

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: P182772

Luminaire Tested: **LDSQA4A18935D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182772
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: LDSQA4A18935D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1470.4 lumens
Efficiency: N/A
Efficacy: 50.5 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

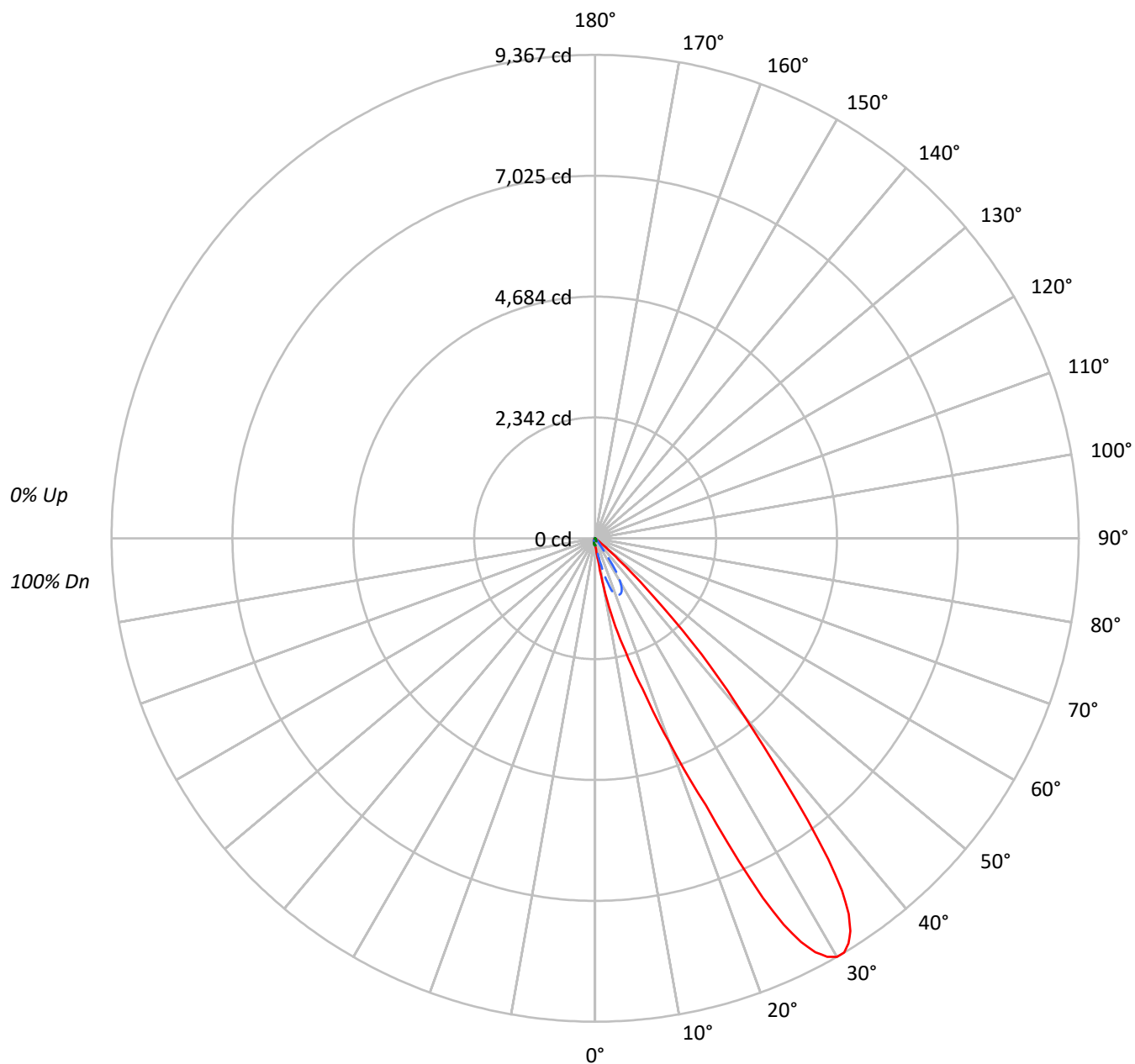
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	112	109	106	104	110	107	105	102		103	101	99		99	98	96		96	94	93
2	106	100	95	91	103	98	94	90		95	91	88		92	89	86		89	87	84
3	99	91	86	81	97	90	85	80		87	83	79		85	81	78		82	79	76
4	93	84	77	72	91	82	76	72		80	75	71		78	73	70		76	72	69
5	86	76	69	64	85	75	69	64		74	68	63		72	67	63		70	66	62
6	81	70	63	58	79	69	62	58		68	62	57		66	61	57		65	60	56
7	75	64	57	52	74	63	57	52		62	56	51		61	55	51		60	55	51
8	70	59	52	47	69	58	52	47		57	51	47		56	50	46		55	50	46
9	66	54	47	42	65	54	47	42		53	46	42		52	46	42		51	46	42
10	62	50	43	38	60	50	43	38		49	42	38		48	42	38		47	42	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	13446	13446	13446
5°	21355	12778	11037
10°	93540	11322	9394
15°	228547	9167	8184
20°	436030	6814	7485
25°	821740	4885	6542
30°	1047768	3468	5750
35°	985616	2129	4920
40°	565424	1442	4236
45°	218272	1000	3576
50°	29027	738	2954
55°	4408	692	2483
60°	1259	639	2054
65°	756	756	1490
70°	453	935	1161
75°	599	898	898
80°	0	1339	893
85°	0	2668	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.3	1.2
10°-20°	157.6	10.7
20°-30°	502.6	34.2
30°-40°	582.4	39.6
40°-50°	189.4	12.9
50°-60°	12.0	0.8
60°-70°	4.3	0.3
70°-80°	3.1	0.2
80°-90°	1.8	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°	677.5	46.1
0°-40°	1259.8	85.7
0°-60°	1461.2	99.4
0°-90°	1470.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1470.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	139	139	139	139	139	
5°	220	184	131	115	114	43
15°	2279	821	91	78	82	723
25°	7688	1181	46	48	61	3454
35°	8334	282	18	28	42	4795
