

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: P182685

Luminaire Tested: **LDSQA4A09940D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182685
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: LDSQA4A09940D010TE 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: 925.0 lumens
Efficiency: N/A
Efficacy: 66.8 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

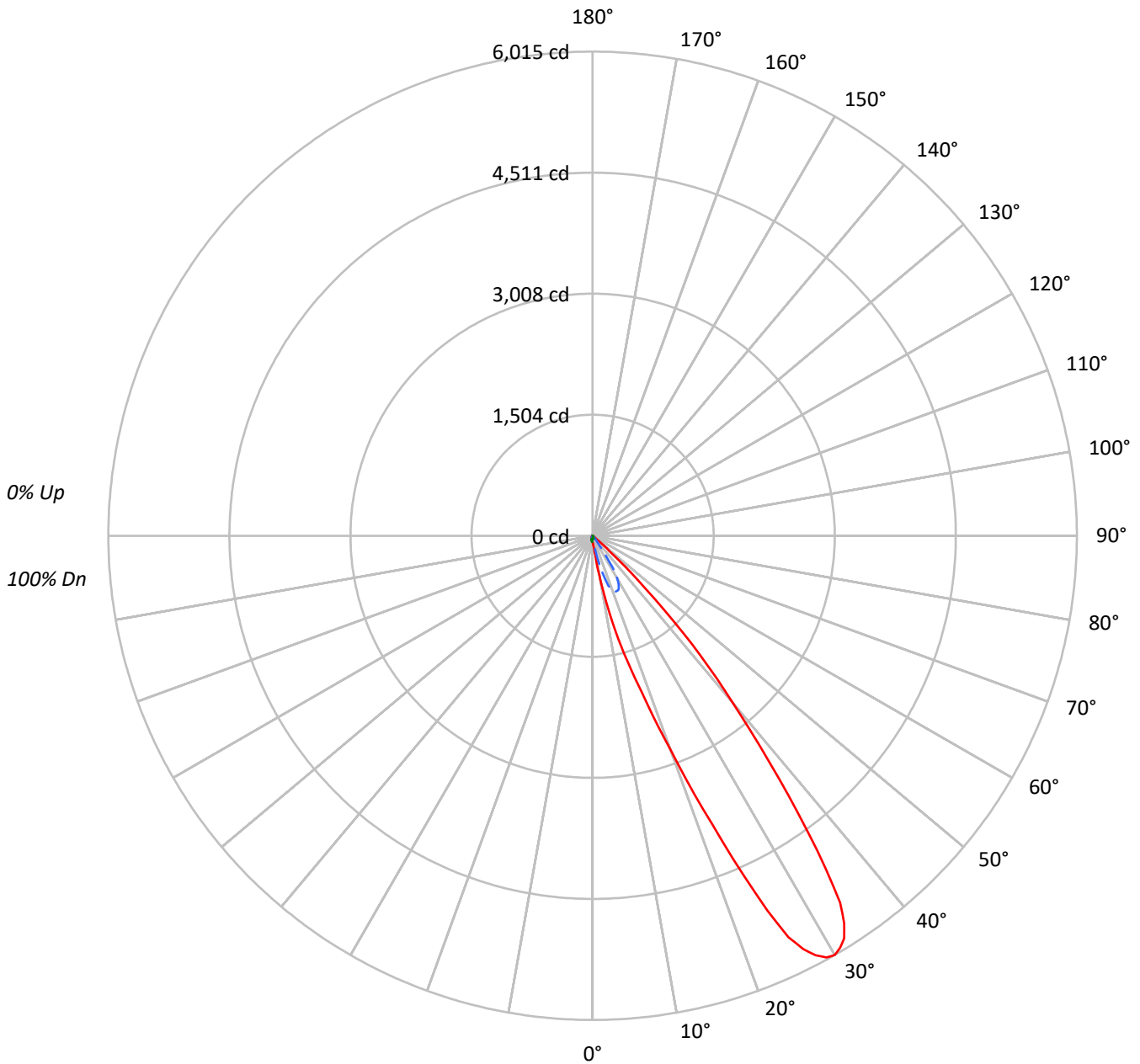
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	7721	7721	7721
5°	12866	7293	6224
10°	54861	6384	5401
15°	151863	5075	4794
20°	291278	3598	4278
25°	549202	2394	3773
30°	672873	1600	3311
35°	597583	1076	2826
40°	340587	721	2352
45°	124234	589	1959
50°	13670	437	1658
55°	2010	321	1368
60°	465	368	1104
65°	321	436	756
70°	283	538	680
75°	374	711	524
80°	0	1060	558
85°	0	1556	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.0	1.1
10°-20°	100.2	10.8
20°-30°	329.2	35.6
30°-40°	361.0	39.0
40°-50°	112.8	12.2
50°-60°	6.2	0.7
60°-70°	2.5	0.3
70°-80°	1.9	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°	439.5	47.5
0°-40°	800.5	86.5
0°-60°	919.5	99.4
0°-90°	925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	925.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	80	80	80	80	80	
5°	132	106	75	66	64	25
15°	1514	487	51	45	48	476
25°	5138	747	22	28	35	2290
35°	5053	147	9	16	24	2954
45°	907	15	4	9	14	832
55°	12	3	2	5	8	19
65°	1	1	2	4	3	1
75°	1	1	2	3	1	1
85°	0	1	1	1	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
2.5°	98.4	99.3	99.8	97.4	97.9	96.9	97.9	96.0	92.6	93.6	90.7
5°	132.3	130.4	129.9	126.1	125.1	123.2	123.2	118.9	112.7	111.7	106.0
7.5°	234.0	224.0	215.4	202.5	190.0	180.5	176.7	161.4	144.7	138.5	125.1
10°	557.7	555.8	534.3	493.7	447.0	413.0	393.5	334.3	259.3	213.4	165.7
12.5°	1015.2	1005.6	975.1	900.6	819.9	769.3	729.6	610.3	499.0	409.7	293.7
