

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: io LED

Report Number: P208835

Luminaire Tested: **LDSQA6A20940D010TE LARL15SP 6LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29054)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A20940D010TE LARL15SP 6LSQA1H 30°
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1352.0 lumens
Efficiency: N/A
Efficacy: 46.9 lumens/watt
Spacing Criteria (0/90/45): 2.18 / 0.62 / 1.12
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

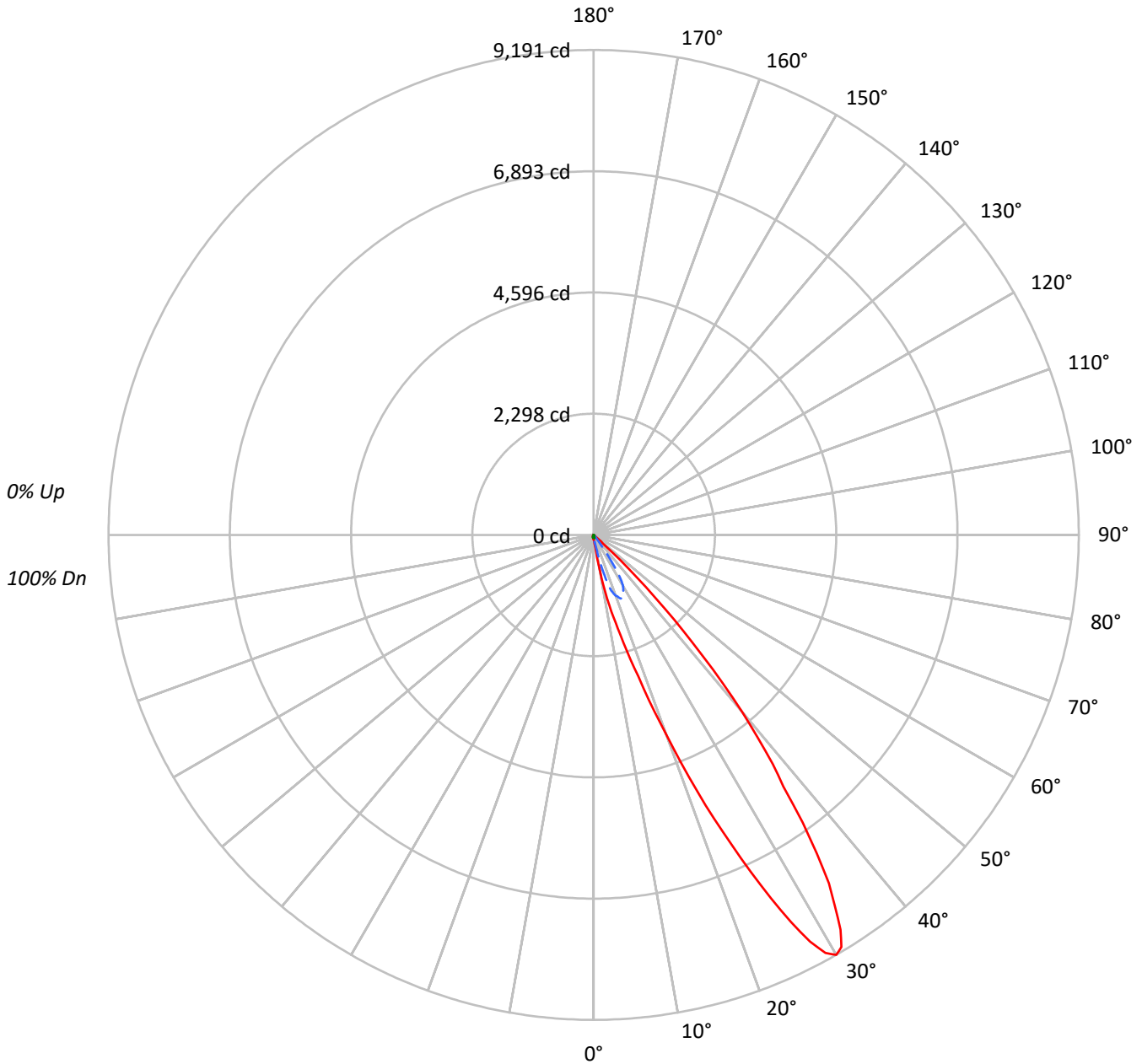
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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									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	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	113	109	106	104	110	107	105	102	103	101	99	99	98	96	96	95	93	91																											
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83																											
3	99	91	86	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75																											
4	93	84	77	72	91	82	76	72	80	75	71	78	73	70	76	72	69	67																											
5	86	77	70	64	85	75	69	64	74	68	63	72	67	63	70	66	62	61																											
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55																											
7	75	64	57	52	74	64	57	52	62	56	51	61	55	51	60	55	51	49																											
8	70	59	52	47	69	58	52	47	57	51	47	56	50	46	55	50	46	44																											
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40																											
10	62	50	43	38	60	50	43	38	49	42	38	48	42	38	47	42	38	36																											

