

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: P182698

Luminaire Tested: **LDSQA4A28927D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182698  
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: LDSQA4A28927D010TE 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 / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2049.5 lumens  
Efficiency: N/A  
Efficacy: 46.1 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

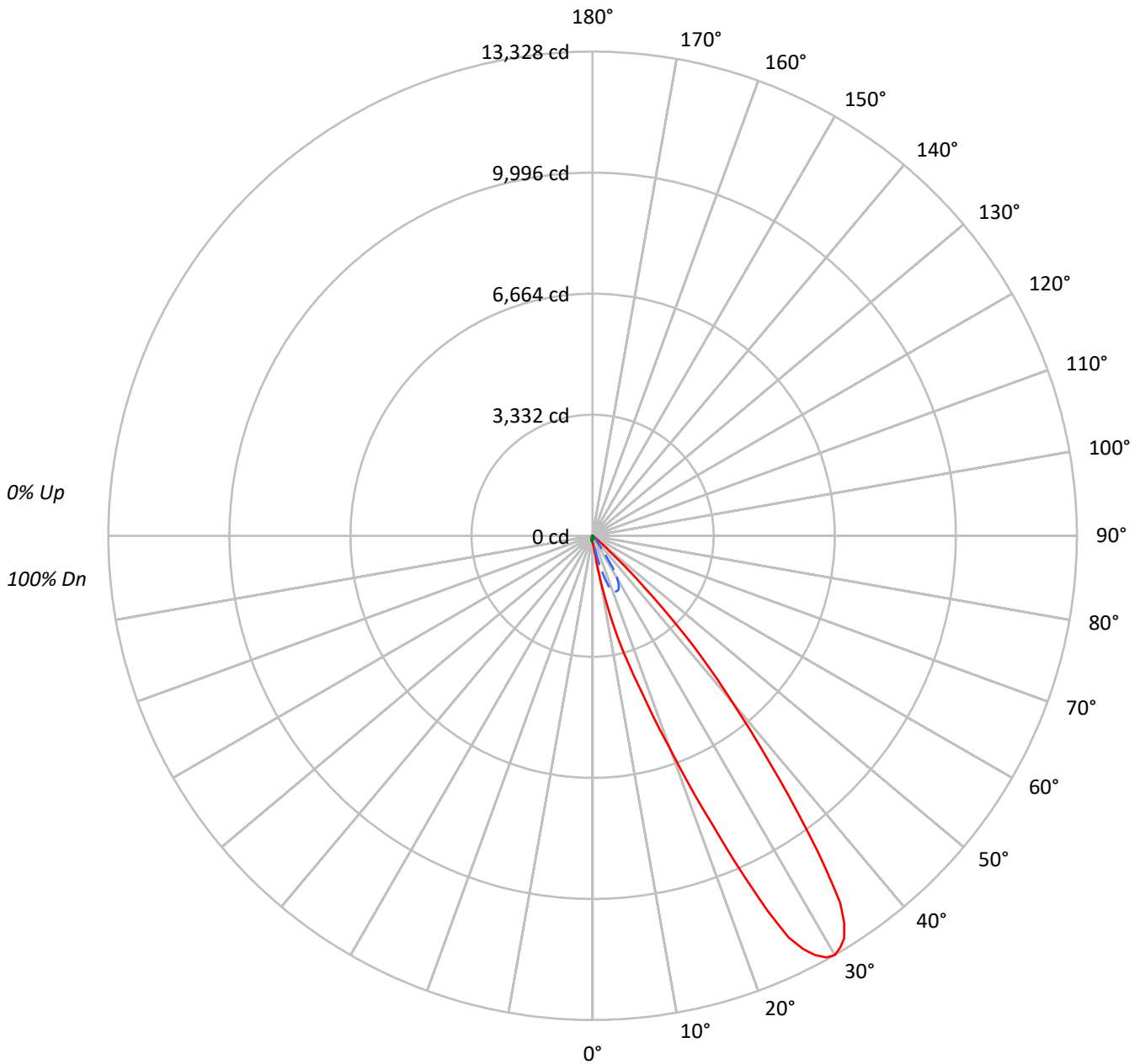
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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				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°	17118	17118	17118
5°	28503	16152	13789
10°	121556	14155	11972
15°	336472	11243	10611
20°	645370	7959	9485
25°	1216838	5312	8370
30°	1490842	3546	7338
35°	1324026	2377	6256
40°	754611	1606	5223
45°	275252	1302	4343
50°	30293	949	3662
55°	4459	709	3040
60°	1027	814	2461
65°	734	963	1696
70°	595	1190	1501
75°	786	1572	1198
80°	0	2343	1172
85°	0	3557	1223



