

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: PORTFOLIO

Report Number: P252523

Luminaire Tested: **LE_6B60D010R EC6B60709024 6LBLWW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-6)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B60D010R EC6B60709024 6LBLWW1H
Description: PORTFOLIO 6 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4580.0 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.02 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

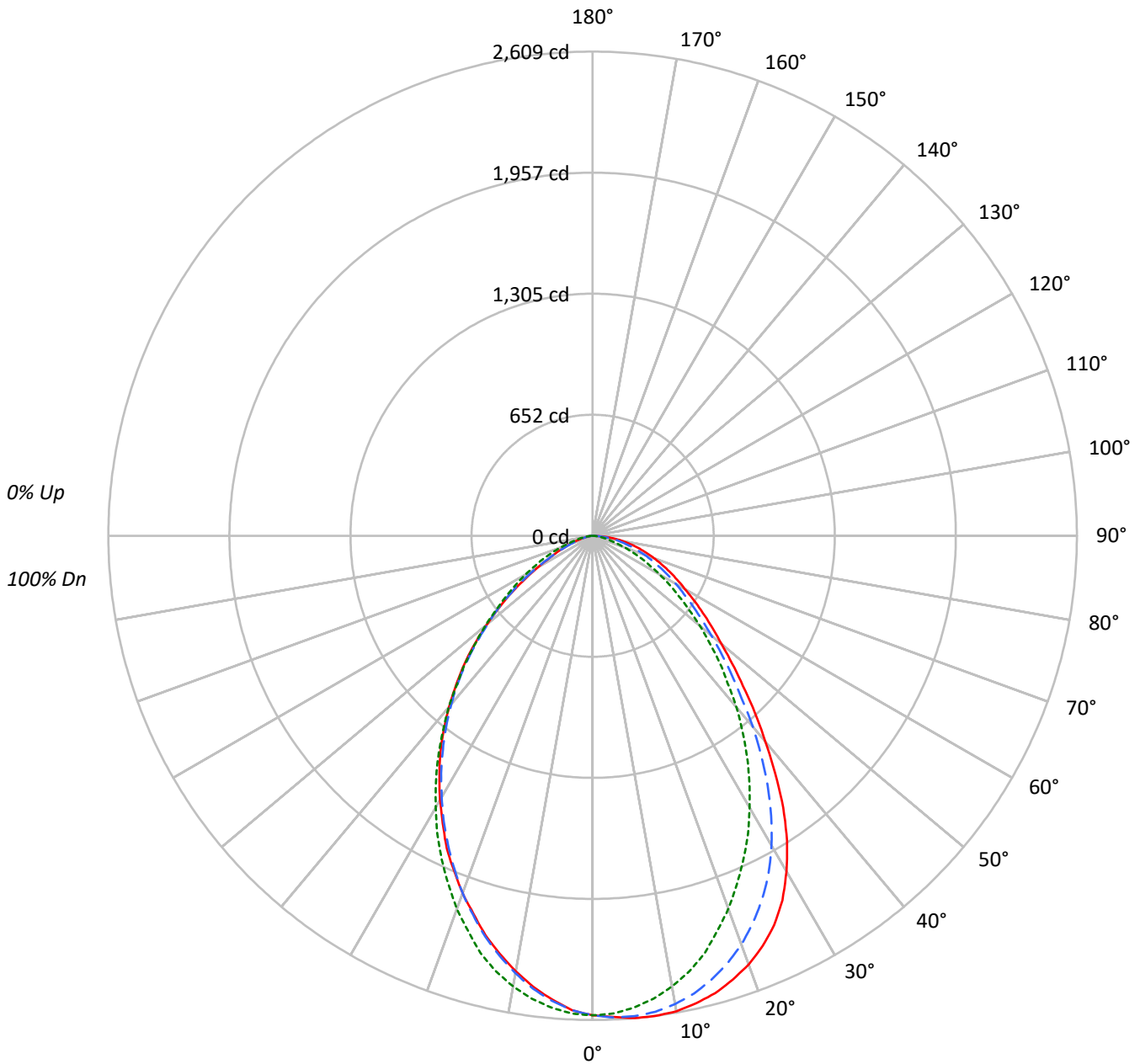
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

Luminous Intensity Polar Plot





TEST NUMBER: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100															
1	111	107	103	100	108	105	101	99	100	98	96	97	95	93	93	91	90	88				88															
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77															
3	95	86	79	73	93	84	78	73	81	76	71	79	74	70	76	72	69	67				67															
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59															
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53															
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47				47															
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	43				43															
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				39															
9	63	50	43	38	61	50	43	38	49	42	37	48	42	37	47	41	37	35				35															
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33				33															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	168569	168569	168569
5°	170856	167097	164275
10°	172362	163326	157860
15°	172334	157305	150517
20°	170667	148492	142264
25°	166617	138463	133813
30°	157341	127328	123818
35°	142627	115468	114042
40°	123166	102693	102378
45°	105624	89395	90059
50°	91793	76488	75402
55°	82453	64493	60409
60°	74909	54306	44481
65°	70363	44861	32696
70°	67068	34907	23958
75°	64228	25333	16284
80°	60676	17508	10820
85°	53746	10779	5315



TEST NUMBER: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.7	5.3
10°-20°	662.0	14.5
20°-30°	919.0	20.1
30°-40°	951.9	20.8
40°-50°	782.2	17.1
50°-60°	537.6	11.7
60°-70°	309.0	6.7
70°-80°	142.1	3.1
80°-90°	34.6	0.8
