

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: P208834

Luminaire Tested: **LDSQA6A20935D010TE LARL15SP 6LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P208834  
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: LDSQA6A20935D010TE 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 / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1252.2 lumens  
Efficiency: N/A  
Efficacy: 43.5 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

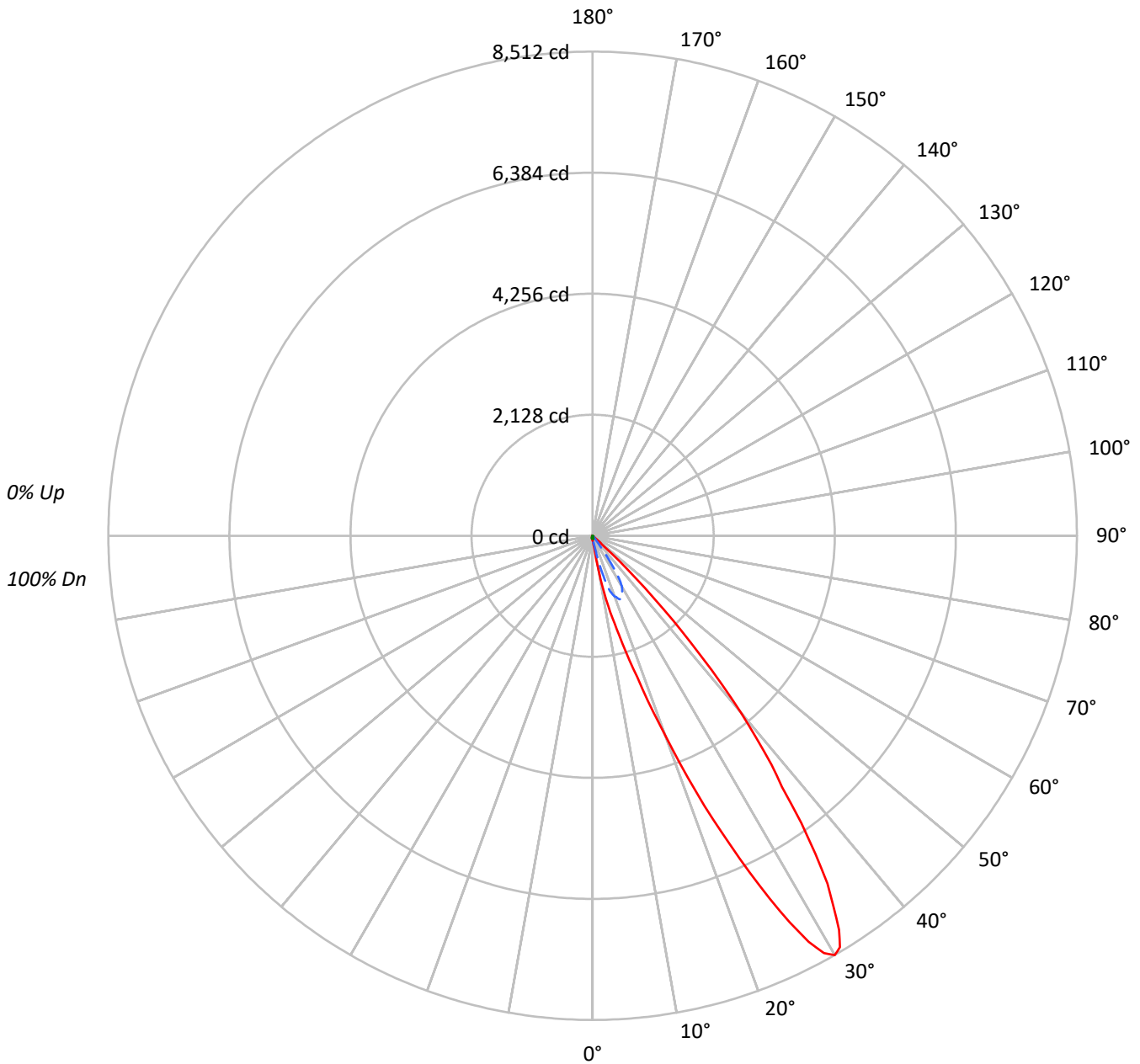
Input Watts (W): 28.81  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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																			
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	76	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°	3535	3535	3535
5°	5450	3345	2688
10°	29231	2973	2230
15°	80595	2407	1908
20°	171143	1801	1668
25°	309786	1311	1449
30°	423186	964	1283
35°	358715	678	1172
40°	227704	461	1118
45°	78919	359	1035
50°	4829	275	904
55°	833	218	706
60°	198	198	456
65°	122	234	357
70°	151	290	365
75°	0	383	383
80°	0	570	298
85°	0	1136	296



