

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: P182670

Luminaire Tested: **LDSQA4A18827D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182670
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26799)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A18827D010TE LAR15SP 4LSQA1H 30°
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
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: 1864.3 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 2.24 / 0.6 / 1.1
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

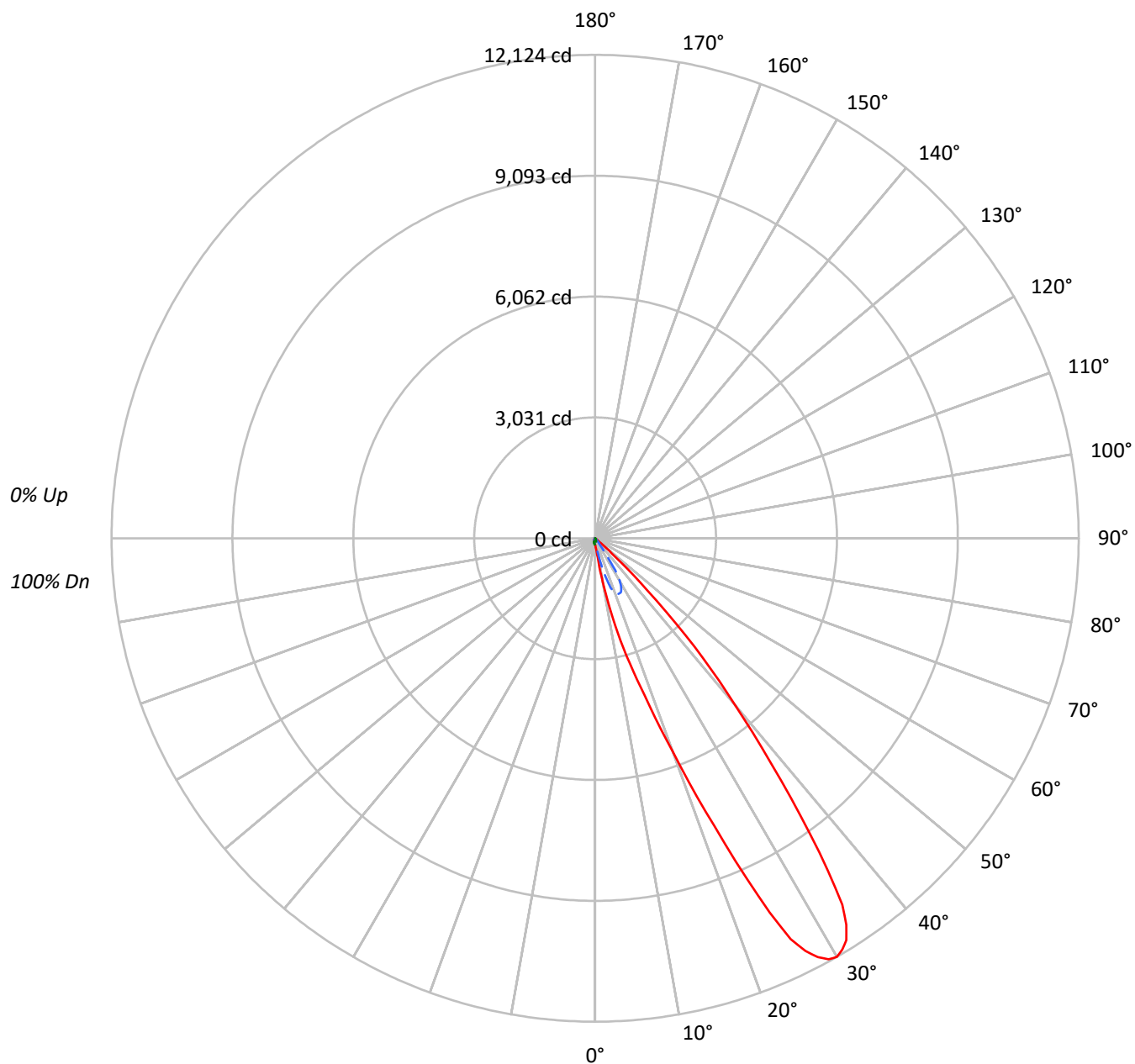
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	91		
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83		
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75		
4	93	84	77	72	91	83	76	72	80	75	71	78	74	70	76	72	69	67		
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61		
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55		
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50		
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45		
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41		
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	15568	15568	15568
5°	25926	14694	12545
10°	110578	12877	10890
15°	306084	10230	9648
20°	587082	7247	8629
25°	1106923	4831	7611
30°	1356183	3233	6678
35°	1204438	2164	5688
40°	686448	1454	4742
45°	250400	1192	3959
50°	27565	874	3331
55°	4070	642	2770
60°	930	736	2228
65°	665	871	1536
70°	538	1076	1360
75°	711	1422	1085
80°	0	2120	1060
85°	0	3223	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.2	1.1
10°-20°	202.0	10.8
20°-30°	663.5	35.6
30°-40°	727.7	39.0
40°-50°	227.3	12.2
50°-60°	12.4	0.7
60°-70°	5.0	0.3
70°-80°	3.8	0.2
80°-90°	2.4	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°	885.8	47.5
0°-40°	1613.5	86.5
0°-60°	1853.2	99.4
0°-90°	1864.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1864.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	161	161	161	161	161	
5°	267	214	151	134	129	50
15°	3052	981	102	91	96	959
25°	10356	1506	45	56	71	4616
35°	10184	296	18	32	48	5954
45°	1828	31	9	18	29	1678
55°	24	6	4	11	16	38
65°	3	3	4	8	7	3
75°	2	3	4	6	3	1
85°	0	3	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°	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7
