

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: P182697

Luminaire Tested: **LDSQA4A28840D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182697  
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: LDSQA4A28840D010TE 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: 2782.2 lumens  
Efficiency: N/A  
Efficacy: 62.5 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

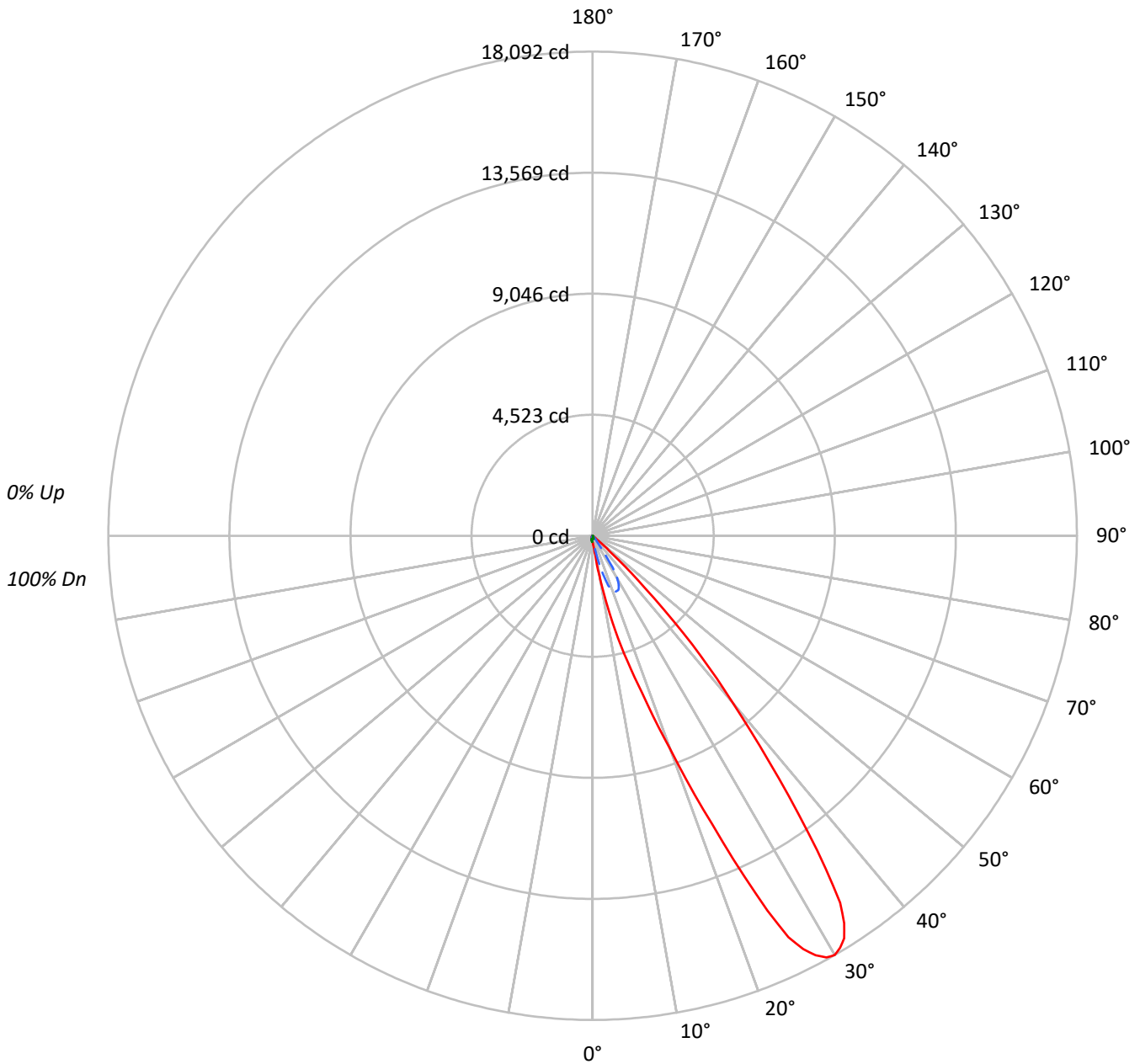
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	23231	23231	23231
5°	38684	21929	18720
10°	165015	19212	16251
15°	456764	15265	14402
20°	876092	10804	12887
25°	1651849	7215	11362
30°	2023820	4821	9956
35°	1797374	3229	8491
40°	1024379	2175	7082
45°	373661	1767	5905
50°	41129	1296	4973
55°	6063	963	4121
60°	1395	1104	3333
65°	986	1307	2315
70°	821	1614	2039
75°	1085	2133	1609
80°	0	3180	1618
85°	0	4780	1556



