

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: P182776

Luminaire Tested: **LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26802)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 976.7 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 2.26 / 0.62 / 1.11
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

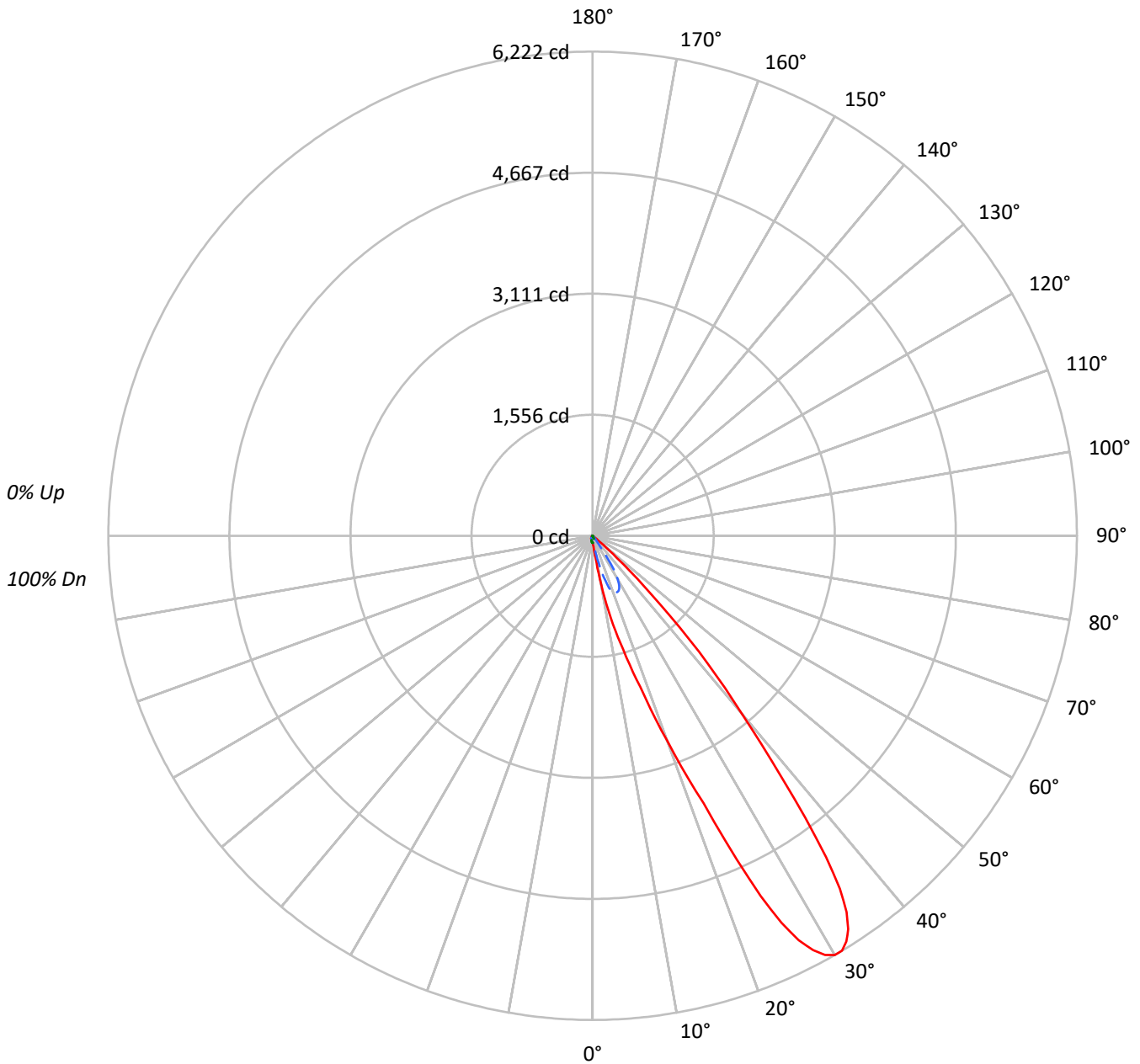
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

