

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: P182782

Luminaire Tested: **LDSQA4A13827D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182782
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26802)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13827D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, 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: 1392.2 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 2.26 / 0.62 / 1.11
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

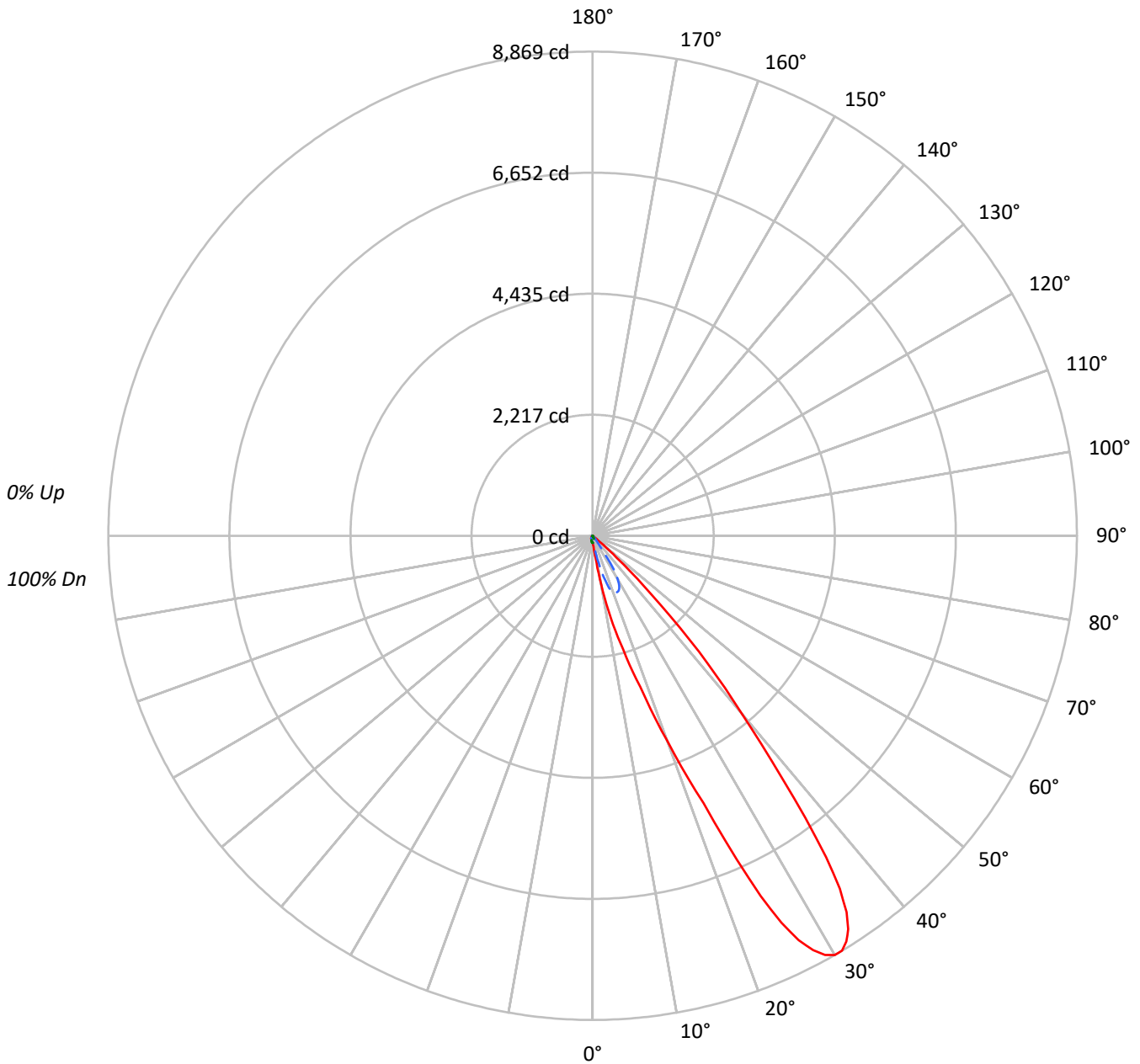
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	112	109	106	104	110	107	105	102	103	101	99	99	98	96	96	94	93	91																			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83																			
3	99	91	85	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75																			
4	93	84	77	72	91	82	76	72	80	75	71	78	73	70	76	72	69	67																			
5	86	76	69	64	85	75	69	64	74	68	63	72	67	63	70	66	62	61																			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	60	55	51	49																			
8	70	59	52	47	69	58	52	47	57	51	47	56	50	46	55	50	46	44																			
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40																			
10	62	50	43	38	60	50	43	38	49	42	38	48	42	38	47	42	38	36																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12729	12729	12729
5°	20217	12097	10444
10°	88553	10722	8893
15°	216382	8675	7753
20°	412814	6454	7093
25°	777990	4628	6200
30°	991993	3289	5448
35°	933143	2010	4660
40°	535326	1366	4009
45°	206655	959	3384
50°	27490	693	2788
55°	4172	659	2348
60°	1201	601	1938
65°	711	711	1421
70°	425	878	1105
75°	561	861	861
80°	0	1283	837
85°	0	2556	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.4	1.2
10°-20°	149.2	10.7
20°-30°	475.8	34.2
30°-40°	551.4	39.6
40°-50°	179.3	12.9
50°-60°	11.4	0.8
60°-70°	4.1	0.3
70°-80°	2.9	0.2
80°-90°	1.7	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°	641.4	46.1
0°-40°	1192.8	85.7
0°-60°	1383.4	99.4
0°-90°	1392.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1392.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	131	131	131	131	131	
