

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: P155609

Luminaire Tested: **TLM-E05-LED-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155609
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33672)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E05-LED-E1-T3-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (105) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14083.5 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

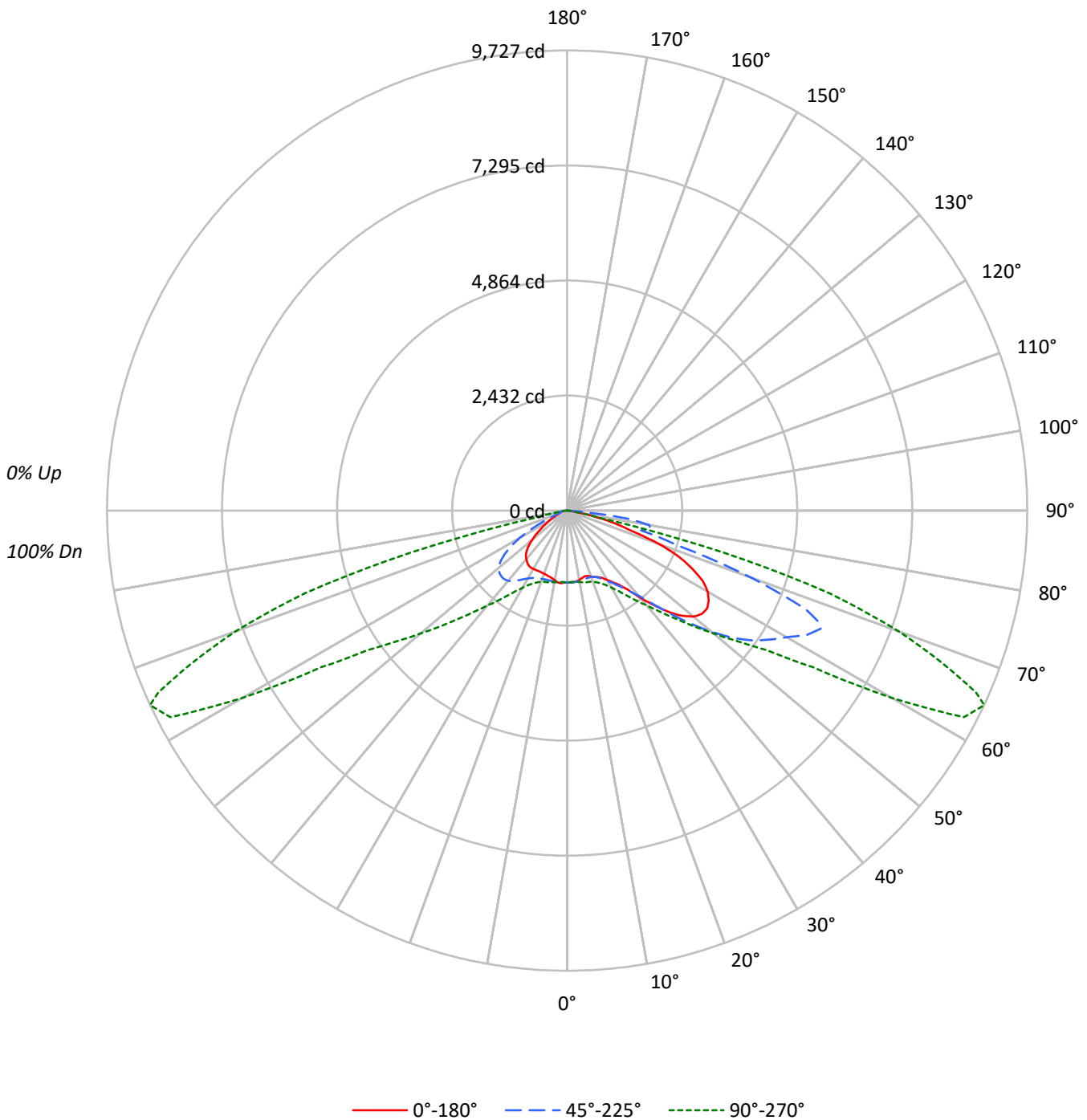
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	99	94	89	102	97	92	87	92	88	84	88	85	82	85	82	79	77
2	92	82	73	65	89	80	71	64	76	69	63	72	66	61	69	64	60	57
3	81	68	57	49	79	66	56	49	63	55	48	60	53	47	57	51	46	43
4	73	57	46	38	70	56	46	38	53	44	37	51	43	36	48	41	36	33
5	65	49	38	30	63	48	38	30	46	37	29	44	35	29	42	34	29	26
6	59	43	32	24	57	42	32	24	40	31	24	38	30	24	36	29	23	21
7	54	38	28	20	52	37	27	20	35	27	20	34	26	20	32	25	20	17
8	50	34	24	17	48	33	24	17	32	23	17	30	23	17	29	22	17	14
9	46	31	21	15	45	30	21	15	29	20	15	28	20	15	27	20	14	12
10	43	28	19	13	42	27	19	13	26	18	13	25	18	13	24	18	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	19682	19682	19682
5°	19758	19738	20054
10°	19584	20186	19706
15°	19293	21071	19415
20°	20483	22121	19601
25°	22218	24266	20213
30°	25325	28220	21359
35°	30365	34608	22460
40°	40666	44299	22729
45°	55558	58992	22250
50°	70300	81449	19564
55°	81674	115955	15558
60°	88996	205075	11807
65°	89828	298491	8920
70°	78728	282713	7447
75°	52021	171084	7626
80°	18984	17394	8984
85°	3169	11547	9969



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	1.0
10°-20°	429.0	3.0
20°-30°	737.3	5.2
30°-40°	1197.2	8.5
40°-50°	1998.7	14.2
50°-60°	3147.2	22.3
60°-70°	4291.6	30.5
70°-80°	1857.8	13.2
80°-90°	279.3	2.0
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°	1311.7	9.3
0°-40°	2508.9	17.8
0°-60°	7654.8	54.4
0°-90°	14083.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14083.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1518	1518	1518	1518	1518	
5°	1518	1521	1516	1534	1540	144
15°	1437	1496	1569	1524	1446	413
25°	1553	1562	1696	1574	1413	727
