

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: P152375

Luminaire Tested: **TLM-F03-LED-E1-SL4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P152375  
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-F03-LED-E1-SL4  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (21) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

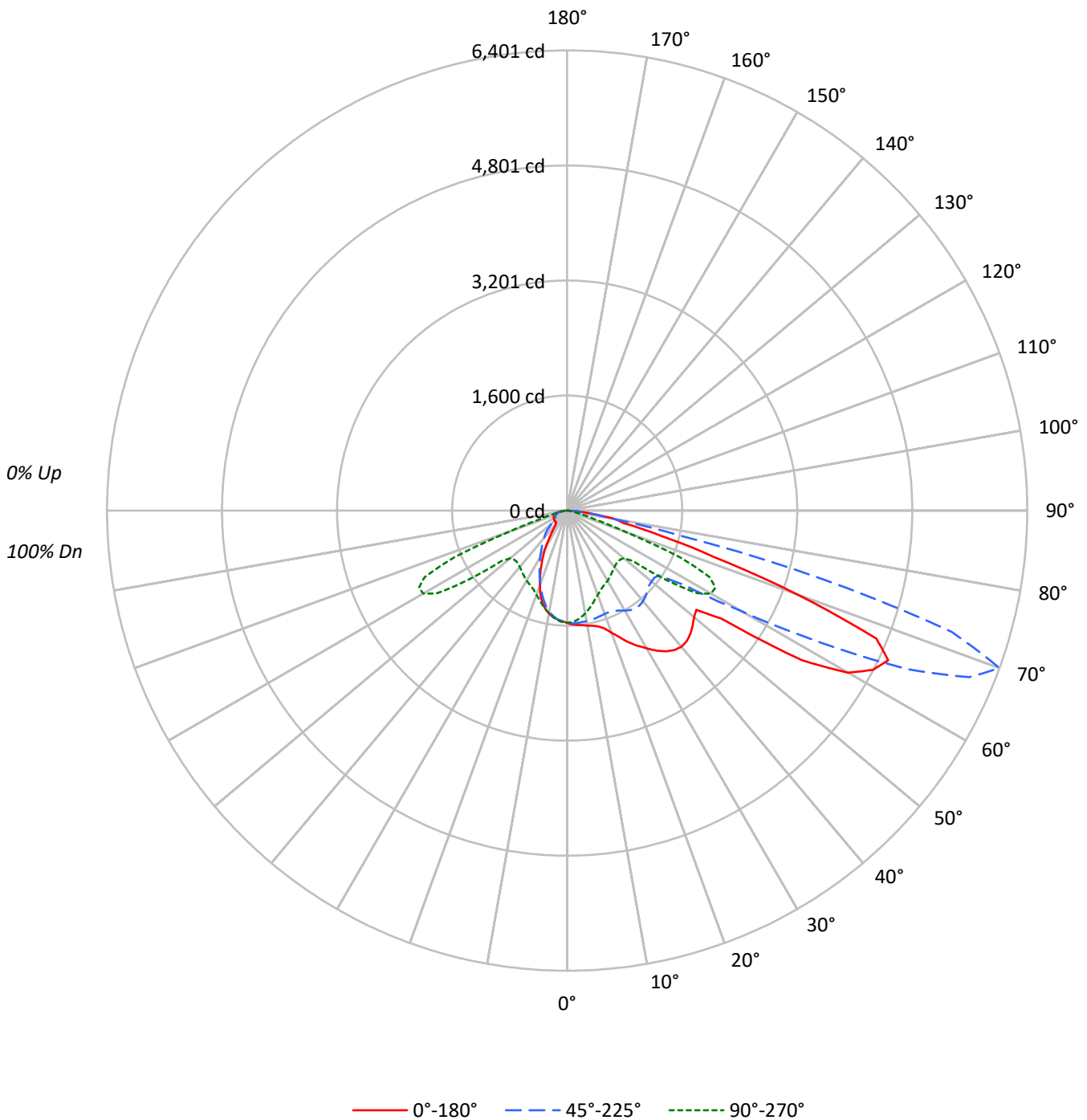
Lumens per Lamp: N/A  
Luminaire Lumens: 7316.1 lumens  
Efficiency: N/A  
Efficacy: 93.4 lumens/watt  
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	33607	33607	33607
5°	34503	33091	32878
10°	35514	31725	31778
15°	37184	30045	29604
20°	41379	28520	25361
25°	47984	27806	20276
30°	54996	27970	15144
35°	62787	28183	9850
40°	69481	28769	6798
45°	73817	30387	6786
50°	77194	34533	7549
55°	98219	63209	8242
60°	194172	99416	9240
65°	251008	111435	10386
70°	213560	52690	11689
75°	112264	19364	14423
80°	83509	10538	15658
85°	48314	10201	15709



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.8	2.0
10°-20°	399.2	5.5
20°-30°	591.0	8.1
30°-40°	746.9	10.2
40°-50°	844.7	11.5
50°-60°	1202.0	16.4
60°-70°	2238.6	30.6
70°-80°	1026.0	14.0
80°-90°	121.8	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°	1136.1	15.5
0°-40°	1883.0	25.7
0°-60°	3929.7	53.7
0°-90°	7316.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7316.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1561	1561	1561	1561	1561	
5°	1597	1570	1531	1519	1521	153
15°	1668	1548	1348	1276	1328	480
25°	2020	1540	1171	912	854	938
35°	2389	1663	1072	611	375	1493
45°	2425	1579	998	400	223	1865
55°	2617	1570	1684	203	220	2750
65°	4928	5218	2188	182	204	4544
75°	1350	3669	233	143	173	1659
85°	196	172	41	65	64	246
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°	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1
2.5°	1585.0	1589.1	1584.2	1583.4	1583.4	1582.5	1577.6	1576.8	1570.1	1571.0	1572.6
5°	1596.6	1598.2	1594.9	1594.1	1592.4	1589.1	1585.0	1580.1	1575.1	1570.1	1566.0
7.5°	1608.1	1606.5	1604.0	1604.0	1601.5	1596.6	1588.3	1581.7	1571.0	1565.2	1557.8
10°	1624.6	1622.2	1618.9	1617.2	1613.1	1605.6	1594.1	1585.0	1571.8	1560.2	1547.9
12.5°	1640.3	1639.5	1634.5	1632.1	1625.5	1618.0	1604.0	1590.0	1572.6	1554.5	1538.0
15°	1668.4	1665.1	1660.1	1655.2	1644.4	1634.5	1613.1	1596.6	1571.8	1547.9	1522.3
