

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: P182701

Luminaire Tested: **LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182701  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26799)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°  
Description: PORTFOLIO 4" 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: 2337.5 lumens  
Efficiency: N/A  
Efficacy: 52.5 lumens/watt  
Spacing Criteria (0/90/45): 2.24 / 0.6 / 1.1  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

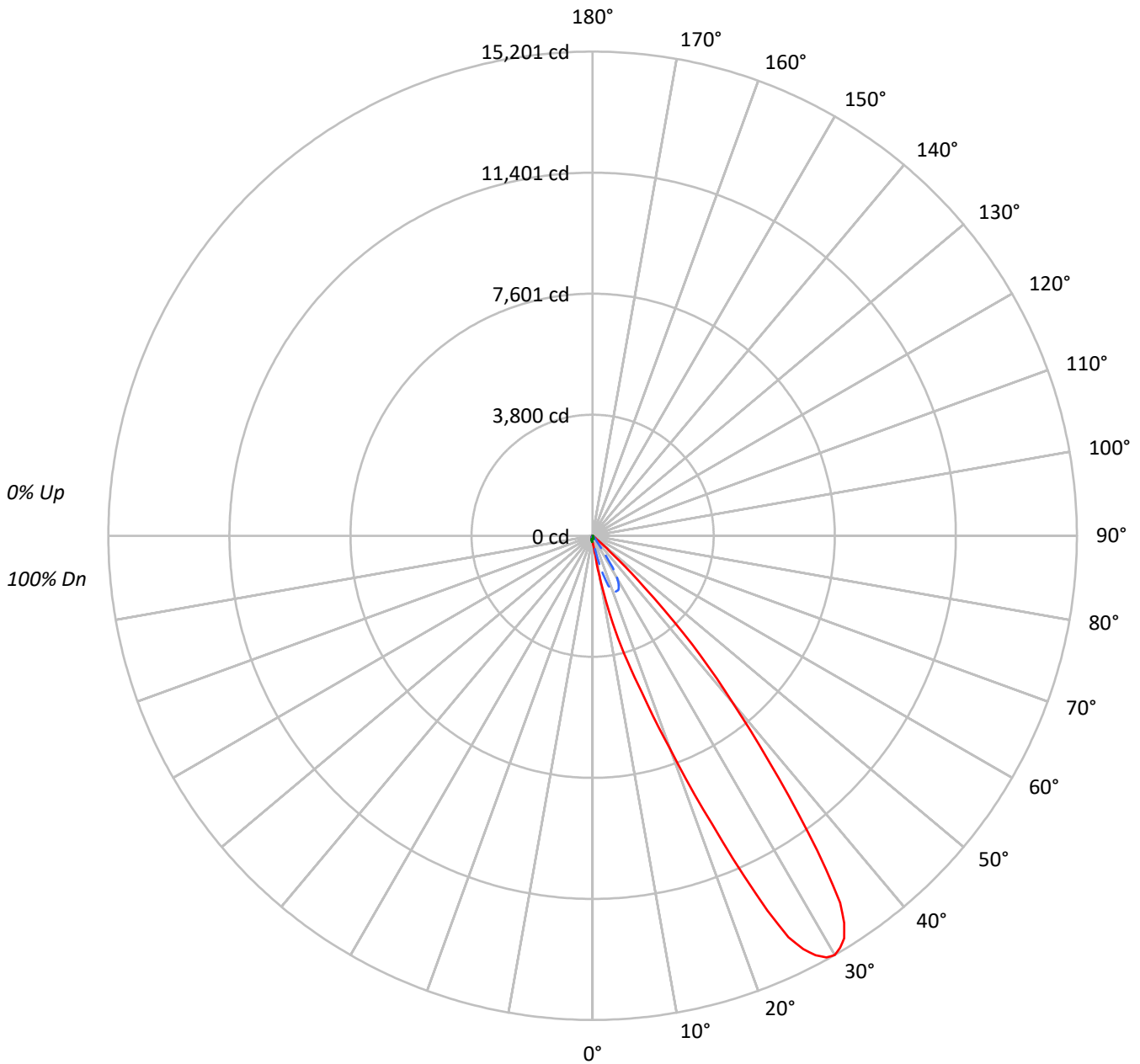
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

