

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: P182673

Luminaire Tested: **LDSQA4A18840D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182673  
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: LDSQA4A18840D010TE 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: 2031.2 lumens  
Efficiency: N/A  
Efficacy: 69.8 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

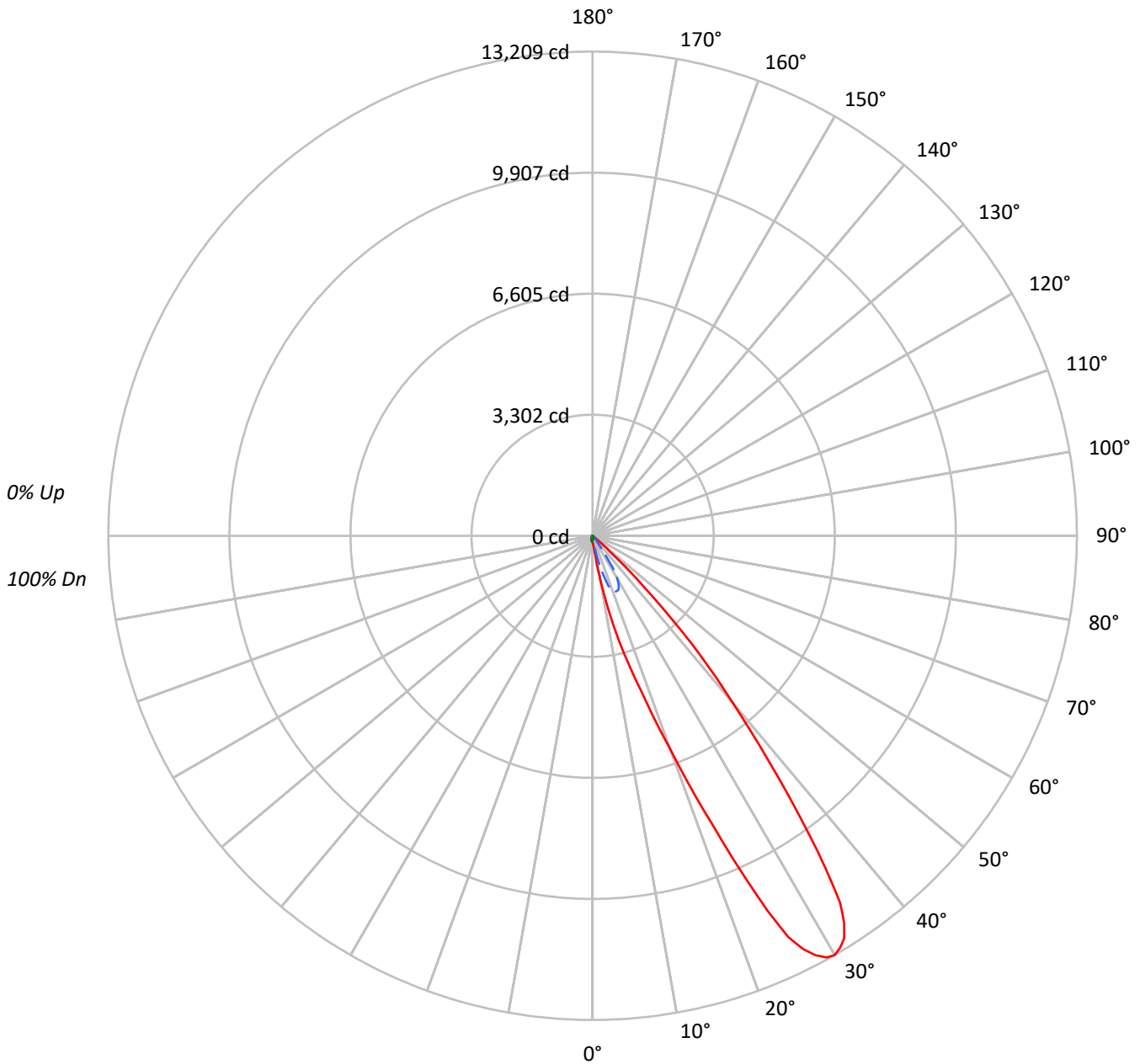
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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°	16963	16963	16963
5°	28250	16007	13663
10°	120483	14028	11863
15°	333484	11153	10521
20°	639639	7887	9402
25°	1206021	5270	8295
30°	1477598	3524	7271
35°	1312271	2353	6197
40°	747896	1593	5172
45°	272813	1288	4316
50°	30022	949	3632
55°	4425	709	3006
60°	1008	814	2441
65°	711	963	1673
70°	595	1190	1473
75°	786	1572	1160
80°	0	2343	1172
85°	0	3446	1112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.0	1.1
10°-20°	220.1	10.8
20°-30°	723.0	35.6
30°-40°	792.8	39.0
40°-50°	247.6	12.2
50°-60°	13.5	0.7
60°-70°	5.4	0.3
70°-80°	4.1	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°	965.1	47.5
0°-40°	1757.9	86.5
0°-60°	2019.1	99.4
0°-90°	2031.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2031.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	175	175	175	175	175	
5°	290	233	165	146	140	54
15°	3325	1068	111	100	105	1045
25°	11283	1641	49	61	78	5029
35°	11096	323	20	35	52	6487
45°	1991	34	9	20	32	1828
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°	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1
