

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: P182775

Luminaire Tested: **LDSQA4A09830D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182775
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: LDSQA4A09830D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 959.5 lumens
Efficiency: N/A
Efficacy: 69.3 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

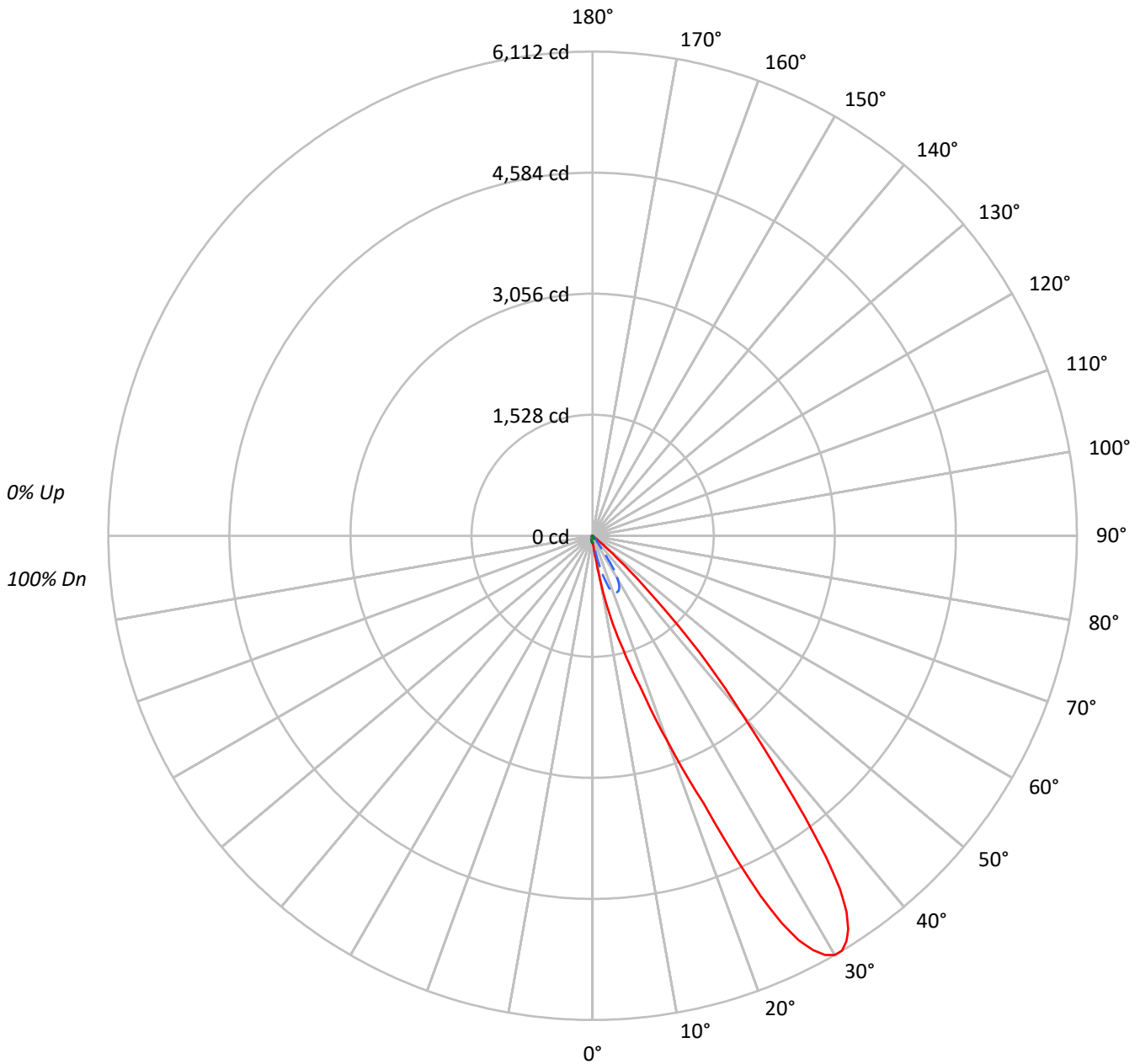
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	104	110	107	105	102	103	101	99	99	98	96	96	94	93	91					91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83					83			
3	99	91	85	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75					75			
4	93	84	77	72	91	82	76	71	80	75	71	78	73	70	76	72	69	67					67			
5	86	76	69	64	85	75	69	64	74	68	63	72	67	63	70	66	62	61					61			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	60	55	51	49					49			
8	70	59	52	47	69	58	52	47	57	51	47	56	50	46	55	50	46	44					44			
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40					40			
10	62	50	43	38	60	50	43	38	49	42	38	48	42	38	47	42	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8767	8767	8767
5°	13935	8334	7196
10°	61029	7388	6128
15°	149125	5977	5346
20°	284495	4443	4887
25°	536161	3185	4265
30°	683634	2260	3759
35°	643091	1384	3217
40°	368927	948	2757
45°	142414	658	2329
50°	18944	482	1929
55°	2871	456	1621
60°	833	407	1337
65°	481	481	986
70°	312	595	765
75°	412	599	599
80°	0	893	614
85°	0	1778	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.3	1.2
10°-20°	102.8	10.7
20°-30°	327.9	34.2
30°-40°	380.0	39.6
40°-50°	123.6	12.9
50°-60°	7.8	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°	442.0	46.1
0°-40°	822.0	85.7
0°-60°	953.4	99.4
0°-90°	959.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	959.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	90	90	90	90	90	
5°	143	120	86	75	74	28
15°	1487	536	60	51	53	471
25°	5016	771	30	31	40	2254
35°	5438	184	12	18	27	3129
45°	1040	22	5	11	17	928
55°	17	4	3	6	10	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°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	110.2	111.3	111.3	109.7	109.7	108.1	107.0	106.5	106.0	104.4	103.8
