

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: P208823

Luminaire Tested: **LDSQA6A15840D010TE LARL15SP 6LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208823
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: LDSQA6A15840D010TE 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 / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1328.4 lumens
Efficiency: N/A
Efficacy: 61.0 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

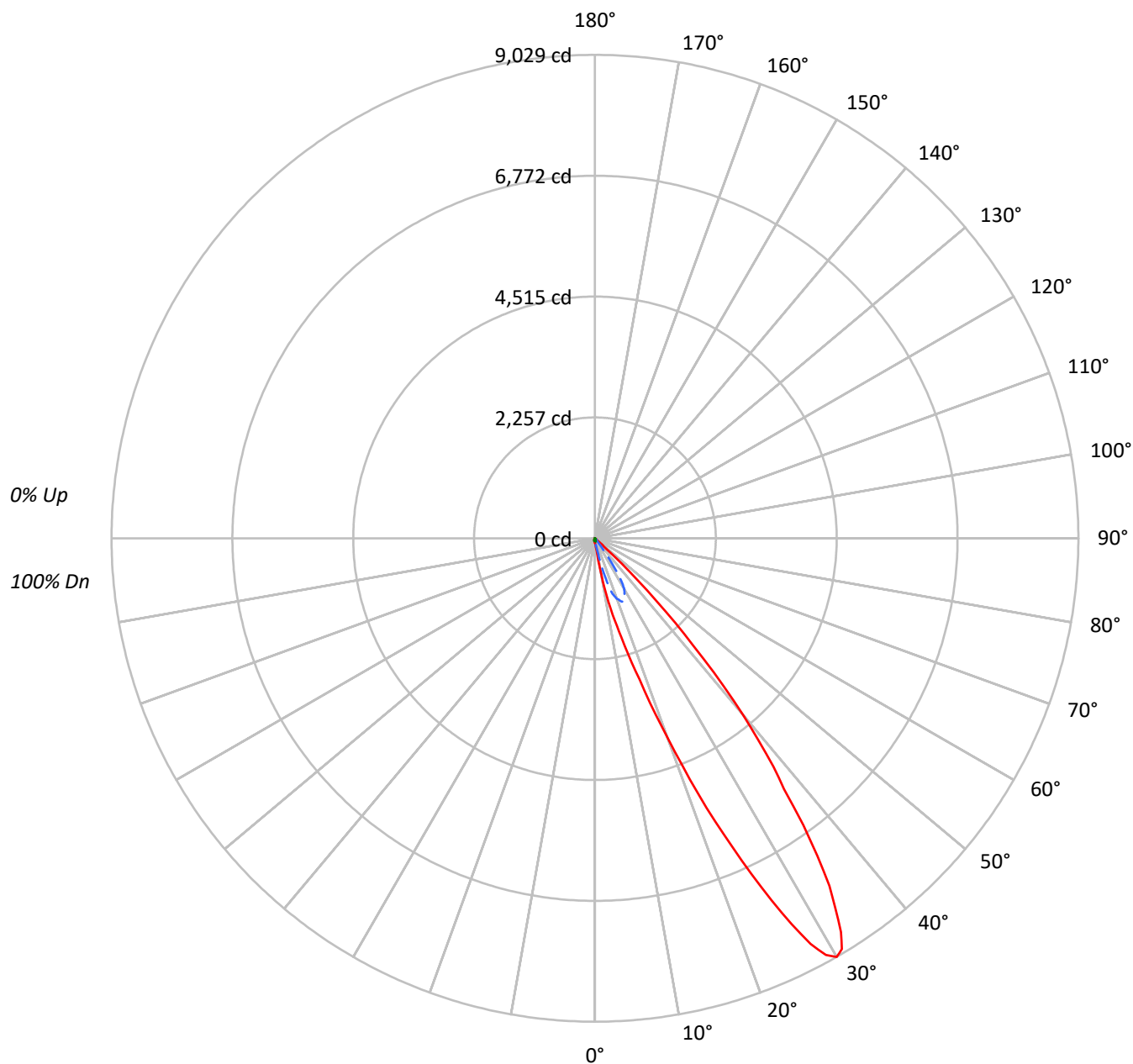
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	3750	3750	3750
5°	5783	3548	2848
10°	31006	3157	2365
15°	85494	2550	2024
20°	181548	1911	1769
25°	328623	1387	1539
30°	448909	1019	1362
35°	380522	720	1240
40°	241547	489	1192
45°	83718	378	1096
50°	5124	295	958
55°	886	233	751
60°	215	215	482
65°	122	255	377
70°	151	315	390
75°	0	416	416
80°	0	620	298
85°	0	1235	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.8	0.8
10°-20°	136.6	10.3
20°-30°	474.7	35.7
30°-40°	520.4	39.2
40°-50°	171.6	12.9
50°-60°	7.1	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°	622.1	46.8
0°-40°	1142.5	86.0
0°-60°	1321.3	99.5
0°-90°	1328.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1328.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	87	87	87	87	87	
5°	134	109	82	70	66	28
15°	1918	782	57	46	45	637
25°	6917	1282	29	29	32	3237
35°	7240	427	14	18	24	4351
45°	1375	21	6	12	18	1211
55°	12	2	3	8	10	17
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°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	103.3	102.6	102.6	102.6	102.0	100.8	100.8	101.4	101.4	100.8	101.4