2.5°	198.3	200.2	201.1	196.3	197.3	195.4	197.3	193.4	186.7	188.6	182.9
5°	266.6	262.7	261.8	254.1	252.2	248.3	248.3	239.6	227.1	225.2	213.7
7.5°	471.6	451.4	434.1	408.1	383.0	363.8	356.1	325.3	291.6	279.1	252.2
10°	1124.1	1120.3	1077.0	995.2	900.8	832.5	793.0	673.7	522.6	430.2	334.0
12.5°	2046.1	2026.9	1965.3	1815.1	1652.5	1550.5	1470.6	1230.0	1005.7	825.8	591.9
15°	3051.9	2973.9	2883.4	2650.5	2422.4	2289.6	2176.1	1887.3	1539.9	1281.0	980.7
17.5°	4125.9	4160.6	3941.1	3539.8	3134.6	2926.7	2734.3	2290.6	1910.4	1640.9	1303.1
20°	5694.7	5621.5	5235.6	4570.6	3972.9	3625.5	3352.1	2712.1	2138.5	1802.6	1483.1
22.5°	7814.9	7582.0	6829.4	5704.3	4756.3	4274.1	3886.3	3023.9	2330.0	1885.4	1512.0
25°	10355.7	10140.1	8746.5	6794.7	5392.5	4767.9	4240.5	3222.2	2407.0	1898.9	1506.2
26°	11185.3	10864.9	9453.9	7182.6	5587.9	4893.0	4328.0	3260.7	2409.0	1888.3	1481.2
27°	11614.6	11363.4	10039.1	7497.3	5721.6	4971.9	4377.1	3270.3	2389.7	1864.2	1442.7
28°	11897.5	11662.7	10409.6	7703.3	5790.0	5002.7	4391.6	3249.2	2346.4	1821.9	1382.0
29°	12072.7	11825.4	10590.6	7796.6	5794.8	4989.2	4364.6	3193.3	2287.7	1770.9	1311.8
30°	12123.7	11856.2	10595.4	7758.1	5723.6	4917.0	4288.6	3102.9	2216.5	1706.4	1233.8
31°	12033.2	11757.0	10421.2	7583.0	5577.3	4776.5	4169.2	2983.5	2127.9	1638.1	1113.5
32°	11883.1	11516.4	10056.4	7292.3	5377.1	4607.1	4020.1	2853.6	2033.6	1551.4	944.1
33°	11563.6	11120.9	9498.2	6927.6	5136.5	4412.7	3845.9	2709.2	1944.1	1402.3	701.6
34°	11083.3	10524.2	8813.9	6503.1	4864.1	4170.2	3645.7	2575.5	1850.7	1205.0	480.3
35°	10184.4	9663.7	8058.4	6050.8	4570.6	3935.4	3425.3	2400.3	1723.7	966.3	296.4
36°	9178.7	8795.6	7326.0	5590.7	4270.3	3691.9	3198.1	2271.3	1536.0	711.2	201.1
37°	8150.8	7811.1	6635.0	5138.4	3969.1	3422.4	2967.2	2125.0	1312.8	474.5	161.7
38°	7172.0	6902.5	5978.6	4693.8	3656.3	3140.4	2724.6	1969.1	1072.1	305.1	132.8
39°	6273.1	6071.0	5335.7	4263.6	3342.5	2864.2	2491.7	1772.8	818.1	217.5	110.7
40°	5428.1	5285.7	4715.9	3839.1	3030.7	2592.8	2281.0	1535.1	567.8	172.3	89.5
42.5°	3691.9	3656.3	3318.5	2763.1	2251.1	1995.1	1803.6	863.3	218.5	103.9	50.0
45°	1827.7	1852.7	1717.9	1580.3	1473.5	1395.5	1136.6	359.9	121.3	56.8	30.8