5°	143.3	144.3	144.9	140.6	139.0	135.8	133.1	130.5	127.3	123.5	119.8
7.5°	276.4	254.0	257.7	225.8	219.9	206.1	194.9	177.3	164.6	151.8	141.7
10°	620.4	599.1	595.4	548.5	502.2	467.6	430.3	365.9	307.3	245.0	194.4
12.5°	1062.9	1031.5	1014.0	921.8	867.5	816.4	759.4	658.8	546.4	450.5	350.4
15°	1486.9	1484.2	1421.3	1318.6	1215.3	1152.4	1078.9	954.3	821.2	675.3	535.7
17.5°	1998.6	2019.4	1911.8	1711.1	1547.6	1445.3	1344.1	1149.2	983.1	841.4	688.6
20°	2759.6	2704.2	2516.3	2202.1	1925.7	1771.8	1614.7	1327.6	1089.6	918.1	763.1
22.5°	3653.8	3611.2	3259.7	2735.7	2297.4	2081.2	1865.0	1491.6	1181.7	959.6	777.5
25°	5016.0	4840.8	4158.6	3308.1	2638.2	2332.0	2054.5	1598.2	1223.2	965.0	770.6
26°	5434.0	5311.0	4523.9	3535.5	2743.1	2401.2	2101.9	1620.0	1226.4	960.2	757.3
27°	5730.7	5636.9	4828.0	3702.8	2819.3	2449.2	2132.8	1629.0	1219.0	950.1	739.2
28°	5926.1	5851.0	5057.5	3823.6	2865.6	2474.7	2147.7	1626.9	1204.1	932.5	713.6
29°	6050.2	5977.8	5191.7	3892.3	2882.1	2479.0	2144.0	1610.9	1180.1	906.4	676.9
30°	6111.4	6032.6	5237.0	3899.8	2864.0	2454.5	2115.8	1575.8	1147.1	875.0	636.4
31°	6112.0	6024.6	5199.2	3842.3	2810.2	2402.3	2065.7	1517.2	1104.0	837.7	582.1
32°	6041.1	5951.1	5073.0	3725.6	2726.1	2336.8	1998.6	1457.6	1058.7	796.1	503.8
33°	5922.4	5815.9	4854.1	3563.8	2618.5	2247.3	1918.2	1391.0	1013.4	729.6	401.0
34°	5730.7	5585.3	4548.4	3367.3	2488.6	2142.9	1826.1	1319.1	967.6	636.9	286.5
35°	5437.8	5232.7	4194.8	3150.0	2349.6	2030.0	1722.2	1244.0	911.7	522.4	183.7
36°	5013.9	4749.2	3826.8	2925.2	2206.3	1911.3	1616.8	1171.6	823.3	396.2	120.4
37°	4460.6	4227.3	3474.8	2698.9	2057.7	1784.5	1520.4	1098.6	714.7	276.9	98.0
38°	3892.3	3720.3	3130.8	2474.2	1903.8	1647.7	1403.2	1022.5	595.9	182.1	82.0
39°	3380.0	3265.0	2794.2	2251.6	1745.1	1527.9	1286.1	925.6	469.2	129.4	69.2
40°	2917.3	2837.9	2468.9	2024.7	1586.4	1383.0	1175.8	806.8	338.2	103.3	58.0
42.5°	1989.6	1950.2	1727.0	1457.0	1173.7	1057.1	926.1	485.1	134.2	65.5	35.1
45°	1039.5	1022.5	941.5	853.1	765.3	734.9	595.4	217.8	75.6	38.3	22.4
47.5°	404.7	405.8	335.5	286.5	272.1	253.0	191.7	78.3	42.6	23.4	14.9
50°	125.7	135.3	124.6	117.7	90.0	75.1	62.3	38.9	22.9	14.4	9.6
51°	77.2	82.0	77.2	77.2	63.4	55.4	47.4	29.8	18.1	11.7	8.5
