

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: P155610

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155610
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

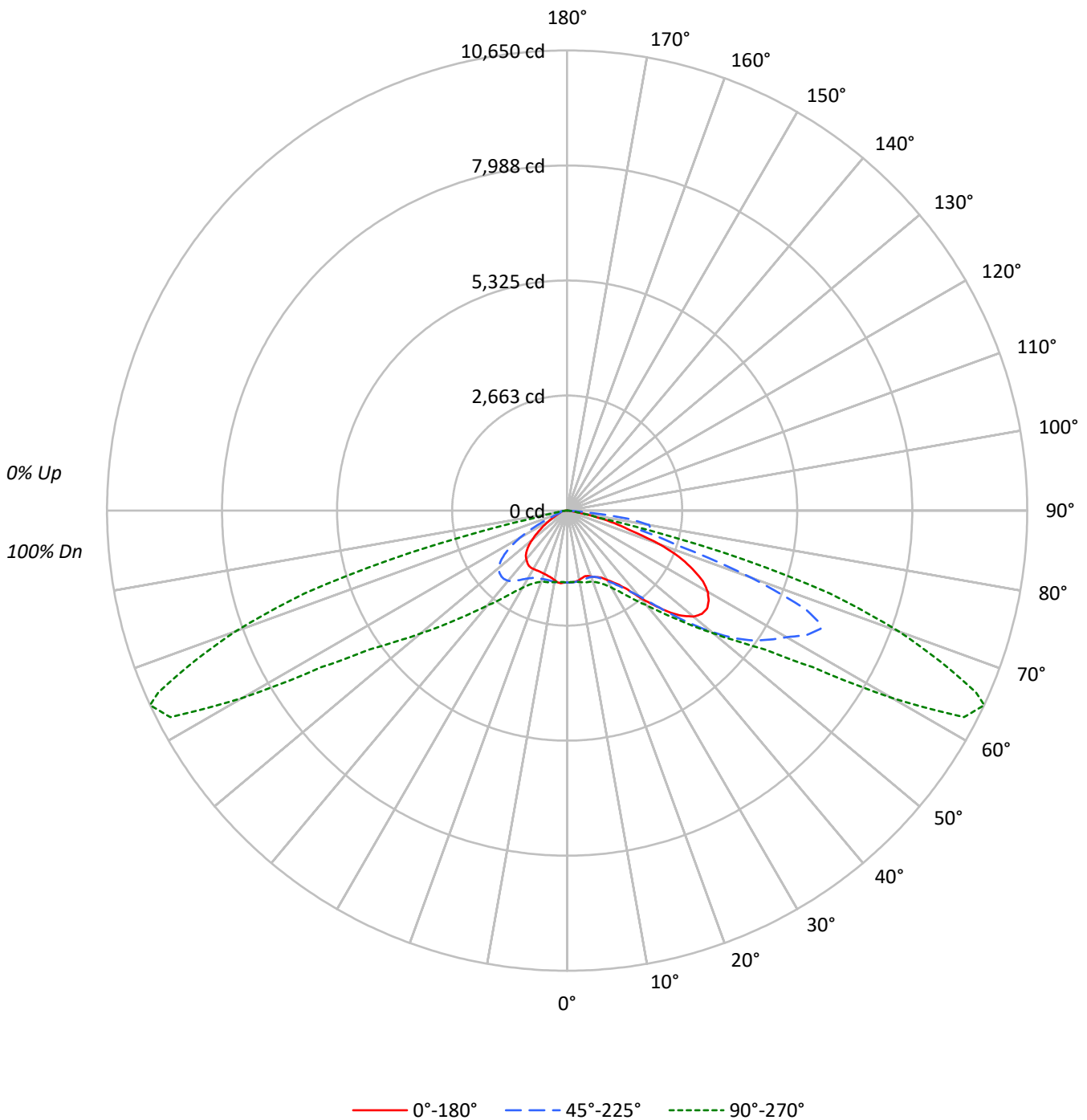
Lumens per Lamp: N/A
Luminaire Lumens: 15419.6 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	105	99	94	89	102	97	92	87	92	88	84	88	85	82	85	82	79
2	92	82	73	65	89	80	71	64	76	69	63	72	66	61	69	64	60
3	81	68	57	49	79	66	56	49	63	55	48	60	53	47	57	51	46
4	73	57	46	38	70	56	46	38	53	44	37	51	43	36	48	41	36
5	65	49	38	30	63	48	38	30	46	37	29	44	35	29	42	34	29
6	59	43	32	24	57	42	32	24	40	31	24	38	30	24	36	29	23
7	54	38	28	20	52	37	27	20	35	27	20	34	26	20	32	25	20
8	50	34	24	17	48	33	24	17	32	23	17	30	23	17	29	22	17
9	46	31	21	15	45	30	21	15	29	20	15	28	20	15	27	20	14
10	43	28	19	13	42	27	19	13	26	18	13	25	18	13	24	18	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	21550	21550	21550
5°	21632	21610	21958
10°	21442	22101	21574
15°	21123	23070	21257
20°	22426	24221	21460
25°	24326	26568	22132
30°	27729	30898	23386
35°	33247	37890	24591
40°	44524	48502	24886
45°	60829	64589	24361
50°	76970	89176	21420
55°	89423	126955	17032
60°	97438	224530	12924
65°	98349	326809	9767
70°	86198	309532	8152
75°	56956	187314	8353
80°	20784	19044	9836
85°	3467	12648	10907



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	1.0
10°-20°	469.7	3.0
20°-30°	807.3	5.2
30°-40°	1310.8	8.5
40°-50°	2188.3	14.2
50°-60°	3445.8	22.3
60°-70°	4698.7	30.5
70°-80°	2034.0	13.2
80°-90°	305.9	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°	1436.1	9.3
0°-40°	2746.9	17.8
0°-60°	8381.0	54.4
0°-90°	15419.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15419.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1662	1662	1662	1662	1662	
5°	1662	1665	1660	1680	1687	158
15°	1573	1638	1718	1668	1583	452
25°	1700	1710	1857	1723	1547	796
35°	2100	2147	2393	1970	1553	1361
45°	3317	3360	3522	2155	1328	2549
55°	3955	5238	5615	1775	753	3488
65°	3205	6475	10650	623	318	3112
75°	1137	1770	3738	168	167	1215
85°	23	393	85	117	73	61