47.5°	646.8	647.7	557.2	496.6	474.5	472.6	343.6	127.0	64.5	34.6	22.1
50°	182.9	197.3	185.7	189.6	148.2	126.1	103.0	61.6	32.7	22.1	14.4
51°	112.6	121.3	113.6	117.4	102.0	91.4	77.0	46.2	26.0	18.3	13.5
52°	72.2	77.0	73.1	74.1	68.3	59.7	52.0	33.7	21.2	15.4	11.5
53°	49.1	52.0	49.1	49.1	45.2	42.3	36.6	25.0	17.3	12.5	8.7
54°	33.7	34.6	34.6	34.6	31.8	29.8	26.0	19.2	14.4	11.5	7.7
55°	24.1	25.0	24.1	24.1	23.1	21.2	19.2	14.4	11.5	9.6	5.8
57.5°	10.6	10.6	10.6	11.5	10.6	10.6	9.6	8.7	7.7	5.8	3.8
60°	4.8	4.8	4.8	4.8	5.8	5.8	5.8	5.8	4.8	3.8	3.8
61°	3.8	3.8	3.8	3.8	3.8	4.8	4.8	4.8	3.8	3.8	2.9
62°	2.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	2.9	2.9
63°	2.9	2.9	2.9	2.9	2.9	2.9	3.8	3.8	2.9	2.9	2.9
64°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
65°	2.9	1.9	1.9	1.9	1.9	2.9	2.9	2.9	2.9	2.9	2.9
66°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9	2.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9
75°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9
77.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.9	1.9	2.9
80°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.9	1.9	2.9
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.9	1.9	2.9
85°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.9	1.9	2.9
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.9	1.9	2.9
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°	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7
2.5°	179.0	178.0	173.2	168.4	169.4	167.5	165.5	162.7	160.7	155.9	155.9
5°	204.0	199.2	188.6	179.0	178.0	174.2	168.4	162.7	157.8	151.1	149.2
7.5°	232.9	219.4	202.1	186.7	183.8	178.0	167.5	159.8	151.1	142.4	139.6
10°	274.3	242.5	212.7	189.6	183.8	175.2	161.7	151.1	141.5	130.9	127.0
12.5°	421.5	299.3	226.2	189.6	179.0	168.4	152.1	139.6	128.0	116.5	112.6
15°	702.6	478.3	286.8	189.6	170.3	157.8	137.6	125.1	112.6	102.0	98.2
17.5°	970.1	680.4	399.4	213.7	171.3	145.3	120.3	106.8	96.2	85.7	82.8
20°	1125.1	793.0	473.5	237.7	169.4	130.9	103.0	88.5	78.0	70.3	67.4
22.5°	1145.3	797.9	457.2	212.7	142.4	108.8	85.7	72.2	63.5	56.8	54.9
25°	1091.4	704.5	365.7	151.1	105.9	88.5	67.4	57.7	51.0	45.2	44.3
26°	1050.0	648.7	318.6	125.1	93.4	78.9	60.6	52.0	46.2	41.4	40.4
27°	991.3	589.0	272.4	103.9	82.8	71.2	53.9	47.2	42.3	37.5	37.5
