

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: P182779

Luminaire Tested: **LDSQA4A09930D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182779
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: LDSQA4A09930D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, 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: 789.5 lumens
Efficiency: N/A
Efficacy: 57.0 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

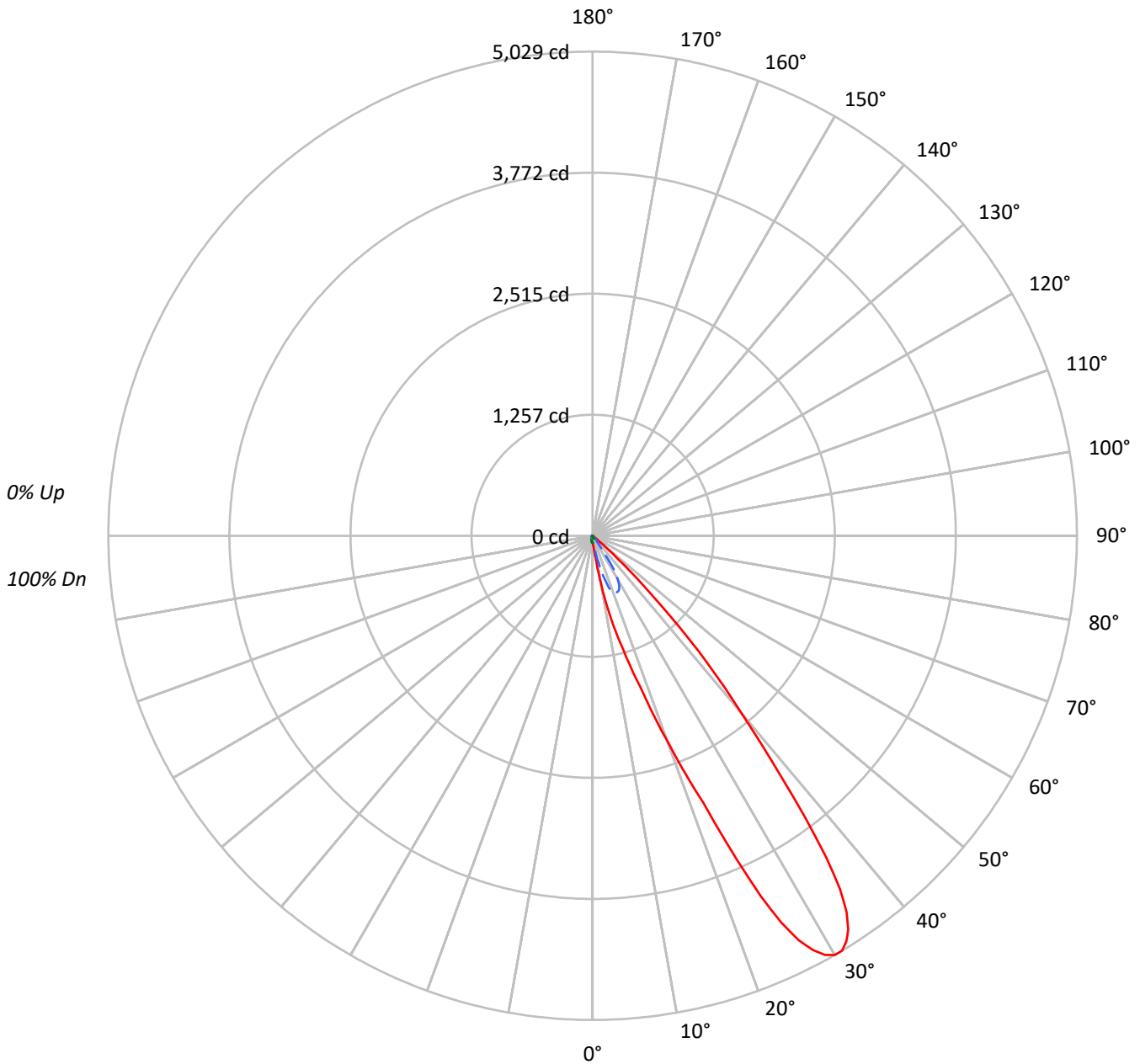
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	71	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	57	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°	7217	7217	7217
5°	11465	6856	5922
10°	50218	6079	5046
15°	122698	4924	4393
20°	234082	3660	4021
25°	441157	2619	3517
30°	562499	1868	3087
35°	529133	1135	2637
40°	303546	771	2276
45°	117178	534	1918
50°	15584	392	1582
55°	2365	372	1334
60°	678	349	1104
65°	413	413	802
70°	255	510	623
75°	337	487	487
80°	0	725	502
85°	0	1445	445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.3	1.2
10°-20°	84.6	10.7
20°-30°	269.8	34.2
30°-40°	312.6	39.6
40°-50°	101.7	12.9
50°-60°	6.4	0.8
60°-70°	2.3	0.3
70°-80°	1.7	0.2
80°-90°	1.0	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°	363.7	46.1
0°-40°	676.3	85.7
0°-60°	784.4	99.4
0°-90°	789.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	789.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	74	74	74	74	74	
5°	118	99	70	62	61	23
15°	1223	441	49	42	44	388
25°	4127	634	24	26	33	1854
35°	4474	151	10	15	22	2574
45°	855	18	4	9	14	764
55°	14	4	2	5	8	22
65°	2	1	2	4	4	2
75°	1	1	1	2	1	1
85°	0	1	1	1	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°	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
2.5°	90.7	91.6	91.6	90.3	90.3	89.0	88.1	87.6	87.2	85.9	85.4
5°	117.9	118.7	119.2	115.7	114.4	111.7	109.5	107.4	104.7	101.7	98.6
7.5°	227.4	209.0	212.1	185.8	181.0	169.6	160.4	145.9	135.4	124.9	116.6
10°	510.5	492.9	489.9	451.3	413.2	384.7	354.0	301.0	252.8	201.6	159.9
12.5°	874.6	848.8	834.3	758.5	713.8	671.7	624.8	542.0	449.6	370.7	288.3