45°	1593	34	7	16	26	1423
55°	26	6	4	9	15	40
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°	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8
2.5°	169.0	170.6	170.6	168.1	168.1	165.7	164.1	163.2	162.4	160.0	159.2
5°	219.6	221.2	222.0	215.5	213.0	208.1	204.0	200.0	195.1	189.4	183.6
7.5°	423.6	389.3	395.0	346.1	337.1	315.9	298.7	271.8	252.2	232.6	217.1
10°	950.9	918.2	912.5	840.7	769.7	716.6	659.5	560.7	470.9	375.4	297.9
12.5°	1629.1	1581.0	1554.0	1412.8	1329.6	1251.2	1163.9	1009.6	837.4	690.5	537.1
15°	2278.8	2274.7	2178.4	2020.9	1862.5	1766.2	1653.6	1462.6	1258.6	1034.9	821.1
17.5°	3063.2	3095.0	2930.1	2622.4	2371.9	2215.1	2060.1	1761.3	1506.7	1289.6	1055.3
20°	4229.5	4144.6	3856.5	3375.0	2951.3	2715.5	2474.7	2034.8	1669.9	1407.1	1169.6
22.5°	5599.9	5534.6	4995.9	4192.8	3521.0	3189.7	2858.3	2286.2	1811.1	1470.8	1191.6
25°	7687.7	7419.2	6373.6	5070.2	4043.4	3574.1	3148.9	2449.4	1874.8	1478.9	1181.0
26°	8328.4	8139.9	6933.5	5418.7	4204.2	3680.2	3221.5	2482.9	1879.7	1471.6	1160.6
27°	8783.0	8639.4	7399.6	5675.0	4320.9	3753.7	3268.8	2496.7	1868.3	1456.1	1132.9
28°	9082.6	8967.5	7751.4	5860.3	4391.9	3792.8	3291.7	2493.5	1845.4	1429.2	1093.7
29°	9272.7	9161.7	7957.0	5965.5	4417.2	3799.4	3286.0	2469.0	1808.7	1389.2	1037.4
30°	9366.6	9245.8	8026.4	5977.0	4389.5	3761.8	3242.7	2415.1	1758.1	1341.0	975.3
31°	9367.4	9233.6	7968.5	5888.8	4307.0	3681.8	3166.0	2325.3	1692.0	1283.9	892.1
32°	9258.9	9120.9	7775.0	5710.1	4178.1	3581.4	3063.2	2233.9	1622.6	1220.2	772.1
33°	9076.9	8913.6	7439.6	5462.0	4013.2	3444.3	2939.9	2131.9	1553.2	1118.2	614.6
34°	8783.0	8560.2	6971.1	5160.8	3814.1	3284.4	2798.7	2021.7	1483.0	976.2	439.1
35°	8334.1	8019.9	6429.1	4827.8	3601.0	3111.3	2639.6	1906.6	1397.3	800.7	281.6
36°	7684.4	7278.8	5865.1	4483.3	3381.5	2929.3	2478.0	1795.6	1261.8	607.2	184.5
37°	6836.4	6478.9	5325.6	4136.5	3153.8	2735.1	2330.2	1683.8	1095.3	424.4	150.2
38°	5965.5	5701.9	4798.4	3792.0	2917.9	2525.3	2150.7	1567.1	913.3	279.1	125.7