5°	133.8	132.5	131.9	131.3	128.8	128.2	125.7	127.5	125.7	123.8	123.8
7.5°	245.1	244.5	233.9	227.1	215.3	201.6	197.8	198.5	189.7	181.7	176.7
10°	709.2	710.5	679.4	691.8	647.0	629.0	594.7	582.3	551.2	525.1	493.3
11°	948.7	947.5	908.3	920.1	874.7	849.2	810.6	790.7	751.5	725.4	685.6
12°	1207.5	1169.6	1156.5	1167.7	1121.1	1087.5	1040.8	1015.3	966.8	940.0	892.1
13°	1463.8	1452.7	1409.1	1419.7	1371.8	1298.4	1279.1	1248.6	1192.0	1160.3	1106.8
14°	1685.9	1644.9	1631.2	1638.0	1590.8	1521.1	1501.8	1492.5	1405.4	1371.2	1311.4
15°	1918.0	1868.2	1848.9	1823.4	1795.4	1712.7	1684.7	1666.7	1576.5	1519.2	1480.6
17.5°	2761.6	2691.3	2644.0	2586.2	2524.6	2371.5	2308.1	2247.7	2089.7	2013.8	1899.3
20°	3962.3	3854.7	3733.3	3607.7	3487.0	3217.0	3060.2	2892.2	2676.4	2495.9	2359.1
21°	4543.3	4414.6	4268.4	4173.8	3946.7	3617.0	3405.5	3166.0	2888.5	2665.2	2492.8
22°	5152.4	5005.6	4883.6	4744.3	4429.5	4036.3	3770.7	3463.3	3104.4	2828.8	2611.0
23°	5744.0	5577.9	5431.7	5261.9	4898.0	4442.6	4127.1	3760.7	3328.3	2985.6	2716.2
24°	6308.9	6136.6	5968.6	5745.3	5328.5	4825.2	4454.4	4036.9	3541.7	3136.1	2815.1
25°	6917.4	6715.8	6498.7	6159.0	5735.3	5166.1	4739.3	4277.1	3731.5	3274.8	2898.5
26°	7523.3	7288.1	6962.8	6616.9	6110.5	5473.4	4986.9	4471.8	3893.2	3386.2	2960.0
27°	8091.9	7840.0	7458.0	6984.5	6447.0	5736.6	5191.0	4626.1	4005.8	3458.4	2988.7
28°	8578.4	8300.9	7875.4	7336.0	6697.7	5930.0	5326.0	4716.9	4060.0	3485.7	2992.4
29°	8898.8	8622.0	8163.5	7564.4	6839.6	6025.9	5379.5	4736.8	4056.8	3469.6	2966.9
