

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: P182768

Luminaire Tested: **LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182768
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: LDSQA4A18835D010TE 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: 1802.0 lumens
Efficiency: N/A
Efficacy: 61.9 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

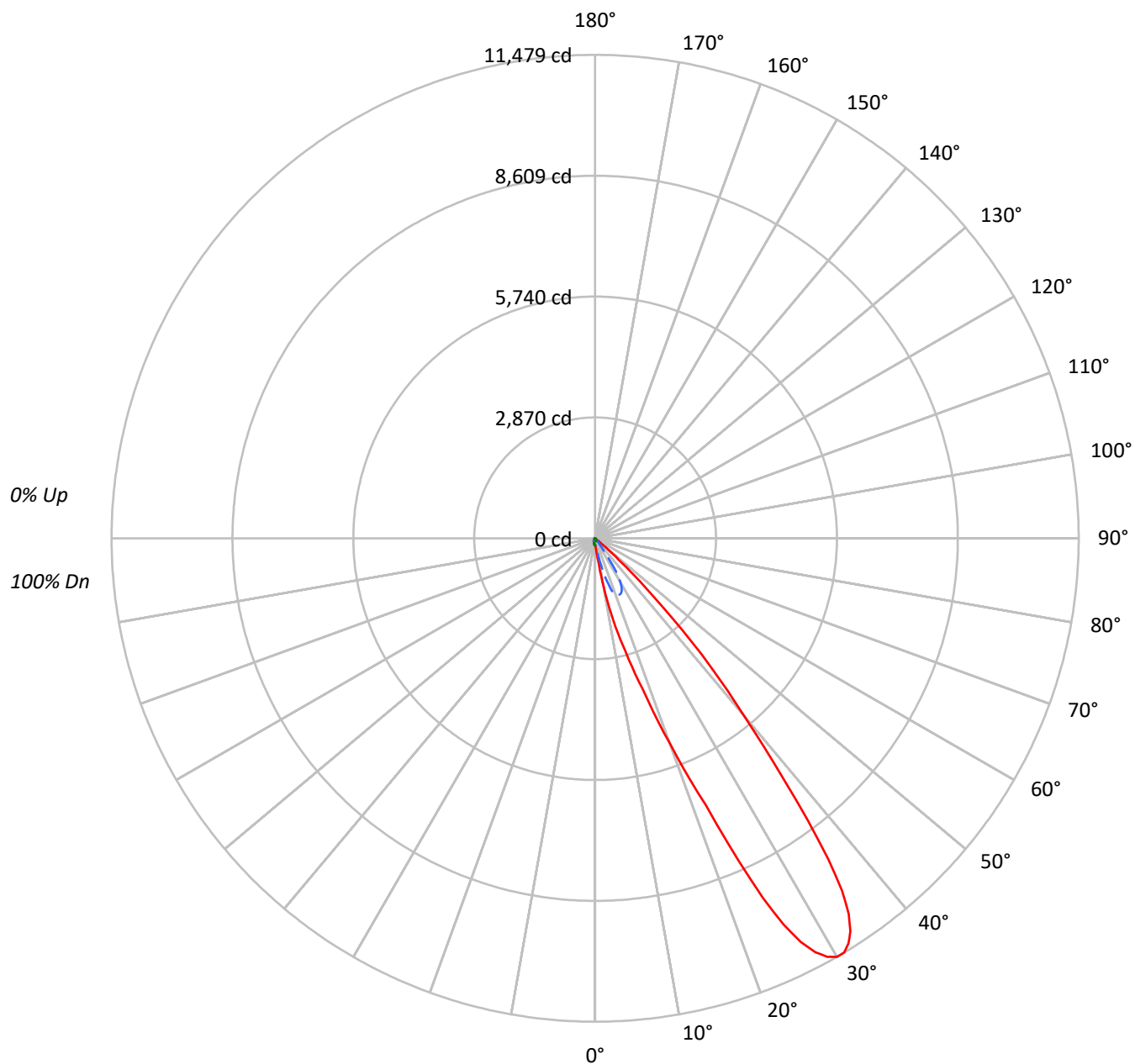
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