52°	50.1	52.7	50.1	46.9	43.7	39.4	34.1	22.4	14.4	9.6	6.9
53°	34.1	35.7	34.1	32.0	29.3	27.2	24.0	16.5	11.7	8.0	5.9
54°	24.0	25.0	24.0	22.4	20.8	19.2	17.6	12.8	9.6	6.9	5.3
55°	17.0	18.1	17.6	16.5	14.9	14.4	13.3	10.1	8.0	5.9	4.3
57.5°	8.0	8.5	8.5	8.0	8.0	7.5	6.9	6.4	4.8	3.7	3.2
60°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.2	2.7	2.7
61°	3.2	3.2	3.2	3.2	3.2	3.2	3.7	3.2	2.7	2.7	2.1
62°	2.7	2.7	2.7	2.7	2.7	3.2	3.2	2.7	2.7	2.1	2.1
63°	2.1	2.1	2.1	2.1	2.7	2.7	2.7	2.7	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°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6
77.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.6
80°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.1	1.1
85°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	1.1	1.1
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°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	100.7	98.0	96.9	95.9	95.3	94.3	92.7	91.1	90.5	88.4	86.3
5°	113.4	108.6	104.9	101.2	100.1	97.5	94.3	90.5	88.9	85.7	83.1
7.5°	128.3	118.8	111.8	105.4	102.8	99.6	93.7	88.9	85.7	80.9	77.8
10°	153.4	131.0	117.7	106.5	102.2	98.0	90.5	84.1	79.9	75.1	71.4
12.5°	242.8	169.9	127.8	107.0	101.2	94.8	85.7	78.3	73.0	67.6	64.4
15°	382.9	258.8	165.6	112.4	99.1	89.5	78.8	70.3	65.0	59.6	56.4
17.5°	511.2	348.3	216.2	125.1	100.1	84.7	70.3	61.8	55.9	51.1	49.0
20°	573.0	390.4	240.7	127.8	93.7	75.6	60.7	52.7	47.4	43.1	41.0
22.5°	578.9	387.7	225.8	109.2	77.8	63.9	51.1	43.7	39.4	36.2	34.1
25°	551.2	344.0	181.1	80.4	60.7	53.3	42.1	35.7	32.5	29.8	28.2
26°	529.9	319.0	159.2	69.8	55.4	48.5	38.3	33.0	29.8	27.7	26.1
27°	500.6	289.7	133.7	60.2	51.1	43.7	35.1	30.4	27.7	26.1	24.5
28°	465.4	260.9	110.8	53.3	46.3	39.4	32.5	27.7	25.6	24.0	22.4
29°	427.6	223.1	86.8	47.9	41.5	35.7	29.3	25.0	22.9	21.8	20.8
30°	374.4	173.6	66.6	43.1	37.3	32.0	26.6	22.9	21.3	20.2	19.2
31°	299.3	119.3	53.8	38.3	33.6	28.8	24.0	20.8	19.2	18.1	17.6
32°	214.6	73.5	46.9	34.1	29.8	26.1	20.8	18.6	17.0	16.5	16.0
33°	132.1	60.2	41.5	30.4	26.1	22.9	18.6	16.5	15.4	14.9	14.4
34°	86.8	52.2	36.7	26.1	22.9	19.7	16.0	14.4	13.8	13.3	13.3
35°	73.5	46.3	32.0	22.4	19.2	17.0	13.8	12.8	12.2	11.7	12.2
36°	63.4	40.5	26.6	19.2	16.5	14.4	12.2	11.2	10.7	10.7	11.2
