

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: P208829

Luminaire Tested: **LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P208829  
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: LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°  
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,  
SELF-FLANGED, 15° SPOT, 30° Tilt  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1507.4 lumens  
Efficiency: N/A  
Efficacy: 52.3 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

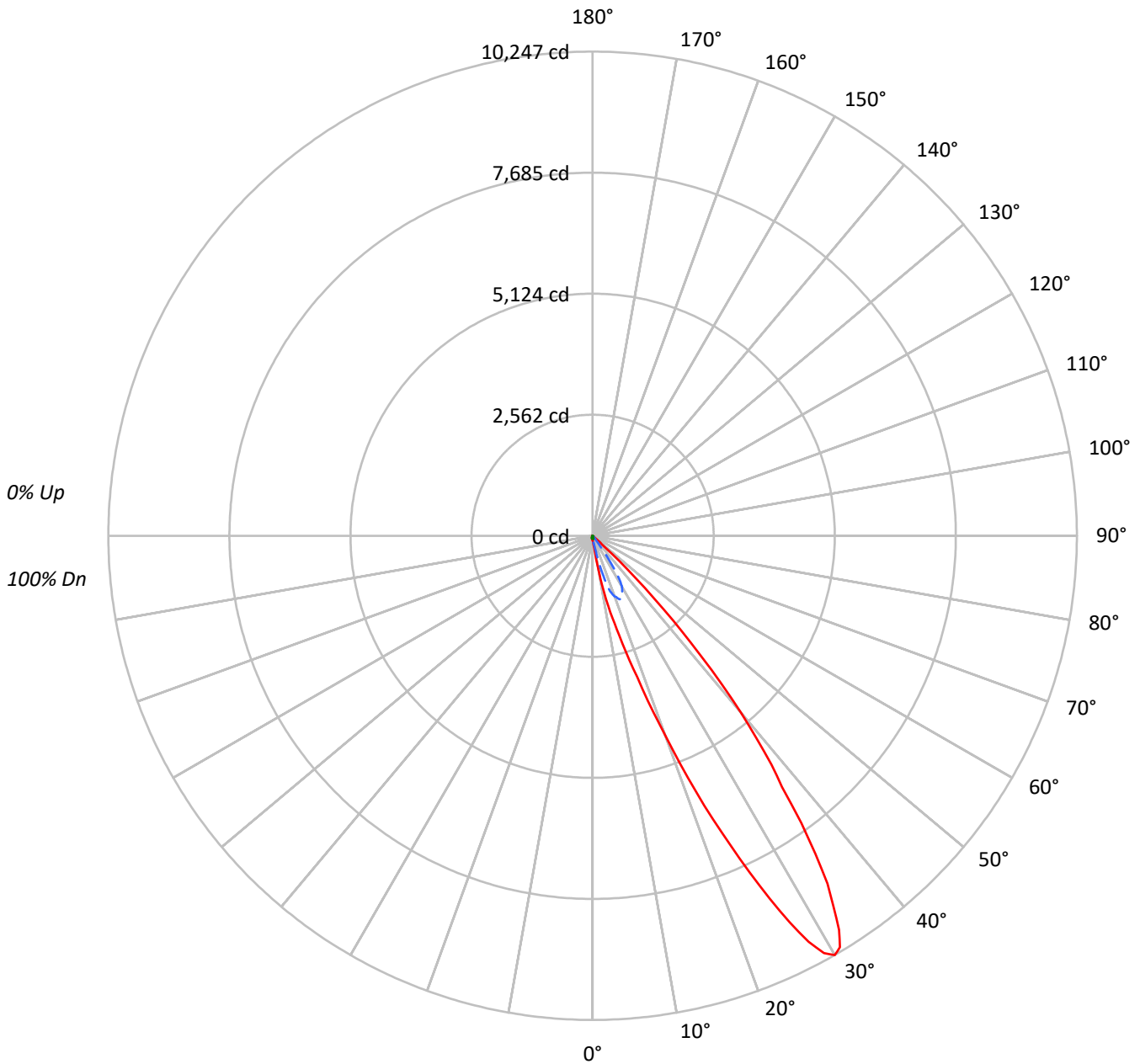
Input Watts (W): 28.81  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4254	4254	4254
5°	6561	4028	3233
10°	35186	3581	2684
15°	97021	2897	2296
20°	206025	2167	2007
25°	372923	1577	1743
30°	509429	1158	1546
35°	431822	815	1409
40°	274113	556	1349
45°	95000	432	1248
50°	5814	328	1085
55°	1006	263	848
60°	241	241	551
65°	143	285	428
70°	176	352	441
75°	0	466	466
80°	0	694	347
85°	0	1383	346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.3	0.8
10°-20°	155.0	10.3
20°-30°	538.7	35.7
30°-40°	590.6	39.2
40°-50°	194.8	12.9
50°-60°	8.1	0.5
60°-70°	3.5	0.2
70°-80°	2.7	0.2
80°-90°	1.8	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°	706.0	46.8
0°-40°	1296.6	86.0
0°-60°	1499.4	99.5
0°-90°	1507.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1507.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	99	99	99	99	99	
5°	152	124	93	80	75	32
15°	2177	887	65	52	52	723
25°	7850	1455	33	32	37	3674
35°	8216	485	16	20	27	4938
45°	1560	24	7	14	20	1375
55°	13	3	4	9	11	19
65°	1	2	3	6	4	2
75°	0	2	3	4	3	1