2.5°	216.0	218.1	219.2	213.9	215.0	212.9	215.0	210.8	203.4	205.5	199.2
5°	290.5	286.3	285.2	276.8	274.7	270.5	270.5	261.1	247.5	245.4	232.8
7.5°	513.8	491.8	472.9	444.6	417.3	396.4	388.0	354.4	317.7	304.1	274.7
10°	1224.8	1220.6	1173.4	1084.2	981.5	907.0	864.0	734.0	569.4	468.7	363.9
12.5°	2229.3	2208.3	2141.2	1977.6	1800.4	1689.3	1602.2	1340.1	1095.8	899.7	644.9
15°	3325.1	3240.1	3141.6	2887.8	2639.3	2494.6	2370.9	2056.3	1677.7	1395.7	1068.5
17.5°	4495.3	4533.1	4294.0	3856.7	3415.3	3188.8	2979.0	2495.6	2081.5	1787.8	1419.8
20°	6204.5	6124.8	5704.3	4979.8	4328.6	3950.0	3652.2	2954.9	2330.0	1964.0	1615.9
22.5°	8514.6	8260.8	7440.8	6215.0	5182.1	4656.8	4234.2	3294.7	2538.6	2054.2	1647.3
25°	11282.8	11047.9	9529.6	7403.0	5875.3	5194.7	4620.1	3510.7	2622.5	2068.9	1641.0
26°	12186.7	11837.5	10300.3	7825.6	6088.1	5331.0	4715.5	3552.6	2624.6	2057.3	1613.8
27°	12654.4	12380.7	10937.8	8168.5	6233.9	5417.0	4769.0	3563.1	2603.6	2031.1	1571.8
28°	12962.7	12706.8	11341.6	8392.9	6308.3	5450.6	4784.7	3540.0	2556.5	1985.0	1505.8
29°	13153.5	12884.0	11538.7	8494.6	6313.6	5435.9	4755.4	3479.2	2492.5	1929.4	1429.2
30°	13209.1	12917.6	11543.9	8452.7	6236.0	5357.2	4672.5	3380.7	2414.9	1859.2	1344.3
31°	13110.5	12809.6	11354.1	8261.8	6076.6	5204.2	4542.5	3250.6	2318.4	1784.7	1213.2
32°	12946.9	12547.4	10956.7	7945.2	5858.5	5019.6	4380.0	3109.1	2215.7	1690.3	1028.7
33°	12598.8	12116.5	10348.5	7547.8	5596.3	4807.8	4190.2	2951.8	2118.2	1527.8	764.4
34°	12075.6	11466.3	9603.0	7085.3	5299.6	4543.5	3972.1	2806.0	2016.4	1312.8	523.2