15°	1223.4	1221.2	1169.5	1084.9	999.9	948.2	887.7	785.2	675.7	555.6	440.8
17.5°	1644.5	1661.6	1573.1	1407.9	1273.3	1189.2	1106.0	945.6	808.9	692.3	566.6
20°	2270.6	2225.1	2070.4	1811.9	1584.5	1457.8	1328.6	1092.4	896.5	755.4	627.9
22.5°	3006.3	2971.3	2682.1	2250.9	1890.3	1712.4	1534.5	1227.3	972.3	789.6	639.7
25°	4127.2	3983.0	3421.7	2722.0	2170.7	1918.8	1690.5	1315.0	1006.5	794.0	634.0
26°	4471.2	4369.9	3722.3	2909.1	2257.1	1975.7	1729.5	1332.9	1009.1	790.0	623.1
27°	4715.2	4638.1	3972.5	3046.6	2319.7	2015.2	1754.9	1340.4	1003.0	781.7	608.2
28°	4876.0	4814.3	4161.4	3146.1	2357.8	2036.2	1767.2	1338.6	990.7	767.2	587.2
29°	4978.1	4918.5	4271.8	3202.6	2371.4	2039.7	1764.1	1325.5	971.0	745.8	556.9
30°	5028.5	4963.7	4309.0	3208.8	2356.5	2019.6	1740.9	1296.6	943.8	719.9	523.6
31°	5029.0	4957.1	4277.9	3161.5	2312.3	1976.6	1699.7	1248.4	908.3	689.3	478.9
32°	4970.7	4896.6	4174.1	3065.5	2243.0	1922.7	1644.5	1199.3	871.1	655.1	414.5
33°	4873.0	4785.3	3994.0	2932.3	2154.5	1849.1	1578.3	1144.5	833.9	600.3	329.9
34°	4715.2	4595.6	3742.5	2770.6	2047.6	1763.2	1502.5	1085.4	796.2	524.1	235.7
35°	4474.2	4305.5	3451.5	2591.8	1933.2	1670.3	1417.1	1023.6	750.2	429.9	151.2
36°	4125.4	3907.7	3148.7	2406.9	1815.4	1572.6	1330.3	964.0	677.4	326.0	99.0
37°	3670.2	3478.3	2859.1	2220.7	1693.1	1468.3	1251.0	904.0	588.0	227.9	80.6
38°	3202.6	3061.1	2576.0	2035.8	1566.5	1355.7	1154.6	841.3	490.3	149.9	67.5
39°	2781.1	2686.5	2299.1	1852.6	1435.9	1257.1	1058.2	761.6	386.0	106.5	57.0
40°	2400.3	2335.0	2031.4	1666.0	1305.3	1137.9	967.5	663.8	278.2	85.0	47.8
42.5°	1637.0	1604.6	1421.0	1198.9	965.7	869.8	762.0	399.2	110.4	53.9	28.9
45°	855.3	841.3	774.7	702.0	629.7	604.7	489.9	179.2	62.2	31.5	18.4
47.5°	333.0	333.9	276.1	235.7	223.9	208.1	157.7	64.4	35.1	19.3	12.3
50°	103.4	111.3	102.5	96.8	74.1	61.8	51.3	32.0	18.8	11.8	7.9
51°	63.5	67.5	63.5	63.5	52.1	45.6	39.0	24.5	14.9	9.6	7.0
52°	41.2	43.4	41.2	38.6	35.9	32.4	28.0	18.4	11.8	7.9	5.7
53°	28.0	29.4	28.0	26.3	24.1	22.3	19.7	13.6	9.6	6.6	4.8
54°	19.7	20.6	19.7	18.4	17.1	15.8	14.5	10.5	7.9	5.7	4.4
55°	14.0	14.9	14.5	13.6	12.3	11.8	11.0	8.3	6.6	4.8	3.5
