

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: P182678

Luminaire Tested: **LDSQA4A09827D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182678  
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: LDSQA4A09827D010TE 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: 1010.5 lumens  
Efficiency: N/A  
Efficacy: 73.0 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

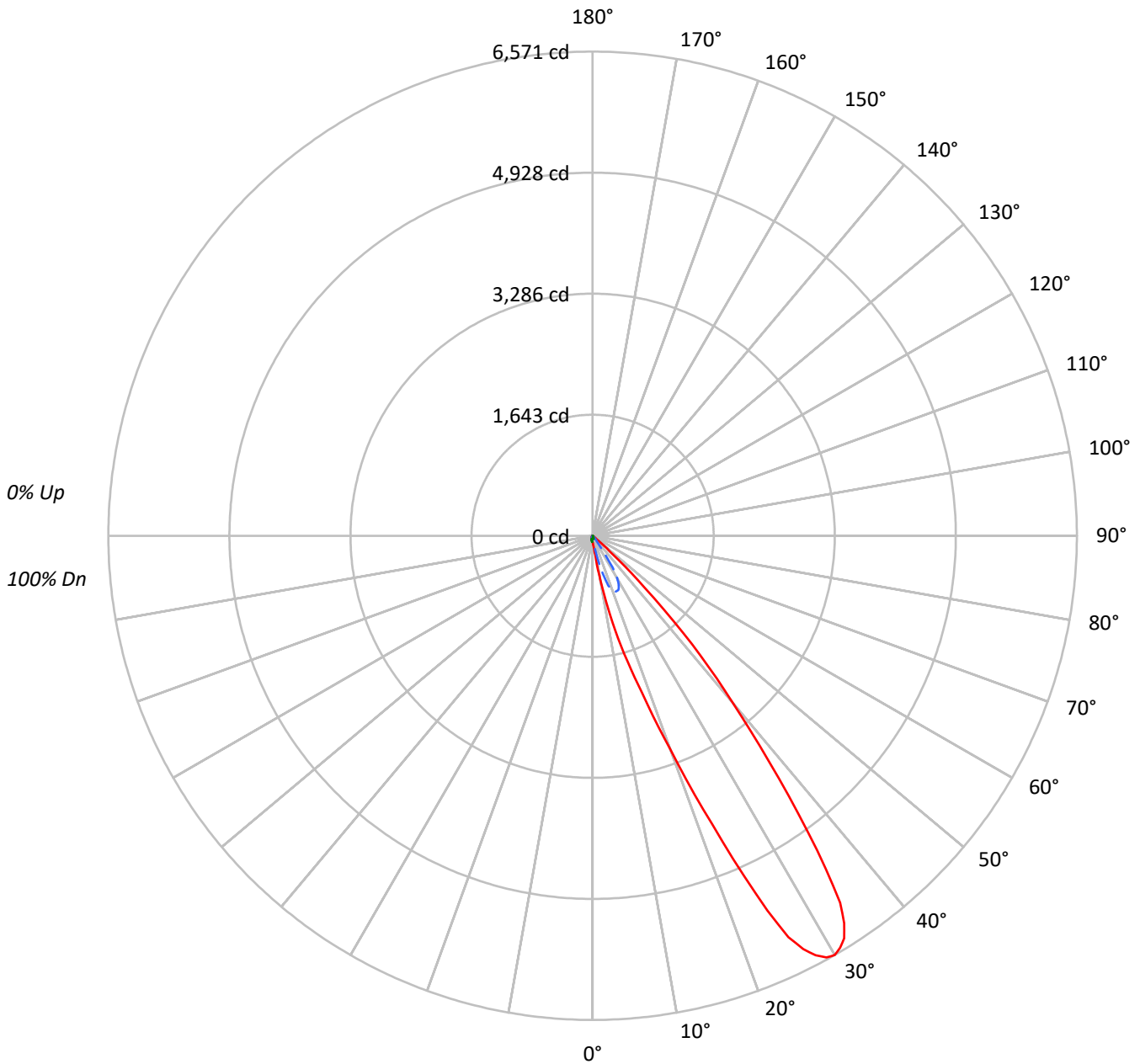
Input Watts (W): 13.84  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8438	8438	8438
5°	14052	7964	6797
10°	59937	6974	5902
15°	165894	5546	5235
20°	318206	3928	4680
25°	599964	2619	4126
30°	735057	1745	3613
35°	652812	1171	3087
40°	372064	797	2567
45°	135715	644	2137
50°	14936	467	1809
55°	2196	355	1503
60°	504	407	1221
65°	367	481	848
70°	283	595	736
75°	374	786	599
80°	0	1172	558
85°	0	1778	556



