

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: P182681

Luminaire Tested: **LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182681
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: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°
Description: PORTFOLIO 4" 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: 1101.0 lumens
Efficiency: N/A
Efficacy: 79.6 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

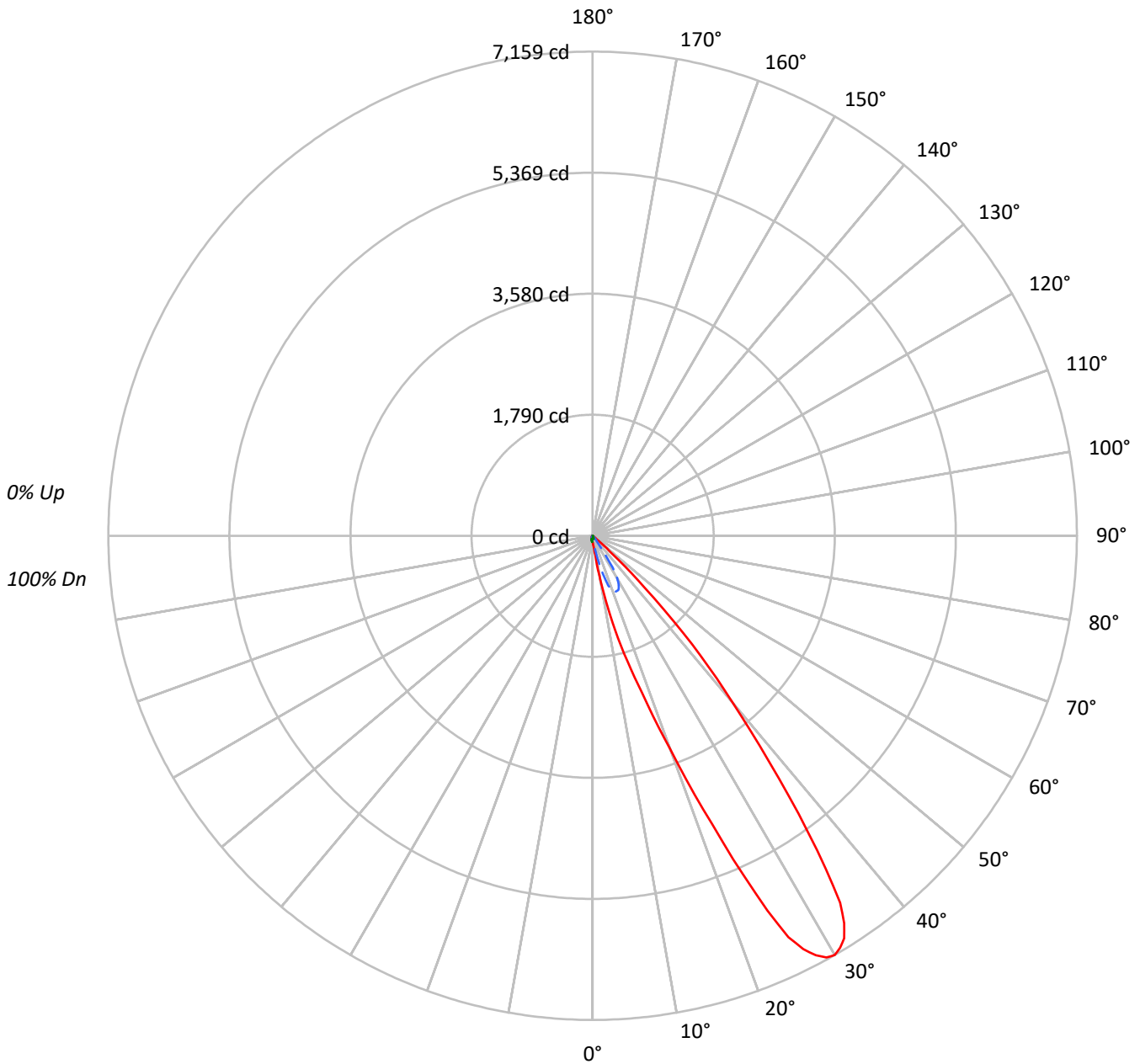
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