57.5°	6.6	7.0	7.0	6.6	6.6	6.1	5.7	5.3	3.9	3.1	2.6
60°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.6	2.2	2.2
61°	2.6	2.6	2.6	2.6	2.6	2.6	3.1	2.6	2.2	2.2	1.8
62°	2.2	2.2	2.2	2.2	2.2	2.6	2.6	2.2	2.2	1.8	1.8
63°	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	1.8	1.8	1.8
64°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.3
65°	1.8	1.8	1.3	1.3	1.3	1.8	1.3	1.8	1.3	1.3	1.3
66°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3
75°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3
77.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.9	0.9	1.3
80°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.9	0.9	0.9
82.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.9	0.9
85°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.9	0.9
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°	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
2.5°	82.8	80.6	79.7	78.9	78.4	77.6	76.2	74.9	74.5	72.7	71.0
5°	93.3	89.4	86.3	83.3	82.4	80.2	77.6	74.5	73.2	70.5	68.4
7.5°	105.6	97.7	92.0	86.8	84.6	81.9	77.1	73.2	70.5	66.6	64.0
10°	126.2	107.8	96.8	87.6	84.1	80.6	74.5	69.2	65.7	61.8	58.7
12.5°	199.8	139.8	105.2	88.1	83.3	78.0	70.5	64.4	60.0	55.6	53.0
15°	315.0	213.0	136.3	92.5	81.5	73.6	64.9	57.8	53.5	49.1	46.4
17.5°	420.7	286.6	177.9	103.0	82.4	69.7	57.8	50.8	46.0	42.1	40.3
20°	471.5	321.2	198.1	105.2	77.1	62.2	50.0	43.4	39.0	35.5	33.7
22.5°	476.3	319.0	185.8	89.8	64.0	52.6	42.1	35.9	32.4	29.8	28.0
25°	453.5	283.1	149.0	66.2	50.0	43.8	34.6	29.4	26.7	24.5	23.2
26°	436.0	262.5	131.0	57.4	45.6	39.9	31.5	27.2	24.5	22.8	21.5
27°	411.9	238.4	110.0	49.5	42.1	35.9	28.9	25.0	22.8	21.5	20.2
28°	383.0	214.7	91.1	43.8	38.1	32.4	26.7	22.8	21.0	19.7	18.4
29°	351.9	183.6	71.4	39.4	34.2	29.4	24.1	20.6	18.8	18.0	17.1
30°	308.0	142.8	54.8	35.5	30.7	26.3	21.9	18.8	17.5	16.7	15.8
31°	246.3	98.2	44.3	31.5	27.6	23.7	19.7	17.1	15.8	14.9	14.5
32°	176.6	60.5	38.6	28.0	24.5	21.5	17.1	15.3	14.0	13.6	13.1
33°	108.7	49.5	34.2	25.0	21.5	18.8	15.3	13.6	12.7	12.3	11.8
34°	71.4	42.9	30.2	21.5	18.8	16.2	13.1	11.8	11.4	11.0	11.0