35°	1918	1961	2186	1799	1419	1243
45°	3029	3069	3216	1968	1213	2329
55°	3612	4784	5128	1621	688	3186
65°	2927	5914	9727	569	291	2842
75°	1038	1617	3414	154	152	1110
85°	21	359	78	107	67	56
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°	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7
2.5°	1523.8	1529.9	1523.8	1525.3	1526.8	1525.3	1523.8	1523.8	1519.2	1522.3	1525.3
5°	1517.7	1522.3	1520.7	1522.3	1523.8	1522.3	1520.7	1522.3	1519.2	1520.7	1525.3
7.5°	1510.1	1508.6	1510.1	1513.1	1516.2	1516.2	1516.2	1517.7	1516.2	1516.2	1520.7
10°	1487.2	1488.8	1491.8	1496.4	1497.9	1502.5	1502.5	1507.0	1508.6	1511.6	1517.7
12.5°	1458.3	1459.8	1462.9	1465.9	1473.5	1481.1	1481.1	1491.8	1496.4	1504.0	1514.6
15°	1437.0	1438.5	1441.6	1444.6	1450.7	1458.3	1462.9	1475.1	1482.7	1496.4	1511.6
17.5°	1449.2	1447.7	1450.7	1452.2	1452.2	1458.3	1458.3	1467.4	1476.6	1488.8	1508.6
20°	1484.2	1484.2	1487.2	1487.2	1485.7	1488.8	1482.7	1482.7	1484.2	1490.3	1504.0
22.5°	1519.2	1517.7	1523.8	1526.8	1528.3	1532.9	1526.8	1525.3	1517.7	1513.1	1517.7
25°	1552.7	1551.2	1558.8	1563.4	1571.0	1575.5	1575.5	1575.5	1569.4	1561.8	1557.3
27.5°	1604.5	1604.5	1612.1	1616.6	1622.7	1631.9	1636.4	1636.4	1637.9	1627.3	1619.7
30°	1691.2	1692.7	1694.3	1700.4	1706.4	1709.5	1715.6	1720.1	1724.7	1718.6	1706.4
32.5°	1794.7	1785.6	1785.6	1794.7	1802.3	1811.5	1814.5	1820.6	1829.7	1825.2	1823.7
35°	1918.0	1915.0	1911.9	1915.0	1924.1	1934.8	1947.0	1957.6	1951.5	1960.7	1956.1
37.5°	2100.7	2103.8	2105.3	2105.3	2103.8	2106.8	2112.9	2123.5	2120.5	2123.5	2129.6
40°	2402.1	2391.5	2380.8	2382.3	2367.1	2370.1	2345.8	2356.4	2358.0	2347.3	2351.9
42.5°	2703.5	2709.6	2714.2	2726.4	2715.7	2709.6	2686.8	2686.8	2674.6	2663.9	2660.9
45°	3029.3	3041.5	3043.0	3067.3	3058.2	3078.0	3094.7	3090.2	3070.4	3068.9	3047.5
47.5°	3289.6	3309.4	3330.7	3359.6	3382.4	3426.6	3478.3	3504.2	3519.4	3531.6	3507.3
50°	3484.4	3493.6	3548.4	3594.0	3644.3	3717.3	3788.9	3881.7	3956.3	3991.3	4024.8
52.5°	3589.5	3612.3	3671.7	3743.2	3831.5	3941.1	4056.8	4204.5	4332.3	4417.6	4493.7
55°	3612.3	3635.1	3702.1	3793.4	3913.7	4061.4	4227.3	4428.2	4620.0	4784.4	4944.3