Luminous Intensity Polar Plot





TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 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	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°	9193	9193	9193
5°	15306	8674	7410
10°	65298	7604	6433
15°	180748	6038	5697
20°	346690	4278	5093
25°	653676	2854	4500
30°	800866	1913	3938
35°	711258	1277	3359
40°	405374	860	2807
45°	147867	699	2343
50°	16277	512	1974
55°	2398	388	1638
60°	543	446	1318
65°	390	527	917
70°	312	651	793
75°	412	861	636
80°	0	1283	614
85°	0	1890	667



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.9	1.1
10°-20°	119.3	10.8
20°-30°	391.8	35.6
30°-40°	429.7	39.0
40°-50°	134.2	12.2
50°-60°	7.4	0.7
60°-70°	2.9	0.3
70°-80°	2.2	0.2
80°-90°	1.4	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°	523.1	47.5
0°-40°	952.8	86.5
0°-60°	1094.4	99.4
0°-90°	1101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1101.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	95	95	95	95	95	
5°	157	126	89	79	76	29
15°	1802	579	60	54	57	566
25°	6115	890	27	33	42	2726
35°	6014	175	11	19	28	3516
45°	1079	18	5	11	17	991
55°	14	3	2	6	10	22
65°	2	2	2	4	4	2
75°	1	2	2	3	2	1
85°	0	2	2	2	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
2.5°	117.1	118.2	118.8	115.9	116.5	115.4	116.5	114.2	110.3	111.4	108.0
5°	157.4	155.2	154.6	150.0	148.9	146.6	146.6	141.5	134.1	133.0	126.2
7.5°	278.5	266.6	256.3	241.0	226.2	214.8	210.3	192.1	172.2	164.8	148.9
10°	663.8	661.6	636.0	587.7	532.0	491.6	468.3	397.8	308.6	254.0	197.2
12.5°	1208.3	1196.9	1160.6	1071.9	975.8	915.6	868.4	726.3	593.9	487.6	349.5
15°	1802.2	1756.2	1702.8	1565.2	1430.5	1352.1	1285.0	1114.5	909.4	756.5	579.1
17.5°	2436.5	2457.0	2327.4	2090.4	1851.1	1728.3	1614.7	1352.7	1128.2	969.0	769.5
20°	3362.9	3319.7	3091.8	2699.1	2346.1	2141.0	1979.5	1601.6	1262.9	1064.5	875.8
22.5°	4615.0	4477.4	4033.0	3368.6	2808.8	2524.0	2295.0	1785.7	1376.0	1113.4	892.9
25°	6115.4	5988.1	5165.1	4012.5	3184.4	2815.6	2504.1	1902.8	1421.4	1121.3	889.5
26°	6605.3	6416.0	5582.8	4241.6	3299.8	2889.5	2555.8	1925.5	1422.6	1115.1	874.7