35°	11096.2	10528.9	8779.8	6592.5	4979.8	4287.7	3731.9	2615.2	1878.0	1052.8	323.0
36°	10000.4	9583.1	7981.9	6091.3	4652.6	4022.4	3484.5	2474.7	1673.5	774.9	219.2
37°	8880.5	8510.4	7229.0	5598.4	4324.4	3728.8	3232.8	2315.3	1430.3	517.0	176.2
38°	7814.1	7520.5	6513.8	5114.0	3983.6	3421.5	2968.6	2145.4	1168.1	332.4	144.7
39°	6834.7	6614.5	5813.4	4645.3	3641.8	3120.6	2714.8	1931.5	891.3	237.0	120.6
40°	5914.0	5758.9	5138.1	4182.8	3302.0	2824.9	2485.2	1672.5	618.7	187.7	97.5
42.5°	4022.4	3983.6	3615.5	3010.5	2452.7	2173.7	1965.1	940.6	238.0	113.2	54.5
45°	1991.3	2018.5	1871.7	1721.8	1605.4	1520.5	1238.4	392.2	132.1	61.9	33.6
47.5°	704.7	705.7	607.1	541.1	517.0	514.9	374.3	138.4	70.3	37.7	24.1
50°	199.2	215.0	202.4	206.6	161.5	137.4	112.2	67.1	35.7	24.1	15.7
51°	122.7	132.1	123.7	127.9	111.2	99.6	83.9	50.3	28.3	19.9	14.7
52°	78.6	83.9	79.7	80.7	74.4	65.0	56.6	36.7	23.1	16.8	12.6
53°	53.5	56.6	53.5	53.5	49.3	46.1	39.8	27.3	18.9	13.6	9.4
54°	36.7	37.7	37.7	37.7	34.6	32.5	28.3	21.0	15.7	12.6	8.4
55°	26.2	27.3	26.2	26.2	25.2	23.1	21.0	15.7	12.6	10.5	6.3
57.5°	11.5	11.5	11.5	12.6	11.5	11.5	10.5	9.4	8.4	6.3	4.2
60°	5.2	5.2	5.2	5.2	6.3	6.3	6.3	6.3	5.2	4.2	4.2
61°	4.2	4.2	4.2	4.2	4.2	5.2	5.2	5.2	4.2	4.2	3.1
62°	3.1	3.1	3.1	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1
63°	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	3.1	3.1	3.1
64°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
65°	3.1	2.1	2.1	2.1	2.1	3.1	3.1	3.1	3.1	3.1	3.1
66°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1