5°	208	174	124	109	107	40
15°	2158	777	86	74	77	684
25°	7278	1118	43	46	58	3270
35°	7890	267	17	26	39	4540
45°	1508	32	7	16	25	1347
55°	25	6	4	8	14	38
65°	3	2	3	6	6	3
75°	2	2	2	4	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°	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4
2.5°	160.0	161.5	161.5	159.2	159.2	156.9	155.3	154.5	153.8	151.5	150.7
5°	207.9	209.4	210.2	204.0	201.7	197.0	193.2	189.3	184.7	179.3	173.9
7.5°	401.1	368.6	374.0	327.6	319.1	299.0	282.8	257.3	238.8	220.2	205.5
10°	900.2	869.3	863.9	795.9	728.7	678.5	624.4	530.9	445.9	355.5	282.0
12.5°	1542.4	1496.8	1471.3	1337.6	1258.8	1184.6	1101.9	955.9	792.8	653.7	508.5
15°	2157.5	2153.6	2062.4	1913.3	1763.4	1672.2	1565.6	1384.7	1191.6	979.8	777.4
17.5°	2900.1	2930.2	2774.1	2482.8	2245.6	2097.2	1950.4	1667.6	1426.5	1220.9	999.2
20°	4004.3	3924.0	3651.2	3195.3	2794.2	2570.9	2342.9	1926.4	1581.0	1332.2	1107.3
22.5°	5301.8	5239.9	4729.9	3969.6	3333.6	3019.9	2706.1	2164.4	1714.7	1392.5	1128.2
25°	7278.4	7024.2	6034.3	4800.3	3828.1	3383.8	2981.2	2319.0	1775.0	1400.2	1118.2
26°	7885.0	7706.5	6564.4	5130.2	3980.4	3484.3	3050.0	2350.7	1779.6	1393.2	1098.8
27°	8315.4	8179.4	7005.7	5372.9	4090.9	3553.8	3094.8	2363.8	1768.8	1378.6	1072.6
28°	8599.0	8490.1	7338.7	5548.3	4158.1	3590.9	3116.5	2360.7	1747.2	1353.1	1035.5
29°	8779.1	8674.0	7533.4	5647.9	4182.1	3597.1	3111.0	2337.5	1712.4	1315.2	982.2
30°	8868.0	8753.6	7599.1	5658.8	4155.8	3561.6	3070.1	2286.5	1664.5	1269.6	923.4
31°	8868.7	8742.0	7544.2	5575.3	4077.7	3485.8	2997.5	2201.5	1601.9	1215.5	844.6
32°	8766.0	8635.4	7361.1	5406.1	3955.7	3390.8	2900.1	2115.0	1536.2	1155.2	731.0
33°	8593.6	8439.1	7043.5	5171.2	3799.6	3261.0	2783.4	2018.4	1470.5	1058.7	581.9
34°	8315.4	8104.5	6600.0	4886.0	3611.0	3109.5	2649.7	1914.1	1404.1	924.2	415.7
35°	7890.4	7592.9	6086.9	4570.8	3409.3	2945.7	2499.0	1805.1	1322.9	758.1	266.6
36°	7275.3	6891.3	5552.9	4244.7	3201.5	2773.4	2346.0	1700.0	1194.7	574.9	174.6
37°	6472.5	6134.0	5042.1	3916.2	2985.9	2589.4	2206.2	1594.2	1037.0	401.8	142.2