57.5°	3548.4	3574.2	3645.8	3750.8	3892.4	4072.0	4280.6	4543.9	4808.8	5075.2	5311.1
60°	3431.2	3463.1	3528.6	3632.1	3788.9	3991.3	4241.0	4571.3	4942.7	5350.7	5802.8
62.5°	3237.8	3271.3	3332.2	3446.4	3607.7	3831.5	4120.7	4531.7	5056.9	5699.3	6501.5
65°	2927.3	2942.5	3017.1	3132.8	3275.9	3522.5	3840.6	4336.9	5020.4	5913.9	7019.1
66°	2787.2	2813.1	2858.8	2951.6	3088.6	3320.0	3639.7	4143.6	4881.9	5839.4	7005.4
67.5°	2568.0	2587.8	2618.3	2680.7	2764.4	2934.9	3237.8	3714.3	4458.7	5461.8	6714.6
70°	2076.3	2085.5	2126.6	2147.9	2176.8	2233.1	2342.7	2616.7	3196.7	4139.0	5419.2
72.5°	1415.7	1441.6	1485.7	1546.6	1625.8	1701.9	1753.6	1788.6	1913.5	2469.1	3610.8
75°	1038.2	1065.6	1121.9	1202.6	1341.1	1499.4	1663.8	1739.9	1688.2	1616.6	2010.9
77.5°	602.8	639.3	686.5	764.2	892.0	1102.1	1383.7	1633.4	1802.3	1813.0	1721.7
80°	254.2	258.8	287.7	327.3	406.4	554.1	773.3	1132.6	1507.0	1759.7	1819.1
82.5°	57.8	71.5	91.3	108.1	132.4	182.7	271.0	450.6	814.4	1277.2	1665.3
85°	21.3	21.3	28.9	42.6	48.7	54.8	71.5	114.2	194.8	359.3	748.9
87.5°	0.0	1.5	3.0	3.0	6.1	7.6	12.2	16.7	15.2	13.7	45.7
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7
2.5°	1522.3	1520.7	1517.7	1517.7	1517.7	1517.7	1514.6	1516.2	1513.1	1514.6	1514.6
5°	1520.7	1520.7	1519.2	1516.2	1517.7	1517.7	1519.2	1516.2	1516.2	1517.7	1516.2
7.5°	1520.7	1519.2	1519.2	1519.2	1520.7	1519.2	1520.7	1520.7	1520.7	1522.3	1522.3
10°	1520.7	1520.7	1523.8	1525.3	1525.3	1526.8	1531.4	1531.4	1532.9	1534.4	1537.5
12.5°	1522.3	1528.3	1532.9	1537.5	1539.0	1542.0	1549.7	1549.7	1552.7	1557.3	1558.8
15°	1523.8	1532.9	1542.0	1545.1	1548.1	1554.2	1561.8	1564.9	1569.4	1574.0	1577.1
17.5°	1522.3	1534.4	1545.1	1549.7	1554.2	1561.8	1571.0	1574.0	1580.1	1586.2	1592.3
20°	1520.7	1537.5	1554.2	1560.3	1566.4	1577.1	1589.2	1596.8	1602.9	1612.1	1618.2
22.5°	1529.9	1549.7	1572.5	1581.6	1592.3	1606.0	1622.7	1631.9	1639.5	1648.6	1653.2
25°	1558.8	1574.0	1601.4	1616.6	1630.3	1653.2	1676.0	1686.7	1695.8	1703.4	1704.9
27.5°	1607.5	1612.1	1645.6	1665.3	1685.1	1721.7	1749.1	1756.7	1773.4	1779.5	1778.0
30°	1686.7	1679.0	1706.4	1736.9	1765.8	1816.0	1849.5	1869.3	1884.5	1884.5	1872.4
