

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: P182677

Luminaire Tested: **LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182677  
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: LDSQA4A18940D010TE 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: 1706.6 lumens  
Efficiency: N/A  
Efficacy: 58.6 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

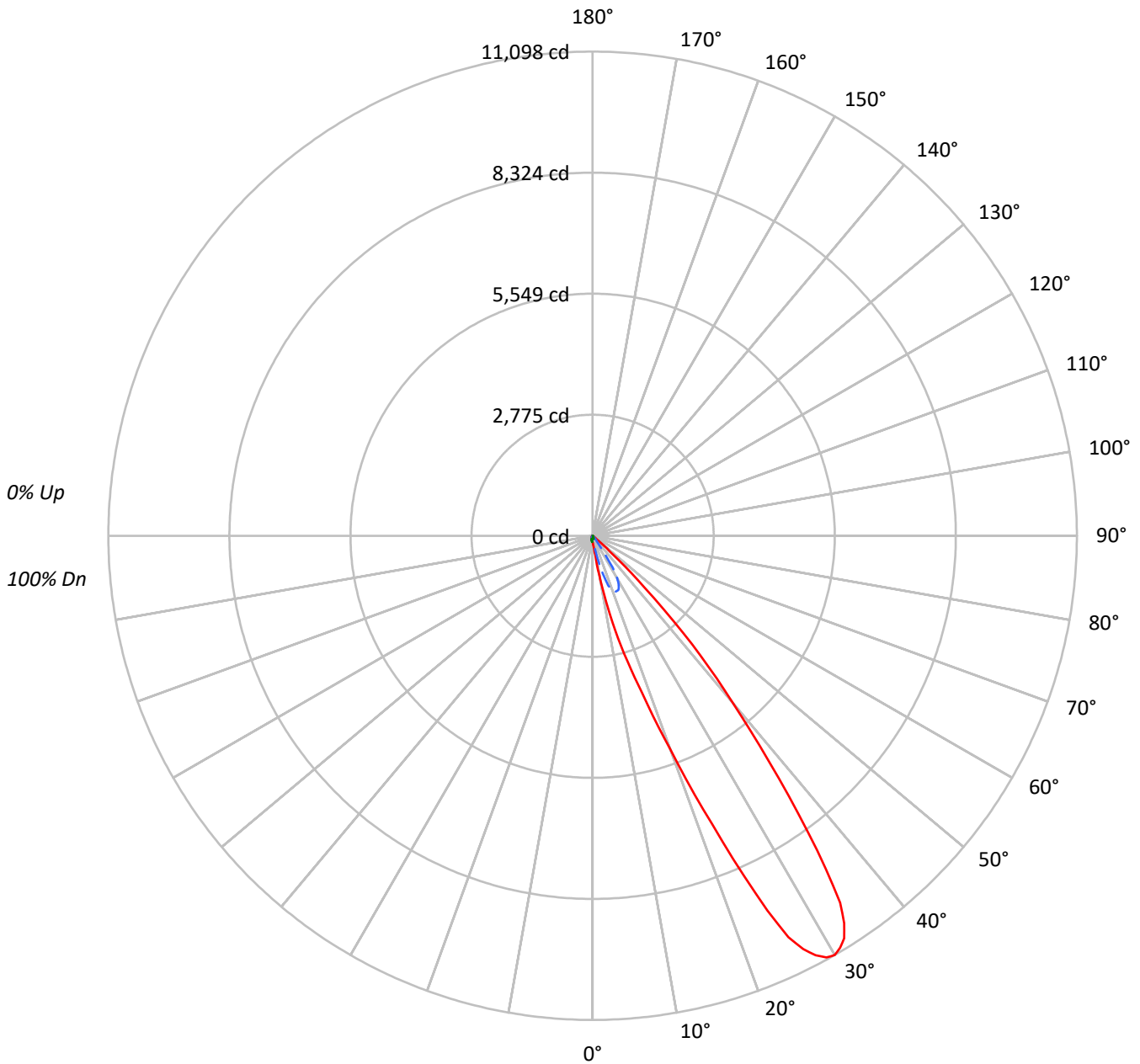
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P182677

