

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: P182778

Luminaire Tested: **LDSQA4A09927D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182778
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: LDSQA4A09927D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 754.6 lumens
Efficiency: N/A
Efficacy: 54.5 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

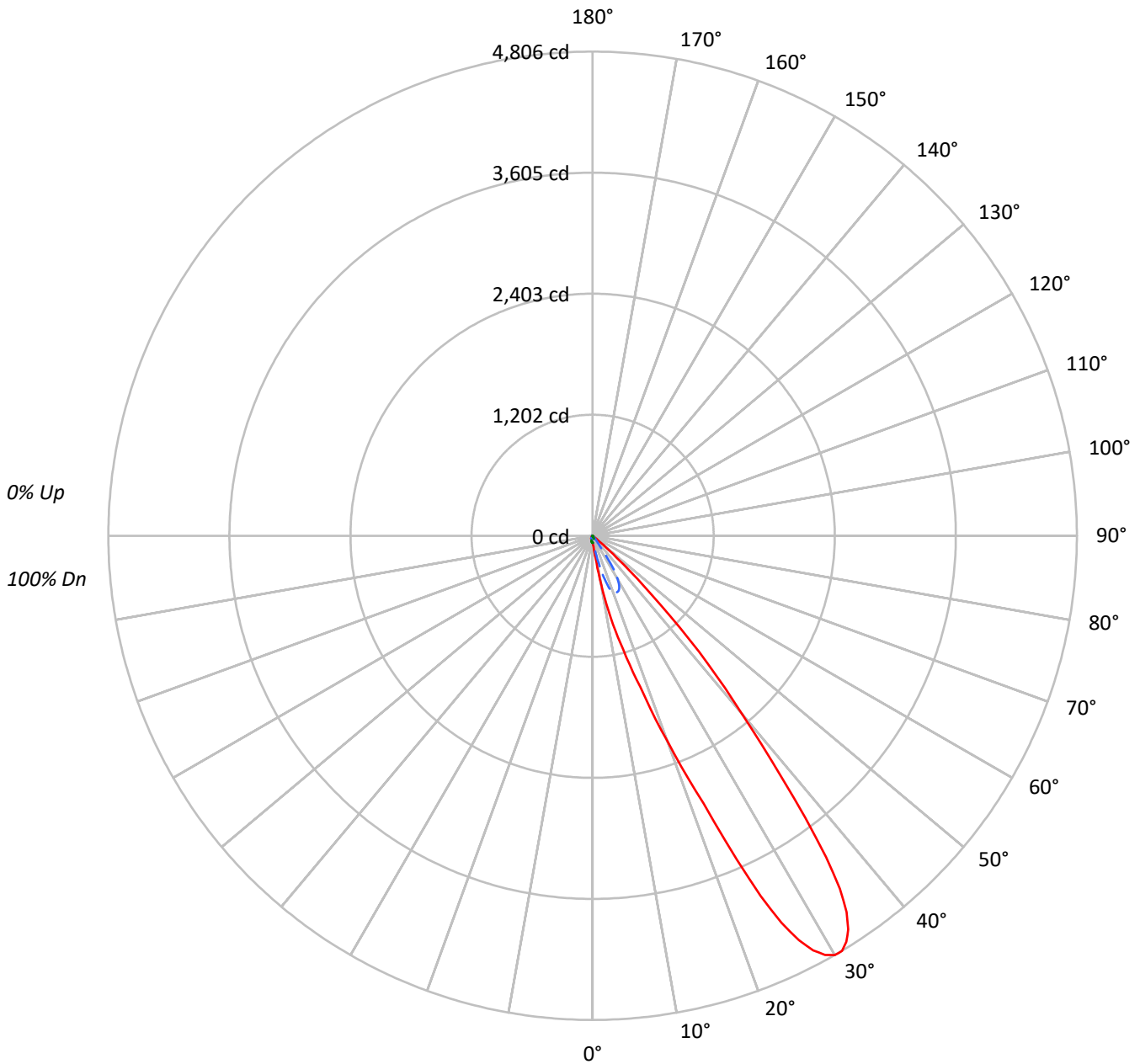
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6898	6898	6898
5°	10960	6554	5660
10°	47995	5804	4820
15°	117272	4704	4202
20°	223732	3495	3845
25°	421639	2512	3356
30°	537609	1779	2953
35°	505728	1088	2531
40°	290116	746	2175
45°	112000	521	1836
50°	14890	377	1522
55°	2263	355	1267
60°	659	329	1046
65°	390	390	779
70°	227	482	595
75°	299	487	487
80°	0	725	446
85°	0	1445	445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.9	1.2
10°-20°	80.9	10.7
20°-30°	257.9	34.2
30°-40°	298.8	39.6
40°-50°	97.2	12.9
50°-60°	6.2	0.8
60°-70°	2.2	0.3
70°-80°	1.6	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°	347.6	46.1
0°-40°	646.4	85.7
0°-60°	749.8	99.4
0°-90°	754.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	754.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	71	71	71	71	71	
5°	113	94	67	59	58	22
15°	1169	421	47	40	42	371
25°	3945	606	24	25	31	1772
35°	4276	144	9	14	21	2460
45°	818	18	4	8	13	730
55°	13	3	2	5	8	21
65°	2	1	2	3	3	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°	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
2.5°	86.7	87.5	87.5	86.3	86.3	85.0	84.2	83.8	83.3	82.1	81.7
5°	112.7	113.5	113.9	110.6	109.3	106.8	104.7	102.6	100.1	97.2	94.2
7.5°	217.4	199.8	202.7	177.6	173.0	162.1	153.3	139.5	129.4	119.4	111.4
10°	487.9	471.1	468.2	431.4	394.9	367.7	338.4	287.7	241.6	192.6	152.9
12.5°	835.9	811.2	797.4	724.9	682.2	642.0	597.2	518.0	429.7	354.3	275.6