Luminous Intensity Polar Plot





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CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	72	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°	16469	16469	16469
5°	26169	15657	13517
10°	114621	13870	11509
15°	280078	11233	10029
20°	534329	8351	9175
25°	1007002	5986	8017
30°	1283987	4251	7047
35°	1207821	2602	6031
40°	692897	1770	5185
45°	267484	1233	4384
50°	35568	904	3617
55°	5405	844	3040
60°	1550	775	2519
65°	917	917	1834
70°	566	1133	1416
75°	749	1123	1123
80°	0	1674	1116
85°	0	3335	1112



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	1.2
10°-20°	193.1	10.7
20°-30°	615.9	34.2
30°-40°	713.6	39.6
40°-50°	232.1	12.9
50°-60°	14.7	0.8
60°-70°	5.3	0.3
70°-80°	3.8	0.2
80°-90°	2.3	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°	830.2	46.1
0°-40°	1543.8	85.7
0°-60°	1790.6	99.4
0°-90°	1802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1802.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	170	170	170	170	170	
5°	269	225	161	141	139	52
15°	2793	1006	112	96	100	885
25°	9421	1447	56	59	75	4233
35°	10213	345	22	34	51	5876
45°	1952	42	9	20	32	1743
55°	32	8	5	11	18	50
65°	4	3	4	8	8	4
75°	2	3	3	5	3	1
85°	0	2	3	3	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
2.5°	207.0	209.0	209.0	206.0	206.0	203.0	201.0	200.0	199.0	196.0	195.0
5°	269.1	271.1	272.1	264.1	261.1	255.1	250.1	245.0	239.0	232.0	225.0
7.5°	519.1	477.1	484.1	424.1	413.1	387.1	366.1	333.1	309.1	285.1	266.1
10°	1165.2	1125.2	1118.2	1030.2	943.2	878.2	808.2	687.1	577.1	460.1	365.1
12.5°	1996.4	1937.4	1904.4	1731.3	1629.3	1533.3	1426.3	1237.2	1026.2	846.2	658.1
15°	2792.6	2787.6	2669.5	2476.5	2282.5	2164.4	2026.4	1792.4	1542.3	1268.3	1006.2
17.5°	3753.8	3792.8	3590.7	3213.6	2906.6	2714.5	2524.5	2158.4	1846.4	1580.3	1293.3
20°	5183.0	5079.0	4725.9	4135.8	3616.7	3327.7	3032.6	2493.5	2046.4	1724.3	1433.3
22.5°	6862.4	6782.4	6122.2	5138.0	4314.9	3908.8	3502.7	2801.6	2219.4	1802.4	1460.3
25°	9420.9	9091.8	7810.6	6213.2	4955.0	4379.9	3858.8	3001.6	2297.5	1812.4	1447.3
26°	10206.0	9975.0	8496.7	6640.3	5152.0	4509.9	3947.8	3042.6	2303.5	1803.4	1422.3
27°	10763.2	10587.1	9067.8	6954.4	5295.1	4599.9	4005.8	3059.6	2289.5	1784.4	1388.3
28°	11130.2	10989.2	9498.9	7181.4	5382.1	4647.9	4033.8	3055.6	2261.5	1751.4	1340.3
29°	11363.3	11227.2	9751.0	7310.5	5413.1	4655.9	4026.8	3025.6	2216.4	1702.3	1271.3
30°	11478.3	11330.3	9836.0	7324.5	5379.1	4609.9	3973.8	2959.6	2154.4	1643.3	1195.2
31°	11479.3	11315.3	9765.0	7216.4	5278.1	4511.9	3879.8	2849.6	2073.4	1573.3	1093.2