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	11.0	1.1
10°-20°	109.5	10.8
20°-30°	359.6	35.6
30°-40°	394.4	39.0
40°-50°	123.2	12.2
50°-60°	6.7	0.7
60°-70°	2.7	0.3
70°-80°	2.1	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°	480.1	47.5
0°-40°	874.5	86.5
0°-60°	1004.5	99.4
0°-90°	1010.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1010.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	87	87	87	87	87	
5°	144	116	82	72	70	27
15°	1654	532	55	50	52	520
25°	5613	816	24	30	39	2502
35°	5520	161	10	17	26	3227
45°	991	17	5	10	16	909
55°	13	3	2	6	9	20
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°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	107.5	108.5	109.0	106.4	106.9	105.9	106.9	104.9	101.2	102.2	99.1
5°	144.5	142.4	141.9	137.7	136.7	134.6	134.6	129.9	123.1	122.1	115.8
7.5°	255.6	244.7	235.3	221.2	207.6	197.2	193.0	176.3	158.1	151.3	136.7
10°	609.3	607.2	583.7	539.4	488.3	451.2	429.8	365.2	283.3	233.2	181.0
12.5°	1109.0	1098.6	1065.2	983.8	895.7	840.4	797.1	666.7	545.1	447.6	320.8
15°	1654.1	1611.9	1562.8	1436.6	1313.0	1241.0	1179.4	1022.9	834.6	694.3	531.6
17.5°	2236.3	2255.1	2136.1	1918.6	1699.0	1586.3	1482.0	1241.5	1035.5	889.4	706.3
20°	3086.6	3046.9	2837.7	2477.3	2153.3	1965.0	1816.9	1470.0	1159.1	977.0	803.9
22.5°	4235.7	4109.5	3701.6	3091.8	2578.0	2316.6	2106.4	1639.0	1262.9	1021.9	819.5
25°	5612.9	5496.0	4740.7	3682.8	2922.8	2584.2	2298.4	1746.5	1304.6	1029.2	816.4
26°	6062.5	5888.8	5124.1	3893.0	3028.7	2652.0	2345.8	1767.3	1305.7	1023.5	802.8
27°	6295.2	6159.0	5441.3	4063.6	3101.2	2694.8	2372.4	1772.5	1295.2	1010.4	781.9
28°	6448.6	6321.3	5642.1	4175.2	3138.2	2711.5	2380.3	1761.1	1271.8	987.5	749.1
29°	6543.5	6409.4	5740.2	4225.8	3140.8	2704.2	2365.7	1730.8	1239.9	959.8	711.0
30°	6571.1	6426.1	5742.8	4205.0	3102.2	2665.1	2324.4	1681.8	1201.3	924.9	668.7
31°	6522.1	6372.4	5648.4	4110.0	3022.9	2588.9	2259.8	1617.1	1153.4	887.8	603.5
32°	6440.7	6242.0	5450.7	3952.5	2914.4	2497.1	2178.9	1546.7	1102.2	840.9	511.7
33°	6267.5	6027.6	5148.1	3754.8	2784.0	2391.7	2084.5	1468.4	1053.7	760.0	380.3
34°	6007.2	5704.2	4777.2	3524.7	2636.4	2260.3	1976.0	1395.9	1003.1	653.1	260.3
