

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: P182692

Luminaire Tested: **LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182692  
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: LDSQA4A13935D010TE 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 / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

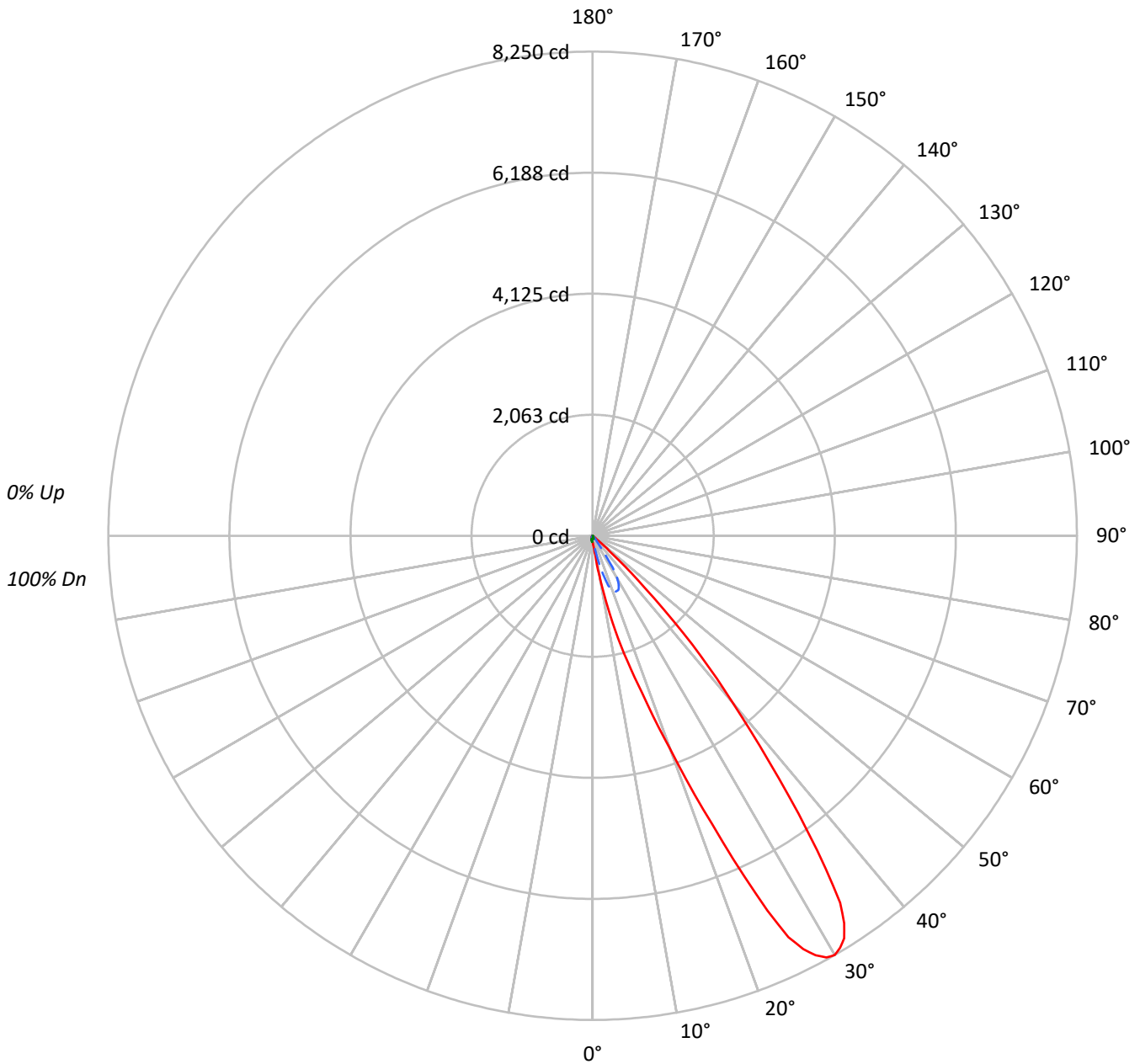
Lumens per Lamp: N/A  
Luminaire Lumens: 1268.7 lumens  
Efficiency: N/A  
Efficacy: 57.0 lumens/watt  
Spacing Criteria (0/90/45): 2.24 / 0.6 / 1.1  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.27  
Input Voltage (V): NR  
Input Current (A<sub>in</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: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

