

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: P182680

Luminaire Tested: **LDSQA4A09835D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182680
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: LDSQA4A09835D010TE 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 / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1049.9 lumens
Efficiency: N/A
Efficacy: 75.9 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

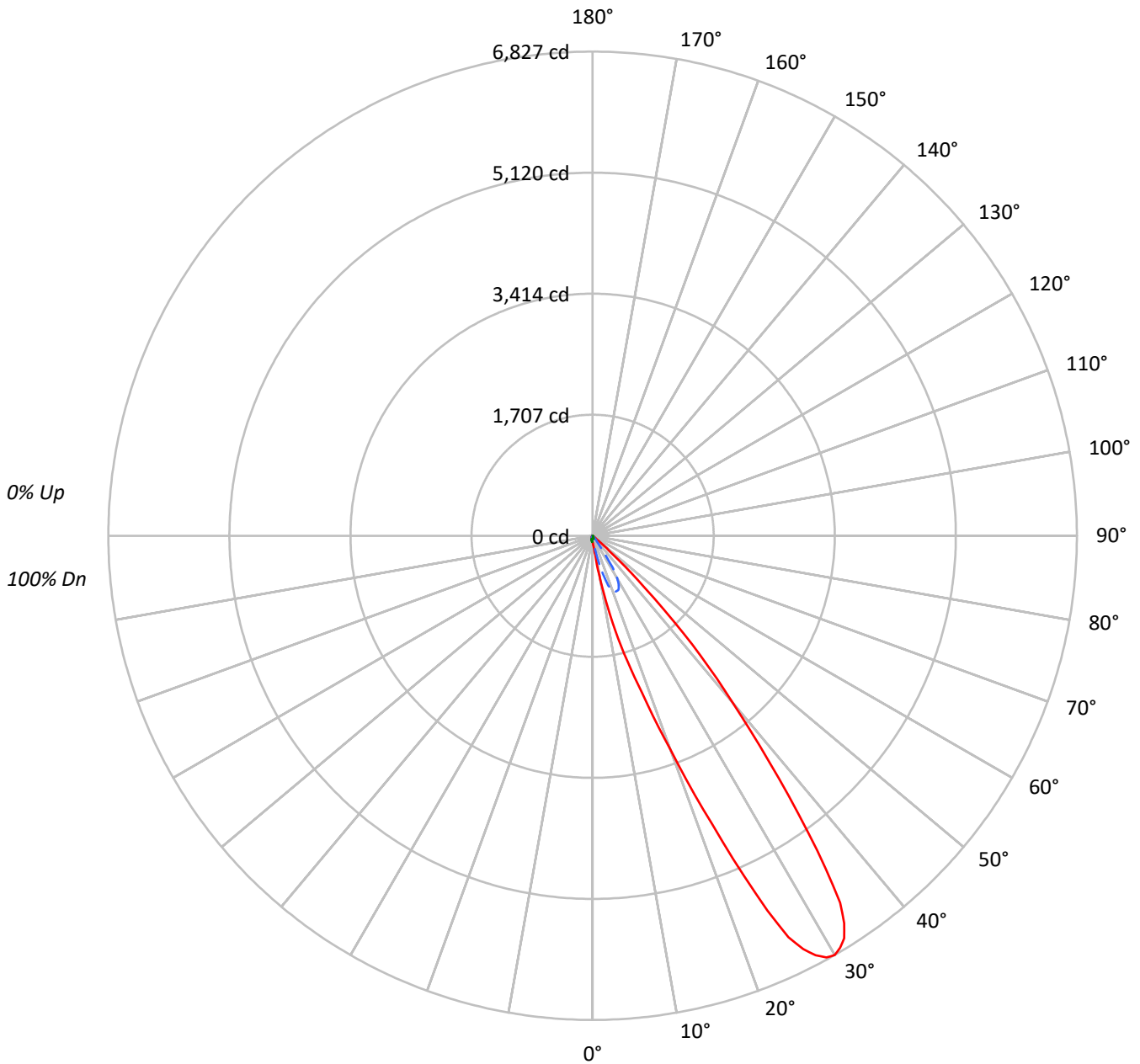
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8767	8767	8767
5°	14597	8276	7060
10°	62268	7250	6128
15°	172353	5757	5436
20°	330598	4082	4866
25°	623330	2726	4286
30°	763683	1823	3759
35°	678239	1218	3205
40°	386543	822	2668
45°	141003	671	2233
50°	15523	497	1884
55°	2280	372	1554
60°	523	426	1259
65°	367	504	871
70°	312	623	765
75°	412	823	599
80°	0	1227	614
85°	0	1778	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.4	1.1
10°-20°	113.8	10.8
20°-30°	373.7	35.6
30°-40°	409.8	39.0
40°-50°	128.0	12.2
50°-60°	7.0	0.7
60°-70°	2.8	0.3
70°-80°	2.2	0.2
80°-90°	1.3	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°	498.8	47.5
0°-40°	908.6	86.5
0°-60°	1043.6	99.4
0°-90°	1049.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1049.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	90	90	90	90	90	
5°	150	120	85	75	73	28
15°	1718	552	57	52	54	540
25°	5832	848	26	31	40	2599
35°	5735	167	10	18	27	3353
45°	1029	17	5	10	16	945
55°	14	3	2	6	9	21
65°	2	2	2	4	4	1
75°	1	2	2	3	2	1
