

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: P152393

Luminaire Tested: **TLM-F05-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152393
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-F05-LED-E1-SL4-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (35) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10291.2 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

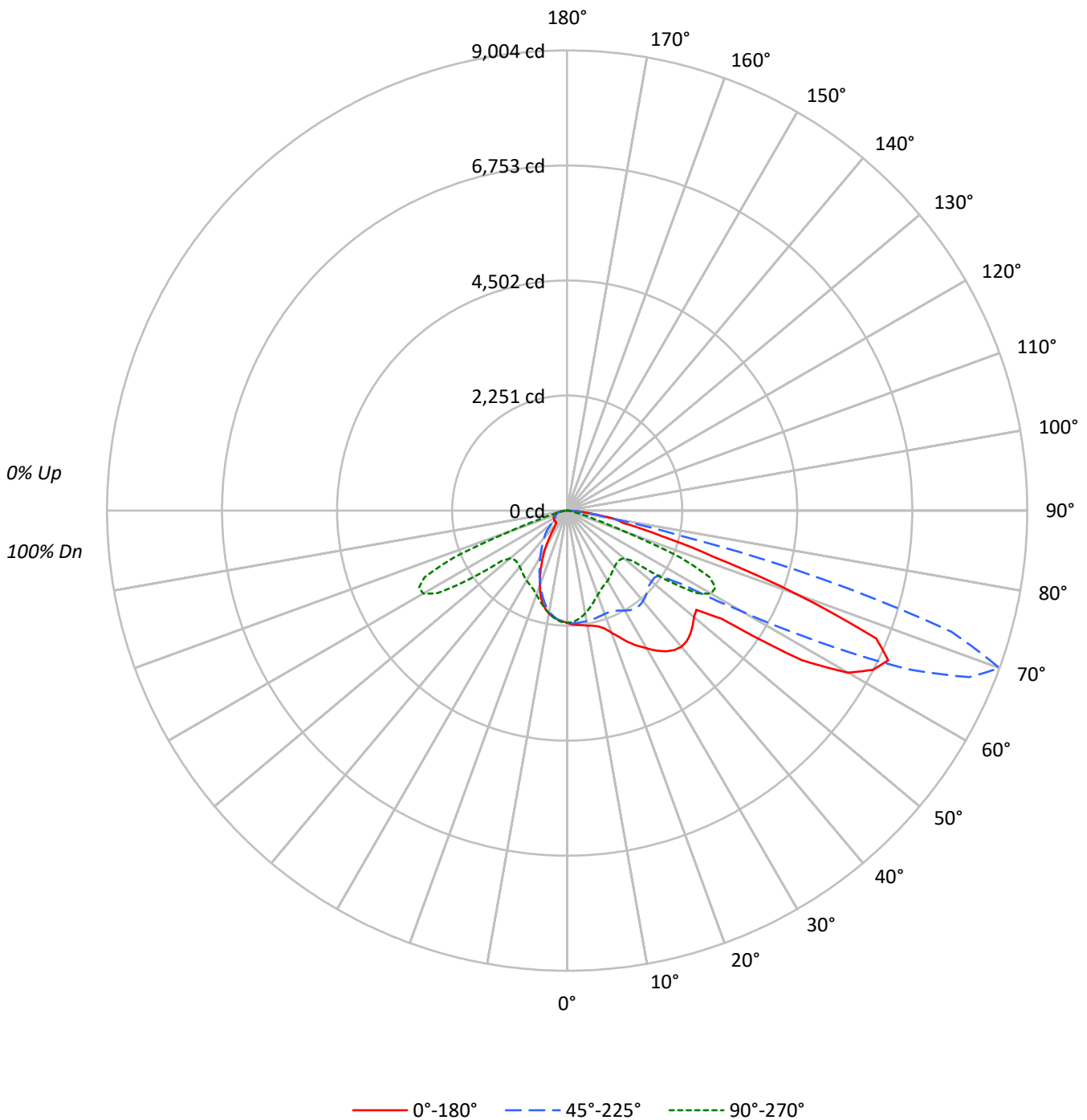
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P152393

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	28478	28478	28478
5°	29236	28042	27860
10°	30094	26882	26929
15°	31508	25460	25085
20°	35065	24167	21491
25°	40660	23562	17181
30°	46603	23702	12833
35°	53204	23881	8346
40°	58878	24376	5759
45°	62550	25748	5750
50°	65411	29263	6396
55°	83230	53561	6984
60°	164540	84241	7830
65°	212699	94428	8801
70°	180965	44648	9908
75°	95133	16410	12221
80°	70770	8932	13271
85°	40949	8645	13303



