

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: P152383

Luminaire Tested: **TLM-F04-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152383
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-F04-LED-E1-SL4-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

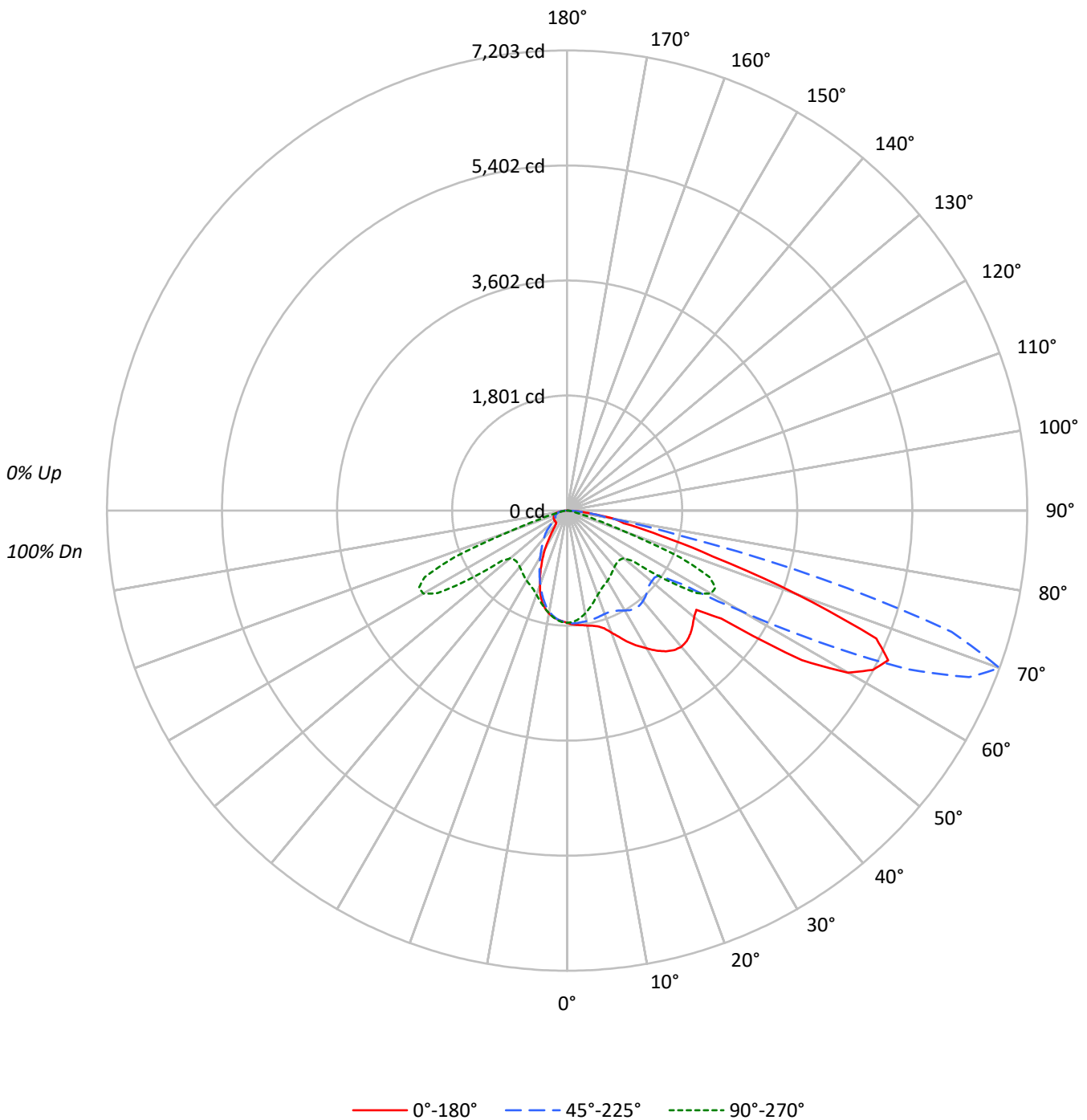
Lumens per Lamp: N/A
Luminaire Lumens: 8232.9 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 102.2
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°	28222	28222	28222
5°	28974	27792	27611
10°	29824	26641	26687
15°	31227	25231	24860
20°	34751	23951	21299
25°	40296	23351	17028
30°	46186	23489	12718
35°	52728	23666	8273
40°	58351	24158	5709
45°	61990	25517	5698
50°	64826	29000	6338
55°	82485	53081	6921
60°	163065	83489	7760
65°	210793	93584	8724
70°	179346	44248	9817
75°	94282	16263	12110
80°	70128	8854	13147
85°	40590	8553	13180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	2.0
10°-20°	449.3	5.5
20°-30°	665.1	8.1
30°-40°	840.5	10.2
40°-50°	950.5	11.5
50°-60°	1352.6	16.4
60°-70°	2519.2	30.6
70°-80°	1154.6	14.0
80°-90°	137.1	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°	1278.5	15.5
0°-40°	2119.0	25.7
0°-60°	4422.2	53.7
0°-90°	8232.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8232.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1757	1757	1757	1757	1757	
5°	1797	1767	1723	1709	1712	172
15°	1878	1742	1517	1436	1495	540
25°	2273	1732	1317	1026	961	1056
35°	2688	1871	1207	687	422	1681
45°	2728	1777	1123	450	251	2099
55°	2945	1767	1895	228	247	3094
65°	5545	5872	2462	204	230	5113
75°	1519	4128	262	161	195	1867
85°	220	193	46	73	72	277
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°	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7
2.5°	1783.6	1788.3	1782.7	1781.8	1781.8	1780.9	1775.3	1774.4	1766.9	1767.9	1769.7
5°	1796.6	1798.5	1794.8	1793.9	1792.0	1788.3	1783.6	1778.1	1772.5	1766.9	1762.3
7.5°	1809.7	1807.8	1805.0	1805.0	1802.2	1796.6	1787.4	1779.9	1767.9	1761.3	1753.0
10°	1828.2	1825.4	1821.7	1819.9	1815.2	1806.9	1793.9	1783.6	1768.8	1755.8	1741.8
12.5°	1845.9	1845.0	1839.4	1836.6	1829.2	1820.8	1805.0	1789.2	1769.7	1749.3	1730.7
15°	1877.5	1873.8	1868.2	1862.6	1850.5	1839.4	1815.2	1796.6	1768.8	1741.8	1713.0
17.5°	1932.3	1925.8	1920.2	1908.1	1893.3	1873.8	1838.5	1806.9	1768.8	1729.8	1697.2