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.2	1.1
10°-20°	301.5	10.8
20°-30°	990.2	35.6
30°-40°	1085.9	39.0
40°-50°	339.2	12.2
50°-60°	18.6	0.7
60°-70°	7.5	0.3
70°-80°	5.7	0.2
80°-90°	3.5	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°	1321.9	47.5
0°-40°	2407.8	86.5
0°-60°	2765.5	99.4
0°-90°	2782.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2782.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	240	240	240	240	240	
5°	398	319	226	200	192	74
15°	4554	1464	152	136	144	1431
25°	15454	2248	68	83	106	6889
35°	15198	442	27	47	72	8885
45°	2727	46	13	27	43	2504
55°	36	9	6	16	24	56
65°	4	4	6	12	10	4
75°	3	4	6	9	4	2
85°	0	4	4	4	1	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°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	295.9	298.7	300.2	293.0	294.4	291.6	294.4	288.7	278.6	281.5	272.9
5°	397.8	392.1	390.7	379.2	376.3	370.5	370.5	357.6	338.9	336.1	318.8
7.5°	703.7	673.6	647.7	609.0	571.6	542.9	531.4	485.4	435.2	416.5	376.3
10°	1677.5	1671.8	1607.1	1485.1	1344.3	1242.3	1183.4	1005.4	779.9	642.0	498.4
12.5°	3053.4	3024.7	2932.8	2708.7	2466.0	2313.8	2194.5	1835.5	1500.9	1232.3	883.3
15°	4554.3	4437.9	4302.9	3955.4	3615.0	3416.8	3247.3	2816.4	2298.0	1911.6	1463.5
17.5°	6157.1	6208.8	5881.3	5282.4	4677.8	4367.5	4080.3	3418.2	2850.9	2448.8	1944.6
20°	8498.1	8389.0	7813.0	6820.6	5928.7	5410.2	5002.4	4047.3	3191.3	2690.0	2213.2
22.5°	11662.1	11314.5	10191.4	8512.5	7097.8	6378.3	5799.5	4512.6	3477.1	2813.6	2256.3
25°	15453.7	15132.0	13052.4	10139.7	8047.1	7115.0	6328.0	4808.5	3592.0	2833.7	2247.7
26°	16691.8	16213.5	14108.0	10718.5	8338.7	7301.7	6458.7	4865.9	3594.9	2817.9	2210.3
27°	17332.3	16957.5	14981.2	11188.2	8538.3	7419.5	6531.9	4880.3	3566.1	2782.0	2152.9
28°	17754.6	17404.1	15534.2	11495.5	8640.3	7465.5	6553.5	4848.7	3501.5	2718.8	2062.4
29°	18016.0	17646.8	15804.2	11634.8	8647.5	7445.4	6513.3	4765.4	3413.9	2642.6	1957.6
30°	18092.1	17692.8	15811.4	11577.4	8541.2	7337.7	6399.8	4630.4	3307.6	2546.4	1841.2
31°	17957.1	17544.9	15551.4	11316.0	8322.9	7128.0	6221.7	4452.3	3175.5	2444.4	1661.7
32°	17733.0	17185.8	15007.1	10882.2	8024.2	6875.2	5999.1	4258.4	3034.7	2315.2	1408.9
33°	17256.2	16595.5	14174.1	10337.9	7665.1	6585.1	5739.1	4043.0	2901.2	2092.6	1047.0
34°	16539.5	15705.1	13152.9	9704.5	7258.7	6223.1	5440.4	3843.3	2761.9	1798.1	716.7