15°	1514.2	1475.5	1430.6	1315.1	1201.9	1136.0	1079.7	936.4	764.0	635.6	486.6
17.5°	2047.1	2064.3	1955.4	1756.3	1555.3	1452.1	1356.6	1136.5	947.9	814.2	646.6
20°	2825.4	2789.1	2597.7	2267.7	1971.2	1798.8	1663.2	1345.6	1061.0	894.4	735.8
22.5°	3877.4	3761.8	3388.4	2830.2	2359.9	2120.6	1928.2	1500.3	1156.1	935.4	750.2
25°	5138.0	5031.1	4339.6	3371.2	2675.5	2365.6	2103.9	1598.7	1194.3	942.1	747.3
26°	5549.6	5390.6	4690.6	3563.7	2772.4	2427.7	2147.4	1617.8	1195.2	936.9	734.9
27°	5762.6	5638.0	4980.9	3719.8	2838.8	2466.8	2171.7	1622.6	1185.7	924.9	715.8
28°	5903.0	5786.5	5164.8	3822.0	2872.7	2482.1	2178.9	1612.1	1164.2	903.9	685.7
29°	5989.9	5867.2	5254.5	3868.3	2875.1	2475.4	2165.5	1584.4	1135.0	878.6	650.8
30°	6015.2	5882.5	5256.9	3849.2	2839.8	2439.6	2127.8	1539.5	1099.7	846.6	612.2
31°	5970.3	5833.3	5170.5	3762.3	2767.2	2369.9	2068.6	1480.3	1055.8	812.7	552.5
32°	5895.8	5713.9	4989.5	3618.1	2667.9	2285.8	1994.6	1415.8	1009.0	769.7	468.4
33°	5737.3	5517.6	4712.6	3437.1	2548.5	2189.4	1908.1	1344.2	964.6	695.7	348.1
34°	5499.0	5221.6	4373.1	3226.5	2413.3	2069.1	1808.8	1277.8	918.3	597.8	238.3
35°	5053.0	4794.7	3998.2	3002.1	2267.7	1952.5	1699.5	1190.9	855.2	479.4	147.1
36°	4554.0	4364.0	3634.8	2773.9	2118.7	1831.7	1586.8	1126.9	762.1	352.9	99.8
37°	4044.0	3875.5	3292.0	2549.4	1969.3	1698.0	1472.2	1054.3	651.3	235.4	80.2
38°	3558.4	3424.7	2966.3	2328.8	1814.1	1558.1	1351.8	977.0	531.9	151.4	65.9
39°	3112.4	3012.1	2647.3	2115.4	1658.4	1421.1	1236.3	879.6	405.9	107.9	54.9
40°	2693.2	2622.5	2339.8	1904.8	1503.7	1286.4	1131.7	761.6	281.7	85.5	44.4
42.5°	1831.7	1814.1	1646.5	1370.9	1116.9	989.9	894.9	428.3	108.4	51.6	24.8
45°	906.8	919.2	852.4	784.1	731.1	692.4	563.9	178.6	60.2	28.2	15.3
47.5°	320.9	321.4	276.5	246.4	235.4	234.5	170.5	63.0	32.0	17.2	11.0
50°	90.7	97.9	92.2	94.1	73.5	62.6	51.1	30.6	16.2	11.0	7.2
