.7	2874.8	2527.4	2283.8	2201.4	2097.6	1953.4	1834.1	1805.4	1774.5
30°	3027.9	2618.0	2296.3	2024.8	1946.0	1834.1	1723.7	1684.7	1665.6	1641.3
32.5°	2383.9	1972.5	1704.6	1601.5	1578.0	1567.7	1608.2	1614.8	1613.3	1600.1
35°	1784.1	1559.6	1550.0	1534.6	1514.7	1495.6	1458.0	1436.7	1418.3	1395.5
37.5°	1523.5	1461.0	1373.4	1297.6	1263.7	1238.0	1199.0	1177.6	1159.9	1146.7
40°	1335.1	1206.3	1118.7	1065.7	1047.3	1017.2	992.9	979.6	966.4	948.7
42.5°	1077.5	962.7	893.5	856.0	844.9	833.2	842.7	858.2	865.5	873.6
45°	829.5	777.2	793.4	828.0	842.0	856.7	878.1	882.5	883.9	883.2
47.5°	722.8	760.3	779.4	790.5	788.3	794.2	811.8	823.6	831.0	824.3
50°	686.7	691.8	718.3	745.6	750.0	742.6	746.3	755.9	766.2	767.7
52.5°	621.2	643.3	663.9	682.3	698.5	714.7	741.2	754.4	762.5	762.5
55°	557.9	598.4	627.1	652.8	663.1	667.6	680.8	686.0	691.1	687.4
57.5°	518.1	537.3	556.4	552.7	544.6	532.9	540.2	549.1	552.7	550.5
60°	418.8	419.5	421.7	427.6	437.2	446.0	454.9	457.1	460.7	460.0
62.5°	331.2	338.6	350.3	369.5	374.6	374.6	383.5	390.1	392.3	389.3
65°	297.3	312.1	332.7	343.7	343.7	345.9	362.1	381.3	388.6	387.1



TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
67.5°	290.7	316.5	326.8	342.2	354.0	365.8	382.0	393.0	399.7	401.9
70°	295.1	314.3	334.9	356.2	365.8	376.1	395.2	410.7	416.6	417.3
72.5°	294.4	319.4	340.0	365.8	376.8	386.4	400.4	406.3	408.5	408.5
75°	292.2	317.2	345.9	364.3	373.2	382.7	390.8	395.2	398.9	400.4
77.5°	282.6	309.9	323.8	340.8	346.7	351.1	361.4	368.7	373.9	374.6
80°	270.9	283.4	293.7	307.7	312.1	318.7	329.0	333.4	337.1	337.1
82.5°	248.0	256.9	267.9	282.6	290.7	297.3	305.4	308.4	310.6	311.3
85°	223.7	232.6	246.6	259.1	265.0	270.9	278.2	282.6	284.1	282.6
87.5°	201.7	214.2	227.4	237.0	239.2	242.1	248.0	251.7	253.2	254.7
90°	181.8	194.3	204.6	212.7	212.7	215.6	218.6	219.3	217.9	219.3
92.5°	164.1	172.2	178.1	181.8	181.8	184.0	187.7	189.2	188.4	189.2
95°	142.8	148.7	151.6	153.8	156.0	159.0	161.9	162.7	162.7	163.4
97.5°	123.6	128.1	131.0	133.2	134.0	136.2	136.2	136.9	136.9	137.6
100°	106.7	111.1	111.9	111.1	111.9	112.6	113.3	114.8	115.6	116.3
102.5°	90.5	94.2	95.7	96.4	97.2	98.6	100.1	100.8	102.3	102.3
105°	75.1	79.5	82.4	83.9	83.9	85.4	86.8	88.3	89.1	89.8
107.5°	64.0	68.4	72.1	73.6	75.1	75.8	77.3	78.8	79.5	80.2
110°	55.2	59.6	64.0	67.0	67.7	69.2	70.7	72.1	72.9	73.6
112.5°	49.3	53.0	56.7	59.6	61.1	62.6	64.0	65.5	67.0	67.0
115°	43.4	47.8	50.8	53.7	55.2	55.9	58.1	60.4	61.1	61.8
117.5°	39.0	42.7	45.6	48.6	50.0	51.5	53.0	54.5	55.9	55.9
120°	34.6	38.3	41.2	43.4	44.9	45.6	47.8	49.3	50.0	50.8
122.5°	30.2	33.9	36.1	39.0	39.7	41.2	43.4	44.9	45.6	46.4
125°	26.5	29.4	32.4	35.3	36.1	37.5	40.5	42.0	43.4	44.2
127.5°	23.6	26.5	30.2	33.1	34.6	36.8	39.7	42.0	43.4	44.2
130°	21.3	25.8	29.4	33.1	35.3	36.8	40.5	43.4	44.9	44.9
132.5°	21.3	25.8	30.2	33.9	36.1	37.5	41.2	44.2	45.6	46.4
135°	20.6	24.3	28.7	32.4	34.6	36.1	39.0	41.2	42.7	42.7
137.5°	18.4	21.3	24.3	27.2	29.4	30.9	33.1	34.6	36.1	36.1
140°	14.7	16.9	19.1	21.3	22.8	24.3	26.5	27.2	28.7	28.7
142.5°	11.0	12.5	14.7	16.2	16.9	18.4	19.9	21.3	22.1	22.1
145°	8.1	9.6	10.3	11.8	12.5	13.2	14.7	15.5	16.2	16.2
147.5°	5.9	6.6	7.4	8.8	8.8	9.6	11.0	11.8	11.8	11.8
150°	4.4	5.2	5.9	5.9	6.6	6.6	8.1	8.8	8.8	8.8
152.5°	3.7	3.7	4.4	4.4	5.2	5.2	5.9	6.6	6.6	6.6
155°	2.9	2.9	2.9	2.9	3.7	3.7	4.4	4.4	5.2	5.2
157.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.9	2.9	3.7	3.7
160°	2.2	2.2	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2
162.5°	2.2	1.5	1.5	1.5	0.7	1.5	1.5	1.5	1.5	1.5
165°	1.5	1.5	1.5	0.7	0.7	0.7	0.7	0.7	0.7	1.5
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P189293

CATALOG NUMBER: 4SWLED-LD4-48HL-LC-UNV-L840-CD2-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)