15°	1169.3	1167.2	1117.8	1036.9	955.7	906.3	848.5	750.5	645.8	531.0	421.3
17.5°	1571.7	1588.1	1503.5	1345.6	1217.0	1136.6	1057.0	903.8	773.1	661.7	541.5
20°	2170.2	2126.6	1978.8	1731.7	1514.3	1393.3	1269.8	1044.0	856.8	722.0	600.1
22.5°	2873.3	2839.8	2563.4	2151.3	1806.7	1636.6	1466.6	1173.0	929.3	754.7	611.4
25°	3944.6	3806.8	3270.3	2601.5	2074.7	1833.9	1615.7	1256.8	962.0	758.8	606.0
26°	4273.3	4176.6	3557.6	2780.4	2157.2	1888.3	1653.0	1274.0	964.5	755.1	595.5
27°	4506.6	4432.9	3796.8	2911.9	2217.1	1926.0	1677.3	1281.1	958.6	747.1	581.3
28°	4660.3	4601.3	3977.3	3006.9	2253.5	1946.1	1689.0	1279.4	946.9	733.3	561.2
29°	4757.9	4700.9	4082.8	3060.9	2266.5	1949.5	1686.1	1266.8	928.0	712.8	532.3
30°	4806.0	4744.1	4118.4	3066.8	2252.3	1930.2	1663.9	1239.2	902.1	688.1	500.5
31°	4806.5	4737.8	4088.7	3021.6	2210.0	1889.2	1624.5	1193.1	868.2	658.8	457.7
32°	4750.8	4680.0	3989.4	2929.9	2143.8	1837.7	1571.7	1146.2	832.6	626.1	396.2
33°	4657.4	4573.6	3817.3	2802.6	2059.2	1767.3	1508.5	1093.9	797.0	573.7	315.3
34°	4506.6	4392.3	3576.9	2648.0	1957.0	1685.2	1436.0	1037.3	760.9	500.9	225.3
35°	4276.3	4115.0	3298.8	2477.2	1847.7	1596.4	1354.4	978.3	717.0	410.8	144.5
36°	3942.9	3734.8	3009.4	2300.4	1735.1	1503.0	1271.5	921.3	647.5	311.6	94.6
37°	3507.8	3324.4	2732.6	2122.4	1618.2	1403.4	1195.6	864.0	562.0	217.8	77.1
38°	3060.9	2925.7	2462.1	1945.7	1497.2	1295.7	1103.5	804.1	468.6	143.2	64.5
39°	2658.1	2567.6	2197.4	1770.6	1372.4	1201.5	1011.4	727.9	369.0	101.8	54.4
40°	2294.1	2231.7	1941.5	1592.2	1247.6	1087.6	924.7	634.5	265.9	81.2	45.6
42.5°	1564.6	1533.6	1358.1	1145.8	923.0	831.3	728.3	381.5	105.5	51.5	27.6
45°	817.5	804.1	740.4	670.9	601.8	577.9	468.2	171.3	59.5	30.2	17.6
47.5°	318.3	319.1	263.8	225.3	214.0	198.9	150.8	61.6	33.5	18.4	11.7
50°	98.8	106.4	98.0	92.6	70.8	59.0	49.0	30.6	18.0	11.3	7.5