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°	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7
2.5°	1668.3	1675.0	1668.3	1670.0	1671.7	1670.0	1668.3	1668.3	1663.3	1666.7	1670.0
5°	1661.7	1666.7	1665.0	1666.7	1668.3	1666.7	1665.0	1666.7	1663.3	1665.0	1670.0
7.5°	1653.3	1651.7	1653.3	1656.7	1660.0	1660.0	1660.0	1661.7	1660.0	1660.0	1665.0
10°	1628.3	1630.0	1633.3	1638.3	1640.0	1645.0	1645.0	1650.0	1651.7	1655.0	1661.7
12.5°	1596.7	1598.3	1601.7	1605.0	1613.3	1621.7	1621.7	1633.3	1638.3	1646.7	1658.3
15°	1573.3	1575.0	1578.3	1581.7	1588.3	1596.7	1601.7	1615.0	1623.3	1638.3	1655.0
17.5°	1586.7	1585.0	1588.3	1590.0	1590.0	1596.7	1596.7	1606.7	1616.7	1630.0	1651.7
20°	1625.0	1625.0	1628.3	1628.3	1626.7	1630.0	1623.3	1623.3	1625.0	1631.7	1646.7
22.5°	1663.3	1661.7	1668.3	1671.7	1673.3	1678.3	1671.7	1670.0	1661.7	1656.7	1661.7
25°	1700.0	1698.3	1706.7	1711.7	1720.0	1725.0	1725.0	1725.0	1718.3	1710.0	1705.0
27.5°	1756.7	1756.7	1765.0	1770.0	1776.7	1786.7	1791.7	1791.7	1793.3	1781.7	1773.3
30°	1851.7	1853.3	1855.0	1861.7	1868.3	1871.7	1878.3	1883.3	1888.3	1881.7	1868.3
32.5°	1965.0	1955.0	1955.0	1965.0	1973.3	1983.3	1986.7	1993.3	2003.3	1998.3	1996.7
35°	2100.0	2096.7	2093.3	2096.7	2106.7	2118.3	2131.7	2143.3	2136.7	2146.7	2141.7
37.5°	2300.0	2303.3	2305.0	2305.0	2303.3	2306.7	2313.3	2325.0	2321.7	2325.0	2331.7
40°	2630.0	2618.3	2606.7	2608.3	2591.7	2595.0	2568.3	2580.0	2581.7	2570.0	2575.0
42.5°	2960.0	2966.7	2971.7	2985.0	2973.3	2966.7	2941.7	2941.7	2928.3	2916.7	2913.3
45°	3316.7	3330.0	3331.7	3358.3	3348.3	3370.0	3388.3	3383.3	3361.7	3360.0	3336.7
47.5°	3601.7	3623.3	3646.7	3678.3	3703.3	3751.7	3808.3	3836.7	3853.3	3866.7	3840.0
50°	3815.0	3825.0	3885.0	3935.0	3990.0	4070.0	4148.3	4250.0	4331.7	4370.0	4406.7
52.5°	3930.0	3955.0	4020.0	4098.3	4195.0	4315.0	4441.7	4603.3	4743.3	4836.7	4920.0
55°	3955.0	3980.0	4053.3	4153.3	4285.0	4446.7	4628.3	4848.3	5058.3	5238.3	5413.3
57.5°	3885.0	3913.3	3991.7	4106.7	4261.7	4458.3	4686.7	4975.0	5265.0	5556.7	5815.0
60°	3756.7	3791.7	3863.3	3976.7	4148.3	4370.0	4643.3	5005.0	5411.7	5858.3	6353.3
62.5°	3545.0	3581.7	3648.3	3773.3	3950.0	4195.0	4511.7	4961.7	5536.7	6240.0	7118.3
