

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: P182774

Luminaire Tested: **LDSQA4A09827D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182774
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: LDSQA4A09827D010TE 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: 940.1 lumens
Efficiency: N/A
Efficacy: 67.9 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

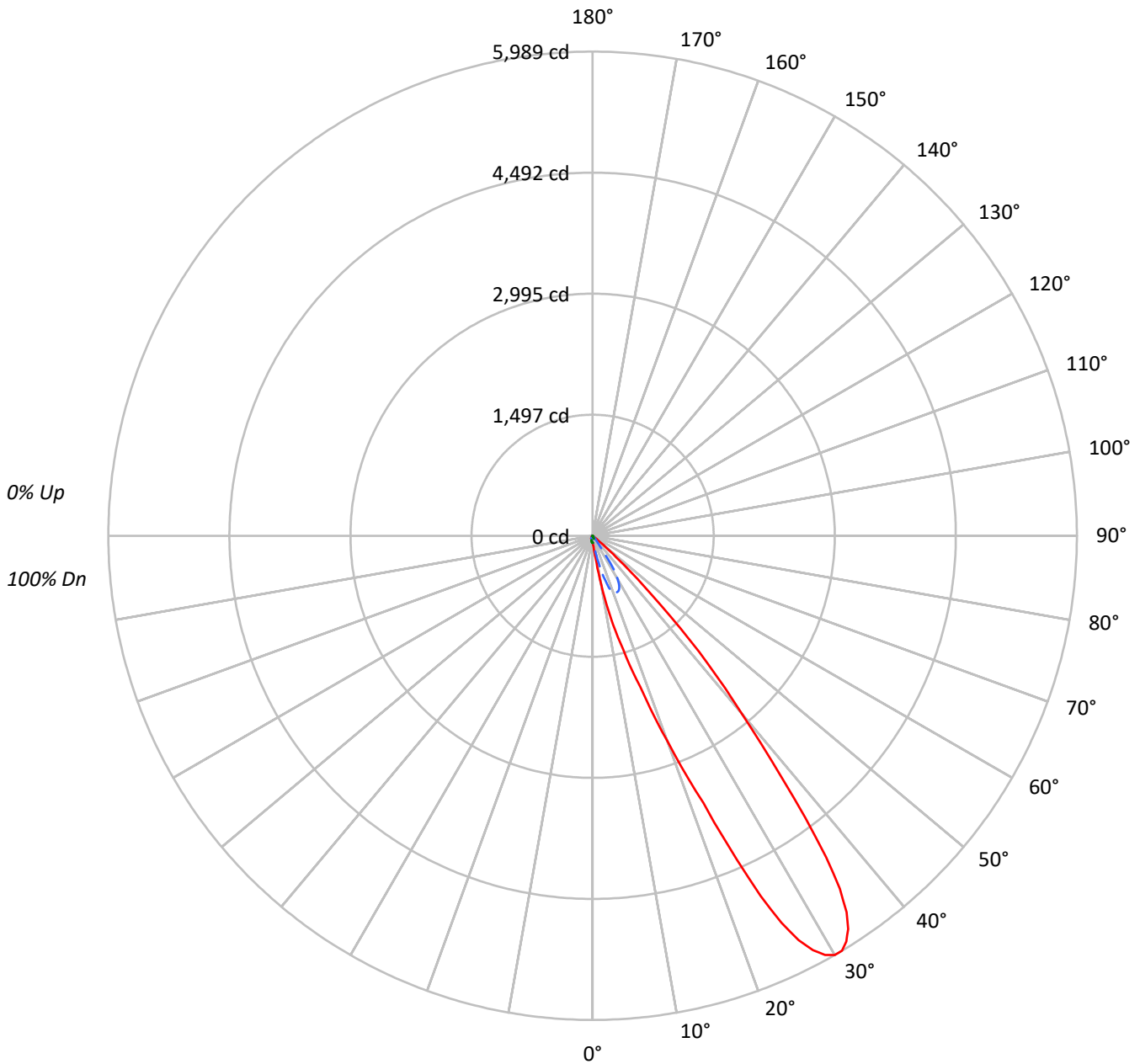
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8593	8593	8593
5°	13653	8169	7050
10°	59799	7240	6010
15°	146117	5857	5235
20°	278752	4361	4784
25°	525344	3121	4179
30°	669842	2215	3680
35°	630117	1360	3146
40°	361479	923	2706
45°	139537	644	2288
50°	18553	467	1884
55°	2821	439	1588
60°	814	407	1318
65°	481	481	963
70°	283	595	736
75°	374	599	599
80°	0	893	558
85°	0	1778	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.1	1.2
10°-20°	100.7	10.7
20°-30°	321.3	34.2
30°-40°	372.3	39.6
40°-50°	121.1	12.9
50°-60°	7.7	0.8
60°-70°	2.8	0.3
70°-80°	2.0	0.2
80°-90°	1.2	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°	433.1	46.1
0°-40°	805.4	85.7
0°-60°	934.1	99.4
0°-90°	940.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	940.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	89	89	89	89	89	
5°	140	117	84	74	72	27
15°	1457	525	58	50	52	462
25°	4915	755	29	31	39	2208
35°	5328	180	12	18	27	3066
45°	1018	22	5	10	17	909
55°	17	4	3	6	9	26
65°	2	2	2	4	4	2
75°	1	2	2	3	2	1
85°	0	1	2	2	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°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	108.0	109.1	109.1	107.5	107.5	105.9	104.9	104.4	103.8	102.3	101.8
5°	140.4	141.4	141.9	137.8	136.2	133.1	130.4	127.8	124.7	121.1	117.4
7.5°	270.8	248.9	252.5	221.2	215.5	201.9	191.0	173.8	161.2	148.7	138.8
10°	607.9	587.0	583.4	537.4	492.1	458.1	421.6	358.5	301.1	240.0	190.5