20°	2032.6	2018.7	2011.2	1995.5	1969.4	1934.1	1879.3	1828.2	1771.6	1721.4	1677.7
22.5°	2145.9	2136.7	2126.4	2116.2	2075.3	2024.2	1949.9	1873.8	1788.3	1717.7	1661.9
25°	2273.2	2261.1	2255.6	2237.9	2199.8	2141.3	2040.0	1934.1	1826.4	1732.5	1661.9
27.5°	2386.6	2382.8	2381.9	2361.5	2325.2	2256.5	2136.7	2009.4	1878.4	1763.2	1675.9
30°	2489.7	2486.0	2484.1	2472.9	2431.1	2349.4	2219.3	2076.3	1935.1	1805.9	1701.9
32.5°	2599.3	2587.2	2581.6	2560.3	2512.9	2417.2	2268.6	2119.9	1979.7	1847.7	1730.7
35°	2688.5	2678.3	2667.1	2636.4	2569.6	2456.2	2289.9	2134.8	1997.3	1871.0	1745.6
37.5°	2753.5	2743.3	2727.5	2688.5	2605.8	2469.2	2289.0	2130.2	1990.8	1867.3	1748.3
40°	2782.3	2772.1	2755.4	2706.1	2612.3	2461.8	2271.4	2108.8	1971.3	1847.7	1737.2
42.5°	2771.1	2763.7	2742.4	2695.0	2591.9	2428.4	2236.1	2068.8	1934.1	1816.2	1712.1
45°	2728.4	2722.8	2702.4	2652.2	2545.4	2374.5	2184.0	2018.7	1889.5	1777.1	1678.7
47.5°	2664.3	2662.5	2642.0	2592.8	2486.9	2320.6	2130.2	1969.4	1845.0	1739.1	1650.8
50°	2593.7	2584.4	2574.2	2528.7	2432.1	2274.1	2091.1	1938.8	1819.9	1725.1	1638.7
52.5°	2549.1	2546.3	2537.0	2496.2	2403.3	2247.2	2073.5	1927.6	1818.0	1722.3	1632.2
55°	2944.9	2951.4	2865.9	2688.5	2532.4	2321.5	2126.4	1984.3	1863.5	1766.9	1701.0
57.5°	4356.0	4327.2	4180.4	3828.3	3430.7	2905.9	2527.8	2298.3	2148.7	2165.5	2198.9
60°	5075.0	5069.4	5042.5	4905.9	4641.2	4241.7	3798.6	3290.4	3128.8	3146.5	3159.5
62.5°	5396.4	5404.8	5425.2	5374.2	5304.5	5188.4	4967.3	4762.9	4546.4	4465.6	4249.2
65°	5545.1	5559.9	5606.4	5635.2	5662.1	5682.6	5769.9	6009.6	6167.5	5872.1	5184.6
67.5°	5237.6	5309.1	5462.4	5612.0	5745.7	5936.2	6231.6	6788.1	7175.4	6812.2	5815.4
70°	3818.1	3915.7	4091.2	4553.9	5048.1	5480.1	6052.3	6899.5	7483.9	7203.3	5971.5
72.5°	2394.0	2420.9	2499.0	2669.0	3035.9	3590.5	4591.0	5861.9	6536.3	6312.4	5047.2
75°	1518.9	1528.2	1525.4	1564.4	1626.6	1747.4	2143.2	3462.3	4477.7	4128.4	2813.0
77.5°	904.8	918.8	924.3	936.4	966.1	1008.9	1041.4	1177.9	1877.5	1822.7	1020.9
80°	758.0	769.2	759.9	757.1	738.5	725.5	741.3	725.5	673.5	648.4	597.3
82.5°	401.3	400.4	397.6	424.5	479.4	522.1	554.6	547.2	495.1	421.8	357.7
85°	220.2	227.6	227.6	236.9	228.5	229.5	236.9	249.9	231.3	193.2	157.9
87.5°	18.6	28.8	23.2	28.8	39.0	27.9	26.9	26.9	23.2	16.7	14.9