51°	55.9	60.2	56.3	58.3	50.6	45.4	38.2	22.9	12.9	9.1	6.7
52°	35.8	38.2	36.3	36.8	33.9	29.6	25.8	16.7	10.5	7.6	5.7
53°	24.4	25.8	24.4	24.4	22.4	21.0	18.1	12.4	8.6	6.2	4.3
54°	16.7	17.2	17.2	17.2	15.8	14.8	12.9	9.6	7.2	5.7	3.8
55°	11.9	12.4	11.9	11.9	11.5	10.5	9.6	7.2	5.7	4.8	2.9
57.5°	5.3	5.3	5.3	5.7	5.3	5.3	4.8	4.3	3.8	2.9	1.9
60°	2.4	2.4	2.4	2.4	2.9	2.9	2.9	2.9	2.4	1.9	1.9
61°	1.9	1.9	1.9	1.9	1.9	2.4	2.4	2.4	1.9	1.9	1.4
62°	1.4	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.4	1.4
63°	1.4	1.4	1.4	1.4	1.4	1.4	1.9	1.9	1.4	1.4	1.4
64°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.0	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
66°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.4
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.4
77.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.4
80°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.4
82.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.4
85°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.4
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.4
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°	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
2.5°	88.8	88.3	86.0	83.6	84.0	83.1	82.1	80.7	79.7	77.4	77.4
5°	101.2	98.8	93.6	88.8	88.3	86.4	83.6	80.7	78.3	75.0	74.0
7.5°	115.6	108.9	100.3	92.6	91.2	88.3	83.1	79.3	75.0	70.7	69.2
10°	136.1	120.3	105.5	94.1	91.2	86.9	80.2	75.0	70.2	64.9	63.0
12.5°	209.2	148.5	112.2	94.1	88.8	83.6	75.4	69.2	63.5	57.8	55.9
15°	348.6	237.3	142.3	94.1	84.5	78.3	68.3	62.1	55.9	50.6	48.7
17.5°	481.3	337.6	198.2	106.0	85.0	72.1	59.7	53.0	47.8	42.5	41.1
20°	558.2	393.5	234.9	117.9	84.0	64.9	51.1	43.9	38.7	34.9	33.4
22.5°	568.2	395.9	226.8	105.5	70.7	54.0	42.5	35.8	31.5	28.2	27.2
25°	541.5	349.5	181.5	75.0	52.5	43.9	33.4	28.7	25.3	22.4	22.0