32°	11346.3	11177.2	9527.9	6997.4	5120.0	4388.9	3753.8	2737.5	1988.4	1495.3	946.2
33°	11123.2	10923.2	9116.8	6693.3	4918.0	4220.8	3602.7	2612.5	1903.4	1370.3	753.2
34°	10763.2	10490.1	8542.7	6324.3	4673.9	4024.8	3429.7	2477.5	1817.4	1196.2	538.1
35°	10213.0	9828.0	7878.6	5916.2	4412.9	3812.8	3234.6	2336.5	1712.3	981.2	345.1
36°	9416.9	8919.8	7187.4	5494.1	4143.8	3589.7	3036.6	2200.4	1546.3	744.1	226.0
37°	8377.7	7939.6	6526.3	5069.0	3864.8	3351.7	2855.6	2063.4	1342.3	520.1	184.0
38°	7310.5	6987.4	5880.2	4646.9	3575.7	3094.6	2635.5	1920.4	1119.2	342.1	154.0
39°	6348.3	6132.2	5248.1	4228.8	3277.7	2869.6	2415.5	1738.3	881.2	243.0	130.0
40°	5479.1	5330.1	4636.9	3802.8	2979.6	2597.5	2208.4	1515.3	635.1	194.0	109.0
42.5°	3736.7	3662.7	3243.6	2736.5	2204.4	1985.4	1739.3	911.2	252.1	123.0	66.0
45°	1952.4	1920.4	1768.4	1602.3	1437.3	1380.3	1118.2	409.1	142.0	72.0	42.0
47.5°	760.2	762.2	630.1	538.1	511.1	475.1	360.1	147.0	80.0	44.0	28.0
50°	236.0	254.1	234.0	221.0	169.0	141.0	117.0	73.0	43.0	27.0	18.0
51°	145.0	154.0	145.0	145.0	119.0	104.0	89.0	56.0	34.0	22.0	16.0
52°	94.0	99.0	94.0	88.0	82.0	74.0	64.0	42.0	27.0	18.0	13.0
53°	64.0	67.0	64.0	60.0	55.0	51.0	45.0	31.0	22.0	15.0	11.0
54°	45.0	47.0	45.0	42.0	39.0	36.0	33.0	24.0	18.0	13.0	10.0
55°	32.0	34.0	33.0	31.0	28.0	27.0	25.0	19.0	15.0	11.0	8.0
57.5°	15.0	16.0	16.0	15.0	15.0	14.0	13.0	12.0	9.0	7.0	6.0
60°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	6.0	5.0	5.0
61°	6.0	6.0	6.0	6.0	6.0	6.0	7.0	6.0	5.0	5.0	4.0
62°	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	4.0	4.0
63°	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	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	3.0
65°	4.0	4.0	3.0	3.0	3.0	4.0	3.0	4.0	3.0	3.0	3.0
66°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
75°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
77.5°	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.0
80°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
85°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
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°	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
2.5°	189.0	184.0	182.0	180.0	179.0	177.0	174.0	171.0	170.0	166.0	162.0
5°	213.0	204.0	197.0	190.0	188.0	183.0	177.0	170.0	167.0	161.0	156.0
7.5°	241.0	223.0	210.0	198.0	193.0	187.0	176.0	167.0	161.0	152.0	146.0
10°	288.1	246.0	221.0	200.0	192.0	184.0	170.0	158.0	150.0	141.0	134.0
12.5°	456.1	319.1	240.0	201.0	190.0	178.0	161.0	147.0	137.0	127.0	121.0
15°	719.1	486.1	311.1	211.0	186.0	168.0	148.0	132.0	122.0	112.0	106.0
17.5°	960.2	654.1	406.1	235.0	188.0	159.0	132.0	116.0	105.0	96.0	92.0