85°	0	2	2	2	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°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	111.6	112.7	113.3	110.6	111.1	110.0	111.1	108.9	105.1	106.2	103.0
5°	150.1	148.0	147.4	143.1	142.0	139.8	139.8	134.9	127.9	126.8	120.3
7.5°	265.6	254.2	244.4	229.8	215.7	204.9	200.5	183.2	164.2	157.2	142.0
10°	633.0	630.8	606.5	560.4	507.3	468.8	446.6	379.4	294.3	242.3	188.1
12.5°	1152.2	1141.4	1106.7	1022.1	930.5	873.1	828.1	692.6	566.3	465.0	333.3
15°	1718.5	1674.7	1623.7	1492.6	1364.1	1289.3	1225.4	1062.8	867.1	721.3	552.3
17.5°	2323.4	2342.9	2219.3	1993.3	1765.2	1648.1	1539.7	1289.9	1075.8	924.0	733.8
20°	3206.8	3165.6	2948.3	2573.8	2237.2	2041.6	1887.6	1527.2	1204.2	1015.1	835.2
22.5°	4400.7	4269.5	3845.7	3212.2	2678.4	2406.8	2188.4	1702.8	1312.1	1061.7	851.4
25°	5831.5	5710.1	4925.3	3826.2	3036.6	2684.9	2387.9	1814.5	1355.4	1069.3	848.2
26°	6298.6	6118.2	5323.7	4044.6	3146.6	2755.3	2437.2	1836.2	1356.5	1063.3	834.1
27°	6540.4	6398.9	5653.2	4221.9	3221.9	2799.8	2464.8	1841.6	1345.7	1049.8	812.4
28°	6699.7	6567.5	5861.8	4337.8	3260.4	2817.1	2473.0	1829.7	1321.3	1025.9	778.3
29°	6798.3	6659.0	5963.7	4390.4	3263.1	2809.5	2457.8	1798.2	1288.2	997.2	738.7
30°	6827.0	6676.4	5966.4	4368.7	3223.0	2768.9	2415.0	1747.3	1248.1	960.9	694.8
31°	6776.1	6620.6	5868.3	4270.1	3140.6	2689.7	2347.8	1680.1	1198.3	922.4	627.0
32°	6691.6	6485.1	5662.9	4106.4	3027.9	2594.4	2263.8	1606.9	1145.2	873.6	531.7
33°	6511.6	6262.3	5348.6	3901.0	2892.4	2484.9	2165.7	1525.6	1094.8	789.6	395.1