35°	60.5	38.1	26.3	18.4	15.8	14.0	11.4	10.5	10.1	9.6	10.1
36°	52.1	33.3	21.9	15.8	13.6	11.8	10.1	9.2	8.8	8.8	9.2
37°	46.0	28.0	18.4	13.1	11.8	10.5	8.8	8.3	7.9	7.9	8.3
38°	39.0	22.8	15.3	11.4	10.1	8.8	7.9	7.4	7.4	7.4	7.9
39°	32.0	19.3	13.1	9.6	8.8	7.9	7.0	6.6	6.6	7.0	7.0
40°	26.3	16.2	11.0	8.3	7.4	7.0	6.1	6.1	6.1	6.1	6.6
42.5°	17.1	11.0	7.9	6.1	5.7	5.3	4.8	4.8	4.8	4.8	5.3
45°	11.4	7.9	6.1	4.8	4.4	3.9	3.9	3.5	3.9	3.9	4.4
47.5°	7.9	5.7	4.4	3.5	3.1	2.6	2.6	2.6	3.1	3.5	3.5
50°	5.7	3.9	3.1	2.2	2.2	2.2	2.2	2.2	2.6	2.6	3.1
51°	4.8	3.5	2.6	2.2	2.2	1.8	1.8	1.8	2.2	2.6	3.1
52°	3.9	3.1	2.2	1.8	1.8	1.8	1.8	1.8	2.2	2.2	2.6
53°	3.5	2.6	2.2	1.8	1.8	1.8	1.8	1.8	2.2	2.2	2.6
54°	3.1	2.2	1.8	1.8	1.8	1.3	1.3	1.8	1.8	2.2	2.6
55°	2.6	2.2	1.8	1.8	1.3	1.3	1.3	1.3	1.8	2.2	2.2
57.5°	2.2	1.8	1.8	1.3	1.3	1.3	1.3	1.3	1.8	1.8	2.2
60°	1.8	1.8	1.8	1.3	1.3	1.3	1.3	1.3	1.8	1.8	2.2
61°	1.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.8	1.8	2.2
62°	1.8	1.3	1.8	1.8	1.8	1.3	1.3	1.3	1.8	1.8	2.2
63°	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.8	1.8	1.8
64°	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.8	1.8	2.2
65°	1.3	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.8	1.8	2.2
66°	1.3	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.8	1.8
75°	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.8
77.5°	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.8
80°	1.3	1.3	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.3	1.3
82.5°	1.3	1.3	1.3	1.8	1.8	1.3	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.8	1.8	1.3	1.3	1.3	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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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CATALOG NUMBER: LDSQA4A09930D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
2.5°	70.1	70.1	69.7	68.8	69.7	68.8	67.9	67.5	67.0	66.6	65.7
5°	66.6	66.2	65.3	64.9	64.9	64.0	63.1	62.2	61.8	61.3	60.5
7.5°	62.2	61.8	60.5	60.0	60.0	59.2	57.8	57.4	57.0	56.5	55.6
10°	57.0	56.5	55.2	54.8	54.8	53.9	53.0	52.1	51.7	51.3	50.4
12.5°	50.8	50.4	49.5	49.1	49.1	48.2	47.3	46.9	46.9	46.4	46.0