32.5°	1800.8	1788.6	1796.3	1831.3	1864.8	1937.8	1977.4	2003.3	2013.9	2010.9	1985.0
35°	1950.0	1942.4	1937.8	1965.2	2018.5	2103.8	2155.5	2169.2	2186.0	2182.9	2149.4
37.5°	2126.6	2120.5	2120.5	2152.5	2204.2	2330.6	2386.9	2396.0	2394.5	2370.1	2307.7
40°	2335.1	2332.1	2318.4	2336.7	2380.8	2545.2	2621.3	2633.5	2616.7	2577.2	2504.1
42.5°	2635.0	2616.7	2574.1	2584.8	2618.3	2778.1	2877.1	2910.5	2893.8	2854.2	2735.5
45°	3026.2	3006.4	2934.9	2925.8	2944.0	3084.1	3211.9	3219.6	3216.5	3166.3	3026.2
47.5°	3486.0	3455.5	3379.4	3355.0	3349.0	3478.3	3601.6	3613.8	3606.2	3531.6	3344.4
50°	3983.7	3939.6	3889.4	3872.6	3848.2	3941.1	4065.9	4067.5	4037.0	3933.5	3758.4
52.5°	4515.0	4499.8	4490.6	4473.9	4463.2	4543.9	4620.0	4574.4	4528.7	4420.6	4268.4
55°	5050.8	5113.2	5177.2	5183.3	5201.5	5288.3	5286.8	5162.0	5128.5	5069.1	4918.4
57.5°	5620.1	5851.5	6052.5	6114.9	6175.8	6337.1	6321.9	6198.6	6156.0	6082.9	5958.1
60°	6395.0	7019.1	7599.1	7737.6	7833.5	8026.8	8008.6	7818.3	7906.6	7900.5	7739.1
62.5°	7480.3	8518.5	9387.7	9600.8	9667.8	9689.1	9573.4	9367.9	9454.7	9552.1	9055.9
65°	8215.6	9436.4	10328.5	10492.9	10502.0	10247.8	9990.5	9748.5	9727.2	9643.5	8934.1
66°	8232.3	9482.1	10377.2	10537.0	10480.7	10133.6	9807.9	9564.3	9459.3	9275.1	8539.8
67.5°	7937.0	9197.4	10161.0	10330.0	10206.7	9715.0	9265.9	8952.4	8746.9	8448.5	7800.0
70°	6665.9	7915.7	9103.1	9418.2	9457.7	8724.0	8101.4	7733.0	7456.0	7046.5	6487.8
72.5°	4956.4	6086.0	7133.3	7434.7	7588.4	7002.4	6477.2	6197.1	5818.0	5387.2	4989.9
75°	3106.9	3904.6	4606.3	4817.9	4673.3	4219.7	3904.6	3787.4	3414.4	3157.1	2976.0
77.5°	1776.5	2026.1	2082.4	2001.8	1831.3	1402.0	997.1	738.3	640.9	709.4	782.4
80°	1733.8	1589.2	1266.5	1114.3	1009.3	694.1	408.0	280.1	232.9	239.0	258.8
82.5°	1878.5	2015.5	1659.3	1353.3	1135.6	767.2	423.2	225.3	152.2	179.6	202.5
85°	1220.8	1698.8	1529.9	1289.3	1044.3	656.1	348.6	117.2	77.6	102.0	140.0
87.5°	123.3	135.5	115.7	156.8	117.2	54.8	27.4	16.7	15.2	18.3	27.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7	1517.7
2.5°	1516.2	1516.2	1517.7	1519.2	1520.7	1522.3	1522.3	1522.3	1522.3	1525.3	1523.8
5°	1519.2	1522.3	1525.3	1526.8	1529.9	1529.9	1534.4	1532.9	1532.9	1537.5	1539.0
