

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P152378

Luminaire Tested: **TLM-E04-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152378
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E04-LED-E1-SL4-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

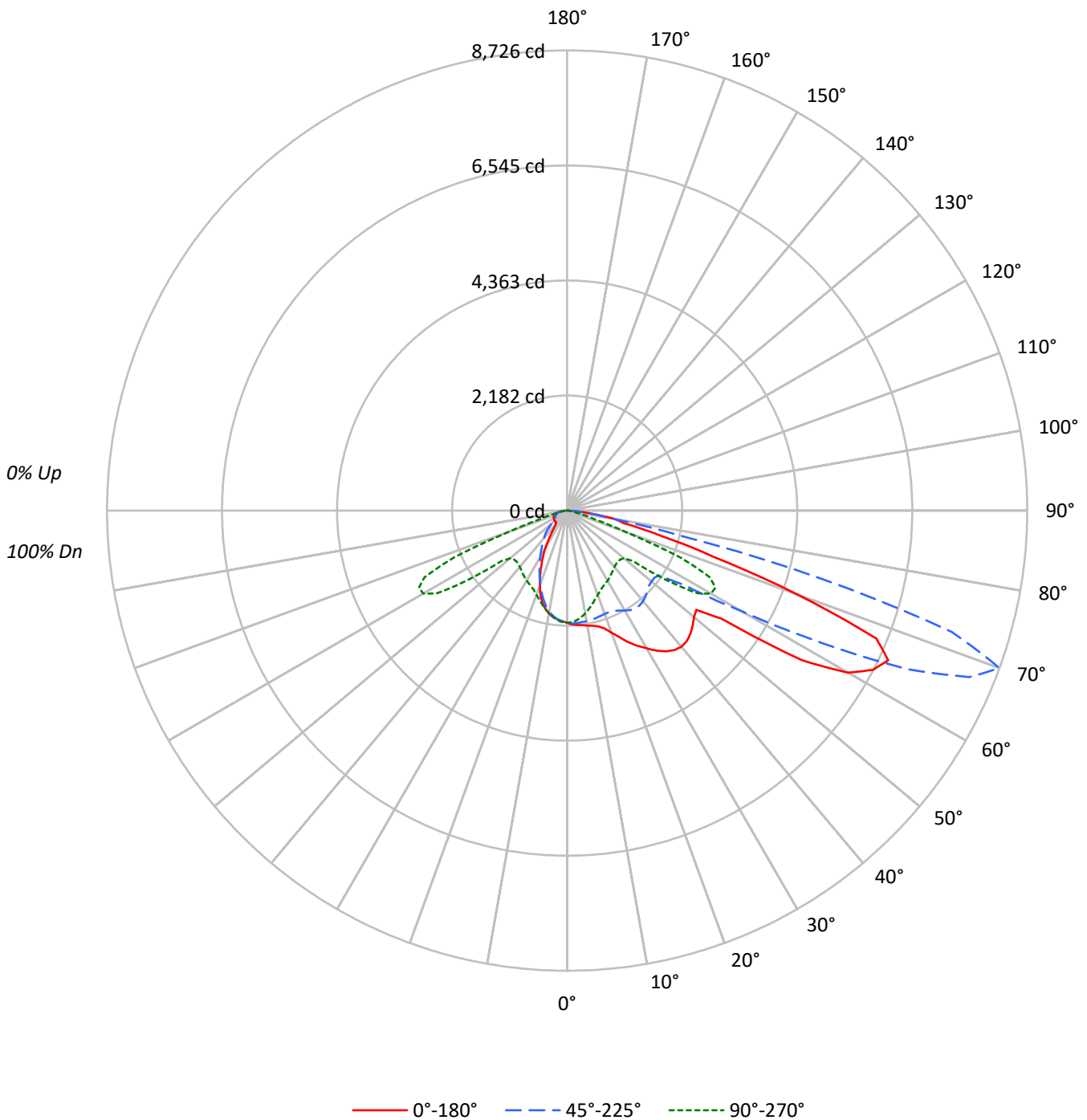
Lumens per Lamp: N/A
Luminaire Lumens: 9973.0 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 97.2
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	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34187	34187	34187
5°	35099	33665	33447
10°	36128	32273	32328
15°	37827	30563	30114
20°	42095	29013	25800
25°	48813	28286	20626
30°	55948	28453	15407
35°	63872	28669	10020
40°	70682	29264	6914
45°	75092	30911	6902
50°	78527	35128	7678
55°	99918	64301	8383
60°	197529	101133	9402
65°	255342	113362	10568
70°	217253	53600	11893
75°	114207	19696	14668
80°	84959	10723	15932
85°	49161	10378	15963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.8	2.0
10°-20°	544.2	5.5
20°-30°	805.6	8.1
30°-40°	1018.1	10.2
40°-50°	1151.4	11.5
50°-60°	1638.5	16.4
60°-70°	3051.6	30.6
70°-80°	1398.6	14.0
80°-90°	166.0	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°	1548.7	15.5
0°-40°	2566.8	25.7
0°-60°	5356.8	53.7
0°-90°	9973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9973.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2128	2128	2128	2128	2128	
5°	2176	2140	2088	2071	2074	209
15°	2274	2110	1838	1740	1811	655
25°	2754	2099	1596	1244	1164	1279
35°	3257	2266	1462	833	511	2036
45°	3305	2153	1360	545	304	2543
55°	3567	2140	2296	277	299	3748
65°	6717	7113	2982	248	278	6194
75°	1840	5001	317	195	236	2262
85°	267	234	56	89	87	335
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°	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0
2.5°	2160.6	2166.2	2159.5	2158.4	2158.4	2157.2	2150.5	2149.4	2140.4	2141.5	2143.7
5°	2176.4	2178.6	2174.1	2173.0	2170.7	2166.2	2160.6	2153.9	2147.1	2140.4	2134.7
7.5°	2192.1	2189.9	2186.5	2186.5	2183.1	2176.4	2165.1	2156.1	2141.5	2133.6	2123.5
10°	2214.6	2211.3	2206.8	2204.5	2198.9	2188.7	2173.0	2160.6	2142.6	2126.9	2110.0
12.5°	2236.0	2234.9	2228.1	2224.8	2215.8	2205.6	2186.5	2167.4	2143.7	2119.0	2096.5
15°	2274.3	2269.8	2263.0	2256.3	2241.6	2228.1	2198.9	2176.4	2142.6	2110.0	2075.1