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	10.2	0.8
10°-20°	128.8	10.3
20°-30°	447.5	35.7
30°-40°	490.6	39.2
40°-50°	161.8	12.9
50°-60°	6.7	0.5
60°-70°	2.9	0.2
70°-80°	2.2	0.2
80°-90°	1.5	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°	586.5	46.8
0°-40°	1077.1	86.0
0°-60°	1245.6	99.5
0°-90°	1252.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1252.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	82	82	82	82	82	
5°	126	103	77	66	62	27
15°	1808	737	54	43	43	601
25°	6521	1209	28	27	30	3052
35°	6825	403	13	17	22	4102
45°	1296	20	6	12	17	1142
55°	11	2	3	8	9	16
65°	1	2	2	5	4	1
75°	0	2	2	3	2	0
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°	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
2.5°	97.4	96.8	96.8	96.8	96.2	95.0	95.0	95.6	95.6	95.0	95.6
5°	126.1	124.9	124.3	123.7	121.4	120.8	118.5	120.2	118.5	116.7	116.7
7.5°	231.1	230.5	220.5	214.1	202.9	190.0	186.5	187.1	178.9	171.2	166.6
10°	668.6	669.7	640.4	652.2	609.9	592.9	560.7	548.9	519.6	495.0	465.1
11°	894.4	893.2	856.2	867.4	824.6	800.5	764.2	745.4	708.5	683.8	646.3
12°	1138.3	1102.6	1090.2	1100.8	1056.8	1025.1	981.2	957.1	911.4	886.2	841.0
13°	1380.0	1369.4	1328.3	1338.3	1293.2	1224.0	1205.8	1177.0	1123.7	1093.8	1043.3
14°	1589.3	1550.6	1537.7	1544.2	1499.6	1433.9	1415.7	1406.9	1324.8	1292.6	1236.3
15°	1808.1	1761.2	1743.0	1718.9	1692.5	1614.5	1588.2	1571.1	1486.1	1432.2	1395.8
17.5°	2603.3	2537.1	2492.5	2437.9	2379.9	2235.6	2175.8	2118.9	1969.9	1898.4	1790.5
20°	3735.2	3633.8	3519.4	3400.9	3287.2	3032.6	2884.8	2726.5	2523.0	2352.9	2223.9
21°	4283.0	4161.6	4023.8	3934.6	3720.6	3409.7	3210.3	2984.5	2723.0	2512.4	2350.0
22°	4857.1	4718.7	4603.8	4472.4	4175.7	3805.0	3554.6	3264.9	2926.5	2666.7	2461.4
23°	5414.9	5258.3	5120.5	4960.3	4617.3	4188.0	3890.6	3545.2	3137.6	2814.5	2560.5
24°	5947.4	5784.9	5626.6	5416.0	5023.1	4548.6	4199.1	3805.6	3338.8	2956.4	2653.8
25°	6520.9	6330.9	6126.2	5806.0	5406.6	4870.0	4467.7	4032.0	3517.6	3087.2	2732.4