35°	5520.0	5237.8	4367.7	3279.6	2477.3	2133.0	1856.5	1301.0	934.3	523.7	160.7
36°	4974.9	4767.3	3970.8	3030.2	2314.5	2001.0	1733.4	1231.1	832.5	385.5	109.0
37°	4417.8	4233.7	3596.2	2785.1	2151.3	1855.0	1608.2	1151.8	711.5	257.2	87.6
38°	3887.3	3741.2	3240.4	2544.1	1981.7	1702.1	1476.8	1067.3	581.1	165.4	72.0
39°	3400.1	3290.5	2892.0	2310.9	1811.7	1552.4	1350.5	960.9	443.4	117.9	60.0
40°	2942.1	2864.9	2556.1	2080.8	1642.7	1405.3	1236.3	832.0	307.8	93.4	48.5
42.5°	2001.0	1981.7	1798.6	1497.6	1220.1	1081.4	977.6	467.9	118.4	56.3	27.1
45°	990.6	1004.2	931.1	856.5	798.6	756.4	616.1	195.1	65.7	30.8	16.7
47.5°	350.5	351.1	302.0	269.2	257.2	256.1	186.2	68.9	35.0	18.8	12.0
50°	99.1	106.9	100.7	102.8	80.3	68.3	55.8	33.4	17.7	12.0	7.8
51°	61.0	65.7	61.6	63.6	55.3	49.6	41.7	25.0	14.1	9.9	7.3
52°	39.1	41.7	39.6	40.2	37.0	32.3	28.2	18.3	11.5	8.3	6.3
53°	26.6	28.2	26.6	26.6	24.5	23.0	19.8	13.6	9.4	6.8	4.7
54°	18.3	18.8	18.8	18.8	17.2	16.2	14.1	10.4	7.8	6.3	4.2
55°	13.0	13.6	13.0	13.0	12.5	11.5	10.4	7.8	6.3	5.2	3.1
57.5°	5.7	5.7	5.7	6.3	5.7	5.7	5.2	4.7	4.2	3.1	2.1
60°	2.6	2.6	2.6	2.6	3.1	3.1	3.1	3.1	2.6	2.1	2.1
61°	2.1	2.1	2.1	2.1	2.1	2.6	2.6	2.6	2.1	2.1	1.6
62°	1.6	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6
63°	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.1	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	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.6	1.6
66°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6
77.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.6
80°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.6
82.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.6
85°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.6
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	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°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	97.0	96.5	93.9	91.3	91.8	90.8	89.7	88.2	87.1	84.5	84.5
5°	110.6	108.0	102.2	97.0	96.5	94.4	91.3	88.2	85.5	81.9	80.9
7.5°	126.2	118.9	109.5	101.2	99.6	96.5	90.8	86.6	81.9	77.2	75.6
10°	148.7	131.5	115.3	102.8	99.6	94.9	87.6	81.9	76.7	70.9	68.9
12.5°	228.5	162.2	122.6	102.8	97.0	91.3	82.4	75.6	69.4	63.1	61.0