65°	3205.0	3221.7	3303.3	3430.0	3586.7	3856.7	4205.0	4748.3	5496.7	6475.0	7685.0
66°	3051.7	3080.0	3130.0	3231.7	3381.7	3635.0	3985.0	4536.7	5345.0	6393.3	7670.0
67.5°	2811.7	2833.3	2866.7	2935.0	3026.7	3213.3	3545.0	4066.7	4881.7	5980.0	7351.7
70°	2273.3	2283.3	2328.3	2351.7	2383.3	2445.0	2565.0	2865.0	3500.0	4531.7	5933.3
72.5°	1550.0	1578.3	1626.7	1693.3	1780.0	1863.3	1920.0	1958.3	2095.0	2703.3	3953.3
75°	1136.7	1166.7	1228.3	1316.7	1468.3	1641.7	1821.7	1905.0	1848.3	1770.0	2201.7
77.5°	660.0	700.0	751.7	836.7	976.7	1206.7	1515.0	1788.3	1973.3	1985.0	1885.0
80°	278.3	283.3	315.0	358.3	445.0	606.7	846.7	1240.0	1650.0	1926.7	1991.7
82.5°	63.3	78.3	100.0	118.3	145.0	200.0	296.7	493.3	891.7	1398.3	1823.3
85°	23.3	23.3	31.7	46.7	53.3	60.0	78.3	125.0	213.3	393.3	820.0
87.5°	0.0	1.7	3.3	3.3	6.7	8.3	13.3	18.3	16.7	15.0	50.0
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7
2.5°	1666.7	1665.0	1661.7	1661.7	1661.7	1661.7	1658.3	1660.0	1656.7	1658.3	1658.3
5°	1665.0	1665.0	1663.3	1660.0	1661.7	1661.7	1663.3	1660.0	1660.0	1661.7	1660.0
7.5°	1665.0	1663.3	1663.3	1663.3	1665.0	1663.3	1665.0	1665.0	1665.0	1666.7	1666.7
10°	1665.0	1665.0	1668.3	1670.0	1670.0	1671.7	1676.7	1676.7	1678.3	1680.0	1683.3
12.5°	1666.7	1673.3	1678.3	1683.3	1685.0	1688.3	1696.7	1696.7	1700.0	1705.0	1706.7
15°	1668.3	1678.3	1688.3	1691.7	1695.0	1701.7	1710.0	1713.3	1718.3	1723.3	1726.7
17.5°	1666.7	1680.0	1691.7	1696.7	1701.7	1710.0	1720.0	1723.3	1730.0	1736.7	1743.3
20°	1665.0	1683.3	1701.7	1708.3	1715.0	1726.7	1740.0	1748.3	1755.0	1765.0	1771.7
22.5°	1675.0	1696.7	1721.7	1731.7	1743.3	1758.3	1776.7	1786.7	1795.0	1805.0	1810.0
25°	1706.7	1723.3	1753.3	1770.0	1785.0	1810.0	1835.0	1846.7	1856.7	1865.0	1866.7
27.5°	1760.0	1765.0	1801.7	1823.3	1845.0	1885.0	1915.0	1923.3	1941.7	1948.3	1946.7
30°	1846.7	1838.3	1868.3	1901.7	1933.3	1988.3	2025.0	2046.7	2063.3	2063.3	2050.0
32.5°	1971.7	1958.3	1966.7	2005.0	2041.7	2121.7	2165.0	2193.3	2205.0	2201.7	2173.3
35°	2135.0	2126.7	2121.7	2151.7	2210.0	2303.3	2360.0	2375.0	2393.3	2390.0	2353.3