CATALOG NUMBER: LDSQA4A18940D010TE 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°	14250	14250	14250
5°	23728	13449	11485
10°	101223	11785	9965
15°	280188	9367	8836
20°	537412	6629	7897
25°	1013276	4425	6969
30°	1241446	2953	6108
35°	1102543	1975	5215
40°	628376	1340	4350
45°	229205	1082	3617
50°	25229	799	3059
55°	3716	591	2533
60°	853	678	2054
65°	596	802	1421
70°	510	991	1246
75°	674	1310	973
80°	0	1953	1004
85°	0	2890	1000



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CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.5	1.1
10°-20°	184.9	10.8
20°-30°	607.4	35.6
30°-40°	666.1	39.0
40°-50°	208.1	12.2
50°-60°	11.4	0.7
60°-70°	4.6	0.3
70°-80°	3.5	0.2
80°-90°	2.2	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°	810.9	47.5
0°-40°	1477.0	86.5
0°-60°	1696.4	99.4
0°-90°	1706.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1706.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	147	147	147	147	147	
5°	244	196	138	122	118	45
15°	2794	898	93	84	88	878
25°	9480	1379	41	51	65	4226
35°	9323	271	17	29	44	5450
45°	1673	28	8	17	26	1536
55°	22	5	4	10	15	34
65°	3	3	4	7	6	2
75°	2	3	4	5	3	1
85°	0	3	3	3	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1
2.5°	181.5	183.2	184.1	179.7	180.6	178.8	180.6	177.1	170.9	172.7	167.4
5°	244.0	240.5	239.6	232.6	230.8	227.3	227.3	219.4	207.9	206.2	195.6
7.5°	431.7	413.2	397.3	373.5	350.6	333.0	326.0	297.8	266.9	255.5	230.8
10°	1029.0	1025.5	985.8	911.0	824.6	762.1	725.9	616.7	478.4	393.8	305.7
12.5°	1873.0	1855.4	1799.0	1661.6	1512.7	1419.3	1346.2	1125.9	920.7	755.9	541.8
15°	2793.7	2722.3	2639.5	2426.3	2217.5	2095.9	1992.0	1727.7	1409.6	1172.6	897.7
17.5°	3776.9	3808.6	3607.7	3240.3	2869.4	2679.1	2502.9	2096.8	1748.8	1502.1	1192.9
20°	5212.9	5146.0	4792.7	4183.9	3636.8	3318.7	3068.5	2482.7	1957.6	1650.1	1357.6
22.5°	7153.8	6940.6	6251.6	5221.7	4353.9	3912.5	3557.5	2768.1	2132.9	1725.9	1384.1
25°	9479.6	9282.3	8006.6	6219.9	4936.3	4364.5	3881.7	2949.6	2203.4	1738.2	1378.8
26°	10239.0	9945.7	8654.1	6574.9	5115.1	4479.0	3961.9	2984.8	2205.2	1728.5	1355.9
27°	10632.0	10402.0	9189.8	6863.0	5237.6	4551.3	4006.8	2993.7	2187.5	1706.5	1320.6