15°	44.7	44.3	43.4	43.4	43.4	42.5	42.1	41.6	42.1	42.1	41.6
17.5°	38.6	38.1	37.2	37.2	37.2	37.2	36.8	36.8	37.2	37.7	37.7
20°	32.4	32.0	32.0	31.5	32.0	32.4	32.0	32.4	33.3	33.7	34.2
22.5°	26.7	26.7	26.7	26.7	27.2	27.6	27.6	28.5	29.4	29.8	30.7
25°	22.3	22.3	22.8	22.8	23.2	23.7	24.1	24.5	25.9	26.7	27.2
26°	20.6	21.0	21.0	21.5	21.9	22.3	22.8	23.2	24.5	25.4	25.9
27°	19.3	19.3	19.7	20.2	20.6	21.0	21.5	22.3	23.2	24.1	25.0
28°	18.0	18.0	18.4	18.8	19.3	19.7	20.2	21.0	21.9	23.2	23.7
29°	16.7	17.1	17.1	17.5	18.0	18.4	19.3	19.7	21.0	21.9	22.8
30°	15.3	15.8	16.2	16.2	16.7	17.1	18.0	18.8	19.7	21.0	21.5
31°	14.5	14.9	14.9	15.3	15.8	16.2	17.1	18.0	18.8	19.7	20.6
32°	13.1	14.0	14.0	14.0	14.5	15.3	16.2	16.7	18.0	18.8	19.3
33°	12.3	12.7	13.1	13.1	13.6	14.5	15.3	15.8	17.1	18.0	18.4
34°	11.4	11.8	12.3	12.3	12.7	13.6	14.5	14.9	16.2	16.7	17.5
35°	10.5	11.0	11.4	11.4	11.8	12.7	13.6	14.0	14.9	15.8	16.7
36°	9.6	10.1	10.5	11.0	11.4	12.3	12.7	13.6	14.0	14.9	15.8
37°	8.8	9.2	10.1	10.1	11.0	11.4	12.3	12.7	13.6	14.0	14.9
38°	7.9	8.8	9.2	9.6	10.1	11.0	11.4	11.8	12.7	13.6	14.0
39°	7.4	8.3	8.8	9.2	9.6	10.1	10.5	11.4	11.8	12.7	13.1
40°	7.0	7.4	8.3	8.3	9.2	9.6	10.1	10.5	11.4	11.8	12.7
42.5°	5.7	6.6	7.0	7.4	7.9	8.3	8.8	9.2	9.6	10.5	11.0
45°	4.8	5.7	6.1	6.1	6.6	7.0	7.4	7.9	8.8	9.2	9.6
47.5°	3.9	4.8	5.3	5.7	5.7	6.1	6.6	7.0	7.4	7.9	8.3
50°	3.5	3.9	4.4	4.8	5.3	5.3	5.7	6.1	6.6	7.0	7.0
51°	3.5	3.9	4.4	4.4	4.8	5.3	5.7	5.7	6.1	6.6	6.6
52°	3.1	3.5	3.9	4.4	4.8	4.8	5.3	5.7	5.7	6.1	6.6
53°	3.1	3.5	3.9	3.9	4.4	4.8	4.8	5.3	5.7	5.7	6.1
54°	2.6	3.5	3.9	3.9	4.4	4.4	4.8	5.3	5.3	5.3	5.7
55°	2.6	3.1	3.5	3.9	3.9	4.4	4.4	4.8	4.8	5.3	5.3
57.5°	2.6	3.1	3.5	3.5	3.9	3.9	4.4	4.4	4.4	4.4	4.8
60°	2.2	2.6	3.1	3.5	3.5	3.9	3.9	3.9	3.9	3.9	4.4
61°	2.2	2.6	3.1	3.1	3.5	3.5	3.9	3.9	3.9	3.9	3.9
62°	2.2	2.6	3.1	3.1	3.5	3.5	3.5	3.9	3.9	3.9	3.9
63°	2.2	2.6	3.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.9
64°	2.2	2.6	3.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5
65°	2.2	2.6	3.1	3.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5
66°	2.2	2.6	3.1	3.1	3.1	3.1	3.5	3.5	3.5	3.5	3.1