38°	5647.9	5398.4	4542.9	3590.1	2762.5	2390.9	2036.2	1483.7	864.7	264.3	119.0
39°	4904.6	4737.7	4054.6	3267.1	2532.3	2217.0	1866.2	1343.0	680.8	187.8	100.5
40°	4233.1	4117.9	3582.4	2938.0	2302.0	2006.8	1706.2	1170.7	490.7	149.9	84.2
42.5°	2887.0	2829.8	2506.0	2114.2	1703.1	1533.9	1343.8	704.0	194.7	95.0	51.0
45°	1508.4	1483.7	1366.2	1237.9	1110.4	1066.4	863.9	316.1	109.7	55.6	32.5
47.5°	587.3	588.8	486.8	415.7	394.9	367.1	278.2	113.6	61.8	34.0	21.6
50°	182.4	196.3	180.8	170.8	130.6	109.0	90.4	56.4	33.2	20.9	13.9
51°	112.0	119.0	112.0	112.0	92.0	80.4	68.8	43.3	26.3	17.0	12.4
52°	72.6	76.5	72.6	68.0	63.4	57.2	49.5	32.5	20.9	13.9	10.0
53°	49.5	51.8	49.5	46.4	42.5	39.4	34.8	24.0	17.0	11.6	8.5
54°	34.8	36.3	34.8	32.5	30.1	27.8	25.5	18.5	13.9	10.0	7.7
55°	24.7	26.3	25.5	24.0	21.6	20.9	19.3	14.7	11.6	8.5	6.2
57.5°	11.6	12.4	12.4	11.6	11.6	10.8	10.0	9.3	7.0	5.4	4.6
60°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	4.6	3.9	3.9
61°	4.6	4.6	4.6	4.6	4.6	4.6	5.4	4.6	3.9	3.9	3.1
62°	3.9	3.9	3.9	3.9	3.9	4.6	4.6	3.9	3.9	3.1	3.1
63°	3.1	3.1	3.1	3.1	3.9	3.9	3.9	3.9	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	2.3
65°	3.1	3.1	2.3	2.3	2.3	3.1	2.3	3.1	2.3	2.3	2.3
66°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.3
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.3
77.5°	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	1.5	1.5	2.3
80°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.5	1.5	1.5
82.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	1.5	1.5
85°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.5	1.5	1.5
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	1.5	1.5
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°	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4
2.5°	146.0	142.2	140.6	139.1	138.3	136.8	134.5	132.1	131.4	128.3	125.2
5°	164.6	157.6	152.2	146.8	145.3	141.4	136.8	131.4	129.0	124.4	120.5
7.5°	186.2	172.3	162.3	153.0	149.1	144.5	136.0	129.0	124.4	117.5	112.8
10°	222.5	190.1	170.8	154.5	148.4	142.2	131.4	122.1	115.9	109.0	103.5
12.5°	352.4	246.5	185.5	155.3	146.8	137.5	124.4	113.6	105.9	98.1	93.5
15°	555.6	375.6	240.3	163.0	143.7	129.8	114.4	102.0	94.3	86.5	81.9
