

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: P182675

Luminaire Tested: **LDSQA4A18930D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182675  
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: LDSQA4A18930D010TE 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 / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1565.6 lumens  
Efficiency: N/A  
Efficacy: 53.8 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

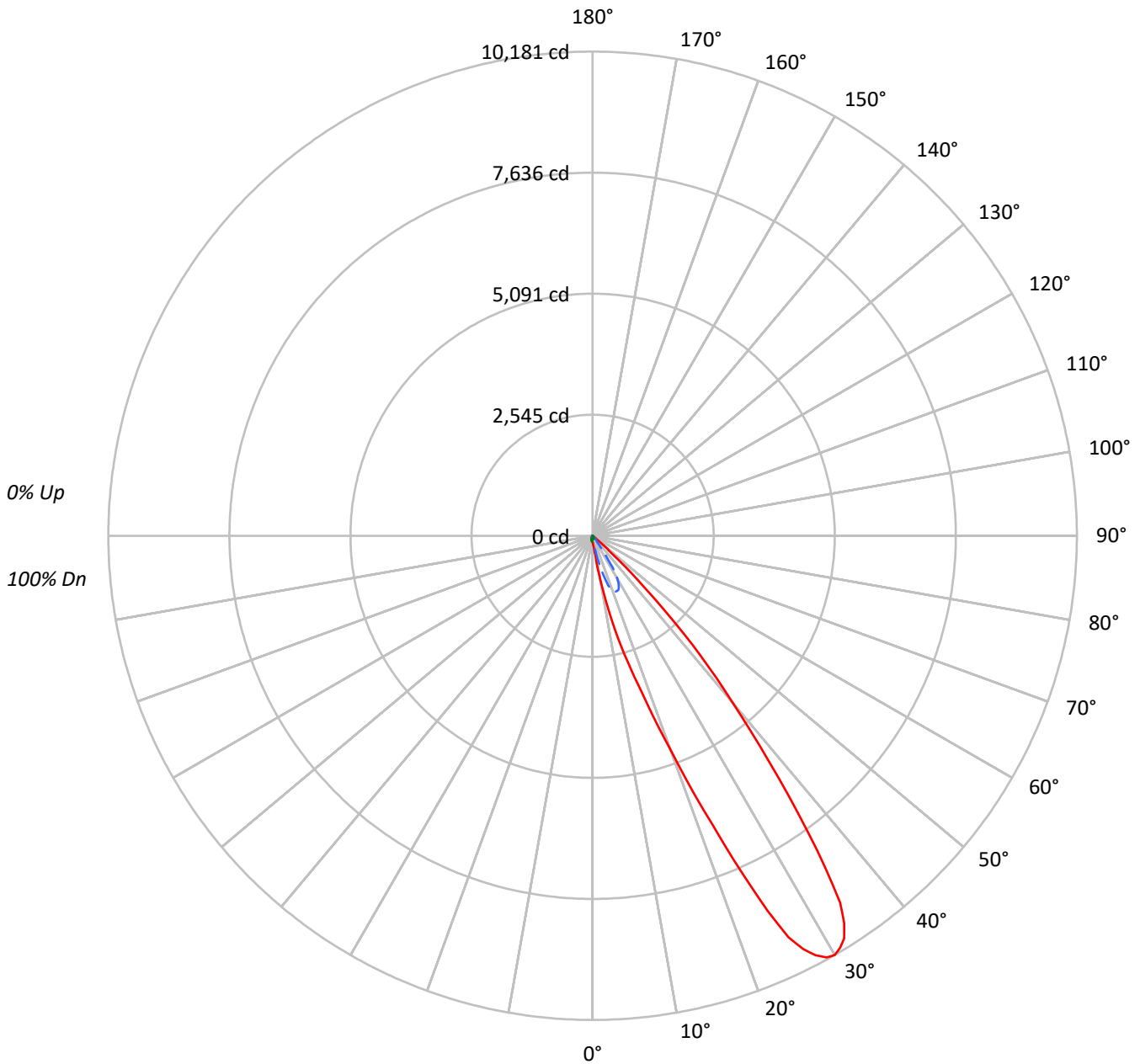
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	13078	13078	13078
5°	21773	12340	10532
10°	92861	10811	9139
15°	257030	8595	8104
20°	492999	6082	7247
25°	929539	4062	6392
30°	1138857	2707	5604
35°	1011433	1821	4778
40°	576439	1227	3984
45°	210272	1000	3315
50°	23149	723	2803
55°	3412	540	2314
60°	775	620	1879
65°	550	734	1307
70°	453	906	1133
75°	599	1198	898
80°	0	1785	893
85°	0	2668	889