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°	1822.6	39.8
0°-40°	2774.5	60.6
0°-60°	4094.3	89.4
0°-90°	4580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4580.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2584	2584	2584	2584	2584	
5°	2609	2598	2552	2516	2508	249
15°	2552	2476	2329	2236	2228	719
25°	2315	2160	1924	1841	1859	1059
35°	1791	1644	1450	1407	1432	1110
45°	1145	1059	969	958	976	892
55°	725	657	567	535	531	652
65°	456	398	291	204	212	454
75°	255	201	100	65	65	269
85°	72	50	14	7	7	81
90°	0	0	0	0	0	



TEST NUMBER: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8
2.5°	2594.6	2616.1	2601.8	2598.1	2605.4	2605.4	2605.4	2594.6	2601.8	2591.0	2598.1
5°	2608.9	2626.9	2612.5	2605.4	2612.5	2616.1	2605.4	2598.1	2608.9	2594.6	2598.1
7.5°	2608.9	2626.9	2612.5	2608.9	2612.5	2612.5	2608.9	2594.6	2601.8	2587.4	2587.4
10°	2601.8	2616.1	2601.8	2594.6	2598.1	2594.6	2594.6	2576.6	2580.2	2562.2	2562.2
12.5°	2580.2	2598.1	2580.2	2573.0	2573.0	2573.0	2562.2	2547.9	2551.5	2530.0	2526.4
15°	2551.5	2565.9	2547.9	2540.8	2540.8	2537.1	2530.0	2508.4	2508.4	2486.9	2476.1
17.5°	2508.4	2522.8	2508.4	2497.6	2494.1	2486.9	2479.8	2458.2	2451.0	2425.9	2415.1
20°	2458.2	2469.0	2454.6	2443.9	2436.6	2429.5	2415.1	2393.6	2386.4	2361.2	2343.4
22.5°	2393.6	2408.0	2386.4	2375.6	2368.5	2357.8	2343.4	2321.9	2311.1	2278.8	2257.2
25°	2314.6	2321.9	2303.9	2293.1	2278.8	2271.6	2260.9	2232.1	2221.4	2185.5	2160.4
27.5°	2214.1	2221.4	2199.9	2192.6	2174.8	2167.5	2153.1	2128.0	2113.8	2077.8	2052.6
30°	2088.6	2095.8	2081.4	2070.6	2056.2	2041.9	2031.1	2006.0	1984.5	1948.6	1927.1
32.5°	1948.6	1959.4	1945.0	1930.6	1905.5	1909.1	1891.2	1866.1	1848.1	1815.9	1790.8
35°	1790.8	1797.9	1780.0	1776.4	1762.0	1747.6	1729.8	1711.8	1701.0	1665.1	1643.6
37.5°	1614.9	1632.9	1614.9	1600.5	1593.4	1582.6	1571.8	1546.8	1539.5	1518.0	1489.2
40°	1446.2	1457.0	1446.2	1431.9	1421.1	1421.1	1406.8	1392.4	1374.4	1352.9	1342.1
42.5°	1295.5	1288.2	1284.8	1277.5	1263.2	1259.6	1256.0	1238.1	1227.2	1205.8	1187.9
45°	1144.8	1148.4	1141.1	1137.6	1126.9	1119.6	1112.5	1098.1	1094.5	1073.0	1058.6
47.5°	1019.1	1015.6	1008.4	1008.4	1001.2	994.0	986.9	976.1	972.5	954.6	940.2
50°	904.4	907.9	904.4	900.8	890.0	886.4	879.2	872.0	864.9	846.9	832.5