17.5°	741.8	505.4	313.7	181.6	145.3	122.9	102.0	89.6	81.1	74.2	71.1
20°	831.5	566.4	349.3	185.5	136.0	109.7	88.1	76.5	68.8	62.6	59.5
22.5°	840.0	562.6	327.6	158.4	112.8	92.7	74.2	63.4	57.2	52.5	49.5
25°	799.8	499.2	262.7	116.7	88.1	77.3	61.0	51.8	47.1	43.3	41.0
26°	768.9	462.9	231.0	101.2	80.4	70.3	55.6	47.9	43.3	40.2	37.9
27°	726.4	420.4	194.0	87.3	74.2	63.4	51.0	44.0	40.2	37.9	35.5
28°	675.4	378.6	160.7	77.3	67.2	57.2	47.1	40.2	37.1	34.8	32.5
29°	620.5	323.8	126.0	69.5	60.3	51.8	42.5	36.3	33.2	31.7	30.1
30°	543.2	251.9	96.6	62.6	54.1	46.4	38.6	33.2	30.9	29.4	27.8
31°	434.3	173.1	78.0	55.6	48.7	41.7	34.8	30.1	27.8	26.3	25.5
32°	311.4	106.6	68.0	49.5	43.3	37.9	30.1	27.0	24.7	24.0	23.2
33°	191.6	87.3	60.3	44.0	37.9	33.2	27.0	24.0	22.4	21.6	20.9
34°	126.0	75.7	53.3	37.9	33.2	28.6	23.2	20.9	20.1	19.3	19.3
35°	106.6	67.2	46.4	32.5	27.8	24.7	20.1	18.5	17.8	17.0	17.8
36°	92.0	58.7	38.6	27.8	24.0	20.9	17.8	16.2	15.5	15.5	16.2
37°	81.1	49.5	32.5	23.2	20.9	18.5	15.5	14.7	13.9	13.9	14.7
38°	68.8	40.2	27.0	20.1	17.8	15.5	13.9	13.1	13.1	13.1	13.9
39°	56.4	34.0	23.2	17.0	15.5	13.9	12.4	11.6	11.6	12.4	12.4
40°	46.4	28.6	19.3	14.7	13.1	12.4	10.8	10.8	10.8	10.8	11.6
42.5°	30.1	19.3	13.9	10.8	10.0	9.3	8.5	8.5	8.5	8.5	9.3
45°	20.1	13.9	10.8	8.5	7.7	7.0	7.0	6.2	7.0	7.0	7.7
47.5°	13.9	10.0	7.7	6.2	5.4	4.6	4.6	4.6	5.4	6.2	6.2
50°	10.0	7.0	5.4	3.9	3.9	3.9	3.9	3.9	4.6	4.6	5.4
51°	8.5	6.2	4.6	3.9	3.9	3.1	3.1	3.1	3.9	4.6	5.4
52°	7.0	5.4	3.9	3.1	3.1	3.1	3.1	3.1	3.9	3.9	4.6
53°	6.2	4.6	3.9	3.1	3.1	3.1	3.1	3.1	3.9	3.9	4.6
54°	5.4	3.9	3.1	3.1	3.1	2.3	2.3	3.1	3.1	3.9	4.6
55°	4.6	3.9	3.1	3.1	2.3	2.3	2.3	2.3	3.1	3.9	3.9
57.5°	3.9	3.1	3.1	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.9
60°	3.1	3.1	3.1	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.9
61°	3.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.1	3.1	3.9
62°	3.1	2.3	3.1	3.1	3.1	2.3	2.3	2.3	3.1	3.1	3.9
63°	3.1	3.1	3.1	3.1	3.1	2.3	2.3	2.3	3.1	3.1	3.1
64°	3.1	3.1	3.1	3.1	3.1	3.1	2.3	2.3	3.1	3.1	3.9
65°	2.3	3.1	3.1	3.1	3.1	3.1	2.3	2.3	3.1	3.1	3.9
66°	2.3	3.1	3.1	3.1	3.1	3.1	3.1	2.3	3.1	3.1	3.1



