

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: P182769

Luminaire Tested: **LDSQA4A18840D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182769
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: LDSQA4A18840D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, 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: 1889.7 lumens
Efficiency: N/A
Efficacy: 64.9 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

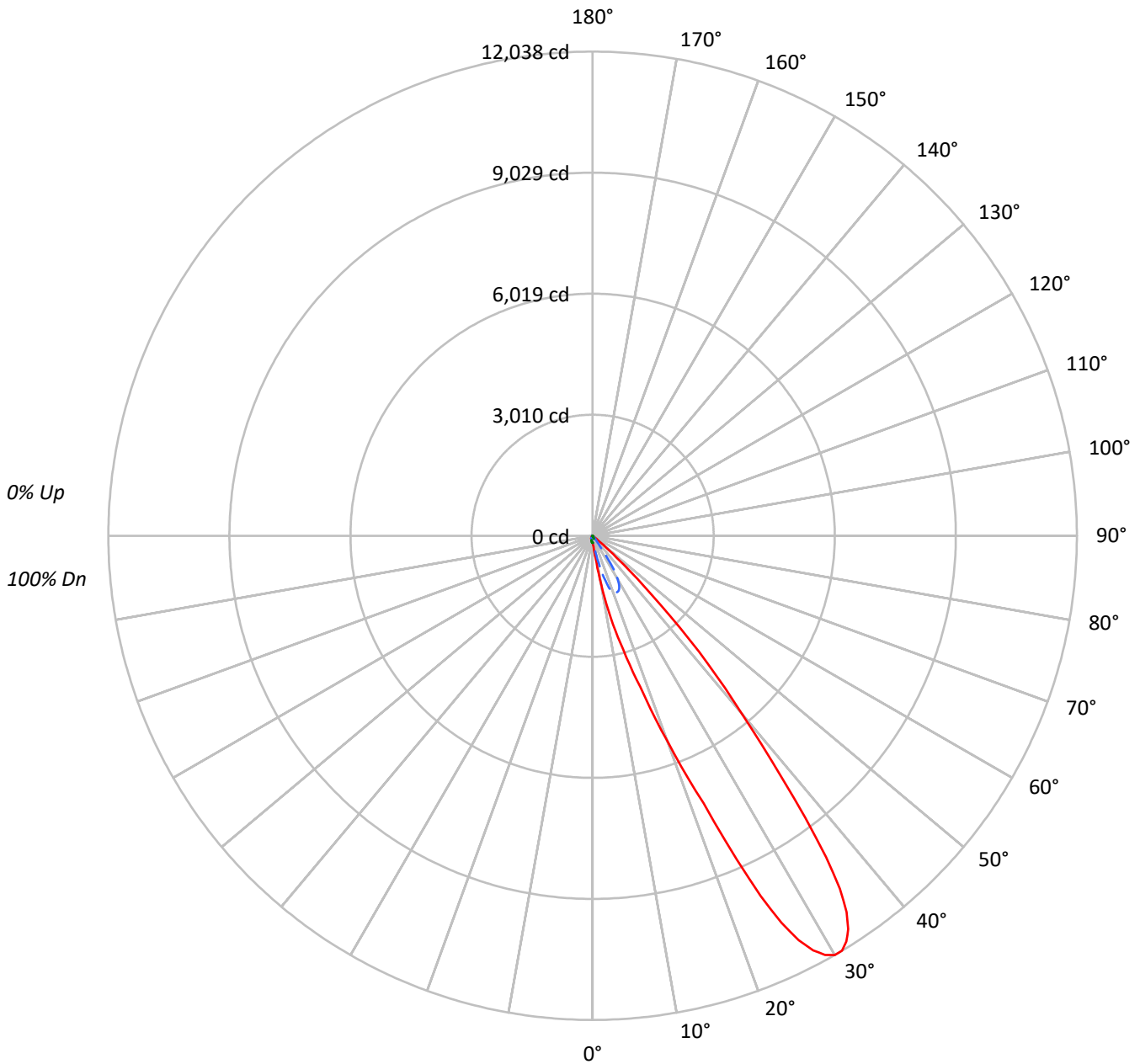
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	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°	17273	17273	17273
5°	27443	16425	14178
10°	120208	14549	12070
15°	293708	11784	10521
20°	560350	8763	9629
25°	1056033	6274	8412
30°	1346495	4463	7394
35°	1266633	2732	6327
40°	726637	1859	5438
45°	280499	1288	4603
50°	37301	949	3798
55°	5675	878	3192
60°	1628	814	2635
65°	963	963	1926
70°	595	1190	1473
75°	786	1160	1160
80°	0	1729	1172
85°	0	3446	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	1.2
10°-20°	202.5	10.7
20°-30°	645.9	34.2
30°-40°	748.4	39.6
40°-50°	243.4	12.9
50°-60°	15.4	0.8
60°-70°	5.6	0.3
70°-80°	4.0	0.2
80°-90°	2.3	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°	870.6	46.1
0°-40°	1619.0	85.7
0°-60°	1877.8	99.4
0°-90°	1889.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1889.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	178	178	178	178	178	
5°	282	236	169	148	146	55
15°	2928	1055	118	101	105	928
25°	9880	1518	59	62	79	4439
35°	10710	362	23	36	54	6162
45°	2047	44	9	21	34	1828
55°	34	8	5	12	19	52
65°	4	3	4	8	8	4
75°	2	3	3	5	3	1
85°	0	2	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°	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3
2.5°	217.1	219.2	219.2	216.1	216.1	212.9	210.8	209.8	208.7	205.6	204.5
5°	282.2	284.3	285.3	276.9	273.8	267.5	262.2	257.0	250.7	243.3	236.0
7.5°	544.4	500.3	507.7	444.7	433.2	405.9	383.9	349.3	324.1	298.9	279.0