52.5°	811.0	807.4	803.9	803.9	793.1	789.5	782.4	775.1	768.0	750.0	739.2
55°	724.9	724.9	721.2	717.8	707.0	703.4	699.8	692.6	681.9	667.5	656.8
57.5°	646.0	646.0	642.4	638.8	631.6	631.6	624.4	617.2	610.1	595.8	581.4
60°	574.1	577.8	574.1	570.6	563.4	563.4	559.9	549.0	545.5	527.5	516.8
62.5°	513.1	513.1	513.1	509.6	506.0	498.9	498.9	488.0	480.9	470.1	455.8
65°	455.8	455.8	455.8	452.1	445.0	441.4	437.8	430.6	423.5	412.8	398.4
67.5°	401.9	401.9	401.9	398.4	391.1	387.6	384.0	380.4	369.6	358.9	344.5
70°	351.6	351.6	348.1	344.5	340.9	337.4	333.8	326.6	319.4	305.0	294.2
72.5°	301.5	301.5	301.5	294.2	290.6	290.6	283.5	279.9	272.8	258.4	247.6
75°	254.8	251.2	251.2	247.6	244.0	240.4	236.9	233.2	222.5	215.4	201.0
77.5°	208.1	208.1	204.5	201.0	201.0	197.4	193.8	186.6	183.0	172.2	161.5
80°	161.5	161.5	161.5	161.5	157.9	154.2	154.2	147.1	143.5	132.8	125.6
82.5°	122.0	118.4	118.4	118.4	114.9	111.2	111.2	107.6	104.1	96.9	89.8
85°	71.8	68.1	68.1	68.1	64.6	64.6	61.0	61.0	57.4	50.2	50.2
87.5°	21.5	21.5	25.1	25.1	21.5	21.5	21.5	21.5	21.5	18.0	18.0
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: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8
2.5°	2591.0	2601.8	2587.4	2583.8	2598.1	2591.0	2587.4	2580.2	2583.8	2576.6	2565.9
5°	2587.4	2601.8	2583.8	2573.0	2591.0	2580.2	2573.0	2565.9	2565.9	2551.5	2544.4
7.5°	2576.6	2583.8	2565.9	2555.1	2565.9	2555.1	2547.9	2537.1	2533.5	2515.6	2504.9
10°	2547.9	2555.1	2533.5	2519.2	2530.0	2515.6	2504.9	2494.1	2486.9	2465.4	2451.0
12.5°	2508.4	2512.0	2486.9	2469.0	2476.1	2465.4	2447.4	2433.1	2425.9	2404.4	2386.4
15°	2454.6	2458.2	2429.5	2404.4	2411.5	2397.2	2375.6	2361.2	2350.5	2329.0	2303.9
17.5°	2390.0	2386.4	2354.1	2329.0	2332.6	2314.6	2293.1	2271.6	2257.2	2232.1	2214.1
20°	2318.2	2307.5	2271.6	2242.9	2246.5	2224.9	2199.9	2178.2	2160.4	2138.8	2113.8
22.5°	2228.5	2214.1	2181.9	2146.0	2149.6	2131.6	2095.8	2077.8	2059.9	2031.1	2009.6
25°	2131.6	2110.1	2077.8	2041.9	2041.9	2020.4	1991.6	1970.1	1952.2	1923.5	1898.4
27.5°	2016.8	2006.0	1963.0	1934.2	1930.6	1909.1	1884.0	1858.9	1837.4	1812.2	1787.1
30°	1891.2	1873.2	1841.0	1808.6	1801.5	1783.5	1758.4	1729.8	1715.4	1690.2	1668.8