39°	5180.4	5004.1	4282.6	3450.9	2674.7	2341.7	1971.1	1418.5	719.1	198.3	106.1
40°	4471.1	4349.5	3783.9	3103.2	2431.4	2119.6	1802.1	1236.5	518.3	158.3	89.0
42.5°	3049.3	2988.9	2646.9	2233.1	1798.9	1620.1	1419.4	743.6	205.7	100.4	53.9
45°	1593.2	1567.1	1443.0	1307.5	1172.9	1126.3	912.5	333.8	115.9	58.8	34.3
47.5°	620.3	621.9	514.2	439.1	417.1	387.7	293.8	120.0	65.3	35.9	22.9
50°	192.6	207.3	191.0	180.4	137.9	115.1	95.5	59.6	35.1	22.0	14.7
51°	118.3	125.7	118.3	118.3	97.1	84.9	72.6	45.7	27.8	18.0	13.1
52°	76.7	80.8	76.7	71.8	66.9	60.4	52.2	34.3	22.0	14.7	10.6
53°	52.2	54.7	52.2	49.0	44.9	41.6	36.7	25.3	18.0	12.2	9.0
54°	36.7	38.4	36.7	34.3	31.8	29.4	26.9	19.6	14.7	10.6	8.2
55°	26.1	27.8	26.9	25.3	22.9	22.0	20.4	15.5	12.2	9.0	6.5
57.5°	12.2	13.1	13.1	12.2	12.2	11.4	10.6	9.8	7.3	5.7	4.9
60°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	4.9	4.1	4.1
61°	4.9	4.9	4.9	4.9	4.9	4.9	5.7	4.9	4.1	4.1	3.3
62°	4.1	4.1	4.1	4.1	4.1	4.9	4.9	4.1	4.1	3.3	3.3
63°	3.3	3.3	3.3	3.3	4.1	4.1	4.1	4.1	3.3	3.3	3.3
64°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.4
65°	3.3	3.3	2.4	2.4	2.4	3.3	2.4	3.3	2.4	2.4	2.4
66°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	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	0.8	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	1.6
82.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	1.6	1.6
85°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8
2.5°	154.3	150.2	148.5	146.9	146.1	144.5	142.0	139.6	138.8	135.5	132.2
5°	173.8	166.5	160.8	155.1	153.4	149.4	144.5	138.8	136.3	131.4	127.3
7.5°	196.7	182.0	171.4	161.6	157.5	152.6	143.6	136.3	131.4	124.1	119.2
10°	235.1	200.8	180.4	163.2	156.7	150.2	138.8	129.0	122.4	115.1	109.4
12.5°	372.2	260.4	195.9	164.1	155.1	145.3	131.4	120.0	111.8	103.7	98.8
15°	586.8	396.7	253.8	172.2	151.8	137.1	120.8	107.7	99.6	91.4	86.5
17.5°	783.5	533.8	331.4	191.8	153.4	129.8	107.7	94.7	85.7	78.4	75.1
20°	878.2	598.3	368.9	195.9	143.6	115.9	93.0	80.8	72.6	66.1	62.8
22.5°	887.2	594.2	346.1	167.3	119.2	97.9	78.4	66.9	60.4	55.5	52.2