28°	924.9	524.5	219.4	87.6	74.1	63.5	49.1	42.3	37.5	34.6	34.6
29°	845.0	431.2	160.7	76.0	65.4	55.8	43.3	37.5	33.7	31.8	31.8
30°	726.6	312.8	110.7	66.4	56.8	49.1	38.5	33.7	30.8	28.9	28.9
31°	567.8	192.5	86.6	57.7	50.0	43.3	34.6	29.8	27.9	26.0	26.9
32°	386.9	120.3	74.1	50.0	44.3	37.5	30.8	26.9	25.0	24.1	24.1
33°	220.4	100.1	64.5	43.3	37.5	32.7	26.9	24.1	23.1	22.1	22.1
34°	146.3	85.7	55.8	36.6	30.8	27.9	23.1	21.2	20.2	20.2	20.2
35°	123.2	74.1	45.2	30.8	26.9	24.1	20.2	19.2	18.3	18.3	19.2
36°	103.9	61.6	36.6	26.0	23.1	21.2	18.3	17.3	16.4	16.4	17.3
37°	87.6	49.1	30.8	22.1	19.2	18.3	16.4	15.4	15.4	15.4	16.4
38°	71.2	39.5	26.0	19.2	17.3	15.4	14.4	13.5	13.5	14.4	15.4
39°	55.8	31.8	21.2	16.4	14.4	13.5	12.5	12.5	12.5	12.5	13.5
40°	44.3	26.9	18.3	14.4	12.5	12.5	11.5	10.6	11.5	11.5	13.5
42.5°	27.9	19.2	13.5	10.6	9.6	9.6	8.7	8.7	8.7	9.6	10.6
45°	20.2	15.4	10.6	8.7	7.7	6.7	6.7	6.7	7.7	8.7	9.6
47.5°	15.4	10.6	7.7	5.8	4.8	4.8	4.8	4.8	5.8	6.7	7.7
50°	10.6	6.7	4.8	3.8	3.8	3.8	3.8	3.8	4.8	5.8	6.7
51°	8.7	5.8	4.8	3.8	3.8	2.9	2.9	3.8	4.8	4.8	5.8
52°	6.7	4.8	3.8	2.9	2.9	2.9	2.9	3.8	3.8	4.8	5.8
53°	5.8	4.8	3.8	2.9	2.9	2.9	2.9	2.9	3.8	4.8	5.8
54°	4.8	3.8	2.9	2.9	2.9	2.9	2.9	2.9	3.8	4.8	5.8
55°	3.8	3.8	2.9	2.9	2.9	2.9	2.9	2.9	3.8	3.8	4.8
57.5°	3.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.8	4.8
60°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.8	4.8
61°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.8	4.8
62°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.8	4.8
63°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.8	3.8	4.8
64°	2.9	2.9	2.9	2.9	3.8	3.8	2.9	2.9	3.8	3.8	4.8
65°	2.9	2.9	3.8	3.8	3.8	3.8	2.9	2.9	3.8	3.8	4.8
66°	2.9	3.8	3.8	3.8	3.8	3.8	2.9	2.9	3.8	3.8	4.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	2.9	3.8	3.8	3.8
75°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	2.9	2.9	3.8	3.8
80°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	2.9	2.9	3.8	3.8
82.5°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	2.9	2.9	2.9	3.8
85°	2.9	2.9	3.8	3.8	3.8	3.8	3.8	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	3.8	3.8	3.8	3.8	2.9	2.9	2.9	2.9	2.9
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: P182670