26°	521.0	321.8	158.1	62.1	46.3	39.2	30.1	25.8	22.9	20.5	20.1
27°	491.8	292.2	135.1	51.6	41.1	35.3	26.7	23.4	21.0	18.6	18.6
28°	458.9	260.2	108.9	43.5	36.8	31.5	24.4	21.0	18.6	17.2	17.2
29°	419.3	213.9	79.7	37.7	32.5	27.7	21.5	18.6	16.7	15.8	15.8
30°	360.5	155.2	54.9	32.9	28.2	24.4	19.1	16.7	15.3	14.3	14.3
31°	281.7	95.5	43.0	28.7	24.8	21.5	17.2	14.8	13.8	12.9	13.4
32°	192.0	59.7	36.8	24.8	22.0	18.6	15.3	13.4	12.4	11.9	11.9
33°	109.4	49.7	32.0	21.5	18.6	16.2	13.4	11.9	11.5	11.0	11.0
34°	72.6	42.5	27.7	18.1	15.3	13.8	11.5	10.5	10.0	10.0	10.0
35°	61.1	36.8	22.4	15.3	13.4	11.9	10.0	9.6	9.1	9.1	9.6
36°	51.6	30.6	18.1	12.9	11.5	10.5	9.1	8.6	8.1	8.1	8.6
37°	43.5	24.4	15.3	11.0	9.6	9.1	8.1	7.6	7.6	7.6	8.1
38°	35.3	19.6	12.9	9.6	8.6	7.6	7.2	6.7	6.7	7.2	7.6
39°	27.7	15.8	10.5	8.1	7.2	6.7	6.2	6.2	6.2	6.2	6.7
40°	22.0	13.4	9.1	7.2	6.2	6.2	5.7	5.3	5.7	5.7	6.7
42.5°	13.8	9.6	6.7	5.3	4.8	4.8	4.3	4.3	4.3	4.8	5.3
45°	10.0	7.6	5.3	4.3	3.8	3.3	3.3	3.3	3.8	4.3	4.8
47.5°	7.6	5.3	3.8	2.9	2.4	2.4	2.4	2.4	2.9	3.3	3.8
50°	5.3	3.3	2.4	1.9	1.9	1.9	1.9	1.9	2.4	2.9	3.3
51°	4.3	2.9	2.4	1.9	1.9	1.4	1.4	1.9	2.4	2.4	2.9
52°	3.3	2.4	1.9	1.4	1.4	1.4	1.4	1.9	1.9	2.4	2.9
53°	2.9	2.4	1.9	1.4	1.4	1.4	1.4	1.4	1.9	2.4	2.9
54°	2.4	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.9	2.4	2.9
55°	1.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.9	1.9	2.4
57.5°	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.9	2.4
60°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.9	2.4
61°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.9	2.4
62°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.9	2.4
63°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.9	1.9	2.4
64°	1.4	1.4	1.4	1.4	1.9	1.9	1.4	1.4	1.9	1.9	2.4
65°	1.4	1.4	1.9	1.9	1.9	1.9	1.4	1.4	1.9	1.9	2.4
66°	1.4	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.9	1.9	2.4