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3819	3819	3819
5°	5882	3613	2900
10°	31561	3213	2409
15°	87018	2599	2059
20°	184788	1943	1801
25°	334490	1416	1563
30°	456928	1039	1387
35°	387319	731	1267
40°	245858	500	1208
45°	85209	384	1120
50°	5218	295	978
55°	901	240	758
60°	215	215	491
65°	132	255	387
70°	164	315	403
75°	0	416	416
80°	0	620	322
85°	0	1235	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.0	0.8
10°-20°	139.0	10.3
20°-30°	483.2	35.7
30°-40°	529.7	39.2
40°-50°	174.7	12.9
50°-60°	7.3	0.5
60°-70°	3.1	0.2
70°-80°	2.4	0.2
80°-90°	1.6	0.1
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°	633.2	46.8
0°-40°	1162.9	86.0
0°-60°	1344.9	99.5
0°-90°	1352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1352.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	89	89	89	89	89	
5°	136	111	84	72	67	29
15°	1952	796	58	47	46	649
25°	7041	1305	30	29	33	3295
35°	7369	435	14	18	24	4429
45°	1399	22	6	13	18	1233
55°	12	2	3	8	10	17
65°	1	2	2	5	4	2
75°	0	2	2	3	2	1
85°	0	2	2	2	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	105.1	104.5	104.5	104.5	103.8	102.6	102.6	103.2	103.2	102.6	103.2
5°	136.1	134.9	134.2	133.6	131.1	130.4	127.9	129.8	127.9	126.0	126.0
7.5°	249.5	248.9	238.1	231.1	219.1	205.2	201.4	202.0	193.1	184.9	179.8
10°	721.9	723.1	691.5	704.1	658.6	640.2	605.4	592.7	561.0	534.4	502.1
11°	965.7	964.4	924.5	936.5	890.3	864.4	825.1	804.8	764.9	738.3	697.8
12°	1229.1	1190.5	1177.2	1188.6	1141.1	1106.9	1059.4	1033.4	984.0	956.8	908.0
13°	1490.0	1478.6	1434.3	1445.0	1396.3	1321.5	1301.9	1270.9	1213.3	1181.0	1126.5
14°	1716.0	1674.3	1660.3	1667.3	1619.2	1548.2	1528.6	1519.1	1430.5	1395.6	1334.8
15°	1952.2	1901.6	1882.0	1856.0	1827.5	1743.3	1714.8	1696.4	1604.6	1546.3	1507.1
17.5°	2810.9	2739.3	2691.2	2632.3	2569.6	2413.9	2349.3	2287.8	2127.0	2049.8	1933.2
20°	4033.0	3923.5	3800.0	3672.1	3549.2	3274.4	3114.8	2943.9	2724.1	2540.5	2401.2
21°	4624.5	4493.4	4344.6	4248.3	4017.2	3681.6	3466.3	3222.5	2940.1	2712.7	2537.3
22°	5244.4	5094.9	4970.8	4829.0	4508.6	4108.4	3838.0	3525.2	3159.8	2879.3	2657.7
23°	5846.6	5677.5	5528.7	5355.8	4985.4	4521.9	4200.8	3827.9	3387.8	3038.9	2764.7