17.5°	2340.7	2332.8	2326.0	2311.4	2293.4	2269.8	2227.0	2188.7	2142.6	2095.3	2056.0
20°	2462.2	2445.3	2436.3	2417.2	2385.7	2342.9	2276.5	2214.6	2146.0	2085.2	2032.3
22.5°	2599.5	2588.2	2575.9	2563.5	2514.0	2452.1	2362.0	2269.8	2166.2	2080.7	2013.2
25°	2753.7	2739.0	2732.3	2710.9	2664.8	2593.9	2471.2	2342.9	2212.4	2098.7	2013.2
27.5°	2891.0	2886.4	2885.3	2860.6	2816.7	2733.4	2588.2	2434.1	2275.4	2135.9	2030.1
30°	3015.9	3011.4	3009.1	2995.6	2945.0	2845.9	2688.4	2515.1	2344.0	2187.6	2061.6
32.5°	3148.6	3134.0	3127.3	3101.4	3044.0	2928.1	2748.0	2568.0	2398.1	2238.3	2096.5
35°	3256.7	3244.3	3230.8	3193.7	3112.6	2975.3	2773.9	2586.0	2419.4	2266.4	2114.5
37.5°	3335.5	3323.1	3303.9	3256.7	3156.5	2991.1	2772.8	2580.4	2411.6	2261.9	2117.9
40°	3370.3	3358.0	3337.7	3278.1	3164.4	2982.1	2751.4	2554.5	2387.9	2238.3	2104.4
42.5°	3356.8	3347.8	3321.9	3264.6	3139.6	2941.6	2708.6	2506.1	2342.9	2200.0	2074.0
45°	3305.1	3298.3	3273.6	3212.8	3083.4	2876.3	2645.6	2445.3	2288.9	2152.7	2033.5
47.5°	3227.4	3225.2	3200.4	3140.8	3012.5	2811.1	2580.4	2385.7	2234.9	2106.6	1999.7
50°	3141.9	3130.6	3118.3	3063.1	2946.1	2754.8	2533.1	2348.5	2204.5	2089.7	1985.1
52.5°	3087.9	3084.5	3073.3	3023.7	2911.2	2722.2	2511.7	2335.0	2202.3	2086.3	1977.2
55°	3567.3	3575.1	3471.6	3256.7	3067.6	2812.2	2575.9	2403.7	2257.4	2140.4	2060.5
57.5°	5276.6	5241.7	5063.9	4637.4	4155.8	3520.0	3062.0	2784.0	2602.9	2623.1	2663.6
60°	6147.6	6140.9	6108.2	5942.8	5622.1	5138.2	4601.4	3985.9	3790.1	3811.5	3827.2
62.5°	6537.0	6547.1	6571.9	6510.0	6425.6	6284.9	6017.1	5769.5	5507.3	5409.4	5147.2
65°	6717.0	6735.0	6791.3	6826.2	6858.8	6883.6	6989.4	7279.7	7471.0	7113.2	6280.4
67.5°	6344.6	6431.2	6616.9	6798.1	6960.1	7190.8	7548.7	8222.7	8692.0	8252.0	7044.5
70°	4625.1	4743.2	4955.9	5516.3	6115.0	6638.3	7331.5	8357.8	9065.6	8725.7	7233.6
72.5°	2900.0	2932.6	3027.1	3233.0	3677.5	4349.4	5561.3	7100.8	7917.8	7646.6	6113.9
75°	1839.9	1851.2	1847.8	1895.0	1970.4	2116.7	2596.1	4194.1	5424.0	5000.9	3407.5
77.5°	1096.1	1112.9	1119.7	1134.3	1170.3	1222.1	1261.5	1426.9	2274.3	2207.9	1236.7
80°	918.3	931.8	920.5	917.1	894.6	878.9	898.0	878.9	815.9	785.5	723.6
82.5°	486.1	485.0	481.6	514.3	580.7	632.4	671.8	662.8	599.8	510.9	433.2
85°	266.7	275.7	275.7	287.0	276.8	278.0	287.0	302.7	280.2	234.1	191.3
87.5°	22.5	34.9	28.1	34.9	47.3	33.8	32.6	32.6	28.1	20.3	18.0