25°	844.8	527.3	277.5	123.2	93.0	81.6	64.5	54.7	49.8	45.7	43.3
26°	812.1	488.9	244.0	106.9	84.9	74.3	58.8	50.6	45.7	42.4	40.0
27°	767.2	444.0	204.9	92.2	78.4	66.9	53.9	46.5	42.4	40.0	37.5
28°	713.4	399.9	169.8	81.6	71.0	60.4	49.8	42.4	39.2	36.7	34.3
29°	655.4	342.0	133.0	73.5	63.7	54.7	44.9	38.4	35.1	33.5	31.8
30°	573.8	266.1	102.0	66.1	57.1	49.0	40.8	35.1	32.6	31.0	29.4
31°	458.7	182.8	82.4	58.8	51.4	44.1	36.7	31.8	29.4	27.8	26.9
32°	328.9	112.6	71.8	52.2	45.7	40.0	31.8	28.6	26.1	25.3	24.5
33°	202.4	92.2	63.7	46.5	40.0	35.1	28.6	25.3	23.7	22.9	22.0
34°	133.0	80.0	56.3	40.0	35.1	30.2	24.5	22.0	21.2	20.4	20.4
35°	112.6	71.0	49.0	34.3	29.4	26.1	21.2	19.6	18.8	18.0	18.8
36°	97.1	62.0	40.8	29.4	25.3	22.0	18.8	17.1	16.3	16.3	17.1
37°	85.7	52.2	34.3	24.5	22.0	19.6	16.3	15.5	14.7	14.7	15.5
38°	72.6	42.4	28.6	21.2	18.8	16.3	14.7	13.9	13.9	13.9	14.7
39°	59.6	35.9	24.5	18.0	16.3	14.7	13.1	12.2	12.2	13.1	13.1
40°	49.0	30.2	20.4	15.5	13.9	13.1	11.4	11.4	11.4	11.4	12.2
42.5°	31.8	20.4	14.7	11.4	10.6	9.8	9.0	9.0	9.0	9.0	9.8
45°	21.2	14.7	11.4	9.0	8.2	7.3	7.3	6.5	7.3	7.3	8.2
47.5°	14.7	10.6	8.2	6.5	5.7	4.9	4.9	4.9	5.7	6.5	6.5
50°	10.6	7.3	5.7	4.1	4.1	4.1	4.1	4.1	4.9	4.9	5.7
51°	9.0	6.5	4.9	4.1	4.1	3.3	3.3	3.3	4.1	4.9	5.7
52°	7.3	5.7	4.1	3.3	3.3	3.3	3.3	3.3	4.1	4.1	4.9
53°	6.5	4.9	4.1	3.3	3.3	3.3	3.3	3.3	4.1	4.1	4.9
54°	5.7	4.1	3.3	3.3	3.3	2.4	2.4	3.3	3.3	4.1	4.9
55°	4.9	4.1	3.3	3.3	2.4	2.4	2.4	2.4	3.3	4.1	4.1
57.5°	4.1	3.3	3.3	2.4	2.4	2.4	2.4	2.4	3.3	3.3	4.1
60°	3.3	3.3	3.3	2.4	2.4	2.4	2.4	2.4	3.3	3.3	4.1
61°	3.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.3	3.3	4.1
62°	3.3	2.4	3.3	3.3	3.3	2.4	2.4	2.4	3.3	3.3	4.1
63°	3.3	3.3	3.3	3.3	3.3	2.4	2.4	2.4	3.3	3.3	3.3
64°	3.3	3.3	3.3	3.3	3.3	3.3	2.4	2.4	3.3	3.3	4.1
65°	2.4	3.3	3.3	3.3	3.3	3.3	2.4	2.4	3.3	3.3	4.1
66°	2.4	3.3	3.3	3.3	3.3	3.3	3.3	2.4	3.3	3.3	3.3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.4	2.4	3.3	3.3	3.3	3.3	3.3	2.4	2.4	3.3	3.3
75°	2.4	2.4	3.3	3.3	3.3	3.3	3.3	2.4	2.4	2.4	3.3