### Luminous Intensity Polar Plot





TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

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

RF	20				20				20				20				20				20	
RC	80				70				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	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	91				91
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83				83
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75				75
4	93	84	77	72	91	83	76	72	80	75	71	78	74	70	76	72	69	67				67
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61				61
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				55
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45				45
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				41
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37				37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	19520	19520	19520
5°	32509	18418	15725
10°	138643	16142	13654
15°	383760	12827	12105
20°	736082	9082	10825
25°	1387852	6061	9545
30°	1700371	4049	8367
35°	1510113	2708	7131
40°	860662	1834	5956
45°	313941	1493	4959
50°	34558	1085	4190
55°	5101	811	3462
60°	1163	930	2809
65°	825	1100	1926
70°	680	1360	1699
75°	898	1797	1347
80°	0	2678	1339
85°	0	4001	1334



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.4	1.1
10°-20°	253.3	10.8
20°-30°	832.0	35.6
30°-40°	912.4	39.0
40°-50°	285.0	12.2
50°-60°	15.6	0.7
60°-70°	6.3	0.3
70°-80°	4.8	0.2
80°-90°	3.0	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°	1110.6	47.5
0°-40°	2023.0	86.5
0°-60°	2323.5	99.4
0°-90°	2337.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2337.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	202	202	202	202	202	
5°	334	268	189	168	162	62
15°	3826	1230	128	115	121	1202
25°	12984	1888	57	70	89	5788
35°	12769	372	23	40	60	7465
45°	2292	39	11	23	36	2104
55°	30	7	5	13	20	47
65°	4	4	5	10	8	3
75°	2	4	5	7	4	2
85°	0	4	4	4	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5
2.5°	248.6	251.0	252.2	246.2	247.4	245.0	247.4	242.5	234.1	236.5	229.3
5°	334.3	329.4	328.2	318.6	316.2	311.3	311.3	300.5	284.8	282.4	267.9
7.5°	591.3	565.9	544.2	511.6	480.3	456.1	446.5	407.9	365.6	349.9	316.2
10°	1409.4	1404.6	1350.3	1247.7	1129.5	1043.8	994.3	844.7	655.2	539.4	418.7
12.5°	2565.4	2541.3	2464.1	2275.8	2071.9	1944.0	1843.8	1542.1	1261.0	1035.3	742.1
15°	3826.4	3728.7	3615.2	3323.2	3037.2	2870.7	2728.3	2366.3	1930.7	1606.1	1229.6
17.5°	5173.1	5216.5	4941.4	4438.2	3930.2	3669.5	3428.2	2871.9	2395.3	2057.4	1633.9
20°	7140.0	7048.2	6564.4	5730.5	4981.2	4545.6	4202.9	3400.4	2681.3	2260.1	1859.5
22.5°	9798.3	9506.3	8562.6	7152.0	5963.4	5358.9	4872.6	3791.4	2921.4	2363.9	1895.7
25°	12983.9	12713.6	10966.4	8519.2	6761.1	5977.9	5316.7	4040.0	3017.9	2380.8	1888.5