37.5°	2328.3	2321.7	2321.7	2356.7	2413.3	2551.7	2613.3	2623.3	2621.7	2595.0	2526.7
40°	2556.7	2553.3	2538.3	2558.3	2606.7	2786.7	2870.0	2883.3	2865.0	2821.7	2741.7
42.5°	2885.0	2865.0	2818.3	2830.0	2866.7	3041.7	3150.0	3186.7	3168.3	3125.0	2995.0
45°	3313.3	3291.7	3213.3	3203.3	3223.3	3376.7	3516.7	3525.0	3521.7	3466.7	3313.3
47.5°	3816.7	3783.3	3700.0	3673.3	3666.7	3808.3	3943.3	3956.7	3948.3	3866.7	3661.7
50°	4361.7	4313.3	4258.3	4240.0	4213.3	4315.0	4451.7	4453.3	4420.0	4306.7	4115.0
52.5°	4943.3	4926.7	4916.7	4898.3	4886.7	4975.0	5058.3	5008.3	4958.3	4840.0	4673.3
55°	5530.0	5598.3	5668.3	5675.0	5695.0	5790.0	5788.3	5651.7	5615.0	5550.0	5385.0
57.5°	6153.3	6406.7	6626.7	6695.0	6761.7	6938.3	6921.7	6786.7	6740.0	6660.0	6523.3
60°	7001.7	7685.0	8320.0	8471.7	8576.7	8788.3	8768.3	8560.0	8656.7	8650.0	8473.3
62.5°	8190.0	9326.7	10278.3	10511.7	10585.0	10608.3	10481.7	10256.7	10351.7	10458.3	9915.0
65°	8995.0	10331.7	11308.3	11488.3	11498.3	11220.0	10938.3	10673.3	10650.0	10558.3	9781.7
66°	9013.3	10381.7	11361.7	11536.7	11475.0	11095.0	10738.3	10471.7	10356.7	10155.0	9350.0
67.5°	8690.0	10070.0	11125.0	11310.0	11175.0	10636.7	10145.0	9801.7	9576.7	9250.0	8540.0
70°	7298.3	8666.7	9966.7	10311.7	10355.0	9551.7	8870.0	8466.7	8163.3	7715.0	7103.3
72.5°	5426.7	6663.3	7810.0	8140.0	8308.3	7666.7	7091.7	6785.0	6370.0	5898.3	5463.3
75°	3401.7	4275.0	5043.3	5275.0	5116.7	4620.0	4275.0	4146.7	3738.3	3456.7	3258.3
77.5°	1945.0	2218.3	2280.0	2191.7	2005.0	1535.0	1091.7	808.3	701.7	776.7	856.7
80°	1898.3	1740.0	1386.7	1220.0	1105.0	760.0	446.7	306.7	255.0	261.7	283.3
82.5°	2056.7	2206.7	1816.7	1481.7	1243.3	840.0	463.3	246.7	166.7	196.7	221.7
85°	1336.7	1860.0	1675.0	1411.7	1143.3	718.3	381.7	128.3	85.0	111.7	153.3
87.5°	135.0	148.3	126.7	171.7	128.3	60.0	30.0	18.3	16.7	20.0	30.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7	1661.7
2.5°	1660.0	1660.0	1661.7	1663.3	1665.0	1666.7	1666.7	1666.7	1666.7	1670.0	1668.3
5°	1663.3	1666.7	1670.0	1671.7	1675.0	1675.0	1680.0	1678.3	1678.3	1683.3	1685.0
7.5°	1670.0	1675.0	1681.7	1680.0	1686.7	1685.0	1688.3	1688.3	1683.3	1685.0	1681.7