30°	9029.4	8750.1	8281.7	7639.0	6866.3	6027.7	5357.7	4695.1	4002.7	3418.5	2916.5
31°	8952.9	8684.8	8209.5	7562.5	6771.8	5940.6	5266.2	4590.0	3895.1	3328.3	2841.2
32°	8670.5	8424.7	7968.1	7352.2	6577.1	5765.8	5108.8	4434.5	3743.3	3210.8	2747.3
33°	8240.0	8035.3	7568.7	7000.7	6317.0	5551.2	4917.2	4276.5	3560.4	3067.1	2647.1
34°	7827.5	7525.2	7111.5	6606.9	5983.5	5272.5	4679.6	4027.6	3366.3	2909.0	2532.7
35°	7239.6	6969.0	6587.0	6155.3	5595.3	4932.2	4339.3	3785.0	3149.2	2756.6	2412.6
36°	6619.4	6381.1	6103.6	5716.7	5181.0	4576.9	4034.4	3487.0	2925.8	2586.8	2285.7
37°	5861.6	5808.1	5549.9	5227.1	4748.6	4190.6	3680.5	3207.0	2716.8	2430.0	2146.3
38°	5414.3	5238.9	5002.5	4718.2	4249.1	3802.4	3338.9	2925.8	2527.1	2283.2	1987.7
39°	4845.1	4697.0	4479.3	4223.6	3819.8	3398.0	3021.0	2691.3	2370.3	2135.1	1816.6
40°	4297.6	4174.4	3974.7	3755.1	3388.7	3041.5	2746.7	2484.7	2214.7	1977.1	1647.4
42.5°	2710.0	2649.0	2566.9	2537.0	2405.7	2315.5	2207.9	2056.7	1819.1	1551.6	1321.4
45°	1374.9	1335.7	1334.4	1395.4	1437.1	1441.5	1431.5	1392.9	1238.6	1162.1	957.4
47.5°	231.4	220.2	227.1	268.1	326.0	396.3	474.7	571.1	674.4	652.6	502.7
50°	76.5	74.0	72.2	74.0	71.5	73.4	72.2	70.3	63.5	66.6	68.4
51°	47.3	50.4	48.5	49.8	49.1	51.0	51.0	50.4	46.0	42.9	39.2
52°	32.4	33.0	33.6	34.2	33.6	34.2	34.8	34.8	33.6	32.4	29.2
53°	23.0	23.0	23.6	23.6	23.6	24.3	24.3	24.3	23.6	23.6	23.0
54°	16.2	16.8	16.8	16.8	16.8	17.4	17.4	17.4	18.0	17.4	17.4
55°	11.8	11.8	11.8	11.8	11.8	11.8	12.4	12.4	13.1	13.1	12.4
57.5°	5.0	5.0	4.4	5.0	5.0	5.0	5.0	5.6	5.6	6.2	6.2
60°	2.5	2.5	2.5	2.5	1.9	2.5	2.5	2.5	2.5	3.1	3.1