27°	6858.8	6710.4	5928.4	4427.4	3378.8	2936.1	2584.8	1931.2	1411.2	1100.9	851.9
28°	7025.9	6887.2	6147.2	4549.0	3419.2	2954.3	2593.4	1918.7	1385.6	1075.9	816.1
29°	7129.3	6983.2	6254.1	4604.2	3422.0	2946.3	2577.4	1885.8	1351.0	1045.8	774.7
30°	7159.4	7001.4	6256.9	4581.4	3379.9	2903.7	2532.5	1832.3	1308.9	1007.7	728.6
31°	7106.0	6942.9	6154.0	4478.0	3293.6	2820.7	2462.1	1761.9	1256.6	967.3	657.6
32°	7017.3	6800.8	5938.6	4306.3	3175.3	2720.7	2374.0	1685.1	1200.9	916.2	557.5
33°	6828.7	6567.2	5609.0	4090.9	3033.3	2605.9	2271.1	1599.9	1148.1	828.1	414.3
34°	6545.0	6214.8	5204.9	3840.3	2872.4	2462.6	2152.9	1520.9	1092.9	711.6	283.6
35°	6014.2	5706.7	4758.7	3573.2	2699.1	2324.0	2022.7	1417.4	1017.9	570.6	175.0
36°	5420.3	5194.1	4326.2	3301.5	2521.7	2180.2	1888.6	1341.3	907.1	420.0	118.8
37°	4813.3	4612.7	3918.2	3034.4	2343.9	2021.0	1752.2	1254.9	775.2	280.2	95.5
38°	4235.3	4076.2	3530.6	2771.8	2159.1	1854.5	1609.0	1162.8	633.1	180.2	78.4
39°	3704.5	3585.1	3150.9	2517.8	1973.9	1691.4	1471.4	1046.9	483.1	128.4	65.4
40°	3205.5	3121.3	2784.9	2267.1	1789.7	1531.1	1347.0	906.5	335.3	101.7	52.9
42.5°	2180.2	2159.1	1959.7	1631.7	1329.4	1178.2	1065.1	509.8	129.0	61.4	29.6
45°	1079.3	1094.1	1014.5	933.2	870.1	824.1	671.2	212.6	71.6	33.5	18.2
47.5°	381.9	382.5	329.1	293.3	280.2	279.1	202.9	75.0	38.1	20.5	13.1
50°	108.0	116.5	109.7	112.0	87.5	74.5	60.8	36.4	19.3	13.1	8.5
51°	66.5	71.6	67.1	69.3	60.2	54.0	45.5	27.3	15.3	10.8	8.0
52°	42.6	45.5	43.2	43.8	40.4	35.2	30.7	19.9	12.5	9.1	6.8
53°	29.0	30.7	29.0	29.0	26.7	25.0	21.6	14.8	10.2	7.4	5.1
54°	19.9	20.5	20.5	20.5	18.8	17.6	15.3	11.4	8.5	6.8	4.5
55°	14.2	14.8	14.2	14.2	13.6	12.5	11.4	8.5	6.8	5.7	3.4
57.5°	6.3	6.3	6.3	6.8	6.3	6.3	5.7	5.1	4.5	3.4	2.3
60°	2.8	2.8	2.8	2.8	3.4	3.4	3.4	3.4	2.8	2.3	2.3
61°	2.3	2.3	2.3	2.3	2.3	2.8	2.8	2.8	2.3	2.3	1.7
62°	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3	1.7	1.7
63°	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	1.7	1.7	1.7
64°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
65°	1.7	1.1	1.1	1.1	1.1	1.7	1.7	1.7	1.7	1.7	1.7
66°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7	1.7