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.2	1.1
10°-20°	222.1	10.8
20°-30°	729.4	35.6
30°-40°	799.9	39.0
40°-50°	249.9	12.2
50°-60°	13.7	0.7
60°-70°	5.5	0.3
70°-80°	4.2	0.2
80°-90°	2.6	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°	973.7	47.5
0°-40°	1773.7	86.5
0°-60°	2037.2	99.4
0°-90°	2049.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2049.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	177	177	177	177	177	
5°	293	235	166	147	142	54
15°	3355	1078	112	100	106	1054
25°	11384	1656	50	61	78	5075
35°	11196	326	20	35	53	6545
45°	2009	34	10	20	32	1844
55°	26	6	4	12	18	41
65°	3	3	4	8	7	3
75°	2	3	4	6	3	1
85°	0	3	3	3	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°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	217.9	220.1	221.1	215.8	216.9	214.8	216.9	212.7	205.2	207.4	201.0
5°	293.1	288.8	287.8	279.3	277.2	273.0	273.0	263.4	249.7	247.6	234.9
7.5°	518.4	496.2	477.2	448.6	421.1	399.9	391.5	357.6	320.6	306.8	277.2
10°	1235.7	1231.5	1183.9	1094.0	990.3	915.2	871.8	740.6	574.5	472.9	367.1
12.5°	2249.3	2228.1	2160.4	1995.4	1816.6	1704.4	1616.6	1352.1	1105.6	907.8	650.7
15°	3354.9	3269.2	3169.7	2913.7	2663.0	2517.0	2392.1	2074.7	1692.8	1408.2	1078.1
17.5°	4535.6	4573.7	4332.5	3891.3	3445.9	3217.3	3005.7	2518.0	2100.1	1803.9	1432.5
20°	6260.1	6179.7	5755.5	5024.4	4367.4	3985.4	3685.0	2981.4	2350.9	1981.6	1630.4
22.5°	8590.9	8334.8	7507.5	6270.7	5228.6	4698.5	4272.2	3324.2	2561.4	2072.6	1662.1
25°	11384.0	11147.0	9615.0	7469.4	5927.9	5241.3	4661.5	3542.1	2646.0	2087.4	1655.8
26°	12295.9	11943.6	10392.6	7895.8	6142.7	5378.8	4757.8	3584.5	2648.1	2075.8	1628.2
27°	12767.8	12491.7	11035.9	8241.7	6289.7	5465.6	4811.7	3595.0	2627.0	2049.3	1585.9
28°	13078.9	12820.7	11443.2	8468.1	6364.9	5499.4	4827.6	3571.8	2579.4	2002.8	1519.3
29°	13271.4	12999.5	11642.1	8570.8	6370.1	5484.6	4798.0	3510.4	2514.8	1946.7	1442.0
30°	13327.5	13033.4	11647.4	8528.4	6291.9	5405.3	4714.4	3411.0	2436.5	1875.8	1356.3
31°	13228.0	12924.4	11455.9	8335.9	6131.0	5250.8	4583.2	3279.8	2339.2	1800.7	1224.1
32°	13063.0	12659.9	11054.9	8016.4	5911.0	5064.6	4419.2	3136.9	2235.5	1705.5	1037.9
33°	12711.7	12225.1	10441.3	7615.4	5646.5	4850.9	4227.7	2978.2	2137.1	1541.5	771.3
34°	12183.8	11569.1	9689.1	7148.8	5347.1	4584.3	4007.7	2831.2	2034.5	1324.6	527.9