34°	6241.2	5926.3	4963.3	3662.0	2739.1	2348.3	2052.9	1450.3	1042.2	678.5	270.4
35°	5735.0	5441.8	4537.8	3407.3	2573.8	2216.1	1928.8	1351.6	970.6	544.1	166.9
36°	5168.7	4953.0	4125.4	3148.2	2404.7	2079.0	1800.9	1279.0	865.0	400.5	113.3
37°	4589.8	4398.5	3736.3	2893.5	2235.0	1927.2	1670.9	1196.6	739.2	267.2	91.0
38°	4038.7	3886.9	3366.6	2643.1	2058.9	1768.4	1534.3	1108.8	603.7	171.8	74.8
39°	3532.5	3418.7	3004.6	2400.9	1882.2	1612.9	1403.1	998.3	460.7	122.5	62.3
40°	3056.6	2976.4	2655.6	2161.9	1706.6	1460.0	1284.4	864.4	319.8	97.0	50.4
42.5°	2079.0	2058.9	1868.7	1556.0	1267.6	1123.5	1015.6	486.1	123.0	58.5	28.2
45°	1029.2	1043.3	967.4	889.9	829.7	785.8	640.1	202.7	68.3	32.0	17.3
47.5°	364.2	364.7	313.8	279.7	267.2	266.1	193.5	71.5	36.3	19.5	12.5
50°	103.0	111.1	104.6	106.8	83.5	71.0	58.0	34.7	18.4	12.5	8.1
51°	63.4	68.3	64.0	66.1	57.4	51.5	43.4	26.0	14.6	10.3	7.6
52°	40.6	43.4	41.2	41.7	38.5	33.6	29.3	19.0	11.9	8.7	6.5
53°	27.6	29.3	27.6	27.6	25.5	23.8	20.6	14.1	9.8	7.0	4.9
54°	19.0	19.5	19.5	19.5	17.9	16.8	14.6	10.8	8.1	6.5	4.3
55°	13.5	14.1	13.5	13.5	13.0	11.9	10.8	8.1	6.5	5.4	3.3
57.5°	6.0	6.0	6.0	6.5	6.0	6.0	5.4	4.9	4.3	3.3	2.2
60°	2.7	2.7	2.7	2.7	3.3	3.3	3.3	3.3	2.7	2.2	2.2
61°	2.2	2.2	2.2	2.2	2.2	2.7	2.7	2.7	2.2	2.2	1.6
62°	1.6	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6
63°	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	1.6	1.6	1.6
64°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
65°	1.6	1.1	1.1	1.1	1.1	1.6	1.6	1.6	1.6	1.6	1.6
66°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.6