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.0	1.1
10°-20°	169.6	10.8
20°-30°	557.2	35.6
30°-40°	611.1	39.0
40°-50°	190.9	12.2
50°-60°	10.4	0.7
60°-70°	4.2	0.3
70°-80°	3.2	0.2
80°-90°	2.0	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°	743.8	47.5
0°-40°	1354.9	86.5
0°-60°	1556.2	99.4
0°-90°	1565.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1565.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	135	135	135	135	135	
5°	224	179	127	112	108	42
15°	2563	824	86	77	81	805
25°	8696	1265	38	47	60	3876
35°	8552	249	15	27	40	5000
45°	1535	26	7	15	24	1409
55°	20	5	3	9	14	32
65°	2	2	3	6	6	2
75°	2	2	3	5	2	1
85°	0	2	2	2	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°	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0
2.5°	166.5	168.1	168.9	164.9	165.7	164.1	165.7	162.4	156.8	158.4	153.6
5°	223.9	220.6	219.8	213.4	211.7	208.5	208.5	201.2	190.7	189.1	179.4
7.5°	396.0	379.0	364.5	342.7	321.7	305.5	299.0	273.2	244.9	234.4	211.7
10°	944.0	940.7	904.4	835.7	756.5	699.1	666.0	565.7	438.9	361.3	280.4
12.5°	1718.2	1702.1	1650.3	1524.3	1387.7	1302.0	1234.9	1032.9	844.6	693.4	497.0
15°	2562.8	2497.3	2421.4	2225.8	2034.2	1922.7	1827.3	1584.9	1293.1	1075.7	823.6
17.5°	3464.7	3493.8	3309.6	2972.6	2632.3	2457.7	2296.1	1923.5	1604.3	1378.0	1094.3
20°	4782.1	4720.7	4396.6	3838.1	3336.2	3044.5	2815.0	2277.5	1795.8	1513.8	1245.4
22.5°	6562.6	6367.0	5735.0	4790.2	3994.1	3589.2	3263.5	2539.4	1956.6	1583.3	1269.7
25°	8696.2	8515.2	7344.9	5705.9	4528.3	4003.8	3560.9	2705.8	2021.3	1594.6	1264.8
26°	9392.9	9123.8	7938.9	6031.6	4692.4	4108.9	3634.5	2738.2	2022.9	1585.7	1243.8
27°	9753.3	9542.4	8430.3	6295.9	4804.7	4175.2	3675.7	2746.3	2006.8	1565.5	1211.5
28°	9990.9	9793.7	8741.5	6468.8	4862.1	4201.0	3687.8	2728.5	1970.4	1529.9	1160.6
29°	10138.0	9930.3	8893.4	6547.2	4866.2	4189.7	3665.2	2681.6	1921.1	1487.1	1101.6
30°	10180.9	9956.2	8897.5	6514.9	4806.4	4129.1	3601.3	2605.6	1861.3	1432.9	1036.1
31°	10104.9	9873.0	8751.2	6367.8	4683.5	4011.1	3501.1	2505.4	1786.9	1375.6	935.1
32°	9978.8	9670.9	8444.9	6123.7	4515.4	3868.8	3375.8	2396.3	1707.7	1302.8	792.8
33°	9710.5	9338.7	7976.1	5817.4	4313.4	3705.6	3229.6	2275.1	1632.6	1177.5	589.2
34°	9307.2	8837.7	7401.5	5461.0	4084.6	3501.9	3061.5	2162.7	1554.2	1011.9	403.3