35°	11195.6	10623.3	8858.5	6651.6	5024.4	4326.1	3765.4	2638.6	1894.9	1062.2	325.9
36°	10090.0	9669.0	8053.4	6145.9	4694.3	4058.4	3515.7	2496.9	1688.5	781.9	221.1
37°	8960.1	8586.6	7293.8	5648.6	4363.1	3762.2	3261.8	2336.0	1443.1	521.6	177.7
38°	7884.1	7587.9	6572.2	5159.8	4019.3	3452.2	2995.2	2164.6	1178.6	335.4	146.0
39°	6896.0	6673.8	5865.5	4686.9	3674.4	3148.6	2739.1	1948.8	899.3	239.1	121.7
40°	5967.1	5810.5	5184.1	4220.3	3331.6	2850.2	2507.4	1687.5	624.2	189.4	98.4
42.5°	4058.4	4019.3	3647.9	3037.5	2474.6	2193.2	1982.7	949.0	240.2	114.3	55.0
45°	2009.1	2036.6	1888.5	1737.2	1619.8	1534.1	1249.5	395.7	133.3	62.4	33.9
47.5°	711.0	712.0	612.6	545.9	521.6	519.5	377.7	139.7	70.9	38.1	24.3
50°	201.0	216.9	204.2	208.4	162.9	138.6	113.2	67.7	36.0	24.3	15.9
51°	123.8	133.3	124.8	129.1	112.1	100.5	84.6	50.8	28.6	20.1	14.8
52°	79.3	84.6	80.4	81.5	75.1	65.6	57.1	37.0	23.3	16.9	12.7
53°	54.0	57.1	54.0	54.0	49.7	46.6	40.2	27.5	19.0	13.8	9.5
54°	37.0	38.1	38.1	38.1	34.9	32.8	28.6	21.2	15.9	12.7	8.5
55°	26.4	27.5	26.4	26.4	25.4	23.3	21.2	15.9	12.7	10.6	6.3
57.5°	11.6	11.6	11.6	12.7	11.6	11.6	10.6	9.5	8.5	6.3	4.2
60°	5.3	5.3	5.3	5.3	6.3	6.3	6.3	6.3	5.3	4.2	4.2
61°	4.2	4.2	4.2	4.2	4.2	5.3	5.3	5.3	4.2	4.2	3.2
62°	3.2	3.2	3.2	3.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2
63°	3.2	3.2	3.2	3.2	3.2	3.2	4.2	4.2	3.2	3.2	3.2
64°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
65°	3.2	2.1	2.1	2.1	2.1	3.2	3.2	3.2	3.2	3.2	3.2
66°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2
75°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2
77.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	2.1	2.1	3.2
80°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	2.1	2.1	3.2
82.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	2.1	2.1	3.2
85°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	2.1	2.1	3.2
87.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	2.1	2.1	3.2
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°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	196.8	195.7	190.4	185.1	186.2	184.1	182.0	178.8	176.7	171.4	171.4
5°	224.3	219.0	207.4	196.8	195.7	191.5	185.1	178.8	173.5	166.1	164.0
7.5°	256.0	241.2	222.2	205.2	202.1	195.7	184.1	175.6	166.1	156.6	153.4
10°	301.5	266.6	233.8	208.4	202.1	192.6	177.7	166.1	155.5	143.9	139.7