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.3	2.3	3.1	3.1	3.1	3.1	3.1	2.3	2.3	3.1	3.1
75°	2.3	2.3	3.1	3.1	3.1	3.1	3.1	2.3	2.3	2.3	3.1
77.5°	2.3	2.3	3.1	3.1	3.1	3.1	3.1	2.3	2.3	2.3	3.1
80°	2.3	2.3	3.1	3.1	3.1	3.1	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	3.1	3.1	2.3	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	3.1	3.1	2.3	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P182782

CATALOG NUMBER: LDSQA4A13827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4
2.5°	123.6	123.6	122.9	121.3	122.9	121.3	119.8	119.0	118.2	117.5	115.9
5°	117.5	116.7	115.1	114.4	114.4	112.8	111.3	109.7	109.0	108.2	106.6
7.5°	109.7	109.0	106.6	105.9	105.9	104.3	102.0	101.2	100.5	99.7	98.1
10°	100.5	99.7	97.4	96.6	96.6	95.0	93.5	92.0	91.2	90.4	88.9
12.5°	89.6	88.9	87.3	86.5	86.5	85.0	83.5	82.7	82.7	81.9	81.1
15°	78.8	78.0	76.5	76.5	76.5	75.0	74.2	73.4	74.2	74.2	73.4
17.5°	68.0	67.2	65.7	65.7	65.7	65.7	64.9	64.9	65.7	66.5	66.5
20°	57.2	56.4	56.4	55.6	56.4	57.2	56.4	57.2	58.7	59.5	60.3
22.5°	47.1	47.1	47.1	47.1	47.9	48.7	48.7	50.2	51.8	52.5	54.1
25°	39.4	39.4	40.2	40.2	41.0	41.7	42.5	43.3	45.6	47.1	47.9
26°	36.3	37.1	37.1	37.9	38.6	39.4	40.2	41.0	43.3	44.8	45.6
27°	34.0	34.0	34.8	35.5	36.3	37.1	37.9	39.4	41.0	42.5	44.0
28°	31.7	31.7	32.5	33.2	34.0	34.8	35.5	37.1	38.6	41.0	41.7
29°	29.4	30.1	30.1	30.9	31.7	32.5	34.0	34.8	37.1	38.6	40.2
30°	27.0	27.8	28.6	28.6	29.4	30.1	31.7	33.2	34.8	37.1	37.9