26°	7092.2	6870.5	6563.7	6237.7	5760.3	5159.7	4701.1	4215.5	3670.1	3192.1	2790.4
27°	7628.2	7390.7	7030.6	6584.3	6077.6	5407.8	4893.5	4361.0	3776.3	3260.2	2817.4
28°	8086.8	7825.2	7424.1	6915.6	6313.9	5590.2	5020.8	4446.6	3827.3	3286.0	2820.9
29°	8388.8	8127.9	7695.6	7130.9	6447.6	5680.5	5071.2	4465.4	3824.4	3270.7	2796.9
30°	8512.0	8248.7	7807.1	7201.2	6472.8	5682.3	5050.7	4426.1	3773.3	3222.6	2749.4
31°	8439.9	8187.1	7739.0	7129.1	6383.7	5600.2	4964.5	4327.0	3671.9	3137.6	2678.4
32°	8173.6	7941.9	7511.5	6930.9	6200.1	5435.4	4816.1	4180.3	3528.8	3026.8	2589.8
33°	7767.8	7574.8	7135.0	6599.5	5955.0	5233.1	4635.4	4031.4	3356.4	2891.3	2495.4
34°	7378.9	7093.9	6703.9	6228.3	5640.6	4970.3	4411.4	3796.8	3173.4	2742.3	2387.5
35°	6824.7	6569.6	6209.5	5802.5	5274.7	4649.5	4090.6	3568.1	2968.7	2598.6	2274.3
36°	6240.0	6015.4	5753.8	5389.1	4884.1	4314.6	3803.2	3287.2	2758.2	2438.5	2154.7
37°	5525.7	5475.3	5231.9	4927.5	4476.5	3950.4	3469.5	3023.2	2561.1	2290.7	2023.3
38°	5104.0	4938.6	4715.8	4447.8	4005.6	3584.5	3147.6	2758.2	2382.2	2152.3	1873.8
39°	4567.4	4427.8	4222.6	3981.5	3600.9	3203.3	2847.9	2537.1	2234.4	2012.8	1712.5
40°	4051.3	3935.2	3746.9	3539.9	3194.5	2867.2	2589.3	2342.4	2087.8	1863.8	1553.0
42.5°	2554.7	2497.2	2419.8	2391.6	2267.9	2182.8	2081.4	1938.9	1714.8	1462.7	1245.7
45°	1296.1	1259.1	1258.0	1315.4	1354.7	1358.8	1349.5	1313.1	1167.7	1095.5	902.6
47.5°	218.2	207.6	214.1	252.8	307.3	373.6	447.5	538.4	635.7	615.2	473.9
50°	72.1	69.8	68.0	69.8	67.4	69.2	68.0	66.3	59.8	62.8	64.5
51°	44.6	47.5	45.7	46.9	46.3	48.1	48.1	47.5	43.4	40.5	36.9
52°	30.5	31.1	31.7	32.3	31.7	32.3	32.8	32.8	31.7	30.5	27.6
53°	21.7	21.7	22.3	22.3	22.3	22.9	22.9	22.9	22.3	22.3	21.7
54°	15.2	15.8	15.8	15.8	15.8	16.4	16.4	16.4	17.0	16.4	16.4
55°	11.1	11.1	11.1	11.1	11.1	11.1	11.7	11.7	12.3	12.3	11.7
57.5°	4.7	4.7	4.1	4.7	4.7	4.7	4.7	5.3	5.3	5.9	5.9
60°	2.3	2.3	2.3	2.3	1.8	2.3	2.3	2.3	2.3	2.9	2.9