12.5°	463.4	329.0	248.6	208.4	196.8	185.1	167.2	153.4	140.7	128.0	123.8
15°	772.3	525.8	315.3	208.4	187.3	173.5	151.3	137.5	123.8	112.1	107.9
17.5°	1066.5	748.0	439.1	234.9	188.3	159.8	132.2	117.4	105.8	94.2	91.0
20°	1236.8	871.8	520.5	261.3	186.2	143.9	113.2	97.3	85.7	77.2	74.1
22.5°	1259.0	877.1	502.5	233.8	156.6	119.6	94.2	79.3	69.8	62.4	60.3
25°	1199.8	774.4	402.0	166.1	116.4	97.3	74.1	63.5	56.1	49.7	48.7
26°	1154.3	713.1	350.2	137.5	102.6	86.8	66.7	57.1	50.8	45.5	44.4
27°	1089.7	647.5	299.4	114.3	91.0	78.3	59.2	51.8	46.6	41.3	41.3
28°	1016.7	576.6	241.2	96.3	81.5	69.8	54.0	46.6	41.3	38.1	38.1
29°	928.9	474.0	176.7	83.6	71.9	61.4	47.6	41.3	37.0	34.9	34.9
30°	798.8	343.8	121.7	73.0	62.4	54.0	42.3	37.0	33.9	31.7	31.7
31°	624.2	211.6	95.2	63.5	55.0	47.6	38.1	32.8	30.7	28.6	29.6
32°	425.3	132.2	81.5	55.0	48.7	41.3	33.9	29.6	27.5	26.4	26.4
33°	242.3	110.0	70.9	47.6	41.3	36.0	29.6	26.4	25.4	24.3	24.3
34°	160.8	94.2	61.4	40.2	33.9	30.7	25.4	23.3	22.2	22.2	22.2
35°	135.4	81.5	49.7	33.9	29.6	26.4	22.2	21.2	20.1	20.1	21.2
36°	114.3	67.7	40.2	28.6	25.4	23.3	20.1	19.0	18.0	18.0	19.0
37°	96.3	54.0	33.9	24.3	21.2	20.1	18.0	16.9	16.9	16.9	18.0
38°	78.3	43.4	28.6	21.2	19.0	16.9	15.9	14.8	14.8	15.9	16.9
39°	61.4	34.9	23.3	18.0	15.9	14.8	13.8	13.8	13.8	13.8	14.8
40°	48.7	29.6	20.1	15.9	13.8	13.8	12.7	11.6	12.7	12.7	14.8
42.5°	30.7	21.2	14.8	11.6	10.6	10.6	9.5	9.5	9.5	10.6	11.6
45°	22.2	16.9	11.6	9.5	8.5	7.4	7.4	7.4	8.5	9.5	10.6
47.5°	16.9	11.6	8.5	6.3	5.3	5.3	5.3	5.3	6.3	7.4	8.5
50°	11.6	7.4	5.3	4.2	4.2	4.2	4.2	4.2	5.3	6.3	7.4
51°	9.5	6.3	5.3	4.2	4.2	3.2	3.2	4.2	5.3	5.3	6.3
52°	7.4	5.3	4.2	3.2	3.2	3.2	3.2	4.2	4.2	5.3	6.3
53°	6.3	5.3	4.2	3.2	3.2	3.2	3.2	3.2	4.2	5.3	6.3
54°	5.3	4.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	5.3	6.3
55°	4.2	4.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	4.2	5.3
57.5°	4.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	5.3
60°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	5.3
61°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	5.3
62°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	5.3
63°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.2	4.2	5.3
64°	3.2	3.2	3.2	3.2	4.2	4.2	3.2	3.2	4.2	4.2	5.3
65°	3.2	3.2	4.2	4.2	4.2	4.2	3.2	3.2	4.2	4.2	5.3
66°	3.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	4.2	4.2	5.3