35°	8552.4	8115.1	6767.0	5081.1	3838.1	3304.7	2876.4	2015.6	1447.5	811.4	248.9
36°	7707.8	7386.1	6152.0	4694.8	3586.0	3100.2	2685.6	1907.3	1289.9	597.3	168.9
37°	6844.6	6559.3	5571.7	4315.0	3333.0	2874.0	2491.7	1784.5	1102.4	398.4	135.8
38°	6022.7	5796.4	5020.5	3941.6	3070.3	2637.2	2288.0	1653.6	900.3	256.2	111.5
39°	5267.8	5098.1	4480.7	3580.3	2806.9	2405.2	2092.4	1488.7	687.0	182.7	92.9
40°	4558.2	4438.6	3960.2	3223.9	2545.0	2177.3	1915.4	1289.1	476.8	144.7	75.2
42.5°	3100.2	3070.3	2786.7	2320.3	1890.4	1675.4	1514.6	725.0	183.5	87.3	42.0
45°	1534.8	1555.8	1442.6	1327.1	1237.4	1171.9	954.5	302.3	101.8	47.7	25.9
47.5°	543.1	543.9	467.9	417.0	398.4	396.8	288.5	106.7	54.1	29.1	18.6
50°	153.6	165.7	156.0	159.2	124.5	105.9	86.5	51.7	27.5	18.6	12.1
51°	94.6	101.8	95.4	98.6	85.7	76.8	64.7	38.8	21.8	15.4	11.3
52°	60.6	64.7	61.4	62.2	57.4	50.1	43.6	28.3	17.8	12.9	9.7
53°	41.2	43.6	41.2	41.2	38.0	35.6	30.7	21.0	14.5	10.5	7.3
54°	28.3	29.1	29.1	29.1	26.7	25.1	21.8	16.2	12.1	9.7	6.5
55°	20.2	21.0	20.2	20.2	19.4	17.8	16.2	12.1	9.7	8.1	4.8
57.5°	8.9	8.9	8.9	9.7	8.9	8.9	8.1	7.3	6.5	4.8	3.2
60°	4.0	4.0	4.0	4.0	4.8	4.8	4.8	4.8	4.0	3.2	3.2
61°	3.2	3.2	3.2	3.2	3.2	4.0	4.0	4.0	3.2	3.2	2.4
62°	2.4	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2	2.4	2.4
63°	2.4	2.4	2.4	2.4	2.4	2.4	3.2	3.2	2.4	2.4	2.4
64°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
65°	2.4	1.6	1.6	1.6	1.6	2.4	2.4	2.4	2.4	2.4	2.4
66°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4
77.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.6	1.6	2.4
80°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.6	1.6	2.4
82.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.6	1.6	2.4
85°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.6	1.6	2.4
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.6	1.6	2.4
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°	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0
2.5°	150.3	149.5	145.5	141.4	142.2	140.6	139.0	136.6	135.0	130.9	130.9
5°	171.3	167.3	158.4	150.3	149.5	146.3	141.4	136.6	132.5	126.9	125.3
7.5°	195.6	184.3	169.7	156.8	154.4	149.5	140.6	134.2	126.9	119.6	117.2
10°	230.3	203.7	178.6	159.2	154.4	147.1	135.8	126.9	118.8	109.9	106.7