24°	6421.6	6246.2	6075.2	5847.9	5423.6	4911.3	4533.9	4109.0	3605.0	3192.1	2865.4
25°	7040.9	6835.7	6614.7	6268.9	5837.7	5258.3	4823.9	4353.4	3798.1	3333.3	2950.2
26°	7657.6	7418.3	7087.1	6735.0	6219.6	5571.1	5075.9	4551.6	3962.7	3446.7	3012.9
27°	8236.4	7979.9	7591.1	7109.2	6562.1	5839.0	5283.6	4708.7	4077.3	3520.1	3042.0
28°	8731.6	8449.1	8016.0	7467.0	6817.3	6035.9	5421.1	4801.1	4132.4	3548.0	3045.8
29°	9057.7	8775.9	8309.2	7699.4	6961.7	6133.4	5475.5	4821.4	4129.3	3531.5	3019.9
30°	9190.7	8906.3	8429.5	7775.4	6988.9	6135.3	5453.4	4779.0	4074.2	3479.6	2968.6
31°	9112.8	8839.8	8356.1	7697.5	6892.7	6046.7	5360.3	4671.9	3964.6	3387.8	2891.9
32°	8825.3	8575.2	8110.4	7483.5	6694.5	5868.7	5200.1	4513.6	3810.1	3268.1	2796.3
33°	8387.1	8178.8	7703.8	7125.7	6429.8	5650.3	5005.0	4352.8	3624.0	3121.8	2694.4
34°	7967.3	7659.5	7238.4	6724.9	6090.4	5366.6	4763.1	4099.5	3426.4	2961.0	2577.9
35°	7368.9	7093.4	6704.6	6265.1	5695.2	5020.2	4416.8	3852.6	3205.4	2805.8	2455.7
36°	6737.5	6495.0	6212.6	5818.7	5273.5	4658.7	4106.5	3549.2	2978.1	2633.0	2326.5
37°	5966.3	5911.8	5649.0	5320.4	4833.4	4265.4	3746.2	3264.3	2765.3	2473.4	2184.6
38°	5511.0	5332.4	5091.8	4802.4	4324.9	3870.3	3398.5	2978.1	2572.2	2323.9	2023.2
39°	4931.6	4780.9	4559.2	4299.0	3888.0	3458.7	3075.0	2739.3	2412.6	2173.2	1849.0
40°	4374.3	4249.0	4045.7	3822.2	3449.2	3095.8	2795.7	2529.1	2254.3	2012.4	1676.8
42.5°	2758.3	2696.3	2612.7	2582.3	2448.7	2356.9	2247.3	2093.4	1851.6	1579.3	1345.0
45°	1399.4	1359.5	1358.3	1420.3	1462.8	1467.2	1457.1	1417.8	1260.8	1182.9	974.5
47.5°	235.6	224.2	231.1	272.9	331.8	403.4	483.2	581.3	686.4	664.3	511.6
50°	77.9	75.4	73.5	75.4	72.8	74.7	73.5	71.6	64.6	67.8	69.7
51°	48.1	51.3	49.4	50.7	50.0	51.9	51.9	51.3	46.9	43.7	39.9
52°	32.9	33.6	34.2	34.8	34.2	34.8	35.5	35.5	34.2	32.9	29.8
53°	23.4	23.4	24.1	24.1	24.1	24.7	24.7	24.7	24.1	24.1	23.4
54°	16.5	17.1	17.1	17.1	17.1	17.7	17.7	17.7	18.4	17.7	17.7
55°	12.0	12.0	12.0	12.0	12.0	12.0	12.7	12.7	13.3	13.3	12.7
57.5°	5.1	5.1	4.4	5.1	5.1	5.1	5.1	5.7	5.7	6.3	6.3
60°	2.5	2.5	2.5	2.5	1.9	2.5	2.5	2.5	2.5	3.2	3.2