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 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	1.7
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7
77.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	1.1	1.1	1.7
80°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	1.1	1.1	1.7
82.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	1.1	1.1	1.7
85°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	1.1	1.1	1.7
87.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	1.1	1.1	1.7
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: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
2.5°	105.7	105.1	102.3	99.5	100.0	98.9	97.8	96.1	94.9	92.1	92.1
5°	120.5	117.6	111.4	105.7	105.1	102.9	99.5	96.1	93.2	89.2	88.1
7.5°	137.5	129.6	119.4	110.3	108.6	105.1	98.9	94.3	89.2	84.1	82.4
10°	162.0	143.2	125.6	112.0	108.6	103.4	95.5	89.2	83.5	77.3	75.0
12.5°	248.9	176.8	133.6	112.0	105.7	99.5	89.8	82.4	75.6	68.8	66.5
15°	414.9	282.5	169.4	112.0	100.6	93.2	81.3	73.9	66.5	60.2	58.0
17.5°	572.9	401.8	235.9	126.2	101.2	85.8	71.0	63.1	56.8	50.6	48.9
20°	664.4	468.3	279.6	140.4	100.0	77.3	60.8	52.3	46.0	41.5	39.8
22.5°	676.3	471.2	270.0	125.6	84.1	64.2	50.6	42.6	37.5	33.5	32.4
25°	644.5	416.0	216.0	89.2	62.5	52.3	39.8	34.1	30.1	26.7	26.1
26°	620.1	383.1	188.1	73.9	55.1	46.6	35.8	30.7	27.3	24.4	23.9
27°	585.4	347.8	160.8	61.4	48.9	42.1	31.8	27.8	25.0	22.2	22.2
28°	546.2	309.7	129.6	51.7	43.8	37.5	29.0	25.0	22.2	20.5	20.5
29°	499.0	254.6	94.9	44.9	38.6	33.0	25.6	22.2	19.9	18.8	18.8
30°	429.1	184.7	65.4	39.2	33.5	29.0	22.7	19.9	18.2	17.1	17.1
31°	335.3	113.7	51.2	34.1	29.6	25.6	20.5	17.6	16.5	15.3	15.9
32°	228.5	71.0	43.8	29.6	26.1	22.2	18.2	15.9	14.8	14.2	14.2
33°	130.2	59.1	38.1	25.6	22.2	19.3	15.9	14.2	13.6	13.1	13.1
34°	86.4	50.6	33.0	21.6	18.2	16.5	13.6	12.5	11.9	11.9	11.9
35°	72.7	43.8	26.7	18.2	15.9	14.2	11.9	11.4	10.8	10.8	11.4
36°	61.4	36.4	21.6	15.3	13.6	12.5	10.8	10.2	9.7	9.7	10.2
37°	51.7	29.0	18.2	13.1	11.4	10.8	9.7	9.1	9.1	9.1	9.7
38°	42.1	23.3	15.3	11.4	10.2	9.1	8.5	8.0	8.0	8.5	9.1
39°	33.0	18.8	12.5	9.7	8.5	8.0	7.4	7.4	7.4	7.4	8.0
40°	26.1	15.9	10.8	8.5	7.4	7.4	6.8	6.3	6.8	6.8	8.0
42.5°	16.5	11.4	8.0	6.3	5.7	5.7	5.1	5.1	5.1	5.7	6.3
45°	11.9	9.1	6.3	5.1	4.5	4.0	4.0	4.0	4.5	5.1	5.7
47.5°	9.1	6.3	4.5	3.4	2.8	2.8	2.8	2.8	3.4	4.0	4.5
50°	6.3	4.0	2.8	2.3	2.3	2.3	2.3	2.3	2.8	3.4	4.0
51°	5.1	3.4	2.8	2.3	2.3	1.7	1.7	2.3	2.8	2.8	3.4
52°	4.0	2.8	2.3	1.7	1.7	1.7	1.7	2.3	2.3	2.8	3.4
53°	3.4	2.8	2.3	1.7	1.7	1.7	1.7	1.7	2.3	2.8	3.4
54°	2.8	2.3	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.8	3.4
55°	2.3	2.3	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.8
57.5°	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.8
60°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.8
61°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.8
62°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.8
63°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.8
64°	1.7	1.7	1.7	1.7	2.3	2.3	1.7	1.7	2.3	2.3	2.8
65°	1.7	1.7	2.3	2.3	2.3	2.3	1.7	1.7	2.3	2.3	2.8
66°	1.7	2.3	2.3	2.3	2.3	2.3	1.7	1.7	2.3	2.3	2.8