TEST NUMBER: P152393

CATALOG NUMBER: TLM-F05-LED-E1-SL4-8030

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.1	2.0
10°-20°	561.6	5.5
20°-30°	831.3	8.1
30°-40°	1050.6	10.2
40°-50°	1188.2	11.5
50°-60°	1690.8	16.4
60°-70°	3149.0	30.6
70°-80°	1443.2	14.0
80°-90°	171.3	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°	1598.1	15.5
0°-40°	2648.7	25.7
0°-60°	5527.7	53.7
0°-90°	10291.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10291.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2196	2196	2196	2196	2196	
5°	2246	2209	2154	2137	2140	215
15°	2347	2177	1896	1795	1868	675
25°	2842	2166	1647	1283	1201	1319
35°	3361	2339	1508	859	527	2101
45°	3410	2221	1404	562	314	2624
55°	3681	2209	2369	286	309	3868
65°	6931	7340	3077	256	287	6391
75°	1899	5160	328	201	244	2334
85°	275	242	58	92	89	346
90°	0	0	0	0	0	



TEST NUMBER: P152393

CATALOG NUMBER: TLM-F05-LED-E1-SL4-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9
2.5°	2229.6	2235.4	2228.4	2227.2	2227.2	2226.1	2219.1	2217.9	2208.7	2209.8	2212.1
5°	2245.8	2248.1	2243.5	2242.3	2240.0	2235.4	2229.6	2222.6	2215.6	2208.7	2202.8
7.5°	2262.1	2259.7	2256.3	2256.3	2252.8	2245.8	2234.2	2224.9	2209.8	2201.7	2191.2
10°	2285.3	2281.8	2277.2	2274.8	2269.0	2258.6	2242.3	2229.6	2211.0	2194.7	2177.3
12.5°	2307.4	2306.2	2299.2	2295.7	2286.5	2276.0	2256.3	2236.5	2212.1	2186.6	2163.4
15°	2346.8	2342.2	2335.2	2328.3	2313.2	2299.2	2269.0	2245.8	2211.0	2177.3	2141.3
17.5°	2415.3	2407.2	2400.3	2385.2	2366.6	2342.2	2298.1	2258.6	2211.0	2162.2	2121.6
20°	2540.8	2523.3	2514.1	2494.3	2461.8	2417.7	2349.2	2285.3	2214.5	2151.8	2097.2
22.5°	2682.4	2670.8	2658.0	2645.3	2594.2	2530.3	2437.4	2342.2	2235.4	2147.1	2077.4
25°	2841.5	2826.4	2819.5	2797.4	2749.8	2676.6	2550.1	2417.7	2283.0	2165.7	2077.4
27.5°	2983.2	2978.5	2977.4	2951.8	2906.5	2820.6	2670.8	2511.7	2348.0	2204.0	2094.9
30°	3112.1	3107.4	3105.1	3091.2	3038.9	2936.7	2774.2	2595.3	2418.8	2257.4	2127.4
32.5°	3249.1	3234.0	3227.0	3200.3	3141.1	3021.5	2835.7	2649.9	2474.6	2309.7	2163.4
35°	3360.6	3347.8	3333.9	3295.6	3212.0	3070.3	2862.4	2668.5	2496.6	2338.7	2181.9
37.5°	3441.9	3429.1	3409.4	3360.6	3257.2	3086.5	2861.3	2662.7	2488.5	2334.1	2185.4
40°	3477.9	3465.1	3444.2	3382.7	3265.4	3077.2	2839.2	2636.0	2464.1	2309.7	2171.5
42.5°	3463.9	3454.6	3427.9	3368.7	3239.8	3035.4	2795.1	2586.1	2417.7	2270.2	2140.1
45°	3410.5	3403.6	3378.0	3315.3	3181.8	2968.1	2730.0	2523.3	2361.9	2221.4	2098.3
47.5°	3330.4	3328.1	3302.5	3241.0	3108.6	2900.7	2662.7	2461.8	2306.2	2173.8	2063.5
50°	3242.1	3230.5	3217.8	3160.9	3040.1	2842.7	2613.9	2423.5	2274.8	2156.4	2048.4
52.5°	3186.4	3182.9	3171.3	3120.2	3004.1	2809.0	2591.9	2409.5	2272.5	2152.9	2040.3
55°	3681.1	3689.2	3582.4	3360.6	3165.5	2901.9	2658.0	2480.4	2329.4	2208.7	2126.2
57.5°	5445.0	5409.0	5225.5	4785.4	4288.4	3632.3	3159.7	2872.9	2685.9	2706.8	2748.6
60°	6343.8	6336.8	6303.1	6132.4	5801.5	5302.2	4748.3	4113.1	3911.0	3933.1	3949.3
62.5°	6745.6	6756.0	6781.6	6717.7	6630.6	6485.4	6209.1	5953.6	5683.0	5582.0	5311.4
65°	6931.4	6949.9	7008.0	7044.0	7077.7	7103.2	7212.4	7512.0	7709.4	7340.1	6480.8
67.5°	6547.0	6636.4	6828.0	7015.0	7182.2	7420.2	7789.5	8485.1	8969.3	8515.3	7269.3
70°	4772.6	4894.6	5114.0	5692.3	6310.1	6850.1	7565.4	8624.4	9354.8	9004.1	7464.4
72.5°	2992.5	3026.2	3123.7	3336.2	3794.9	4488.1	5738.8	7327.3	8170.4	7890.5	6308.9
75°	1898.6	1910.2	1906.7	1955.5	2033.3	2184.3	2678.9	4327.9	5597.1	5160.5	3516.2
77.5°	1131.0	1148.5	1155.4	1170.5	1207.7	1261.1	1301.7	1472.4	2346.8	2278.3	1276.2
80°	947.6	961.5	949.9	946.4	923.2	906.9	926.7	906.9	841.9	810.5	746.7
82.5°	501.6	500.5	497.0	530.7	599.2	652.6	693.3	684.0	618.9	527.2	447.1
85°	275.2	284.5	284.5	296.1	285.7	286.8	296.1	312.4	289.1	241.5	197.4
87.5°	23.2	36.0	29.0	36.0	48.8	34.8	33.7	33.7	29.0	20.9	18.6
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: P152393