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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	3.1
75°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1
77.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
80°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
85°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1
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°	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1
2.5°	195.0	194.0	188.7	183.5	184.6	182.5	180.4	177.2	175.1	169.9	169.9
5°	222.3	217.1	205.5	195.0	194.0	189.8	183.5	177.2	172.0	164.6	162.5
7.5°	253.8	239.1	220.2	203.4	200.3	194.0	182.5	174.1	164.6	155.2	152.0
10°	298.8	264.2	231.7	206.6	200.3	190.8	176.2	164.6	154.1	142.6	138.4
12.5°	459.3	326.1	246.4	206.6	195.0	183.5	165.7	152.0	139.5	126.9	122.7
15°	765.5	521.1	312.5	206.6	185.6	172.0	149.9	136.3	122.7	111.2	107.0
17.5°	1057.0	741.4	435.2	232.8	186.6	158.3	131.1	116.4	104.9	93.3	90.2
20°	1225.8	864.0	515.9	259.0	184.6	142.6	112.2	96.5	84.9	76.5	73.4
22.5°	1247.8	869.3	498.1	231.7	155.2	118.5	93.3	78.6	69.2	61.9	59.8
25°	1189.1	767.6	398.5	164.6	115.3	96.5	73.4	62.9	55.6	49.3	48.2
26°	1144.0	706.7	347.1	136.3	101.7	86.0	66.1	56.6	50.3	45.1	44.0
27°	1080.0	641.7	296.8	113.2	90.2	77.6	58.7	51.4	46.1	40.9	40.9
28°	1007.7	571.5	239.1	95.4	80.7	69.2	53.5	46.1	40.9	37.7	37.7
29°	920.7	469.8	175.1	82.8	71.3	60.8	47.2	40.9	36.7	34.6	34.6
30°	791.7	340.8	120.6	72.4	61.9	53.5	41.9	36.7	33.6	31.5	31.5
31°	618.7	209.7	94.4	62.9	54.5	47.2	37.7	32.5	30.4	28.3	29.4
32°	421.5	131.1	80.7	54.5	48.2	40.9	33.6	29.4	27.3	26.2	26.2
33°	240.1	109.1	70.3	47.2	40.9	35.7	29.4	26.2	25.2	24.1	24.1
34°	159.4	93.3	60.8	39.8	33.6	30.4	25.2	23.1	22.0	22.0	22.0
35°	134.2	80.7	49.3	33.6	29.4	26.2	22.0	21.0	19.9	19.9	21.0
36°	113.2	67.1	39.8	28.3	25.2	23.1	19.9	18.9	17.8	17.8	18.9
37°	95.4	53.5	33.6	24.1	21.0	19.9	17.8	16.8	16.8	16.8	17.8
38°	77.6	43.0	28.3	21.0	18.9	16.8	15.7	14.7	14.7	15.7	16.8
39°	60.8	34.6	23.1	17.8	15.7	14.7	13.6	13.6	13.6	13.6	14.7
40°	48.2	29.4	19.9	15.7	13.6	13.6	12.6	11.5	12.6	12.6	14.7
42.5°	30.4	21.0	14.7	11.5	10.5	10.5	9.4	9.4	9.4	10.5	11.5
45°	22.0	16.8	11.5	9.4	8.4	7.3	7.3	7.3	8.4	9.4	10.5
47.5°	16.8	11.5	8.4	6.3	5.2	5.2	5.2	5.2	6.3	7.3	8.4
50°	11.5	7.3	5.2	4.2	4.2	4.2	4.2	4.2	5.2	6.3	7.3
51°	9.4	6.3	5.2	4.2	4.2	3.1	3.1	4.2	5.2	5.2	6.3
52°	7.3	5.2	4.2	3.1	3.1	3.1	3.1	4.2	4.2	5.2	6.3
53°	6.3	5.2	4.2	3.1	3.1	3.1	3.1	3.1	4.2	5.2	6.3
54°	5.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1	4.2	5.2	6.3
55°	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	5.2
57.5°	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	5.2
60°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	5.2
61°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	5.2
62°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	5.2
63°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	5.2
64°	3.1	3.1	3.1	3.1	4.2	4.2	3.1	3.1	4.2	4.2	5.2
65°	3.1	3.1	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2	5.2
66°	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2	5.2