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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°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	99.5	100.8	98.9	100.2	97.7	97.7	95.8	96.4	95.8	94.6	94.6
5°	120.7	120.7	117.6	117.6	113.8	112.0	108.9	108.9	107.0	103.9	103.3
7.5°	165.5	159.3	152.4	149.9	142.5	137.5	131.9	129.4	123.8	118.8	115.1
10°	442.9	401.9	361.5	336.6	275.6	231.4	198.5	176.1	159.9	140.6	133.1
11°	624.6	572.4	519.5	467.8	408.1	347.8	309.8	250.1	212.1	169.2	148.7
12°	821.2	759.6	695.5	637.1	565.5	489.6	437.4	361.5	307.9	236.4	186.6
13°	1022.8	953.1	876.6	815.6	734.7	647.6	565.5	495.2	428.6	335.3	262.5
14°	1216.9	1142.8	1058.8	994.8	903.9	809.4	716.7	638.9	558.0	446.7	357.1
15°	1389.8	1336.9	1230.6	1167.1	1069.4	968.6	865.4	782.0	686.2	562.4	459.1
17.5°	1751.9	1654.2	1524.2	1461.4	1364.3	1277.2	1165.2	1090.0	971.8	841.1	727.3
20°	2178.7	2035.0	1858.9	1726.4	1558.4	1405.4	1264.1	1205.0	1131.6	1042.7	936.3
21°	2295.6	2140.7	1948.5	1813.5	1641.2	1483.8	1317.7	1223.7	1143.5	1066.3	977.4
22°	2380.9	2217.2	2015.0	1874.4	1697.1	1541.0	1371.2	1258.5	1151.5	1064.4	984.2
23°	2453.0	2278.8	2068.5	1915.5	1730.1	1569.0	1398.5	1286.5	1168.3	1060.1	973.0
24°	2518.3	2327.4	2106.5	1942.3	1746.9	1578.9	1402.3	1291.5	1176.4	1062.6	958.1
25°	2567.5	2357.8	2128.3	1955.9	1750.6	1575.8	1393.5	1282.2	1167.1	1054.5	941.3
26°	2601.1	2372.1	2134.5	1955.3	1743.2	1563.4	1375.5	1262.9	1144.7	1025.3	913.9
27°	2611.7	2368.4	2125.8	1941.0	1724.5	1539.1	1345.0	1226.2	1109.9	990.4	877.2
28°	2601.1	2353.5	2105.9	1913.0	1693.4	1499.3	1295.9	1177.7	1072.5	951.8	832.4
29°	2571.8	2326.7	2069.2	1871.3	1644.3	1434.6	1233.0	1131.0	1029.6	893.4	757.1
30°	2526.4	2278.2	2016.3	1810.4	1571.5	1353.1	1176.4	1088.1	958.7	798.8	652.0
31°	2463.0	2215.4	1947.9	1729.5	1474.4	1273.5	1127.3	1007.8	847.9	673.8	523.8
32°	2385.8	2140.7	1848.3	1621.9	1378.6	1210.6	1040.2	885.3	708.0	525.7	382.0
33°	2303.1	2044.9	1734.5	1508.6	1296.5	1126.7	914.5	734.1	551.2	369.5	240.8
34°	2207.3	1927.3	1606.9	1394.8	1204.4	1000.4	765.2	570.5	393.2	224.6	123.8
35°	2091.6	1782.4	1480.0	1296.5	1072.5	833.0	601.6	427.4	246.4	113.2	67.2
36°	1951.6	1633.1	1369.9	1170.2	918.2	668.8	434.2	272.5	132.5	66.6	52.9
37°	1773.7	1510.5	1254.2	1019.7	751.5	502.1	280.0	148.1	75.9	54.1	44.8
38°	1620.0	1397.3	1130.4	855.4	579.2	344.0	169.8	83.4	59.7	45.4	37.3
39°	1487.5	1276.0	968.0	682.5	413.1	208.4	93.3	63.5	49.8	37.3	31.7
40°	1371.8	1103.0	796.3	512.0	265.6	115.7	67.2	52.9	40.4	31.1	25.5
42.5°	1006.6	699.9	368.9	165.5	77.8	57.9	42.3	33.6	26.1	19.3	16.2
45°	597.9	314.8	111.4	67.8	49.1	36.7	26.8	21.2	16.2	11.8	10.0
47.5°	218.4	79.6	54.7	41.1	31.1	23.0	16.8	13.1	10.0	6.8	5.6
50°	44.8	38.6	29.9	24.3	18.0	13.7	10.0	7.5	5.6	4.4	3.7
51°	34.2	29.9	24.3	19.3	14.3	11.2	8.1	6.2	5.0	3.7	3.1
52°	26.1	23.0	18.7	15.6	11.8	8.7	6.2	5.0	3.7	2.5	2.5
53°	20.5	18.0	14.3	11.8	9.3	6.8	5.0	3.7	3.1	2.5	2.5
54°	15.6	13.7	11.2	9.3	7.5	5.6	3.7	3.1	2.5	2.5	1.9
55°	11.2	10.6	8.7	6.8	5.6	4.4	3.1	2.5	2.5	1.9	1.9
57.5°	5.6	5.0	4.4	3.7	3.1	2.5	1.9	1.9	1.9	1.9	1.2
60°	3.1	2.5	2.5	2.5	1.9	1.9	1.9	1.2	1.2	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°	1.2	1.2	1.2	1.2	1.9	1.2	1.2	1.2	1.9	1.9	1.9
64°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
65°	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
66°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
67.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
70°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
72.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
75°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
77.5°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
80°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
82.5°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
85°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9
87.5°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	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: P208823