77.5°	2.4	2.4	3.3	3.3	3.3	3.3	3.3	2.4	2.4	2.4	3.3
80°	2.4	2.4	3.3	3.3	3.3	3.3	2.4	2.4	2.4	2.4	2.4
82.5°	2.4	2.4	2.4	3.3	3.3	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	2.4	2.4	3.3	3.3	2.4	2.4	2.4	2.4	2.4	2.4
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	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°	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8
2.5°	130.6	130.6	129.8	128.1	129.8	128.1	126.5	125.7	124.9	124.1	122.4
5°	124.1	123.2	121.6	120.8	120.8	119.2	117.5	115.9	115.1	114.3	112.6
7.5°	115.9	115.1	112.6	111.8	111.8	110.2	107.7	106.9	106.1	105.3	103.7
10°	106.1	105.3	102.8	102.0	102.0	100.4	98.8	97.1	96.3	95.5	93.9
12.5°	94.7	93.9	92.2	91.4	91.4	89.8	88.1	87.3	87.3	86.5	85.7
15°	83.3	82.4	80.8	80.8	80.8	79.2	78.4	77.5	78.4	78.4	77.5
17.5°	71.8	71.0	69.4	69.4	69.4	69.4	68.6	68.6	69.4	70.2	70.2
20°	60.4	59.6	59.6	58.8	59.6	60.4	59.6	60.4	62.0	62.8	63.7
22.5°	49.8	49.8	49.8	49.8	50.6	51.4	51.4	53.1	54.7	55.5	57.1
25°	41.6	41.6	42.4	42.4	43.3	44.1	44.9	45.7	48.2	49.8	50.6
26°	38.4	39.2	39.2	40.0	40.8	41.6	42.4	43.3	45.7	47.3	48.2
27°	35.9	35.9	36.7	37.5	38.4	39.2	40.0	41.6	43.3	44.9	46.5
28°	33.5	33.5	34.3	35.1	35.9	36.7	37.5	39.2	40.8	43.3	44.1
29°	31.0	31.8	31.8	32.6	33.5	34.3	35.9	36.7	39.2	40.8	42.4
30°	28.6	29.4	30.2	30.2	31.0	31.8	33.5	35.1	36.7	39.2	40.0
31°	26.9	27.8	27.8	28.6	29.4	30.2	31.8	33.5	35.1	36.7	38.4
32°	24.5	26.1	26.1	26.1	26.9	28.6	30.2	31.0	33.5	35.1	35.9
33°	22.9	23.7	24.5	24.5	25.3	26.9	28.6	29.4	31.8	33.5	34.3
34°	21.2	22.0	22.9	22.9	23.7	25.3	26.9	27.8	30.2	31.0	32.6
35°	19.6	20.4	21.2	21.2	22.0	23.7	25.3	26.1	27.8	29.4	31.0
36°	18.0	18.8	19.6	20.4	21.2	22.9	23.7	25.3	26.1	27.8	29.4
37°	16.3	17.1	18.8	18.8	20.4	21.2	22.9	23.7	25.3	26.1	27.8
38°	14.7	16.3	17.1	18.0	18.8	20.4	21.2	22.0	23.7	25.3	26.1
39°	13.9	15.5	16.3	17.1	18.0	18.8	19.6	21.2	22.0	23.7	24.5
40°	13.1	13.9	15.5	15.5	17.1	18.0	18.8	19.6	21.2	22.0	23.7
42.5°	10.6	12.2	13.1	13.9	14.7	15.5	16.3	17.1	18.0	19.6	20.4
45°	9.0	10.6	11.4	11.4	12.2	13.1	13.9	14.7	16.3	17.1	18.0
