

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: P182694

Luminaire Tested: **LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182694  
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: LDSQA4A28827D010TE 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 / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2553.6 lumens  
Efficiency: N/A  
Efficacy: 57.4 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

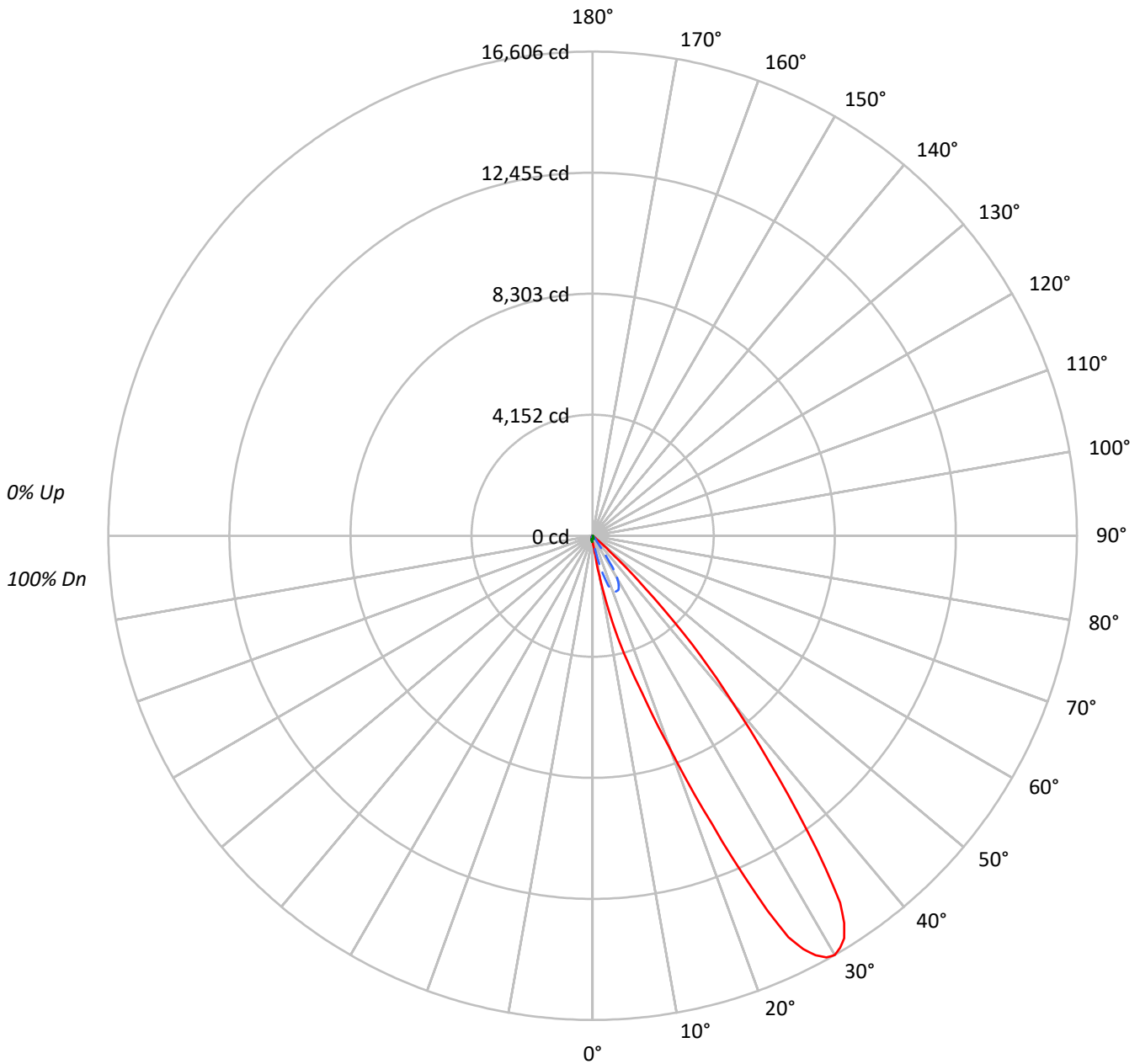
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