7.5°	1525.3	1529.9	1536.0	1534.4	1540.5	1539.0	1542.0	1542.0	1537.5	1539.0	1536.0
10°	1539.0	1545.1	1548.1	1543.6	1545.1	1539.0	1537.5	1529.9	1520.7	1516.2	1510.1
12.5°	1561.8	1567.9	1567.9	1560.3	1551.2	1537.5	1526.8	1510.1	1496.4	1488.8	1481.1
15°	1581.6	1587.7	1586.2	1574.0	1560.3	1539.0	1523.8	1504.0	1484.2	1472.0	1464.4
17.5°	1596.8	1599.9	1595.3	1578.6	1563.4	1543.6	1528.3	1507.0	1484.2	1469.0	1455.3
20°	1619.7	1616.6	1606.0	1584.7	1567.9	1549.7	1537.5	1519.2	1493.3	1473.5	1453.7
22.5°	1653.2	1641.0	1621.2	1598.4	1581.6	1564.9	1552.7	1532.9	1507.0	1482.7	1459.8
25°	1697.3	1673.0	1645.6	1621.2	1606.0	1587.7	1574.0	1552.7	1525.3	1497.9	1470.5
27.5°	1761.2	1718.6	1683.6	1662.3	1645.6	1622.7	1606.0	1578.6	1549.7	1517.7	1487.2
30°	1832.8	1774.9	1741.5	1724.7	1706.4	1682.1	1656.2	1621.2	1587.7	1552.7	1516.2
32.5°	1925.6	1855.6	1823.7	1806.9	1782.6	1752.1	1721.7	1682.1	1634.9	1589.2	1545.1
35°	2047.4	1975.9	1942.4	1916.5	1883.0	1843.4	1799.3	1746.0	1682.1	1621.2	1564.9
37.5°	2178.3	2100.7	2068.7	2041.3	1991.1	1939.3	1876.9	1799.3	1712.5	1631.9	1561.8
40°	2344.3	2272.7	2231.6	2184.4	2125.1	2035.2	1937.8	1825.2	1714.1	1615.1	1532.9
42.5°	2554.3	2482.8	2421.9	2347.3	2243.8	2105.3	1966.7	1820.6	1686.7	1574.0	1485.7
45°	2832.9	2746.1	2641.1	2510.2	2342.7	2149.4	1968.3	1791.7	1634.9	1510.1	1415.7
47.5°	3173.9	3041.5	2869.4	2648.7	2408.2	2161.6	1943.9	1733.8	1554.2	1418.7	1313.7
50°	3578.8	3370.3	3087.1	2762.9	2441.7	2143.3	1883.0	1647.1	1440.0	1295.4	1170.6
52.5°	4041.6	3700.6	3283.5	2845.1	2440.2	2082.4	1779.5	1516.2	1290.9	1129.5	1010.8
55°	4585.0	4078.1	3486.0	2906.0	2397.5	1969.8	1621.2	1332.0	1106.7	957.5	847.9
57.5°	5381.2	4690.1	3839.1	3000.4	2312.3	1796.3	1406.6	1111.2	913.4	771.8	678.9
60°	6836.4	5711.5	4475.4	3190.6	2181.4	1542.0	1155.4	875.3	709.4	595.2	532.8
62.5°	7932.4	6501.5	4819.4	3148.0	1918.0	1228.5	857.0	637.8	522.1	444.5	404.9
65°	7775.7	6256.4	4452.6	2711.1	1504.0	866.2	569.3	433.8	359.3	322.7	299.9
66°	7421.0	5936.8	4134.4	2440.2	1300.0	720.0	468.9	363.8	309.0	283.1	267.9
67.5°	6748.1	5343.1	3565.1	2000.2	998.6	522.1	353.2	287.7	251.2	240.5	229.9