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	4.2	4.2	4.2
75°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
77.5°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	4.2	4.2
80°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	4.2	4.2
82.5°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	3.2	4.2
85°	3.2	3.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	3.2	3.2
87.5°	3.2	3.2	4.2	4.2	4.2	4.2	3.2	3.2	3.2	3.2	3.2
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: P182698

CATALOG NUMBER: LDSQA4A28927D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	169.3	166.1	164.0	162.9	164.0	161.9	158.7	159.8	158.7	157.6	157.6
5°	160.8	155.5	153.4	152.4	152.4	151.3	147.1	148.1	147.1	146.0	146.0
7.5°	149.2	144.9	141.8	140.7	140.7	139.7	135.4	137.5	135.4	134.4	135.4
10°	135.4	131.2	130.1	128.0	128.0	127.0	123.8	124.8	123.8	123.8	123.8
12.5°	120.6	116.4	115.3	114.3	115.3	114.3	111.1	113.2	112.1	112.1	113.2
15°	104.7	101.6	101.6	100.5	101.6	100.5	99.5	100.5	100.5	100.5	102.6
17.5°	88.9	86.8	86.8	85.7	86.8	86.8	85.7	88.9	88.9	91.0	93.1
20°	73.0	70.9	71.9	71.9	74.1	74.1	74.1	77.2	78.3	80.4	83.6
22.5°	60.3	59.2	60.3	60.3	62.4	63.5	63.5	66.7	69.8	71.9	75.1
25°	48.7	48.7	50.8	50.8	51.8	54.0	55.0	59.2	61.4	63.5	66.7
26°	45.5	45.5	46.6	47.6	48.7	50.8	51.8	56.1	58.2	60.3	63.5
27°	41.3	41.3	43.4	44.4	45.5	47.6	49.7	52.9	55.0	58.2	60.3
28°	38.1	38.1	40.2	41.3	42.3	45.5	46.6	49.7	51.8	55.0	58.2
29°	34.9	36.0	38.1	38.1	40.2	42.3	43.4	47.6	49.7	51.8	55.0
30°	32.8	33.9	34.9	36.0	37.0	39.1	41.3	44.4	46.6	48.7	51.8
31°	30.7	31.7	32.8	33.9	34.9	37.0	39.1	42.3	44.4	46.6	49.7
32°	28.6	28.6	30.7	31.7	32.8	34.9	37.0	40.2	42.3	44.4	47.6
33°	26.4	27.5	28.6	29.6	30.7	32.8	34.9	37.0	39.1	42.3	45.5
34°	24.3	25.4	27.5	28.6	29.6	31.7	32.8	34.9	37.0	40.2	42.3
35°	22.2	24.3	25.4	26.4	27.5	29.6	30.7	33.9	34.9	38.1	40.2
36°	21.2	22.2	24.3	25.4	26.4	27.5	28.6	31.7	33.9	36.0	38.1
37°	19.0	21.2	22.2	23.3	24.3	26.4	27.5	29.6	31.7	33.9	36.0
38°	18.0	19.0	21.2	22.2	23.3	24.3	25.4	28.6	29.6	31.7	33.9
39°	16.9	18.0	20.1	21.2	21.2	23.3	24.3	26.4	27.5	29.6	32.8
40°	15.9	16.9	19.0	19.0	20.1	22.2	23.3	25.4	26.4	28.6	30.7
42.5°	13.8	14.8	15.9	16.9	18.0	19.0	20.1	22.2	23.3	24.3	26.4
45°	11.6	12.7	14.8	14.8	15.9	16.9	18.0	19.0	20.1	22.2	23.3
47.5°	9.5	11.6	12.7	13.8	13.8	14.8	15.9	16.9	18.0	19.0	20.1
50°	8.5	9.5	10.6	11.6	11.6	12.7	13.8	14.8	14.8	15.9	18.0
51°	8.5	9.5	10.6	10.6	11.6	12.7	12.7	13.8	14.8	14.8	15.9
52°	7.4	8.5	9.5	10.6	10.6	11.6	12.7	12.7	13.8	14.8	15.9
53°	7.4	8.5	9.5	9.5	10.6	11.6	11.6	12.7	12.7	13.8	14.8
54°	7.4	8.5	9.5	9.5	10.6	10.6	11.6	11.6	12.7	12.7	13.8
55°	6.3	7.4	8.5	9.5	9.5	10.6	10.6	11.6	11.6	12.7	12.7
57.5°	6.3	7.4	8.5	8.5	8.5	9.5	9.5	10.6	10.6	10.6	11.6
60°	6.3	7.4	7.4	8.5	8.5	9.5	9.5	9.5	9.5	10.6	10.6
61°	6.3	6.3	7.4	8.5	8.5	8.5	9.5	9.5	9.5	9.5	10.6
62°	6.3	6.3	7.4	7.4	8.5	8.5	8.5	9.5	9.5	9.5	9.5
63°	5.3	6.3	7.4	7.4	8.5	8.5	8.5	8.5	8.5	9.5	9.5
64°	5.3	6.3	7.4	7.4	7.4	8.5	8.5	8.5	8.5	8.5	8.5
65°	5.3	6.3	7.4	7.4	7.4	8.5	8.5	8.5	8.5	8.5	8.5
66°	5.3	6.3	7.4	7.4	7.4	8.5	8.5	8.5	8.5	8.5	8.5