51°	60.7	64.5	60.7	60.7	49.8	43.6	37.3	23.5	14.2	9.2	6.7
52°	39.4	41.5	39.4	36.9	34.3	31.0	26.8	17.6	11.3	7.5	5.4
53°	26.8	28.1	26.8	25.1	23.0	21.4	18.8	13.0	9.2	6.3	4.6
54°	18.8	19.7	18.8	17.6	16.3	15.1	13.8	10.1	7.5	5.4	4.2
55°	13.4	14.2	13.8	13.0	11.7	11.3	10.5	8.0	6.3	4.6	3.4
57.5°	6.3	6.7	6.7	6.3	6.3	5.9	5.4	5.0	3.8	2.9	2.5
60°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.5	2.1	2.1
61°	2.5	2.5	2.5	2.5	2.5	2.5	2.9	2.5	2.1	2.1	1.7
62°	2.1	2.1	2.1	2.1	2.1	2.5	2.5	2.1	2.1	1.7	1.7
63°	1.7	1.7	1.7	1.7	2.1	2.1	2.1	2.1	1.7	1.7	1.7
64°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.3
65°	1.7	1.7	1.3	1.3	1.3	1.7	1.3	1.7	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°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3
77.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.8	0.8	1.3
80°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.8	0.8	0.8
82.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.8	0.8
85°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.8	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.8	0.8
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°	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
2.5°	79.2	77.1	76.2	75.4	75.0	74.1	72.9	71.6	71.2	69.5	67.8
5°	89.2	85.4	82.5	79.6	78.7	76.6	74.1	71.2	69.9	67.4	65.3
7.5°	100.9	93.4	87.9	82.9	80.8	78.3	73.7	69.9	67.4	63.7	61.1
10°	120.6	103.0	92.6	83.8	80.4	77.1	71.2	66.2	62.8	59.0	56.1
12.5°	191.0	133.6	100.5	84.2	79.6	74.5	67.4	61.6	57.4	53.2	50.7
15°	301.1	203.5	130.2	88.4	77.9	70.4	62.0	55.3	51.1	46.9	44.4
17.5°	402.0	273.9	170.0	98.4	78.7	66.6	55.3	48.6	44.0	40.2	38.5
20°	450.6	307.0	189.3	100.5	73.7	59.5	47.7	41.5	37.3	33.9	32.2
22.5°	455.2	304.9	177.6	85.9	61.1	50.3	40.2	34.3	31.0	28.5	26.8
25°	433.4	270.5	142.4	63.2	47.7	41.9	33.1	28.1	25.5	23.5	22.2