47.5°	7.3	9.0	9.8	10.6	10.6	11.4	12.2	13.1	13.9	14.7	15.5
50°	6.5	7.3	8.2	9.0	9.8	9.8	10.6	11.4	12.2	13.1	13.1
51°	6.5	7.3	8.2	8.2	9.0	9.8	10.6	10.6	11.4	12.2	12.2
52°	5.7	6.5	7.3	8.2	9.0	9.0	9.8	10.6	10.6	11.4	12.2
53°	5.7	6.5	7.3	7.3	8.2	9.0	9.0	9.8	10.6	10.6	11.4
54°	4.9	6.5	7.3	7.3	8.2	8.2	9.0	9.8	9.8	9.8	10.6
55°	4.9	5.7	6.5	7.3	7.3	8.2	8.2	9.0	9.0	9.8	9.8
57.5°	4.9	5.7	6.5	6.5	7.3	7.3	8.2	8.2	8.2	8.2	9.0
60°	4.1	4.9	5.7	6.5	6.5	7.3	7.3	7.3	7.3	7.3	8.2
61°	4.1	4.9	5.7	5.7	6.5	6.5	7.3	7.3	7.3	7.3	7.3
62°	4.1	4.9	5.7	5.7	6.5	6.5	6.5	7.3	7.3	7.3	7.3
63°	4.1	4.9	5.7	5.7	6.5	6.5	6.5	6.5	6.5	6.5	7.3
64°	4.1	4.9	5.7	5.7	6.5	6.5	6.5	6.5	6.5	6.5	6.5
65°	4.1	4.9	5.7	5.7	5.7	6.5	6.5	6.5	6.5	6.5	6.5
66°	4.1	4.9	5.7	5.7	5.7	5.7	6.5	6.5	6.5	6.5	5.7



TEST NUMBER: P182772

CATALOG NUMBER: LDSQA4A18935D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	3.3	4.1	4.1	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.1
75°	3.3	4.1	4.1	4.1	4.9	4.9	4.9	4.1	4.1	4.1	4.1
77.5°	3.3	3.3	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.3	3.3
80°	3.3	3.3	3.3	4.1	4.1	4.1	4.1	3.3	3.3	3.3	2.4
82.5°	2.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.4	2.4	2.4
85°	2.4	3.3	3.3	3.3	3.3	3.3	3.3	2.4	2.4	2.4	1.6
87.5°	2.4	2.4	2.4	3.3	3.3	3.3	2.4	2.4	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: P182772

CATALOG NUMBER: LDSQA4A18935D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	138.8	138.8	138.8	138.8	138.8	138.8	138.8	138.8
2.5°	124.1	124.9	124.1	124.1	122.4	123.2	121.6	124.1
5°	113.5	114.3	113.5	113.5	111.8	111.8	111.0	113.5
7.5°	104.5	105.3	103.7	103.7	102.0	102.8	102.0	103.7
10°	95.5	95.5	95.5	94.7	93.9	94.7	93.9	95.5
12.5°	86.5	87.3	87.3	87.3	86.5	86.5	85.7	88.1
15°	79.2	80.0	80.8	80.8	80.0	80.8	80.0	81.6
17.5°	72.6	74.3	74.3	75.1	75.1	75.9	75.9	77.5
20°	66.1	68.6	68.6	69.4	69.4	71.0	71.0	72.6
22.5°	59.6	62.0	62.8	62.8	63.7	65.3	65.3	66.9
25°	53.9	56.3	57.1	57.1	57.9	59.6	59.6	61.2
26°	51.4	53.9	54.7	55.5	56.3	57.9	57.9	59.6