20°	1076.2	733.1	452.1	240.0	176.0	142.0	114.0	99.0	89.0	81.0	77.0
22.5°	1087.2	728.1	424.1	205.0	146.0	120.0	96.0	82.0	74.0	68.0	64.0
25°	1035.2	646.1	340.1	151.0	114.0	100.0	79.0	67.0	61.0	56.0	53.0
26°	995.2	599.1	299.1	131.0	104.0	91.0	72.0	62.0	56.0	52.0	49.0
27°	940.2	544.1	251.1	113.0	96.0	82.0	66.0	57.0	52.0	49.0	46.0
28°	874.2	490.1	208.0	100.0	87.0	74.0	61.0	52.0	48.0	45.0	42.0
29°	803.2	419.1	163.0	90.0	78.0	67.0	55.0	47.0	43.0	41.0	39.0
30°	703.1	326.1	125.0	81.0	70.0	60.0	50.0	43.0	40.0	38.0	36.0
31°	562.1	224.0	101.0	72.0	63.0	54.0	45.0	39.0	36.0	34.0	33.0
32°	403.1	138.0	88.0	64.0	56.0	49.0	39.0	35.0	32.0	31.0	30.0
33°	248.0	113.0	78.0	57.0	49.0	43.0	35.0	31.0	29.0	28.0	27.0
34°	163.0	98.0	69.0	49.0	43.0	37.0	30.0	27.0	26.0	25.0	25.0
35°	138.0	87.0	60.0	42.0	36.0	32.0	26.0	24.0	23.0	22.0	23.0
36°	119.0	76.0	50.0	36.0	31.0	27.0	23.0	21.0	20.0	20.0	21.0
37°	105.0	64.0	42.0	30.0	27.0	24.0	20.0	19.0	18.0	18.0	19.0
38°	89.0	52.0	35.0	26.0	23.0	20.0	18.0	17.0	17.0	17.0	18.0
39°	73.0	44.0	30.0	22.0	20.0	18.0	16.0	15.0	15.0	16.0	16.0
40°	60.0	37.0	25.0	19.0	17.0	16.0	14.0	14.0	14.0	14.0	15.0
42.5°	39.0	25.0	18.0	14.0	13.0	12.0	11.0	11.0	11.0	11.0	12.0
45°	26.0	18.0	14.0	11.0	10.0	9.0	9.0	8.0	9.0	9.0	10.0
47.5°	18.0	13.0	10.0	8.0	7.0	6.0	6.0	6.0	7.0	8.0	8.0
50°	13.0	9.0	7.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	7.0
51°	11.0	8.0	6.0	5.0	5.0	4.0	4.0	4.0	5.0	6.0	7.0
52°	9.0	7.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	6.0
53°	8.0	6.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	6.0
54°	7.0	5.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0	5.0	6.0
55°	6.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	4.0	5.0	5.0
57.5°	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	5.0
60°	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	5.0
61°	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	5.0
62°	4.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0	4.0	5.0
63°	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0	4.0	4.0
64°	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0	5.0
65°	3.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0	5.0
66°	3.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	3.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0
75°	3.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0
77.5°	3.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0
80°	3.0	3.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
82.5°	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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: P182768