85°	0	2	3	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°	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
2.5°	117.2	116.5	116.5	116.5	115.8	114.4	114.4	115.1	115.1	114.4	115.1
5°	151.8	150.4	149.7	149.0	146.1	145.4	142.6	144.7	142.6	140.5	140.5
7.5°	278.2	277.5	265.5	257.7	244.3	228.7	224.5	225.2	215.3	206.1	200.5
10°	804.8	806.2	770.9	785.1	734.2	713.8	674.9	660.8	625.5	595.9	559.9
11°	1076.6	1075.2	1030.7	1044.2	992.6	963.7	919.9	897.3	852.8	823.2	778.0
12°	1370.3	1327.3	1312.4	1325.1	1272.2	1234.1	1181.1	1152.2	1097.1	1066.8	1012.4
13°	1661.2	1648.5	1599.1	1611.1	1556.7	1473.4	1451.5	1416.9	1352.7	1316.7	1256.0
14°	1913.2	1866.6	1851.1	1858.9	1805.2	1726.1	1704.3	1693.7	1594.8	1556.0	1488.2
15°	2176.6	2120.1	2098.2	2069.3	2037.5	1943.6	1911.8	1891.3	1789.0	1724.0	1680.3
17.5°	3133.9	3054.1	3000.5	2934.8	2864.9	2691.2	2619.2	2550.7	2371.4	2285.3	2155.4
20°	4496.5	4374.3	4236.6	4094.0	3957.1	3650.7	3472.8	3282.1	3037.2	2832.4	2677.1
21°	5155.8	5009.7	4843.8	4736.5	4478.8	4104.6	3864.6	3592.8	3277.9	3024.5	2828.9
22°	5847.0	5680.4	5542.0	5383.9	5026.7	4580.5	4279.0	3930.2	3522.9	3210.1	2963.0
23°	6518.4	6329.9	6164.0	5971.3	5558.3	5041.5	4683.5	4267.7	3777.0	3388.0	3082.4
24°	7159.4	6963.9	6773.3	6519.8	6046.8	5475.7	5054.9	4581.2	4019.2	3558.9	3194.6
25°	7849.9	7621.2	7374.8	6989.3	6508.5	5862.5	5378.2	4853.7	4234.5	3716.3	3289.2
26°	8537.5	8270.7	7901.4	7508.9	6934.2	6211.3	5659.2	5074.7	4418.1	3842.7	3359.1
27°	9182.8	8896.9	8463.4	7926.2	7316.2	6509.9	5890.8	5249.7	4545.9	3924.6	3391.6
28°	9734.9	9420.0	8937.1	8325.0	7600.7	6729.5	6044.0	5352.8	4607.3	3955.7	3395.8
29°	10098.5	9784.3	9264.0	8584.1	7761.7	6838.2	6104.7	5375.4	4603.8	3937.3	3366.9