Luminous Intensity Polar Plot





TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

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	112	109	106	104	110	107	105	102	103	101	99	99	98	96	96	94	93	91																			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83																			
3	99	91	85	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75																			
4	93	84	77	72	91	82	76	71	80	75	71	78	73	70	76	72	69	67																			
5	86	76	69	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	63	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°	8932	8932	8932
5°	14178	8490	7332
10°	62130	7515	6237
15°	151803	6088	5436
20°	289608	4526	4969
25°	545803	3249	4350
30°	695928	2304	3826
35°	654657	1407	3264
40°	375554	961	2807
45°	144976	671	2370
50°	19276	497	1959
55°	2922	456	1655
60°	833	426	1356
65°	504	504	986
70°	312	623	765
75°	412	599	599
80°	0	893	614
85°	0	1778	556



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.5	1.2
10°-20°	104.7	10.7
20°-30°	333.8	34.2
30°-40°	386.8	39.6
40°-50°	125.8	12.9
50°-60°	8.0	0.8
60°-70°	2.9	0.3
70°-80°	2.1	0.2
80°-90°	1.2	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°	450.0	46.1
0°-40°	836.8	85.7
0°-60°	970.5	99.4
0°-90°	976.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	976.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	92	92	92	92	92	
5°	146	122	87	76	75	28
15°	1514	545	61	52	54	480
25°	5106	784	30	32	41	2294
35°	5536	187	12	18	28	3185
45°	1058	23	5	11	17	945
55°	17	4	3	6	10	27
65°	2	2	2	4	4	2
75°	1	2	2	3	2	1
85°	0	1	2	2	0	0
90°	0	0	0	0	0	