26°	416.7	250.9	125.2	54.9	43.6	38.1	30.2	26.0	23.5	21.8	20.5
27°	393.7	227.8	105.1	47.3	40.2	34.3	27.6	23.9	21.8	20.5	19.3
28°	366.0	205.2	87.1	41.9	36.4	31.0	25.5	21.8	20.1	18.8	17.6
29°	336.3	175.5	68.3	37.7	32.7	28.1	23.0	19.7	18.0	17.2	16.3
30°	294.4	136.5	52.3	33.9	29.3	25.1	20.9	18.0	16.8	15.9	15.1
31°	235.4	93.8	42.3	30.2	26.4	22.6	18.8	16.3	15.1	14.2	13.8
32°	168.8	57.8	36.9	26.8	23.5	20.5	16.3	14.7	13.4	13.0	12.6
33°	103.9	47.3	32.7	23.9	20.5	18.0	14.7	13.0	12.1	11.7	11.3
34°	68.3	41.0	28.9	20.5	18.0	15.5	12.6	11.3	10.9	10.5	10.5
35°	57.8	36.4	25.1	17.6	15.1	13.4	10.9	10.1	9.6	9.2	9.6
36°	49.8	31.8	20.9	15.1	13.0	11.3	9.6	8.8	8.4	8.4	8.8
37°	44.0	26.8	17.6	12.6	11.3	10.1	8.4	8.0	7.5	7.5	8.0
38°	37.3	21.8	14.7	10.9	9.6	8.4	7.5	7.1	7.1	7.1	7.5
39°	30.6	18.4	12.6	9.2	8.4	7.5	6.7	6.3	6.3	6.7	6.7
40°	25.1	15.5	10.5	8.0	7.1	6.7	5.9	5.9	5.9	5.9	6.3
42.5°	16.3	10.5	7.5	5.9	5.4	5.0	4.6	4.6	4.6	4.6	5.0
45°	10.9	7.5	5.9	4.6	4.2	3.8	3.8	3.4	3.8	3.8	4.2
47.5°	7.5	5.4	4.2	3.4	2.9	2.5	2.5	2.5	2.9	3.4	3.4
50°	5.4	3.8	2.9	2.1	2.1	2.1	2.1	2.1	2.5	2.5	2.9
51°	4.6	3.4	2.5	2.1	2.1	1.7	1.7	1.7	2.1	2.5	2.9
52°	3.8	2.9	2.1	1.7	1.7	1.7	1.7	1.7	2.1	2.1	2.5
53°	3.4	2.5	2.1	1.7	1.7	1.7	1.7	1.7	2.1	2.1	2.5
54°	2.9	2.1	1.7	1.7	1.7	1.3	1.3	1.7	1.7	2.1	2.5
55°	2.5	2.1	1.7	1.7	1.3	1.3	1.3	1.3	1.7	2.1	2.1
57.5°	2.1	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.7	1.7	2.1
60°	1.7	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.7	1.7	2.1
61°	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.7	1.7	2.1
62°	1.7	1.3	1.7	1.7	1.7	1.3	1.3	1.3	1.7	1.7	2.1
63°	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.7	1.7	1.7
64°	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.7	1.7	2.1
65°	1.3	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.7	1.7	2.1
66°	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.7	1.7	1.7