26°	14024.1	13622.3	11853.3	9005.5	7006.0	6134.8	5426.5	4088.2	3020.3	2367.5	1857.1
27°	14562.3	14247.3	12586.9	9400.1	7173.7	6233.7	5488.0	4100.3	2996.2	2337.3	1808.8
28°	14917.0	14622.6	13051.5	9658.3	7259.4	6272.3	5506.1	4073.8	2941.9	2284.3	1732.8
29°	15136.7	14826.5	13278.4	9775.4	7265.5	6255.5	5472.3	4003.8	2868.3	2220.3	1644.7
30°	15200.6	14865.2	13284.4	9727.1	7176.2	6165.0	5377.0	3890.4	2779.0	2139.5	1547.0
31°	15087.2	14740.9	13066.0	9507.5	6992.7	5988.8	5227.4	3740.7	2668.0	2053.8	1396.1
32°	14898.9	14439.2	12608.7	9143.1	6741.7	5776.4	5040.3	3577.8	2549.7	1945.2	1183.8
33°	14498.3	13943.2	11908.8	8685.7	6440.1	5532.7	4821.9	3396.8	2437.5	1758.1	879.7
34°	13896.2	13195.1	11050.8	8153.6	6098.6	5228.6	4570.9	3229.1	2320.5	1510.8	602.1
35°	12769.1	12116.3	10103.6	7586.4	5730.5	4934.1	4294.6	3009.5	2161.2	1211.5	371.7
36°	11508.2	11027.9	9185.3	7009.6	5354.1	4628.8	4009.8	2847.8	1925.9	891.7	252.2
37°	10219.4	9793.5	8318.9	6442.5	4976.4	4291.0	3720.2	2664.4	1645.9	594.9	202.7
38°	8992.2	8654.3	7495.9	5885.0	4584.2	3937.4	3416.1	2468.9	1344.2	382.5	166.5
39°	7865.2	7611.8	6689.9	5345.6	4190.8	3591.1	3124.1	2222.7	1025.7	272.7	138.8
40°	6805.7	6627.1	5912.8	4813.5	3799.9	3250.8	2859.8	1924.7	711.9	216.0	112.2
42.5°	4628.8	4584.2	4160.6	3464.4	2822.4	2501.5	2261.3	1082.4	273.9	130.3	62.7
45°	2291.5	2322.9	2153.9	1981.4	1847.4	1749.7	1425.1	451.3	152.0	71.2	38.6
47.5°	810.9	812.1	698.7	622.6	594.9	592.5	430.8	159.3	80.8	43.4	27.8
50°	229.3	247.4	232.9	237.7	185.8	158.1	129.1	77.2	41.0	27.8	18.1
51°	141.2	152.0	142.4	147.2	127.9	114.6	96.5	57.9	32.6	22.9	16.9
52°	90.5	96.5	91.7	92.9	85.7	74.8	65.2	42.2	26.5	19.3	14.5
53°	61.5	65.2	61.5	61.5	56.7	53.1	45.9	31.4	21.7	15.7	10.9
54°	42.2	43.4	43.4	43.4	39.8	37.4	32.6	24.1	18.1	14.5	9.7
55°	30.2	31.4	30.2	30.2	29.0	26.5	24.1	18.1	14.5	12.1	7.2
57.5°	13.3	13.3	13.3	14.5	13.3	13.3	12.1	10.9	9.7	7.2	4.8
60°	6.0	6.0	6.0	6.0	7.2	7.2	7.2	7.2	6.0	4.8	4.8
61°	4.8	4.8	4.8	4.8	4.8	6.0	6.0	6.0	4.8	4.8	3.6
62°	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	3.6	3.6
63°	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6	3.6	3.6
64°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
65°	3.6	2.4	2.4	2.4	2.4	3.6	3.6	3.6	3.6	3.6	3.6
66°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6
75°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6
77.5°	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	2.4	3.6
80°	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	2.4	3.6
82.5°	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	2.4	3.6
85°	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	2.4	3.6
87.5°	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	2.4	2.4	3.6