35°	15198.1	14421.1	12025.5	9029.5	6820.6	5872.7	5111.5	3581.9	2572.3	1442.0	442.4
36°	13697.2	13125.6	10932.5	8343.0	6372.5	5509.3	4772.6	3389.5	2292.2	1061.4	300.2
37°	12163.4	11656.4	9901.3	7668.0	5923.0	5107.2	4427.9	3171.2	1959.0	708.1	241.3
38°	10702.7	10300.6	8921.8	7004.4	5456.2	4686.4	4065.9	2938.5	1599.9	455.3	198.2
39°	9361.3	9059.7	7962.4	6362.5	4988.0	4274.2	3718.4	2645.5	1220.8	324.6	165.2
40°	8100.3	7887.7	7037.5	5729.1	4522.7	3869.2	3403.8	2290.8	847.4	257.1	133.6
42.5°	5509.3	5456.2	4952.1	4123.4	3359.3	2977.3	2691.5	1288.3	326.0	155.1	74.7
45°	2727.4	2764.7	2563.7	2358.3	2198.9	2082.5	1696.2	537.1	181.0	84.7	46.0
47.5°	965.1	966.6	831.6	741.1	708.1	705.2	512.7	189.6	96.2	51.7	33.0
50°	272.9	294.4	277.2	282.9	221.2	188.1	153.7	91.9	48.8	33.0	21.5
51°	168.0	181.0	169.5	175.2	152.2	136.4	114.9	68.9	38.8	27.3	20.1
52°	107.7	114.9	109.2	110.6	102.0	89.0	77.6	50.3	31.6	23.0	17.2
53°	73.2	77.6	73.2	73.2	67.5	63.2	54.6	37.3	25.9	18.7	12.9
54°	50.3	51.7	51.7	51.7	47.4	44.5	38.8	28.7	21.5	17.2	11.5
55°	35.9	37.3	35.9	35.9	34.5	31.6	28.7	21.5	17.2	14.4	8.6
57.5°	15.8	15.8	15.8	17.2	15.8	15.8	14.4	12.9	11.5	8.6	5.7
60°	7.2	7.2	7.2	7.2	8.6	8.6	8.6	8.6	7.2	5.7	5.7
61°	5.7	5.7	5.7	5.7	5.7	7.2	7.2	7.2	5.7	5.7	4.3
62°	4.3	4.3	4.3	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3
63°	4.3	4.3	4.3	4.3	4.3	4.3	5.7	5.7	4.3	4.3	4.3
64°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
65°	4.3	2.9	2.9	2.9	2.9	4.3	4.3	4.3	4.3	4.3	4.3
66°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3	4.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3
75°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3
77.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	4.3
80°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	4.3
82.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	4.3
85°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	4.3
87.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	4.3
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°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	267.1	265.7	258.5	251.3	252.8	249.9	247.0	242.7	239.8	232.7	232.7
5°	304.5	297.3	281.5	267.1	265.7	260.0	251.3	242.7	235.5	225.5	222.6
7.5°	347.6	327.5	301.6	278.6	274.3	265.7	249.9	238.4	225.5	212.6	208.3
10°	409.3	361.9	317.4	282.9	274.3	261.4	241.3	225.5	211.1	195.3	189.6