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°	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7
2.5°	1765.1	1763.2	1759.5	1756.7	1756.7	1752.1	1749.3	1747.4	1746.5	1742.8	1742.8
5°	1759.5	1753.0	1746.5	1741.8	1739.1	1734.4	1727.0	1723.3	1718.6	1714.9	1713.0
7.5°	1747.4	1735.3	1725.1	1717.7	1708.4	1701.0	1691.7	1683.3	1675.0	1671.2	1669.4
10°	1728.8	1713.0	1697.2	1683.3	1670.3	1657.3	1645.2	1633.1	1622.9	1615.5	1608.1
12.5°	1711.2	1687.0	1666.6	1646.2	1625.7	1609.9	1593.2	1575.6	1560.7	1546.8	1543.0
15°	1687.0	1659.2	1633.1	1608.1	1583.0	1557.0	1536.5	1517.0	1492.9	1477.1	1465.0
17.5°	1664.7	1631.3	1599.7	1570.0	1539.3	1512.4	1481.7	1455.7	1431.6	1407.4	1389.8
20°	1640.6	1604.3	1570.9	1537.5	1504.0	1469.6	1434.3	1400.9	1371.2	1342.4	1313.6
22.5°	1619.2	1582.1	1549.5	1513.3	1476.2	1437.1	1396.3	1354.5	1320.1	1282.9	1249.5
25°	1606.2	1565.3	1531.9	1496.6	1455.7	1413.0	1366.5	1317.3	1275.5	1232.8	1192.8
27.5°	1606.2	1553.3	1518.9	1483.6	1441.8	1396.3	1345.2	1291.3	1243.9	1196.5	1147.3
30°	1620.1	1555.1	1508.7	1471.5	1428.8	1379.5	1322.9	1266.2	1214.2	1158.4	1111.1
32.5°	1633.1	1558.8	1501.2	1453.9	1404.6	1356.3	1298.7	1238.3	1180.7	1127.8	1077.6
35°	1641.5	1558.8	1487.3	1426.9	1371.2	1323.8	1267.1	1206.7	1148.2	1096.2	1049.7
37.5°	1642.4	1551.4	1465.0	1396.3	1337.7	1288.5	1234.6	1177.9	1122.2	1073.9	1034.9
40°	1633.1	1536.5	1442.7	1363.7	1302.4	1252.3	1203.0	1151.9	1101.8	1061.8	1028.4
42.5°	1616.4	1520.7	1421.3	1337.7	1273.6	1221.6	1176.1	1132.4	1088.8	1054.4	1026.5
45°	1591.3	1499.4	1401.8	1321.9	1258.8	1204.0	1159.4	1123.1	1086.0	1057.2	1029.3
47.5°	1569.0	1491.9	1408.3	1332.2	1266.2	1209.5	1164.0	1133.4	1104.6	1085.0	1047.0
50°	1564.4	1488.2	1411.1	1340.5	1273.6	1216.0	1176.1	1160.3	1151.9	1139.9	1081.3
52.5°	1551.4	1487.3	1431.6	1392.5	1349.8	1322.9	1281.1	1295.9	1286.6	1243.9	1138.0
55°	1688.0	1706.5	1758.6	1832.9	1901.6	1917.4	1912.8	1895.1	1801.3	1549.5	1274.6
57.5°	2320.6	2425.6	2524.0	2567.7	2562.1	2512.9	2477.6	2406.1	2270.4	1963.9	1544.0
60°	3199.4	3216.1	3164.1	3087.0	2956.9	2848.3	2732.1	2598.4	2401.4	2101.4	1709.3
62.5°	4008.6	3783.7	3552.4	3335.0	3137.2	2964.4	2802.7	2616.0	2359.6	2046.5	1688.0
65°	4579.9	4104.2	3739.1	3427.0	3147.4	2905.9	2704.3	2461.8	2172.9	1890.5	1564.4
67.5°	4874.4	4145.1	3584.9	3150.2	2753.5	2419.1	2150.6	1914.6	1700.0	1576.5	1369.3