28°	10891.0	10676.0	9529.0	7051.6	5300.1	4579.5	4020.0	2974.3	2147.9	1667.7	1265.1
29°	11051.3	10824.9	9694.6	7137.0	5304.5	4567.1	3995.4	2923.2	2094.1	1621.0	1200.8
30°	11098.0	10853.1	9699.0	7101.8	5239.3	4501.1	3925.8	2840.4	2029.0	1562.0	1129.4
31°	11015.2	10762.4	9539.5	6941.4	5105.4	4372.4	3816.5	2731.1	1947.9	1499.5	1019.3
32°	10877.8	10542.1	9205.6	6675.4	4922.2	4217.4	3680.0	2612.2	1861.6	1420.2	864.3
33°	10585.3	10180.0	8694.6	6341.5	4701.9	4039.4	3520.5	2480.0	1779.6	1283.6	642.3
34°	10145.7	9633.8	8068.2	5953.0	4452.6	3817.4	3337.2	2357.6	1694.2	1103.0	439.6
35°	9322.8	8846.2	7376.7	5538.9	4183.9	3602.4	3135.5	2197.2	1577.9	884.5	271.3
36°	8402.1	8051.5	6706.2	5117.8	3909.0	3379.5	2927.6	2079.2	1406.1	651.1	184.1
37°	7461.2	7150.2	6073.7	4703.7	3633.3	3132.9	2716.1	1945.3	1201.7	434.3	148.0
38°	6565.3	6318.6	5472.8	4296.7	3346.9	2874.7	2494.1	1802.5	981.4	279.3	121.6
39°	5742.4	5557.4	4884.3	3902.9	3059.7	2621.9	2280.9	1622.8	748.9	199.1	101.3
40°	4968.9	4838.5	4316.9	3514.3	2774.3	2373.4	2088.0	1405.2	519.8	157.7	81.9
42.5°	3379.5	3346.9	3037.7	2529.4	2060.7	1826.3	1651.0	790.3	200.0	95.1	45.8
45°	1673.0	1695.9	1572.6	1446.6	1348.8	1277.5	1040.5	329.5	111.0	52.0	28.2
47.5°	592.0	592.9	510.1	454.6	434.3	432.6	314.5	116.3	59.0	31.7	20.3
50°	167.4	180.6	170.0	173.6	135.7	115.4	94.3	56.4	30.0	20.3	13.2
51°	103.1	111.0	104.0	107.5	93.4	83.7	70.5	42.3	23.8	16.7	12.3
52°	66.1	70.5	67.0	67.8	62.6	54.6	47.6	30.8	19.4	14.1	10.6
53°	44.9	47.6	44.9	44.9	41.4	38.8	33.5	22.9	15.9	11.5	7.9
54°	30.8	31.7	31.7	31.7	29.1	27.3	23.8	17.6	13.2	10.6	7.0
55°	22.0	22.9	22.0	22.0	21.1	19.4	17.6	13.2	10.6	8.8	5.3
57.5°	9.7	9.7	9.7	10.6	9.7	9.7	8.8	7.9	7.0	5.3	3.5
60°	4.4	4.4	4.4	4.4	5.3	5.3	5.3	5.3	4.4	3.5	3.5
61°	3.5	3.5	3.5	3.5	3.5	4.4	4.4	4.4	3.5	3.5	2.6
62°	2.6	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5	2.6	2.6
63°	2.6	2.6	2.6	2.6	2.6	2.6	3.5	3.5	2.6	2.6	2.6
64°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
65°	2.6	1.8	1.8	1.8	1.8	2.6	2.6	2.6	2.6	2.6	2.6
66°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.6	2.6