10°	1222.0	1180.0	1172.7	1080.4	989.1	920.9	847.5	720.6	605.2	482.5	382.8
12.5°	2093.6	2031.7	1997.1	1815.6	1708.7	1608.0	1495.7	1297.5	1076.2	887.4	690.2
15°	2928.5	2923.3	2799.5	2597.1	2393.6	2269.8	2125.1	1879.6	1617.4	1330.0	1055.2
17.5°	3936.5	3977.4	3765.5	3370.1	3048.1	2846.7	2647.4	2263.5	1936.3	1657.3	1356.2
20°	5435.4	5326.3	4956.0	4337.2	3792.8	3489.7	3180.3	2614.9	2146.0	1808.3	1503.1
22.5°	7196.5	7112.6	6420.3	5388.2	4524.9	4099.1	3673.2	2938.0	2327.5	1890.1	1531.4
25°	9879.6	9534.5	8190.8	6515.7	5196.2	4593.1	4046.6	3147.7	2409.3	1900.6	1517.8
26°	10702.9	10460.6	8910.4	6963.6	5402.9	4729.5	4140.0	3190.7	2415.6	1891.2	1491.5
27°	11287.2	11102.6	9509.3	7293.0	5552.9	4823.9	4200.8	3208.6	2400.9	1871.2	1455.9
28°	11672.1	11524.2	9961.4	7531.1	5644.1	4874.2	4230.2	3204.4	2371.6	1836.6	1405.5
29°	11916.5	11773.9	10225.7	7666.4	5676.6	4882.6	4222.9	3172.9	2324.4	1785.2	1333.1
30°	12037.1	11881.9	10314.8	7681.1	5641.0	4834.4	4167.3	3103.7	2259.3	1723.3	1253.4
31°	12038.2	11866.2	10240.4	7567.8	5535.0	4731.6	4068.7	2988.3	2174.4	1649.9	1146.4
32°	11898.7	11721.4	9991.8	7338.1	5369.3	4602.6	3936.5	2870.8	2085.2	1568.1	992.3
33°	11664.8	11455.0	9560.7	7019.2	5157.4	4426.3	3778.1	2739.7	1996.0	1437.0	789.8
34°	11287.2	11000.8	8958.6	6632.2	4901.5	4220.8	3596.7	2598.1	1905.8	1254.5	564.3
35°	10710.3	10306.5	8262.2	6204.2	4627.7	3998.4	3392.1	2450.2	1795.7	1029.0	361.9
36°	9875.4	9354.1	7537.4	5761.6	4345.6	3764.5	3184.4	2307.6	1621.6	780.4	237.1
37°	8785.6	8326.1	6844.0	5315.8	4052.9	3514.9	2994.6	2163.9	1407.6	545.4	193.0
38°	7666.4	7327.6	6166.5	4873.2	3749.8	3245.3	2763.8	2013.9	1173.7	358.7	161.5
39°	6657.3	6430.8	5503.6	4434.7	3437.2	3009.3	2533.1	1823.0	924.1	254.9	136.4
40°	5745.9	5589.6	4862.7	3987.9	3124.7	2724.0	2316.0	1589.1	666.0	203.5	114.3
42.5°	3918.7	3841.1	3401.6	2869.8	2311.8	2082.1	1824.0	955.5	264.3	129.0	69.2