CATALOG NUMBER: LDSQA4A18827D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7
2.5°	154.0	151.1	149.2	148.2	149.2	147.3	144.4	145.3	144.4	143.4	143.4
5°	146.3	141.5	139.6	138.6	138.6	137.6	133.8	134.7	133.8	132.8	132.8
7.5°	135.7	131.9	129.0	128.0	128.0	127.0	123.2	125.1	123.2	122.2	123.2
10°	123.2	119.3	118.4	116.5	116.5	115.5	112.6	113.6	112.6	112.6	112.6
12.5°	109.7	105.9	104.9	103.9	104.9	103.9	101.1	103.0	102.0	102.0	103.0
15°	95.3	92.4	92.4	91.4	92.4	91.4	90.5	91.4	91.4	91.4	93.4
17.5°	80.8	78.9	78.9	78.0	78.9	78.9	78.0	80.8	80.8	82.8	84.7
20°	66.4	64.5	65.4	65.4	67.4	67.4	67.4	70.3	71.2	73.1	76.0
22.5°	54.9	53.9	54.9	54.9	56.8	57.7	57.7	60.6	63.5	65.4	68.3
25°	44.3	44.3	46.2	46.2	47.2	49.1	50.0	53.9	55.8	57.7	60.6
26°	41.4	41.4	42.3	43.3	44.3	46.2	47.2	51.0	52.9	54.9	57.7
27°	37.5	37.5	39.5	40.4	41.4	43.3	45.2	48.1	50.0	52.9	54.9
28°	34.6	34.6	36.6	37.5	38.5	41.4	42.3	45.2	47.2	50.0	52.9
29°	31.8	32.7	34.6	34.6	36.6	38.5	39.5	43.3	45.2	47.2	50.0
30°	29.8	30.8	31.8	32.7	33.7	35.6	37.5	40.4	42.3	44.3	47.2
31°	27.9	28.9	29.8	30.8	31.8	33.7	35.6	38.5	40.4	42.3	45.2
32°	26.0	26.0	27.9	28.9	29.8	31.8	33.7	36.6	38.5	40.4	43.3
33°	24.1	25.0	26.0	26.9	27.9	29.8	31.8	33.7	35.6	38.5	41.4
34°	22.1	23.1	25.0	26.0	26.9	28.9	29.8	31.8	33.7	36.6	38.5
35°	20.2	22.1	23.1	24.1	25.0	26.9	27.9	30.8	31.8	34.6	36.6
36°	19.2	20.2	22.1	23.1	24.1	25.0	26.0	28.9	30.8	32.7	34.6
37°	17.3	19.2	20.2	21.2	22.1	24.1	25.0	26.9	28.9	30.8	32.7
38°	16.4	17.3	19.2	20.2	21.2	22.1	23.1	26.0	26.9	28.9	30.8
39°	15.4	16.4	18.3	19.2	19.2	21.2	22.1	24.1	25.0	26.9	29.8
40°	14.4	15.4	17.3	17.3	18.3	20.2	21.2	23.1	24.1	26.0	27.9
42.5°	12.5	13.5	14.4	15.4	16.4	17.3	18.3	20.2	21.2	22.1	24.1
45°	10.6	11.5	13.5	13.5	14.4	15.4	16.4	17.3	18.3	20.2	21.2
47.5°	8.7	10.6	11.5	12.5	12.5	13.5	14.4	15.4	16.4	17.3	18.3
50°	7.7	8.7	9.6	10.6	10.6	11.5	12.5	13.5	13.5	14.4	16.4
51°	7.7	8.7	9.6	9.6	10.6	11.5	11.5	12.5	13.5	13.5	14.4
52°	6.7	7.7	8.7	9.6	9.6	10.6	11.5	11.5	12.5	13.5	14.4
53°	6.7	7.7	8.7	8.7	9.6	10.6	10.6	11.5	11.5	12.5	13.5
54°	6.7	7.7	8.7	8.7	9.6	9.6	10.6	10.6	11.5	11.5	12.5
55°	5.8	6.7	7.7	8.7	8.7	9.6	9.6	10.6	10.6	11.5	11.5
57.5°	5.8	6.7	7.7	7.7	7.7	8.7	8.7	9.6	9.6	9.6	10.6
60°	5.8	6.7	6.7	7.7	7.7	8.7	8.7	8.7	8.7	9.6	9.6
61°	5.8	5.8	6.7	7.7	7.7	7.7	8.7	8.7	8.7	8.7	9.6
62°	5.8	5.8	6.7	6.7	7.7	7.7	7.7	8.7	8.7	8.7	8.7
63°	4.8	5.8	6.7	6.7	7.7	7.7	7.7	7.7	7.7	8.7	8.7
64°	4.8	5.8	6.7	6.7	6.7	7.7	7.7	7.7	7.7	7.7	7.7
65°	4.8	5.8	6.7	6.7	6.7	7.7	7.7	7.7	7.7	7.7	7.7
66°	4.8	5.8	6.7	6.7	6.7	7.7	7.7	7.7	7.7	7.7	7.7



