

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: P155608

Luminaire Tested: **TLM-E05-LED-E1-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155608
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-T3-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (105) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13014.0 lumens
Efficiency: N/A
Efficacy: 102.2 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

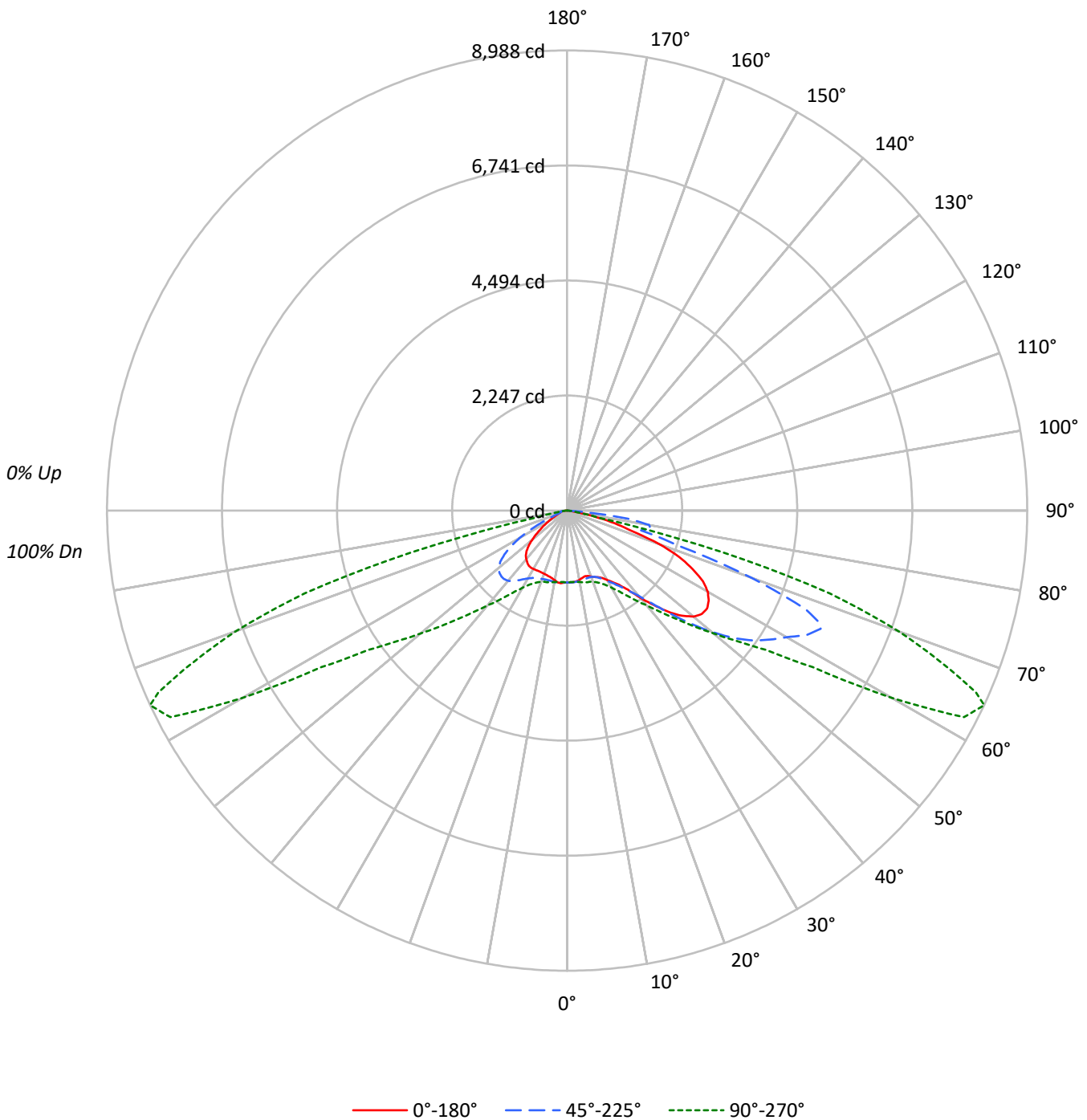
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	18187	18187	18187
5°	18257	18238	18531
10°	18098	18653	18208
15°	17828	19472	17941
20°	18928	20442	18112
25°	20531	22423	18679
30°	23403	26077	19737
35°	28060	31980	20755
40°	37578	40935	21004
45°	51338	54513	20561
50°	64961	75263	18077
55°	75472	107149	14375
60°	82236	189499	10909
65°	83006	275823	8245
70°	72752	261244	6882
75°	48067	158092	7050
80°	17543	16072	8297
85°	2931	10669	9211



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	1.0
10°-20°	396.4	3.0
20°-30°	681.3	5.2
30°-40°	1106.3	8.5
40°-50°	1846.9	14.2
50°-60°	2908.2	22.3
60°-70°	3965.7	30.5
70°-80°	1716.7	13.2
80°-90°	258.1	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°	1212.1	9.3
0°-40°	2318.3	17.8
0°-60°	7073.5	54.4
0°-90°	13014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13014.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1402	1402	1402	1402	1402	
5°	1402	1405	1401	1418	1424	133
15°	1328	1383	1450	1408	1336	382
25°	1435	1443	1567	1454	1305	672
35°	1772	1812	2020	1663	1311	1148
45°	2799	2836	2972	1819	1121	2152
55°	3338	4421	4739	1498	636	2944
65°	2705	5465	8988	526	269	2627
75°	959	1494	3155	142	141	1026
85°	20	332	72	98	62	52
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°	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4
2.5°	1408.1	1413.7	1408.1	1409.5	1410.9	1409.5	1408.1	1408.1	1403.8	1406.7	1409.5
5°	1402.4	1406.7	1405.2	1406.7	1408.1	1406.7	1405.2	1406.7	1403.8	1405.2	1409.5
7.5°	1395.4	1394.0	1395.4	1398.2	1401.0	1401.0	1401.0	1402.4	1401.0	1401.0	1405.2