TEST NUMBER: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.6
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.6
77.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	1.8	1.8	2.6
80°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	1.8	1.8	2.6
82.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	1.8	1.8	2.6
85°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	1.8	1.8	2.6
87.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	1.8	1.8	2.6
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1
2.5°	163.9	163.0	158.6	154.2	155.1	153.3	151.5	148.9	147.1	142.7	142.7
5°	186.8	182.4	172.7	163.9	163.0	159.5	154.2	148.9	144.5	138.3	136.6
7.5°	213.2	200.9	185.0	170.9	168.3	163.0	153.3	146.2	138.3	130.4	127.7
10°	251.1	222.0	194.7	173.6	168.3	160.3	148.0	138.3	129.5	119.8	116.3
12.5°	385.9	274.0	207.0	173.6	163.9	154.2	139.2	127.7	117.2	106.6	103.1
15°	643.1	437.9	262.5	173.6	155.9	144.5	126.0	114.5	103.1	93.4	89.9
17.5°	888.1	622.9	365.6	195.6	156.8	133.0	110.1	97.8	88.1	78.4	75.8
20°	1029.9	725.9	433.5	217.6	155.1	119.8	94.3	81.1	71.4	64.3	61.7
22.5°	1048.4	730.4	418.5	194.7	130.4	99.6	78.4	66.1	58.1	52.0	50.2
25°	999.1	644.9	334.8	138.3	96.9	81.1	61.7	52.9	46.7	41.4	40.5
26°	961.2	593.8	291.6	114.5	85.5	72.2	55.5	47.6	42.3	37.9	37.0
27°	907.4	539.2	249.3	95.1	75.8	65.2	49.3	43.2	38.8	34.4	34.4
28°	846.6	480.1	200.9	80.2	67.8	58.1	44.9	38.8	34.4	31.7	31.7
29°	773.5	394.7	147.1	69.6	59.9	51.1	39.6	34.4	30.8	29.1	29.1
30°	665.2	286.3	101.3	60.8	52.0	44.9	35.2	30.8	28.2	26.4	26.4
31°	519.8	176.2	79.3	52.9	45.8	39.6	31.7	27.3	25.5	23.8	24.7
32°	354.2	110.1	67.8	45.8	40.5	34.4	28.2	24.7	22.9	22.0	22.0
33°	201.8	91.6	59.0	39.6	34.4	30.0	24.7	22.0	21.1	20.3	20.3
34°	133.9	78.4	51.1	33.5	28.2	25.5	21.1	19.4	18.5	18.5	18.5
35°	112.8	67.8	41.4	28.2	24.7	22.0	18.5	17.6	16.7	16.7	17.6
36°	95.1	56.4	33.5	23.8	21.1	19.4	16.7	15.9	15.0	15.0	15.9
37°	80.2	44.9	28.2	20.3	17.6	16.7	15.0	14.1	14.1	14.1	15.0
38°	65.2	36.1	23.8	17.6	15.9	14.1	13.2	12.3	12.3	13.2	14.1
39°	51.1	29.1	19.4	15.0	13.2	12.3	11.5	11.5	11.5	11.5	12.3
40°	40.5	24.7	16.7	13.2	11.5	11.5	10.6	9.7	10.6	10.6	12.3
42.5°	25.5	17.6	12.3	9.7	8.8	8.8	7.9	7.9	7.9	8.8	9.7
45°	18.5	14.1	9.7	7.9	7.0	6.2	6.2	6.2	7.0	7.9	8.8
47.5°	14.1	9.7	7.0	5.3	4.4	4.4	4.4	4.4	5.3	6.2	7.0
50°	9.7	6.2	4.4	3.5	3.5	3.5	3.5	3.5	4.4	5.3	6.2
51°	7.9	5.3	4.4	3.5	3.5	2.6	2.6	3.5	4.4	4.4	5.3
52°	6.2	4.4	3.5	2.6	2.6	2.6	2.6	3.5	3.5	4.4	5.3
53°	5.3	4.4	3.5	2.6	2.6	2.6	2.6	2.6	3.5	4.4	5.3
54°	4.4	3.5	2.6	2.6	2.6	2.6	2.6	2.6	3.5	4.4	5.3
55°	3.5	3.5	2.6	2.6	2.6	2.6	2.6	2.6	3.5	3.5	4.4
57.5°	3.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.5	4.4
60°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.5	4.4
61°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.5	4.4
62°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.5	4.4
63°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.5	3.5	4.4
64°	2.6	2.6	2.6	2.6	3.5	3.5	2.6	2.6	3.5	3.5	4.4
65°	2.6	2.6	3.5	3.5	3.5	3.5	2.6	2.6	3.5	3.5	4.4
66°	2.6	3.5	3.5	3.5	3.5	3.5	2.6	2.6	3.5	3.5	4.4