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	1.7	2.3	2.3	2.3
75°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
77.5°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	1.7	1.7	2.3	2.3
80°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	1.7	1.7	2.3	2.3
82.5°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	1.7	1.7	1.7	2.3
85°	1.7	1.7	2.3	2.3	2.3	2.3	2.3	1.7	1.7	1.7	1.7
87.5°	1.7	1.7	2.3	2.3	2.3	2.3	1.7	1.7	1.7	1.7	1.7
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: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
2.5°	90.9	89.2	88.1	87.5	88.1	87.0	85.3	85.8	85.3	84.7	84.7
5°	86.4	83.5	82.4	81.8	81.8	81.3	79.0	79.6	79.0	78.4	78.4
7.5°	80.1	77.9	76.2	75.6	75.6	75.0	72.7	73.9	72.7	72.2	72.7
10°	72.7	70.5	69.9	68.8	68.8	68.2	66.5	67.1	66.5	66.5	66.5
12.5°	64.8	62.5	61.9	61.4	61.9	61.4	59.7	60.8	60.2	60.2	60.8
15°	56.3	54.6	54.6	54.0	54.6	54.0	53.4	54.0	54.0	54.0	55.1
17.5°	47.7	46.6	46.6	46.0	46.6	46.6	46.0	47.7	47.7	48.9	50.0
20°	39.2	38.1	38.6	38.6	39.8	39.8	39.8	41.5	42.1	43.2	44.9
22.5°	32.4	31.8	32.4	32.4	33.5	34.1	34.1	35.8	37.5	38.6	40.4
25°	26.1	26.1	27.3	27.3	27.8	29.0	29.6	31.8	33.0	34.1	35.8
26°	24.4	24.4	25.0	25.6	26.1	27.3	27.8	30.1	31.3	32.4	34.1
27°	22.2	22.2	23.3	23.9	24.4	25.6	26.7	28.4	29.6	31.3	32.4
28°	20.5	20.5	21.6	22.2	22.7	24.4	25.0	26.7	27.8	29.6	31.3
29°	18.8	19.3	20.5	20.5	21.6	22.7	23.3	25.6	26.7	27.8	29.6
30°	17.6	18.2	18.8	19.3	19.9	21.0	22.2	23.9	25.0	26.1	27.8
31°	16.5	17.1	17.6	18.2	18.8	19.9	21.0	22.7	23.9	25.0	26.7
32°	15.3	15.3	16.5	17.1	17.6	18.8	19.9	21.6	22.7	23.9	25.6
33°	14.2	14.8	15.3	15.9	16.5	17.6	18.8	19.9	21.0	22.7	24.4
34°	13.1	13.6	14.8	15.3	15.9	17.1	17.6	18.8	19.9	21.6	22.7
35°	11.9	13.1	13.6	14.2	14.8	15.9	16.5	18.2	18.8	20.5	21.6
36°	11.4	11.9	13.1	13.6	14.2	14.8	15.3	17.1	18.2	19.3	20.5
37°	10.2	11.4	11.9	12.5	13.1	14.2	14.8	15.9	17.1	18.2	19.3
38°	9.7	10.2	11.4	11.9	12.5	13.1	13.6	15.3	15.9	17.1	18.2
39°	9.1	9.7	10.8	11.4	11.4	12.5	13.1	14.2	14.8	15.9	17.6
40°	8.5	9.1	10.2	10.2	10.8	11.9	12.5	13.6	14.2	15.3	16.5
42.5°	7.4	8.0	8.5	9.1	9.7	10.2	10.8	11.9	12.5	13.1	14.2
45°	6.3	6.8	8.0	8.0	8.5	9.1	9.7	10.2	10.8	11.9	12.5
47.5°	5.1	6.3	6.8	7.4	7.4	8.0	8.5	9.1	9.7	10.2	10.8
50°	4.5	5.1	5.7	6.3	6.3	6.8	7.4	8.0	8.0	8.5	9.7
51°	4.5	5.1	5.7	5.7	6.3	6.8	6.8	7.4	8.0	8.0	8.5
52°	4.0	4.5	5.1	5.7	5.7	6.3	6.8	6.8	7.4	8.0	8.5
53°	4.0	4.5	5.1	5.1	5.7	6.3	6.3	6.8	6.8	7.4	8.0
54°	4.0	4.5	5.1	5.1	5.7	5.7	6.3	6.3	6.8	6.8	7.4
55°	3.4	4.0	4.5	5.1	5.1	5.7	5.7	6.3	6.3	6.8	6.8
57.5°	3.4	4.0	4.5	4.5	4.5	5.1	5.1	5.7	5.7	5.7	6.3
60°	3.4	4.0	4.0	4.5	4.5	5.1	5.1	5.1	5.1	5.7	5.7
61°	3.4	3.4	4.0	4.5	4.5	4.5	5.1	5.1	5.1	5.1	5.7
62°	3.4	3.4	4.0	4.0	4.5	4.5	4.5	5.1	5.1	5.1	5.1
63°	2.8	3.4	4.0	4.0	4.5	4.5	4.5	4.5	4.5	5.1	5.1
64°	2.8	3.4	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
65°	2.8	3.4	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5
66°	2.8	3.4	4.0	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.8	2.8	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
75°	2.8	2.8	2.8	3.4	3.4	3.4	3.4	3.4	3.4	2.8	2.8
77.5°	2.3	2.3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.3