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**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
63°	1.2	1.2	1.2	1.2	1.2	1.2	0.6	1.2	1.2	1.2	1.2
64°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6
65°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6
66°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6
67.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6
70°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
72.5°	1.2	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
2.5°	93.8	95.0	93.2	94.4	92.1	92.1	90.3	90.9	90.3	89.1	89.1
5°	113.8	113.8	110.8	110.8	107.3	105.6	102.6	102.6	100.9	97.9	97.4
7.5°	156.0	150.1	143.7	141.3	134.3	129.6	124.3	122.0	116.7	112.0	108.5
10°	417.6	378.9	340.7	317.3	259.8	218.2	187.1	166.0	150.7	132.5	125.5
11°	588.8	539.6	489.7	441.0	384.7	327.8	292.1	235.8	200.0	159.5	140.2
12°	774.1	716.1	655.7	600.5	533.1	461.6	412.3	340.7	290.3	222.9	175.9
13°	964.2	898.5	826.3	768.9	692.6	610.5	533.1	466.8	404.1	316.1	247.5
14°	1147.1	1077.3	998.2	937.8	852.1	763.0	675.6	602.3	526.1	421.1	336.6
15°	1310.2	1260.3	1160.0	1100.2	1008.1	913.1	815.8	737.2	646.9	530.2	432.8
17.5°	1651.5	1559.4	1436.8	1377.6	1286.1	1204.0	1098.5	1027.5	916.1	792.9	685.6
20°	2053.8	1918.3	1752.4	1627.4	1469.1	1324.8	1191.7	1136.0	1066.8	982.9	882.6
21°	2164.1	2018.0	1836.8	1709.6	1547.1	1398.7	1242.1	1153.6	1077.9	1005.2	921.3
22°	2244.4	2090.2	1899.6	1767.0	1599.9	1452.7	1292.6	1186.4	1085.6	1003.4	927.8
23°	2312.4	2148.2	1950.0	1805.7	1631.0	1479.1	1318.4	1212.8	1101.4	999.3	917.2
24°	2374.0	2194.0	1985.8	1831.0	1646.8	1488.5	1321.9	1217.5	1109.0	1001.7	903.2
25°	2420.4	2222.7	2006.3	1843.9	1650.3	1485.5	1313.7	1208.7	1100.2	994.1	887.3
26°	2452.0	2236.2	2012.2	1843.3	1643.3	1473.8	1296.7	1190.5	1079.1	966.5	861.5
27°	2462.0	2232.7	2004.0	1829.8	1625.7	1450.9	1267.9	1155.9	1046.3	933.7	826.9
28°	2452.0	2218.6	1985.2	1803.4	1596.4	1413.4	1221.6	1110.2	1011.1	897.3	784.7
29°	2424.5	2193.4	1950.6	1764.1	1550.0	1352.4	1162.4	1066.2	970.6	842.2	713.7
30°	2381.6	2147.6	1900.7	1706.6	1481.4	1275.6	1109.0	1025.7	903.7	753.0	614.6
31°	2321.8	2088.4	1836.2	1630.4	1389.9	1200.5	1062.7	950.1	799.4	635.1	493.8
32°	2249.1	2018.0	1742.4	1528.9	1299.6	1141.3	980.6	834.5	667.4	495.6	360.1
33°	2171.1	1927.7	1635.1	1422.2	1222.2	1062.1	862.1	692.0	519.6	348.4	227.0
34°	2080.8	1816.9	1514.8	1314.9	1135.4	943.0	721.4	537.8	370.6	211.7	116.7
35°	1971.7	1680.2	1395.2	1222.2	1011.1	785.3	567.1	402.9	232.2	106.7	63.3
36°	1839.7	1539.5	1291.4	1103.1	865.6	630.5	409.4	256.9	124.9	62.8	49.8
37°	1672.0	1423.9	1182.3	961.2	708.5	473.3	263.9	139.6	71.5	51.0	42.2
38°	1527.2	1317.2	1065.6	806.4	546.0	324.3	160.1	78.6	56.3	42.8	35.2
39°	1402.2	1202.8	912.5	643.4	389.4	196.5	88.0	59.8	46.9	35.2	29.9
40°	1293.2	1039.8	750.7	482.7	250.4	109.1	63.3	49.8	38.1	29.3	24.0
42.5°	948.9	659.8	347.8	156.0	73.3	54.5	39.9	31.7	24.6	18.2	15.2
45°	563.6	296.8	105.0	63.9	46.3	34.6	25.2	19.9	15.2	11.1	9.4
47.5°	205.9	75.1	51.6	38.7	29.3	21.7	15.8	12.3	9.4	6.5	5.3
50°	42.2	36.4	28.2	22.9	17.0	12.9	9.4	7.0	5.3	4.1	3.5
51°	32.3	28.2	22.9	18.2	13.5	10.6	7.6	5.9	4.7	3.5	2.9
52°	24.6	21.7	17.6	14.7	11.1	8.2	5.9	4.7	3.5	2.3	2.3
53°	19.4	17.0	13.5	11.1	8.8	6.5	4.7	3.5	2.9	2.3	2.3
54°	14.7	12.9	10.6	8.8	7.0	5.3	3.5	2.9	2.3	2.3	1.8
55°	10.6	10.0	8.2	6.5	5.3	4.1	2.9	2.3	2.3	1.8	1.8
57.5°	5.3	4.7	4.1	3.5	2.9	2.3	1.8	1.8	1.8	1.8	1.2
60°	2.9	2.3	2.3	2.3	1.8	1.8	1.8	1.2	1.2	1.8	1.8