15°	380.8	259.3	155.4	102.8	92.3	85.5	74.6	67.8	61.0	55.3	53.2
17.5°	525.8	368.8	216.5	115.8	92.9	78.8	65.2	57.9	52.2	46.4	44.9
20°	609.8	429.8	256.6	128.8	91.8	70.9	55.8	48.0	42.3	38.1	36.5
22.5°	620.8	432.4	247.8	115.3	77.2	58.9	46.4	39.1	34.4	30.8	29.7
25°	591.5	381.8	198.2	81.9	57.4	48.0	36.5	31.3	27.6	24.5	24.0
26°	569.1	351.6	172.7	67.8	50.6	42.8	32.9	28.2	25.0	22.4	21.9
27°	537.3	319.2	147.6	56.3	44.9	38.6	29.2	25.6	23.0	20.3	20.3
28°	501.3	284.3	118.9	47.5	40.2	34.4	26.6	23.0	20.3	18.8	18.8
29°	458.0	233.7	87.1	41.2	35.5	30.3	23.5	20.3	18.3	17.2	17.2
30°	393.8	169.5	60.0	36.0	30.8	26.6	20.9	18.3	16.7	15.6	15.6
31°	307.8	104.3	46.9	31.3	27.1	23.5	18.8	16.2	15.1	14.1	14.6
32°	209.7	65.2	40.2	27.1	24.0	20.3	16.7	14.6	13.6	13.0	13.0
33°	119.5	54.3	35.0	23.5	20.3	17.7	14.6	13.0	12.5	12.0	12.0
34°	79.3	46.4	30.3	19.8	16.7	15.1	12.5	11.5	11.0	11.0	11.0
35°	66.8	40.2	24.5	16.7	14.6	13.0	11.0	10.4	9.9	9.9	10.4
36°	56.3	33.4	19.8	14.1	12.5	11.5	9.9	9.4	8.9	8.9	9.4
37°	47.5	26.6	16.7	12.0	10.4	9.9	8.9	8.3	8.3	8.3	8.9
38°	38.6	21.4	14.1	10.4	9.4	8.3	7.8	7.3	7.3	7.8	8.3
39°	30.3	17.2	11.5	8.9	7.8	7.3	6.8	6.8	6.8	6.8	7.3
40°	24.0	14.6	9.9	7.8	6.8	6.8	6.3	5.7	6.3	6.3	7.3
42.5°	15.1	10.4	7.3	5.7	5.2	5.2	4.7	4.7	4.7	5.2	5.7
45°	11.0	8.3	5.7	4.7	4.2	3.7	3.7	3.7	4.2	4.7	5.2
47.5°	8.3	5.7	4.2	3.1	2.6	2.6	2.6	2.6	3.1	3.7	4.2
50°	5.7	3.7	2.6	2.1	2.1	2.1	2.1	2.1	2.6	3.1	3.7
51°	4.7	3.1	2.6	2.1	2.1	1.6	1.6	2.1	2.6	2.6	3.1
52°	3.7	2.6	2.1	1.6	1.6	1.6	1.6	2.1	2.1	2.6	3.1
53°	3.1	2.6	2.1	1.6	1.6	1.6	1.6	1.6	2.1	2.6	3.1
54°	2.6	2.1	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.6	3.1
55°	2.1	2.1	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.6
57.5°	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.6
60°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.6
61°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.6
62°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.6
63°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.6
64°	1.6	1.6	1.6	1.6	2.1	2.1	1.6	1.6	2.1	2.1	2.6
65°	1.6	1.6	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.6
66°	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.6