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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	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.7	1.7
75°	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.7
77.5°	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.7
80°	1.3	1.3	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.3	1.3
82.5°	1.3	1.3	1.3	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.7	1.7	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: LDSQA4A09927D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
2.5°	67.0	67.0	66.6	65.8	66.6	65.8	64.9	64.5	64.1	63.7	62.8
5°	63.7	63.2	62.4	62.0	62.0	61.1	60.3	59.5	59.0	58.6	57.8
7.5°	59.5	59.0	57.8	57.4	57.4	56.5	55.3	54.9	54.4	54.0	53.2
10°	54.4	54.0	52.8	52.3	52.3	51.5	50.7	49.8	49.4	49.0	48.2
12.5°	48.6	48.2	47.3	46.9	46.9	46.1	45.2	44.8	44.8	44.4	44.0
15°	42.7	42.3	41.5	41.5	41.5	40.6	40.2	39.8	40.2	40.2	39.8
17.5°	36.9	36.4	35.6	35.6	35.6	35.6	35.2	35.2	35.6	36.0	36.0
20°	31.0	30.6	30.6	30.2	30.6	31.0	30.6	31.0	31.8	32.2	32.7
22.5°	25.5	25.5	25.5	25.5	26.0	26.4	26.4	27.2	28.1	28.5	29.3
25°	21.4	21.4	21.8	21.8	22.2	22.6	23.0	23.5	24.7	25.5	26.0
26°	19.7	20.1	20.1	20.5	20.9	21.4	21.8	22.2	23.5	24.3	24.7
27°	18.4	18.4	18.8	19.3	19.7	20.1	20.5	21.4	22.2	23.0	23.9
28°	17.2	17.2	17.6	18.0	18.4	18.8	19.3	20.1	20.9	22.2	22.6
29°	15.9	16.3	16.3	16.8	17.2	17.6	18.4	18.8	20.1	20.9	21.8
30°	14.7	15.1	15.5	15.5	15.9	16.3	17.2	18.0	18.8	20.1	20.5
31°	13.8	14.2	14.2	14.7	15.1	15.5	16.3	17.2	18.0	18.8	19.7
32°	12.6	13.4	13.4	13.4	13.8	14.7	15.5	15.9	17.2	18.0	18.4
33°	11.7	12.1	12.6	12.6	13.0	13.8	14.7	15.1	16.3	17.2	17.6
34°	10.9	11.3	11.7	11.7	12.1	13.0	13.8	14.2	15.5	15.9	16.8
35°	10.1	10.5	10.9	10.9	11.3	12.1	13.0	13.4	14.2	15.1	15.9
36°	9.2	9.6	10.1	10.5	10.9	11.7	12.1	13.0	13.4	14.2	15.1
37°	8.4	8.8	9.6	9.6	10.5	10.9	11.7	12.1	13.0	13.4	14.2
38°	7.5	8.4	8.8	9.2	9.6	10.5	10.9	11.3	12.1	13.0	13.4
39°	7.1	8.0	8.4	8.8	9.2	9.6	10.1	10.9	11.3	12.1	12.6
40°	6.7	7.1	8.0	8.0	8.8	9.2	9.6	10.1	10.9	11.3	12.1
42.5°	5.4	6.3	6.7	7.1	7.5	8.0	8.4	8.8	9.2	10.1	10.5
45°	4.6	5.4	5.9	5.9	6.3	6.7	7.1	7.5	8.4	8.8	9.2
47.5°	3.8	4.6	5.0	5.4	5.4	5.9	6.3	6.7	7.1	7.5	8.0
50°	3.4	3.8	4.2	4.6	5.0	5.0	5.4	5.9	6.3	6.7	6.7
51°	3.4	3.8	4.2	4.2	4.6	5.0	5.4	5.4	5.9	6.3	6.3
52°	2.9	3.4	3.8	4.2	4.6	4.6	5.0	5.4	5.4	5.9	6.3
53°	2.9	3.4	3.8	3.8	4.2	4.6	4.6	5.0	5.4	5.4	5.9
54°	2.5	3.4	3.8	3.8	4.2	4.2	4.6	5.0	5.0	5.0	5.4
55°	2.5	2.9	3.4	3.8	3.8	4.2	4.2	4.6	4.6	5.0	5.0
57.5°	2.5	2.9	3.4	3.4	3.8	3.8	4.2	4.2	4.2	4.2	4.6
60°	2.1	2.5	2.9	3.4	3.4	3.8	3.8	3.8	3.8	3.8	4.2
61°	2.1	2.5	2.9	2.9	3.4	3.4	3.8	3.8	3.8	3.8	3.8
62°	2.1	2.5	2.9	2.9	3.4	3.4	3.4	3.8	3.8	3.8	3.8
63°	2.1	2.5	2.9	2.9	3.4	3.4	3.4	3.4	3.4	3.4	3.8
64°	2.1	2.5	2.9	2.9	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65°	2.1	2.5	2.9	2.9	2.9	3.4	3.4	3.4	3.4	3.4	3.4
66°	2.1	2.5	2.9	2.9	2.9	2.9	3.4	3.4	3.4	3.4	2.9