31°	25.5	26.3	26.3	27.0	27.8	28.6	30.1	31.7	33.2	34.8	36.3
32°	23.2	24.7	24.7	24.7	25.5	27.0	28.6	29.4	31.7	33.2	34.0
33°	21.6	22.4	23.2	23.2	24.0	25.5	27.0	27.8	30.1	31.7	32.5
34°	20.1	20.9	21.6	21.6	22.4	24.0	25.5	26.3	28.6	29.4	30.9
35°	18.5	19.3	20.1	20.1	20.9	22.4	24.0	24.7	26.3	27.8	29.4
36°	17.0	17.8	18.5	19.3	20.1	21.6	22.4	24.0	24.7	26.3	27.8
37°	15.5	16.2	17.8	17.8	19.3	20.1	21.6	22.4	24.0	24.7	26.3
38°	13.9	15.5	16.2	17.0	17.8	19.3	20.1	20.9	22.4	24.0	24.7
39°	13.1	14.7	15.5	16.2	17.0	17.8	18.5	20.1	20.9	22.4	23.2
40°	12.4	13.1	14.7	14.7	16.2	17.0	17.8	18.5	20.1	20.9	22.4
42.5°	10.0	11.6	12.4	13.1	13.9	14.7	15.5	16.2	17.0	18.5	19.3
45°	8.5	10.0	10.8	10.8	11.6	12.4	13.1	13.9	15.5	16.2	17.0
47.5°	7.0	8.5	9.3	10.0	10.0	10.8	11.6	12.4	13.1	13.9	14.7
50°	6.2	7.0	7.7	8.5	9.3	9.3	10.0	10.8	11.6	12.4	12.4
51°	6.2	7.0	7.7	7.7	8.5	9.3	10.0	10.0	10.8	11.6	11.6
52°	5.4	6.2	7.0	7.7	8.5	8.5	9.3	10.0	10.0	10.8	11.6
53°	5.4	6.2	7.0	7.0	7.7	8.5	8.5	9.3	10.0	10.0	10.8
54°	4.6	6.2	7.0	7.0	7.7	7.7	8.5	9.3	9.3	9.3	10.0
55°	4.6	5.4	6.2	7.0	7.0	7.7	7.7	8.5	8.5	9.3	9.3
57.5°	4.6	5.4	6.2	6.2	7.0	7.0	7.7	7.7	7.7	7.7	8.5
60°	3.9	4.6	5.4	6.2	6.2	7.0	7.0	7.0	7.0	7.0	7.7
61°	3.9	4.6	5.4	5.4	6.2	6.2	7.0	7.0	7.0	7.0	7.0
62°	3.9	4.6	5.4	5.4	6.2	6.2	6.2	7.0	7.0	7.0	7.0
63°	3.9	4.6	5.4	5.4	6.2	6.2	6.2	6.2	6.2	6.2	7.0
64°	3.9	4.6	5.4	5.4	6.2	6.2	6.2	6.2	6.2	6.2	6.2
65°	3.9	4.6	5.4	5.4	5.4	6.2	6.2	6.2	6.2	6.2	6.2
66°	3.9	4.6	5.4	5.4	5.4	5.4	6.2	6.2	6.2	6.2	5.4