32.5°	1758.4	1740.5	1704.6	1672.2	1668.8	1654.4	1632.9	1604.1	1589.8	1571.8	1557.5
35°	1607.8	1600.5	1564.6	1539.5	1539.5	1525.1	1503.6	1478.5	1467.8	1449.8	1431.9
37.5°	1464.1	1453.4	1421.1	1399.5	1399.5	1381.6	1360.1	1349.4	1338.5	1324.2	1313.4
40°	1313.4	1306.2	1281.1	1259.6	1263.2	1248.9	1234.5	1220.1	1213.0	1205.8	1195.0
42.5°	1173.5	1166.2	1148.4	1130.4	1130.4	1119.6	1105.2	1094.5	1087.4	1076.6	1073.0
45°	1047.9	1037.1	1022.8	1004.8	1004.8	994.0	986.9	979.8	976.1	968.9	958.1
47.5°	925.9	918.6	904.4	886.4	886.4	886.4	872.0	861.2	861.2	854.1	850.5
50°	821.8	811.0	800.2	785.9	785.9	778.8	768.0	757.2	757.2	753.6	746.4
52.5°	724.9	717.8	703.4	689.0	689.0	681.9	671.1	667.5	663.9	653.1	649.5
55°	642.4	635.1	624.4	606.5	602.9	599.2	588.5	581.4	577.8	567.0	567.0
57.5°	567.0	559.9	541.9	531.1	527.5	520.4	509.6	502.4	498.9	491.6	484.5
60°	502.4	491.6	477.2	462.9	459.4	452.1	441.4	434.2	430.6	416.2	409.1
62.5°	441.4	430.6	416.2	401.9	398.4	391.1	376.8	369.6	362.5	348.1	340.9
65°	384.0	373.2	358.9	344.5	337.4	333.8	319.4	308.6	301.5	290.6	276.4
67.5°	330.1	319.4	305.0	287.1	287.1	276.4	265.5	254.8	244.0	233.2	222.5
70°	279.9	269.1	254.8	240.4	236.9	229.6	218.9	204.5	197.4	183.0	172.2
72.5°	233.2	222.5	208.1	193.8	190.2	183.0	172.2	157.9	147.1	136.4	125.6
75°	190.2	179.4	165.1	154.2	150.8	143.5	132.8	118.4	107.6	100.5	89.8
77.5°	150.8	140.0	129.2	118.4	114.9	107.6	96.9	89.8	79.0	71.8	61.0
80°	114.9	107.6	96.9	89.8	86.1	79.0	71.8	61.0	53.9	46.6	43.1
82.5°	82.5	75.4	68.1	57.4	57.4	50.2	46.6	39.5	32.2	28.8	25.1
85°	46.6	39.5	35.9	32.2	28.8	28.8	25.1	21.5	18.0	14.4	14.4
87.5°	14.4	14.4	10.8	10.8	10.8	10.8	7.1	7.1	7.1	7.1	7.1
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: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8
2.5°	2565.9	2569.5	2562.2	2569.5	2562.2	2565.9	2558.6	2565.9	2558.6	2565.9	2551.5
5°	2540.8	2540.8	2530.0	2537.1	2530.0	2533.5	2519.2	2522.8	2515.6	2522.8	2508.4
7.5°	2497.6	2501.2	2483.4	2490.5	2479.8	2479.8	2469.0	2472.5	2461.8	2465.4	2454.6
10°	2447.4	2443.9	2425.9	2433.1	2418.8	2418.8	2408.0	2408.0	2393.6	2397.2	2382.9
12.5°	2375.6	2372.1	2350.5	2357.8	2343.4	2343.4	2332.6	2332.6	2318.2	2325.4	2311.1