CATALOG NUMBER: TLM-F05-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9
2.5°	2206.3	2204.0	2199.4	2195.9	2195.9	2190.1	2186.6	2184.3	2183.1	2178.5	2178.5
5°	2199.4	2191.2	2183.1	2177.3	2173.8	2168.0	2158.7	2154.1	2148.3	2143.6	2141.3
7.5°	2184.3	2169.2	2156.4	2147.1	2135.5	2126.2	2114.6	2104.1	2093.7	2089.0	2086.7
10°	2161.0	2141.3	2121.6	2104.1	2087.9	2071.6	2056.5	2041.4	2028.7	2019.4	2010.1
12.5°	2139.0	2108.8	2083.2	2057.7	2032.1	2012.4	1991.5	1969.4	1950.9	1933.4	1928.8
15°	2108.8	2073.9	2041.4	2010.1	1978.7	1946.2	1920.7	1896.3	1866.1	1846.3	1831.3
17.5°	2080.9	2039.1	1999.6	1962.5	1924.2	1890.5	1852.2	1819.6	1789.4	1759.3	1737.2
20°	2050.7	2005.4	1963.6	1921.8	1880.0	1837.1	1792.9	1751.1	1714.0	1678.0	1642.0
22.5°	2024.0	1977.6	1936.9	1891.6	1845.2	1796.4	1745.3	1693.1	1650.1	1603.7	1561.8
25°	2007.8	1956.7	1914.9	1870.7	1819.6	1766.2	1708.2	1646.6	1594.4	1540.9	1491.0
27.5°	2007.8	1941.6	1898.6	1854.5	1802.2	1745.3	1681.5	1614.1	1554.9	1495.7	1434.1
30°	2025.2	1943.9	1885.8	1839.4	1786.0	1724.4	1653.6	1582.8	1517.7	1448.0	1388.8
32.5°	2041.4	1948.5	1876.5	1817.3	1755.8	1695.4	1623.4	1547.9	1475.9	1409.7	1347.0
35°	2051.9	1948.5	1859.1	1783.6	1714.0	1654.7	1583.9	1508.4	1435.3	1370.2	1312.2
37.5°	2053.0	1939.2	1831.3	1745.3	1672.2	1610.6	1543.3	1472.4	1402.8	1342.4	1293.6
40°	2041.4	1920.7	1803.4	1704.7	1628.0	1565.3	1503.8	1439.9	1377.2	1327.3	1285.5
42.5°	2020.5	1900.9	1776.7	1672.2	1592.0	1527.0	1470.1	1415.5	1361.0	1318.0	1283.2
45°	1989.2	1874.2	1752.3	1652.4	1573.5	1504.9	1449.2	1403.9	1357.5	1321.5	1286.6
47.5°	1961.3	1864.9	1760.4	1665.2	1582.8	1511.9	1455.0	1416.7	1380.7	1356.3	1308.7
50°	1955.5	1860.3	1763.9	1675.6	1592.0	1520.0	1470.1	1450.4	1439.9	1424.8	1351.7
52.5°	1939.2	1859.1	1789.4	1740.7	1687.3	1653.6	1601.3	1619.9	1608.3	1554.9	1422.5
55°	2109.9	2133.2	2198.2	2291.1	2377.0	2396.8	2391.0	2368.9	2251.6	1936.9	1593.2
57.5°	2900.7	3032.0	3155.1	3209.6	3202.7	3141.1	3097.0	3007.6	2838.0	2454.8	1930.0
60°	3999.3	4020.2	3955.1	3858.8	3696.2	3560.3	3415.2	3247.9	3001.8	2626.7	2136.7
62.5°	5010.7	4729.7	4440.5	4168.8	3921.5	3705.5	3503.4	3270.0	2949.5	2558.2	2109.9
65°	5724.8	5130.3	4673.9	4283.8	3934.2	3632.3	3380.3	3077.2	2716.1	2363.1	1955.5
67.5°	6093.0	5181.4	4481.2	3937.7	3441.9	3023.8	2688.2	2393.3	2125.0	1970.6	1711.6
70°	5681.9	4397.6	3422.1	2807.8	2214.5	1775.5	1402.8	1177.5	1099.7	1246.0	1295.9
72.5°	4233.8	2862.4	2035.6	1574.6	1206.5	961.5	737.4	579.5	471.5	494.7	642.2
75°	2002.0	1235.5	873.2	664.2	528.4	437.8	357.7	327.5	274.0	227.6	213.7
77.5°	779.2	567.8	469.1	343.7	243.9	196.2	167.2	161.4	164.9	160.2	157.9
80°	593.4	401.8	252.0	184.6	159.1	140.5	124.3	119.6	121.9	127.7	133.5
82.5°	330.9	206.7	153.3	133.5	119.6	102.2	92.9	85.9	87.1	94.1	106.8
85°	127.7	99.9	91.7	88.3	82.4	66.2	56.9	58.1	66.2	79.0	79.0
87.5°	13.9	13.9	18.6	13.9	13.9	13.9	12.8	15.1	16.3	20.9	24.4
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: P152393