TEST NUMBER: P182782

CATALOG NUMBER: LDSQA4A13827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	3.1	3.9	3.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.9
75°	3.1	3.9	3.9	3.9	4.6	4.6	4.6	3.9	3.9	3.9	3.9
77.5°	3.1	3.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.1	3.1
80°	3.1	3.1	3.1	3.9	3.9	3.9	3.9	3.1	3.1	3.1	2.3
82.5°	2.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.3	2.3	2.3
85°	2.3	3.1	3.1	3.1	3.1	3.1	3.1	2.3	2.3	2.3	1.5
87.5°	2.3	2.3	2.3	3.1	3.1	3.1	2.3	2.3	1.5	1.5	1.5
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: P182782

CATALOG NUMBER: LDSQA4A13827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4
2.5°	117.5	118.2	117.5	117.5	115.9	116.7	115.1	117.5
5°	107.4	108.2	107.4	107.4	105.9	105.9	105.1	107.4
7.5°	98.9	99.7	98.1	98.1	96.6	97.4	96.6	98.1
10°	90.4	90.4	90.4	89.6	88.9	89.6	88.9	90.4
12.5°	81.9	82.7	82.7	82.7	81.9	81.9	81.1	83.5
15°	75.0	75.7	76.5	76.5	75.7	76.5	75.7	77.3
17.5°	68.8	70.3	70.3	71.1	71.1	71.9	71.9	73.4
20°	62.6	64.9	64.9	65.7	65.7	67.2	67.2	68.8
22.5°	56.4	58.7	59.5	59.5	60.3	61.8	61.8	63.4
25°	51.0	53.3	54.1	54.1	54.9	56.4	56.4	58.0
26°	48.7	51.0	51.8	52.5	53.3	54.9	54.9	56.4
27°	46.4	48.7	49.5	50.2	51.0	52.5	52.5	54.1
28°	44.8	47.1	47.9	48.7	49.5	51.0	51.0	51.8
29°	42.5	44.8	45.6	46.4	47.1	48.7	48.7	50.2
30°	41.0	42.5	43.3	44.0	44.8	47.1	47.1	48.7
31°	38.6	41.0	41.7	42.5	43.3	44.8	44.8	47.1
32°	37.1	38.6	39.4	40.2	41.7	42.5	43.3	44.8
33°	34.8	37.1	37.9	38.6	39.4	41.0	41.7	43.3
34°	33.2	34.8	36.3	37.1	37.9	39.4	40.2	41.7
35°	31.7	33.2	34.0	34.8	36.3	37.9	37.9	39.4
36°	30.1	31.7	32.5	33.2	34.8	36.3	36.3	37.9
37°	28.6	30.1	30.9	31.7	33.2	34.8	34.8	36.3
38°	27.0	28.6	29.4	30.1	31.7	33.2	34.0	35.5
39°	25.5	27.8	28.6	29.4	30.1	31.7	32.5	33.2
40°	24.7	26.3	27.0	27.8	28.6	30.1	30.9	31.7
42.5°	20.9	23.2	24.0	24.7	25.5	26.3	27.0	27.8
45°	18.5	20.1	20.1	20.9	21.6	23.2	23.2	24.7
47.5°	16.2	17.0	17.8	17.8	18.5	20.1	20.1	20.9
50°	13.9	14.7	15.5	15.5	16.2	17.0	17.8	18.5
51°	13.1	13.9	13.9	14.7	15.5	16.2	17.0	17.8
52°	12.4	13.1	13.1	13.9	14.7	15.5	15.5	16.2
53°	11.6	12.4	12.4	13.1	13.1	14.7	14.7	15.5
54°	10.8	11.6	11.6	12.4	12.4	13.9	13.9	14.7
55°	10.0	10.8	11.6	11.6	11.6	12.4	13.1	13.9
57.5°	9.3	10.0	10.0	10.0	10.8	10.8	11.6	11.6
60°	7.7	8.5	8.5	8.5	9.3	9.3	9.3	10.0
61°	7.7	7.7	8.5	8.5	7.7	7.7	7.7	8.5
62°	7.0	7.7	7.7	7.0	7.0	7.0	7.0	7.7
63°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
64°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
65°	6.2	6.2	6.2	6.2	6.2	6.2	5.4	6.2
66°	5.4	6.2	6.2	5.4	5.4	5.4	5.4	5.4



TEST NUMBER: P182782

CATALOG NUMBER: LDSQA4A13827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	3.9	3.9	3.9	3.9	3.9	3.1	3.1	3.1
75°	3.9	3.1	3.1	3.1	3.1	3.1	3.1	2.3
77.5°	3.1	3.1	3.1	3.1	2.3	2.3	2.3	2.3
80°	2.3	2.3	2.3	2.3	2.3	2.3	1.5	1.5
82.5°	2.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	0.8	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°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.3	2.3
70°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.3	2.3





67.5°	2.3	2.3	3.1	3.1	3.1	3.1	2.3	2.3	2.3	3.1	3.1
70°	2.3	3.1	3.1	3.1	3.1	3.1	3.1	2.3	2.3	3.1	3.1





67.5°	3.9	4.6	4.6	4.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4
70°	3.9	3.9	4.6	4.6	4.6	5.4	5.4	4.6	4.6	4.6	4.6





67.5°	5.4	5.4	5.4	5.4	4.6	4.6	4.6	4.6
70°	4.6	4.6	4.6	4.6	3.9	3.9	3.9	3.9



(END OF REPORT)