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.9	1.9	1.9
75°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.9	1.9
80°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.9	1.9
82.5°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.9
85°	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.4
87.5°	1.4	1.4	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.4	1.4
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: P182685

CATALOG NUMBER: LDSQA4A09940D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
2.5°	76.4	75.0	74.0	73.5	74.0	73.1	71.6	72.1	71.6	71.1	71.1
5°	72.6	70.2	69.2	68.8	68.8	68.3	66.4	66.9	66.4	65.9	65.9
7.5°	67.3	65.4	64.0	63.5	63.5	63.0	61.1	62.1	61.1	60.6	61.1
10°	61.1	59.2	58.7	57.8	57.8	57.3	55.9	56.3	55.9	55.9	55.9
12.5°	54.4	52.5	52.0	51.6	52.0	51.6	50.1	51.1	50.6	50.6	51.1
15°	47.3	45.8	45.8	45.4	45.8	45.4	44.9	45.4	45.4	45.4	46.3
17.5°	40.1	39.2	39.2	38.7	39.2	39.2	38.7	40.1	40.1	41.1	42.0
20°	32.9	32.0	32.5	32.5	33.4	33.4	33.4	34.9	35.3	36.3	37.7
22.5°	27.2	26.7	27.2	27.2	28.2	28.7	28.7	30.1	31.5	32.5	33.9
25°	22.0	22.0	22.9	22.9	23.4	24.4	24.8	26.7	27.7	28.7	30.1
26°	20.5	20.5	21.0	21.5	22.0	22.9	23.4	25.3	26.3	27.2	28.7
27°	18.6	18.6	19.6	20.1	20.5	21.5	22.4	23.9	24.8	26.3	27.2
28°	17.2	17.2	18.1	18.6	19.1	20.5	21.0	22.4	23.4	24.8	26.3
29°	15.8	16.2	17.2	17.2	18.1	19.1	19.6	21.5	22.4	23.4	24.8
30°	14.8	15.3	15.8	16.2	16.7	17.7	18.6	20.1	21.0	22.0	23.4
31°	13.8	14.3	14.8	15.3	15.8	16.7	17.7	19.1	20.1	21.0	22.4
32°	12.9	12.9	13.8	14.3	14.8	15.8	16.7	18.1	19.1	20.1	21.5
33°	11.9	12.4	12.9	13.4	13.8	14.8	15.8	16.7	17.7	19.1	20.5
34°	11.0	11.5	12.4	12.9	13.4	14.3	14.8	15.8	16.7	18.1	19.1
35°	10.0	11.0	11.5	11.9	12.4	13.4	13.8	15.3	15.8	17.2	18.1
36°	9.6	10.0	11.0	11.5	11.9	12.4	12.9	14.3	15.3	16.2	17.2
37°	8.6	9.6	10.0	10.5	11.0	11.9	12.4	13.4	14.3	15.3	16.2
38°	8.1	8.6	9.6	10.0	10.5	11.0	11.5	12.9	13.4	14.3	15.3
39°	7.6	8.1	9.1	9.6	9.6	10.5	11.0	11.9	12.4	13.4	14.8
40°	7.2	7.6	8.6	8.6	9.1	10.0	10.5	11.5	11.9	12.9	13.8
42.5°	6.2	6.7	7.2	7.6	8.1	8.6	9.1	10.0	10.5	11.0	11.9
45°	5.3	5.7	6.7	6.7	7.2	7.6	8.1	8.6	9.1	10.0	10.5
47.5°	4.3	5.3	5.7	6.2	6.2	6.7	7.2	7.6	8.1	8.6	9.1
50°	3.8	4.3	4.8	5.3	5.3	5.7	6.2	6.7	6.7	7.2	8.1
51°	3.8	4.3	4.8	4.8	5.3	5.7	5.7	6.2	6.7	6.7	7.2
52°	3.3	3.8	4.3	4.8	4.8	5.3	5.7	5.7	6.2	6.7	7.2
53°	3.3	3.8	4.3	4.3	4.8	5.3	5.3	5.7	5.7	6.2	6.7
54°	3.3	3.8	4.3	4.3	4.8	4.8	5.3	5.3	5.7	5.7	6.2
55°	2.9	3.3	3.8	4.3	4.3	4.8	4.8	5.3	5.3	5.7	5.7
57.5°	2.9	3.3	3.8	3.8	3.8	4.3	4.3	4.8	4.8	4.8	5.3
60°	2.9	3.3	3.3	3.8	3.8	4.3	4.3	4.3	4.3	4.8	4.8
61°	2.9	2.9	3.3	3.8	3.8	3.8	4.3	4.3	4.3	4.3	4.8
62°	2.9	2.9	3.3	3.3	3.8	3.8	3.8	4.3	4.3	4.3	4.3
63°	2.4	2.9	3.3	3.3	3.8	3.8	3.8	3.8	3.8	4.3	4.3
64°	2.4	2.9	3.3	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8
65°	2.4	2.9	3.3	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8
66°	2.4	2.9	3.3	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8