10°	1374.3	1375.7	1378.5	1382.7	1384.1	1388.4	1388.4	1392.6	1394.0	1396.8	1402.4
12.5°	1347.6	1349.0	1351.8	1354.6	1361.6	1368.7	1368.7	1378.5	1382.7	1389.8	1399.6
15°	1327.9	1329.3	1332.1	1334.9	1340.5	1347.6	1351.8	1363.0	1370.1	1382.7	1396.8
17.5°	1339.1	1337.7	1340.5	1341.9	1341.9	1347.6	1347.6	1356.0	1364.5	1375.7	1394.0
20°	1371.5	1371.5	1374.3	1374.3	1372.9	1375.7	1370.1	1370.1	1371.5	1377.1	1389.8
22.5°	1403.8	1402.4	1408.1	1410.9	1412.3	1416.5	1410.9	1409.5	1402.4	1398.2	1402.4
25°	1434.8	1433.4	1440.4	1444.6	1451.7	1455.9	1455.9	1455.9	1450.3	1443.2	1439.0
27.5°	1482.6	1482.6	1489.6	1493.9	1499.5	1507.9	1512.2	1512.2	1513.6	1503.7	1496.7
30°	1562.8	1564.2	1565.6	1571.2	1576.9	1579.7	1585.3	1589.5	1593.7	1588.1	1576.9
32.5°	1658.4	1650.0	1650.0	1658.4	1665.5	1673.9	1676.7	1682.4	1690.8	1686.6	1685.2
35°	1772.4	1769.6	1766.8	1769.6	1778.0	1787.9	1799.1	1809.0	1803.3	1811.8	1807.5
37.5°	1941.2	1944.0	1945.4	1945.4	1944.0	1946.8	1952.4	1962.3	1959.5	1962.3	1967.9
40°	2219.7	2209.8	2200.0	2201.4	2187.3	2190.2	2167.7	2177.5	2178.9	2169.1	2173.3
42.5°	2498.2	2503.8	2508.1	2519.3	2509.5	2503.8	2482.7	2482.7	2471.5	2461.6	2458.8
45°	2799.2	2810.5	2811.9	2834.4	2826.0	2844.2	2859.7	2855.5	2837.2	2835.8	2816.1
47.5°	3039.8	3058.1	3077.8	3104.5	3125.6	3166.4	3214.2	3238.1	3252.2	3263.4	3240.9
50°	3219.8	3228.3	3278.9	3321.1	3367.5	3435.0	3501.2	3587.0	3655.9	3688.2	3719.2
52.5°	3316.9	3338.0	3392.8	3459.0	3540.5	3641.8	3748.7	3885.2	4003.3	4082.1	4152.4
55°	3338.0	3359.1	3421.0	3505.4	3616.5	3752.9	3906.3	4091.9	4269.2	4421.1	4568.8
57.5°	3278.9	3302.8	3368.9	3466.0	3596.8	3762.8	3955.5	4198.9	4443.6	4689.8	4907.8
60°	3170.6	3200.1	3260.6	3356.3	3501.2	3688.2	3918.9	4224.2	4567.4	4944.4	5362.2
62.5°	2991.9	3022.9	3079.2	3184.7	3333.8	3540.5	3807.8	4187.6	4672.9	5266.5	6007.8
65°	2705.0	2719.1	2788.0	2894.9	3027.1	3255.0	3549.0	4007.6	4639.1	5464.8	6486.1
66°	2575.6	2599.5	2641.7	2727.5	2854.1	3067.9	3363.3	3828.9	4511.1	5395.9	6473.4
67.5°	2373.0	2391.3	2419.4	2477.1	2554.5	2712.0	2991.9	3432.2	4120.1	5047.1	6204.7