TEST NUMBER: P182779

CATALOG NUMBER: LDSQA4A09930D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	1.8	2.2	2.2	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.2
75°	1.8	2.2	2.2	2.2	2.6	2.6	2.6	2.2	2.2	2.2	2.2
77.5°	1.8	1.8	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.8	1.8
80°	1.8	1.8	1.8	2.2	2.2	2.2	2.2	1.8	1.8	1.8	1.3
82.5°	1.3	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3
85°	1.3	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.3	0.9
87.5°	1.3	1.3	1.3	1.8	1.8	1.8	1.3	1.3	0.9	0.9	0.9
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: P182779

CATALOG NUMBER: LDSQA4A09930D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
2.5°	66.6	67.0	66.6	66.6	65.7	66.2	65.3	66.6
5°	60.9	61.3	60.9	60.9	60.0	60.0	59.6	60.9
7.5°	56.1	56.5	55.6	55.6	54.8	55.2	54.8	55.6
10°	51.3	51.3	51.3	50.8	50.4	50.8	50.4	51.3
12.5°	46.4	46.9	46.9	46.9	46.4	46.4	46.0	47.3
15°	42.5	42.9	43.4	43.4	42.9	43.4	42.9	43.8
17.5°	39.0	39.9	39.9	40.3	40.3	40.8	40.8	41.6
20°	35.5	36.8	36.8	37.2	37.2	38.1	38.1	39.0
22.5°	32.0	33.3	33.7	33.7	34.2	35.1	35.1	35.9
25°	28.9	30.2	30.7	30.7	31.1	32.0	32.0	32.9
26°	27.6	28.9	29.4	29.8	30.2	31.1	31.1	32.0
27°	26.3	27.6	28.0	28.5	28.9	29.8	29.8	30.7
28°	25.4	26.7	27.2	27.6	28.0	28.9	28.9	29.4
29°	24.1	25.4	25.9	26.3	26.7	27.6	27.6	28.5
30°	23.2	24.1	24.5	25.0	25.4	26.7	26.7	27.6
31°	21.9	23.2	23.7	24.1	24.5	25.4	25.4	26.7
32°	21.0	21.9	22.3	22.8	23.7	24.1	24.5	25.4
33°	19.7	21.0	21.5	21.9	22.3	23.2	23.7	24.5
34°	18.8	19.7	20.6	21.0	21.5	22.3	22.8	23.7
35°	18.0	18.8	19.3	19.7	20.6	21.5	21.5	22.3
36°	17.1	18.0	18.4	18.8	19.7	20.6	20.6	21.5
37°	16.2	17.1	17.5	18.0	18.8	19.7	19.7	20.6
38°	15.3	16.2	16.7	17.1	18.0	18.8	19.3	20.2
39°	14.5	15.8	16.2	16.7	17.1	18.0	18.4	18.8
40°	14.0	14.9	15.3	15.8	16.2	17.1	17.5	18.0
42.5°	11.8	13.1	13.6	14.0	14.5	14.9	15.3	15.8
45°	10.5	11.4	11.4	11.8	12.3	13.1	13.1	14.0
47.5°	9.2	9.6	10.1	10.1	10.5	11.4	11.4	11.8
50°	7.9	8.3	8.8	8.8	9.2	9.6	10.1	10.5
51°	7.4	7.9	7.9	8.3	8.8	9.2	9.6	10.1
52°	7.0	7.4	7.4	7.9	8.3	8.8	8.8	9.2
53°	6.6	7.0	7.0	7.4	7.4	8.3	8.3	8.8
54°	6.1	6.6	6.6	7.0	7.0	7.9	7.9	8.3
55°	5.7	6.1	6.6	6.6	6.6	7.0	7.4	7.9
57.5°	5.3	5.7	5.7	5.7	6.1	6.1	6.6	6.6
60°	4.4	4.8	4.8	4.8	5.3	5.3	5.3	5.7
61°	4.4	4.4	4.8	4.8	4.4	4.4	4.4	4.8
62°	3.9	4.4	4.4	3.9	3.9	3.9	3.9	4.4
63°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
64°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
65°	3.5	3.5	3.5	3.5	3.5	3.5	3.1	3.5
66°	3.1	3.5	3.5	3.1	3.1	3.1	3.1	3.1



TEST NUMBER: P182779

CATALOG NUMBER: LDSQA4A09930D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.2	2.2	2.2	2.2	2.2	1.8	1.8	1.8
75°	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.3
77.5°	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	0.9	0.9
82.5°	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3
70°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3





67.5°	1.3	1.3	1.8	1.8	1.8	1.8	1.3	1.3	1.3	1.8	1.8
70°	1.3	1.8	1.8	1.8	1.8	1.8	1.8	1.3	1.3	1.8	1.8





67.5°	2.2	2.6	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	2.2	2.2	2.6	2.6	2.6	3.1	3.1	2.6	2.6	2.6	2.6





67.5°	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6
70°	2.6	2.6	2.6	2.6	2.2	2.2	2.2	2.2



(END OF REPORT)