12.5°	1041.5	1010.7	993.5	903.2	850.0	799.9	744.1	645.5	535.4	441.4	343.3
15°	1456.9	1454.2	1392.7	1292.0	1190.7	1129.2	1057.2	935.1	804.6	661.6	524.9
17.5°	1958.3	1978.6	1873.2	1676.5	1516.3	1416.2	1317.0	1126.0	963.2	824.4	674.7
20°	2703.9	2649.7	2465.5	2157.6	1886.8	1736.0	1582.1	1300.8	1067.6	899.6	747.7
22.5°	3580.0	3538.3	3193.9	2680.5	2251.0	2039.2	1827.3	1461.5	1157.9	940.3	761.8
25°	4914.8	4743.1	4074.7	3241.4	2585.0	2284.9	2013.1	1565.9	1198.6	945.5	755.0
26°	5324.4	5203.9	4432.7	3464.2	2687.8	2352.8	2059.5	1587.3	1201.7	940.8	742.0
27°	5615.0	5523.2	4730.6	3628.0	2762.4	2399.7	2089.8	1596.2	1194.4	930.9	724.3
28°	5806.5	5733.0	4955.5	3746.5	2807.8	2424.8	2104.4	1594.1	1179.8	913.7	699.2
29°	5928.1	5857.2	5087.0	3813.8	2824.0	2429.0	2100.7	1578.4	1156.3	888.1	663.2
30°	5988.1	5910.9	5131.3	3821.1	2806.2	2405.0	2073.1	1544.0	1123.9	857.3	623.5
31°	5988.7	5903.1	5094.3	3764.8	2753.5	2353.8	2024.0	1486.6	1081.7	820.8	570.3
32°	5919.3	5831.1	4970.6	3650.5	2671.1	2289.6	1958.3	1428.2	1037.3	780.1	493.6
33°	5802.9	5698.5	4756.2	3491.9	2565.7	2202.0	1879.5	1362.9	993.0	714.9	392.9
34°	5615.0	5472.6	4456.7	3299.3	2438.4	2099.7	1789.2	1292.5	948.1	624.1	280.7
35°	5328.1	5127.2	4110.2	3086.4	2302.2	1989.1	1687.5	1218.9	893.3	511.9	180.0
36°	4912.7	4653.4	3749.6	2866.2	2161.8	1872.7	1584.2	1148.0	806.7	388.2	117.9
37°	4370.6	4142.0	3404.7	2644.5	2016.2	1748.5	1489.7	1076.5	700.2	271.3	96.0
38°	3813.8	3645.3	3067.6	2424.3	1865.4	1614.4	1374.9	1001.8	583.9	178.5	80.4
39°	3311.8	3199.1	2737.9	2206.2	1709.9	1497.0	1260.1	906.9	459.7	126.8	67.8
40°	2858.4	2780.6	2419.0	1983.9	1554.4	1355.1	1152.1	790.5	331.3	101.2	56.9
42.5°	1949.4	1910.8	1692.2	1427.6	1150.0	1035.8	907.4	475.4	131.5	64.2	34.4
45°	1018.5	1001.8	922.5	835.9	749.8	720.1	583.4	213.4	74.1	37.6	21.9
47.5°	396.6	397.6	328.7	280.7	266.6	247.9	187.8	76.7	41.7	23.0	14.6