TEST NUMBER: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	2.6	3.5	3.5	3.5
75°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
77.5°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	2.6	2.6	3.5	3.5
80°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	2.6	2.6	3.5	3.5
82.5°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	2.6	2.6	2.6	3.5
85°	2.6	2.6	3.5	3.5	3.5	3.5	3.5	2.6	2.6	2.6	2.6
87.5°	2.6	2.6	3.5	3.5	3.5	3.5	2.6	2.6	2.6	2.6	2.6
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: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1
2.5°	141.0	138.3	136.6	135.7	136.6	134.8	132.2	133.0	132.2	131.3	131.3
5°	133.9	129.5	127.7	126.9	126.9	126.0	122.5	123.3	122.5	121.6	121.6
7.5°	124.2	120.7	118.1	117.2	117.2	116.3	112.8	114.5	112.8	111.9	112.8
10°	112.8	109.2	108.4	106.6	106.6	105.7	103.1	104.0	103.1	103.1	103.1
12.5°	100.4	96.9	96.0	95.1	96.0	95.1	92.5	94.3	93.4	93.4	94.3
15°	87.2	84.6	84.6	83.7	84.6	83.7	82.8	83.7	83.7	83.7	85.5
17.5°	74.0	72.2	72.2	71.4	72.2	72.2	71.4	74.0	74.0	75.8	77.5
20°	60.8	59.0	59.9	59.9	61.7	61.7	61.7	64.3	65.2	67.0	69.6
22.5°	50.2	49.3	50.2	50.2	52.0	52.9	52.9	55.5	58.1	59.9	62.6
25°	40.5	40.5	42.3	42.3	43.2	44.9	45.8	49.3	51.1	52.9	55.5
26°	37.9	37.9	38.8	39.6	40.5	42.3	43.2	46.7	48.5	50.2	52.9
27°	34.4	34.4	36.1	37.0	37.9	39.6	41.4	44.1	45.8	48.5	50.2
28°	31.7	31.7	33.5	34.4	35.2	37.9	38.8	41.4	43.2	45.8	48.5
29°	29.1	30.0	31.7	31.7	33.5	35.2	36.1	39.6	41.4	43.2	45.8
30°	27.3	28.2	29.1	30.0	30.8	32.6	34.4	37.0	38.8	40.5	43.2
31°	25.5	26.4	27.3	28.2	29.1	30.8	32.6	35.2	37.0	38.8	41.4
32°	23.8	23.8	25.5	26.4	27.3	29.1	30.8	33.5	35.2	37.0	39.6
33°	22.0	22.9	23.8	24.7	25.5	27.3	29.1	30.8	32.6	35.2	37.9
34°	20.3	21.1	22.9	23.8	24.7	26.4	27.3	29.1	30.8	33.5	35.2
35°	18.5	20.3	21.1	22.0	22.9	24.7	25.5	28.2	29.1	31.7	33.5
36°	17.6	18.5	20.3	21.1	22.0	22.9	23.8	26.4	28.2	30.0	31.7
37°	15.9	17.6	18.5	19.4	20.3	22.0	22.9	24.7	26.4	28.2	30.0
38°	15.0	15.9	17.6	18.5	19.4	20.3	21.1	23.8	24.7	26.4	28.2
39°	14.1	15.0	16.7	17.6	17.6	19.4	20.3	22.0	22.9	24.7	27.3
40°	13.2	14.1	15.9	15.9	16.7	18.5	19.4	21.1	22.0	23.8	25.5
42.5°	11.5	12.3	13.2	14.1	15.0	15.9	16.7	18.5	19.4	20.3	22.0
45°	9.7	10.6	12.3	12.3	13.2	14.1	15.0	15.9	16.7	18.5	19.4
47.5°	7.9	9.7	10.6	11.5	11.5	12.3	13.2	14.1	15.0	15.9	16.7
50°	7.0	7.9	8.8	9.7	9.7	10.6	11.5	12.3	12.3	13.2	15.0
51°	7.0	7.9	8.8	8.8	9.7	10.6	10.6	11.5	12.3	12.3	13.2
52°	6.2	7.0	7.9	8.8	8.8	9.7	10.6	10.6	11.5	12.3	13.2
53°	6.2	7.0	7.9	7.9	8.8	9.7	9.7	10.6	10.6	11.5	12.3
54°	6.2	7.0	7.9	7.9	8.8	8.8	9.7	9.7	10.6	10.6	11.5
55°	5.3	6.2	7.0	7.9	7.9	8.8	8.8	9.7	9.7	10.6	10.6
57.5°	5.3	6.2	7.0	7.0	7.0	7.9	7.9	8.8	8.8	8.8	9.7
60°	5.3	6.2	6.2	7.0	7.0	7.9	7.9	7.9	7.9	8.8	8.8
61°	5.3	5.3	6.2	7.0	7.0	7.0	7.9	7.9	7.9	7.9	8.8
62°	5.3	5.3	6.2	6.2	7.0	7.0	7.0	7.9	7.9	7.9	7.9
63°	4.4	5.3	6.2	6.2	7.0	7.0	7.0	7.0	7.0	7.9	7.9
64°	4.4	5.3	6.2	6.2	6.2	7.0	7.0	7.0	7.0	7.0	7.0
65°	4.4	5.3	6.2	6.2	6.2	7.0	7.0	7.0	7.0	7.0	7.0
66°	4.4	5.3	6.2	6.2	6.2	7.0	7.0	7.0	7.0	7.0	7.0