17.5°	1717.1	1711.3	1706.4	1695.6	1682.4	1665.1	1633.7	1605.6	1571.8	1537.1	1508.2
20°	1806.2	1793.9	1787.3	1773.2	1750.1	1718.7	1670.0	1624.6	1574.3	1529.7	1490.9
22.5°	1907.0	1898.7	1889.6	1880.5	1844.2	1798.8	1732.8	1665.1	1589.1	1526.4	1476.9
25°	2020.1	2009.3	2004.4	1988.7	1954.8	1902.8	1812.9	1718.7	1623.0	1539.6	1476.9
27.5°	2120.8	2117.5	2116.6	2098.5	2066.3	2005.2	1898.7	1785.6	1669.2	1566.8	1489.2
30°	2212.4	2209.1	2207.5	2197.5	2160.4	2087.8	1972.2	1845.0	1719.6	1604.8	1512.4
32.5°	2309.8	2299.1	2294.1	2275.1	2233.0	2148.0	2015.9	1883.8	1759.2	1642.0	1538.0
35°	2389.1	2380.0	2370.1	2342.8	2283.4	2182.7	2034.9	1897.1	1774.9	1662.6	1551.2
37.5°	2446.9	2437.8	2423.7	2389.1	2315.6	2194.2	2034.1	1892.9	1769.1	1659.3	1553.6
40°	2472.4	2463.4	2448.5	2404.8	2321.4	2187.6	2018.4	1873.9	1751.8	1642.0	1543.7
42.5°	2462.5	2455.9	2436.9	2394.8	2303.2	2157.9	1987.0	1838.4	1718.7	1613.9	1521.4
45°	2424.6	2419.6	2401.5	2356.9	2261.9	2110.0	1940.8	1793.9	1679.1	1579.2	1491.7
47.5°	2367.6	2366.0	2347.8	2304.0	2209.9	2062.2	1892.9	1750.1	1639.5	1545.4	1467.0
50°	2304.9	2296.6	2287.5	2247.1	2161.2	2020.9	1858.3	1722.9	1617.2	1533.0	1456.2
52.5°	2265.2	2262.8	2254.5	2218.2	2135.6	1996.9	1842.6	1713.0	1615.6	1530.5	1450.4
55°	2616.9	2622.7	2546.7	2389.1	2250.4	2063.0	1889.6	1763.3	1656.0	1570.1	1511.5
57.5°	3870.9	3845.3	3714.9	3402.0	3048.7	2582.2	2246.3	2042.3	1909.4	1924.3	1954.0
60°	4509.8	4504.9	4480.9	4359.6	4124.3	3769.3	3375.6	2924.0	2780.4	2796.1	2807.6
62.5°	4795.5	4802.9	4821.1	4775.7	4713.7	4610.6	4414.1	4232.5	4040.1	3968.3	3776.0
65°	4927.6	4940.8	4982.0	5007.6	5031.6	5049.7	5127.3	5340.3	5480.7	5218.1	4607.3
67.5°	4654.3	4717.9	4854.1	4987.0	5105.9	5275.1	5537.6	6032.1	6376.4	6053.6	5167.8
70°	3392.9	3479.6	3635.6	4046.7	4485.9	4869.8	5378.3	6131.2	6650.4	6401.1	5306.5
72.5°	2127.4	2151.3	2220.7	2371.7	2697.8	3190.7	4079.7	5209.1	5808.4	5609.4	4485.1
75°	1349.7	1358.0	1355.5	1390.2	1445.5	1552.8	1904.5	3076.7	3979.0	3668.6	2499.7
77.5°	804.1	816.4	821.4	832.1	858.5	896.5	925.4	1046.8	1668.4	1619.7	907.3
80°	673.6	683.5	675.3	672.8	656.3	644.7	658.8	644.7	598.5	576.2	530.8
82.5°	356.6	355.8	353.3	377.3	426.0	463.9	492.8	486.2	440.0	374.8	317.8
85°	195.6	202.3	202.3	210.5	203.1	203.9	210.5	222.1	205.6	171.7	140.3