### 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	107	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	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75																			
4	93	84	77	72	91	83	76	72	80	75	71	78	74	70	76	72	69	67																			
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61																			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																			
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50																			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37																			

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

	0°	90°	180°
0°	10598	10598	10598
5°	17640	9997	8538
10°	75253	8765	7407
15°	208288	6960	6569
20°	399515	4928	5876
25°	753277	3292	5184
30°	922896	2192	4542
35°	819634	1466	3867
40°	467138	999	3225
45°	170390	808	2685
50°	18748	588	2276
55°	2770	439	1875
60°	639	504	1531
65°	458	596	1054
70°	368	736	935
75°	487	973	749
80°	0	1450	725
85°	0	2223	778



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CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	13.8	1.1
10°-20°	137.5	10.8
20°-30°	451.6	35.6
30°-40°	495.2	39.0
40°-50°	154.7	12.2
50°-60°	8.5	0.7
60°-70°	3.4	0.3
70°-80°	2.6	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°	602.8	47.5
0°-40°	1098.0	86.5
0°-60°	1261.1	99.4
0°-90°	1268.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1268.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	109	109	109	109	109	
5°	181	145	103	91	88	34
15°	2077	667	69	62	66	653
25°	7047	1025	31	38	48	3141
35°	6931	202	12	22	33	4052
45°	1244	21	6	12	20	1142
55°	16	4	3	7	11	26
65°	2	2	3	5	5	2
75°	1	2	3	4	2	1
85°	0	2	2	2	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	134.9	136.2	136.9	133.6	134.3	133.0	134.3	131.6	127.1	128.4	124.4
5°	181.4	178.8	178.1	172.9	171.6	169.0	169.0	163.1	154.6	153.3	145.4
7.5°	320.9	307.2	295.4	277.7	260.7	247.6	242.3	221.4	198.4	189.9	171.6
10°	765.0	762.4	732.9	677.2	613.0	566.5	539.7	458.5	355.6	292.8	227.3
12.5°	1392.4	1379.3	1337.4	1235.2	1124.5	1055.1	1000.8	837.0	684.4	561.9	402.8
15°	2076.8	2023.8	1962.2	1803.7	1648.5	1558.1	1480.8	1284.3	1047.9	871.7	667.4
17.5°	2807.7	2831.3	2682.0	2408.9	2133.1	1991.7	1860.7	1558.8	1300.1	1116.7	886.8
20°	3875.3	3825.5	3562.9	3110.3	2703.6	2467.2	2281.2	1845.6	1455.3	1226.7	1009.3