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
63°	1.3	1.3	1.3	1.3	1.3	1.3	0.6	1.3	1.3	1.3	1.3
64°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.6	0.6	0.6	0.6
65°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.6	0.6	0.6	0.6
66°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.6	0.6
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.6
70°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
72.5°	1.3	0.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	101.3	102.6	100.7	101.9	99.4	99.4	97.5	98.2	97.5	96.3	96.3
5°	122.8	122.8	119.7	119.7	115.9	114.0	110.8	110.8	108.9	105.7	105.1
7.5°	168.4	162.1	155.1	152.6	145.0	139.9	134.2	131.7	126.0	120.9	117.1
10°	450.9	409.1	367.9	342.6	280.5	235.6	202.0	179.2	162.7	143.1	135.5
11°	635.8	582.6	528.7	476.2	415.4	354.0	315.3	254.6	215.9	172.2	151.3
12°	835.9	773.2	707.9	648.4	575.6	498.3	445.2	367.9	313.4	240.6	190.0
13°	1041.0	970.1	892.2	830.2	747.8	659.2	575.6	504.0	436.3	341.3	267.2
14°	1238.6	1163.2	1077.8	1012.5	920.1	823.8	729.5	650.3	568.0	454.7	363.5
15°	1414.6	1360.8	1252.5	1187.9	1088.5	985.9	880.8	796.0	698.4	572.4	467.3
17.5°	1783.2	1683.8	1551.4	1487.5	1388.7	1300.0	1186.0	1109.4	989.1	856.1	740.2
20°	2217.6	2071.3	1892.1	1757.2	1586.2	1430.5	1286.7	1226.6	1151.8	1061.3	953.0
21°	2336.6	2178.9	1983.3	1845.9	1670.5	1510.2	1341.2	1245.6	1163.9	1085.4	994.8
22°	2423.4	2256.8	2051.0	1907.9	1727.4	1568.5	1395.6	1281.0	1172.1	1083.5	1001.8
23°	2496.8	2319.5	2105.5	1949.7	1761.0	1597.0	1423.5	1309.5	1189.2	1079.0	990.4
24°	2563.3	2368.9	2144.1	1976.9	1778.1	1607.1	1427.3	1314.6	1197.4	1081.6	975.2
25°	2613.3	2399.9	2166.3	1990.9	1781.9	1604.0	1418.4	1305.1	1187.9	1073.3	958.1
26°	2647.5	2414.5	2172.6	1990.2	1774.3	1591.3	1400.1	1285.5	1165.1	1043.6	930.2
27°	2658.3	2410.7	2163.7	1975.7	1755.3	1566.6	1369.0	1248.1	1129.7	1008.1	892.9
28°	2647.5	2395.5	2143.5	1947.2	1723.6	1526.1	1319.0	1198.7	1091.7	968.8	847.3
29°	2617.8	2368.3	2106.1	1904.7	1673.6	1460.2	1255.1	1151.2	1048.0	909.3	770.6
30°	2571.5	2318.9	2052.3	1842.7	1599.5	1377.3	1197.4	1107.5	975.8	813.1	663.6
31°	2506.9	2254.9	1982.6	1760.4	1500.7	1296.2	1147.4	1025.8	863.1	685.8	533.2
32°	2428.4	2178.9	1881.3	1650.8	1403.2	1232.3	1058.8	901.1	720.6	535.1	388.8
33°	2344.2	2081.4	1765.4	1535.6	1319.6	1146.8	930.8	747.2	561.0	376.1	245.1
34°	2246.7	1961.7	1635.6	1419.7	1225.9	1018.2	778.9	580.7	400.2	228.6	126.0
35°	2128.9	1814.2	1506.4	1319.6	1091.7	847.9	612.3	435.0	250.8	115.2	68.4
36°	1986.4	1662.2	1394.4	1191.1	934.6	680.7	442.0	277.4	134.9	67.8	53.8
37°	1805.3	1537.5	1276.6	1037.9	764.9	511.0	285.0	150.7	77.3	55.1	45.6
38°	1648.9	1422.2	1150.6	870.7	589.5	350.2	172.9	84.9	60.8	46.2	38.0
39°	1514.0	1298.7	985.3	694.7	420.5	212.1	95.0	64.6	50.7	38.0	32.3
40°	1396.3	1122.7	810.5	521.1	270.4	117.8	68.4	53.8	41.2	31.7	26.0
42.5°	1024.6	712.4	375.5	168.4	79.2	58.9	43.1	34.2	26.6	19.6	16.5
45°	608.5	320.4	113.3	69.0	50.0	37.4	27.2	21.5	16.5	12.0	10.1
47.5°	222.3	81.1	55.7	41.8	31.7	23.4	17.1	13.3	10.1	7.0	5.7
50°	45.6	39.3	30.4	24.7	18.4	13.9	10.1	7.6	5.7	4.4	3.8
51°	34.8	30.4	24.7	19.6	14.6	11.4	8.2	6.3	5.1	3.8	3.2
52°	26.6	23.4	19.0	15.8	12.0	8.9	6.3	5.1	3.8	2.5	2.5
53°	20.9	18.4	14.6	12.0	9.5	7.0	5.1	3.8	3.2	2.5	2.5
54°	15.8	13.9	11.4	9.5	7.6	5.7	3.8	3.2	2.5	2.5	1.9
55°	11.4	10.8	8.9	7.0	5.7	4.4	3.2	2.5	2.5	1.9	1.9
57.5°	5.7	5.1	4.4	3.8	3.2	2.5	1.9	1.9	1.9	1.9	1.3
60°	3.2	2.5	2.5	2.5	1.9	1.9	1.9	1.3	1.3	1.9	1.9