TEST NUMBER: P182698

CATALOG NUMBER: LDSQA4A28927D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	5.3	5.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	5.3	5.3	5.3	6.3	6.3	6.3	6.3	6.3	6.3	5.3	5.3
77.5°	4.2	4.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.2
80°	4.2	4.2	5.3	5.3	5.3	5.3	5.3	5.3	4.2	4.2	4.2
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	2.1
87.5°	3.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	3.2	2.1	2.1
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: P182698

CATALOG NUMBER: LDSQA4A28927D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	158.7	155.5	154.5	154.5	155.5	154.5	155.5	154.5
5°	146.0	142.8	142.8	141.8	142.8	141.8	142.8	141.8
7.5°	135.4	132.2	132.2	132.2	132.2	132.2	133.3	132.2
10°	124.8	121.7	121.7	120.6	121.7	121.7	122.7	121.7
12.5°	114.3	112.1	112.1	111.1	113.2	112.1	114.3	113.2
15°	104.7	102.6	102.6	103.7	104.7	104.7	105.8	105.8
17.5°	95.2	95.2	95.2	96.3	97.3	98.4	99.5	98.4
20°	86.8	86.8	87.8	88.9	89.9	91.0	92.0	92.0
22.5°	78.3	78.3	79.3	81.5	83.6	84.6	85.7	85.7
25°	69.8	70.9	71.9	73.0	76.2	77.2	78.3	78.3
26°	66.7	67.7	69.8	70.9	73.0	74.1	76.2	76.2
27°	64.5	65.6	66.7	67.7	70.9	71.9	74.1	73.0
28°	61.4	62.4	63.5	65.6	67.7	69.8	70.9	70.9
29°	58.2	60.3	61.4	62.4	65.6	66.7	67.7	67.7
30°	56.1	57.1	58.2	60.3	62.4	64.5	65.6	65.6
31°	52.9	55.0	56.1	57.1	60.3	61.4	63.5	63.5
32°	50.8	51.8	52.9	55.0	57.1	59.2	60.3	60.3
33°	47.6	49.7	50.8	51.8	55.0	57.1	58.2	57.1
34°	45.5	47.6	47.6	49.7	51.8	54.0	55.0	55.0
35°	43.4	44.4	45.5	47.6	49.7	51.8	52.9	52.9
36°	41.3	42.3	43.4	45.5	47.6	49.7	50.8	50.8
37°	39.1	40.2	41.3	42.3	45.5	47.6	48.7	48.7
38°	37.0	38.1	39.1	41.3	43.4	44.4	46.6	46.6
39°	34.9	36.0	37.0	39.1	41.3	42.3	44.4	43.4
40°	32.8	34.9	34.9	37.0	39.1	40.2	42.3	41.3
42.5°	28.6	29.6	30.7	31.7	33.9	36.0	37.0	37.0
45°	25.4	26.4	27.5	28.6	29.6	30.7	32.8	31.7
47.5°	21.2	22.2	23.3	24.3	25.4	26.4	27.5	27.5
50°	19.0	19.0	20.1	20.1	22.2	23.3	24.3	24.3
51°	16.9	18.0	19.0	19.0	21.2	21.2	22.2	22.2
52°	16.9	16.9	18.0	18.0	19.0	20.1	21.2	21.2
53°	15.9	15.9	16.9	16.9	18.0	19.0	20.1	20.1
54°	14.8	14.8	15.9	15.9	16.9	18.0	19.0	19.0
55°	13.8	13.8	14.8	14.8	15.9	16.9	18.0	18.0
57.5°	11.6	12.7	12.7	13.8	13.8	14.8	14.8	15.9
60°	10.6	11.6	11.6	11.6	12.7	12.7	12.7	12.7
61°	10.6	10.6	10.6	11.6	11.6	10.6	11.6	10.6
62°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
63°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
64°	9.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
65°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	7.4
66°	8.5	8.5	7.4	8.5	7.4	7.4	7.4	7.4



TEST NUMBER: P182698

CATALOG NUMBER: LDSQA4A28927D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	5.3	5.3	5.3	5.3	5.3	4.2	4.2	4.2
75°	5.3	5.3	5.3	4.2	4.2	4.2	4.2	3.2
77.5°	4.2	4.2	4.2	4.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	2.1	2.1
82.5°	3.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
85°	2.1	2.1	2.1	2.1	2.1	1.1	1.1	1.1
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2
70°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.2	3.2





67.5°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	4.2	4.2	5.3
70°	3.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	4.2	4.2	4.2





67.5°	5.3	6.3	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
70°	5.3	6.3	6.3	6.3	7.4	7.4	7.4	7.4	7.4	7.4	7.4







67.5°	7.4	7.4	7.4	7.4	7.4	6.3	6.3	6.3
70°	6.3	6.3	6.3	6.3	6.3	5.3	5.3	5.3



(END OF REPORT)