70°	4545.5	3518.1	2737.7	2246.3	1771.6	1420.4	1122.2	942.0	879.7	996.8	1036.7
72.5°	3387.1	2289.9	1628.5	1259.7	965.2	769.2	589.9	463.6	377.2	395.7	513.7
75°	1601.6	988.4	698.6	531.4	422.7	350.2	286.1	262.0	219.2	182.1	170.9
77.5°	623.3	454.3	375.3	275.0	195.1	157.0	133.8	129.1	131.9	128.2	126.3
80°	474.7	321.4	201.6	147.7	127.3	112.4	99.4	95.7	97.5	102.2	106.8
82.5°	264.8	165.4	122.6	106.8	95.7	81.8	74.3	68.7	69.7	75.2	85.5
85°	102.2	79.9	73.4	70.6	66.0	53.0	45.5	46.4	53.0	63.2	63.2
87.5°	11.1	11.1	14.9	11.1	11.1	11.1	10.2	12.1	13.0	16.7	19.5
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°	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7	1756.7
2.5°	1740.9	1740.9	1740.9	1739.1	1740.0	1736.3	1736.3	1733.5	1738.1	1735.3	1734.4
5°	1714.0	1713.0	1709.3	1709.3	1709.3	1709.3	1712.1	1704.7	1710.3	1710.3	1707.5
7.5°	1668.4	1668.4	1658.2	1663.8	1661.9	1664.7	1668.4	1664.7	1670.3	1674.0	1671.2
10°	1605.3	1605.3	1596.9	1603.4	1600.6	1607.1	1613.6	1609.9	1613.6	1619.2	1621.1
12.5°	1535.6	1531.9	1524.5	1527.2	1527.2	1531.0	1533.7	1538.4	1543.0	1550.5	1554.2
15°	1454.8	1449.2	1439.9	1439.9	1434.3	1436.2	1441.8	1443.6	1452.9	1463.1	1475.2
17.5°	1372.1	1358.2	1348.0	1335.9	1326.6	1334.0	1340.5	1345.2	1352.6	1368.4	1376.7
20°	1294.1	1266.2	1246.7	1230.9	1220.7	1225.3	1233.7	1239.3	1245.8	1249.5	1252.3
22.5°	1217.0	1185.4	1158.4	1138.9	1122.2	1126.9	1123.1	1120.4	1125.0	1112.9	1112.0
25°	1150.1	1112.9	1076.7	1053.5	1033.0	1026.5	1007.0	1002.4	989.4	979.1	971.7
27.5°	1101.8	1053.5	1013.5	986.6	954.1	929.9	904.8	879.7	865.8	849.1	840.7
30°	1063.7	1012.6	965.2	919.7	877.0	839.8	806.4	773.8	751.5	727.4	711.6
32.5°	1028.4	981.0	923.4	861.2	803.6	761.8	718.1	680.9	645.6	614.1	590.8
35°	1004.2	951.3	877.9	801.7	736.7	687.4	641.0	588.0	545.3	504.4	479.4
37.5°	991.2	926.2	836.1	751.5	679.1	623.3	565.7	504.4	452.4	414.3	376.2
40°	981.0	901.1	798.9	707.0	630.8	563.9	497.0	424.5	366.9	327.0	297.3
42.5°	969.9	873.2	766.4	671.7	587.1	509.1	428.3	351.2	296.3	268.5	255.5
45°	957.8	849.1	735.8	638.2	544.4	449.6	356.7	285.2	252.7	243.4	243.4
47.5°	955.0	833.3	713.5	605.7	496.1	380.9	290.8	246.2	236.9	238.7	242.5
50°	966.1	828.7	693.9	567.6	432.0	308.4	246.2	231.3	233.2	238.7	244.3
52.5°	993.1	832.4	673.5	514.7	355.8	254.5	227.6	226.7	232.2	240.6	246.2