80°	2.3	2.3	2.8	2.8	2.8	2.8	2.8	2.8	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.7	1.7
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.7	1.7	1.1
87.5°	1.7	2.3	2.3	2.3	2.3	2.3	1.7	1.7	1.7	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: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
2.5°	85.3	83.5	83.0	83.0	83.5	83.0	83.5	83.0
5°	78.4	76.7	76.7	76.2	76.7	76.2	76.7	76.2
7.5°	72.7	71.0	71.0	71.0	71.0	71.0	71.6	71.0
10°	67.1	65.4	65.4	64.8	65.4	65.4	65.9	65.4
12.5°	61.4	60.2	60.2	59.7	60.8	60.2	61.4	60.8
15°	56.3	55.1	55.1	55.7	56.3	56.3	56.8	56.8
17.5°	51.2	51.2	51.2	51.7	52.3	52.9	53.4	52.9
20°	46.6	46.6	47.2	47.7	48.3	48.9	49.4	49.4
22.5°	42.1	42.1	42.6	43.8	44.9	45.5	46.0	46.0
25°	37.5	38.1	38.6	39.2	40.9	41.5	42.1	42.1
26°	35.8	36.4	37.5	38.1	39.2	39.8	40.9	40.9
27°	34.7	35.2	35.8	36.4	38.1	38.6	39.8	39.2
28°	33.0	33.5	34.1	35.2	36.4	37.5	38.1	38.1
29°	31.3	32.4	33.0	33.5	35.2	35.8	36.4	36.4
30°	30.1	30.7	31.3	32.4	33.5	34.7	35.2	35.2
31°	28.4	29.6	30.1	30.7	32.4	33.0	34.1	34.1
32°	27.3	27.8	28.4	29.6	30.7	31.8	32.4	32.4
33°	25.6	26.7	27.3	27.8	29.6	30.7	31.3	30.7
34°	24.4	25.6	25.6	26.7	27.8	29.0	29.6	29.6
35°	23.3	23.9	24.4	25.6	26.7	27.8	28.4	28.4
36°	22.2	22.7	23.3	24.4	25.6	26.7	27.3	27.3
37°	21.0	21.6	22.2	22.7	24.4	25.6	26.1	26.1
38°	19.9	20.5	21.0	22.2	23.3	23.9	25.0	25.0
39°	18.8	19.3	19.9	21.0	22.2	22.7	23.9	23.3
40°	17.6	18.8	18.8	19.9	21.0	21.6	22.7	22.2
42.5°	15.3	15.9	16.5	17.1	18.2	19.3	19.9	19.9
45°	13.6	14.2	14.8	15.3	15.9	16.5	17.6	17.1
47.5°	11.4	11.9	12.5	13.1	13.6	14.2	14.8	14.8
50°	10.2	10.2	10.8	10.8	11.9	12.5	13.1	13.1
51°	9.1	9.7	10.2	10.2	11.4	11.4	11.9	11.9
52°	9.1	9.1	9.7	9.7	10.2	10.8	11.4	11.4
53°	8.5	8.5	9.1	9.1	9.7	10.2	10.8	10.8
54°	8.0	8.0	8.5	8.5	9.1	9.7	10.2	10.2
55°	7.4	7.4	8.0	8.0	8.5	9.1	9.7	9.7
57.5°	6.3	6.8	6.8	7.4	7.4	8.0	8.0	8.5
60°	5.7	6.3	6.3	6.3	6.8	6.8	6.8	6.8
61°	5.7	5.7	5.7	6.3	6.3	5.7	6.3	5.7
62°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
63°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
64°	5.1	4.5	4.5	4.5	4.5	4.5	4.5	4.5
65°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.0
66°	4.5	4.5	4.0	4.5	4.0	4.0	4.0	4.0



TEST NUMBER: P182681

CATALOG NUMBER: LDSQA4A09840D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.8	2.8	2.8	2.8	2.8	2.3	2.3	2.3
75°	2.8	2.8	2.8	2.3	2.3	2.3	2.3	1.7
77.5°	2.3	2.3	2.3	2.3	1.7	1.7	1.7	1.7
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1
82.5°	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	1.1	0.6	0.6	0.6
87.5°	0.6	0.6	0.6	0.6	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



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	1.1	1.7	1.7
70°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.7	1.7





67.5°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	1.7	2.3	2.3	2.8
70°	1.7	2.3	2.3	2.3	2.3	2.3	2.3	1.7	2.3	2.3	2.3





67.5°	2.8	3.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
70°	2.8	3.4	3.4	3.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0





67.5°	4.0	4.0	4.0	4.0	4.0	3.4	3.4	3.4
70°	3.4	3.4	3.4	3.4	3.4	2.8	2.8	2.8



(END OF REPORT)