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
63°	1.3	1.3	1.3	1.3	1.9	1.3	1.3	1.3	1.9	1.9	1.9
64°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
65°	0.6	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
66°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
70°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
72.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
75°	0.6	0.6	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
77.5°	0.6	0.6	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
80°	0.6	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
82.5°	0.6	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
85°	0.6	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
87.5°	0.6	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
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: P208835

CATALOG NUMBER: LDSQA6A20940D010TE LARL15SP 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	94.4	95.6	94.4	93.1	92.5	92.5	91.8	89.9	90.6	89.9	89.9
5°	101.9	102.6	100.0	98.2	96.9	95.6	94.4	91.8	91.2	90.6	89.9
7.5°	112.1	111.4	106.4	103.2	100.0	97.5	95.0	91.8	90.6	88.7	87.4
10°	126.6	122.2	114.0	108.3	103.8	98.8	95.0	89.9	87.4	84.9	83.0
11°	133.0	126.6	118.4	110.8	105.1	99.4	95.0	88.7	85.5	83.0	80.4
12°	152.6	135.5	122.2	114.0	106.4	100.0	94.4	88.0	84.2	80.4	77.9
13°	197.6	157.7	130.4	115.9	108.3	100.7	93.7	86.8	82.3	77.9	75.4
14°	271.0	202.6	150.7	122.8	108.9	100.7	93.1	85.5	80.4	76.0	72.8
15°	359.0	272.3	191.9	139.9	111.4	100.0	91.8	83.6	77.9	72.8	69.7
17.5°	604.7	491.4	368.5	262.2	162.1	109.5	86.8	77.3	70.3	64.6	60.8
20°	810.5	680.1	541.4	409.1	280.5	174.8	100.0	70.3	62.1	55.7	51.9
21°	855.5	733.3	586.4	447.7	314.7	202.6	113.3	70.3	58.9	52.6	48.8
22°	878.9	761.1	614.2	473.0	338.1	222.3	127.3	70.9	55.7	49.4	45.0
23°	875.1	767.5	625.0	480.6	348.9	231.8	133.0	71.6	52.6	46.2	41.8
24°	852.3	750.4	614.2	471.8	345.7	229.2	131.1	70.3	49.4	43.1	39.3
25°	823.8	716.8	585.1	447.7	325.5	213.4	121.6	65.9	46.9	40.5	36.7
26°	791.5	683.3	544.6	405.3	292.6	186.8	102.6	58.3	43.1	37.4	34.2
27°	752.9	639.6	494.6	360.3	247.0	150.7	82.3	49.4	39.9	34.2	31.7
28°	695.3	577.5	430.6	300.8	197.6	114.0	62.1	42.4	36.7	31.7	29.1
29°	609.2	490.1	350.8	234.9	145.0	78.5	47.5	38.0	32.9	28.5	26.6
30°	501.5	387.5	260.3	161.5	93.1	53.2	38.6	33.6	29.1	26.0	24.7
31°	379.9	275.5	168.4	93.1	55.7	39.3	34.2	29.1	26.0	23.4	22.8
32°	250.8	166.5	89.3	53.8	40.5	34.2	29.8	26.0	23.4	21.5	20.9
33°	134.2	76.6	51.3	40.5	34.2	29.8	26.0	22.8	20.9	19.6	19.0
34°	68.4	50.0	41.8	34.8	29.1	26.0	22.8	20.3	19.0	17.7	17.1
35°	50.7	43.1	36.1	29.8	25.3	22.8	20.3	18.4	17.1	15.8	15.8
36°	43.1	36.1	29.8	26.0	22.8	20.3	18.4	15.8	15.2	14.6	13.9
37°	36.1	31.0	26.0	22.2	19.6	17.7	15.8	14.6	13.3	12.7	12.7
38°	30.4	26.6	22.2	19.0	17.1	15.8	13.9	12.7	12.0	11.4	11.4
39°	25.3	22.2	19.0	16.5	14.6	13.3	12.0	11.4	10.8	10.1	10.1
40°	20.9	19.0	15.8	13.9	12.7	11.4	10.8	10.1	9.5	8.9	9.5
42.5°	13.3	11.4	10.1	9.5	8.2	8.2	7.6	7.0	7.0	7.0	7.0
45°	7.6	7.0	6.3	6.3	5.7	5.7	5.7	5.1	5.7	5.7	5.7
47.5°	4.4	4.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.4	4.4
50°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.2	3.2
51°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.2
52°	2.5	2.5	2.5	1.9	1.9	1.9	1.9	1.9	2.5	2.5	2.5
53°	1.9	2.5	1.9	1.9	1.9	1.9	1.9	1.9	2.5	2.5	2.5
54°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.5	2.5
55°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.5	2.5
57.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.5
60°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.5