50°	123.1	132.5	122.1	115.3	88.2	73.6	61.1	38.1	22.4	14.1	9.4
51°	75.7	80.4	75.7	75.7	62.1	54.3	46.4	29.2	17.7	11.5	8.3
52°	49.0	51.7	49.0	45.9	42.8	38.6	33.4	21.9	14.1	9.4	6.8
53°	33.4	35.0	33.4	31.3	28.7	26.6	23.5	16.2	11.5	7.8	5.7
54°	23.5	24.5	23.5	21.9	20.4	18.8	17.2	12.5	9.4	6.8	5.2
55°	16.7	17.7	17.2	16.2	14.6	14.1	13.0	9.9	7.8	5.7	4.2
57.5°	7.8	8.3	8.3	7.8	7.8	7.3	6.8	6.3	4.7	3.7	3.1
60°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.1	2.6	2.6
61°	3.1	3.1	3.1	3.1	3.1	3.1	3.7	3.1	2.6	2.6	2.1
62°	2.6	2.6	2.6	2.6	2.6	3.1	3.1	2.6	2.6	2.1	2.1
63°	2.1	2.1	2.1	2.1	2.6	2.6	2.6	2.6	2.1	2.1	2.1
64°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.6
65°	2.1	2.1	1.6	1.6	1.6	2.1	1.6	2.1	1.6	1.6	1.6
66°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6
77.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.0	1.0	1.6
80°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.0
82.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.0	1.0
85°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.0	1.0
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°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	98.6	96.0	95.0	93.9	93.4	92.4	90.8	89.2	88.7	86.6	84.5
5°	111.1	106.4	102.8	99.1	98.1	95.5	92.4	88.7	87.1	84.0	81.4
7.5°	125.8	116.4	109.6	103.3	100.7	97.6	91.8	87.1	84.0	79.3	76.2
10°	150.3	128.4	115.3	104.4	100.2	96.0	88.7	82.4	78.3	73.6	69.9
12.5°	237.9	166.5	125.2	104.9	99.1	92.9	84.0	76.7	71.5	66.3	63.1
15°	375.2	253.6	162.3	110.1	97.1	87.7	77.2	68.9	63.7	58.4	55.3
17.5°	500.9	341.3	211.8	122.6	98.1	83.0	68.9	60.5	54.8	50.1	48.0
20°	561.5	382.5	235.9	125.2	91.8	74.1	59.5	51.7	46.4	42.3	40.2
22.5°	567.2	379.9	221.2	107.0	76.2	62.6	50.1	42.8	38.6	35.5	33.4
25°	540.1	337.1	177.4	78.8	59.5	52.2	41.2	35.0	31.8	29.2	27.7
26°	519.2	312.6	156.0	68.4	54.3	47.5	37.6	32.4	29.2	27.1	25.6