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
2.5°	112.2	113.3	113.3	111.7	111.7	110.0	109.0	108.4	107.9	106.3	105.7
5°	145.8	146.9	147.5	143.1	141.5	138.2	135.5	132.8	129.6	125.8	122.0
7.5°	281.4	258.6	262.4	229.9	223.9	209.8	198.4	180.5	167.5	154.5	144.2
10°	631.6	609.9	606.1	558.4	511.2	476.0	438.0	372.4	312.8	249.4	197.9
12.5°	1082.1	1050.1	1032.2	938.4	883.1	831.1	773.1	670.6	556.2	458.6	356.7
15°	1513.6	1510.9	1446.9	1342.3	1237.1	1173.1	1098.3	971.5	835.9	687.4	545.4
17.5°	2034.6	2055.7	1946.2	1741.8	1575.4	1471.3	1368.3	1169.9	1000.7	856.5	701.0
20°	2809.2	2752.9	2561.5	2241.7	1960.3	1803.6	1643.7	1351.5	1109.2	934.6	776.9
22.5°	3719.5	3676.1	3318.3	2784.9	2338.7	2118.6	1898.5	1518.5	1203.0	976.9	791.5
25°	5106.2	4927.8	4233.4	3367.6	2685.6	2373.9	2091.5	1626.9	1245.2	982.3	784.4
26°	5531.8	5406.5	4605.3	3599.1	2792.4	2444.4	2139.7	1649.1	1248.5	977.4	770.9
27°	5833.7	5738.3	4914.8	3769.3	2870.0	2493.2	2171.2	1658.3	1240.9	967.1	752.5
28°	6032.7	5956.2	5148.5	3892.4	2917.1	2519.2	2186.4	1656.2	1225.7	949.2	726.4
29°	6159.0	6085.3	5285.1	3962.3	2933.9	2523.6	2182.6	1639.9	1201.3	922.7	689.0
30°	6221.3	6141.1	5331.2	3969.9	2915.5	2498.6	2153.8	1604.1	1167.7	890.7	647.8
31°	6221.9	6133.0	5292.7	3911.4	2860.7	2445.5	2102.9	1544.5	1123.8	852.7	592.5
32°	6149.8	6058.2	5164.2	3792.6	2775.1	2378.8	2034.6	1483.8	1077.7	810.5	512.8
33°	6028.9	5920.5	4941.4	3627.8	2665.6	2287.7	1952.7	1416.0	1031.6	742.7	408.2
34°	5833.7	5685.7	4630.2	3427.8	2533.3	2181.5	1858.9	1342.8	985.0	648.4	291.7
35°	5535.6	5326.8	4270.3	3206.6	2391.8	2066.5	1753.2	1266.4	928.1	531.8	187.0
36°	5104.0	4834.6	3895.6	2977.8	2246.0	1945.7	1645.9	1192.7	838.1	403.3	122.5
37°	4540.8	4303.3	3537.3	2747.4	2094.7	1816.6	1547.7	1118.4	727.5	281.9	99.7
38°	3962.3	3787.2	3187.1	2518.7	1938.1	1677.3	1428.5	1040.9	606.6	185.4	83.5
39°	3440.8	3323.7	2844.5	2292.1	1776.5	1555.3	1309.2	942.2	477.6	131.7	70.5
40°	2969.7	2888.9	2513.3	2061.1	1615.0	1407.9	1197.0	821.3	344.2	105.2	59.1
42.5°	2025.3	1985.2	1758.1	1483.2	1194.8	1076.1	942.7	493.9	136.6	66.7	35.8
45°	1058.2	1040.9	958.5	868.5	779.0	748.1	606.1	221.7	77.0	39.0	22.8
47.5°	412.0	413.1	341.5	291.7	277.0	257.5	195.2	79.7	43.4	23.9	15.2
50°	127.9	137.7	126.9	119.8	91.6	76.4	63.4	39.6	23.3	14.6	9.8
51°	78.6	83.5	78.6	78.6	64.5	56.4	48.2	30.4	18.4	11.9	8.7
52°	51.0	53.7	51.0	47.7	44.5	40.1	34.7	22.8	14.6	9.8	7.0
53°	34.7	36.3	34.7	32.5	29.8	27.6	24.4	16.8	11.9	8.1	6.0
54°	24.4	25.5	24.4	22.8	21.1	19.5	17.9	13.0	9.8	7.0	5.4
55°	17.3	18.4	17.9	16.8	15.2	14.6	13.6	10.3	8.1	6.0	4.3
57.5°	8.1	8.7	8.7	8.1	8.1	7.6	7.0	6.5	4.9	3.8	3.3
60°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.3	2.7	2.7
61°	3.3	3.3	3.3	3.3	3.3	3.3	3.8	3.3	2.7	2.7	2.2
62°	2.7	2.7	2.7	2.7	2.7	3.3	3.3	2.7	2.7	2.2	2.2
63°	2.2	2.2	2.2	2.2	2.7	2.7	2.7	2.7	2.2	2.2	2.2
64°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.6