45°	2047.4	2013.9	1854.4	1680.3	1507.3	1447.5	1172.7	429.0	148.9	75.5	44.1
47.5°	797.2	799.3	660.8	564.3	536.0	498.2	377.6	154.2	83.9	46.2	29.4
50°	247.5	266.4	245.4	231.8	177.3	147.9	122.7	76.6	45.1	28.3	18.9
51°	152.1	161.5	152.1	152.1	124.8	109.1	93.4	58.7	35.7	23.1	16.8
52°	98.6	103.8	98.6	92.3	86.0	77.6	67.1	44.1	28.3	18.9	13.6
53°	67.1	70.3	67.1	62.9	57.7	53.5	47.2	32.5	23.1	15.7	11.5
54°	47.2	49.3	47.2	44.1	40.9	37.8	34.6	25.2	18.9	13.6	10.5
55°	33.6	35.7	34.6	32.5	29.4	28.3	26.2	19.9	15.7	11.5	8.4
57.5°	15.7	16.8	16.8	15.7	15.7	14.7	13.6	12.6	9.4	7.3	6.3
60°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	6.3	5.2	5.2
61°	6.3	6.3	6.3	6.3	6.3	6.3	7.3	6.3	5.2	5.2	4.2
62°	5.2	5.2	5.2	5.2	5.2	6.3	6.3	5.2	5.2	4.2	4.2
63°	4.2	4.2	4.2	4.2	5.2	5.2	5.2	5.2	4.2	4.2	4.2
64°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.1
65°	4.2	4.2	3.1	3.1	3.1	4.2	3.1	4.2	3.1	3.1	3.1
66°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	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	1.0	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	2.1
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1
85°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.1	2.1	2.1
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3
2.5°	198.2	193.0	190.9	188.8	187.8	185.7	182.5	179.4	178.3	174.1	169.9
5°	223.4	214.0	206.6	199.3	197.2	191.9	185.7	178.3	175.2	168.9	163.6
7.5°	252.8	233.9	220.3	207.7	202.4	196.1	184.6	175.2	168.9	159.4	153.1
10°	302.1	258.0	231.8	209.8	201.4	193.0	178.3	165.7	157.3	147.9	140.6
12.5°	478.3	334.6	251.7	210.8	199.3	186.7	168.9	154.2	143.7	133.2	126.9
15°	754.2	509.8	326.2	221.3	195.1	176.2	155.2	138.5	128.0	117.5	111.2
17.5°	1006.9	686.0	425.9	246.5	197.2	166.8	138.5	121.7	110.1	100.7	96.5
20°	1128.6	768.8	474.1	251.7	184.6	148.9	119.6	103.8	93.4	85.0	80.8
22.5°	1140.2	763.6	444.7	215.0	153.1	125.9	100.7	86.0	77.6	71.3	67.1
25°	1085.6	677.6	356.6	158.4	119.6	104.9	82.9	70.3	64.0	58.7	55.6