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°	95°	100°	105°
0°	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0
2.5°	2138.1	2135.9	2131.4	2128.0	2128.0	2122.4	2119.0	2116.7	2115.6	2111.1	2111.1
5°	2131.4	2123.5	2115.6	2110.0	2106.6	2101.0	2092.0	2087.5	2081.8	2077.3	2075.1
7.5°	2116.7	2102.1	2089.7	2080.7	2069.5	2060.5	2049.2	2039.1	2029.0	2024.5	2022.2
10°	2094.2	2075.1	2056.0	2039.1	2023.3	2007.6	1992.9	1978.3	1965.9	1956.9	1947.9
12.5°	2072.8	2043.6	2018.8	1994.1	1969.3	1950.2	1929.9	1908.5	1890.5	1873.7	1869.2
15°	2043.6	2009.8	1978.3	1947.9	1917.5	1886.0	1861.3	1837.6	1808.4	1789.3	1774.6
17.5°	2016.6	1976.1	1937.8	1901.8	1864.7	1832.0	1794.9	1763.4	1734.1	1704.9	1683.5
20°	1987.3	1943.4	1902.9	1862.4	1821.9	1780.3	1737.5	1697.0	1661.0	1626.1	1591.2
22.5°	1961.4	1916.4	1877.0	1833.1	1788.1	1740.9	1691.4	1640.7	1599.1	1554.1	1513.6
25°	1945.7	1896.2	1855.7	1812.9	1763.4	1711.6	1655.3	1595.7	1545.1	1493.3	1444.9
27.5°	1945.7	1881.5	1839.9	1797.1	1746.5	1691.4	1629.5	1564.2	1506.8	1449.4	1389.8
30°	1962.6	1883.8	1827.5	1782.5	1730.7	1671.1	1602.5	1533.8	1470.8	1403.3	1345.9
32.5°	1978.3	1888.3	1818.5	1761.1	1701.5	1643.0	1573.2	1500.1	1430.3	1366.1	1305.4
35°	1988.4	1888.3	1801.6	1728.5	1661.0	1603.6	1534.9	1461.8	1390.9	1327.9	1271.6
37.5°	1989.6	1879.3	1774.6	1691.4	1620.5	1560.8	1495.6	1426.9	1359.4	1300.9	1253.6
40°	1978.3	1861.3	1747.6	1652.0	1577.7	1516.9	1457.3	1395.4	1334.6	1286.2	1245.7
42.5°	1958.1	1842.2	1721.7	1620.5	1542.8	1479.8	1424.7	1371.8	1318.9	1277.2	1243.5
45°	1927.7	1816.3	1698.1	1601.3	1524.8	1458.4	1404.4	1360.5	1315.5	1280.6	1246.9
47.5°	1900.7	1807.3	1706.0	1613.7	1533.8	1465.2	1410.0	1372.9	1338.0	1314.4	1268.2
50°	1895.0	1802.8	1709.4	1623.8	1542.8	1473.0	1424.7	1405.5	1395.4	1380.8	1309.9
52.5°	1879.3	1801.6	1734.1	1686.9	1635.1	1602.5	1551.8	1569.8	1558.6	1506.8	1378.5
55°	2044.7	2067.2	2130.2	2220.3	2303.5	2322.7	2317.0	2295.7	2182.0	1877.0	1543.9
57.5°	2811.1	2938.2	3057.5	3110.4	3103.6	3044.0	3001.2	2914.6	2750.3	2378.9	1870.3
60°	3875.6	3895.9	3832.8	3739.4	3581.9	3450.2	3309.6	3147.5	2909.0	2545.5	2070.6
62.5°	4855.8	4583.4	4303.2	4039.9	3800.2	3590.9	3395.1	3168.9	2858.3	2479.1	2044.7
65°	5547.8	4971.7	4529.4	4151.3	3812.6	3520.0	3275.8	2982.1	2632.1	2290.0	1895.0