12.5°	354.0	251.3	189.9	159.2	150.3	141.4	127.7	117.2	107.5	97.8	94.6
15°	590.0	401.7	240.8	159.2	143.1	132.5	115.6	105.1	94.6	85.7	82.4
17.5°	814.7	571.4	335.4	179.4	143.9	122.0	101.0	89.7	80.8	71.9	69.5
20°	944.8	666.0	397.6	199.6	142.2	109.9	86.5	74.4	65.5	59.0	56.6
22.5°	961.8	670.0	383.9	178.6	119.6	91.3	71.9	60.6	53.3	47.7	46.1
25°	916.5	591.6	307.1	126.9	88.9	74.4	56.6	48.5	42.8	38.0	37.2
26°	881.7	544.7	267.5	105.1	78.4	66.3	50.9	43.6	38.8	34.8	33.9
27°	832.4	494.6	228.7	87.3	69.5	59.8	45.3	39.6	35.6	31.5	31.5
28°	776.7	440.5	184.3	73.5	62.2	53.3	41.2	35.6	31.5	29.1	29.1
29°	709.6	362.1	135.0	63.8	55.0	46.9	36.4	31.5	28.3	26.7	26.7
30°	610.2	262.7	92.9	55.8	47.7	41.2	32.3	28.3	25.9	24.2	24.2
31°	476.8	161.6	72.7	48.5	42.0	36.4	29.1	25.1	23.4	21.8	22.6
32°	324.9	101.0	62.2	42.0	37.2	31.5	25.9	22.6	21.0	20.2	20.2
33°	185.1	84.1	54.1	36.4	31.5	27.5	22.6	20.2	19.4	18.6	18.6
34°	122.8	71.9	46.9	30.7	25.9	23.4	19.4	17.8	17.0	17.0	17.0
35°	103.4	62.2	38.0	25.9	22.6	20.2	17.0	16.2	15.4	15.4	16.2
36°	87.3	51.7	30.7	21.8	19.4	17.8	15.4	14.5	13.7	13.7	14.5
37°	73.5	41.2	25.9	18.6	16.2	15.4	13.7	12.9	12.9	12.9	13.7
38°	59.8	33.1	21.8	16.2	14.5	12.9	12.1	11.3	11.3	12.1	12.9
39°	46.9	26.7	17.8	13.7	12.1	11.3	10.5	10.5	10.5	10.5	11.3
40°	37.2	22.6	15.4	12.1	10.5	10.5	9.7	8.9	9.7	9.7	11.3
42.5°	23.4	16.2	11.3	8.9	8.1	8.1	7.3	7.3	7.3	8.1	8.9
45°	17.0	12.9	8.9	7.3	6.5	5.7	5.7	5.7	6.5	7.3	8.1
47.5°	12.9	8.9	6.5	4.8	4.0	4.0	4.0	4.0	4.8	5.7	6.5
50°	8.9	5.7	4.0	3.2	3.2	3.2	3.2	3.2	4.0	4.8	5.7
51°	7.3	4.8	4.0	3.2	3.2	2.4	2.4	3.2	4.0	4.0	4.8
52°	5.7	4.0	3.2	2.4	2.4	2.4	2.4	3.2	3.2	4.0	4.8
53°	4.8	4.0	3.2	2.4	2.4	2.4	2.4	2.4	3.2	4.0	4.8
54°	4.0	3.2	2.4	2.4	2.4	2.4	2.4	2.4	3.2	4.0	4.8
55°	3.2	3.2	2.4	2.4	2.4	2.4	2.4	2.4	3.2	3.2	4.0
57.5°	3.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.2	4.0
60°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.2	4.0
61°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.2	4.0
62°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.2	4.0
63°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.2	3.2	4.0
64°	2.4	2.4	2.4	2.4	3.2	3.2	2.4	2.4	3.2	3.2	4.0
65°	2.4	2.4	3.2	3.2	3.2	3.2	2.4	2.4	3.2	3.2	4.0
66°	2.4	3.2	3.2	3.2	3.2	3.2	2.4	2.4	3.2	3.2	4.0