15°	2293.1	2289.5	2268.0	2271.6	2257.2	2257.2	2242.9	2246.5	2235.8	2242.9	2228.5
17.5°	2199.9	2196.2	2174.8	2178.2	2160.4	2163.9	2153.1	2149.6	2142.4	2146.0	2135.2
20°	2102.9	2095.8	2074.2	2077.8	2070.6	2059.9	2052.6	2056.2	2049.1	2056.2	2045.5
22.5°	2002.5	1988.1	1970.1	1970.1	1963.0	1963.0	1952.2	1959.4	1945.0	1955.8	1948.6
25°	1887.6	1876.9	1862.5	1869.6	1855.2	1855.2	1844.5	1848.1	1841.0	1848.1	1841.0
27.5°	1776.4	1769.1	1747.6	1754.9	1744.1	1747.6	1736.9	1740.5	1736.9	1744.1	1736.9
30°	1657.9	1654.4	1640.0	1640.0	1636.4	1632.9	1629.2	1629.2	1625.6	1636.4	1629.2
32.5°	1546.8	1535.9	1521.6	1532.4	1514.4	1525.1	1518.0	1525.1	1518.0	1525.1	1521.6
35°	1431.9	1428.2	1410.4	1413.9	1410.4	1410.4	1406.8	1406.8	1406.8	1417.5	1417.5
37.5°	1309.9	1306.2	1295.5	1299.1	1291.9	1288.2	1288.2	1295.5	1295.5	1302.6	1302.6
40°	1191.4	1195.0	1184.2	1184.2	1180.6	1180.6	1180.6	1187.9	1184.2	1191.4	1187.9
42.5°	1073.0	1073.0	1062.2	1065.9	1062.2	1065.9	1065.9	1073.0	1073.0	1076.6	1073.0
45°	961.8	961.8	958.1	961.8	954.6	958.1	954.6	961.8	958.1	961.8	961.8
47.5°	850.5	850.5	850.5	846.9	846.9	846.9	846.9	846.9	843.4	850.5	846.9
50°	746.4	750.0	746.4	746.4	742.9	746.4	742.9	742.9	735.6	739.2	739.2
52.5°	653.1	653.1	646.0	646.0	646.0	642.4	642.4	642.4	638.8	638.8	631.6
55°	563.4	563.4	556.2	556.2	552.6	549.0	545.5	545.5	534.8	534.8	523.9
57.5°	480.9	477.2	466.5	466.5	459.4	455.8	452.1	448.6	441.4	434.2	430.6
60°	405.5	398.4	391.1	387.6	380.4	373.2	366.0	358.9	351.6	348.1	344.5
62.5°	333.8	323.0	315.8	312.2	305.0	294.2	287.1	279.9	272.8	269.1	262.0
65°	269.1	258.4	247.6	244.0	236.9	229.6	218.9	211.8	204.5	201.0	201.0
67.5°	211.8	201.0	186.6	186.6	179.4	172.2	165.1	157.9	154.2	157.9	157.9
70°	157.9	150.8	140.0	136.4	129.2	122.0	118.4	118.4	118.4	122.0	118.4
72.5°	118.4	107.6	100.5	96.9	93.2	89.8	89.8	89.8	86.1	89.8	89.8
75°	82.5	75.4	68.1	68.1	64.6	64.6	64.6	64.6	64.6	64.6	64.6
77.5°	57.4	50.2	46.6	46.6	46.6	43.1	43.1	43.1	43.1	43.1	43.1
80°	35.9	35.9	32.2	32.2	28.8	28.8	28.8	28.8	28.8	28.8	28.8
82.5°	21.5	21.5	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
85°	10.8	10.8	10.8	10.8	10.8	7.1	7.1	7.1	7.1	7.1	7.1
87.5°	3.6	3.6	3.6	3.6	3.6	7.1	7.1	7.1	7.1	7.1	7.1