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CATALOG NUMBER: LDSQA6A20935D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
63°	1.2	1.2	1.2	1.2	1.8	1.2	1.2	1.2	1.8	1.8	1.8
64°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
65°	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
66°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
67.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
70°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
72.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
75°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
77.5°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
80°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
82.5°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
85°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
87.5°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8
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: P208834

CATALOG NUMBER: LDSQA6A20935D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
2.5°	87.4	88.6	87.4	86.2	85.6	85.6	85.0	83.3	83.9	83.3	83.3
5°	94.4	95.0	92.7	90.9	89.7	88.6	87.4	85.0	84.5	83.9	83.3
7.5°	103.8	103.2	98.5	95.6	92.7	90.3	88.0	85.0	83.9	82.1	80.9
10°	117.3	113.2	105.6	100.3	96.2	91.5	88.0	83.3	80.9	78.6	76.8
11°	123.2	117.3	109.7	102.6	97.4	92.1	88.0	82.1	79.2	76.8	74.5
12°	141.3	125.5	113.2	105.6	98.5	92.7	87.4	81.5	78.0	74.5	72.1
13°	183.0	146.0	120.8	107.3	100.3	93.2	86.8	80.3	76.2	72.1	69.8
14°	251.0	187.7	139.6	113.8	100.9	93.2	86.2	79.2	74.5	70.4	67.4
15°	332.5	252.2	177.7	129.6	103.2	92.7	85.0	77.4	72.1	67.4	64.5
17.5°	560.1	455.1	341.3	242.8	150.1	101.5	80.3	71.5	65.1	59.8	56.3
20°	750.7	629.9	501.4	378.9	259.8	161.9	92.7	65.1	57.5	51.6	48.1
21°	792.3	679.1	543.1	414.6	291.5	187.7	105.0	65.1	54.5	48.7	45.2
22°	814.0	704.9	568.9	438.1	313.2	205.9	117.9	65.7	51.6	45.7	41.6
23°	810.5	710.8	578.8	445.1	323.1	214.6	123.2	66.3	48.7	42.8	38.7
24°	789.4	695.0	568.9	436.9	320.2	212.3	121.4	65.1	45.7	39.9	36.4
25°	763.0	663.9	541.9	414.6	301.4	197.6	112.6	61.0	43.4	37.5	34.0
26°	733.1	632.8	504.4	375.3	270.9	173.0	95.0	54.0	39.9	34.6	31.7
27°	697.3	592.3	458.0	333.7	228.7	139.6	76.2	45.7	36.9	31.7	29.3
28°	643.9	534.9	398.8	278.6	183.0	105.6	57.5	39.3	34.0	29.3	27.0
29°	564.2	453.9	324.9	217.6	134.3	72.7	44.0	35.2	30.5	26.4	24.6
30°	464.5	358.9	241.0	149.5	86.2	49.3	35.8	31.1	27.0	24.0	22.9
31°	351.9	255.1	156.0	86.2	51.6	36.4	31.7	27.0	24.0	21.7	21.1
32°	232.2	154.2	82.7	49.8	37.5	31.7	27.6	24.0	21.7	19.9	19.4
33°	124.3	71.0	47.5	37.5	31.7	27.6	24.0	21.1	19.4	18.2	17.6
34°	63.3	46.3	38.7	32.3	27.0	24.0	21.1	18.8	17.6	16.4	15.8
35°	46.9	39.9	33.4	27.6	23.5	21.1	18.8	17.0	15.8	14.7	14.7
36°	39.9	33.4	27.6	24.0	21.1	18.8	17.0	14.7	14.1	13.5	12.9
37°	33.4	28.7	24.0	20.5	18.2	16.4	14.7	13.5	12.3	11.7	11.7
38°	28.2	24.6	20.5	17.6	15.8	14.7	12.9	11.7	11.1	10.6	10.6
39°	23.5	20.5	17.6	15.2	13.5	12.3	11.1	10.6	10.0	9.4	9.4
40°	19.4	17.6	14.7	12.9	11.7	10.6	10.0	9.4	8.8	8.2	8.8
42.5°	12.3	10.6	9.4	8.8	7.6	7.6	7.0	6.5	6.5	6.5	6.5
45°	7.0	6.5	5.9	5.9	5.3	5.3	5.3	4.7	5.3	5.3	5.3
47.5°	4.1	4.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.1	4.1
50°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.9	2.9
51°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.9
52°	2.3	2.3	2.3	1.8	1.8	1.8	1.8	1.8	2.3	2.3	2.3
53°	1.8	2.3	1.8	1.8	1.8	1.8	1.8	1.8	2.3	2.3	2.3
54°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3	2.3
55°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3	2.3
57.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3
60°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3