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	2.1	2.1	2.1
75°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1
80°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1
82.5°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	2.1
85°	1.6	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	1.6
87.5°	1.6	1.6	2.1	2.1	2.1	2.1	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



TEST NUMBER: P182678

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	83.5	81.9	80.9	80.3	80.9	79.8	78.2	78.8	78.2	77.7	77.7
5°	79.3	76.7	75.6	75.1	75.1	74.6	72.5	73.0	72.5	72.0	72.0
7.5°	73.6	71.5	69.9	69.4	69.4	68.9	66.8	67.8	66.8	66.2	66.8
10°	66.8	64.7	64.2	63.1	63.1	62.6	61.0	61.6	61.0	61.0	61.0
12.5°	59.5	57.4	56.9	56.3	56.9	56.3	54.8	55.8	55.3	55.3	55.8
15°	51.6	50.1	50.1	49.6	50.1	49.6	49.0	49.6	49.6	49.6	50.6
17.5°	43.8	42.8	42.8	42.3	42.8	42.8	42.3	43.8	43.8	44.9	45.9
20°	36.0	35.0	35.5	35.5	36.5	36.5	36.5	38.1	38.6	39.6	41.2
22.5°	29.7	29.2	29.7	29.7	30.8	31.3	31.3	32.9	34.4	35.5	37.0
25°	24.0	24.0	25.0	25.0	25.6	26.6	27.1	29.2	30.3	31.3	32.9
26°	22.4	22.4	23.0	23.5	24.0	25.0	25.6	27.6	28.7	29.7	31.3
27°	20.3	20.3	21.4	21.9	22.4	23.5	24.5	26.1	27.1	28.7	29.7
28°	18.8	18.8	19.8	20.3	20.9	22.4	23.0	24.5	25.6	27.1	28.7
29°	17.2	17.7	18.8	18.8	19.8	20.9	21.4	23.5	24.5	25.6	27.1
30°	16.2	16.7	17.2	17.7	18.3	19.3	20.3	21.9	23.0	24.0	25.6
31°	15.1	15.6	16.2	16.7	17.2	18.3	19.3	20.9	21.9	23.0	24.5
32°	14.1	14.1	15.1	15.6	16.2	17.2	18.3	19.8	20.9	21.9	23.5
33°	13.0	13.6	14.1	14.6	15.1	16.2	17.2	18.3	19.3	20.9	22.4
34°	12.0	12.5	13.6	14.1	14.6	15.6	16.2	17.2	18.3	19.8	20.9
35°	11.0	12.0	12.5	13.0	13.6	14.6	15.1	16.7	17.2	18.8	19.8
36°	10.4	11.0	12.0	12.5	13.0	13.6	14.1	15.6	16.7	17.7	18.8
37°	9.4	10.4	11.0	11.5	12.0	13.0	13.6	14.6	15.6	16.7	17.7
38°	8.9	9.4	10.4	11.0	11.5	12.0	12.5	14.1	14.6	15.6	16.7
39°	8.3	8.9	9.9	10.4	10.4	11.5	12.0	13.0	13.6	14.6	16.2
40°	7.8	8.3	9.4	9.4	9.9	11.0	11.5	12.5	13.0	14.1	15.1
42.5°	6.8	7.3	7.8	8.3	8.9	9.4	9.9	11.0	11.5	12.0	13.0
45°	5.7	6.3	7.3	7.3	7.8	8.3	8.9	9.4	9.9	11.0	11.5
47.5°	4.7	5.7	6.3	6.8	6.8	7.3	7.8	8.3	8.9	9.4	9.9
50°	4.2	4.7	5.2	5.7	5.7	6.3	6.8	7.3	7.3	7.8	8.9
51°	4.2	4.7	5.2	5.2	5.7	6.3	6.3	6.8	7.3	7.3	7.8
52°	3.7	4.2	4.7	5.2	5.2	5.7	6.3	6.3	6.8	7.3	7.8
53°	3.7	4.2	4.7	4.7	5.2	5.7	5.7	6.3	6.3	6.8	7.3
54°	3.7	4.2	4.7	4.7	5.2	5.2	5.7	5.7	6.3	6.3	6.8
55°	3.1	3.7	4.2	4.7	4.7	5.2	5.2	5.7	5.7	6.3	6.3
57.5°	3.1	3.7	4.2	4.2	4.2	4.7	4.7	5.2	5.2	5.2	5.7
60°	3.1	3.7	3.7	4.2	4.2	4.7	4.7	4.7	4.7	5.2	5.2
61°	3.1	3.1	3.7	4.2	4.2	4.2	4.7	4.7	4.7	4.7	5.2
62°	3.1	3.1	3.7	3.7	4.2	4.2	4.2	4.7	4.7	4.7	4.7
63°	2.6	3.1	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.7	4.7
64°	2.6	3.1	3.7	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.2
65°	2.6	3.1	3.7	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.2
66°	2.6	3.1	3.7	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.2



TEST NUMBER: P182678

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
75°	2.6	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	2.6	2.6
77.5°	2.1	2.1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.1
80°	2.1	2.1	2.6	2.6	2.6	2.6	2.6	2.6	2.1	2.1	2.1
82.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.0
87.5°	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	1.0	1.0
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: P182678