30°	10246.7	9929.8	9398.1	8668.9	7792.0	6840.3	6080.0	5328.1	4542.3	3879.4	3309.7
31°	10159.9	9855.6	9316.2	8582.0	7684.7	6741.5	5976.2	5208.8	4420.2	3777.0	3224.3
32°	9839.4	9560.5	9042.3	8343.4	7463.7	6543.1	5797.6	5032.3	4247.9	3643.6	3117.7
33°	9350.8	9118.6	8589.1	7944.5	7168.6	6299.6	5580.1	4853.0	4040.4	3480.5	3004.0
34°	8882.8	8539.7	8070.2	7497.6	6790.2	5983.3	5310.5	4570.6	3820.1	3301.2	2874.1
35°	8215.6	7908.5	7475.0	6985.1	6349.7	5597.1	4924.3	4295.2	3573.7	3128.2	2737.8
36°	7511.7	7241.3	6926.5	6487.3	5879.5	5194.0	4578.3	3957.1	3320.3	2935.5	2593.8
37°	6651.8	6591.1	6298.1	5931.7	5388.8	4755.6	4176.6	3639.4	3083.1	2757.6	2435.7
38°	6144.2	5945.1	5676.9	5354.2	4821.9	4315.0	3789.1	3320.3	2867.7	2591.0	2255.6
39°	5498.3	5330.2	5083.1	4793.0	4334.8	3856.1	3428.3	3054.1	2689.8	2423.0	2061.5
40°	4877.0	4737.2	4510.6	4261.4	3845.5	3451.6	3116.9	2819.7	2513.3	2243.6	1869.5
42.5°	3075.3	3006.1	2912.9	2879.0	2730.1	2627.7	2505.6	2334.0	2064.3	1760.7	1499.5
45°	1560.2	1515.8	1514.3	1583.5	1630.8	1635.8	1624.5	1580.7	1405.6	1318.8	1086.5
47.5°	262.6	249.9	257.7	304.3	369.9	449.7	538.7	648.1	765.3	740.6	570.4
50°	86.8	84.0	81.9	84.0	81.2	83.3	81.9	79.8	72.0	75.5	77.7
51°	53.7	57.2	55.1	56.5	55.8	57.9	57.9	57.2	52.2	48.7	44.5
52°	36.7	37.4	38.1	38.8	38.1	38.8	39.5	39.5	38.1	36.7	33.2
53°	26.1	26.1	26.8	26.8	26.8	27.5	27.5	27.5	26.8	26.8	26.1
54°	18.4	19.1	19.1	19.1	19.1	19.8	19.8	19.8	20.5	19.8	19.8
55°	13.4	13.4	13.4	13.4	13.4	13.4	14.1	14.1	14.8	14.8	14.1
57.5°	5.6	5.6	4.9	5.6	5.6	5.6	5.6	6.4	6.4	7.1	7.1
60°	2.8	2.8	2.8	2.8	2.1	2.8	2.8	2.8	2.8	3.5	3.5