12.5°	629.1	446.7	337.5	282.9	267.1	251.3	226.9	208.3	191.0	173.8	168.0
15°	1048.4	713.8	428.0	282.9	254.2	235.5	205.4	186.7	168.0	152.2	146.5
17.5°	1447.7	1015.4	596.0	318.8	255.6	216.9	179.5	159.4	143.6	127.8	123.5
20°	1678.9	1183.4	706.6	354.7	252.8	195.3	153.7	132.1	116.3	104.8	100.5
22.5°	1709.1	1190.6	682.2	317.4	212.6	162.3	127.8	107.7	94.8	84.7	81.9
25°	1628.7	1051.3	545.8	225.5	158.0	132.1	100.5	86.2	76.1	67.5	66.1
26°	1566.9	968.0	475.4	186.7	139.3	117.8	90.5	77.6	68.9	61.8	60.3
27°	1479.3	879.0	406.5	155.1	123.5	106.3	80.4	70.4	63.2	56.0	56.0
28°	1380.2	782.7	327.5	130.7	110.6	94.8	73.2	63.2	56.0	51.7	51.7
29°	1261.0	643.4	239.8	113.5	97.7	83.3	64.6	56.0	50.3	47.4	47.4
30°	1084.3	466.8	165.2	99.1	84.7	73.2	57.4	50.3	46.0	43.1	43.1
31°	847.4	287.2	129.3	86.2	74.7	64.6	51.7	44.5	41.7	38.8	40.2
32°	577.4	179.5	110.6	74.7	66.1	56.0	46.0	40.2	37.3	35.9	35.9
33°	328.9	149.4	96.2	64.6	56.0	48.8	40.2	35.9	34.5	33.0	33.0
34°	218.3	127.8	83.3	54.6	46.0	41.7	34.5	31.6	30.2	30.2	30.2
35°	183.8	110.6	67.5	46.0	40.2	35.9	30.2	28.7	27.3	27.3	28.7
36°	155.1	91.9	54.6	38.8	34.5	31.6	27.3	25.9	24.4	24.4	25.9
37°	130.7	73.2	46.0	33.0	28.7	27.3	24.4	23.0	23.0	23.0	24.4
38°	106.3	58.9	38.8	28.7	25.9	23.0	21.5	20.1	20.1	21.5	23.0
39°	83.3	47.4	31.6	24.4	21.5	20.1	18.7	18.7	18.7	18.7	20.1
40°	66.1	40.2	27.3	21.5	18.7	18.7	17.2	15.8	17.2	17.2	20.1
42.5°	41.7	28.7	20.1	15.8	14.4	14.4	12.9	12.9	12.9	14.4	15.8
45°	30.2	23.0	15.8	12.9	11.5	10.1	10.1	10.1	11.5	12.9	14.4
47.5°	23.0	15.8	11.5	8.6	7.2	7.2	7.2	7.2	8.6	10.1	11.5
50°	15.8	10.1	7.2	5.7	5.7	5.7	5.7	5.7	7.2	8.6	10.1
51°	12.9	8.6	7.2	5.7	5.7	4.3	4.3	5.7	7.2	7.2	8.6
52°	10.1	7.2	5.7	4.3	4.3	4.3	4.3	5.7	5.7	7.2	8.6
53°	8.6	7.2	5.7	4.3	4.3	4.3	4.3	4.3	5.7	7.2	8.6
54°	7.2	5.7	4.3	4.3	4.3	4.3	4.3	4.3	5.7	7.2	8.6
55°	5.7	5.7	4.3	4.3	4.3	4.3	4.3	4.3	5.7	5.7	7.2
57.5°	5.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.7	7.2
60°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.7	7.2
61°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.7	7.2
62°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.7	7.2
63°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.7	5.7	7.2
64°	4.3	4.3	4.3	4.3	5.7	5.7	4.3	4.3	5.7	5.7	7.2
65°	4.3	4.3	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7	7.2
66°	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7	7.2