TEST NUMBER: P182670

CATALOG NUMBER: LDSQA4A18827D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	4.8	4.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
75°	4.8	4.8	4.8	5.8	5.8	5.8	5.8	5.8	5.8	4.8	4.8
77.5°	3.8	3.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	3.8
80°	3.8	3.8	4.8	4.8	4.8	4.8	4.8	4.8	3.8	3.8	3.8
82.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	2.9	2.9
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	2.9	2.9	1.9
87.5°	2.9	3.8	3.8	3.8	3.8	3.8	2.9	2.9	2.9	1.9	1.9
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: P182670

CATALOG NUMBER: LDSQA4A18827D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7
2.5°	144.4	141.5	140.5	140.5	141.5	140.5	141.5	140.5
5°	132.8	129.9	129.9	129.0	129.9	129.0	129.9	129.0
7.5°	123.2	120.3	120.3	120.3	120.3	120.3	121.3	120.3
10°	113.6	110.7	110.7	109.7	110.7	110.7	111.6	110.7
12.5°	103.9	102.0	102.0	101.1	103.0	102.0	103.9	103.0
15°	95.3	93.4	93.4	94.3	95.3	95.3	96.2	96.2
17.5°	86.6	86.6	86.6	87.6	88.5	89.5	90.5	89.5
20°	78.9	78.9	79.9	80.8	81.8	82.8	83.7	83.7
22.5°	71.2	71.2	72.2	74.1	76.0	77.0	78.0	78.0
25°	63.5	64.5	65.4	66.4	69.3	70.3	71.2	71.2
26°	60.6	61.6	63.5	64.5	66.4	67.4	69.3	69.3
27°	58.7	59.7	60.6	61.6	64.5	65.4	67.4	66.4
28°	55.8	56.8	57.7	59.7	61.6	63.5	64.5	64.5
29°	52.9	54.9	55.8	56.8	59.7	60.6	61.6	61.6
30°	51.0	52.0	52.9	54.9	56.8	58.7	59.7	59.7
31°	48.1	50.0	51.0	52.0	54.9	55.8	57.7	57.7
32°	46.2	47.2	48.1	50.0	52.0	53.9	54.9	54.9
33°	43.3	45.2	46.2	47.2	50.0	52.0	52.9	52.0
34°	41.4	43.3	43.3	45.2	47.2	49.1	50.0	50.0
35°	39.5	40.4	41.4	43.3	45.2	47.2	48.1	48.1
36°	37.5	38.5	39.5	41.4	43.3	45.2	46.2	46.2
37°	35.6	36.6	37.5	38.5	41.4	43.3	44.3	44.3
38°	33.7	34.6	35.6	37.5	39.5	40.4	42.3	42.3
39°	31.8	32.7	33.7	35.6	37.5	38.5	40.4	39.5
40°	29.8	31.8	31.8	33.7	35.6	36.6	38.5	37.5
42.5°	26.0	26.9	27.9	28.9	30.8	32.7	33.7	33.7
45°	23.1	24.1	25.0	26.0	26.9	27.9	29.8	28.9
47.5°	19.2	20.2	21.2	22.1	23.1	24.1	25.0	25.0
50°	17.3	17.3	18.3	18.3	20.2	21.2	22.1	22.1
51°	15.4	16.4	17.3	17.3	19.2	19.2	20.2	20.2
52°	15.4	15.4	16.4	16.4	17.3	18.3	19.2	19.2
53°	14.4	14.4	15.4	15.4	16.4	17.3	18.3	18.3
54°	13.5	13.5	14.4	14.4	15.4	16.4	17.3	17.3
55°	12.5	12.5	13.5	13.5	14.4	15.4	16.4	16.4
57.5°	10.6	11.5	11.5	12.5	12.5	13.5	13.5	14.4
60°	9.6	10.6	10.6	10.6	11.5	11.5	11.5	11.5
61°	9.6	9.6	9.6	10.6	10.6	9.6	10.6	9.6
62°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
63°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
64°	8.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
65°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.7
66°	7.7	7.7	6.7	7.7	6.7	6.7	6.7	6.7



TEST NUMBER: P182670

CATALOG NUMBER: LDSQA4A18827D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	4.8	4.8	4.8	4.8	4.8	3.8	3.8	3.8
75°	4.8	4.8	4.8	3.8	3.8	3.8	3.8	2.9
77.5°	3.8	3.8	3.8	3.8	2.9	2.9	2.9	2.9
80°	2.9	2.9	2.9	2.9	2.9	2.9	1.9	1.9
82.5°	2.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	1.9	1.9	1.9	1.9	1.9	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°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9	2.9
70°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.9	2.9





67.5°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	2.9	3.8	3.8	4.8
70°	2.9	3.8	3.8	3.8	3.8	3.8	3.8	2.9	3.8	3.8	3.8





67.5°	4.8	5.8	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
70°	4.8	5.8	5.8	5.8	6.7	6.7	6.7	6.7	6.7	6.7	6.7





67.5°	6.7	6.7	6.7	6.7	6.7	5.8	5.8	5.8
70°	5.8	5.8	5.8	5.8	5.8	4.8	4.8	4.8



(END OF REPORT)