27°	49.0	51.4	52.2	53.1	53.9	55.5	55.5	57.1
28°	47.3	49.8	50.6	51.4	52.2	53.9	53.9	54.7
29°	44.9	47.3	48.2	49.0	49.8	51.4	51.4	53.1
30°	43.3	44.9	45.7	46.5	47.3	49.8	49.8	51.4
31°	40.8	43.3	44.1	44.9	45.7	47.3	47.3	49.8
32°	39.2	40.8	41.6	42.4	44.1	44.9	45.7	47.3
33°	36.7	39.2	40.0	40.8	41.6	43.3	44.1	45.7
34°	35.1	36.7	38.4	39.2	40.0	41.6	42.4	44.1
35°	33.5	35.1	35.9	36.7	38.4	40.0	40.0	41.6
36°	31.8	33.5	34.3	35.1	36.7	38.4	38.4	40.0
37°	30.2	31.8	32.6	33.5	35.1	36.7	36.7	38.4
38°	28.6	30.2	31.0	31.8	33.5	35.1	35.9	37.5
39°	26.9	29.4	30.2	31.0	31.8	33.5	34.3	35.1
40°	26.1	27.8	28.6	29.4	30.2	31.8	32.6	33.5
42.5°	22.0	24.5	25.3	26.1	26.9	27.8	28.6	29.4
45°	19.6	21.2	21.2	22.0	22.9	24.5	24.5	26.1
47.5°	17.1	18.0	18.8	18.8	19.6	21.2	21.2	22.0
50°	14.7	15.5	16.3	16.3	17.1	18.0	18.8	19.6
51°	13.9	14.7	14.7	15.5	16.3	17.1	18.0	18.8
52°	13.1	13.9	13.9	14.7	15.5	16.3	16.3	17.1
53°	12.2	13.1	13.1	13.9	13.9	15.5	15.5	16.3
54°	11.4	12.2	12.2	13.1	13.1	14.7	14.7	15.5
55°	10.6	11.4	12.2	12.2	12.2	13.1	13.9	14.7
57.5°	9.8	10.6	10.6	10.6	11.4	11.4	12.2	12.2
60°	8.2	9.0	9.0	9.0	9.8	9.8	9.8	10.6
61°	8.2	8.2	9.0	9.0	8.2	8.2	8.2	9.0
62°	7.3	8.2	8.2	7.3	7.3	7.3	7.3	8.2
63°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
64°	6.5	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	5.7	6.5
66°	5.7	6.5	6.5	5.7	5.7	5.7	5.7	5.7



TEST NUMBER: P182772

CATALOG NUMBER: LDSQA4A18935D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	4.1	4.1	4.1	4.1	4.1	3.3	3.3	3.3
75°	4.1	3.3	3.3	3.3	3.3	3.3	3.3	2.4
77.5°	3.3	3.3	3.3	3.3	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	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°	1.6	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	2.4	3.3	3.3	3.3	3.3	2.4	2.4	2.4	3.3	3.3
70°	2.4	3.3	3.3	3.3	3.3	3.3	3.3	2.4	2.4	3.3	3.3





67.5°	4.1	4.9	4.9	4.9	5.7	5.7	5.7	5.7	5.7	5.7	5.7
70°	4.1	4.1	4.9	4.9	4.9	5.7	5.7	4.9	4.9	4.9	4.9





67.5°	5.7	5.7	5.7	5.7	4.9	4.9	4.9	4.9
70°	4.9	4.9	4.9	4.9	4.1	4.1	4.1	4.1



(END OF REPORT)