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**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
63°	1.4	1.4	1.4	1.4	1.4	1.4	0.7	1.4	1.4	1.4	1.4
64°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7
65°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7
66°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	0.7
67.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7
70°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	0.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
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°	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
2.5°	113.0	114.4	112.3	113.7	110.8	110.8	108.7	109.4	108.7	107.3	107.3
5°	137.0	137.0	133.4	133.4	129.2	127.1	123.5	123.5	121.4	117.9	117.2
7.5°	187.8	180.7	173.0	170.1	161.7	156.0	149.7	146.8	140.5	134.8	130.6
10°	502.7	456.1	410.2	381.9	312.8	262.6	225.2	199.8	181.4	159.6	151.1
11°	708.8	649.5	589.5	530.9	463.1	394.6	351.6	283.8	240.7	192.0	168.7
12°	931.9	862.0	789.3	722.9	641.7	555.6	496.3	410.2	349.5	268.3	211.8
13°	1160.6	1081.6	994.7	925.6	833.8	734.9	641.7	562.0	486.4	380.5	297.9
14°	1380.9	1296.9	1201.6	1128.9	1025.8	918.5	813.3	725.1	633.3	506.9	405.2
15°	1577.2	1517.2	1396.4	1324.4	1213.6	1099.2	982.0	887.4	778.7	638.2	521.0
17.5°	1988.1	1877.2	1729.7	1658.4	1548.2	1449.4	1322.3	1236.9	1102.8	954.5	825.3
20°	2472.4	2309.3	2109.5	1959.1	1768.5	1594.8	1434.6	1367.5	1284.2	1183.2	1062.5
21°	2605.1	2429.3	2211.2	2058.0	1862.4	1683.8	1495.3	1388.7	1297.6	1210.1	1109.1
22°	2701.8	2516.1	2286.7	2127.1	1925.9	1748.7	1556.0	1428.2	1306.8	1207.9	1116.9
23°	2783.7	2586.0	2347.4	2173.7	1963.4	1780.5	1587.1	1460.0	1325.8	1203.0	1104.2
24°	2857.8	2641.1	2390.5	2204.1	1982.4	1791.8	1591.3	1465.6	1335.0	1205.8	1087.2
25°	2913.6	2675.7	2415.2	2219.6	1986.7	1788.3	1581.4	1455.0	1324.4	1196.7	1068.2
26°	2951.7	2691.9	2422.3	2218.9	1978.2	1774.2	1560.9	1433.2	1299.0	1163.5	1037.1
27°	2963.7	2687.7	2412.4	2202.7	1957.0	1746.6	1526.4	1391.5	1259.5	1123.9	995.4
28°	2951.7	2670.8	2389.8	2170.9	1921.7	1701.4	1470.6	1336.4	1217.1	1080.2	944.6
29°	2918.6	2640.4	2348.1	2123.6	1865.9	1628.0	1399.3	1283.5	1168.4	1013.8	859.2
30°	2867.0	2585.3	2288.1	2054.4	1783.3	1535.5	1335.0	1234.8	1087.9	906.5	739.9
31°	2795.0	2514.0	2210.5	1962.7	1673.2	1445.2	1279.3	1143.7	962.3	764.6	594.4
32°	2707.5	2429.3	2097.5	1840.5	1564.5	1373.9	1180.4	1004.6	803.4	596.6	433.5
33°	2613.6	2320.6	1968.3	1712.0	1471.3	1278.5	1037.8	833.1	625.5	419.4	273.2
34°	2504.9	2187.2	1823.6	1582.8	1366.8	1135.2	868.4	647.4	446.2	254.9	140.5
35°	2373.5	2022.7	1679.6	1471.3	1217.1	945.3	682.7	485.0	279.6	128.5	76.2
36°	2214.7	1853.2	1554.6	1328.0	1042.0	758.9	492.8	309.2	150.4	75.5	60.0
37°	2012.8	1714.1	1423.3	1157.1	852.8	569.7	317.7	168.0	86.1	61.4	50.8
38°	1838.4	1585.7	1282.8	970.7	657.3	390.4	192.7	94.6	67.8	51.5	42.4
39°	1688.0	1448.0	1098.5	774.5	468.8	236.5	105.9	72.0	56.5	42.4	36.0
40°	1556.7	1251.7	903.7	581.0	301.5	131.3	76.2	60.0	45.9	35.3	28.9
42.5°	1142.3	794.2	418.7	187.8	88.2	65.7	48.0	38.1	29.7	21.9	18.4
45°	678.5	357.2	126.4	77.0	55.8	41.7	30.4	24.0	18.4	13.4	11.3
47.5°	247.8	90.4	62.1	46.6	35.3	26.1	19.1	14.8	11.3	7.8	6.4
50°	50.8	43.8	33.9	27.5	20.5	15.5	11.3	8.5	6.4	4.9	4.2
51°	38.8	33.9	27.5	21.9	16.2	12.7	9.2	7.1	5.6	4.2	3.5
52°	29.7	26.1	21.2	17.6	13.4	9.9	7.1	5.6	4.2	2.8	2.8
53°	23.3	20.5	16.2	13.4	10.6	7.8	5.6	4.2	3.5	2.8	2.8
54°	17.6	15.5	12.7	10.6	8.5	6.4	4.2	3.5	2.8	2.8	2.1
55°	12.7	12.0	9.9	7.8	6.4	4.9	3.5	2.8	2.8	2.1	2.1
57.5°	6.4	5.6	4.9	4.2	3.5	2.8	2.1	2.1	2.1	2.1	1.4
60°	3.5	2.8	2.8	2.8	2.1	2.1	2.1	1.4	1.4	2.1	2.1