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4	3.2	3.2	3.2
75°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4	2.4	3.2	3.2
80°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4	2.4	3.2	3.2
82.5°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4	2.4	2.4	3.2
85°	2.4	2.4	3.2	3.2	3.2	3.2	3.2	2.4	2.4	2.4	2.4
87.5°	2.4	2.4	3.2	3.2	3.2	3.2	2.4	2.4	2.4	2.4	2.4
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°	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0
2.5°	129.3	126.9	125.3	124.5	125.3	123.7	121.2	122.0	121.2	120.4	120.4
5°	122.8	118.8	117.2	116.4	116.4	115.6	112.3	113.1	112.3	111.5	111.5
7.5°	114.0	110.7	108.3	107.5	107.5	106.7	103.4	105.1	103.4	102.6	103.4
10°	103.4	100.2	99.4	97.8	97.8	97.0	94.6	95.4	94.6	94.6	94.6
12.5°	92.1	88.9	88.1	87.3	88.1	87.3	84.9	86.5	85.7	85.7	86.5
15°	80.0	77.6	77.6	76.8	77.6	76.8	76.0	76.8	76.8	76.8	78.4
17.5°	67.9	66.3	66.3	65.5	66.3	66.3	65.5	67.9	67.9	69.5	71.1
20°	55.8	54.1	55.0	55.0	56.6	56.6	56.6	59.0	59.8	61.4	63.8
22.5°	46.1	45.3	46.1	46.1	47.7	48.5	48.5	50.9	53.3	55.0	57.4
25°	37.2	37.2	38.8	38.8	39.6	41.2	42.0	45.3	46.9	48.5	50.9
26°	34.8	34.8	35.6	36.4	37.2	38.8	39.6	42.8	44.5	46.1	48.5
27°	31.5	31.5	33.1	33.9	34.8	36.4	38.0	40.4	42.0	44.5	46.1
28°	29.1	29.1	30.7	31.5	32.3	34.8	35.6	38.0	39.6	42.0	44.5
29°	26.7	27.5	29.1	29.1	30.7	32.3	33.1	36.4	38.0	39.6	42.0
30°	25.1	25.9	26.7	27.5	28.3	29.9	31.5	33.9	35.6	37.2	39.6
31°	23.4	24.2	25.1	25.9	26.7	28.3	29.9	32.3	33.9	35.6	38.0
32°	21.8	21.8	23.4	24.2	25.1	26.7	28.3	30.7	32.3	33.9	36.4
33°	20.2	21.0	21.8	22.6	23.4	25.1	26.7	28.3	29.9	32.3	34.8
34°	18.6	19.4	21.0	21.8	22.6	24.2	25.1	26.7	28.3	30.7	32.3
35°	17.0	18.6	19.4	20.2	21.0	22.6	23.4	25.9	26.7	29.1	30.7
36°	16.2	17.0	18.6	19.4	20.2	21.0	21.8	24.2	25.9	27.5	29.1
37°	14.5	16.2	17.0	17.8	18.6	20.2	21.0	22.6	24.2	25.9	27.5
38°	13.7	14.5	16.2	17.0	17.8	18.6	19.4	21.8	22.6	24.2	25.9
39°	12.9	13.7	15.4	16.2	16.2	17.8	18.6	20.2	21.0	22.6	25.1
40°	12.1	12.9	14.5	14.5	15.4	17.0	17.8	19.4	20.2	21.8	23.4
42.5°	10.5	11.3	12.1	12.9	13.7	14.5	15.4	17.0	17.8	18.6	20.2
45°	8.9	9.7	11.3	11.3	12.1	12.9	13.7	14.5	15.4	17.0	17.8
47.5°	7.3	8.9	9.7	10.5	10.5	11.3	12.1	12.9	13.7	14.5	15.4
50°	6.5	7.3	8.1	8.9	8.9	9.7	10.5	11.3	11.3	12.1	13.7
51°	6.5	7.3	8.1	8.1	8.9	9.7	9.7	10.5	11.3	11.3	12.1
52°	5.7	6.5	7.3	8.1	8.1	8.9	9.7	9.7	10.5	11.3	12.1
53°	5.7	6.5	7.3	7.3	8.1	8.9	8.9	9.7	9.7	10.5	11.3
54°	5.7	6.5	7.3	7.3	8.1	8.1	8.9	8.9	9.7	9.7	10.5
55°	4.8	5.7	6.5	7.3	7.3	8.1	8.1	8.9	8.9	9.7	9.7
57.5°	4.8	5.7	6.5	6.5	6.5	7.3	7.3	8.1	8.1	8.1	8.9
60°	4.8	5.7	5.7	6.5	6.5	7.3	7.3	7.3	7.3	8.1	8.1
61°	4.8	4.8	5.7	6.5	6.5	6.5	7.3	7.3	7.3	7.3	8.1
62°	4.8	4.8	5.7	5.7	6.5	6.5	6.5	7.3	7.3	7.3	7.3
63°	4.0	4.8	5.7	5.7	6.5	6.5	6.5	6.5	6.5	7.3	7.3
64°	4.0	4.8	5.7	5.7	5.7	6.5	6.5	6.5	6.5	6.5	6.5
65°	4.0	4.8	5.7	5.7	5.7	6.5	6.5	6.5	6.5	6.5	6.5
66°	4.0	4.8	5.7	5.7	5.7	6.5	6.5	6.5	6.5	6.5	6.5