10°	1685.0	1691.7	1695.0	1690.0	1691.7	1685.0	1683.3	1675.0	1665.0	1660.0	1653.3
12.5°	1710.0	1716.7	1716.7	1708.3	1698.3	1683.3	1671.7	1653.3	1638.3	1630.0	1621.7
15°	1731.7	1738.3	1736.7	1723.3	1708.3	1685.0	1668.3	1646.7	1625.0	1611.7	1603.3
17.5°	1748.3	1751.7	1746.7	1728.3	1711.7	1690.0	1673.3	1650.0	1625.0	1608.3	1593.3
20°	1773.3	1770.0	1758.3	1735.0	1716.7	1696.7	1683.3	1663.3	1635.0	1613.3	1591.7
22.5°	1810.0	1796.7	1775.0	1750.0	1731.7	1713.3	1700.0	1678.3	1650.0	1623.3	1598.3
25°	1858.3	1831.7	1801.7	1775.0	1758.3	1738.3	1723.3	1700.0	1670.0	1640.0	1610.0
27.5°	1928.3	1881.7	1843.3	1820.0	1801.7	1776.7	1758.3	1728.3	1696.7	1661.7	1628.3
30°	2006.7	1943.3	1906.7	1888.3	1868.3	1841.7	1813.3	1775.0	1738.3	1700.0	1660.0
32.5°	2108.3	2031.7	1996.7	1978.3	1951.7	1918.3	1885.0	1841.7	1790.0	1740.0	1691.7
35°	2241.7	2163.3	2126.7	2098.3	2061.7	2018.3	1970.0	1911.7	1841.7	1775.0	1713.3
37.5°	2385.0	2300.0	2265.0	2235.0	2180.0	2123.3	2055.0	1970.0	1875.0	1786.7	1710.0
40°	2566.7	2488.3	2443.3	2391.7	2326.7	2228.3	2121.7	1998.3	1876.7	1768.3	1678.3
42.5°	2796.7	2718.3	2651.7	2570.0	2456.7	2305.0	2153.3	1993.3	1846.7	1723.3	1626.7
45°	3101.7	3006.7	2891.7	2748.3	2565.0	2353.3	2155.0	1961.7	1790.0	1653.3	1550.0
47.5°	3475.0	3330.0	3141.7	2900.0	2636.7	2366.7	2128.3	1898.3	1701.7	1553.3	1438.3
50°	3918.3	3690.0	3380.0	3025.0	2673.3	2346.7	2061.7	1803.3	1576.7	1418.3	1281.7
52.5°	4425.0	4051.7	3595.0	3115.0	2671.7	2280.0	1948.3	1660.0	1413.3	1236.7	1106.7
55°	5020.0	4465.0	3816.7	3181.7	2625.0	2156.7	1775.0	1458.3	1211.7	1048.3	928.3
57.5°	5891.7	5135.0	4203.3	3285.0	2531.7	1966.7	1540.0	1216.7	1000.0	845.0	743.3
60°	7485.0	6253.3	4900.0	3493.3	2388.3	1688.3	1265.0	958.3	776.7	651.7	583.3
62.5°	8685.0	7118.3	5276.7	3446.7	2100.0	1345.0	938.3	698.3	571.7	486.7	443.3
65°	8513.3	6850.0	4875.0	2968.3	1646.7	948.3	623.3	475.0	393.3	353.3	328.3
66°	8125.0	6500.0	4526.7	2671.7	1423.3	788.3	513.3	398.3	338.3	310.0	293.3
67.5°	7388.3	5850.0	3903.3	2190.0	1093.3	571.7	386.7	315.0	275.0	263.3	251.7
70°	6141.7	4665.0	2740.0	1275.0	558.3	318.3	245.0	220.0	210.0	208.3	205.0