27°	490.5	283.9	131.0	59.0	50.1	42.8	34.4	29.7	27.1	25.6	24.0
28°	456.0	255.7	108.5	52.2	45.4	38.6	31.8	27.1	25.0	23.5	21.9
29°	419.0	218.6	85.1	47.0	40.7	35.0	28.7	24.5	22.4	21.4	20.4
30°	366.8	170.1	65.2	42.3	36.5	31.3	26.1	22.4	20.9	19.8	18.8
31°	293.2	116.9	52.7	37.6	32.9	28.2	23.5	20.4	18.8	17.7	17.2
32°	210.3	72.0	45.9	33.4	29.2	25.6	20.4	18.3	16.7	16.2	15.7
33°	129.4	59.0	40.7	29.7	25.6	22.4	18.3	16.2	15.1	14.6	14.1
34°	85.1	51.1	36.0	25.6	22.4	19.3	15.7	14.1	13.6	13.0	13.0
35°	72.0	45.4	31.3	21.9	18.8	16.7	13.6	12.5	12.0	11.5	12.0
36°	62.1	39.7	26.1	18.8	16.2	14.1	12.0	11.0	10.4	10.4	11.0
37°	54.8	33.4	21.9	15.7	14.1	12.5	10.4	9.9	9.4	9.4	9.9
38°	46.4	27.1	18.3	13.6	12.0	10.4	9.4	8.9	8.9	8.9	9.4
39°	38.1	23.0	15.7	11.5	10.4	9.4	8.3	7.8	7.8	8.3	8.3
40°	31.3	19.3	13.0	9.9	8.9	8.3	7.3	7.3	7.3	7.3	7.8
42.5°	20.4	13.0	9.4	7.3	6.8	6.3	5.7	5.7	5.7	5.7	6.3
45°	13.6	9.4	7.3	5.7	5.2	4.7	4.7	4.2	4.7	4.7	5.2
47.5°	9.4	6.8	5.2	4.2	3.7	3.1	3.1	3.1	3.7	4.2	4.2
50°	6.8	4.7	3.7	2.6	2.6	2.6	2.6	2.6	3.1	3.1	3.7
51°	5.7	4.2	3.1	2.6	2.6	2.1	2.1	2.1	2.6	3.1	3.7
52°	4.7	3.7	2.6	2.1	2.1	2.1	2.1	2.1	2.6	2.6	3.1
53°	4.2	3.1	2.6	2.1	2.1	2.1	2.1	2.1	2.6	2.6	3.1
54°	3.7	2.6	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.6	3.1
55°	3.1	2.6	2.1	2.1	1.6	1.6	1.6	1.6	2.1	2.6	2.6
57.5°	2.6	2.1	2.1	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.6
60°	2.1	2.1	2.1	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.6
61°	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.6
62°	2.1	1.6	2.1	2.1	2.1	1.6	1.6	1.6	2.1	2.1	2.6
63°	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	2.1	2.1	2.1
64°	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.6
65°	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.6
66°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	2.1	2.1	2.1