TEST NUMBER: P182778

CATALOG NUMBER: LDSQA4A09927D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	1.7	2.1	2.1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.1
75°	1.7	2.1	2.1	2.1	2.5	2.5	2.5	2.1	2.1	2.1	2.1
77.5°	1.7	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7	1.7
80°	1.7	1.7	1.7	2.1	2.1	2.1	2.1	1.7	1.7	1.7	1.3
82.5°	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3
85°	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	0.8
87.5°	1.3	1.3	1.3	1.7	1.7	1.7	1.3	1.3	0.8	0.8	0.8
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: P182778

CATALOG NUMBER: LDSQA4A09927D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
2.5°	63.7	64.1	63.7	63.7	62.8	63.2	62.4	63.7
5°	58.2	58.6	58.2	58.2	57.4	57.4	57.0	58.2
7.5°	53.6	54.0	53.2	53.2	52.3	52.8	52.3	53.2
10°	49.0	49.0	49.0	48.6	48.2	48.6	48.2	49.0
12.5°	44.4	44.8	44.8	44.8	44.4	44.4	44.0	45.2
15°	40.6	41.0	41.5	41.5	41.0	41.5	41.0	41.9
17.5°	37.3	38.1	38.1	38.5	38.5	38.9	38.9	39.8
20°	33.9	35.2	35.2	35.6	35.6	36.4	36.4	37.3
22.5°	30.6	31.8	32.2	32.2	32.7	33.5	33.5	34.3
25°	27.6	28.9	29.3	29.3	29.7	30.6	30.6	31.4
26°	26.4	27.6	28.1	28.5	28.9	29.7	29.7	30.6
27°	25.1	26.4	26.8	27.2	27.6	28.5	28.5	29.3
28°	24.3	25.5	26.0	26.4	26.8	27.6	27.6	28.1
29°	23.0	24.3	24.7	25.1	25.5	26.4	26.4	27.2
30°	22.2	23.0	23.5	23.9	24.3	25.5	25.5	26.4
31°	20.9	22.2	22.6	23.0	23.5	24.3	24.3	25.5
32°	20.1	20.9	21.4	21.8	22.6	23.0	23.5	24.3
33°	18.8	20.1	20.5	20.9	21.4	22.2	22.6	23.5
34°	18.0	18.8	19.7	20.1	20.5	21.4	21.8	22.6
35°	17.2	18.0	18.4	18.8	19.7	20.5	20.5	21.4
36°	16.3	17.2	17.6	18.0	18.8	19.7	19.7	20.5
37°	15.5	16.3	16.8	17.2	18.0	18.8	18.8	19.7
38°	14.7	15.5	15.9	16.3	17.2	18.0	18.4	19.3
39°	13.8	15.1	15.5	15.9	16.3	17.2	17.6	18.0
40°	13.4	14.2	14.7	15.1	15.5	16.3	16.8	17.2
42.5°	11.3	12.6	13.0	13.4	13.8	14.2	14.7	15.1
45°	10.1	10.9	10.9	11.3	11.7	12.6	12.6	13.4
47.5°	8.8	9.2	9.6	9.6	10.1	10.9	10.9	11.3
50°	7.5	8.0	8.4	8.4	8.8	9.2	9.6	10.1
51°	7.1	7.5	7.5	8.0	8.4	8.8	9.2	9.6
52°	6.7	7.1	7.1	7.5	8.0	8.4	8.4	8.8
53°	6.3	6.7	6.7	7.1	7.1	8.0	8.0	8.4
54°	5.9	6.3	6.3	6.7	6.7	7.5	7.5	8.0
55°	5.4	5.9	6.3	6.3	6.3	6.7	7.1	7.5
57.5°	5.0	5.4	5.4	5.4	5.9	5.9	6.3	6.3
60°	4.2	4.6	4.6	4.6	5.0	5.0	5.0	5.4
61°	4.2	4.2	4.6	4.6	4.2	4.2	4.2	4.6
62°	3.8	4.2	4.2	3.8	3.8	3.8	3.8	4.2
63°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
64°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
65°	3.4	3.4	3.4	3.4	3.4	3.4	2.9	3.4
66°	2.9	3.4	3.4	2.9	2.9	2.9	2.9	2.9



TEST NUMBER: P182778

CATALOG NUMBER: LDSQA4A09927D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.1	2.1	2.1	2.1	2.1	1.7	1.7	1.7
75°	2.1	1.7	1.7	1.7	1.7	1.7	1.7	1.3
77.5°	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	0.8	0.8
82.5°	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	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°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3	1.3
70°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.3	1.3





67.5°	1.3	1.3	1.7	1.7	1.7	1.7	1.3	1.3	1.3	1.7	1.7
70°	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.7	1.7





67.5°	2.1	2.5	2.5	2.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9
70°	2.1	2.1	2.5	2.5	2.5	2.9	2.9	2.5	2.5	2.5	2.5





67.5°	2.9	2.9	2.9	2.9	2.5	2.5	2.5	2.5
70°	2.5	2.5	2.5	2.5	2.1	2.1	2.1	2.1



(END OF REPORT)