22.5°	5318.1	5159.6	4647.5	3881.8	3236.7	2908.6	2644.7	2057.8	1585.6	1283.0	1028.9
25°	7047.2	6900.5	5952.1	4623.9	3669.6	3244.6	2885.7	2192.7	1638.0	1292.2	1025.0
26°	7611.7	7393.6	6433.5	4887.8	3802.6	3329.7	2945.3	2218.9	1639.3	1285.0	1008.0
27°	7903.8	7732.9	6831.7	5102.0	3893.6	3383.4	2978.7	2225.5	1626.2	1268.6	981.8
28°	8096.4	7936.6	7083.9	5242.2	3940.1	3404.4	2988.5	2211.1	1596.7	1239.8	940.5
29°	8215.6	8047.3	7207.0	5305.7	3943.4	3395.2	2970.2	2173.1	1556.8	1205.1	892.7
30°	8250.3	8068.2	7210.3	5279.5	3894.9	3346.1	2918.4	2111.5	1508.3	1161.2	839.6
31°	8188.7	8000.8	7091.7	5160.3	3795.4	3250.5	2837.2	2030.3	1448.1	1114.7	757.8
32°	8086.6	7837.0	6843.5	4962.5	3659.2	3135.2	2735.7	1941.9	1383.9	1055.8	642.5
33°	7869.1	7567.9	6463.6	4714.3	3495.4	3002.9	2617.1	1843.7	1323.0	954.3	477.5
34°	7542.3	7161.8	5998.0	4425.4	3310.1	2837.9	2480.9	1752.6	1259.5	820.0	326.8
35°	6930.6	6576.3	5483.8	4117.6	3110.3	2678.1	2330.9	1633.4	1173.0	657.6	201.7
36°	6246.2	5985.5	4985.4	3804.6	2906.0	2512.4	2176.4	1545.7	1045.3	484.0	136.9
37°	5546.7	5315.5	4515.2	3496.7	2701.0	2329.0	2019.2	1446.1	893.3	322.9	110.0
38°	4880.6	4697.2	4068.5	3194.2	2488.1	2137.1	1854.1	1340.0	729.6	207.6	90.4
39°	4268.9	4131.4	3631.0	2901.4	2274.6	1949.1	1695.6	1206.4	556.7	148.0	75.3
40°	3693.9	3596.9	3209.2	2612.6	2062.4	1764.4	1552.2	1044.6	386.4	117.2	60.9
42.5°	2512.4	2488.1	2258.2	1880.3	1531.9	1357.7	1227.4	587.5	148.7	70.7	34.1
45°	1243.7	1260.8	1169.1	1075.4	1002.7	949.7	773.5	244.9	82.5	38.6	21.0
47.5°	440.1	440.8	379.2	338.0	322.9	321.6	233.8	86.5	43.9	23.6	15.1
50°	124.4	134.3	126.4	129.0	100.9	85.8	70.1	41.9	22.3	15.1	9.8
51°	76.6	82.5	77.3	79.9	69.4	62.2	52.4	31.4	17.7	12.4	9.2
52°	49.1	52.4	49.8	50.4	46.5	40.6	35.4	22.9	14.4	10.5	7.9
53°	33.4	35.4	33.4	33.4	30.8	28.8	24.9	17.0	11.8	8.5	5.9
54°	22.9	23.6	23.6	23.6	21.6	20.3	17.7	13.1	9.8	7.9	5.2
55°	16.4	17.0	16.4	16.4	15.7	14.4	13.1	9.8	7.9	6.5	3.9
57.5°	7.2	7.2	7.2	7.9	7.2	7.2	6.5	5.9	5.2	3.9	2.6
60°	3.3	3.3	3.3	3.3	3.9	3.9	3.9	3.9	3.3	2.6	2.6
61°	2.6	2.6	2.6	2.6	2.6	3.3	3.3	3.3	2.6	2.6	2.0
62°	2.0	2.0	2.0	2.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0
63°	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6	2.0	2.0	2.0
64°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
65°	2.0	1.3	1.3	1.3	1.3	2.0	2.0	2.0	2.0	2.0	2.0
66°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0	2.0