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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9	2195.9
2.5°	2176.1	2176.1	2176.1	2173.8	2175.0	2170.3	2170.3	2166.8	2172.7	2169.2	2168.0
5°	2142.5	2141.3	2136.7	2136.7	2136.7	2136.7	2140.1	2130.8	2137.8	2137.8	2134.3
7.5°	2085.6	2085.6	2072.8	2079.8	2077.4	2080.9	2085.6	2080.9	2087.9	2092.5	2089.0
10°	2006.6	2006.6	1996.1	2004.3	2000.8	2008.9	2017.0	2012.4	2017.0	2024.0	2026.3
12.5°	1919.5	1914.9	1905.6	1909.1	1909.1	1913.7	1917.2	1923.0	1928.8	1938.1	1942.7
15°	1818.5	1811.5	1799.9	1799.9	1792.9	1795.3	1802.2	1804.5	1816.2	1828.9	1844.0
17.5°	1715.1	1697.7	1684.9	1669.8	1658.2	1667.5	1675.6	1681.5	1690.7	1710.5	1720.9
20°	1617.6	1582.8	1558.4	1538.6	1525.9	1531.7	1542.1	1549.1	1557.2	1561.8	1565.3
22.5°	1521.2	1481.7	1448.0	1423.7	1402.8	1408.6	1403.9	1400.4	1406.2	1391.1	1390.0
25°	1437.6	1391.1	1345.9	1316.8	1291.3	1283.2	1258.8	1253.0	1236.7	1223.9	1214.6
27.5°	1377.2	1316.8	1266.9	1233.2	1192.6	1162.4	1131.0	1099.7	1082.3	1061.4	1050.9
30°	1329.6	1265.7	1206.5	1149.6	1096.2	1049.7	1007.9	967.3	939.4	909.2	889.5
32.5°	1285.5	1226.3	1154.3	1076.5	1004.5	952.2	897.6	851.2	807.1	767.6	738.5
35°	1255.3	1189.1	1097.4	1002.1	920.9	859.3	801.2	735.1	681.6	630.5	599.2
37.5°	1239.0	1157.7	1045.1	939.4	848.9	779.2	707.2	630.5	565.5	517.9	470.3
40°	1226.3	1126.4	998.7	883.7	788.5	704.9	621.3	530.7	458.7	408.8	371.6
42.5°	1212.3	1091.6	958.0	839.6	733.9	636.4	535.3	438.9	370.4	335.6	319.3
45°	1197.2	1061.4	919.7	797.8	680.5	562.0	445.9	356.5	315.9	304.2	304.2
47.5°	1193.7	1041.6	891.8	757.1	620.1	476.1	363.5	307.7	296.1	298.4	303.1
50°	1207.7	1035.8	867.4	709.5	540.0	385.5	307.7	289.1	291.5	298.4	305.4
52.5°	1241.4	1040.5	841.9	643.3	444.7	318.2	284.5	283.3	290.3	300.8	307.7
55°	1298.3	1040.5	793.1	544.6	355.3	285.7	276.4	281.0	290.3	299.6	305.4
57.5°	1420.2	1030.0	707.2	435.5	297.3	274.0	274.0	279.9	288.0	297.3	301.9
60°	1565.3	1016.1	586.4	336.8	268.2	264.8	272.9	279.9	286.8	295.0	299.6
62.5°	1574.6	980.1	464.5	278.7	253.1	259.0	271.7	281.0	283.3	289.1	295.0
65°	1446.9	854.7	369.3	249.7	246.2	255.5	268.2	275.2	276.4	278.7	284.5
67.5°	1266.9	696.7	298.4	235.7	239.2	249.7	256.6	262.4	265.9	271.7	272.9
70°	1040.5	559.7	255.5	221.8	225.3	236.9	242.7	248.5	255.5	262.4	259.0
72.5°	737.4	435.5	224.1	206.7	211.3	221.8	228.8	233.4	239.2	246.2	241.5
75°	313.5	304.2	193.9	187.0	193.9	200.9	207.9	214.8	220.6	224.1	224.1
77.5°	160.2	178.8	167.2	167.2	171.9	178.8	184.6	191.6	195.1	198.6	203.2
80°	135.9	138.2	140.5	145.2	149.8	156.8	162.6	168.4	169.5	170.7	173.0
82.5°	112.6	117.3	119.6	126.6	130.1	132.4	135.9	135.9	138.2	138.2	134.7
85°	81.3	87.1	90.6	91.7	90.6	91.7	92.9	95.2	101.0	101.0	96.4
87.5°	23.2	22.1	27.9	29.0	31.4	36.0	40.6	48.8	51.1	53.4	53.4
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: P152393