TEST NUMBER: P208834

CATALOG NUMBER: LDSQA6A20935D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
63°	1.8	1.8	1.8	1.8	1.8	2.3	1.8	1.8	1.8	2.3	2.3
64°	1.8	1.8	1.8	1.8	1.8	2.3	1.8	1.8	1.8	1.8	2.3
65°	1.8	1.8	2.3	2.3	2.3	2.3	1.8	1.8	1.8	1.8	2.3
66°	1.8	1.8	2.3	2.3	2.3	2.3	2.3	1.8	1.8	2.3	2.3
67.5°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	1.8	2.3	2.3	2.3
70°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
72.5°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
77.5°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
85°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
87.5°	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P208834

CATALOG NUMBER: LDSQA6A20935D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
0°	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
2.5°	81.5	80.9	80.3	80.3	75.7	73.3	70.4	70.4
5°	80.3	79.8	78.6	77.4	69.8	66.3	62.8	62.2
7.5°	78.0	76.2	74.5	73.3	63.9	59.8	56.3	55.7
10°	73.3	71.0	69.2	68.0	58.1	54.0	51.0	51.0
11°	71.0	68.6	66.9	65.1	55.1	51.6	49.3	49.3
12°	68.6	66.3	63.9	62.8	52.8	49.8	47.5	46.9
13°	66.3	63.3	61.6	59.8	50.4	47.5	45.7	45.7
14°	63.9	61.0	58.6	56.9	48.1	45.2	44.0	44.0
15°	60.4	57.5	55.7	54.0	45.2	43.4	42.2	42.8
17.5°	52.2	49.8	48.1	46.3	39.3	38.7	38.7	39.3
20°	44.6	42.2	40.5	39.3	34.0	34.6	35.2	36.4
21°	41.6	39.3	37.5	36.4	32.3	32.8	34.0	35.2
22°	38.7	36.9	35.2	34.0	30.5	31.1	32.8	34.0
23°	35.8	34.0	32.8	31.7	28.7	29.9	31.7	32.8
24°	33.4	31.7	30.5	29.3	27.0	28.2	30.5	31.7
25°	31.1	29.3	28.2	27.6	25.2	27.0	29.3	30.5
26°	28.7	27.6	26.4	25.8	24.0	25.8	28.2	29.9
27°	26.4	25.2	24.6	24.0	22.3	24.6	27.0	28.7
28°	24.6	23.5	22.9	22.3	21.1	23.5	26.4	27.6
29°	22.9	21.7	21.1	20.5	19.9	22.3	25.2	27.0
30°	21.1	20.5	19.4	19.4	18.8	21.7	24.0	25.8
31°	19.4	18.8	18.2	17.6	17.6	20.5	23.5	25.2
32°	18.2	17.6	17.0	16.4	17.0	19.4	22.3	24.6
33°	16.4	15.8	15.8	15.2	15.8	18.8	21.7	24.0