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CATALOG NUMBER: LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
63°	1.4	1.4	1.4	1.4	2.1	1.4	1.4	1.4	2.1	2.1	2.1
64°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
65°	0.7	1.4	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
66°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
67.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
70°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
72.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
75°	0.7	0.7	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
77.5°	0.7	0.7	1.4	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
80°	0.7	0.7	0.7	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
82.5°	0.7	0.7	0.7	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
85°	0.7	0.7	0.7	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
87.5°	0.7	0.7	0.7	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1
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: P208829

CATALOG NUMBER: LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
2.5°	105.2	106.6	105.2	103.8	103.1	103.1	102.4	100.3	101.0	100.3	100.3
5°	113.7	114.4	111.5	109.4	108.0	106.6	105.2	102.4	101.7	101.0	100.3
7.5°	125.0	124.3	118.6	115.1	111.5	108.7	105.9	102.4	101.0	98.8	97.4
10°	141.2	136.3	127.1	120.7	115.8	110.1	105.9	100.3	97.4	94.6	92.5
11°	148.3	141.2	132.0	123.5	117.2	110.8	105.9	98.8	95.3	92.5	89.7
12°	170.1	151.1	136.3	127.1	118.6	111.5	105.2	98.1	93.9	89.7	86.8
13°	220.3	175.8	145.4	129.2	120.7	112.3	104.5	96.7	91.8	86.8	84.0
14°	302.2	225.9	168.0	137.0	121.4	112.3	103.8	95.3	89.7	84.7	81.2
15°	400.3	303.6	213.9	156.0	124.3	111.5	102.4	93.2	86.8	81.2	77.7
17.5°	674.2	547.8	410.9	292.3	180.7	122.1	96.7	86.1	78.4	72.0	67.8
20°	903.7	758.2	603.6	456.1	312.8	194.9	111.5	78.4	69.2	62.1	57.9
21°	953.8	817.5	653.7	499.1	350.9	225.9	126.4	78.4	65.7	58.6	54.4
22°	979.9	848.6	684.8	527.4	377.0	247.8	141.9	79.1	62.1	55.1	50.1
23°	975.7	855.7	696.8	535.8	389.0	258.4	148.3	79.8	58.6	51.5	46.6
24°	950.3	836.6	684.8	526.0	385.5	255.6	146.1	78.4	55.1	48.0	43.8
25°	918.5	799.2	652.3	499.1	362.9	237.9	135.6	73.4	52.2	45.2	40.9
26°	882.5	761.8	607.2	451.8	326.2	208.3	114.4	65.0	48.0	41.7	38.1
27°	839.4	713.1	551.4	401.7	275.3	168.0	91.8	55.1	44.5	38.1	35.3
28°	775.2	643.9	480.1	335.3	220.3	127.1	69.2	47.3	40.9	35.3	32.5
29°	679.2	546.4	391.1	261.9	161.7	87.5	52.9	42.4	36.7	31.8	29.7
30°	559.1	432.1	290.2	180.0	103.8	59.3	43.1	37.4	32.5	28.9	27.5
31°	423.6	307.1	187.8	103.8	62.1	43.8	38.1	32.5	28.9	26.1	25.4
32°	279.6	185.7	99.5	60.0	45.2	38.1	33.2	28.9	26.1	24.0	23.3
33°	149.7	85.4	57.2	45.2	38.1	33.2	28.9	25.4	23.3	21.9	21.2
34°	76.2	55.8	46.6	38.8	32.5	28.9	25.4	22.6	21.2	19.8	19.1
35°	56.5	48.0	40.2	33.2	28.2	25.4	22.6	20.5	19.1	17.6	17.6
36°	48.0	40.2	33.2	28.9	25.4	22.6	20.5	17.6	16.9	16.2	15.5
37°	40.2	34.6	28.9	24.7	21.9	19.8	17.6	16.2	14.8	14.1	14.1
38°	33.9	29.7	24.7	21.2	19.1	17.6	15.5	14.1	13.4	12.7	12.7
39°	28.2	24.7	21.2	18.4	16.2	14.8	13.4	12.7	12.0	11.3	11.3
40°	23.3	21.2	17.6	15.5	14.1	12.7	12.0	11.3	10.6	9.9	10.6
42.5°	14.8	12.7	11.3	10.6	9.2	9.2	8.5	7.8	7.8	7.8	7.8
45°	8.5	7.8	7.1	7.1	6.4	6.4	6.4	5.6	6.4	6.4	6.4
47.5°	4.9	4.9	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.9	4.9
50°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.5	3.5
51°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.5
52°	2.8	2.8	2.8	2.1	2.1	2.1	2.1	2.1	2.8	2.8	2.8
53°	2.1	2.8	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.8	2.8
54°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.8
55°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.8
57.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8
60°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8