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	5.7	5.7	5.7
75°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7
80°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7
82.5°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	5.7
85°	4.3	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	4.3
87.5°	4.3	4.3	5.7	5.7	5.7	5.7	4.3	4.3	4.3	4.3	4.3
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: P182697

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	229.8	225.5	222.6	221.2	222.6	219.7	215.4	216.9	215.4	214.0	214.0
5°	218.3	211.1	208.3	206.8	206.8	205.4	199.6	201.1	199.6	198.2	198.2
7.5°	202.5	196.8	192.5	191.0	191.0	189.6	183.8	186.7	183.8	182.4	183.8
10°	183.8	178.1	176.7	173.8	173.8	172.3	168.0	169.5	168.0	168.0	168.0
12.5°	163.7	158.0	156.5	155.1	156.5	155.1	150.8	153.7	152.2	152.2	153.7
15°	142.2	137.9	137.9	136.4	137.9	136.4	135.0	136.4	136.4	136.4	139.3
17.5°	120.6	117.8	117.8	116.3	117.8	117.8	116.3	120.6	120.6	123.5	126.4
20°	99.1	96.2	97.7	97.7	100.5	100.5	100.5	104.8	106.3	109.2	113.5
22.5°	81.9	80.4	81.9	81.9	84.7	86.2	86.2	90.5	94.8	97.7	102.0
25°	66.1	66.1	68.9	68.9	70.4	73.2	74.7	80.4	83.3	86.2	90.5
26°	61.8	61.8	63.2	64.6	66.1	68.9	70.4	76.1	79.0	81.9	86.2
27°	56.0	56.0	58.9	60.3	61.8	64.6	67.5	71.8	74.7	79.0	81.9
28°	51.7	51.7	54.6	56.0	57.4	61.8	63.2	67.5	70.4	74.7	79.0
29°	47.4	48.8	51.7	51.7	54.6	57.4	58.9	64.6	67.5	70.4	74.7
30°	44.5	46.0	47.4	48.8	50.3	53.1	56.0	60.3	63.2	66.1	70.4
31°	41.7	43.1	44.5	46.0	47.4	50.3	53.1	57.4	60.3	63.2	67.5
32°	38.8	38.8	41.7	43.1	44.5	47.4	50.3	54.6	57.4	60.3	64.6
33°	35.9	37.3	38.8	40.2	41.7	44.5	47.4	50.3	53.1	57.4	61.8
34°	33.0	34.5	37.3	38.8	40.2	43.1	44.5	47.4	50.3	54.6	57.4
35°	30.2	33.0	34.5	35.9	37.3	40.2	41.7	46.0	47.4	51.7	54.6
36°	28.7	30.2	33.0	34.5	35.9	37.3	38.8	43.1	46.0	48.8	51.7
37°	25.9	28.7	30.2	31.6	33.0	35.9	37.3	40.2	43.1	46.0	48.8
38°	24.4	25.9	28.7	30.2	31.6	33.0	34.5	38.8	40.2	43.1	46.0
39°	23.0	24.4	27.3	28.7	28.7	31.6	33.0	35.9	37.3	40.2	44.5
40°	21.5	23.0	25.9	25.9	27.3	30.2	31.6	34.5	35.9	38.8	41.7
42.5°	18.7	20.1	21.5	23.0	24.4	25.9	27.3	30.2	31.6	33.0	35.9
45°	15.8	17.2	20.1	20.1	21.5	23.0	24.4	25.9	27.3	30.2	31.6
47.5°	12.9	15.8	17.2	18.7	18.7	20.1	21.5	23.0	24.4	25.9	27.3
50°	11.5	12.9	14.4	15.8	15.8	17.2	18.7	20.1	20.1	21.5	24.4
51°	11.5	12.9	14.4	14.4	15.8	17.2	17.2	18.7	20.1	20.1	21.5
52°	10.1	11.5	12.9	14.4	14.4	15.8	17.2	17.2	18.7	20.1	21.5
53°	10.1	11.5	12.9	12.9	14.4	15.8	15.8	17.2	17.2	18.7	20.1
54°	10.1	11.5	12.9	12.9	14.4	14.4	15.8	15.8	17.2	17.2	18.7
55°	8.6	10.1	11.5	12.9	12.9	14.4	14.4	15.8	15.8	17.2	17.2
57.5°	8.6	10.1	11.5	11.5	11.5	12.9	12.9	14.4	14.4	14.4	15.8
60°	8.6	10.1	10.1	11.5	11.5	12.9	12.9	12.9	12.9	14.4	14.4
61°	8.6	8.6	10.1	11.5	11.5	11.5	12.9	12.9	12.9	12.9	14.4
62°	8.6	8.6	10.1	10.1	11.5	11.5	11.5	12.9	12.9	12.9	12.9
63°	7.2	8.6	10.1	10.1	11.5	11.5	11.5	11.5	11.5	12.9	12.9
64°	7.2	8.6	10.1	10.1	10.1	11.5	11.5	11.5	11.5	11.5	11.5
65°	7.2	8.6	10.1	10.1	10.1	11.5	11.5	11.5	11.5	11.5	11.5
66°	7.2	8.6	10.1	10.1	10.1	11.5	11.5	11.5	11.5	11.5	11.5