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	1.6	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1
75°	1.6	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	2.1
77.5°	1.6	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	2.1
80°	1.6	1.6	2.1	2.1	2.1	2.1	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	2.1	2.1	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	2.1	2.1	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	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: P182774

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	83.5	83.5	83.0	81.9	83.0	81.9	80.9	80.4	79.8	79.3	78.3
5°	79.3	78.8	77.7	77.2	77.2	76.2	75.1	74.1	73.6	73.1	72.0
7.5°	74.1	73.6	72.0	71.5	71.5	70.4	68.9	68.4	67.8	67.3	66.3
10°	67.8	67.3	65.7	65.2	65.2	64.2	63.1	62.1	61.6	61.1	60.0
12.5°	60.5	60.0	59.0	58.4	58.4	57.4	56.4	55.8	55.8	55.3	54.8
15°	53.2	52.7	51.7	51.7	51.7	50.6	50.1	49.6	50.1	50.1	49.6
17.5°	45.9	45.4	44.4	44.4	44.4	44.4	43.8	43.8	44.4	44.9	44.9
20°	38.6	38.1	38.1	37.6	38.1	38.6	38.1	38.6	39.7	40.2	40.7
22.5°	31.8	31.8	31.8	31.8	32.4	32.9	32.9	33.9	35.0	35.5	36.5
25°	26.6	26.6	27.1	27.1	27.7	28.2	28.7	29.2	30.8	31.8	32.4
26°	24.5	25.0	25.0	25.6	26.1	26.6	27.1	27.7	29.2	30.3	30.8
27°	23.0	23.0	23.5	24.0	24.5	25.0	25.6	26.6	27.7	28.7	29.7
28°	21.4	21.4	21.9	22.4	23.0	23.5	24.0	25.0	26.1	27.7	28.2
29°	19.8	20.4	20.4	20.9	21.4	21.9	23.0	23.5	25.0	26.1	27.1
30°	18.3	18.8	19.3	19.3	19.8	20.4	21.4	22.4	23.5	25.0	25.6
31°	17.2	17.7	17.7	18.3	18.8	19.3	20.4	21.4	22.4	23.5	24.5
32°	15.7	16.7	16.7	16.7	17.2	18.3	19.3	19.8	21.4	22.4	23.0
33°	14.6	15.1	15.7	15.7	16.2	17.2	18.3	18.8	20.4	21.4	21.9
34°	13.6	14.1	14.6	14.6	15.1	16.2	17.2	17.7	19.3	19.8	20.9
35°	12.5	13.0	13.6	13.6	14.1	15.1	16.2	16.7	17.7	18.8	19.8
36°	11.5	12.0	12.5	13.0	13.6	14.6	15.1	16.2	16.7	17.7	18.8
37°	10.4	11.0	12.0	12.0	13.0	13.6	14.6	15.1	16.2	16.7	17.7
38°	9.4	10.4	11.0	11.5	12.0	13.0	13.6	14.1	15.1	16.2	16.7
39°	8.9	9.9	10.4	11.0	11.5	12.0	12.5	13.6	14.1	15.1	15.7
40°	8.3	8.9	9.9	9.9	11.0	11.5	12.0	12.5	13.6	14.1	15.1
42.5°	6.8	7.8	8.3	8.9	9.4	9.9	10.4	11.0	11.5	12.5	13.0
45°	5.7	6.8	7.3	7.3	7.8	8.3	8.9	9.4	10.4	11.0	11.5
47.5°	4.7	5.7	6.3	6.8	6.8	7.3	7.8	8.3	8.9	9.4	9.9
50°	4.2	4.7	5.2	5.7	6.3	6.3	6.8	7.3	7.8	8.3	8.3
51°	4.2	4.7	5.2	5.2	5.7	6.3	6.8	6.8	7.3	7.8	7.8
52°	3.7	4.2	4.7	5.2	5.7	5.7	6.3	6.8	6.8	7.3	7.8
53°	3.7	4.2	4.7	4.7	5.2	5.7	5.7	6.3	6.8	6.8	7.3
54°	3.1	4.2	4.7	4.7	5.2	5.2	5.7	6.3	6.3	6.3	6.8
55°	3.1	3.7	4.2	4.7	4.7	5.2	5.2	5.7	5.7	6.3	6.3
57.5°	3.1	3.7	4.2	4.2	4.7	4.7	5.2	5.2	5.2	5.2	5.7
60°	2.6	3.1	3.7	4.2	4.2	4.7	4.7	4.7	4.7	4.7	5.2
61°	2.6	3.1	3.7	3.7	4.2	4.2	4.7	4.7	4.7	4.7	4.7
62°	2.6	3.1	3.7	3.7	4.2	4.2	4.2	4.7	4.7	4.7	4.7
63°	2.6	3.1	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.2	4.7
64°	2.6	3.1	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.2	4.2
65°	2.6	3.1	3.7	3.7	3.7	4.2	4.2	4.2	4.2	4.2	4.2
66°	2.6	3.1	3.7	3.7	3.7	3.7	4.2	4.2	4.2	4.2	3.7