TEST NUMBER: P182675

CATALOG NUMBER: LDSQA4A18930D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	4.0	4.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
75°	4.0	4.0	4.0	4.8	4.8	4.8	4.8	4.8	4.8	4.0	4.0
77.5°	3.2	3.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.2
80°	3.2	3.2	4.0	4.0	4.0	4.0	4.0	4.0	3.2	3.2	3.2
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.4	2.4
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.4	2.4	1.6
87.5°	2.4	3.2	3.2	3.2	3.2	3.2	2.4	2.4	2.4	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: P182675

CATALOG NUMBER: LDSQA4A18930D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	135.0	135.0	135.0	135.0	135.0	135.0	135.0	135.0
2.5°	121.2	118.8	118.0	118.0	118.8	118.0	118.8	118.0
5°	111.5	109.1	109.1	108.3	109.1	108.3	109.1	108.3
7.5°	103.4	101.0	101.0	101.0	101.0	101.0	101.8	101.0
10°	95.4	92.9	92.9	92.1	92.9	92.9	93.8	92.9
12.5°	87.3	85.7	85.7	84.9	86.5	85.7	87.3	86.5
15°	80.0	78.4	78.4	79.2	80.0	80.0	80.8	80.8
17.5°	72.7	72.7	72.7	73.5	74.4	75.2	76.0	75.2
20°	66.3	66.3	67.1	67.9	68.7	69.5	70.3	70.3
22.5°	59.8	59.8	60.6	62.2	63.8	64.7	65.5	65.5
25°	53.3	54.1	55.0	55.8	58.2	59.0	59.8	59.8
26°	50.9	51.7	53.3	54.1	55.8	56.6	58.2	58.2
27°	49.3	50.1	50.9	51.7	54.1	55.0	56.6	55.8
28°	46.9	47.7	48.5	50.1	51.7	53.3	54.1	54.1
29°	44.5	46.1	46.9	47.7	50.1	50.9	51.7	51.7
30°	42.8	43.6	44.5	46.1	47.7	49.3	50.1	50.1
31°	40.4	42.0	42.8	43.6	46.1	46.9	48.5	48.5
32°	38.8	39.6	40.4	42.0	43.6	45.3	46.1	46.1
33°	36.4	38.0	38.8	39.6	42.0	43.6	44.5	43.6
34°	34.8	36.4	36.4	38.0	39.6	41.2	42.0	42.0
35°	33.1	33.9	34.8	36.4	38.0	39.6	40.4	40.4
36°	31.5	32.3	33.1	34.8	36.4	38.0	38.8	38.8
37°	29.9	30.7	31.5	32.3	34.8	36.4	37.2	37.2
38°	28.3	29.1	29.9	31.5	33.1	33.9	35.6	35.6
39°	26.7	27.5	28.3	29.9	31.5	32.3	33.9	33.1
40°	25.1	26.7	26.7	28.3	29.9	30.7	32.3	31.5
42.5°	21.8	22.6	23.4	24.2	25.9	27.5	28.3	28.3
45°	19.4	20.2	21.0	21.8	22.6	23.4	25.1	24.2
47.5°	16.2	17.0	17.8	18.6	19.4	20.2	21.0	21.0
50°	14.5	14.5	15.4	15.4	17.0	17.8	18.6	18.6
51°	12.9	13.7	14.5	14.5	16.2	16.2	17.0	17.0
52°	12.9	12.9	13.7	13.7	14.5	15.4	16.2	16.2
53°	12.1	12.1	12.9	12.9	13.7	14.5	15.4	15.4
54°	11.3	11.3	12.1	12.1	12.9	13.7	14.5	14.5
55°	10.5	10.5	11.3	11.3	12.1	12.9	13.7	13.7
57.5°	8.9	9.7	9.7	10.5	10.5	11.3	11.3	12.1
60°	8.1	8.9	8.9	8.9	9.7	9.7	9.7	9.7
61°	8.1	8.1	8.1	8.9	8.9	8.1	8.9	8.1
62°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
63°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
64°	7.3	6.5	6.5	6.5	6.5	6.5	6.5	6.5
65°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	5.7
66°	6.5	6.5	5.7	6.5	5.7	5.7	5.7	5.7



TEST NUMBER: P182675

CATALOG NUMBER: LDSQA4A18930D010TE LAR15SP 4LSQA1H 30°

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	4.0	4.0	4.0	4.0	4.0	3.2	3.2	3.2
75°	4.0	4.0	4.0	3.2	3.2	3.2	3.2	2.4
77.5°	3.2	3.2	3.2	3.2	2.4	2.4	2.4	2.4
80°	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6
82.5°	2.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4
70°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4





67.5°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4	3.2	3.2	4.0
70°	2.4	3.2	3.2	3.2	3.2	3.2	3.2	2.4	3.2	3.2	3.2





67.5°	4.0	4.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
70°	4.0	4.8	4.8	4.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7







67.5°	5.7	5.7	5.7	5.7	5.7	4.8	4.8	4.8
70°	4.8	4.8	4.8	4.8	4.8	4.0	4.0	4.0



(END OF REPORT)