TEST NUMBER: P208835

CATALOG NUMBER: LDSQA6A20940D010TE LARL15SP 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
63°	1.9	1.9	1.9	1.9	1.9	2.5	1.9	1.9	1.9	2.5	2.5
64°	1.9	1.9	1.9	1.9	1.9	2.5	1.9	1.9	1.9	1.9	2.5
65°	1.9	1.9	2.5	2.5	2.5	2.5	1.9	1.9	1.9	1.9	2.5
66°	1.9	1.9	2.5	2.5	2.5	2.5	2.5	1.9	1.9	2.5	2.5
67.5°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5	2.5
70°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
72.5°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
75°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
77.5°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
80°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
85°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
87.5°	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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: P208835

CATALOG NUMBER: LDSQA6A20940D010TE LARL15SP 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
0°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	88.0	87.4	86.8	86.8	81.7	79.2	76.0	76.0
5°	86.8	86.1	84.9	83.6	75.4	71.6	67.8	67.1
7.5°	84.2	82.3	80.4	79.2	69.0	64.6	60.8	60.2
10°	79.2	76.6	74.7	73.5	62.7	58.3	55.1	55.1
11°	76.6	74.1	72.2	70.3	59.5	55.7	53.2	53.2
12°	74.1	71.6	69.0	67.8	57.0	53.8	51.3	50.7
13°	71.6	68.4	66.5	64.6	54.5	51.3	49.4	49.4
14°	69.0	65.9	63.3	61.4	51.9	48.8	47.5	47.5
15°	65.2	62.1	60.2	58.3	48.8	46.9	45.6	46.2
17.5°	56.4	53.8	51.9	50.0	42.4	41.8	41.8	42.4
20°	48.1	45.6	43.7	42.4	36.7	37.4	38.0	39.3
21°	45.0	42.4	40.5	39.3	34.8	35.5	36.7	38.0
22°	41.8	39.9	38.0	36.7	32.9	33.6	35.5	36.7
23°	38.6	36.7	35.5	34.2	31.0	32.3	34.2	35.5
24°	36.1	34.2	32.9	31.7	29.1	30.4	32.9	34.2
25°	33.6	31.7	30.4	29.8	27.2	29.1	31.7	32.9
26°	31.0	29.8	28.5	27.9	26.0	27.9	30.4	32.3
27°	28.5	27.2	26.6	26.0	24.1	26.6	29.1	31.0
28°	26.6	25.3	24.7	24.1	22.8	25.3	28.5	29.8
29°	24.7	23.4	22.8	22.2	21.5	24.1	27.2	29.1
30°	22.8	22.2	20.9	20.9	20.3	23.4	26.0	27.9
31°	20.9	20.3	19.6	19.0	19.0	22.2	25.3	27.2