34°	14.7	14.7	14.1	14.1	15.2	18.2	21.1	22.9
35°	13.5	12.9	12.9	12.9	14.7	17.0	20.5	22.3
36°	12.3	12.3	11.7	11.7	14.1	16.4	19.9	21.7
37°	11.1	11.1	11.1	10.6	12.9	15.8	18.8	21.1
38°	10.0	10.0	10.0	10.0	12.3	15.2	18.8	21.1
39°	8.8	8.8	9.4	9.4	11.7	14.7	17.6	20.5
40°	8.2	8.2	8.2	8.2	11.1	14.1	17.0	19.9
42.5°	6.5	6.5	7.0	7.0	10.0	12.9	15.8	18.2
45°	5.3	5.3	5.9	5.9	8.8	11.7	14.1	17.0
47.5°	4.1	4.1	4.7	4.7	7.6	10.6	12.9	15.2
50°	2.9	3.5	3.5	4.1	7.0	9.4	11.1	13.5
51°	2.9	2.9	3.5	3.5	6.5	8.8	10.6	12.9
52°	2.9	2.9	3.5	3.5	5.9	8.2	10.0	11.7
53°	2.3	2.9	2.9	3.5	5.9	8.2	9.4	11.1
54°	2.3	2.3	2.9	2.9	5.9	7.6	9.4	10.0
55°	2.3	2.3	2.9	2.9	5.3	7.6	8.8	9.4
57.5°	2.3	2.3	2.3	2.3	4.7	6.5	7.6	7.6
60°	2.3	2.3	2.3	2.3	4.7	5.9	7.0	5.3



TEST NUMBER: P208834

CATALOG NUMBER: LDSQA6A20935D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
63°	2.3	2.3	2.3	2.3	4.1	5.3	5.3	4.1
64°	2.3	2.3	2.3	2.3	4.1	5.3	5.3	4.1
65°	2.3	2.3	2.3	2.3	4.1	4.7	4.7	3.5
66°	2.3	2.3	2.3	2.3	4.1	4.7	4.7	3.5
67.5°	2.3	2.3	2.3	2.3	3.5	4.1	4.1	3.5
70°	2.3	2.3	2.3	2.3	3.5	4.1	3.5	2.9
72.5°	2.3	2.3	2.3	2.3	3.5	3.5	2.9	2.3
75°	2.3	2.3	2.3	2.3	2.9	2.9	2.3	2.3
77.5°	2.3	2.3	2.3	2.3	2.9	2.9	2.3	1.8
80°	2.3	2.3	2.3	2.3	2.9	2.3	1.8	1.2
82.5°	2.3	2.3	2.3	2.3	2.3	1.8	1.2	1.2
85°	2.3	2.3	2.3	2.3	2.3	1.8	1.2	0.6
87.5°	2.3	2.3	2.3	2.3	2.3	1.8	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°	2.3	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3	2.3
62°	1.8	1.8	1.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2





61°	2.3	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.8	1.8
62°	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2	1.8	1.8





61°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3
62°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8







61°	2.3	2.3	2.3	2.3	4.1	5.9	6.5	4.7
62°	2.3	2.3	2.3	2.3	4.1	5.3	5.9	4.1



(END OF REPORT)