37°	55.9	34.1	22.4	16.0	14.4	12.8	10.7	10.1	9.6	9.6	10.1
38°	47.4	27.7	18.6	13.8	12.2	10.7	9.6	9.1	9.1	9.1	9.6
39°	38.9	23.4	16.0	11.7	10.7	9.6	8.5	8.0	8.0	8.5	8.5
40°	32.0	19.7	13.3	10.1	9.1	8.5	7.5	7.5	7.5	7.5	8.0
42.5°	20.8	13.3	9.6	7.5	6.9	6.4	5.9	5.9	5.9	5.9	6.4
45°	13.8	9.6	7.5	5.9	5.3	4.8	4.8	4.3	4.8	4.8	5.3
47.5°	9.6	6.9	5.3	4.3	3.7	3.2	3.2	3.2	3.7	4.3	4.3
50°	6.9	4.8	3.7	2.7	2.7	2.7	2.7	2.7	3.2	3.2	3.7
51°	5.9	4.3	3.2	2.7	2.7	2.1	2.1	2.1	2.7	3.2	3.7
52°	4.8	3.7	2.7	2.1	2.1	2.1	2.1	2.1	2.7	2.7	3.2
53°	4.3	3.2	2.7	2.1	2.1	2.1	2.1	2.1	2.7	2.7	3.2
54°	3.7	2.7	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.7	3.2
55°	3.2	2.7	2.1	2.1	1.6	1.6	1.6	1.6	2.1	2.7	2.7
57.5°	2.7	2.1	2.1	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.7
60°	2.1	2.1	2.1	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.7
61°	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.1	2.1	2.7
62°	2.1	1.6	2.1	2.1	2.1	1.6	1.6	1.6	2.1	2.1	2.7
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	2.7
65°	1.6	2.1	2.1	2.1	2.1	2.1	1.6	1.6	2.1	2.1	2.7
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	85.2	85.2	84.7	83.6	84.7	83.6	82.5	82.0	81.5	80.9	79.9
5°	80.9	80.4	79.3	78.8	78.8	77.8	76.7	75.6	75.1	74.6	73.5
7.5°	75.6	75.1	73.5	73.0	73.0	71.9	70.3	69.8	69.2	68.7	67.6
10°	69.2	68.7	67.1	66.6	66.6	65.5	64.4	63.4	62.8	62.3	61.2
12.5°	61.8	61.2	60.2	59.6	59.6	58.6	57.5	57.0	57.0	56.4	55.9
15°	54.3	53.8	52.7	52.7	52.7	51.7	51.1	50.6	51.1	51.1	50.6
17.5°	46.9	46.3	45.3	45.3	45.3	45.3	44.7	44.7	45.3	45.8	45.8
20°	39.4	38.9	38.9	38.3	38.9	39.4	38.9	39.4	40.5	41.0	41.5
22.5°	32.5	32.5	32.5	32.5	33.0	33.6	33.6	34.6	35.7	36.2	37.3
25°	27.2	27.2	27.7	27.7	28.2	28.8	29.3	29.8	31.4	32.5	33.0
26°	25.0	25.6	25.6	26.1	26.6	27.2	27.7	28.2	29.8	30.9	31.4
27°	23.4	23.4	24.0	24.5	25.0	25.6	26.1	27.2	28.2	29.3	30.4
28°	21.8	21.8	22.4	22.9	23.4	24.0	24.5	25.6	26.6	28.2	28.8
29°	20.2	20.8	20.8	21.3	21.8	22.4	23.4	24.0	25.6	26.6	27.7
30°	18.6	19.2	19.7	19.7	20.2	20.8	21.8	22.9	24.0	25.6	26.1
31°	17.6	18.1	18.1	18.6	19.2	19.7	20.8	21.8	22.9	24.0	25.0
32°	16.0	17.0	17.0	17.0	17.6	18.6	19.7	20.2	21.8	22.9	23.4
33°	14.9	15.4	16.0	16.0	16.5	17.6	18.6	19.2	20.8	21.8	22.4