65°	2.2	2.2	1.6	1.6	1.6	2.2	1.6	2.2	1.6	1.6	1.6
66°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6
77.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.6
80°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.1	1.1
85°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.1	1.1
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: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
2.5°	102.5	99.7	98.7	97.6	97.0	96.0	94.3	92.7	92.2	90.0	87.8
5°	115.5	110.6	106.8	103.0	101.9	99.2	96.0	92.2	90.5	87.3	84.6
7.5°	130.7	120.9	113.8	107.3	104.6	101.4	95.4	90.5	87.3	82.4	79.1
10°	156.1	133.4	119.8	108.4	104.1	99.7	92.2	85.7	81.3	76.4	72.6
12.5°	247.2	172.9	130.1	109.0	103.0	96.5	87.3	79.7	74.3	68.8	65.6
15°	389.8	263.5	168.6	114.4	100.8	91.1	80.2	71.6	66.1	60.7	57.5
17.5°	520.4	354.5	220.1	127.4	101.9	86.2	71.6	62.9	56.9	52.0	49.9
20°	583.3	397.4	245.0	130.1	95.4	77.0	61.8	53.7	48.2	43.9	41.7
22.5°	589.3	394.7	229.9	111.1	79.1	65.1	52.0	44.5	40.1	36.9	34.7
25°	561.1	350.2	184.3	81.9	61.8	54.2	42.8	36.3	33.1	30.4	28.7
26°	539.4	324.7	162.1	71.0	56.4	49.3	39.0	33.6	30.4	28.2	26.6
27°	509.6	294.9	136.1	61.3	52.0	44.5	35.8	30.9	28.2	26.6	24.9
28°	473.8	265.6	112.8	54.2	47.2	40.1	33.1	28.2	26.0	24.4	22.8
29°	435.3	227.1	88.4	48.8	42.3	36.3	29.8	25.5	23.3	22.2	21.1
30°	381.1	176.7	67.8	43.9	37.9	32.5	27.1	23.3	21.7	20.6	19.5
31°	304.7	121.4	54.8	39.0	34.2	29.3	24.4	21.1	19.5	18.4	17.9
32°	218.5	74.8	47.7	34.7	30.4	26.6	21.1	19.0	17.3	16.8	16.3
33°	134.4	61.3	42.3	30.9	26.6	23.3	19.0	16.8	15.7	15.2	14.6
34°	88.4	53.1	37.4	26.6	23.3	20.1	16.3	14.6	14.1	13.6	13.6
35°	74.8	47.2	32.5	22.8	19.5	17.3	14.1	13.0	12.5	11.9	12.5
36°	64.5	41.2	27.1	19.5	16.8	14.6	12.5	11.4	10.8	10.8	11.4
37°	56.9	34.7	22.8	16.3	14.6	13.0	10.8	10.3	9.8	9.8	10.3
38°	48.2	28.2	19.0	14.1	12.5	10.8	9.8	9.2	9.2	9.2	9.8
39°	39.6	23.9	16.3	11.9	10.8	9.8	8.7	8.1	8.1	8.7	8.7
40°	32.5	20.1	13.6	10.3	9.2	8.7	7.6	7.6	7.6	7.6	8.1
42.5°	21.1	13.6	9.8	7.6	7.0	6.5	6.0	6.0	6.0	6.0	6.5
45°	14.1	9.8	7.6	6.0	5.4	4.9	4.9	4.3	4.9	4.9	5.4
47.5°	9.8	7.0	5.4	4.3	3.8	3.3	3.3	3.3	3.8	4.3	4.3
50°	7.0	4.9	3.8	2.7	2.7	2.7	2.7	2.7	3.3	3.3	3.8
51°	6.0	4.3	3.3	2.7	2.7	2.2	2.2	2.2	2.7	3.3	3.8
52°	4.9	3.8	2.7	2.2	2.2	2.2	2.2	2.2	2.7	2.7	3.3
53°	4.3	3.3	2.7	2.2	2.2	2.2	2.2	2.2	2.7	2.7	3.3
54°	3.8	2.7	2.2	2.2	2.2	1.6	1.6	2.2	2.2	2.7	3.3
55°	3.3	2.7	2.2	2.2	1.6	1.6	1.6	1.6	2.2	2.7	2.7
57.5°	2.7	2.2	2.2	1.6	1.6	1.6	1.6	1.6	2.2	2.2	2.7
60°	2.2	2.2	2.2	1.6	1.6	1.6	1.6	1.6	2.2	2.2	2.7
61°	2.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	2.7
62°	2.2	1.6	2.2	2.2	2.2	1.6	1.6	1.6	2.2	2.2	2.7
63°	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	2.2	2.2	2.2
64°	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2	2.7
65°	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2	2.7
66°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	2.2	2.2	2.2