87.5°	16.5	25.6	20.6	25.6	34.7	24.8	23.9	23.9	20.6	14.9	13.2
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°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1
2.5°	1568.5	1566.8	1563.5	1561.1	1561.1	1556.9	1554.5	1552.8	1552.0	1548.7	1548.7
5°	1563.5	1557.8	1552.0	1547.9	1545.4	1541.3	1534.7	1531.3	1527.2	1523.9	1522.3
7.5°	1552.8	1542.1	1533.0	1526.4	1518.1	1511.5	1503.3	1495.9	1488.4	1485.1	1483.5
10°	1536.3	1522.3	1508.2	1495.9	1484.3	1472.7	1462.0	1451.3	1442.2	1435.6	1429.0
12.5°	1520.6	1499.2	1481.0	1462.8	1444.7	1430.6	1415.8	1400.1	1386.9	1374.5	1371.2
15°	1499.2	1474.4	1451.3	1429.0	1406.7	1383.6	1365.4	1348.1	1326.6	1312.6	1301.9
17.5°	1479.3	1449.6	1421.6	1395.1	1367.9	1344.0	1316.7	1293.6	1272.1	1250.7	1235.0
20°	1457.9	1425.7	1396.0	1366.2	1336.5	1306.0	1274.6	1244.9	1218.5	1192.9	1167.3
22.5°	1438.9	1405.9	1377.0	1344.8	1311.8	1277.1	1240.8	1203.6	1173.1	1140.0	1110.3
25°	1427.3	1391.0	1361.3	1329.9	1293.6	1255.6	1214.3	1170.6	1133.4	1095.5	1060.0
27.5°	1427.3	1380.3	1349.7	1318.4	1281.2	1240.8	1195.4	1147.5	1105.4	1063.3	1019.5
30°	1439.7	1381.9	1340.7	1307.6	1269.7	1225.9	1175.5	1125.2	1079.0	1029.4	987.3
32.5°	1451.3	1385.2	1334.0	1291.9	1248.2	1205.3	1154.1	1100.4	1049.2	1002.2	957.6
35°	1458.7	1385.2	1321.7	1268.0	1218.5	1176.4	1126.0	1072.4	1020.3	974.1	932.8
37.5°	1459.5	1378.6	1301.9	1240.8	1188.8	1145.0	1097.1	1046.8	997.2	954.3	919.6
40°	1451.3	1365.4	1282.0	1211.9	1157.4	1112.8	1069.1	1023.7	979.1	943.6	913.9
42.5°	1436.4	1351.4	1263.1	1188.8	1131.8	1085.6	1045.1	1006.3	967.5	937.0	912.2
45°	1414.1	1332.4	1245.7	1174.7	1118.6	1069.9	1030.3	998.1	965.0	939.4	914.7
47.5°	1394.3	1325.8	1251.5	1183.8	1125.2	1074.8	1034.4	1007.1	981.5	964.2	930.4
50°	1390.2	1322.5	1254.0	1191.2	1131.8	1080.6	1045.1	1031.1	1023.7	1012.9	960.9
52.5°	1378.6	1321.7	1272.1	1237.5	1199.5	1175.5	1138.4	1151.6	1143.4	1105.4	1011.3
55°	1500.0	1516.5	1562.7	1628.8	1689.8	1703.9	1699.8	1684.1	1600.7	1377.0	1132.6
57.5°	2062.2	2155.4	2243.0	2281.8	2276.8	2233.0	2201.7	2138.1	2017.6	1745.2	1372.0
60°	2843.1	2858.0	2811.7	2743.2	2627.6	2531.1	2427.9	2309.0	2134.0	1867.3	1519.0
62.5°	3562.1	3362.4	3156.8	2963.6	2787.8	2634.3	2490.6	2324.7	2096.8	1818.6	1500.0
65°	4069.8	3647.2	3322.7	3045.4	2796.9	2582.2	2403.1	2187.6	1930.9	1679.9	1390.2