26°	1043.7	628.3	313.6	137.4	109.1	95.4	75.5	65.0	58.7	54.5	51.4
27°	986.0	570.6	263.3	118.5	100.7	86.0	69.2	59.8	54.5	51.4	48.2
28°	916.7	514.0	218.2	104.9	91.3	77.6	64.0	54.5	50.3	47.2	44.1
29°	842.3	439.5	171.0	94.4	81.8	70.3	57.7	49.3	45.1	43.0	40.9
30°	737.4	341.9	131.1	85.0	73.4	62.9	52.4	45.1	42.0	39.9	37.8
31°	589.5	235.0	105.9	75.5	66.1	56.6	47.2	40.9	37.8	35.7	34.6
32°	422.7	144.7	92.3	67.1	58.7	51.4	40.9	36.7	33.6	32.5	31.5
33°	260.1	118.5	81.8	59.8	51.4	45.1	36.7	32.5	30.4	29.4	28.3
34°	171.0	102.8	72.4	51.4	45.1	38.8	31.5	28.3	27.3	26.2	26.2
35°	144.7	91.3	62.9	44.1	37.8	33.6	27.3	25.2	24.1	23.1	24.1
36°	124.8	79.7	52.4	37.8	32.5	28.3	24.1	22.0	21.0	21.0	22.0
37°	110.1	67.1	44.1	31.5	28.3	25.2	21.0	19.9	18.9	18.9	19.9
38°	93.4	54.5	36.7	27.3	24.1	21.0	18.9	17.8	17.8	17.8	18.9
39°	76.6	46.2	31.5	23.1	21.0	18.9	16.8	15.7	15.7	16.8	16.8
40°	62.9	38.8	26.2	19.9	17.8	16.8	14.7	14.7	14.7	14.7	15.7
42.5°	40.9	26.2	18.9	14.7	13.6	12.6	11.5	11.5	11.5	11.5	12.6
45°	27.3	18.9	14.7	11.5	10.5	9.4	9.4	8.4	9.4	9.4	10.5
47.5°	18.9	13.6	10.5	8.4	7.3	6.3	6.3	6.3	7.3	8.4	8.4
50°	13.6	9.4	7.3	5.2	5.2	5.2	5.2	5.2	6.3	6.3	7.3
51°	11.5	8.4	6.3	5.2	5.2	4.2	4.2	4.2	5.2	6.3	7.3
52°	9.4	7.3	5.2	4.2	4.2	4.2	4.2	4.2	5.2	5.2	6.3
53°	8.4	6.3	5.2	4.2	4.2	4.2	4.2	4.2	5.2	5.2	6.3
54°	7.3	5.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2	5.2	6.3
55°	6.3	5.2	4.2	4.2	3.1	3.1	3.1	3.1	4.2	5.2	5.2
57.5°	5.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1	4.2	4.2	5.2
60°	4.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1	4.2	4.2	5.2
61°	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.2	4.2	5.2
62°	4.2	3.1	4.2	4.2	4.2	3.1	3.1	3.1	4.2	4.2	5.2
63°	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	4.2	4.2	4.2
64°	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2	5.2
65°	3.1	4.2	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	4.2	3.1	4.2	4.2	4.2