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CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0
75°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0
77.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	1.3	1.3	2.0
80°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	1.3	1.3	2.0
82.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	1.3	1.3	2.0
85°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	1.3	1.3	2.0
87.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	1.3	1.3	2.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	121.8	121.2	117.9	114.6	115.3	114.0	112.7	110.7	109.4	106.1	106.1
5°	138.8	135.6	128.4	121.8	121.2	118.5	114.6	110.7	107.4	102.8	101.5
7.5°	158.5	149.3	137.5	127.1	125.1	121.2	114.0	108.7	102.8	96.9	95.0
10°	186.7	165.0	144.7	129.0	125.1	119.2	110.0	102.8	96.3	89.1	86.5
12.5°	286.9	203.7	153.9	129.0	121.8	114.6	103.5	95.0	87.1	79.2	76.6
15°	478.1	325.5	195.2	129.0	115.9	107.4	93.7	85.1	76.6	69.4	66.8
17.5°	660.2	463.0	271.8	145.4	116.6	98.9	81.9	72.7	65.5	58.3	56.3
20°	765.6	539.7	322.2	161.8	115.3	89.1	70.1	60.3	53.1	47.8	45.8
22.5°	779.4	542.9	311.1	144.7	96.9	74.0	58.3	49.1	43.2	38.6	37.3
25°	742.7	479.4	248.9	102.8	72.0	60.3	45.8	39.3	34.7	30.8	30.1
26°	714.5	441.4	216.8	85.1	63.5	53.7	41.3	35.4	31.4	28.2	27.5
27°	674.6	400.8	185.3	70.7	56.3	48.5	36.7	32.1	28.8	25.5	25.5
28°	629.4	356.9	149.3	59.6	50.4	43.2	33.4	28.8	25.5	23.6	23.6
29°	575.0	293.4	109.4	51.7	44.5	38.0	29.5	25.5	22.9	21.6	21.6
30°	494.5	212.9	75.3	45.2	38.6	33.4	26.2	22.9	21.0	19.6	19.6
31°	386.4	131.0	58.9	39.3	34.1	29.5	23.6	20.3	19.0	17.7	18.3
32°	263.3	81.9	50.4	34.1	30.1	25.5	21.0	18.3	17.0	16.4	16.4
33°	150.0	68.1	43.9	29.5	25.5	22.3	18.3	16.4	15.7	15.1	15.1
34°	99.6	58.3	38.0	24.9	21.0	19.0	15.7	14.4	13.8	13.8	13.8
35°	83.8	50.4	30.8	21.0	18.3	16.4	13.8	13.1	12.4	12.4	13.1
36°	70.7	41.9	24.9	17.7	15.7	14.4	12.4	11.8	11.1	11.1	11.8
37°	59.6	33.4	21.0	15.1	13.1	12.4	11.1	10.5	10.5	10.5	11.1
38°	48.5	26.9	17.7	13.1	11.8	10.5	9.8	9.2	9.2	9.8	10.5
39°	38.0	21.6	14.4	11.1	9.8	9.2	8.5	8.5	8.5	8.5	9.2
40°	30.1	18.3	12.4	9.8	8.5	8.5	7.9	7.2	7.9	7.9	9.2
42.5°	19.0	13.1	9.2	7.2	6.5	6.5	5.9	5.9	5.9	6.5	7.2
45°	13.8	10.5	7.2	5.9	5.2	4.6	4.6	4.6	5.2	5.9	6.5
47.5°	10.5	7.2	5.2	3.9	3.3	3.3	3.3	3.3	3.9	4.6	5.2
50°	7.2	4.6	3.3	2.6	2.6	2.6	2.6	2.6	3.3	3.9	4.6
51°	5.9	3.9	3.3	2.6	2.6	2.0	2.0	2.6	3.3	3.3	3.9
52°	4.6	3.3	2.6	2.0	2.0	2.0	2.0	2.6	2.6	3.3	3.9
53°	3.9	3.3	2.6	2.0	2.0	2.0	2.0	2.0	2.6	3.3	3.9
54°	3.3	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.3	3.9
55°	2.6	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6	3.3
57.5°	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.3
60°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.3
61°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.3
62°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	3.3
63°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.6	3.3
64°	2.0	2.0	2.0	2.0	2.6	2.6	2.0	2.0	2.6	2.6	3.3
65°	2.0	2.0	2.6	2.6	2.6	2.6	2.0	2.0	2.6	2.6	3.3
66°	2.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.6	2.6	3.3