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2.5°	78.2	76.7	76.2	76.2	76.7	76.2	76.7	76.2
5°	72.0	70.4	70.4	69.9	70.4	69.9	70.4	69.9
7.5°	66.8	65.2	65.2	65.2	65.2	65.2	65.7	65.2
10°	61.6	60.0	60.0	59.5	60.0	60.0	60.5	60.0
12.5°	56.3	55.3	55.3	54.8	55.8	55.3	56.3	55.8
15°	51.6	50.6	50.6	51.1	51.6	51.6	52.2	52.2
17.5°	46.9	46.9	46.9	47.5	48.0	48.5	49.0	48.5
20°	42.8	42.8	43.3	43.8	44.3	44.9	45.4	45.4
22.5°	38.6	38.6	39.1	40.2	41.2	41.7	42.3	42.3
25°	34.4	35.0	35.5	36.0	37.6	38.1	38.6	38.6
26°	32.9	33.4	34.4	35.0	36.0	36.5	37.6	37.6
27°	31.8	32.3	32.9	33.4	35.0	35.5	36.5	36.0
28°	30.3	30.8	31.3	32.3	33.4	34.4	35.0	35.0
29°	28.7	29.7	30.3	30.8	32.3	32.9	33.4	33.4
30°	27.6	28.2	28.7	29.7	30.8	31.8	32.3	32.3
31°	26.1	27.1	27.6	28.2	29.7	30.3	31.3	31.3
32°	25.0	25.6	26.1	27.1	28.2	29.2	29.7	29.7
33°	23.5	24.5	25.0	25.6	27.1	28.2	28.7	28.2
34°	22.4	23.5	23.5	24.5	25.6	26.6	27.1	27.1
35°	21.4	21.9	22.4	23.5	24.5	25.6	26.1	26.1
36°	20.3	20.9	21.4	22.4	23.5	24.5	25.0	25.0
37°	19.3	19.8	20.3	20.9	22.4	23.5	24.0	24.0
38°	18.3	18.8	19.3	20.3	21.4	21.9	23.0	23.0
39°	17.2	17.7	18.3	19.3	20.3	20.9	21.9	21.4
40°	16.2	17.2	17.2	18.3	19.3	19.8	20.9	20.3
42.5°	14.1	14.6	15.1	15.6	16.7	17.7	18.3	18.3
45°	12.5	13.0	13.6	14.1	14.6	15.1	16.2	15.6
47.5°	10.4	11.0	11.5	12.0	12.5	13.0	13.6	13.6
50°	9.4	9.4	9.9	9.9	11.0	11.5	12.0	12.0
51°	8.3	8.9	9.4	9.4	10.4	10.4	11.0	11.0
52°	8.3	8.3	8.9	8.9	9.4	9.9	10.4	10.4
53°	7.8	7.8	8.3	8.3	8.9	9.4	9.9	9.9
54°	7.3	7.3	7.8	7.8	8.3	8.9	9.4	9.4
55°	6.8	6.8	7.3	7.3	7.8	8.3	8.9	8.9
57.5°	5.7	6.3	6.3	6.8	6.8	7.3	7.3	7.8
60°	5.2	5.7	5.7	5.7	6.3	6.3	6.3	6.3
61°	5.2	5.2	5.2	5.7	5.7	5.2	5.7	5.2
62°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
63°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
64°	4.7	4.2	4.2	4.2	4.2	4.2	4.2	4.2
65°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.7
66°	4.2	4.2	3.7	4.2	3.7	3.7	3.7	3.7



TEST NUMBER: P182678

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.6	2.6	2.6	2.6	2.6	2.1	2.1	2.1
75°	2.6	2.6	2.6	2.1	2.1	2.1	2.1	1.6
77.5°	2.1	2.1	2.1	2.1	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.0	1.0
82.5°	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6
70°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6





67.5°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	2.1	2.1	2.6
70°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	2.1	2.1	2.1





67.5°	2.6	3.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	2.6	3.1	3.1	3.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7







67.5°	3.7	3.7	3.7	3.7	3.7	3.1	3.1	3.1
70°	3.1	3.1	3.1	3.1	3.1	2.6	2.6	2.6



(END OF REPORT)