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
2.5°	160.0	160.0	159.0	157.0	159.0	157.0	155.0	154.0	153.0	152.0	150.0
5°	152.0	151.0	149.0	148.0	148.0	146.0	144.0	142.0	141.0	140.0	138.0
7.5°	142.0	141.0	138.0	137.0	137.0	135.0	132.0	131.0	130.0	129.0	127.0
10°	130.0	129.0	126.0	125.0	125.0	123.0	121.0	119.0	118.0	117.0	115.0
12.5°	116.0	115.0	113.0	112.0	112.0	110.0	108.0	107.0	107.0	106.0	105.0
15°	102.0	101.0	99.0	99.0	99.0	97.0	96.0	95.0	96.0	96.0	95.0
17.5°	88.0	87.0	85.0	85.0	85.0	85.0	84.0	84.0	85.0	86.0	86.0
20°	74.0	73.0	73.0	72.0	73.0	74.0	73.0	74.0	76.0	77.0	78.0
22.5°	61.0	61.0	61.0	61.0	62.0	63.0	63.0	65.0	67.0	68.0	70.0
25°	51.0	51.0	52.0	52.0	53.0	54.0	55.0	56.0	59.0	61.0	62.0
26°	47.0	48.0	48.0	49.0	50.0	51.0	52.0	53.0	56.0	58.0	59.0
27°	44.0	44.0	45.0	46.0	47.0	48.0	49.0	51.0	53.0	55.0	57.0
28°	41.0	41.0	42.0	43.0	44.0	45.0	46.0	48.0	50.0	53.0	54.0
29°	38.0	39.0	39.0	40.0	41.0	42.0	44.0	45.0	48.0	50.0	52.0
30°	35.0	36.0	37.0	37.0	38.0	39.0	41.0	43.0	45.0	48.0	49.0
31°	33.0	34.0	34.0	35.0	36.0	37.0	39.0	41.0	43.0	45.0	47.0
32°	30.0	32.0	32.0	32.0	33.0	35.0	37.0	38.0	41.0	43.0	44.0
33°	28.0	29.0	30.0	30.0	31.0	33.0	35.0	36.0	39.0	41.0	42.0
34°	26.0	27.0	28.0	28.0	29.0	31.0	33.0	34.0	37.0	38.0	40.0
35°	24.0	25.0	26.0	26.0	27.0	29.0	31.0	32.0	34.0	36.0	38.0
36°	22.0	23.0	24.0	25.0	26.0	28.0	29.0	31.0	32.0	34.0	36.0
37°	20.0	21.0	23.0	23.0	25.0	26.0	28.0	29.0	31.0	32.0	34.0
38°	18.0	20.0	21.0	22.0	23.0	25.0	26.0	27.0	29.0	31.0	32.0
39°	17.0	19.0	20.0	21.0	22.0	23.0	24.0	26.0	27.0	29.0	30.0
40°	16.0	17.0	19.0	19.0	21.0	22.0	23.0	24.0	26.0	27.0	29.0
42.5°	13.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	24.0	25.0
45°	11.0	13.0	14.0	14.0	15.0	16.0	17.0	18.0	20.0	21.0	22.0
47.5°	9.0	11.0	12.0	13.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
50°	8.0	9.0	10.0	11.0	12.0	12.0	13.0	14.0	15.0	16.0	16.0
51°	8.0	9.0	10.0	10.0	11.0	12.0	13.0	13.0	14.0	15.0	15.0
52°	7.0	8.0	9.0	10.0	11.0	11.0	12.0	13.0	13.0	14.0	15.0
53°	7.0	8.0	9.0	9.0	10.0	11.0	11.0	12.0	13.0	13.0	14.0
54°	6.0	8.0	9.0	9.0	10.0	10.0	11.0	12.0	12.0	12.0	13.0
55°	6.0	7.0	8.0	9.0	9.0	10.0	10.0	11.0	11.0	12.0	12.0
57.5°	6.0	7.0	8.0	8.0	9.0	9.0	10.0	10.0	10.0	10.0	11.0
60°	5.0	6.0	7.0	8.0	8.0	9.0	9.0	9.0	9.0	9.0	10.0
61°	5.0	6.0	7.0	7.0	8.0	8.0	9.0	9.0	9.0	9.0	9.0
62°	5.0	6.0	7.0	7.0	8.0	8.0	8.0	9.0	9.0	9.0	9.0
63°	5.0	6.0	7.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0	9.0
64°	5.0	6.0	7.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
65°	5.0	6.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
66°	5.0	6.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0	7.0