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: P252523

CATALOG NUMBER: LE_6B60D010R EC6B60709024 6LBLWW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8	2583.8
2.5°	2551.5	2562.2	2547.9	2558.6	2555.1	2551.5	2544.4	2558.6
5°	2508.4	2512.0	2497.6	2512.0	2508.4	2501.2	2494.1	2508.4
7.5°	2447.4	2458.2	2440.2	2454.6	2451.0	2443.9	2436.6	2451.0
10°	2379.2	2390.0	2375.6	2386.4	2386.4	2379.2	2368.5	2382.9
12.5°	2303.9	2311.1	2296.8	2311.1	2307.5	2300.2	2296.8	2307.5
15°	2221.4	2232.1	2217.8	2228.5	2224.9	2221.4	2217.8	2228.5
17.5°	2131.6	2142.4	2131.6	2142.4	2142.4	2131.6	2128.0	2135.2
20°	2041.9	2049.1	2038.4	2049.1	2045.5	2045.5	2038.4	2049.1
22.5°	1941.4	1952.2	1945.0	1952.2	1948.6	1948.6	1945.0	1952.2
25°	1841.0	1851.8	1841.0	1851.8	1848.1	1848.1	1841.0	1858.9
27.5°	1740.5	1747.6	1736.9	1751.2	1747.6	1740.5	1744.1	1747.6
30°	1632.9	1640.0	1632.9	1643.6	1643.6	1643.6	1636.4	1643.6
32.5°	1525.1	1535.9	1525.1	1535.9	1532.4	1532.4	1528.8	1535.9
35°	1417.5	1421.1	1413.9	1424.6	1424.6	1428.2	1421.1	1431.9
37.5°	1306.2	1309.9	1306.2	1309.9	1317.0	1306.2	1313.4	1317.0
40°	1191.4	1198.6	1195.0	1198.6	1198.6	1202.1	1198.6	1202.1
42.5°	1076.6	1083.8	1076.6	1087.4	1083.8	1083.8	1087.4	1087.4
45°	958.1	968.9	961.8	968.9	972.5	968.9	968.9	976.1
47.5°	846.9	854.1	850.5	854.1	854.1	854.1	854.1	861.2
50°	735.6	739.2	739.2	742.9	742.9	746.4	739.2	742.9
52.5°	624.4	631.6	631.6	631.6	628.0	631.6	631.6	631.6
55°	523.9	527.5	520.4	527.5	527.5	523.9	523.9	531.1
57.5°	427.0	427.0	427.0	427.0	427.0	423.5	427.0	427.0
60°	337.4	340.9	337.4	337.4	337.4	337.4	333.8	340.9
62.5°	262.0	262.0	258.4	262.0	262.0	262.0	265.5	265.5
65°	204.5	208.1	204.5	208.1	208.1	208.1	208.1	211.8
67.5°	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5
70°	122.0	122.0	122.0	125.6	122.0	122.0	122.0	125.6
72.5°	89.8	89.8	89.8	89.8	89.8	89.8	93.2	93.2
75°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
77.5°	43.1	43.1	43.1	46.6	43.1	46.6	43.1	43.1
80°	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
82.5°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
85°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
87.5°	7.1	7.1	7.1	7.1	3.6	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)