70°	1918.7	1927.1	1965.1	1984.8	2011.5	2063.6	2164.8	2418.0	2954.0	3824.7	5007.7
72.5°	1308.2	1332.1	1372.9	1429.2	1502.3	1572.6	1620.5	1652.8	1768.2	2281.6	3336.6
75°	959.3	984.7	1036.7	1111.3	1239.3	1385.6	1537.5	1607.8	1560.0	1493.9	1858.2
77.5°	557.0	590.8	634.4	706.1	824.3	1018.4	1278.6	1509.3	1665.5	1675.3	1590.9
80°	234.9	239.1	265.9	302.4	375.6	512.0	714.6	1046.5	1392.6	1626.1	1680.9
82.5°	53.5	66.1	84.4	99.9	122.4	168.8	250.4	416.4	752.6	1180.2	1538.9
85°	19.7	19.7	26.7	39.4	45.0	50.6	66.1	105.5	180.1	332.0	692.1
87.5°	0.0	1.4	2.8	2.8	5.6	7.0	11.3	15.5	14.1	12.7	42.2
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°	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4
2.5°	1406.7	1405.2	1402.4	1402.4	1402.4	1402.4	1399.6	1401.0	1398.2	1399.6	1399.6
5°	1405.2	1405.2	1403.8	1401.0	1402.4	1402.4	1403.8	1401.0	1401.0	1402.4	1401.0
7.5°	1405.2	1403.8	1403.8	1403.8	1405.2	1403.8	1405.2	1405.2	1405.2	1406.7	1406.7
10°	1405.2	1405.2	1408.1	1409.5	1409.5	1410.9	1415.1	1415.1	1416.5	1417.9	1420.7
12.5°	1406.7	1412.3	1416.5	1420.7	1422.1	1424.9	1432.0	1432.0	1434.8	1439.0	1440.4
15°	1408.1	1416.5	1424.9	1427.8	1430.6	1436.2	1443.2	1446.0	1450.3	1454.5	1457.3
17.5°	1406.7	1417.9	1427.8	1432.0	1436.2	1443.2	1451.7	1454.5	1460.1	1465.7	1471.4
20°	1405.2	1420.7	1436.2	1441.8	1447.4	1457.3	1468.5	1475.6	1481.2	1489.6	1495.3
22.5°	1413.7	1432.0	1453.1	1461.5	1471.4	1484.0	1499.5	1507.9	1515.0	1523.4	1527.6
25°	1440.4	1454.5	1479.8	1493.9	1506.5	1527.6	1548.7	1558.6	1567.0	1574.0	1575.4
27.5°	1485.4	1489.6	1520.6	1538.9	1557.2	1590.9	1616.2	1623.3	1638.7	1644.4	1643.0
30°	1558.6	1551.5	1576.9	1605.0	1631.7	1678.1	1709.1	1727.4	1741.4	1741.4	1730.2
32.5°	1664.1	1652.8	1659.8	1692.2	1723.1	1790.7	1827.2	1851.2	1861.0	1858.2	1834.3
35°	1801.9	1794.9	1790.7	1816.0	1865.2	1944.0	1991.8	2004.5	2020.0	2017.1	1986.2
37.5°	1965.1	1959.5	1959.5	1989.0	2036.8	2153.6	2205.6	2214.1	2212.7	2190.2	2132.5
40°	2157.8	2155.0	2142.3	2159.2	2200.0	2351.9	2422.3	2433.5	2418.0	2381.5	2313.9