TEST NUMBER: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	4.4	4.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
75°	4.4	4.4	4.4	5.3	5.3	5.3	5.3	5.3	5.3	4.4	4.4
77.5°	3.5	3.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	3.5
80°	3.5	3.5	4.4	4.4	4.4	4.4	4.4	4.4	3.5	3.5	3.5
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.6	2.6
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.6	2.6	1.8
87.5°	2.6	3.5	3.5	3.5	3.5	3.5	2.6	2.6	2.6	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: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	147.1	147.1	147.1	147.1	147.1	147.1	147.1	147.1
2.5°	132.2	129.5	128.6	128.6	129.5	128.6	129.5	128.6
5°	121.6	118.9	118.9	118.1	118.9	118.1	118.9	118.1
7.5°	112.8	110.1	110.1	110.1	110.1	110.1	111.0	110.1
10°	104.0	101.3	101.3	100.4	101.3	101.3	102.2	101.3
12.5°	95.1	93.4	93.4	92.5	94.3	93.4	95.1	94.3
15°	87.2	85.5	85.5	86.3	87.2	87.2	88.1	88.1
17.5°	79.3	79.3	79.3	80.2	81.1	81.9	82.8	81.9
20°	72.2	72.2	73.1	74.0	74.9	75.8	76.6	76.6
22.5°	65.2	65.2	66.1	67.8	69.6	70.5	71.4	71.4
25°	58.1	59.0	59.9	60.8	63.4	64.3	65.2	65.2
26°	55.5	56.4	58.1	59.0	60.8	61.7	63.4	63.4
27°	53.7	54.6	55.5	56.4	59.0	59.9	61.7	60.8
28°	51.1	52.0	52.9	54.6	56.4	58.1	59.0	59.0
29°	48.5	50.2	51.1	52.0	54.6	55.5	56.4	56.4
30°	46.7	47.6	48.5	50.2	52.0	53.7	54.6	54.6
31°	44.1	45.8	46.7	47.6	50.2	51.1	52.9	52.9
32°	42.3	43.2	44.1	45.8	47.6	49.3	50.2	50.2
33°	39.6	41.4	42.3	43.2	45.8	47.6	48.5	47.6
34°	37.9	39.6	39.6	41.4	43.2	44.9	45.8	45.8
35°	36.1	37.0	37.9	39.6	41.4	43.2	44.1	44.1
36°	34.4	35.2	36.1	37.9	39.6	41.4	42.3	42.3
37°	32.6	33.5	34.4	35.2	37.9	39.6	40.5	40.5
38°	30.8	31.7	32.6	34.4	36.1	37.0	38.8	38.8
39°	29.1	30.0	30.8	32.6	34.4	35.2	37.0	36.1
40°	27.3	29.1	29.1	30.8	32.6	33.5	35.2	34.4
42.5°	23.8	24.7	25.5	26.4	28.2	30.0	30.8	30.8
45°	21.1	22.0	22.9	23.8	24.7	25.5	27.3	26.4
47.5°	17.6	18.5	19.4	20.3	21.1	22.0	22.9	22.9
50°	15.9	15.9	16.7	16.7	18.5	19.4	20.3	20.3
51°	14.1	15.0	15.9	15.9	17.6	17.6	18.5	18.5
52°	14.1	14.1	15.0	15.0	15.9	16.7	17.6	17.6
53°	13.2	13.2	14.1	14.1	15.0	15.9	16.7	16.7
54°	12.3	12.3	13.2	13.2	14.1	15.0	15.9	15.9
55°	11.5	11.5	12.3	12.3	13.2	14.1	15.0	15.0
57.5°	9.7	10.6	10.6	11.5	11.5	12.3	12.3	13.2
60°	8.8	9.7	9.7	9.7	10.6	10.6	10.6	10.6
61°	8.8	8.8	8.8	9.7	9.7	8.8	9.7	8.8
62°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
63°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
64°	7.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0
65°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.2
66°	7.0	7.0	6.2	7.0	6.2	6.2	6.2	6.2



TEST NUMBER: P182677

CATALOG NUMBER: LDSQA4A18940D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	4.4	4.4	4.4	4.4	4.4	3.5	3.5	3.5
75°	4.4	4.4	4.4	3.5	3.5	3.5	3.5	2.6
77.5°	3.5	3.5	3.5	3.5	2.6	2.6	2.6	2.6
80°	2.6	2.6	2.6	2.6	2.6	2.6	1.8	1.8
82.5°	2.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.6	2.6
70°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.6	2.6





67.5°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	2.6	3.5	3.5	4.4
70°	2.6	3.5	3.5	3.5	3.5	3.5	3.5	2.6	3.5	3.5	3.5





67.5°	4.4	5.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
70°	4.4	5.3	5.3	5.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2







67.5°	6.2	6.2	6.2	6.2	6.2	5.3	5.3	5.3
70°	5.3	5.3	5.3	5.3	5.3	4.4	4.4	4.4



(END OF REPORT)