TEST NUMBER: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.6	2.6	2.6
75°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.6	2.6
80°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.6	2.6
82.5°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.6
85°	2.0	2.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0
87.5°	2.0	2.0	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0	2.0
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: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	104.8	102.8	101.5	100.9	101.5	100.2	98.2	98.9	98.2	97.6	97.6
5°	99.6	96.3	95.0	94.3	94.3	93.7	91.0	91.7	91.0	90.4	90.4
7.5°	92.3	89.7	87.8	87.1	87.1	86.5	83.8	85.1	83.8	83.2	83.8
10°	83.8	81.2	80.6	79.2	79.2	78.6	76.6	77.3	76.6	76.6	76.6
12.5°	74.7	72.0	71.4	70.7	71.4	70.7	68.8	70.1	69.4	69.4	70.1
15°	64.8	62.9	62.9	62.2	62.9	62.2	61.6	62.2	62.2	62.2	63.5
17.5°	55.0	53.7	53.7	53.1	53.7	53.7	53.1	55.0	55.0	56.3	57.6
20°	45.2	43.9	44.5	44.5	45.8	45.8	45.8	47.8	48.5	49.8	51.7
22.5°	37.3	36.7	37.3	37.3	38.6	39.3	39.3	41.3	43.2	44.5	46.5
25°	30.1	30.1	31.4	31.4	32.1	33.4	34.1	36.7	38.0	39.3	41.3
26°	28.2	28.2	28.8	29.5	30.1	31.4	32.1	34.7	36.0	37.3	39.3
27°	25.5	25.5	26.9	27.5	28.2	29.5	30.8	32.7	34.1	36.0	37.3
28°	23.6	23.6	24.9	25.5	26.2	28.2	28.8	30.8	32.1	34.1	36.0
29°	21.6	22.3	23.6	23.6	24.9	26.2	26.9	29.5	30.8	32.1	34.1
30°	20.3	21.0	21.6	22.3	22.9	24.2	25.5	27.5	28.8	30.1	32.1
31°	19.0	19.6	20.3	21.0	21.6	22.9	24.2	26.2	27.5	28.8	30.8
32°	17.7	17.7	19.0	19.6	20.3	21.6	22.9	24.9	26.2	27.5	29.5
33°	16.4	17.0	17.7	18.3	19.0	20.3	21.6	22.9	24.2	26.2	28.2
34°	15.1	15.7	17.0	17.7	18.3	19.6	20.3	21.6	22.9	24.9	26.2
35°	13.8	15.1	15.7	16.4	17.0	18.3	19.0	21.0	21.6	23.6	24.9
36°	13.1	13.8	15.1	15.7	16.4	17.0	17.7	19.6	21.0	22.3	23.6
37°	11.8	13.1	13.8	14.4	15.1	16.4	17.0	18.3	19.6	21.0	22.3
38°	11.1	11.8	13.1	13.8	14.4	15.1	15.7	17.7	18.3	19.6	21.0
39°	10.5	11.1	12.4	13.1	13.1	14.4	15.1	16.4	17.0	18.3	20.3
40°	9.8	10.5	11.8	11.8	12.4	13.8	14.4	15.7	16.4	17.7	19.0
42.5°	8.5	9.2	9.8	10.5	11.1	11.8	12.4	13.8	14.4	15.1	16.4
45°	7.2	7.9	9.2	9.2	9.8	10.5	11.1	11.8	12.4	13.8	14.4
47.5°	5.9	7.2	7.9	8.5	8.5	9.2	9.8	10.5	11.1	11.8	12.4
50°	5.2	5.9	6.5	7.2	7.2	7.9	8.5	9.2	9.2	9.8	11.1
51°	5.2	5.9	6.5	6.5	7.2	7.9	7.9	8.5	9.2	9.2	9.8
52°	4.6	5.2	5.9	6.5	6.5	7.2	7.9	7.9	8.5	9.2	9.8
53°	4.6	5.2	5.9	5.9	6.5	7.2	7.2	7.9	7.9	8.5	9.2
54°	4.6	5.2	5.9	5.9	6.5	6.5	7.2	7.2	7.9	7.9	8.5
55°	3.9	4.6	5.2	5.9	5.9	6.5	6.5	7.2	7.2	7.9	7.9
57.5°	3.9	4.6	5.2	5.2	5.2	5.9	5.9	6.5	6.5	6.5	7.2
60°	3.9	4.6	4.6	5.2	5.2	5.9	5.9	5.9	5.9	6.5	6.5
61°	3.9	3.9	4.6	5.2	5.2	5.2	5.9	5.9	5.9	5.9	6.5
62°	3.9	3.9	4.6	4.6	5.2	5.2	5.2	5.9	5.9	5.9	5.9
63°	3.3	3.9	4.6	4.6	5.2	5.2	5.2	5.2	5.2	5.9	5.9
64°	3.3	3.9	4.6	4.6	4.6	5.2	5.2	5.2	5.2	5.2	5.2
65°	3.3	3.9	4.6	4.6	4.6	5.2	5.2	5.2	5.2	5.2	5.2
66°	3.3	3.9	4.6	4.6	4.6	5.2	5.2	5.2	5.2	5.2	5.2