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.6	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2
75°	1.6	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	2.2
77.5°	1.6	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	2.2
80°	1.6	1.6	2.2	2.2	2.2	2.2	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	2.2	2.2	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	2.2	2.2	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
2.5°	86.7	86.7	86.2	85.1	86.2	85.1	84.0	83.5	82.9	82.4	81.3
5°	82.4	81.9	80.8	80.2	80.2	79.1	78.1	77.0	76.4	75.9	74.8
7.5°	77.0	76.4	74.8	74.3	74.3	73.2	71.6	71.0	70.5	69.9	68.8
10°	70.5	69.9	68.3	67.8	67.8	66.7	65.6	64.5	64.0	63.4	62.3
12.5°	62.9	62.3	61.3	60.7	60.7	59.6	58.5	58.0	58.0	57.5	56.9
15°	55.3	54.8	53.7	53.7	53.7	52.6	52.0	51.5	52.0	52.0	51.5
17.5°	47.7	47.2	46.1	46.1	46.1	46.1	45.5	45.5	46.1	46.6	46.6
20°	40.1	39.6	39.6	39.0	39.6	40.1	39.6	40.1	41.2	41.7	42.3
22.5°	33.1	33.1	33.1	33.1	33.6	34.2	34.2	35.2	36.3	36.9	37.9
25°	27.6	27.6	28.2	28.2	28.7	29.3	29.8	30.4	32.0	33.1	33.6
26°	25.5	26.0	26.0	26.6	27.1	27.6	28.2	28.7	30.4	31.4	32.0
27°	23.9	23.9	24.4	24.9	25.5	26.0	26.6	27.6	28.7	29.8	30.9
28°	22.2	22.2	22.8	23.3	23.9	24.4	24.9	26.0	27.1	28.7	29.3
29°	20.6	21.1	21.1	21.7	22.2	22.8	23.9	24.4	26.0	27.1	28.2
30°	19.0	19.5	20.1	20.1	20.6	21.1	22.2	23.3	24.4	26.0	26.6
31°	17.9	18.4	18.4	19.0	19.5	20.1	21.1	22.2	23.3	24.4	25.5
32°	16.3	17.3	17.3	17.3	17.9	19.0	20.1	20.6	22.2	23.3	23.9
33°	15.2	15.7	16.3	16.3	16.8	17.9	19.0	19.5	21.1	22.2	22.8
34°	14.1	14.6	15.2	15.2	15.7	16.8	17.9	18.4	20.1	20.6	21.7
35°	13.0	13.6	14.1	14.1	14.6	15.7	16.8	17.3	18.4	19.5	20.6
36°	11.9	12.5	13.0	13.6	14.1	15.2	15.7	16.8	17.3	18.4	19.5
37°	10.8	11.4	12.5	12.5	13.6	14.1	15.2	15.7	16.8	17.3	18.4
38°	9.8	10.8	11.4	11.9	12.5	13.6	14.1	14.6	15.7	16.8	17.3
39°	9.2	10.3	10.8	11.4	11.9	12.5	13.0	14.1	14.6	15.7	16.3
40°	8.7	9.2	10.3	10.3	11.4	11.9	12.5	13.0	14.1	14.6	15.7
42.5°	7.0	8.1	8.7	9.2	9.8	10.3	10.8	11.4	11.9	13.0	13.6
45°	6.0	7.0	7.6	7.6	8.1	8.7	9.2	9.8	10.8	11.4	11.9
47.5°	4.9	6.0	6.5	7.0	7.0	7.6	8.1	8.7	9.2	9.8	10.3
50°	4.3	4.9	5.4	6.0	6.5	6.5	7.0	7.6	8.1	8.7	8.7
51°	4.3	4.9	5.4	5.4	6.0	6.5	7.0	7.0	7.6	8.1	8.1
52°	3.8	4.3	4.9	5.4	6.0	6.0	6.5	7.0	7.0	7.6	8.1
53°	3.8	4.3	4.9	4.9	5.4	6.0	6.0	6.5	7.0	7.0	7.6
54°	3.3	4.3	4.9	4.9	5.4	5.4	6.0	6.5	6.5	6.5	7.0
55°	3.3	3.8	4.3	4.9	4.9	5.4	5.4	6.0	6.0	6.5	6.5
57.5°	3.3	3.8	4.3	4.3	4.9	4.9	5.4	5.4	5.4	5.4	6.0
60°	2.7	3.3	3.8	4.3	4.3	4.9	4.9	4.9	4.9	4.9	5.4
61°	2.7	3.3	3.8	3.8	4.3	4.3	4.9	4.9	4.9	4.9	4.9
62°	2.7	3.3	3.8	3.8	4.3	4.3	4.3	4.9	4.9	4.9	4.9
63°	2.7	3.3	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3	4.9
64°	2.7	3.3	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3	4.3
65°	2.7	3.3	3.8	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3
66°	2.7	3.3	3.8	3.8	3.8	3.8	4.3	4.3	4.3	4.3	3.8