34°	13.8	14.4	14.9	14.9	15.4	16.5	17.6	18.1	19.7	20.2	21.3
35°	12.8	13.3	13.8	13.8	14.4	15.4	16.5	17.0	18.1	19.2	20.2
36°	11.7	12.2	12.8	13.3	13.8	14.9	15.4	16.5	17.0	18.1	19.2
37°	10.7	11.2	12.2	12.2	13.3	13.8	14.9	15.4	16.5	17.0	18.1
38°	9.6	10.7	11.2	11.7	12.2	13.3	13.8	14.4	15.4	16.5	17.0
39°	9.1	10.1	10.7	11.2	11.7	12.2	12.8	13.8	14.4	15.4	16.0
40°	8.5	9.1	10.1	10.1	11.2	11.7	12.2	12.8	13.8	14.4	15.4
42.5°	6.9	8.0	8.5	9.1	9.6	10.1	10.7	11.2	11.7	12.8	13.3
45°	5.9	6.9	7.5	7.5	8.0	8.5	9.1	9.6	10.7	11.2	11.7
47.5°	4.8	5.9	6.4	6.9	6.9	7.5	8.0	8.5	9.1	9.6	10.1
50°	4.3	4.8	5.3	5.9	6.4	6.4	6.9	7.5	8.0	8.5	8.5
51°	4.3	4.8	5.3	5.3	5.9	6.4	6.9	6.9	7.5	8.0	8.0
52°	3.7	4.3	4.8	5.3	5.9	5.9	6.4	6.9	6.9	7.5	8.0
53°	3.7	4.3	4.8	4.8	5.3	5.9	5.9	6.4	6.9	6.9	7.5
54°	3.2	4.3	4.8	4.8	5.3	5.3	5.9	6.4	6.4	6.4	6.9
55°	3.2	3.7	4.3	4.8	4.8	5.3	5.3	5.9	5.9	6.4	6.4
57.5°	3.2	3.7	4.3	4.3	4.8	4.8	5.3	5.3	5.3	5.3	5.9
60°	2.7	3.2	3.7	4.3	4.3	4.8	4.8	4.8	4.8	4.8	5.3
61°	2.7	3.2	3.7	3.7	4.3	4.3	4.8	4.8	4.8	4.8	4.8
62°	2.7	3.2	3.7	3.7	4.3	4.3	4.3	4.8	4.8	4.8	4.8
63°	2.7	3.2	3.7	3.7	4.3	4.3	4.3	4.3	4.3	4.3	4.8
64°	2.7	3.2	3.7	3.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3
65°	2.7	3.2	3.7	3.7	3.7	4.3	4.3	4.3	4.3	4.3	4.3
66°	2.7	3.2	3.7	3.7	3.7	3.7	4.3	4.3	4.3	4.3	3.7



TEST NUMBER: P182775

CATALOG NUMBER: LDSQA4A09830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	2.1	2.7	2.7	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.7
75°	2.1	2.7	2.7	2.7	3.2	3.2	3.2	2.7	2.7	2.7	2.7
77.5°	2.1	2.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.1	2.1
80°	2.1	2.1	2.1	2.7	2.7	2.7	2.7	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	1.1
87.5°	1.6	1.6	1.6	2.1	2.1	2.1	1.6	1.6	1.1	1.1	1.1
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: P182775

CATALOG NUMBER: LDSQA4A09830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
2.5°	80.9	81.5	80.9	80.9	79.9	80.4	79.3	80.9
5°	74.0	74.6	74.0	74.0	73.0	73.0	72.4	74.0
7.5°	68.2	68.7	67.6	67.6	66.6	67.1	66.6	67.6
10°	62.3	62.3	62.3	61.8	61.2	61.8	61.2	62.3
12.5°	56.4	57.0	57.0	57.0	56.4	56.4	55.9	57.5
15°	51.7	52.2	52.7	52.7	52.2	52.7	52.2	53.3
17.5°	47.4	48.5	48.5	49.0	49.0	49.5	49.5	50.6
20°	43.1	44.7	44.7	45.3	45.3	46.3	46.3	47.4