67.5°	4331.5	3683.5	3185.7	2799.4	2446.9	2149.7	1911.1	1701.4	1510.7	1400.9	1216.8
70°	4039.3	3126.3	2432.8	1996.1	1574.3	1262.2	997.2	837.1	781.8	885.8	921.3
72.5°	3009.9	2034.9	1447.1	1119.4	857.7	683.5	524.2	411.9	335.2	351.7	456.5
75°	1423.2	878.4	620.8	472.2	375.6	311.2	254.3	232.8	194.8	161.8	151.9
77.5°	553.9	403.7	333.5	244.4	173.4	139.5	118.9	114.7	117.2	113.9	112.3
80°	421.8	285.6	179.1	131.3	113.1	99.9	88.3	85.0	86.7	90.8	94.9
82.5°	235.3	146.9	109.0	94.9	85.0	72.6	66.0	61.1	61.9	66.9	75.9
85°	90.8	71.0	65.2	62.7	58.6	47.1	40.5	41.3	47.1	56.1	56.1
87.5°	9.9	9.9	13.2	9.9	9.9	9.9	9.1	10.7	11.6	14.9	17.3
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1	1561.1
2.5°	1547.0	1547.0	1547.0	1545.4	1546.2	1542.9	1542.9	1540.4	1544.6	1542.1	1541.3
5°	1523.1	1522.3	1519.0	1519.0	1519.0	1519.0	1521.4	1514.8	1519.8	1519.8	1517.3
7.5°	1482.6	1482.6	1473.6	1478.5	1476.9	1479.3	1482.6	1479.3	1484.3	1487.6	1485.1
10°	1426.5	1426.5	1419.1	1424.9	1422.4	1428.2	1433.9	1430.6	1433.9	1438.9	1440.5
12.5°	1364.6	1361.3	1354.7	1357.2	1357.2	1360.5	1362.9	1367.1	1371.2	1377.8	1381.1
15°	1292.8	1287.8	1279.6	1279.6	1274.6	1276.3	1281.2	1282.9	1291.1	1300.2	1310.9
17.5°	1219.3	1206.9	1197.8	1187.1	1178.8	1185.5	1191.2	1195.4	1202.0	1216.0	1223.4
20°	1150.0	1125.2	1107.9	1093.8	1084.7	1088.9	1096.3	1101.3	1107.0	1110.3	1112.8
22.5°	1081.4	1053.4	1029.4	1012.1	997.2	1001.4	998.1	995.6	999.7	989.0	988.2
25°	1022.0	989.0	956.8	936.1	918.0	912.2	894.9	890.7	879.2	870.1	863.5
27.5°	979.1	936.1	900.6	876.7	847.8	826.4	804.1	781.8	769.4	754.5	747.1
30°	945.2	899.8	857.7	817.3	779.3	746.3	716.6	687.7	667.8	646.4	632.4
32.5°	913.9	871.8	820.6	765.3	714.1	676.9	638.1	605.1	573.7	545.7	525.0
35°	892.4	845.3	780.1	712.4	654.6	610.9	569.6	522.6	484.6	448.3	426.0
37.5°	880.8	823.0	743.0	667.8	603.5	553.9	502.7	448.3	402.0	368.2	334.3
40°	871.8	800.8	710.0	628.2	560.5	501.1	441.7	377.3	326.1	290.6	264.2
42.5°	861.8	776.0	681.1	596.9	521.7	452.4	380.6	312.0	263.3	238.6	227.0
45°	851.1	754.5	653.8	567.1	483.8	399.6	317.0	253.4	224.5	216.3	216.3
47.5°	848.6	740.5	634.0	538.2	440.8	338.5	258.4	218.8	210.5	212.2	215.5
50°	858.5	736.4	616.7	504.4	383.9	274.1	218.8	205.6	207.2	212.2	217.1
52.5°	882.5	739.7	598.5	457.3	316.2	226.2	202.3	201.4	206.4	213.8	218.8