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.2	2.7	2.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.7
75°	2.2	2.7	2.7	2.7	3.3	3.3	3.3	2.7	2.7	2.7	2.7
77.5°	2.2	2.2	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.2	2.2
80°	2.2	2.2	2.2	2.7	2.7	2.7	2.7	2.2	2.2	2.2	1.6
82.5°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6
85°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	1.1
87.5°	1.6	1.6	1.6	2.2	2.2	2.2	1.6	1.6	1.1	1.1	1.1
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: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
2.5°	82.4	82.9	82.4	82.4	81.3	81.9	80.8	82.4
5°	75.4	75.9	75.4	75.4	74.3	74.3	73.7	75.4
7.5°	69.4	69.9	68.8	68.8	67.8	68.3	67.8	68.8
10°	63.4	63.4	63.4	62.9	62.3	62.9	62.3	63.4
12.5°	57.5	58.0	58.0	58.0	57.5	57.5	56.9	58.5
15°	52.6	53.1	53.7	53.7	53.1	53.7	53.1	54.2
17.5°	48.2	49.3	49.3	49.9	49.9	50.4	50.4	51.5
20°	43.9	45.5	45.5	46.1	46.1	47.2	47.2	48.2
22.5°	39.6	41.2	41.7	41.7	42.3	43.4	43.4	44.5
25°	35.8	37.4	37.9	37.9	38.5	39.6	39.6	40.7
26°	34.2	35.8	36.3	36.9	37.4	38.5	38.5	39.6
27°	32.5	34.2	34.7	35.2	35.8	36.9	36.9	37.9
28°	31.4	33.1	33.6	34.2	34.7	35.8	35.8	36.3
29°	29.8	31.4	32.0	32.5	33.1	34.2	34.2	35.2
30°	28.7	29.8	30.4	30.9	31.4	33.1	33.1	34.2
31°	27.1	28.7	29.3	29.8	30.4	31.4	31.4	33.1
32°	26.0	27.1	27.6	28.2	29.3	29.8	30.4	31.4
33°	24.4	26.0	26.6	27.1	27.6	28.7	29.3	30.4
34°	23.3	24.4	25.5	26.0	26.6	27.6	28.2	29.3
35°	22.2	23.3	23.9	24.4	25.5	26.6	26.6	27.6
36°	21.1	22.2	22.8	23.3	24.4	25.5	25.5	26.6
37°	20.1	21.1	21.7	22.2	23.3	24.4	24.4	25.5
38°	19.0	20.1	20.6	21.1	22.2	23.3	23.9	24.9
39°	17.9	19.5	20.1	20.6	21.1	22.2	22.8	23.3
40°	17.3	18.4	19.0	19.5	20.1	21.1	21.7	22.2
42.5°	14.6	16.3	16.8	17.3	17.9	18.4	19.0	19.5
45°	13.0	14.1	14.1	14.6	15.2	16.3	16.3	17.3
47.5°	11.4	11.9	12.5	12.5	13.0	14.1	14.1	14.6
50°	9.8	10.3	10.8	10.8	11.4	11.9	12.5	13.0
51°	9.2	9.8	9.8	10.3	10.8	11.4	11.9	12.5
52°	8.7	9.2	9.2	9.8	10.3	10.8	10.8	11.4
53°	8.1	8.7	8.7	9.2	9.2	10.3	10.3	10.8
54°	7.6	8.1	8.1	8.7	8.7	9.8	9.8	10.3
55°	7.0	7.6	8.1	8.1	8.1	8.7	9.2	9.8
57.5°	6.5	7.0	7.0	7.0	7.6	7.6	8.1	8.1
60°	5.4	6.0	6.0	6.0	6.5	6.5	6.5	7.0
61°	5.4	5.4	6.0	6.0	5.4	5.4	5.4	6.0
62°	4.9	5.4	5.4	4.9	4.9	4.9	4.9	5.4
63°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
64°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
65°	4.3	4.3	4.3	4.3	4.3	4.3	3.8	4.3
66°	3.8	4.3	4.3	3.8	3.8	3.8	3.8	3.8



TEST NUMBER: P182776

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.7	2.7	2.7	2.7	2.7	2.2	2.2	2.2
75°	2.7	2.2	2.2	2.2	2.2	2.2	2.2	1.6
77.5°	2.2	2.2	2.2	2.2	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.1	1.1
82.5°	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.6
70°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.6





67.5°	1.6	1.6	2.2	2.2	2.2	2.2	1.6	1.6	1.6	2.2	2.2
70°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2





67.5°	2.7	3.3	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8
70°	2.7	2.7	3.3	3.3	3.3	3.8	3.8	3.3	3.3	3.3	3.3





67.5°	3.8	3.8	3.8	3.8	3.3	3.3	3.3	3.3
70°	3.3	3.3	3.3	3.3	2.7	2.7	2.7	2.7



(END OF REPORT)