72.5°	4706.7	3301.7	1613.3	603.3	290.0	211.7	190.0	181.7	178.3	178.3	180.0
75°	2885.0	1855.0	713.3	295.0	203.3	178.3	168.3	165.0	163.3	165.0	163.3
77.5°	963.3	590.0	305.0	223.3	185.0	165.0	158.3	155.0	155.0	155.0	155.0
80°	295.0	256.7	233.3	206.7	175.0	156.7	146.7	145.0	146.7	148.3	143.3
82.5°	221.7	210.0	196.7	183.3	158.3	140.0	136.7	136.7	136.7	131.7	125.0
85°	163.3	161.7	133.3	125.0	116.7	116.7	116.7	116.7	111.7	103.3	96.7
87.5°	30.0	28.3	30.0	31.7	46.7	50.0	50.0	53.3	58.3	55.0	55.0
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: P155610

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

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1661.7	1661.7	1661.7	1661.7	1661.7
2.5°	1668.3	1666.7	1671.7	1668.3	1670.0
5°	1683.3	1681.7	1685.0	1681.7	1686.7
7.5°	1678.3	1675.0	1673.3	1675.0	1676.7
10°	1643.3	1640.0	1638.3	1636.7	1638.3
12.5°	1613.3	1606.7	1606.7	1603.3	1605.0
15°	1591.7	1586.7	1585.0	1581.7	1583.3
17.5°	1581.7	1573.3	1570.0	1566.7	1566.7
20°	1575.0	1565.0	1560.0	1556.7	1555.0
22.5°	1575.0	1560.0	1553.3	1550.0	1548.3
25°	1581.7	1563.3	1553.3	1548.3	1546.7
27.5°	1595.0	1571.7	1560.0	1553.3	1553.3
30°	1618.3	1588.3	1571.7	1563.3	1561.7
32.5°	1641.7	1601.7	1578.3	1568.3	1565.0
35°	1653.3	1601.7	1573.3	1556.7	1553.3
37.5°	1640.0	1580.0	1545.0	1520.0	1515.0
40°	1598.3	1535.0	1496.7	1473.3	1470.0
42.5°	1543.3	1481.7	1436.7	1420.0	1415.0
45°	1468.3	1395.0	1350.0	1326.7	1328.3
47.5°	1340.0	1265.0	1225.0	1203.3	1206.7
50°	1188.3	1115.0	1080.0	1056.7	1061.7
52.5°	1021.7	955.0	921.7	910.0	906.7
55°	846.7	795.0	771.7	758.3	753.3
57.5°	686.7	650.0	633.3	616.7	618.3
60°	541.7	523.3	518.3	500.0	498.3
62.5°	426.7	415.0	410.0	396.7	398.3
65°	323.3	320.0	323.3	315.0	318.3
66°	291.7	293.3	293.3	288.3	291.7
67.5°	251.7	255.0	260.0	255.0	258.3
70°	208.3	211.7	215.0	215.0	215.0
72.5°	181.7	185.0	186.7	186.7	186.7
75°	166.7	168.3	170.0	166.7	166.7
77.5°	156.7	156.7	153.3	151.7	150.0
80°	141.7	140.0	135.0	131.7	131.7
82.5°	118.3	115.0	111.7	106.7	106.7
85°	90.0	86.7	83.3	76.7	73.3
87.5°	46.7	48.3	46.7	38.3	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)