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	3.1	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2
75°	3.1	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	4.2
77.5°	3.1	3.1	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	4.2
80°	3.1	3.1	4.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1
82.5°	3.1	3.1	3.1	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1
85°	3.1	3.1	3.1	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	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: P182769

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3
2.5°	167.8	167.8	166.8	164.7	166.8	164.7	162.6	161.5	160.5	159.4	157.3
5°	159.4	158.4	156.3	155.2	155.2	153.1	151.0	148.9	147.9	146.8	144.7
7.5°	148.9	147.9	144.7	143.7	143.7	141.6	138.5	137.4	136.4	135.3	133.2
10°	136.4	135.3	132.2	131.1	131.1	129.0	126.9	124.8	123.8	122.7	120.6
12.5°	121.7	120.6	118.5	117.5	117.5	115.4	113.3	112.2	112.2	111.2	110.1
15°	107.0	105.9	103.8	103.8	103.8	101.7	100.7	99.6	100.7	100.7	99.6
17.5°	92.3	91.3	89.2	89.2	89.2	89.2	88.1	88.1	89.2	90.2	90.2
20°	77.6	76.6	76.6	75.5	76.6	77.6	76.6	77.6	79.7	80.8	81.8
22.5°	64.0	64.0	64.0	64.0	65.0	66.1	66.1	68.2	70.3	71.3	73.4
25°	53.5	53.5	54.5	54.5	55.6	56.6	57.7	58.7	61.9	64.0	65.0
26°	49.3	50.3	50.3	51.4	52.4	53.5	54.5	55.6	58.7	60.8	61.9
27°	46.2	46.2	47.2	48.2	49.3	50.3	51.4	53.5	55.6	57.7	59.8
28°	43.0	43.0	44.1	45.1	46.2	47.2	48.2	50.3	52.4	55.6	56.6
29°	39.9	40.9	40.9	42.0	43.0	44.1	46.2	47.2	50.3	52.4	54.5
30°	36.7	37.8	38.8	38.8	39.9	40.9	43.0	45.1	47.2	50.3	51.4
31°	34.6	35.7	35.7	36.7	37.8	38.8	40.9	43.0	45.1	47.2	49.3
32°	31.5	33.6	33.6	33.6	34.6	36.7	38.8	39.9	43.0	45.1	46.2
33°	29.4	30.4	31.5	31.5	32.5	34.6	36.7	37.8	40.9	43.0	44.1
34°	27.3	28.3	29.4	29.4	30.4	32.5	34.6	35.7	38.8	39.9	42.0
35°	25.2	26.2	27.3	27.3	28.3	30.4	32.5	33.6	35.7	37.8	39.9
36°	23.1	24.1	25.2	26.2	27.3	29.4	30.4	32.5	33.6	35.7	37.8
37°	21.0	22.0	24.1	24.1	26.2	27.3	29.4	30.4	32.5	33.6	35.7
38°	18.9	21.0	22.0	23.1	24.1	26.2	27.3	28.3	30.4	32.5	33.6
39°	17.8	19.9	21.0	22.0	23.1	24.1	25.2	27.3	28.3	30.4	31.5
40°	16.8	17.8	19.9	19.9	22.0	23.1	24.1	25.2	27.3	28.3	30.4
42.5°	13.6	15.7	16.8	17.8	18.9	19.9	21.0	22.0	23.1	25.2	26.2
45°	11.5	13.6	14.7	14.7	15.7	16.8	17.8	18.9	21.0	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	12.6	12.6	13.6	14.7	15.7	16.8	16.8
51°	8.4	9.4	10.5	10.5	11.5	12.6	13.6	13.6	14.7	15.7	15.7
52°	7.3	8.4	9.4	10.5	11.5	11.5	12.6	13.6	13.6	14.7	15.7
53°	7.3	8.4	9.4	9.4	10.5	11.5	11.5	12.6	13.6	13.6	14.7
54°	6.3	8.4	9.4	9.4	10.5	10.5	11.5	12.6	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	9.4	9.4	10.5	10.5	10.5	10.5	11.5
60°	5.2	6.3	7.3	8.4	8.4	9.4	9.4	9.4	9.4	9.4	10.5
61°	5.2	6.3	7.3	7.3	8.4	8.4	9.4	9.4	9.4	9.4	9.4
62°	5.2	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	8.4	9.4
64°	5.2	6.3	7.3	7.3	8.4	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	7.3	8.4	8.4	8.4	8.4	7.3