55°	1038.6	832.4	634.5	435.7	284.3	228.5	221.1	224.8	232.2	239.7	244.3
57.5°	1136.1	824.0	565.7	348.4	237.8	219.2	219.2	223.9	230.4	237.8	241.5
60°	1252.3	812.9	469.1	269.4	214.6	211.8	218.3	223.9	229.5	236.0	239.7
62.5°	1259.7	784.1	371.6	223.0	202.5	207.2	217.4	224.8	226.7	231.3	236.0
65°	1157.5	683.7	295.4	199.7	196.9	204.4	214.6	220.2	221.1	223.0	227.6
67.5°	1013.5	557.4	238.7	188.6	191.4	199.7	205.3	209.9	212.7	217.4	218.3
70°	832.4	447.8	204.4	177.4	180.2	189.5	194.2	198.8	204.4	209.9	207.2
72.5°	589.9	348.4	179.3	165.4	169.1	177.4	183.0	186.7	191.4	196.9	193.2
75°	250.8	243.4	155.1	149.6	155.1	160.7	166.3	171.9	176.5	179.3	179.3
77.5°	128.2	143.1	133.8	133.8	137.5	143.1	147.7	153.3	156.1	158.9	162.6
80°	108.7	110.5	112.4	116.1	119.8	125.4	130.1	134.7	135.6	136.6	138.4
82.5°	90.1	93.8	95.7	101.3	104.0	105.9	108.7	108.7	110.5	110.5	107.8
85°	65.0	69.7	72.5	73.4	72.5	73.4	74.3	76.2	80.8	80.8	77.1
87.5°	18.6	17.7	22.3	23.2	25.1	28.8	32.5	39.0	40.9	42.7	42.7
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: P152383

CATALOG NUMBER: TLM-F04-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1756.7	1756.7	1756.7	1756.7
2.5°	1733.5	1735.3	1731.6	1732.5
5°	1707.5	1711.2	1706.5	1712.1
7.5°	1674.0	1679.6	1678.7	1677.7
10°	1625.7	1633.1	1633.1	1635.9
12.5°	1564.4	1569.0	1572.8	1574.6
15°	1481.7	1490.1	1494.7	1494.7
17.5°	1382.3	1387.9	1390.7	1387.0
20°	1256.0	1254.1	1255.1	1245.8
22.5°	1110.1	1112.9	1104.6	1106.4
25°	967.1	962.4	966.1	960.6
27.5°	828.7	829.6	819.4	824.0
30°	696.7	692.1	679.1	685.6
32.5°	569.5	557.4	543.5	535.1
35°	449.6	431.0	424.5	421.8
37.5°	353.0	332.6	326.1	318.6
40°	280.6	273.1	270.3	272.2
42.5°	251.8	251.8	253.6	254.5
45°	244.3	247.1	249.9	250.8
47.5°	245.3	248.0	251.8	252.7
50°	247.1	249.9	252.7	253.6
52.5°	248.0	248.0	249.9	250.8
55°	246.2	245.3	246.2	247.1
57.5°	242.5	240.6	241.5	244.3
60°	240.6	237.8	239.7	241.5
62.5°	236.0	235.0	236.9	237.8
65°	225.7	226.7	229.5	229.5
67.5°	216.5	217.4	218.3	219.2
70°	205.3	206.2	208.1	209.0
72.5°	192.3	196.0	198.8	202.5
75°	182.1	185.8	191.4	195.1
77.5°	164.4	167.2	173.7	178.4
80°	139.3	138.4	139.3	142.1
82.5°	106.8	106.8	105.9	105.0
85°	75.2	74.3	71.5	71.5
87.5°	40.9	39.9	39.0	37.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)