TEST NUMBER: P208829

CATALOG NUMBER: LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
63°	2.1	2.1	2.1	2.1	2.1	2.8	2.1	2.1	2.1	2.8	2.8
64°	2.1	2.1	2.1	2.1	2.1	2.8	2.1	2.1	2.1	2.1	2.8
65°	2.1	2.1	2.8	2.8	2.8	2.8	2.1	2.1	2.1	2.1	2.8
66°	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.1	2.1	2.8	2.8
67.5°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.1	2.8	2.8	2.8
70°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
72.5°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
75°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
87.5°	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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: P208829

CATALOG NUMBER: LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
0°	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
2.5°	98.1	97.4	96.7	96.7	91.1	88.2	84.7	84.7
5°	96.7	96.0	94.6	93.2	84.0	79.8	75.5	74.8
7.5°	93.9	91.8	89.7	88.2	77.0	72.0	67.8	67.1
10°	88.2	85.4	83.3	81.9	69.9	65.0	61.4	61.4
11°	85.4	82.6	80.5	78.4	66.4	62.1	59.3	59.3
12°	82.6	79.8	77.0	75.5	63.5	60.0	57.2	56.5
13°	79.8	76.2	74.1	72.0	60.7	57.2	55.1	55.1
14°	77.0	73.4	70.6	68.5	57.9	54.4	52.9	52.9
15°	72.7	69.2	67.1	65.0	54.4	52.2	50.8	51.5
17.5°	62.8	60.0	57.9	55.8	47.3	46.6	46.6	47.3
20°	53.7	50.8	48.7	47.3	40.9	41.7	42.4	43.8
21°	50.1	47.3	45.2	43.8	38.8	39.5	40.9	42.4
22°	46.6	44.5	42.4	40.9	36.7	37.4	39.5	40.9
23°	43.1	40.9	39.5	38.1	34.6	36.0	38.1	39.5
24°	40.2	38.1	36.7	35.3	32.5	33.9	36.7	38.1
25°	37.4	35.3	33.9	33.2	30.4	32.5	35.3	36.7
26°	34.6	33.2	31.8	31.1	28.9	31.1	33.9	36.0
27°	31.8	30.4	29.7	28.9	26.8	29.7	32.5	34.6
28°	29.7	28.2	27.5	26.8	25.4	28.2	31.8	33.2
29°	27.5	26.1	25.4	24.7	24.0	26.8	30.4	32.5
30°	25.4	24.7	23.3	23.3	22.6	26.1	28.9	31.1
31°	23.3	22.6	21.9	21.2	21.2	24.7	28.2	30.4
32°	21.9	21.2	20.5	19.8	20.5	23.3	26.8	29.7
33°	19.8	19.1	19.1	18.4	19.1	22.6	26.1	28.9