67.5°	5904.6	5021.2	4342.6	3816.0	3335.5	2930.3	2605.1	2319.3	2059.3	1909.7	1658.7
70°	5506.2	4261.6	3316.3	2721.0	2146.0	1720.6	1359.4	1141.1	1065.7	1207.5	1255.9
72.5°	4102.9	2773.9	1972.7	1525.9	1169.2	931.8	714.6	561.5	456.9	479.4	622.3
75°	1940.1	1197.3	846.2	643.7	512.0	424.2	346.6	317.3	265.6	220.6	207.1
77.5°	755.1	550.3	454.6	333.1	236.3	190.2	162.0	156.4	159.8	155.3	153.0
80°	575.0	389.4	244.2	178.9	154.2	136.2	120.4	115.9	118.2	123.8	129.4
82.5°	320.7	200.3	148.5	129.4	115.9	99.0	90.0	83.3	84.4	91.2	103.5
85°	123.8	96.8	88.9	85.5	79.9	64.1	55.1	56.3	64.1	76.5	76.5
87.5°	13.5	13.5	18.0	13.5	13.5	13.5	12.4	14.6	15.8	20.3	23.6
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0	2128.0
2.5°	2108.9	2108.9	2108.9	2106.6	2107.7	2103.2	2103.2	2099.8	2105.5	2102.1	2101.0
5°	2076.2	2075.1	2070.6	2070.6	2070.6	2070.6	2074.0	2065.0	2071.7	2071.7	2068.3
7.5°	2021.1	2021.1	2008.7	2015.5	2013.2	2016.6	2021.1	2016.6	2023.3	2027.8	2024.5
10°	1944.6	1944.6	1934.4	1942.3	1938.9	1946.8	1954.7	1950.2	1954.7	1961.4	1963.7
12.5°	1860.2	1855.7	1846.7	1850.0	1850.0	1854.5	1857.9	1863.5	1869.2	1878.2	1882.7
15°	1762.3	1755.5	1744.2	1744.2	1737.5	1739.7	1746.5	1748.7	1760.0	1772.4	1787.0
17.5°	1662.1	1645.2	1632.8	1618.2	1607.0	1616.0	1623.8	1629.5	1638.5	1657.6	1667.7
20°	1567.6	1533.8	1510.2	1491.1	1478.7	1484.3	1494.4	1501.2	1509.1	1513.6	1516.9
22.5°	1474.2	1435.9	1403.3	1379.6	1359.4	1365.0	1360.5	1357.1	1362.8	1348.1	1347.0
25°	1393.1	1348.1	1304.2	1276.1	1251.4	1243.5	1219.8	1214.2	1198.5	1186.1	1177.1
27.5°	1334.6	1276.1	1227.7	1195.1	1155.7	1126.4	1096.1	1065.7	1048.8	1028.5	1018.4
30°	1288.5	1226.6	1169.2	1114.1	1062.3	1017.3	976.8	937.4	910.4	881.1	862.0
32.5°	1245.7	1188.3	1118.6	1043.2	973.4	922.8	869.9	824.9	782.1	743.8	715.7
35°	1216.5	1152.3	1063.4	971.2	892.4	832.7	776.5	712.3	660.6	611.0	580.7
37.5°	1200.7	1121.9	1012.8	910.4	822.6	755.1	685.3	611.0	548.0	501.9	455.8
40°	1188.3	1091.6	967.8	856.4	764.1	683.1	602.0	514.3	444.5	396.1	360.1
42.5°	1174.8	1057.8	928.4	813.6	711.2	616.7	518.8	425.4	359.0	325.2	309.5
45°	1160.2	1028.5	891.3	773.1	659.4	544.7	432.1	345.5	306.1	294.8	294.8
47.5°	1156.8	1009.4	864.2	733.7	600.9	461.4	352.2	298.2	287.0	289.2	293.7
50°	1170.3	1003.8	840.6	687.6	523.3	373.6	298.2	280.2	282.5	289.2	296.0