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	4.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0
75°	4.0	5.0	5.0	5.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0
77.5°	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0
80°	4.0	4.0	4.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	3.0
82.5°	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0
85°	3.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0
87.5°	3.0	3.0	3.0	4.0	4.0	4.0	3.0	3.0	2.0	2.0	2.0
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: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
2.5°	152.0	153.0	152.0	152.0	150.0	151.0	149.0	152.0
5°	139.0	140.0	139.0	139.0	137.0	137.0	136.0	139.0
7.5°	128.0	129.0	127.0	127.0	125.0	126.0	125.0	127.0
10°	117.0	117.0	117.0	116.0	115.0	116.0	115.0	117.0
12.5°	106.0	107.0	107.0	107.0	106.0	106.0	105.0	108.0
15°	97.0	98.0	99.0	99.0	98.0	99.0	98.0	100.0
17.5°	89.0	91.0	91.0	92.0	92.0	93.0	93.0	95.0
20°	81.0	84.0	84.0	85.0	85.0	87.0	87.0	89.0
22.5°	73.0	76.0	77.0	77.0	78.0	80.0	80.0	82.0
25°	66.0	69.0	70.0	70.0	71.0	73.0	73.0	75.0
26°	63.0	66.0	67.0	68.0	69.0	71.0	71.0	73.0
27°	60.0	63.0	64.0	65.0	66.0	68.0	68.0	70.0
28°	58.0	61.0	62.0	63.0	64.0	66.0	66.0	67.0
29°	55.0	58.0	59.0	60.0	61.0	63.0	63.0	65.0
30°	53.0	55.0	56.0	57.0	58.0	61.0	61.0	63.0
31°	50.0	53.0	54.0	55.0	56.0	58.0	58.0	61.0
32°	48.0	50.0	51.0	52.0	54.0	55.0	56.0	58.0
33°	45.0	48.0	49.0	50.0	51.0	53.0	54.0	56.0
34°	43.0	45.0	47.0	48.0	49.0	51.0	52.0	54.0
35°	41.0	43.0	44.0	45.0	47.0	49.0	49.0	51.0
36°	39.0	41.0	42.0	43.0	45.0	47.0	47.0	49.0
37°	37.0	39.0	40.0	41.0	43.0	45.0	45.0	47.0
38°	35.0	37.0	38.0	39.0	41.0	43.0	44.0	46.0
39°	33.0	36.0	37.0	38.0	39.0	41.0	42.0	43.0
40°	32.0	34.0	35.0	36.0	37.0	39.0	40.0	41.0
42.5°	27.0	30.0	31.0	32.0	33.0	34.0	35.0	36.0
45°	24.0	26.0	26.0	27.0	28.0	30.0	30.0	32.0
47.5°	21.0	22.0	23.0	23.0	24.0	26.0	26.0	27.0
50°	18.0	19.0	20.0	20.0	21.0	22.0	23.0	24.0
51°	17.0	18.0	18.0	19.0	20.0	21.0	22.0	23.0
52°	16.0	17.0	17.0	18.0	19.0	20.0	20.0	21.0
53°	15.0	16.0	16.0	17.0	17.0	19.0	19.0	20.0
54°	14.0	15.0	15.0	16.0	16.0	18.0	18.0	19.0
55°	13.0	14.0	15.0	15.0	15.0	16.0	17.0	18.0
57.5°	12.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0
60°	10.0	11.0	11.0	11.0	12.0	12.0	12.0	13.0
61°	10.0	10.0	11.0	11.0	10.0	10.0	10.0	11.0
62°	9.0	10.0	10.0	9.0	9.0	9.0	9.0	10.0
63°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
64°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
65°	8.0	8.0	8.0	8.0	8.0	8.0	7.0	8.0
66°	7.0	8.0	8.0	7.0	7.0	7.0	7.0	7.0



TEST NUMBER: P182768

CATALOG NUMBER: LDSQA4A18835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
75°	5.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0
77.5°	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
80°	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
82.5°	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0





67.5°	3.0	3.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0	4.0
70°	3.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0





67.5°	5.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
70°	5.0	5.0	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	6.0





67.5°	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0
70°	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0



(END OF REPORT)