TEST NUMBER: P182769

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	4.2	5.2	5.2	6.3	6.3	6.3	6.3	6.3	6.3	6.3	5.2
75°	4.2	5.2	5.2	5.2	6.3	6.3	6.3	5.2	5.2	5.2	5.2
77.5°	4.2	4.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	4.2	4.2
80°	4.2	4.2	4.2	5.2	5.2	5.2	5.2	4.2	4.2	4.2	3.1
82.5°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1
85°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	3.1	2.1
87.5°	3.1	3.1	3.1	4.2	4.2	4.2	3.1	3.1	2.1	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: P182769

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	178.3	178.3	178.3	178.3	178.3	178.3	178.3	178.3
2.5°	159.4	160.5	159.4	159.4	157.3	158.4	156.3	159.4
5°	145.8	146.8	145.8	145.8	143.7	143.7	142.6	145.8
7.5°	134.3	135.3	133.2	133.2	131.1	132.2	131.1	133.2
10°	122.7	122.7	122.7	121.7	120.6	121.7	120.6	122.7
12.5°	111.2	112.2	112.2	112.2	111.2	111.2	110.1	113.3
15°	101.7	102.8	103.8	103.8	102.8	103.8	102.8	104.9
17.5°	93.4	95.4	95.4	96.5	96.5	97.5	97.5	99.6
20°	85.0	88.1	88.1	89.2	89.2	91.3	91.3	93.4
22.5°	76.6	79.7	80.8	80.8	81.8	83.9	83.9	86.0
25°	69.2	72.4	73.4	73.4	74.5	76.6	76.6	78.7
26°	66.1	69.2	70.3	71.3	72.4	74.5	74.5	76.6
27°	62.9	66.1	67.1	68.2	69.2	71.3	71.3	73.4
28°	60.8	64.0	65.0	66.1	67.1	69.2	69.2	70.3
29°	57.7	60.8	61.9	62.9	64.0	66.1	66.1	68.2
30°	55.6	57.7	58.7	59.8	60.8	64.0	64.0	66.1
31°	52.4	55.6	56.6	57.7	58.7	60.8	60.8	64.0
32°	50.3	52.4	53.5	54.5	56.6	57.7	58.7	60.8
33°	47.2	50.3	51.4	52.4	53.5	55.6	56.6	58.7
34°	45.1	47.2	49.3	50.3	51.4	53.5	54.5	56.6
35°	43.0	45.1	46.2	47.2	49.3	51.4	51.4	53.5
36°	40.9	43.0	44.1	45.1	47.2	49.3	49.3	51.4
37°	38.8	40.9	42.0	43.0	45.1	47.2	47.2	49.3
38°	36.7	38.8	39.9	40.9	43.0	45.1	46.2	48.2
39°	34.6	37.8	38.8	39.9	40.9	43.0	44.1	45.1
40°	33.6	35.7	36.7	37.8	38.8	40.9	42.0	43.0
42.5°	28.3	31.5	32.5	33.6	34.6	35.7	36.7	37.8
45°	25.2	27.3	27.3	28.3	29.4	31.5	31.5	33.6
47.5°	22.0	23.1	24.1	24.1	25.2	27.3	27.3	28.3
50°	18.9	19.9	21.0	21.0	22.0	23.1	24.1	25.2
51°	17.8	18.9	18.9	19.9	21.0	22.0	23.1	24.1
52°	16.8	17.8	17.8	18.9	19.9	21.0	21.0	22.0
53°	15.7	16.8	16.8	17.8	17.8	19.9	19.9	21.0
54°	14.7	15.7	15.7	16.8	16.8	18.9	18.9	19.9
55°	13.6	14.7	15.7	15.7	15.7	16.8	17.8	18.9
57.5°	12.6	13.6	13.6	13.6	14.7	14.7	15.7	15.7
60°	10.5	11.5	11.5	11.5	12.6	12.6	12.6	13.6
61°	10.5	10.5	11.5	11.5	10.5	10.5	10.5	11.5
62°	9.4	10.5	10.5	9.4	9.4	9.4	9.4	10.5
63°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
64°	8.4	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	7.3	8.4
66°	7.3	8.4	8.4	7.3	7.3	7.3	7.3	7.3



TEST NUMBER: P182769

CATALOG NUMBER: LDSQA4A18840D010TE LAR15SP 4LSQAL1H 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	4.2	4.2	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	1.0	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	3.1	4.2	4.2	4.2	4.2	3.1	3.1	3.1	4.2	4.2
70°	3.1	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	4.2	4.2





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





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



(END OF REPORT)