32°	19.6	19.0	18.4	17.7	18.4	20.9	24.1	26.6
33°	17.7	17.1	17.1	16.5	17.1	20.3	23.4	26.0
34°	15.8	15.8	15.2	15.2	16.5	19.6	22.8	24.7
35°	14.6	13.9	13.9	13.9	15.8	18.4	22.2	24.1
36°	13.3	13.3	12.7	12.7	15.2	17.7	21.5	23.4
37°	12.0	12.0	12.0	11.4	13.9	17.1	20.3	22.8
38°	10.8	10.8	10.8	10.8	13.3	16.5	20.3	22.8
39°	9.5	9.5	10.1	10.1	12.7	15.8	19.0	22.2
40°	8.9	8.9	8.9	8.9	12.0	15.2	18.4	21.5
42.5°	7.0	7.0	7.6	7.6	10.8	13.9	17.1	19.6
45°	5.7	5.7	6.3	6.3	9.5	12.7	15.2	18.4
47.5°	4.4	4.4	5.1	5.1	8.2	11.4	13.9	16.5
50°	3.2	3.8	3.8	4.4	7.6	10.1	12.0	14.6
51°	3.2	3.2	3.8	3.8	7.0	9.5	11.4	13.9
52°	3.2	3.2	3.8	3.8	6.3	8.9	10.8	12.7
53°	2.5	3.2	3.2	3.8	6.3	8.9	10.1	12.0
54°	2.5	2.5	3.2	3.2	6.3	8.2	10.1	10.8
55°	2.5	2.5	3.2	3.2	5.7	8.2	9.5	10.1
57.5°	2.5	2.5	2.5	2.5	5.1	7.0	8.2	8.2
60°	2.5	2.5	2.5	2.5	5.1	6.3	7.6	5.7



TEST NUMBER: P208835

CATALOG NUMBER: LDSQA6A20940D010TE LARL15SP 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
63°	2.5	2.5	2.5	2.5	4.4	5.7	5.7	4.4
64°	2.5	2.5	2.5	2.5	4.4	5.7	5.7	4.4
65°	2.5	2.5	2.5	2.5	4.4	5.1	5.1	3.8
66°	2.5	2.5	2.5	2.5	4.4	5.1	5.1	3.8
67.5°	2.5	2.5	2.5	2.5	3.8	4.4	4.4	3.8
70°	2.5	2.5	2.5	2.5	3.8	4.4	3.8	3.2
72.5°	2.5	2.5	2.5	2.5	3.8	3.8	3.2	2.5
75°	2.5	2.5	2.5	2.5	3.2	3.2	2.5	2.5
77.5°	2.5	2.5	2.5	2.5	3.2	3.2	2.5	1.9
80°	2.5	2.5	2.5	2.5	3.2	2.5	1.9	1.3
82.5°	2.5	2.5	2.5	2.5	2.5	1.9	1.3	1.3
85°	2.5	2.5	2.5	2.5	2.5	1.9	1.3	0.6
87.5°	2.5	2.5	2.5	2.5	2.5	1.9	0.6	0.6
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°







61°	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.5	2.5
62°	1.9	1.9	1.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3





61°	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.3	1.3	1.9	1.9
62°	1.9	1.9	1.9	1.9	1.9	1.9	1.3	1.3	1.3	1.9	1.9





61°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.5
62°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9





61°	2.5	2.5	2.5	2.5	4.4	6.3	7.0	5.1
62°	2.5	2.5	2.5	2.5	4.4	5.7	6.3	4.4



(END OF REPORT)