22.5°	38.9	40.5	41.0	41.0	41.5	42.6	42.6	43.7
25°	35.1	36.7	37.3	37.3	37.8	38.9	38.9	39.9
26°	33.6	35.1	35.7	36.2	36.7	37.8	37.8	38.9
27°	32.0	33.6	34.1	34.6	35.1	36.2	36.2	37.3
28°	30.9	32.5	33.0	33.6	34.1	35.1	35.1	35.7
29°	29.3	30.9	31.4	32.0	32.5	33.6	33.6	34.6
30°	28.2	29.3	29.8	30.4	30.9	32.5	32.5	33.6
31°	26.6	28.2	28.8	29.3	29.8	30.9	30.9	32.5
32°	25.6	26.6	27.2	27.7	28.8	29.3	29.8	30.9
33°	24.0	25.6	26.1	26.6	27.2	28.2	28.8	29.8
34°	22.9	24.0	25.0	25.6	26.1	27.2	27.7	28.8
35°	21.8	22.9	23.4	24.0	25.0	26.1	26.1	27.2
36°	20.8	21.8	22.4	22.9	24.0	25.0	25.0	26.1
37°	19.7	20.8	21.3	21.8	22.9	24.0	24.0	25.0
38°	18.6	19.7	20.2	20.8	21.8	22.9	23.4	24.5
39°	17.6	19.2	19.7	20.2	20.8	21.8	22.4	22.9
40°	17.0	18.1	18.6	19.2	19.7	20.8	21.3	21.8
42.5°	14.4	16.0	16.5	17.0	17.6	18.1	18.6	19.2
45°	12.8	13.8	13.8	14.4	14.9	16.0	16.0	17.0
47.5°	11.2	11.7	12.2	12.2	12.8	13.8	13.8	14.4
50°	9.6	10.1	10.7	10.7	11.2	11.7	12.2	12.8
51°	9.1	9.6	9.6	10.1	10.7	11.2	11.7	12.2
52°	8.5	9.1	9.1	9.6	10.1	10.7	10.7	11.2
53°	8.0	8.5	8.5	9.1	9.1	10.1	10.1	10.7
54°	7.5	8.0	8.0	8.5	8.5	9.6	9.6	10.1
55°	6.9	7.5	8.0	8.0	8.0	8.5	9.1	9.6
57.5°	6.4	6.9	6.9	6.9	7.5	7.5	8.0	8.0
60°	5.3	5.9	5.9	5.9	6.4	6.4	6.4	6.9
61°	5.3	5.3	5.9	5.9	5.3	5.3	5.3	5.9
62°	4.8	5.3	5.3	4.8	4.8	4.8	4.8	5.3
63°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
64°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
65°	4.3	4.3	4.3	4.3	4.3	4.3	3.7	4.3
66°	3.7	4.3	4.3	3.7	3.7	3.7	3.7	3.7



TEST NUMBER: P182775

CATALOG NUMBER: LDSQA4A09830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	2.7	2.7	2.7	2.7	2.7	2.1	2.1	2.1
75°	2.7	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	1.1	1.1
82.5°	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	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°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6	1.6
70°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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°	2.7	3.2	3.2	3.2	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	2.7	2.7	3.2	3.2	3.2	3.7	3.7	3.2	3.2	3.2	3.2





67.5°	3.7	3.7	3.7	3.7	3.2	3.2	3.2	3.2
70°	3.2	3.2	3.2	3.2	2.7	2.7	2.7	2.7



(END OF REPORT)