70°	5609.5	4260.8	2502.6	1164.5	510.0	290.7	223.8	200.9	191.8	190.3	187.2
72.5°	4298.8	3015.6	1473.5	551.1	264.9	193.3	173.5	165.9	162.9	162.9	164.4
75°	2635.0	1694.3	651.5	269.4	185.7	162.9	153.7	150.7	149.2	150.7	149.2
77.5°	879.9	538.9	278.6	204.0	169.0	150.7	144.6	141.6	141.6	141.6	141.6
80°	269.4	234.4	213.1	188.8	159.8	143.1	134.0	132.4	134.0	135.5	130.9
82.5°	202.5	191.8	179.6	167.4	144.6	127.9	124.8	124.8	124.8	120.3	114.2
85°	149.2	147.7	121.8	114.2	106.6	106.6	106.6	106.6	102.0	94.4	88.3
87.5°	27.4	25.9	27.4	28.9	42.6	45.7	45.7	48.7	53.3	50.2	50.2
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: P155609

CATALOG NUMBER: TLM-E05-LED-E1-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1517.7	1517.7	1517.7	1517.7	1517.7
2.5°	1523.8	1522.3	1526.8	1523.8	1525.3
5°	1537.5	1536.0	1539.0	1536.0	1540.5
7.5°	1532.9	1529.9	1528.3	1529.9	1531.4
10°	1500.9	1497.9	1496.4	1494.9	1496.4
12.5°	1473.5	1467.4	1467.4	1464.4	1465.9
15°	1453.7	1449.2	1447.7	1444.6	1446.1
17.5°	1444.6	1437.0	1434.0	1430.9	1430.9
20°	1438.5	1429.4	1424.8	1421.8	1420.3
22.5°	1438.5	1424.8	1418.7	1415.7	1414.2
25°	1444.6	1427.9	1418.7	1414.2	1412.6
27.5°	1456.8	1435.5	1424.8	1418.7	1418.7
30°	1478.1	1450.7	1435.5	1427.9	1426.3
32.5°	1499.4	1462.9	1441.6	1432.4	1429.4
35°	1510.1	1462.9	1437.0	1421.8	1418.7
37.5°	1497.9	1443.1	1411.1	1388.3	1383.7
40°	1459.8	1402.0	1367.0	1345.7	1342.6
42.5°	1409.6	1353.3	1312.2	1297.0	1292.4
45°	1341.1	1274.1	1233.0	1211.7	1213.2
47.5°	1223.9	1155.4	1118.9	1099.1	1102.1
50°	1085.4	1018.4	986.4	965.1	969.7
52.5°	933.1	872.2	841.8	831.1	828.1
55°	773.3	726.1	704.8	692.6	688.1
57.5°	627.2	593.7	578.5	563.2	564.8
60°	494.7	478.0	473.4	456.7	455.2
62.5°	389.7	379.0	374.5	362.3	363.8
65°	295.3	292.3	295.3	287.7	290.7
66°	266.4	267.9	267.9	263.3	266.4
67.5°	229.9	232.9	237.5	232.9	235.9
70°	190.3	193.3	196.4	196.4	196.4
72.5°	165.9	169.0	170.5	170.5	170.5
75°	152.2	153.7	155.3	152.2	152.2
77.5°	143.1	143.1	140.0	138.5	137.0
80°	129.4	127.9	123.3	120.3	120.3
82.5°	108.1	105.0	102.0	97.4	97.4
85°	82.2	79.2	76.1	70.0	67.0
87.5°	42.6	44.1	42.6	35.0	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)