CATALOG NUMBER: TLM-F05-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2195.9	2195.9	2195.9	2195.9
2.5°	2166.8	2169.2	2164.5	2165.7
5°	2134.3	2139.0	2133.2	2140.1
7.5°	2092.5	2099.5	2098.3	2097.2
10°	2032.1	2041.4	2041.4	2044.9
12.5°	1955.5	1961.3	1966.0	1968.3
15°	1852.2	1862.6	1868.4	1868.4
17.5°	1727.9	1734.9	1738.4	1733.7
20°	1570.0	1567.7	1568.8	1557.2
22.5°	1387.7	1391.1	1380.7	1383.0
25°	1208.8	1203.0	1207.7	1200.7
27.5°	1035.8	1037.0	1024.2	1030.0
30°	870.9	865.1	848.9	857.0
32.5°	711.8	696.7	679.3	668.9
35°	562.0	538.8	530.7	527.2
37.5°	441.3	415.7	407.6	398.3
40°	350.7	341.4	337.9	340.2
42.5°	314.7	314.7	317.0	318.2
45°	305.4	308.9	312.4	313.5
47.5°	306.6	310.0	314.7	315.9
50°	308.9	312.4	315.9	317.0
52.5°	310.0	310.0	312.4	313.5
55°	307.7	306.6	307.7	308.9
57.5°	303.1	300.8	301.9	305.4
60°	300.8	297.3	299.6	301.9
62.5°	295.0	293.8	296.1	297.3
65°	282.2	283.3	286.8	286.8
67.5°	270.6	271.7	272.9	274.0
70°	256.6	257.8	260.1	261.3
72.5°	240.4	245.0	248.5	253.1
75°	227.6	232.2	239.2	243.9
77.5°	205.5	209.0	217.1	223.0
80°	174.2	173.0	174.2	177.7
82.5°	133.5	133.5	132.4	131.2
85°	94.1	92.9	89.4	89.4
87.5°	51.1	49.9	48.8	46.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)