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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	1.6
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6
77.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.6
80°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.6
82.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.6
85°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.6
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.6
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°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	100.8	100.3	97.6	94.8	95.4	94.3	93.2	91.6	90.5	87.8	87.8
5°	114.9	112.2	106.2	100.8	100.3	98.1	94.8	91.6	88.9	85.1	84.0
7.5°	131.2	123.6	113.8	105.1	103.5	100.3	94.3	90.0	85.1	80.2	78.6
10°	154.5	136.6	119.8	106.8	103.5	98.6	91.0	85.1	79.7	73.7	71.5
12.5°	237.4	168.5	127.4	106.8	100.8	94.8	85.6	78.6	72.1	65.6	63.4
15°	395.6	269.4	161.5	106.8	95.9	88.9	77.5	70.5	63.4	57.4	55.3
17.5°	546.3	383.2	224.9	120.3	96.5	81.8	67.7	60.2	54.2	48.2	46.6
20°	633.5	446.6	266.6	133.9	95.4	73.7	58.0	49.9	43.9	39.6	37.9
22.5°	644.9	449.3	257.4	119.8	80.2	61.2	48.2	40.6	35.8	32.0	30.9
25°	614.6	396.7	205.9	85.1	59.6	49.9	37.9	32.5	28.7	25.5	24.9
26°	591.3	365.3	179.4	70.5	52.6	44.4	34.1	29.3	26.0	23.3	22.8
27°	558.2	331.7	153.4	58.5	46.6	40.1	30.3	26.6	23.8	21.1	21.1
28°	520.8	295.4	123.6	49.3	41.7	35.8	27.6	23.8	21.1	19.5	19.5
29°	475.8	242.8	90.5	42.8	36.9	31.4	24.4	21.1	19.0	17.9	17.9
30°	409.2	176.1	62.3	37.4	32.0	27.6	21.7	19.0	17.3	16.3	16.3
31°	319.8	108.4	48.8	32.5	28.2	24.4	19.5	16.8	15.7	14.6	15.2
32°	217.9	67.7	41.7	28.2	24.9	21.1	17.3	15.2	14.1	13.5	13.5
33°	124.1	56.4	36.3	24.4	21.1	18.4	15.2	13.5	13.0	12.5	12.5
34°	82.4	48.2	31.4	20.6	17.3	15.7	13.0	11.9	11.4	11.4	11.4
35°	69.4	41.7	25.5	17.3	15.2	13.5	11.4	10.8	10.3	10.3	10.8
36°	58.5	34.7	20.6	14.6	13.0	11.9	10.3	9.8	9.2	9.2	9.8
37°	49.3	27.6	17.3	12.5	10.8	10.3	9.2	8.7	8.7	8.7	9.2
38°	40.1	22.2	14.6	10.8	9.8	8.7	8.1	7.6	7.6	8.1	8.7
39°	31.4	17.9	11.9	9.2	8.1	7.6	7.0	7.0	7.0	7.0	7.6
40°	24.9	15.2	10.3	8.1	7.0	7.0	6.5	6.0	6.5	6.5	7.6
42.5°	15.7	10.8	7.6	6.0	5.4	5.4	4.9	4.9	4.9	5.4	6.0
45°	11.4	8.7	6.0	4.9	4.3	3.8	3.8	3.8	4.3	4.9	5.4
47.5°	8.7	6.0	4.3	3.3	2.7	2.7	2.7	2.7	3.3	3.8	4.3
50°	6.0	3.8	2.7	2.2	2.2	2.2	2.2	2.2	2.7	3.3	3.8
51°	4.9	3.3	2.7	2.2	2.2	1.6	1.6	2.2	2.7	2.7	3.3
52°	3.8	2.7	2.2	1.6	1.6	1.6	1.6	2.2	2.2	2.7	3.3
53°	3.3	2.7	2.2	1.6	1.6	1.6	1.6	1.6	2.2	2.7	3.3
54°	2.7	2.2	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.7	3.3
55°	2.2	2.2	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	2.7
57.5°	2.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.7
60°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.7
61°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.7
62°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.7
63°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	2.7
64°	1.6	1.6	1.6	1.6	2.2	2.2	1.6	1.6	2.2	2.2	2.7