CATALOG NUMBER: LDSQA6A15840D010TE LARL15SP 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	92.7	93.9	92.7	91.5	90.8	90.8	90.2	88.3	89.0	88.3	88.3
5°	100.2	100.8	98.3	96.4	95.2	93.9	92.7	90.2	89.6	89.0	88.3
7.5°	110.1	109.5	104.5	101.4	98.3	95.8	93.3	90.2	89.0	87.1	85.9
10°	124.4	120.1	112.0	106.4	102.0	97.1	93.3	88.3	85.9	83.4	81.5
11°	130.6	124.4	116.3	108.9	103.3	97.7	93.3	87.1	84.0	81.5	79.0
12°	149.9	133.1	120.1	112.0	104.5	98.3	92.7	86.5	82.7	79.0	76.5
13°	194.1	154.9	128.2	113.8	106.4	98.9	92.1	85.2	80.9	76.5	74.0
14°	266.3	199.1	148.1	120.7	107.0	98.9	91.5	84.0	79.0	74.7	71.5
15°	352.7	267.5	188.5	137.5	109.5	98.3	90.2	82.1	76.5	71.5	68.4
17.5°	594.1	482.8	362.1	257.6	159.3	107.6	85.2	75.9	69.1	63.5	59.7
20°	796.3	668.2	531.9	401.9	275.6	171.7	98.3	69.1	61.0	54.7	51.0
21°	840.5	720.4	576.1	439.8	309.2	199.1	111.4	69.1	57.9	51.6	47.9
22°	863.5	747.8	603.5	464.7	332.2	218.4	125.0	69.7	54.7	48.5	44.2
23°	859.8	754.0	614.0	472.2	342.8	227.7	130.6	70.3	51.6	45.4	41.1
24°	837.4	737.2	603.5	463.5	339.7	225.2	128.8	69.1	48.5	42.3	38.6
25°	809.4	704.2	574.8	439.8	319.8	209.7	119.4	64.7	46.0	39.8	36.1
26°	777.6	671.3	535.0	398.2	287.4	183.5	100.8	57.2	42.3	36.7	33.6
27°	739.7	628.3	485.9	354.0	242.6	148.1	80.9	48.5	39.2	33.6	31.1
28°	683.1	567.4	423.0	295.5	194.1	112.0	61.0	41.7	36.1	31.1	28.6
29°	598.5	481.5	344.7	230.8	142.5	77.1	46.7	37.3	32.4	28.0	26.1
30°	492.7	380.7	255.7	158.6	91.5	52.3	37.9	33.0	28.6	25.5	24.3
31°	373.3	270.6	165.5	91.5	54.7	38.6	33.6	28.6	25.5	23.0	22.4
32°	246.4	163.6	87.7	52.9	39.8	33.6	29.2	25.5	23.0	21.2	20.5
33°	131.9	75.3	50.4	39.8	33.6	29.2	25.5	22.4	20.5	19.3	18.7
34°	67.2	49.1	41.1	34.2	28.6	25.5	22.4	19.9	18.7	17.4	16.8
35°	49.8	42.3	35.5	29.2	24.9	22.4	19.9	18.0	16.8	15.6	15.6
36°	42.3	35.5	29.2	25.5	22.4	19.9	18.0	15.6	14.9	14.3	13.7
37°	35.5	30.5	25.5	21.8	19.3	17.4	15.6	14.3	13.1	12.4	12.4
38°	29.9	26.1	21.8	18.7	16.8	15.6	13.7	12.4	11.8	11.2	11.2
39°	24.9	21.8	18.7	16.2	14.3	13.1	11.8	11.2	10.6	10.0	10.0
40°	20.5	18.7	15.6	13.7	12.4	11.2	10.6	10.0	9.3	8.7	9.3
42.5°	13.1	11.2	10.0	9.3	8.1	8.1	7.5	6.8	6.8	6.8	6.8
45°	7.5	6.8	6.2	6.2	5.6	5.6	5.6	5.0	5.6	5.6	5.6
47.5°	4.4	4.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7	4.4	4.4
50°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.1	3.1
51°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.1
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: P208823