52.5°	1203.0	1008.3	815.9	623.4	431.0	308.3	275.7	274.6	281.3	291.5	298.2
55°	1258.1	1008.3	768.6	527.8	344.3	276.8	267.8	272.3	281.3	290.3	296.0
57.5°	1376.3	998.2	685.3	422.0	288.1	265.6	265.6	271.2	279.1	288.1	292.6
60°	1516.9	984.7	568.3	326.3	259.9	256.6	264.5	271.2	278.0	285.8	290.3
62.5°	1525.9	949.8	450.1	270.1	245.3	250.9	263.3	272.3	274.6	280.2	285.8
65°	1402.2	828.2	357.9	241.9	238.6	247.6	259.9	266.7	267.8	270.1	275.7
67.5°	1227.7	675.2	289.2	228.4	231.8	241.9	248.7	254.3	257.7	263.3	264.5
70°	1008.3	542.4	247.6	214.9	218.3	229.6	235.2	240.8	247.6	254.3	250.9
72.5°	714.6	422.0	217.2	200.3	204.8	214.9	221.7	226.2	231.8	238.6	234.1
75°	303.8	294.8	187.9	181.2	187.9	194.7	201.4	208.2	213.8	217.2	217.2
77.5°	155.3	173.3	162.0	162.0	166.5	173.3	178.9	185.7	189.1	192.4	196.9
80°	131.7	133.9	136.2	140.7	145.2	151.9	157.5	163.2	164.3	165.4	167.7
82.5°	109.2	113.7	115.9	122.7	126.0	128.3	131.7	131.7	133.9	133.9	130.5
85°	78.8	84.4	87.8	88.9	87.8	88.9	90.0	92.3	97.9	97.9	93.4
87.5°	22.5	21.4	27.0	28.1	30.4	34.9	39.4	47.3	49.5	51.8	51.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P152378

CATALOG NUMBER: TLM-E04-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2128.0	2128.0	2128.0	2128.0
2.5°	2099.8	2102.1	2097.6	2098.7
5°	2068.3	2072.8	2067.2	2074.0
7.5°	2027.8	2034.6	2033.5	2032.3
10°	1969.3	1978.3	1978.3	1981.7
12.5°	1895.0	1900.7	1905.2	1907.4
15°	1794.9	1805.0	1810.6	1810.6
17.5°	1674.5	1681.2	1684.6	1680.1
20°	1521.4	1519.2	1520.3	1509.1
22.5°	1344.8	1348.1	1338.0	1340.3
25°	1171.5	1165.8	1170.3	1163.6
27.5°	1003.8	1004.9	992.5	998.2
30°	844.0	838.4	822.6	830.5
32.5°	689.8	675.2	658.3	648.2
35°	544.7	522.1	514.3	510.9
37.5°	427.6	402.9	395.0	386.0
40°	339.8	330.8	327.5	329.7
42.5°	305.0	305.0	307.2	308.3
45°	296.0	299.3	302.7	303.8
47.5°	297.1	300.5	305.0	306.1
50°	299.3	302.7	306.1	307.2
52.5°	300.5	300.5	302.7	303.8
55°	298.2	297.1	298.2	299.3
57.5°	293.7	291.5	292.6	296.0
60°	291.5	288.1	290.3	292.6
62.5°	285.8	284.7	287.0	288.1
65°	273.5	274.6	278.0	278.0
67.5°	262.2	263.3	264.5	265.6
70°	248.7	249.8	252.1	253.2
72.5°	232.9	237.4	240.8	245.3
75°	220.6	225.1	231.8	236.3
77.5°	199.2	202.6	210.4	216.1
80°	168.8	167.7	168.8	172.2
82.5°	129.4	129.4	128.3	127.2
85°	91.2	90.0	86.6	86.6
87.5°	49.5	48.4	47.3	45.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)