42.5°	2434.9	2418.0	2378.6	2388.5	2419.4	2567.1	2658.6	2689.5	2674.0	2637.5	2527.8
45°	2796.4	2778.1	2712.0	2703.6	2720.5	2849.9	2968.0	2975.1	2972.3	2925.8	2796.4
47.5°	3221.2	3193.1	3122.8	3100.3	3094.6	3214.2	3328.1	3339.4	3332.4	3263.4	3090.4
50°	3681.2	3640.4	3594.0	3578.5	3556.0	3641.8	3757.2	3758.6	3730.4	3634.8	3473.0
52.5°	4172.1	4158.1	4149.6	4134.1	4124.3	4198.9	4269.2	4227.0	4184.8	4084.9	3944.3
55°	4667.3	4724.9	4784.0	4789.6	4806.5	4886.7	4885.3	4770.0	4739.0	4684.1	4544.9
57.5°	5193.4	5407.2	5592.8	5650.5	5706.8	5855.9	5841.8	5727.9	5688.5	5621.0	5505.6
60°	5909.3	6486.1	7022.0	7150.0	7238.6	7417.3	7400.4	7224.6	7306.1	7300.5	7151.4
62.5°	6912.3	7871.6	8674.8	8871.8	8933.6	8953.3	8846.4	8656.5	8736.7	8826.7	8368.2
65°	7591.7	8719.8	9544.1	9696.0	9704.5	9469.6	9231.9	9008.2	8988.5	8911.1	8255.6
66°	7607.2	8762.0	9589.1	9736.8	9684.8	9364.1	9063.1	8838.0	8740.9	8570.7	7891.3
67.5°	7334.3	8499.0	9389.4	9545.5	9431.6	8977.3	8562.3	8272.5	8082.6	7806.9	7207.7
70°	6159.7	7314.6	8411.8	8703.0	8739.5	8061.5	7486.2	7145.8	6889.8	6511.4	5995.1
72.5°	4580.1	5623.8	6591.6	6870.1	7012.2	6470.6	5985.3	5726.5	5376.2	4978.1	4611.0
75°	2871.0	3608.1	4256.5	4452.1	4318.4	3899.2	3608.1	3499.7	3155.1	2917.4	2750.0
77.5°	1641.6	1872.3	1924.3	1849.7	1692.2	1295.5	921.4	682.2	592.2	655.5	723.0
80°	1602.2	1468.5	1170.3	1029.7	932.6	641.4	377.0	258.8	215.2	220.8	239.1
82.5°	1735.8	1862.4	1533.3	1250.5	1049.4	709.0	391.0	208.2	140.7	166.0	187.1
85°	1128.1	1569.8	1413.7	1191.4	965.0	606.3	322.1	108.3	71.7	94.2	129.4
87.5°	113.9	125.2	106.9	144.9	108.3	50.6	25.3	15.5	14.1	16.9	25.3
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°	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4	1402.4
2.5°	1401.0	1401.0	1402.4	1403.8	1405.2	1406.7	1406.7	1406.7	1406.7	1409.5	1408.1
5°	1403.8	1406.7	1409.5	1410.9	1413.7	1413.7	1417.9	1416.5	1416.5	1420.7	1422.1
7.5°	1409.5	1413.7	1419.3	1417.9	1423.5	1422.1	1424.9	1424.9	1420.7	1422.1	1419.3
10°	1422.1	1427.8	1430.6	1426.3	1427.8	1422.1	1420.7	1413.7	1405.2	1401.0	1395.4