34°	17.6	17.6	16.9	16.9	18.4	21.9	25.4	27.5
35°	16.2	15.5	15.5	15.5	17.6	20.5	24.7	26.8
36°	14.8	14.8	14.1	14.1	16.9	19.8	24.0	26.1
37°	13.4	13.4	13.4	12.7	15.5	19.1	22.6	25.4
38°	12.0	12.0	12.0	12.0	14.8	18.4	22.6	25.4
39°	10.6	10.6	11.3	11.3	14.1	17.6	21.2	24.7
40°	9.9	9.9	9.9	9.9	13.4	16.9	20.5	24.0
42.5°	7.8	7.8	8.5	8.5	12.0	15.5	19.1	21.9
45°	6.4	6.4	7.1	7.1	10.6	14.1	16.9	20.5
47.5°	4.9	4.9	5.6	5.6	9.2	12.7	15.5	18.4
50°	3.5	4.2	4.2	4.9	8.5	11.3	13.4	16.2
51°	3.5	3.5	4.2	4.2	7.8	10.6	12.7	15.5
52°	3.5	3.5	4.2	4.2	7.1	9.9	12.0	14.1
53°	2.8	3.5	3.5	4.2	7.1	9.9	11.3	13.4
54°	2.8	2.8	3.5	3.5	7.1	9.2	11.3	12.0
55°	2.8	2.8	3.5	3.5	6.4	9.2	10.6	11.3
57.5°	2.8	2.8	2.8	2.8	5.6	7.8	9.2	9.2
60°	2.8	2.8	2.8	2.8	5.6	7.1	8.5	6.4



TEST NUMBER: P208829

CATALOG NUMBER: LDSQA6A20830D010TE LARL15SP 6LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
63°	2.8	2.8	2.8	2.8	4.9	6.4	6.4	4.9
64°	2.8	2.8	2.8	2.8	4.9	6.4	6.4	4.9
65°	2.8	2.8	2.8	2.8	4.9	5.6	5.6	4.2
66°	2.8	2.8	2.8	2.8	4.9	5.6	5.6	4.2
67.5°	2.8	2.8	2.8	2.8	4.2	4.9	4.9	4.2
70°	2.8	2.8	2.8	2.8	4.2	4.9	4.2	3.5
72.5°	2.8	2.8	2.8	2.8	4.2	4.2	3.5	2.8
75°	2.8	2.8	2.8	2.8	3.5	3.5	2.8	2.8
77.5°	2.8	2.8	2.8	2.8	3.5	3.5	2.8	2.1
80°	2.8	2.8	2.8	2.8	3.5	2.8	2.1	1.4
82.5°	2.8	2.8	2.8	2.8	2.8	2.1	1.4	1.4
85°	2.8	2.8	2.8	2.8	2.8	2.1	1.4	0.7
87.5°	2.8	2.8	2.8	2.8	2.8	2.1	0.7	0.7
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°	2.8	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.8
62°	2.1	2.1	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4





61°	2.8	2.1	2.1	2.1	2.1	2.1	2.1	1.4	1.4	2.1	2.1
62°	2.1	2.1	2.1	2.1	2.1	2.1	1.4	1.4	1.4	2.1	2.1





61°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8
62°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1







61°	2.8	2.8	2.8	2.8	4.9	7.1	7.8	5.6
62°	2.8	2.8	2.8	2.8	4.9	6.4	7.1	4.9



(END OF REPORT)