### Luminous Intensity Polar Plot





TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE 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°	21322	21322	21322
5°	35504	20130	17174
10°	151460	17638	14913
15°	419224	14011	13219
20°	804102	9918	11825
25°	1516120	6627	10422
30°	1857526	4419	9139
35°	1649687	2957	7794
40°	940206	1998	6500
45°	342958	1630	5412
50°	37753	1191	4567
55°	5574	895	3783
60°	1279	1027	3061
65°	917	1215	2109
70°	736	1501	1869
75°	973	1984	1497
80°	0	2957	1450
85°	0	4446	1445



TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.7	1.1
10°-20°	276.7	10.8
20°-30°	908.8	35.6
30°-40°	996.7	39.0
40°-50°	311.3	12.2
50°-60°	17.1	0.7
60°-70°	6.9	0.3
70°-80°	5.2	0.2
80°-90°	3.3	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°	1213.2	47.5
0°-40°	2209.9	86.5
0°-60°	2538.3	99.4
0°-90°	2553.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	220	220	220	220	220	
5°	365	293	207	183	177	68
15°	4180	1343	140	125	132	1313
25°	14184	2063	62	76	98	6323
35°	13949	406	25	44	66	8155
45°	2503	42	12	25	40	2298
55°	33	8	5	14	22	52
65°	4	4	5	10	9	4
75°	3	4	5	8	4	2
85°	0	4	4	4	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	271.6	274.2	275.5	268.9	270.2	267.6	270.2	265.0	255.7	258.4	250.5
5°	365.1	359.9	358.6	348.0	345.4	340.1	340.1	328.2	311.1	308.5	292.6
7.5°	645.9	618.2	594.5	558.9	524.6	498.3	487.7	445.6	399.4	382.3	345.4
10°	1539.7	1534.4	1475.1	1363.0	1233.8	1140.2	1086.2	922.7	715.8	589.2	457.4
12.5°	2802.5	2776.1	2691.8	2486.1	2263.4	2123.6	2014.2	1684.7	1377.5	1131.0	810.7
15°	4180.0	4073.3	3949.3	3630.3	3317.9	3136.0	2980.5	2585.0	2109.1	1754.5	1343.3
17.5°	5651.2	5698.6	5398.1	4848.4	4293.4	4008.7	3745.0	3137.3	2616.6	2247.5	1784.9
20°	7799.8	7699.6	7171.0	6260.2	5441.6	4965.7	4591.3	3714.7	2929.1	2469.0	2031.4
22.5°	10703.8	10384.8	9354.0	7813.0	6514.6	5854.2	5322.9	4141.8	3191.4	2582.4	2070.9
25°	14183.9	13888.6	11979.9	9306.5	7385.9	6530.4	5808.0	4413.4	3296.8	2600.8	2063.0
26°	15320.2	14881.2	12948.8	9837.8	7653.5	6701.8	5928.0	4466.1	3299.5	2586.3	2028.7
27°	15908.1	15564.1	13750.2	10268.8	7836.7	6809.9	5995.2	4479.3	3273.1	2553.4	1976.0