12.5°	1443.2	1448.9	1448.9	1441.8	1433.4	1420.7	1410.9	1395.4	1382.7	1375.7	1368.7
15°	1461.5	1467.1	1465.7	1454.5	1441.8	1422.1	1408.1	1389.8	1371.5	1360.2	1353.2
17.5°	1475.6	1478.4	1474.2	1458.7	1444.6	1426.3	1412.3	1392.6	1371.5	1357.4	1344.8
20°	1496.7	1493.9	1484.0	1464.3	1448.9	1432.0	1420.7	1403.8	1379.9	1361.6	1343.4
22.5°	1527.6	1516.4	1498.1	1477.0	1461.5	1446.0	1434.8	1416.5	1392.6	1370.1	1349.0
25°	1568.4	1545.9	1520.6	1498.1	1484.0	1467.1	1454.5	1434.8	1409.5	1384.1	1358.8
27.5°	1627.5	1588.1	1555.8	1536.1	1520.6	1499.5	1484.0	1458.7	1432.0	1402.4	1374.3
30°	1693.6	1640.2	1609.2	1593.7	1576.9	1554.3	1530.4	1498.1	1467.1	1434.8	1401.0
32.5°	1779.4	1714.7	1685.2	1669.7	1647.2	1619.1	1590.9	1554.3	1510.7	1468.5	1427.8
35°	1891.9	1825.8	1794.9	1771.0	1740.0	1703.5	1662.7	1613.4	1554.3	1498.1	1446.0
37.5°	2012.9	1941.2	1911.6	1886.3	1839.9	1792.1	1734.4	1662.7	1582.5	1507.9	1443.2
40°	2166.2	2100.1	2062.2	2018.5	1963.7	1880.7	1790.7	1686.6	1583.9	1492.5	1416.5
42.5°	2360.4	2294.2	2238.0	2169.1	2073.4	1945.4	1817.4	1682.4	1558.6	1454.5	1372.9
45°	2617.8	2537.6	2440.5	2319.6	2164.8	1986.2	1818.8	1655.6	1510.7	1395.4	1308.2
47.5°	2932.9	2810.5	2651.5	2447.6	2225.3	1997.4	1796.3	1602.2	1436.2	1311.0	1213.9
50°	3307.0	3114.3	2852.7	2553.1	2256.3	1980.6	1740.0	1522.0	1330.7	1197.1	1081.7
52.5°	3734.7	3419.6	3034.1	2629.0	2254.9	1924.3	1644.4	1401.0	1192.8	1043.7	934.0
55°	4236.8	3768.4	3221.2	2685.3	2215.5	1820.2	1498.1	1230.8	1022.6	884.8	783.5
57.5°	4972.5	4333.9	3547.6	2772.5	2136.7	1659.8	1299.7	1026.9	844.0	713.2	627.4
60°	6317.3	5277.8	4135.6	2948.3	2015.7	1424.9	1067.6	808.8	655.5	550.0	492.3
62.5°	7330.1	6007.8	4453.5	2909.0	1772.4	1135.2	791.9	589.4	482.5	410.7	374.2
65°	7185.2	5781.3	4114.5	2505.2	1389.8	800.4	526.1	400.9	332.0	298.2	277.1
66°	6857.4	5485.9	3820.5	2254.9	1201.3	665.3	433.2	336.2	285.6	261.6	247.6
67.5°	6235.7	4937.3	3294.4	1848.3	922.8	482.5	326.3	265.9	232.1	222.3	212.4
70°	5183.5	3937.2	2312.5	1076.1	471.2	268.7	206.8	185.7	177.2	175.8	173.0