TEST NUMBER: P182685

CATALOG NUMBER: LDSQA4A09940D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.4	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	2.4	2.4	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4
77.5°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.9
80°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.0
87.5°	1.4	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.0	1.0
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: P182685

CATALOG NUMBER: LDSQA4A09940D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
2.5°	71.6	70.2	69.7	69.7	70.2	69.7	70.2	69.7
5°	65.9	64.5	64.5	64.0	64.5	64.0	64.5	64.0
7.5°	61.1	59.7	59.7	59.7	59.7	59.7	60.2	59.7
10°	56.3	54.9	54.9	54.4	54.9	54.9	55.4	54.9
12.5°	51.6	50.6	50.6	50.1	51.1	50.6	51.6	51.1
15°	47.3	46.3	46.3	46.8	47.3	47.3	47.8	47.8
17.5°	43.0	43.0	43.0	43.5	43.9	44.4	44.9	44.4
20°	39.2	39.2	39.6	40.1	40.6	41.1	41.5	41.5
22.5°	35.3	35.3	35.8	36.8	37.7	38.2	38.7	38.7
25°	31.5	32.0	32.5	32.9	34.4	34.9	35.3	35.3
26°	30.1	30.6	31.5	32.0	32.9	33.4	34.4	34.4
27°	29.1	29.6	30.1	30.6	32.0	32.5	33.4	32.9
28°	27.7	28.2	28.7	29.6	30.6	31.5	32.0	32.0
29°	26.3	27.2	27.7	28.2	29.6	30.1	30.6	30.6
30°	25.3	25.8	26.3	27.2	28.2	29.1	29.6	29.6
31°	23.9	24.8	25.3	25.8	27.2	27.7	28.7	28.7
32°	22.9	23.4	23.9	24.8	25.8	26.7	27.2	27.2
33°	21.5	22.4	22.9	23.4	24.8	25.8	26.3	25.8
34°	20.5	21.5	21.5	22.4	23.4	24.4	24.8	24.8
35°	19.6	20.1	20.5	21.5	22.4	23.4	23.9	23.9
36°	18.6	19.1	19.6	20.5	21.5	22.4	22.9	22.9
37°	17.7	18.1	18.6	19.1	20.5	21.5	22.0	22.0
38°	16.7	17.2	17.7	18.6	19.6	20.1	21.0	21.0
39°	15.8	16.2	16.7	17.7	18.6	19.1	20.1	19.6
40°	14.8	15.8	15.8	16.7	17.7	18.1	19.1	18.6
42.5°	12.9	13.4	13.8	14.3	15.3	16.2	16.7	16.7
45°	11.5	11.9	12.4	12.9	13.4	13.8	14.8	14.3
47.5°	9.6	10.0	10.5	11.0	11.5	11.9	12.4	12.4
50°	8.6	8.6	9.1	9.1	10.0	10.5	11.0	11.0
51°	7.6	8.1	8.6	8.6	9.6	9.6	10.0	10.0
52°	7.6	7.6	8.1	8.1	8.6	9.1	9.6	9.6
53°	7.2	7.2	7.6	7.6	8.1	8.6	9.1	9.1
54°	6.7	6.7	7.2	7.2	7.6	8.1	8.6	8.6
55°	6.2	6.2	6.7	6.7	7.2	7.6	8.1	8.1
57.5°	5.3	5.7	5.7	6.2	6.2	6.7	6.7	7.2
60°	4.8	5.3	5.3	5.3	5.7	5.7	5.7	5.7
61°	4.8	4.8	4.8	5.3	5.3	4.8	5.3	4.8
62°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
63°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
64°	4.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8
65°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.3
66°	3.8	3.8	3.3	3.8	3.3	3.3	3.3	3.3



TEST NUMBER: P182685

CATALOG NUMBER: LDSQA4A09940D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
75°	2.4	2.4	2.4	1.9	1.9	1.9	1.9	1.4
77.5°	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0
82.5°	1.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.4	1.4
70°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.4	1.4





67.5°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.9	1.9	2.4
70°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.9	1.9	1.9





67.5°	2.4	2.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
70°	2.4	2.9	2.9	2.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3





67.5°	3.3	3.3	3.3	3.3	3.3	2.9	2.9	2.9
70°	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4



(END OF REPORT)