65°	1.6	1.6	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2	2.7
66°	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2	2.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	2.2	2.2	2.2
75°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2
80°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	2.2	2.2
82.5°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	2.2
85°	1.6	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	1.6
87.5°	1.6	1.6	2.2	2.2	2.2	2.2	1.6	1.6	1.6	1.6	1.6
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	86.7	85.1	84.0	83.5	84.0	82.9	81.3	81.8	81.3	80.8	80.8
5°	82.4	79.7	78.6	78.0	78.0	77.5	75.3	75.9	75.3	74.8	74.8
7.5°	76.4	74.2	72.6	72.1	72.1	71.5	69.4	70.5	69.4	68.8	69.4
10°	69.4	67.2	66.7	65.6	65.6	65.0	63.4	64.0	63.4	63.4	63.4
12.5°	61.8	59.6	59.1	58.5	59.1	58.5	56.9	58.0	57.4	57.4	58.0
15°	53.7	52.0	52.0	51.5	52.0	51.5	50.9	51.5	51.5	51.5	52.6
17.5°	45.5	44.4	44.4	43.9	44.4	44.4	43.9	45.5	45.5	46.6	47.7
20°	37.4	36.3	36.9	36.9	37.9	37.9	37.9	39.6	40.1	41.2	42.8
22.5°	30.9	30.3	30.9	30.9	32.0	32.5	32.5	34.1	35.8	36.9	38.5
25°	24.9	24.9	26.0	26.0	26.6	27.6	28.2	30.3	31.4	32.5	34.1
26°	23.3	23.3	23.8	24.4	24.9	26.0	26.6	28.7	29.8	30.9	32.5
27°	21.1	21.1	22.2	22.8	23.3	24.4	25.5	27.1	28.2	29.8	30.9
28°	19.5	19.5	20.6	21.1	21.7	23.3	23.8	25.5	26.6	28.2	29.8
29°	17.9	18.4	19.5	19.5	20.6	21.7	22.2	24.4	25.5	26.6	28.2
30°	16.8	17.3	17.9	18.4	19.0	20.1	21.1	22.8	23.8	24.9	26.6
31°	15.7	16.3	16.8	17.3	17.9	19.0	20.1	21.7	22.8	23.8	25.5
32°	14.6	14.6	15.7	16.3	16.8	17.9	19.0	20.6	21.7	22.8	24.4
33°	13.5	14.1	14.6	15.2	15.7	16.8	17.9	19.0	20.1	21.7	23.3
34°	12.5	13.0	14.1	14.6	15.2	16.3	16.8	17.9	19.0	20.6	21.7
35°	11.4	12.5	13.0	13.5	14.1	15.2	15.7	17.3	17.9	19.5	20.6
36°	10.8	11.4	12.5	13.0	13.5	14.1	14.6	16.3	17.3	18.4	19.5
37°	9.8	10.8	11.4	11.9	12.5	13.5	14.1	15.2	16.3	17.3	18.4
38°	9.2	9.8	10.8	11.4	11.9	12.5	13.0	14.6	15.2	16.3	17.3
39°	8.7	9.2	10.3	10.8	10.8	11.9	12.5	13.5	14.1	15.2	16.8
40°	8.1	8.7	9.8	9.8	10.3	11.4	11.9	13.0	13.5	14.6	15.7
42.5°	7.0	7.6	8.1	8.7	9.2	9.8	10.3	11.4	11.9	12.5	13.5
45°	6.0	6.5	7.6	7.6	8.1	8.7	9.2	9.8	10.3	11.4	11.9
47.5°	4.9	6.0	6.5	7.0	7.0	7.6	8.1	8.7	9.2	9.8	10.3
50°	4.3	4.9	5.4	6.0	6.0	6.5	7.0	7.6	7.6	8.1	9.2
51°	4.3	4.9	5.4	5.4	6.0	6.5	6.5	7.0	7.6	7.6	8.1
52°	3.8	4.3	4.9	5.4	5.4	6.0	6.5	6.5	7.0	7.6	8.1
53°	3.8	4.3	4.9	4.9	5.4	6.0	6.0	6.5	6.5	7.0	7.6
54°	3.8	4.3	4.9	4.9	5.4	5.4	6.0	6.0	6.5	6.5	7.0
55°	3.3	3.8	4.3	4.9	4.9	5.4	5.4	6.0	6.0	6.5	6.5
57.5°	3.3	3.8	4.3	4.3	4.3	4.9	4.9	5.4	5.4	5.4	6.0
60°	3.3	3.8	3.8	4.3	4.3	4.9	4.9	4.9	4.9	5.4	5.4
61°	3.3	3.3	3.8	4.3	4.3	4.3	4.9	4.9	4.9	4.9	5.4
62°	3.3	3.3	3.8	3.8	4.3	4.3	4.3	4.9	4.9	4.9	4.9
63°	2.7	3.3	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.9	4.9
64°	2.7	3.3	3.8	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3
65°	2.7	3.3	3.8	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3
66°	2.7	3.3	3.8	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3