72.5°	3972.4	2786.6	1361.6	509.2	244.8	178.6	160.4	153.3	150.5	150.5	151.9
75°	2434.9	1565.6	602.0	249.0	171.6	150.5	142.1	139.3	137.9	139.3	137.9
77.5°	813.0	498.0	257.4	188.5	156.1	139.3	133.6	130.8	130.8	130.8	130.8
80°	249.0	216.6	196.9	174.4	147.7	132.2	123.8	122.4	123.8	125.2	121.0
82.5°	187.1	177.2	166.0	154.7	133.6	118.2	115.3	115.3	115.3	111.1	105.5
85°	137.9	136.4	112.5	105.5	98.5	98.5	98.5	98.5	94.2	87.2	81.6
87.5°	25.3	23.9	25.3	26.7	39.4	42.2	42.2	45.0	49.2	46.4	46.4
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: P155608

CATALOG NUMBER: TLM-E05-LED-E1-T3-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1402.4	1402.4	1402.4	1402.4	1402.4
2.5°	1408.1	1406.7	1410.9	1408.1	1409.5
5°	1420.7	1419.3	1422.1	1419.3	1423.5
7.5°	1416.5	1413.7	1412.3	1413.7	1415.1
10°	1387.0	1384.1	1382.7	1381.3	1382.7
12.5°	1361.6	1356.0	1356.0	1353.2	1354.6
15°	1343.4	1339.1	1337.7	1334.9	1336.3
17.5°	1334.9	1327.9	1325.1	1322.3	1322.3
20°	1329.3	1320.8	1316.6	1313.8	1312.4
22.5°	1329.3	1316.6	1311.0	1308.2	1306.8
25°	1334.9	1319.4	1311.0	1306.8	1305.4
27.5°	1346.2	1326.5	1316.6	1311.0	1311.0
30°	1365.9	1340.5	1326.5	1319.4	1318.0
32.5°	1385.6	1351.8	1332.1	1323.7	1320.8
35°	1395.4	1351.8	1327.9	1313.8	1311.0
37.5°	1384.1	1333.5	1304.0	1282.9	1278.6
40°	1349.0	1295.5	1263.2	1243.5	1240.7
42.5°	1302.6	1250.5	1212.5	1198.5	1194.2
45°	1239.3	1177.4	1139.4	1119.7	1121.1
47.5°	1130.9	1067.6	1033.9	1015.6	1018.4
50°	1002.9	941.0	911.5	891.8	896.0
52.5°	862.3	806.0	777.9	768.0	765.2
55°	714.6	671.0	651.3	640.0	635.8
57.5°	579.5	548.6	534.5	520.5	521.9
60°	457.2	441.7	437.5	422.0	420.6
62.5°	360.1	350.3	346.0	334.8	336.2
65°	272.9	270.1	272.9	265.9	268.7
66°	246.2	247.6	247.6	243.4	246.2
67.5°	212.4	215.2	219.4	215.2	218.0
70°	175.8	178.6	181.5	181.5	181.5
72.5°	153.3	156.1	157.5	157.5	157.5
75°	140.7	142.1	143.5	140.7	140.7
77.5°	132.2	132.2	129.4	128.0	126.6
80°	119.6	118.2	113.9	111.1	111.1
82.5°	99.9	97.1	94.2	90.0	90.0
85°	76.0	73.1	70.3	64.7	61.9
87.5°	39.4	40.8	39.4	32.4	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)