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: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5
2.5°	224.4	223.2	217.2	211.2	212.4	210.0	207.5	203.9	201.5	195.5	195.5
5°	255.8	249.8	236.5	224.4	223.2	218.4	211.2	203.9	197.9	189.4	187.0
7.5°	292.0	275.1	253.4	234.1	230.5	223.2	210.0	200.3	189.4	178.6	175.0
10°	343.9	304.1	266.7	237.7	230.5	219.6	202.7	189.4	177.4	164.1	159.3
12.5°	528.5	375.3	283.6	237.7	224.4	211.2	190.7	175.0	160.5	146.0	141.2
15°	880.9	599.7	359.6	237.7	213.6	197.9	172.6	156.9	141.2	127.9	123.1
17.5°	1216.3	853.1	500.8	267.9	214.8	182.2	150.8	133.9	120.7	107.4	103.8
20°	1410.6	994.3	593.7	298.1	212.4	164.1	129.1	111.0	97.7	88.1	84.5
22.5°	1436.0	1000.3	573.2	266.7	178.6	136.4	107.4	90.5	79.6	71.2	68.8
25°	1368.4	883.3	458.5	189.4	132.7	111.0	84.5	72.4	64.0	56.7	55.5
26°	1316.5	813.3	399.4	156.9	117.0	98.9	76.0	65.2	57.9	51.9	50.7
27°	1242.9	738.5	341.5	130.3	103.8	89.3	67.6	59.1	53.1	47.1	47.1
28°	1159.6	657.6	275.1	109.8	92.9	79.6	61.5	53.1	47.1	43.4	43.4
29°	1059.5	540.6	201.5	95.3	82.1	70.0	54.3	47.1	42.2	39.8	39.8
30°	911.0	392.2	138.8	83.3	71.2	61.5	48.3	42.2	38.6	36.2	36.2
31°	711.9	241.3	108.6	72.4	62.7	54.3	43.4	37.4	35.0	32.6	33.8
32°	485.1	150.8	92.9	62.7	55.5	47.1	38.6	33.8	31.4	30.2	30.2
33°	276.3	125.5	80.8	54.3	47.1	41.0	33.8	30.2	29.0	27.8	27.8
34°	183.4	107.4	70.0	45.9	38.6	35.0	29.0	26.5	25.3	25.3	25.3
35°	154.5	92.9	56.7	38.6	33.8	30.2	25.3	24.1	22.9	22.9	24.1
36°	130.3	77.2	45.9	32.6	29.0	26.5	22.9	21.7	20.5	20.5	21.7
37°	109.8	61.5	38.6	27.8	24.1	22.9	20.5	19.3	19.3	19.3	20.5
38°	89.3	49.5	32.6	24.1	21.7	19.3	18.1	16.9	16.9	18.1	19.3
39°	70.0	39.8	26.5	20.5	18.1	16.9	15.7	15.7	15.7	15.7	16.9
40°	55.5	33.8	22.9	18.1	15.7	15.7	14.5	13.3	14.5	14.5	16.9
42.5°	35.0	24.1	16.9	13.3	12.1	12.1	10.9	10.9	10.9	12.1	13.3
45°	25.3	19.3	13.3	10.9	9.7	8.4	8.4	8.4	9.7	10.9	12.1
47.5°	19.3	13.3	9.7	7.2	6.0	6.0	6.0	6.0	7.2	8.4	9.7
50°	13.3	8.4	6.0	4.8	4.8	4.8	4.8	4.8	6.0	7.2	8.4
51°	10.9	7.2	6.0	4.8	4.8	3.6	3.6	4.8	6.0	6.0	7.2
52°	8.4	6.0	4.8	3.6	3.6	3.6	3.6	4.8	4.8	6.0	7.2
53°	7.2	6.0	4.8	3.6	3.6	3.6	3.6	3.6	4.8	6.0	7.2
54°	6.0	4.8	3.6	3.6	3.6	3.6	3.6	3.6	4.8	6.0	7.2
55°	4.8	4.8	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	6.0
57.5°	4.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	6.0
60°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	6.0
61°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	6.0
62°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	6.0
63°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	6.0
64°	3.6	3.6	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	6.0
65°	3.6	3.6	4.8	4.8	4.8	4.8	3.6	3.6	4.8	4.8	6.0
66°	3.6	4.8	4.8	4.8	4.8	4.8	3.6	3.6	4.8	4.8	6.0





TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	3.6	4.8	4.8	4.8
75°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
77.5°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	3.6	3.6	4.8	4.8
80°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	3.6	3.6	4.8	4.8
82.5°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	3.6	3.6	3.6	4.8
85°	3.6	3.6	4.8	4.8	4.8	4.8	4.8	3.6	3.6	3.6	3.6
87.5°	3.6	3.6	4.8	4.8	4.8	4.8	3.6	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	0.0	0.0	0.0



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5
2.5°	193.1	189.4	187.0	185.8	187.0	184.6	181.0	182.2	181.0	179.8	179.8
5°	183.4	177.4	175.0	173.8	173.8	172.6	167.7	168.9	167.7	166.5	166.5
7.5°	170.1	165.3	161.7	160.5	160.5	159.3	154.5	156.9	154.5	153.2	154.5
10°	154.5	149.6	148.4	146.0	146.0	144.8	141.2	142.4	141.2	141.2	141.2
12.5°	137.6	132.7	131.5	130.3	131.5	130.3	126.7	129.1	127.9	127.9	129.1
15°	119.5	115.8	115.8	114.6	115.8	114.6	113.4	114.6	114.6	114.6	117.0
17.5°	101.4	98.9	98.9	97.7	98.9	98.9	97.7	101.4	101.4	103.8	106.2
20°	83.3	80.8	82.1	82.1	84.5	84.5	84.5	88.1	89.3	91.7	95.3
22.5°	68.8	67.6	68.8	68.8	71.2	72.4	72.4	76.0	79.6	82.1	85.7
25°	55.5	55.5	57.9	57.9	59.1	61.5	62.7	67.6	70.0	72.4	76.0
26°	51.9	51.9	53.1	54.3	55.5	57.9	59.1	64.0	66.4	68.8	72.4
27°	47.1	47.1	49.5	50.7	51.9	54.3	56.7	60.3	62.7	66.4	68.8
28°	43.4	43.4	45.9	47.1	48.3	51.9	53.1	56.7	59.1	62.7	66.4
29°	39.8	41.0	43.4	43.4	45.9	48.3	49.5	54.3	56.7	59.1	62.7
30°	37.4	38.6	39.8	41.0	42.2	44.6	47.1	50.7	53.1	55.5	59.1
31°	35.0	36.2	37.4	38.6	39.8	42.2	44.6	48.3	50.7	53.1	56.7
32°	32.6	32.6	35.0	36.2	37.4	39.8	42.2	45.9	48.3	50.7	54.3
33°	30.2	31.4	32.6	33.8	35.0	37.4	39.8	42.2	44.6	48.3	51.9
34°	27.8	29.0	31.4	32.6	33.8	36.2	37.4	39.8	42.2	45.9	48.3
35°	25.3	27.8	29.0	30.2	31.4	33.8	35.0	38.6	39.8	43.4	45.9
36°	24.1	25.3	27.8	29.0	30.2	31.4	32.6	36.2	38.6	41.0	43.4
37°	21.7	24.1	25.3	26.5	27.8	30.2	31.4	33.8	36.2	38.6	41.0
38°	20.5	21.7	24.1	25.3	26.5	27.8	29.0	32.6	33.8	36.2	38.6
39°	19.3	20.5	22.9	24.1	24.1	26.5	27.8	30.2	31.4	33.8	37.4
40°	18.1	19.3	21.7	21.7	22.9	25.3	26.5	29.0	30.2	32.6	35.0
42.5°	15.7	16.9	18.1	19.3	20.5	21.7	22.9	25.3	26.5	27.8	30.2
45°	13.3	14.5	16.9	16.9	18.1	19.3	20.5	21.7	22.9	25.3	26.5
47.5°	10.9	13.3	14.5	15.7	15.7	16.9	18.1	19.3	20.5	21.7	22.9
50°	9.7	10.9	12.1	13.3	13.3	14.5	15.7	16.9	16.9	18.1	20.5
51°	9.7	10.9	12.1	12.1	13.3	14.5	14.5	15.7	16.9	16.9	18.1
52°	8.4	9.7	10.9	12.1	12.1	13.3	14.5	14.5	15.7	16.9	18.1
53°	8.4	9.7	10.9	10.9	12.1	13.3	13.3	14.5	14.5	15.7	16.9
54°	8.4	9.7	10.9	10.9	12.1	12.1	13.3	13.3	14.5	14.5	15.7
55°	7.2	8.4	9.7	10.9	10.9	12.1	12.1	13.3	13.3	14.5	14.5
57.5°	7.2	8.4	9.7	9.7	9.7	10.9	10.9	12.1	12.1	12.1	13.3
60°	7.2	8.4	8.4	9.7	9.7	10.9	10.9	10.9	10.9	12.1	12.1
61°	7.2	7.2	8.4	9.7	9.7	9.7	10.9	10.9	10.9	10.9	12.1
62°	7.2	7.2	8.4	8.4	9.7	9.7	9.7	10.9	10.9	10.9	10.9
63°	6.0	7.2	8.4	8.4	9.7	9.7	9.7	9.7	9.7	10.9	10.9
64°	6.0	7.2	8.4	8.4	8.4	9.7	9.7	9.7	9.7	9.7	9.7
65°	6.0	7.2	8.4	8.4	8.4	9.7	9.7	9.7	9.7	9.7	9.7
66°	6.0	7.2	8.4	8.4	8.4	9.7	9.7	9.7	9.7	9.7	9.7