TEST NUMBER: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	3.3	3.3	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
75°	3.3	3.3	3.3	3.9	3.9	3.9	3.9	3.9	3.9	3.3	3.3
77.5°	2.6	2.6	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.6
80°	2.6	2.6	3.3	3.3	3.3	3.3	3.3	3.3	2.6	2.6	2.6
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.0
85°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.0	1.3
87.5°	2.0	2.6	2.6	2.6	2.6	2.6	2.0	2.0	2.0	1.3	1.3
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: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	98.2	96.3	95.6	95.6	96.3	95.6	96.3	95.6
5°	90.4	88.4	88.4	87.8	88.4	87.8	88.4	87.8
7.5°	83.8	81.9	81.9	81.9	81.9	81.9	82.5	81.9
10°	77.3	75.3	75.3	74.7	75.3	75.3	76.0	75.3
12.5°	70.7	69.4	69.4	68.8	70.1	69.4	70.7	70.1
15°	64.8	63.5	63.5	64.2	64.8	64.8	65.5	65.5
17.5°	58.9	58.9	58.9	59.6	60.3	60.9	61.6	60.9
20°	53.7	53.7	54.4	55.0	55.7	56.3	57.0	57.0
22.5°	48.5	48.5	49.1	50.4	51.7	52.4	53.1	53.1
25°	43.2	43.9	44.5	45.2	47.2	47.8	48.5	48.5
26°	41.3	41.9	43.2	43.9	45.2	45.8	47.2	47.2
27°	40.0	40.6	41.3	41.9	43.9	44.5	45.8	45.2
28°	38.0	38.6	39.3	40.6	41.9	43.2	43.9	43.9
29°	36.0	37.3	38.0	38.6	40.6	41.3	41.9	41.9
30°	34.7	35.4	36.0	37.3	38.6	40.0	40.6	40.6
31°	32.7	34.1	34.7	35.4	37.3	38.0	39.3	39.3
32°	31.4	32.1	32.7	34.1	35.4	36.7	37.3	37.3
33°	29.5	30.8	31.4	32.1	34.1	35.4	36.0	35.4
34°	28.2	29.5	29.5	30.8	32.1	33.4	34.1	34.1
35°	26.9	27.5	28.2	29.5	30.8	32.1	32.7	32.7
36°	25.5	26.2	26.9	28.2	29.5	30.8	31.4	31.4
37°	24.2	24.9	25.5	26.2	28.2	29.5	30.1	30.1
38°	22.9	23.6	24.2	25.5	26.9	27.5	28.8	28.8
39°	21.6	22.3	22.9	24.2	25.5	26.2	27.5	26.9
40°	20.3	21.6	21.6	22.9	24.2	24.9	26.2	25.5
42.5°	17.7	18.3	19.0	19.6	21.0	22.3	22.9	22.9
45°	15.7	16.4	17.0	17.7	18.3	19.0	20.3	19.6
47.5°	13.1	13.8	14.4	15.1	15.7	16.4	17.0	17.0
50°	11.8	11.8	12.4	12.4	13.8	14.4	15.1	15.1
51°	10.5	11.1	11.8	11.8	13.1	13.1	13.8	13.8
52°	10.5	10.5	11.1	11.1	11.8	12.4	13.1	13.1
53°	9.8	9.8	10.5	10.5	11.1	11.8	12.4	12.4
54°	9.2	9.2	9.8	9.8	10.5	11.1	11.8	11.8
55°	8.5	8.5	9.2	9.2	9.8	10.5	11.1	11.1
57.5°	7.2	7.9	7.9	8.5	8.5	9.2	9.2	9.8
60°	6.5	7.2	7.2	7.2	7.9	7.9	7.9	7.9
61°	6.5	6.5	6.5	7.2	7.2	6.5	7.2	6.5
62°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
63°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
64°	5.9	5.2	5.2	5.2	5.2	5.2	5.2	5.2
65°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	4.6
66°	5.2	5.2	4.6	5.2	4.6	4.6	4.6	4.6



TEST NUMBER: P182692

CATALOG NUMBER: LDSQA4A13935D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	3.3	3.3	3.3	3.3	3.3	2.6	2.6	2.6
75°	3.3	3.3	3.3	2.6	2.6	2.6	2.6	2.0
77.5°	2.6	2.6	2.6	2.6	2.0	2.0	2.0	2.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.3
82.5°	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.3	1.3	0.7	0.7	0.7
87.5°	0.7	0.7	0.7	0.7	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°    - - 45°-225°    - - - - 90°-270°









67.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0	2.0
70°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0	2.0





67.5°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.6	2.6	3.3
70°	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.0	2.6	2.6	2.6





67.5°	3.3	3.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
70°	3.3	3.9	3.9	3.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6







67.5°	4.6	4.6	4.6	4.6	4.6	3.9	3.9	3.9
70°	3.9	3.9	3.9	3.9	3.9	3.3	3.3	3.3



(END OF REPORT)