28°	16295.7	15974.0	14257.7	10550.9	7930.3	6852.0	6015.0	4450.3	3213.8	2495.4	1892.9
29°	16535.6	16196.8	14505.6	10678.8	7936.9	6833.6	5978.1	4373.8	3133.4	2425.5	1796.7
30°	16605.5	16239.0	14512.1	10626.1	7839.4	6734.7	5873.9	4249.9	3035.8	2337.2	1689.9
31°	16481.5	16103.2	14273.6	10386.2	7639.0	6542.3	5710.5	4086.4	2914.6	2243.6	1525.2
32°	16275.9	15773.7	13773.9	9988.1	7364.8	6310.3	5506.2	3908.5	2785.4	2125.0	1293.2
33°	15838.3	15231.9	13009.4	9488.5	7035.3	6044.0	5267.6	3710.8	2662.8	1920.6	961.0
34°	15180.5	14414.6	12072.1	8907.1	6662.2	5711.8	4993.4	3527.5	2534.9	1650.4	657.8
35°	13949.3	13236.1	11037.4	8287.6	6260.2	5390.2	4691.5	3287.6	2360.9	1323.5	406.0
36°	12571.7	12047.1	10034.2	7657.5	5848.9	5056.6	4380.4	3111.0	2103.9	974.2	275.5
37°	11163.9	10698.6	9087.7	7037.9	5436.3	4687.5	4064.0	2910.6	1798.0	649.9	221.5
38°	9823.3	9454.2	8188.7	6428.9	5007.9	4301.3	3731.8	2697.1	1468.5	417.9	181.9
39°	8592.1	8315.3	7308.1	5839.7	4578.1	3923.0	3412.8	2428.1	1120.5	297.9	151.6
40°	7434.7	7239.6	6459.2	5258.3	4151.0	3551.3	3124.2	2102.5	777.7	236.0	122.6
42.5°	5056.6	5007.9	4545.2	3784.6	3083.3	2732.6	2470.3	1182.4	299.2	142.4	68.5
45°	2503.3	2537.5	2353.0	2164.5	2018.2	1911.4	1556.8	493.0	166.1	77.8	42.2
47.5°	885.8	887.2	763.2	680.2	649.9	647.2	470.6	174.0	88.3	47.5	30.3
50°	250.5	270.2	254.4	259.7	203.0	172.7	141.0	84.4	44.8	30.3	19.8
51°	154.2	166.1	155.5	160.8	139.7	125.2	105.5	63.3	35.6	25.0	18.5
52°	98.9	105.5	100.2	101.5	93.6	81.7	71.2	46.1	29.0	21.1	15.8
53°	67.2	71.2	67.2	67.2	62.0	58.0	50.1	34.3	23.7	17.1	11.9
54°	46.1	47.5	47.5	47.5	43.5	40.9	35.6	26.4	19.8	15.8	10.5
55°	33.0	34.3	33.0	33.0	31.6	29.0	26.4	19.8	15.8	13.2	7.9
57.5°	14.5	14.5	14.5	15.8	14.5	14.5	13.2	11.9	10.5	7.9	5.3
60°	6.6	6.6	6.6	6.6	7.9	7.9	7.9	7.9	6.6	5.3	5.3
61°	5.3	5.3	5.3	5.3	5.3	6.6	6.6	6.6	5.3	5.3	4.0
62°	4.0	4.0	4.0	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0
63°	4.0	4.0	4.0	4.0	4.0	4.0	5.3	5.3	4.0	4.0	4.0
64°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
65°	4.0	2.6	2.6	2.6	2.6	4.0	4.0	4.0	4.0	4.0	4.0
66°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0	4.0



TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0
75°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0
77.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	4.0
80°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	4.0
82.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	4.0
85°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	4.0
87.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	4.0
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: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	245.2	243.9	237.3	230.7	232.0	229.4	226.7	222.8	220.1	213.5	213.5
5°	279.5	272.9	258.4	245.2	243.9	238.6	230.7	222.8	216.2	207.0	204.3
7.5°	319.0	300.6	276.8	255.7	251.8	243.9	229.4	218.8	207.0	195.1	191.1
10°	375.7	332.2	291.3	259.7	251.8	239.9	221.5	207.0	193.8	179.3	174.0
12.5°	577.4	410.0	309.8	259.7	245.2	230.7	208.3	191.1	175.3	159.5	154.2
15°	962.3	655.1	392.8	259.7	233.3	216.2	188.5	171.4	154.2	139.7	134.5
17.5°	1328.8	932.0	547.1	292.6	234.6	199.0	164.8	146.3	131.8	117.3	113.4
20°	1541.0	1086.2	648.6	325.6	232.0	179.3	141.0	121.3	106.8	96.2	92.3
22.5°	1568.7	1092.8	626.1	291.3	195.1	149.0	117.3	98.9	87.0	77.8	75.1
25°	1494.8	964.9	500.9	207.0	145.0	121.3	92.3	79.1	69.9	62.0	60.6
26°	1438.2	888.5	436.3	171.4	127.9	108.1	83.0	71.2	63.3	56.7	55.4
27°	1357.8	806.7	373.1	142.4	113.4	97.5	73.8	64.6	58.0	51.4	51.4
28°	1266.8	718.4	300.6	120.0	101.5	87.0	67.2	58.0	51.4	47.5	47.5
29°	1157.4	590.6	220.1	104.1	89.6	76.5	59.3	51.4	46.1	43.5	43.5
30°	995.2	428.4	151.6	91.0	77.8	67.2	52.7	46.1	42.2	39.5	39.5
31°	777.7	263.6	118.6	79.1	68.5	59.3	47.5	40.9	38.2	35.6	36.9
32°	529.9	164.8	101.5	68.5	60.6	51.4	42.2	36.9	34.3	33.0	33.0
33°	301.9	137.1	88.3	59.3	51.4	44.8	36.9	33.0	31.6	30.3	30.3
34°	200.4	117.3	76.5	50.1	42.2	38.2	31.6	29.0	27.7	27.7	27.7
35°	168.7	101.5	62.0	42.2	36.9	33.0	27.7	26.4	25.0	25.0	26.4
36°	142.4	84.4	50.1	35.6	31.6	29.0	25.0	23.7	22.4	22.4	23.7
37°	120.0	67.2	42.2	30.3	26.4	25.0	22.4	21.1	21.1	21.1	22.4
38°	97.5	54.0	35.6	26.4	23.7	21.1	19.8	18.5	18.5	19.8	21.1
39°	76.5	43.5	29.0	22.4	19.8	18.5	17.1	17.1	17.1	17.1	18.5
40°	60.6	36.9	25.0	19.8	17.1	17.1	15.8	14.5	15.8	15.8	18.5
42.5°	38.2	26.4	18.5	14.5	13.2	13.2	11.9	11.9	11.9	13.2	14.5
45°	27.7	21.1	14.5	11.9	10.5	9.2	9.2	9.2	10.5	11.9	13.2
47.5°	21.1	14.5	10.5	7.9	6.6	6.6	6.6	6.6	7.9	9.2	10.5
50°	14.5	9.2	6.6	5.3	5.3	5.3	5.3	5.3	6.6	7.9	9.2
51°	11.9	7.9	6.6	5.3	5.3	4.0	4.0	5.3	6.6	6.6	7.9
52°	9.2	6.6	5.3	4.0	4.0	4.0	4.0	5.3	5.3	6.6	7.9
53°	7.9	6.6	5.3	4.0	4.0	4.0	4.0	4.0	5.3	6.6	7.9
54°	6.6	5.3	4.0	4.0	4.0	4.0	4.0	4.0	5.3	6.6	7.9
55°	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0	5.3	5.3	6.6
57.5°	5.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3	6.6
60°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3	6.6
61°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3	6.6
62°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3	6.6
63°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3	5.3	6.6
64°	4.0	4.0	4.0	4.0	5.3	5.3	4.0	4.0	5.3	5.3	6.6
65°	4.0	4.0	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3	6.6
66°	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3	6.6





TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	5.3	5.3	5.3
75°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
77.5°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3
80°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3
82.5°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	5.3
85°	4.0	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	4.0
87.5°	4.0	4.0	5.3	5.3	5.3	5.3	4.0	4.0	4.0	4.0	4.0
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: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	210.9	207.0	204.3	203.0	204.3	201.7	197.7	199.0	197.7	196.4	196.4
5°	200.4	193.8	191.1	189.8	189.8	188.5	183.2	184.5	183.2	181.9	181.9
7.5°	185.9	180.6	176.6	175.3	175.3	174.0	168.7	171.4	168.7	167.4	168.7
10°	168.7	163.5	162.1	159.5	159.5	158.2	154.2	155.5	154.2	154.2	154.2
12.5°	150.3	145.0	143.7	142.4	143.7	142.4	138.4	141.0	139.7	139.7	141.0
15°	130.5	126.5	126.5	125.2	126.5	125.2	123.9	125.2	125.2	125.2	127.9
17.5°	110.7	108.1	108.1	106.8	108.1	108.1	106.8	110.7	110.7	113.4	116.0
20°	91.0	88.3	89.6	89.6	92.3	92.3	92.3	96.2	97.5	100.2	104.1
22.5°	75.1	73.8	75.1	75.1	77.8	79.1	79.1	83.0	87.0	89.6	93.6
25°	60.6	60.6	63.3	63.3	64.6	67.2	68.5	73.8	76.5	79.1	83.0
26°	56.7	56.7	58.0	59.3	60.6	63.3	64.6	69.9	72.5	75.1	79.1
27°	51.4	51.4	54.0	55.4	56.7	59.3	62.0	65.9	68.5	72.5	75.1
28°	47.5	47.5	50.1	51.4	52.7	56.7	58.0	62.0	64.6	68.5	72.5
29°	43.5	44.8	47.5	47.5	50.1	52.7	54.0	59.3	62.0	64.6	68.5
30°	40.9	42.2	43.5	44.8	46.1	48.8	51.4	55.4	58.0	60.6	64.6
31°	38.2	39.5	40.9	42.2	43.5	46.1	48.8	52.7	55.4	58.0	62.0
32°	35.6	35.6	38.2	39.5	40.9	43.5	46.1	50.1	52.7	55.4	59.3
33°	33.0	34.3	35.6	36.9	38.2	40.9	43.5	46.1	48.8	52.7	56.7
34°	30.3	31.6	34.3	35.6	36.9	39.5	40.9	43.5	46.1	50.1	52.7
35°	27.7	30.3	31.6	33.0	34.3	36.9	38.2	42.2	43.5	47.5	50.1
36°	26.4	27.7	30.3	31.6	33.0	34.3	35.6	39.5	42.2	44.8	47.5
37°	23.7	26.4	27.7	29.0	30.3	33.0	34.3	36.9	39.5	42.2	44.8
38°	22.4	23.7	26.4	27.7	29.0	30.3	31.6	35.6	36.9	39.5	42.2
39°	21.1	22.4	25.0	26.4	26.4	29.0	30.3	33.0	34.3	36.9	40.9
40°	19.8	21.1	23.7	23.7	25.0	27.7	29.0	31.6	33.0	35.6	38.2
42.5°	17.1	18.5	19.8	21.1	22.4	23.7	25.0	27.7	29.0	30.3	33.0
45°	14.5	15.8	18.5	18.5	19.8	21.1	22.4	23.7	25.0	27.7	29.0
47.5°	11.9	14.5	15.8	17.1	17.1	18.5	19.8	21.1	22.4	23.7	25.0
50°	10.5	11.9	13.2	14.5	14.5	15.8	17.1	18.5	18.5	19.8	22.4
51°	10.5	11.9	13.2	13.2	14.5	15.8	15.8	17.1	18.5	18.5	19.8
52°	9.2	10.5	11.9	13.2	13.2	14.5	15.8	15.8	17.1	18.5	19.8
53°	9.2	10.5	11.9	11.9	13.2	14.5	14.5	15.8	15.8	17.1	18.5
54°	9.2	10.5	11.9	11.9	13.2	13.2	14.5	14.5	15.8	15.8	17.1
55°	7.9	9.2	10.5	11.9	11.9	13.2	13.2	14.5	14.5	15.8	15.8
57.5°	7.9	9.2	10.5	10.5	10.5	11.9	11.9	13.2	13.2	13.2	14.5
60°	7.9	9.2	9.2	10.5	10.5	11.9	11.9	11.9	11.9	13.2	13.2
61°	7.9	7.9	9.2	10.5	10.5	10.5	11.9	11.9	11.9	11.9	13.2
62°	7.9	7.9	9.2	9.2	10.5	10.5	10.5	11.9	11.9	11.9	11.9
63°	6.6	7.9	9.2	9.2	10.5	10.5	10.5	10.5	10.5	11.9	11.9
64°	6.6	7.9	9.2	9.2	9.2	10.5	10.5	10.5	10.5	10.5	10.5
65°	6.6	7.9	9.2	9.2	9.2	10.5	10.5	10.5	10.5	10.5	10.5
66°	6.6	7.9	9.2	9.2	9.2	10.5	10.5	10.5	10.5	10.5	10.5



TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	6.6	6.6	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	6.6	6.6	6.6	7.9	7.9	7.9	7.9	7.9	7.9	6.6	6.6
77.5°	5.3	5.3	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	5.3
80°	5.3	5.3	6.6	6.6	6.6	6.6	6.6	6.6	5.3	5.3	5.3
82.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0
85°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	2.6
87.5°	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	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: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	197.7	193.8	192.5	192.5	193.8	192.5	193.8	192.5
5°	181.9	178.0	178.0	176.6	178.0	176.6	178.0	176.6
7.5°	168.7	164.8	164.8	164.8	164.8	164.8	166.1	164.8
10°	155.5	151.6	151.6	150.3	151.6	151.6	152.9	151.6
12.5°	142.4	139.7	139.7	138.4	141.0	139.7	142.4	141.0
15°	130.5	127.9	127.9	129.2	130.5	130.5	131.8	131.8
17.5°	118.6	118.6	118.6	120.0	121.3	122.6	123.9	122.6
20°	108.1	108.1	109.4	110.7	112.0	113.4	114.7	114.7
22.5°	97.5	97.5	98.9	101.5	104.1	105.5	106.8	106.8
25°	87.0	88.3	89.6	91.0	94.9	96.2	97.5	97.5
26°	83.0	84.4	87.0	88.3	91.0	92.3	94.9	94.9
27°	80.4	81.7	83.0	84.4	88.3	89.6	92.3	91.0
28°	76.5	77.8	79.1	81.7	84.4	87.0	88.3	88.3
29°	72.5	75.1	76.5	77.8	81.7	83.0	84.4	84.4
30°	69.9	71.2	72.5	75.1	77.8	80.4	81.7	81.7
31°	65.9	68.5	69.9	71.2	75.1	76.5	79.1	79.1
32°	63.3	64.6	65.9	68.5	71.2	73.8	75.1	75.1
33°	59.3	62.0	63.3	64.6	68.5	71.2	72.5	71.2
34°	56.7	59.3	59.3	62.0	64.6	67.2	68.5	68.5
35°	54.0	55.4	56.7	59.3	62.0	64.6	65.9	65.9
36°	51.4	52.7	54.0	56.7	59.3	62.0	63.3	63.3
37°	48.8	50.1	51.4	52.7	56.7	59.3	60.6	60.6
38°	46.1	47.5	48.8	51.4	54.0	55.4	58.0	58.0
39°	43.5	44.8	46.1	48.8	51.4	52.7	55.4	54.0
40°	40.9	43.5	43.5	46.1	48.8	50.1	52.7	51.4
42.5°	35.6	36.9	38.2	39.5	42.2	44.8	46.1	46.1
45°	31.6	33.0	34.3	35.6	36.9	38.2	40.9	39.5
47.5°	26.4	27.7	29.0	30.3	31.6	33.0	34.3	34.3
50°	23.7	23.7	25.0	25.0	27.7	29.0	30.3	30.3
51°	21.1	22.4	23.7	23.7	26.4	26.4	27.7	27.7
52°	21.1	21.1	22.4	22.4	23.7	25.0	26.4	26.4
53°	19.8	19.8	21.1	21.1	22.4	23.7	25.0	25.0
54°	18.5	18.5	19.8	19.8	21.1	22.4	23.7	23.7
55°	17.1	17.1	18.5	18.5	19.8	21.1	22.4	22.4
57.5°	14.5	15.8	15.8	17.1	17.1	18.5	18.5	19.8
60°	13.2	14.5	14.5	14.5	15.8	15.8	15.8	15.8
61°	13.2	13.2	13.2	14.5	14.5	13.2	14.5	13.2
62°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
63°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
64°	11.9	10.5	10.5	10.5	10.5	10.5	10.5	10.5
65°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	9.2
66°	10.5	10.5	9.2	10.5	9.2	9.2	9.2	9.2



TEST NUMBER: P182694

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	6.6	6.6	6.6	6.6	6.6	5.3	5.3	5.3
75°	6.6	6.6	6.6	5.3	5.3	5.3	5.3	4.0
77.5°	5.3	5.3	5.3	5.3	4.0	4.0	4.0	4.0
80°	4.0	4.0	4.0	4.0	4.0	4.0	2.6	2.6
82.5°	4.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
85°	2.6	2.6	2.6	2.6	2.6	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0	4.0
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0	4.0





67.5°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	5.3	5.3	6.6
70°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	5.3	5.3	5.3





67.5°	6.6	7.9	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
70°	6.6	7.9	7.9	7.9	9.2	9.2	9.2	9.2	9.2	9.2	9.2







67.5°	9.2	9.2	9.2	9.2	9.2	7.9	7.9	7.9
70°	7.9	7.9	7.9	7.9	7.9	6.6	6.6	6.6



(END OF REPORT)