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	4.2	4.2	4.2
75°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
77.5°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2
80°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2
82.5°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	4.2
85°	3.1	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1
87.5°	3.1	3.1	4.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1
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: P182673

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1
2.5°	167.8	164.6	162.5	161.5	162.5	160.4	157.3	158.3	157.3	156.2	156.2
5°	159.4	154.1	152.0	151.0	151.0	149.9	145.8	146.8	145.8	144.7	144.7
7.5°	147.9	143.7	140.5	139.5	139.5	138.4	134.2	136.3	134.2	133.2	134.2
10°	134.2	130.0	129.0	126.9	126.9	125.8	122.7	123.7	122.7	122.7	122.7
12.5°	119.5	115.3	114.3	113.2	114.3	113.2	110.1	112.2	111.2	111.2	112.2
15°	103.8	100.7	100.7	99.6	100.7	99.6	98.6	99.6	99.6	99.6	101.7
17.5°	88.1	86.0	86.0	84.9	86.0	86.0	84.9	88.1	88.1	90.2	92.3
20°	72.4	70.3	71.3	71.3	73.4	73.4	73.4	76.5	77.6	79.7	82.8
22.5°	59.8	58.7	59.8	59.8	61.9	62.9	62.9	66.1	69.2	71.3	74.4
25°	48.2	48.2	50.3	50.3	51.4	53.5	54.5	58.7	60.8	62.9	66.1
26°	45.1	45.1	46.1	47.2	48.2	50.3	51.4	55.6	57.7	59.8	62.9
27°	40.9	40.9	43.0	44.0	45.1	47.2	49.3	52.4	54.5	57.7	59.8
28°	37.7	37.7	39.8	40.9	41.9	45.1	46.1	49.3	51.4	54.5	57.7
29°	34.6	35.7	37.7	37.7	39.8	41.9	43.0	47.2	49.3	51.4	54.5
30°	32.5	33.6	34.6	35.7	36.7	38.8	40.9	44.0	46.1	48.2	51.4
31°	30.4	31.5	32.5	33.6	34.6	36.7	38.8	41.9	44.0	46.1	49.3
32°	28.3	28.3	30.4	31.5	32.5	34.6	36.7	39.8	41.9	44.0	47.2
33°	26.2	27.3	28.3	29.4	30.4	32.5	34.6	36.7	38.8	41.9	45.1
34°	24.1	25.2	27.3	28.3	29.4	31.5	32.5	34.6	36.7	39.8	41.9
35°	22.0	24.1	25.2	26.2	27.3	29.4	30.4	33.6	34.6	37.7	39.8
36°	21.0	22.0	24.1	25.2	26.2	27.3	28.3	31.5	33.6	35.7	37.7
37°	18.9	21.0	22.0	23.1	24.1	26.2	27.3	29.4	31.5	33.6	35.7
38°	17.8	18.9	21.0	22.0	23.1	24.1	25.2	28.3	29.4	31.5	33.6
39°	16.8	17.8	19.9	21.0	21.0	23.1	24.1	26.2	27.3	29.4	32.5
40°	15.7	16.8	18.9	18.9	19.9	22.0	23.1	25.2	26.2	28.3	30.4
42.5°	13.6	14.7	15.7	16.8	17.8	18.9	19.9	22.0	23.1	24.1	26.2
45°	11.5	12.6	14.7	14.7	15.7	16.8	17.8	18.9	19.9	22.0	23.1
47.5°	9.4	11.5	12.6	13.6	13.6	14.7	15.7	16.8	17.8	18.9	19.9
50°	8.4	9.4	10.5	11.5	11.5	12.6	13.6	14.7	14.7	15.7	17.8
51°	8.4	9.4	10.5	10.5	11.5	12.6	12.6	13.6	14.7	14.7	15.7
52°	7.3	8.4	9.4	10.5	10.5	11.5	12.6	12.6	13.6	14.7	15.7
53°	7.3	8.4	9.4	9.4	10.5	11.5	11.5	12.6	12.6	13.6	14.7
54°	7.3	8.4	9.4	9.4	10.5	10.5	11.5	11.5	12.6	12.6	13.6
55°	6.3	7.3	8.4	9.4	9.4	10.5	10.5	11.5	11.5	12.6	12.6
57.5°	6.3	7.3	8.4	8.4	8.4	9.4	9.4	10.5	10.5	10.5	11.5
60°	6.3	7.3	7.3	8.4	8.4	9.4	9.4	9.4	9.4	10.5	10.5
61°	6.3	6.3	7.3	8.4	8.4	8.4	9.4	9.4	9.4	9.4	10.5
62°	6.3	6.3	7.3	7.3	8.4	8.4	8.4	9.4	9.4	9.4	9.4
63°	5.2	6.3	7.3	7.3	8.4	8.4	8.4	8.4	8.4	9.4	9.4
64°	5.2	6.3	7.3	7.3	7.3	8.4	8.4	8.4	8.4	8.4	8.4
65°	5.2	6.3	7.3	7.3	7.3	8.4	8.4	8.4	8.4	8.4	8.4
66°	5.2	6.3	7.3	7.3	7.3	8.4	8.4	8.4	8.4	8.4	8.4



TEST NUMBER: P182673

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	5.2	5.2	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	5.2	5.2	5.2	6.3	6.3	6.3	6.3	6.3	6.3	5.2	5.2
77.5°	4.2	4.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	4.2
80°	4.2	4.2	5.2	5.2	5.2	5.2	5.2	5.2	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	3.1	3.1
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	2.1
87.5°	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	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: P182673