TEST NUMBER: P182680

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.7	2.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
75°	2.7	2.7	2.7	3.3	3.3	3.3	3.3	3.3	3.3	2.7	2.7
77.5°	2.2	2.2	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.2
80°	2.2	2.2	2.7	2.7	2.7	2.7	2.7	2.7	2.2	2.2	2.2
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.1
87.5°	1.6	2.2	2.2	2.2	2.2	2.2	1.6	1.6	1.6	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: P182680

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	81.3	79.7	79.1	79.1	79.7	79.1	79.7	79.1
5°	74.8	73.2	73.2	72.6	73.2	72.6	73.2	72.6
7.5°	69.4	67.7	67.7	67.7	67.7	67.7	68.3	67.7
10°	64.0	62.3	62.3	61.8	62.3	62.3	62.9	62.3
12.5°	58.5	57.4	57.4	56.9	58.0	57.4	58.5	58.0
15°	53.7	52.6	52.6	53.1	53.7	53.7	54.2	54.2
17.5°	48.8	48.8	48.8	49.3	49.9	50.4	50.9	50.4
20°	44.4	44.4	45.0	45.5	46.1	46.6	47.2	47.2
22.5°	40.1	40.1	40.6	41.7	42.8	43.4	43.9	43.9
25°	35.8	36.3	36.9	37.4	39.0	39.6	40.1	40.1
26°	34.1	34.7	35.8	36.3	37.4	37.9	39.0	39.0
27°	33.1	33.6	34.1	34.7	36.3	36.9	37.9	37.4
28°	31.4	32.0	32.5	33.6	34.7	35.8	36.3	36.3
29°	29.8	30.9	31.4	32.0	33.6	34.1	34.7	34.7
30°	28.7	29.3	29.8	30.9	32.0	33.1	33.6	33.6
31°	27.1	28.2	28.7	29.3	30.9	31.4	32.5	32.5
32°	26.0	26.6	27.1	28.2	29.3	30.3	30.9	30.9
33°	24.4	25.5	26.0	26.6	28.2	29.3	29.8	29.3
34°	23.3	24.4	24.4	25.5	26.6	27.6	28.2	28.2
35°	22.2	22.8	23.3	24.4	25.5	26.6	27.1	27.1
36°	21.1	21.7	22.2	23.3	24.4	25.5	26.0	26.0
37°	20.1	20.6	21.1	21.7	23.3	24.4	24.9	24.9
38°	19.0	19.5	20.1	21.1	22.2	22.8	23.8	23.8
39°	17.9	18.4	19.0	20.1	21.1	21.7	22.8	22.2
40°	16.8	17.9	17.9	19.0	20.1	20.6	21.7	21.1
42.5°	14.6	15.2	15.7	16.3	17.3	18.4	19.0	19.0
45°	13.0	13.5	14.1	14.6	15.2	15.7	16.8	16.3
47.5°	10.8	11.4	11.9	12.5	13.0	13.5	14.1	14.1
50°	9.8	9.8	10.3	10.3	11.4	11.9	12.5	12.5
51°	8.7	9.2	9.8	9.8	10.8	10.8	11.4	11.4
52°	8.7	8.7	9.2	9.2	9.8	10.3	10.8	10.8
53°	8.1	8.1	8.7	8.7	9.2	9.8	10.3	10.3
54°	7.6	7.6	8.1	8.1	8.7	9.2	9.8	9.8
55°	7.0	7.0	7.6	7.6	8.1	8.7	9.2	9.2
57.5°	6.0	6.5	6.5	7.0	7.0	7.6	7.6	8.1
60°	5.4	6.0	6.0	6.0	6.5	6.5	6.5	6.5
61°	5.4	5.4	5.4	6.0	6.0	5.4	6.0	5.4
62°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
63°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
64°	4.9	4.3	4.3	4.3	4.3	4.3	4.3	4.3
65°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.8
66°	4.3	4.3	3.8	4.3	3.8	3.8	3.8	3.8



TEST NUMBER: P182680

CATALOG NUMBER: LDSQA4A09835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.7	2.7	2.7	2.7	2.7	2.2	2.2	2.2
75°	2.7	2.7	2.7	2.2	2.2	2.2	2.2	1.6
77.5°	2.2	2.2	2.2	2.2	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.1	1.1
82.5°	1.6	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	0.5	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



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— 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	1.6	1.6
70°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.6





67.5°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	2.2	2.2	2.7
70°	1.6	2.2	2.2	2.2	2.2	2.2	2.2	1.6	2.2	2.2	2.2





67.5°	2.7	3.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
70°	2.7	3.3	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8





67.5°	3.8	3.8	3.8	3.8	3.8	3.3	3.3	3.3
70°	3.3	3.3	3.3	3.3	3.3	2.7	2.7	2.7



(END OF REPORT)