TEST NUMBER: P182697

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	7.2	7.2	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
75°	7.2	7.2	7.2	8.6	8.6	8.6	8.6	8.6	8.6	7.2	7.2
77.5°	5.7	5.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	5.7
80°	5.7	5.7	7.2	7.2	7.2	7.2	7.2	7.2	5.7	5.7	5.7
82.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3
85°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	2.9
87.5°	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	2.9	2.9
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: P182697

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	215.4	211.1	209.7	209.7	211.1	209.7	211.1	209.7
5°	198.2	193.9	193.9	192.5	193.9	192.5	193.9	192.5
7.5°	183.8	179.5	179.5	179.5	179.5	179.5	181.0	179.5
10°	169.5	165.2	165.2	163.7	165.2	165.2	166.6	165.2
12.5°	155.1	152.2	152.2	150.8	153.7	152.2	155.1	153.7
15°	142.2	139.3	139.3	140.7	142.2	142.2	143.6	143.6
17.5°	129.3	129.3	129.3	130.7	132.1	133.6	135.0	133.6
20°	117.8	117.8	119.2	120.6	122.1	123.5	125.0	125.0
22.5°	106.3	106.3	107.7	110.6	113.5	114.9	116.3	116.3
25°	94.8	96.2	97.7	99.1	103.4	104.8	106.3	106.3
26°	90.5	91.9	94.8	96.2	99.1	100.5	103.4	103.4
27°	87.6	89.0	90.5	91.9	96.2	97.7	100.5	99.1
28°	83.3	84.7	86.2	89.0	91.9	94.8	96.2	96.2
29°	79.0	81.9	83.3	84.7	89.0	90.5	91.9	91.9
30°	76.1	77.6	79.0	81.9	84.7	87.6	89.0	89.0
31°	71.8	74.7	76.1	77.6	81.9	83.3	86.2	86.2
32°	68.9	70.4	71.8	74.7	77.6	80.4	81.9	81.9
33°	64.6	67.5	68.9	70.4	74.7	77.6	79.0	77.6
34°	61.8	64.6	64.6	67.5	70.4	73.2	74.7	74.7
35°	58.9	60.3	61.8	64.6	67.5	70.4	71.8	71.8
36°	56.0	57.4	58.9	61.8	64.6	67.5	68.9	68.9
37°	53.1	54.6	56.0	57.4	61.8	64.6	66.1	66.1
38°	50.3	51.7	53.1	56.0	58.9	60.3	63.2	63.2
39°	47.4	48.8	50.3	53.1	56.0	57.4	60.3	58.9
40°	44.5	47.4	47.4	50.3	53.1	54.6	57.4	56.0
42.5°	38.8	40.2	41.7	43.1	46.0	48.8	50.3	50.3
45°	34.5	35.9	37.3	38.8	40.2	41.7	44.5	43.1
47.5°	28.7	30.2	31.6	33.0	34.5	35.9	37.3	37.3
50°	25.9	25.9	27.3	27.3	30.2	31.6	33.0	33.0
51°	23.0	24.4	25.9	25.9	28.7	28.7	30.2	30.2
52°	23.0	23.0	24.4	24.4	25.9	27.3	28.7	28.7
53°	21.5	21.5	23.0	23.0	24.4	25.9	27.3	27.3
54°	20.1	20.1	21.5	21.5	23.0	24.4	25.9	25.9
55°	18.7	18.7	20.1	20.1	21.5	23.0	24.4	24.4
57.5°	15.8	17.2	17.2	18.7	18.7	20.1	20.1	21.5
60°	14.4	15.8	15.8	15.8	17.2	17.2	17.2	17.2
61°	14.4	14.4	14.4	15.8	15.8	14.4	15.8	14.4
62°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
63°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
64°	12.9	11.5	11.5	11.5	11.5	11.5	11.5	11.5
65°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	10.1
66°	11.5	11.5	10.1	11.5	10.1	10.1	10.1	10.1



TEST NUMBER: P182697

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	7.2	7.2	7.2	7.2	7.2	5.7	5.7	5.7
75°	7.2	7.2	7.2	5.7	5.7	5.7	5.7	4.3
77.5°	5.7	5.7	5.7	5.7	4.3	4.3	4.3	4.3
80°	4.3	4.3	4.3	4.3	4.3	4.3	2.9	2.9
82.5°	4.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	2.9	2.9	2.9	2.9	1.4	1.4	1.4
87.5°	1.4	1.4	1.4	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



Report Generated By E9808895 / USPTCWHP6082093





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









67.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3	4.3
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3	4.3





67.5°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	5.7	5.7	7.2
70°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	5.7	5.7	5.7





67.5°	7.2	8.6	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
70°	7.2	8.6	8.6	8.6	10.1	10.1	10.1	10.1	10.1	10.1	10.1







67.5°	10.1	10.1	10.1	10.1	10.1	8.6	8.6	8.6
70°	8.6	8.6	8.6	8.6	8.6	7.2	7.2	7.2



(END OF REPORT)