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	6.0	6.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
75°	6.0	6.0	6.0	7.2	7.2	7.2	7.2	7.2	7.2	6.0	6.0
77.5°	4.8	4.8	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.8
80°	4.8	4.8	6.0	6.0	6.0	6.0	6.0	6.0	4.8	4.8	4.8
82.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.6	3.6
85°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.6	3.6	2.4
87.5°	3.6	4.8	4.8	4.8	4.8	4.8	3.6	3.6	3.6	2.4	2.4
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: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	201.5	201.5	201.5	201.5	201.5	201.5	201.5	201.5
2.5°	181.0	177.4	176.2	176.2	177.4	176.2	177.4	176.2
5°	166.5	162.9	162.9	161.7	162.9	161.7	162.9	161.7
7.5°	154.5	150.8	150.8	150.8	150.8	150.8	152.0	150.8
10°	142.4	138.8	138.8	137.6	138.8	138.8	140.0	138.8
12.5°	130.3	127.9	127.9	126.7	129.1	127.9	130.3	129.1
15°	119.5	117.0	117.0	118.3	119.5	119.5	120.7	120.7
17.5°	108.6	108.6	108.6	109.8	111.0	112.2	113.4	112.2
20°	98.9	98.9	100.2	101.4	102.6	103.8	105.0	105.0
22.5°	89.3	89.3	90.5	92.9	95.3	96.5	97.7	97.7
25°	79.6	80.8	82.1	83.3	86.9	88.1	89.3	89.3
26°	76.0	77.2	79.6	80.8	83.3	84.5	86.9	86.9
27°	73.6	74.8	76.0	77.2	80.8	82.1	84.5	83.3
28°	70.0	71.2	72.4	74.8	77.2	79.6	80.8	80.8
29°	66.4	68.8	70.0	71.2	74.8	76.0	77.2	77.2
30°	64.0	65.2	66.4	68.8	71.2	73.6	74.8	74.8
31°	60.3	62.7	64.0	65.2	68.8	70.0	72.4	72.4
32°	57.9	59.1	60.3	62.7	65.2	67.6	68.8	68.8
33°	54.3	56.7	57.9	59.1	62.7	65.2	66.4	65.2
34°	51.9	54.3	54.3	56.7	59.1	61.5	62.7	62.7
35°	49.5	50.7	51.9	54.3	56.7	59.1	60.3	60.3
36°	47.1	48.3	49.5	51.9	54.3	56.7	57.9	57.9
37°	44.6	45.9	47.1	48.3	51.9	54.3	55.5	55.5
38°	42.2	43.4	44.6	47.1	49.5	50.7	53.1	53.1
39°	39.8	41.0	42.2	44.6	47.1	48.3	50.7	49.5
40°	37.4	39.8	39.8	42.2	44.6	45.9	48.3	47.1
42.5°	32.6	33.8	35.0	36.2	38.6	41.0	42.2	42.2
45°	29.0	30.2	31.4	32.6	33.8	35.0	37.4	36.2
47.5°	24.1	25.3	26.5	27.8	29.0	30.2	31.4	31.4
50°	21.7	21.7	22.9	22.9	25.3	26.5	27.8	27.8
51°	19.3	20.5	21.7	21.7	24.1	24.1	25.3	25.3
52°	19.3	19.3	20.5	20.5	21.7	22.9	24.1	24.1
53°	18.1	18.1	19.3	19.3	20.5	21.7	22.9	22.9
54°	16.9	16.9	18.1	18.1	19.3	20.5	21.7	21.7
55°	15.7	15.7	16.9	16.9	18.1	19.3	20.5	20.5
57.5°	13.3	14.5	14.5	15.7	15.7	16.9	16.9	18.1
60°	12.1	13.3	13.3	13.3	14.5	14.5	14.5	14.5
61°	12.1	12.1	12.1	13.3	13.3	12.1	13.3	12.1
62°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
63°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
64°	10.9	9.7	9.7	9.7	9.7	9.7	9.7	9.7
65°	9.7	9.7	9.7	9.7	9.7	9.7	9.7	8.4
66°	9.7	9.7	8.4	9.7	8.4	8.4	8.4	8.4



TEST NUMBER: P182701

CATALOG NUMBER: LDSQA4A28940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	6.0	6.0	6.0	6.0	6.0	4.8	4.8	4.8
75°	6.0	6.0	6.0	4.8	4.8	4.8	4.8	3.6
77.5°	4.8	4.8	4.8	4.8	3.6	3.6	3.6	3.6
80°	3.6	3.6	3.6	3.6	3.6	3.6	2.4	2.4
82.5°	3.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	2.4	2.4	2.4	2.4	1.2	1.2	1.2
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°









67.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6
70°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6	3.6





67.5°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	3.6	4.8	4.8	6.0
70°	3.6	4.8	4.8	4.8	4.8	4.8	4.8	3.6	4.8	4.8	4.8





67.5°	6.0	7.2	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
70°	6.0	7.2	7.2	7.2	8.4	8.4	8.4	8.4	8.4	8.4	8.4







67.5°	8.4	8.4	8.4	8.4	8.4	7.2	7.2	7.2
70°	7.2	7.2	7.2	7.2	7.2	6.0	6.0	6.0



(END OF REPORT)