CATALOG NUMBER: LDSQA6A15840D010TE 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: P208823

CATALOG NUMBER: LDSQA6A15840D010TE LARL15SP 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
0°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	86.5	85.9	85.2	85.2	80.3	77.8	74.7	74.7
5°	85.2	84.6	83.4	82.1	74.0	70.3	66.6	65.9
7.5°	82.7	80.9	79.0	77.8	67.8	63.5	59.7	59.1
10°	77.8	75.3	73.4	72.2	61.6	57.2	54.1	54.1
11°	75.3	72.8	70.9	69.1	58.5	54.7	52.3	52.3
12°	72.8	70.3	67.8	66.6	56.0	52.9	50.4	49.8
13°	70.3	67.2	65.3	63.5	53.5	50.4	48.5	48.5
14°	67.8	64.7	62.2	60.3	51.0	47.9	46.7	46.7
15°	64.1	61.0	59.1	57.2	47.9	46.0	44.8	45.4
17.5°	55.4	52.9	51.0	49.1	41.7	41.1	41.1	41.7
20°	47.3	44.8	42.9	41.7	36.1	36.7	37.3	38.6
21°	44.2	41.7	39.8	38.6	34.2	34.8	36.1	37.3
22°	41.1	39.2	37.3	36.1	32.4	33.0	34.8	36.1
23°	37.9	36.1	34.8	33.6	30.5	31.7	33.6	34.8
24°	35.5	33.6	32.4	31.1	28.6	29.9	32.4	33.6
25°	33.0	31.1	29.9	29.2	26.8	28.6	31.1	32.4
26°	30.5	29.2	28.0	27.4	25.5	27.4	29.9	31.7
27°	28.0	26.8	26.1	25.5	23.6	26.1	28.6	30.5
28°	26.1	24.9	24.3	23.6	22.4	24.9	28.0	29.2
29°	24.3	23.0	22.4	21.8	21.2	23.6	26.8	28.6
30°	22.4	21.8	20.5	20.5	19.9	23.0	25.5	27.4
31°	20.5	19.9	19.3	18.7	18.7	21.8	24.9	26.8
32°	19.3	18.7	18.0	17.4	18.0	20.5	23.6	26.1
33°	17.4	16.8	16.8	16.2	16.8	19.9	23.0	25.5
34°	15.6	15.6	14.9	14.9	16.2	19.3	22.4	24.3
35°	14.3	13.7	13.7	13.7	15.6	18.0	21.8	23.6
36°	13.1	13.1	12.4	12.4	14.9	17.4	21.2	23.0
37°	11.8	11.8	11.8	11.2	13.7	16.8	19.9	22.4
38°	10.6	10.6	10.6	10.6	13.1	16.2	19.9	22.4
39°	9.3	9.3	10.0	10.0	12.4	15.6	18.7	21.8
40°	8.7	8.7	8.7	8.7	11.8	14.9	18.0	21.2
42.5°	6.8	6.8	7.5	7.5	10.6	13.7	16.8	19.3
45°	5.6	5.6	6.2	6.2	9.3	12.4	14.9	18.0
47.5°	4.4	4.4	5.0	5.0	8.1	11.2	13.7	16.2
50°	3.1	3.7	3.7	4.4	7.5	10.0	11.8	14.3
51°	3.1	3.1	3.7	3.7	6.8	9.3	11.2	13.7
52°	3.1	3.1	3.7	3.7	6.2	8.7	10.6	12.4
53°	2.5	3.1	3.1	3.7	6.2	8.7	10.0	11.8
54°	2.5	2.5	3.1	3.1	6.2	8.1	10.0	10.6
55°	2.5	2.5	3.1	3.1	5.6	8.1	9.3	10.0
57.5°	2.5	2.5	2.5	2.5	5.0	6.8	8.1	8.1
60°	2.5	2.5	2.5	2.5	5.0	6.2	7.5	5.6



TEST NUMBER: P208823

CATALOG NUMBER: LDSQA6A15840D010TE 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	5.6	5.6	4.4
64°	2.5	2.5	2.5	2.5	4.4	5.6	5.6	4.4
65°	2.5	2.5	2.5	2.5	4.4	5.0	5.0	3.7
66°	2.5	2.5	2.5	2.5	4.4	5.0	5.0	3.7
67.5°	2.5	2.5	2.5	2.5	3.7	4.4	4.4	3.7
70°	2.5	2.5	2.5	2.5	3.7	4.4	3.7	3.1
72.5°	2.5	2.5	2.5	2.5	3.7	3.7	3.1	2.5
75°	2.5	2.5	2.5	2.5	3.1	3.1	2.5	2.5
77.5°	2.5	2.5	2.5	2.5	3.1	3.1	2.5	1.9
80°	2.5	2.5	2.5	2.5	3.1	2.5	1.9	1.2
82.5°	2.5	2.5	2.5	2.5	2.5	1.9	1.2	1.2
85°	2.5	2.5	2.5	2.5	2.5	1.9	1.2	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	2.5	2.5
62°	1.9	1.9	1.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2





61°	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.2	1.2	1.9	1.9
62°	1.9	1.9	1.9	1.9	1.9	1.9	1.2	1.2	1.2	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	6.2	6.8	5.0
62°	2.5	2.5	2.5	2.5	4.4	5.6	6.2	4.4



(END OF REPORT)