55°	922.9	739.7	563.8	387.2	252.6	203.1	196.5	199.8	206.4	213.0	217.1
57.5°	1009.6	732.2	502.7	309.6	211.3	194.8	194.8	199.0	204.7	211.3	214.6
60°	1112.8	722.3	416.9	239.4	190.7	188.2	194.0	199.0	203.9	209.7	213.0
62.5°	1119.4	696.7	330.2	198.1	180.0	184.1	193.2	199.8	201.4	205.6	209.7
65°	1028.6	607.6	262.5	177.5	175.0	181.6	190.7	195.6	196.5	198.1	202.3
67.5°	900.6	495.3	212.2	167.6	170.1	177.5	182.4	186.6	189.0	193.2	194.0
70°	739.7	397.9	181.6	157.7	160.2	168.4	172.5	176.7	181.6	186.6	184.1
72.5°	524.2	309.6	159.3	146.9	150.2	157.7	162.6	165.9	170.1	175.0	171.7
75°	222.9	216.3	137.9	132.9	137.9	142.8	147.8	152.7	156.8	159.3	159.3
77.5°	113.9	127.1	118.9	118.9	122.2	127.1	131.3	136.2	138.7	141.2	144.5
80°	96.6	98.2	99.9	103.2	106.5	111.4	115.6	119.7	120.5	121.4	123.0
82.5°	80.1	83.4	85.0	90.0	92.5	94.1	96.6	96.6	98.2	98.2	95.8
85°	57.8	61.9	64.4	65.2	64.4	65.2	66.0	67.7	71.8	71.8	68.5
87.5°	16.5	15.7	19.8	20.6	22.3	25.6	28.9	34.7	36.3	38.0	38.0
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: P152375

CATALOG NUMBER: TLM-F03-LED-E1-SL4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1561.1	1561.1	1561.1	1561.1
2.5°	1540.4	1542.1	1538.8	1539.6
5°	1517.3	1520.6	1516.5	1521.4
7.5°	1487.6	1492.5	1491.7	1490.9
10°	1444.7	1451.3	1451.3	1453.7
12.5°	1390.2	1394.3	1397.6	1399.3
15°	1316.7	1324.1	1328.3	1328.3
17.5°	1228.4	1233.3	1235.8	1232.5
20°	1116.1	1114.5	1115.3	1107.0
22.5°	986.5	989.0	981.5	983.2
25°	859.4	855.2	858.5	853.6
27.5°	736.4	737.2	728.1	732.2
30°	619.1	615.0	603.5	609.2
32.5°	506.0	495.3	482.9	475.5
35°	399.6	383.0	377.3	374.8
37.5°	313.7	295.5	289.8	283.2
40°	249.3	242.7	240.2	241.9
42.5°	223.7	223.7	225.4	226.2
45°	217.1	219.6	222.1	222.9
47.5°	217.9	220.4	223.7	224.5
50°	219.6	222.1	224.5	225.4
52.5°	220.4	220.4	222.1	222.9
55°	218.8	217.9	218.8	219.6
57.5°	215.5	213.8	214.6	217.1
60°	213.8	211.3	213.0	214.6
62.5°	209.7	208.9	210.5	211.3
65°	200.6	201.4	203.9	203.9
67.5°	192.3	193.2	194.0	194.8
70°	182.4	183.3	184.9	185.7
72.5°	170.9	174.2	176.7	180.0
75°	161.8	165.1	170.1	173.4
77.5°	146.1	148.6	154.4	158.5
80°	123.8	123.0	123.8	126.3
82.5°	94.9	94.9	94.1	93.3
85°	66.9	66.0	63.6	63.6
87.5°	36.3	35.5	34.7	33.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)