TEST NUMBER: P182774

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.1	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.6
75°	2.1	2.6	2.6	2.6	3.1	3.1	3.1	2.6	2.6	2.6	2.6
77.5°	2.1	2.1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.1	2.1
80°	2.1	2.1	2.1	2.6	2.6	2.6	2.6	2.1	2.1	2.1	1.6
82.5°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6
85°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	1.6	1.0
87.5°	1.6	1.6	1.6	2.1	2.1	2.1	1.6	1.6	1.0	1.0	1.0
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: P182774

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
2.5°	79.3	79.8	79.3	79.3	78.3	78.8	77.7	79.3
5°	72.5	73.1	72.5	72.5	71.5	71.5	71.0	72.5
7.5°	66.8	67.3	66.3	66.3	65.2	65.7	65.2	66.3
10°	61.1	61.1	61.1	60.5	60.0	60.5	60.0	61.1
12.5°	55.3	55.8	55.8	55.8	55.3	55.3	54.8	56.4
15°	50.6	51.1	51.7	51.7	51.1	51.7	51.1	52.2
17.5°	46.4	47.5	47.5	48.0	48.0	48.5	48.5	49.6
20°	42.3	43.8	43.8	44.4	44.4	45.4	45.4	46.4
22.5°	38.1	39.7	40.2	40.2	40.7	41.7	41.7	42.8
25°	34.4	36.0	36.5	36.5	37.0	38.1	38.1	39.1
26°	32.9	34.4	35.0	35.5	36.0	37.0	37.0	38.1
27°	31.3	32.9	33.4	33.9	34.4	35.5	35.5	36.5
28°	30.3	31.8	32.4	32.9	33.4	34.4	34.4	35.0
29°	28.7	30.3	30.8	31.3	31.8	32.9	32.9	33.9
30°	27.7	28.7	29.2	29.7	30.3	31.8	31.8	32.9
31°	26.1	27.7	28.2	28.7	29.2	30.3	30.3	31.8
32°	25.0	26.1	26.6	27.1	28.2	28.7	29.2	30.3
33°	23.5	25.0	25.6	26.1	26.6	27.7	28.2	29.2
34°	22.4	23.5	24.5	25.0	25.6	26.6	27.1	28.2
35°	21.4	22.4	23.0	23.5	24.5	25.6	25.6	26.6
36°	20.4	21.4	21.9	22.4	23.5	24.5	24.5	25.6
37°	19.3	20.4	20.9	21.4	22.4	23.5	23.5	24.5
38°	18.3	19.3	19.8	20.4	21.4	22.4	23.0	24.0
39°	17.2	18.8	19.3	19.8	20.4	21.4	21.9	22.4
40°	16.7	17.7	18.3	18.8	19.3	20.4	20.9	21.4
42.5°	14.1	15.7	16.2	16.7	17.2	17.7	18.3	18.8
45°	12.5	13.6	13.6	14.1	14.6	15.7	15.7	16.7
47.5°	11.0	11.5	12.0	12.0	12.5	13.6	13.6	14.1
50°	9.4	9.9	10.4	10.4	11.0	11.5	12.0	12.5
51°	8.9	9.4	9.4	9.9	10.4	11.0	11.5	12.0
52°	8.3	8.9	8.9	9.4	9.9	10.4	10.4	11.0
53°	7.8	8.3	8.3	8.9	8.9	9.9	9.9	10.4
54°	7.3	7.8	7.8	8.3	8.3	9.4	9.4	9.9
55°	6.8	7.3	7.8	7.8	7.8	8.3	8.9	9.4
57.5°	6.3	6.8	6.8	6.8	7.3	7.3	7.8	7.8
60°	5.2	5.7	5.7	5.7	6.3	6.3	6.3	6.8
61°	5.2	5.2	5.7	5.7	5.2	5.2	5.2	5.7
62°	4.7	5.2	5.2	4.7	4.7	4.7	4.7	5.2
63°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
64°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
65°	4.2	4.2	4.2	4.2	4.2	4.2	3.7	4.2
66°	3.7	4.2	4.2	3.7	3.7	3.7	3.7	3.7



TEST NUMBER: P182774

CATALOG NUMBER: LDSQA4A09827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.6	2.6	2.6	2.6	2.6	2.1	2.1	2.1
75°	2.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6
77.5°	2.1	2.1	2.1	2.1	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.0	1.0
82.5°	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6
70°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6





67.5°	1.6	1.6	2.1	2.1	2.1	2.1	1.6	1.6	1.6	2.1	2.1
70°	1.6	2.1	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1





67.5°	2.6	3.1	3.1	3.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	2.6	2.6	3.1	3.1	3.1	3.7	3.7	3.1	3.1	3.1	3.1





67.5°	3.7	3.7	3.7	3.7	3.1	3.1	3.1	3.1
70°	3.1	3.1	3.1	3.1	2.6	2.6	2.6	2.6



(END OF REPORT)