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1
2.5°	157.3	154.1	153.1	153.1	154.1	153.1	154.1	153.1
5°	144.7	141.6	141.6	140.5	141.6	140.5	141.6	140.5
7.5°	134.2	131.1	131.1	131.1	131.1	131.1	132.1	131.1
10°	123.7	120.6	120.6	119.5	120.6	120.6	121.6	120.6
12.5°	113.2	111.2	111.2	110.1	112.2	111.2	113.2	112.2
15°	103.8	101.7	101.7	102.8	103.8	103.8	104.9	104.9
17.5°	94.4	94.4	94.4	95.4	96.5	97.5	98.6	97.5
20°	86.0	86.0	87.0	88.1	89.1	90.2	91.2	91.2
22.5°	77.6	77.6	78.6	80.7	82.8	83.9	84.9	84.9
25°	69.2	70.3	71.3	72.4	75.5	76.5	77.6	77.6
26°	66.1	67.1	69.2	70.3	72.4	73.4	75.5	75.5
27°	64.0	65.0	66.1	67.1	70.3	71.3	73.4	72.4
28°	60.8	61.9	62.9	65.0	67.1	69.2	70.3	70.3
29°	57.7	59.8	60.8	61.9	65.0	66.1	67.1	67.1
30°	55.6	56.6	57.7	59.8	61.9	64.0	65.0	65.0
31°	52.4	54.5	55.6	56.6	59.8	60.8	62.9	62.9
32°	50.3	51.4	52.4	54.5	56.6	58.7	59.8	59.8
33°	47.2	49.3	50.3	51.4	54.5	56.6	57.7	56.6
34°	45.1	47.2	47.2	49.3	51.4	53.5	54.5	54.5
35°	43.0	44.0	45.1	47.2	49.3	51.4	52.4	52.4
36°	40.9	41.9	43.0	45.1	47.2	49.3	50.3	50.3
37°	38.8	39.8	40.9	41.9	45.1	47.2	48.2	48.2
38°	36.7	37.7	38.8	40.9	43.0	44.0	46.1	46.1
39°	34.6	35.7	36.7	38.8	40.9	41.9	44.0	43.0
40°	32.5	34.6	34.6	36.7	38.8	39.8	41.9	40.9
42.5°	28.3	29.4	30.4	31.5	33.6	35.7	36.7	36.7
45°	25.2	26.2	27.3	28.3	29.4	30.4	32.5	31.5
47.5°	21.0	22.0	23.1	24.1	25.2	26.2	27.3	27.3
50°	18.9	18.9	19.9	19.9	22.0	23.1	24.1	24.1
51°	16.8	17.8	18.9	18.9	21.0	21.0	22.0	22.0
52°	16.8	16.8	17.8	17.8	18.9	19.9	21.0	21.0
53°	15.7	15.7	16.8	16.8	17.8	18.9	19.9	19.9
54°	14.7	14.7	15.7	15.7	16.8	17.8	18.9	18.9
55°	13.6	13.6	14.7	14.7	15.7	16.8	17.8	17.8
57.5°	11.5	12.6	12.6	13.6	13.6	14.7	14.7	15.7
60°	10.5	11.5	11.5	11.5	12.6	12.6	12.6	12.6
61°	10.5	10.5	10.5	11.5	11.5	10.5	11.5	10.5
62°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
63°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
64°	9.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
65°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	7.3
66°	8.4	8.4	7.3	8.4	7.3	7.3	7.3	7.3



TEST NUMBER: P182673

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	5.2	5.2	5.2	5.2	5.2	4.2	4.2	4.2
75°	5.2	5.2	5.2	4.2	4.2	4.2	4.2	3.1
77.5°	4.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1
82.5°	3.1	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	1.0	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



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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	3.1	3.1
70°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1	3.1





67.5°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	4.2	4.2	5.2
70°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	4.2	4.2	4.2





67.5°	5.2	6.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
70°	5.2	6.3	6.3	6.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3







67.5°	7.3	7.3	7.3	7.3	7.3	6.3	6.3	6.3
70°	6.3	6.3	6.3	6.3	6.3	5.2	5.2	5.2



(END OF REPORT)