

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: P182767

Luminaire Tested: **LDSQA4A18830D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182767
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: LDSQA4A18830D010TE 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: 1770.1 lumens
Efficiency: N/A
Efficacy: 60.8 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

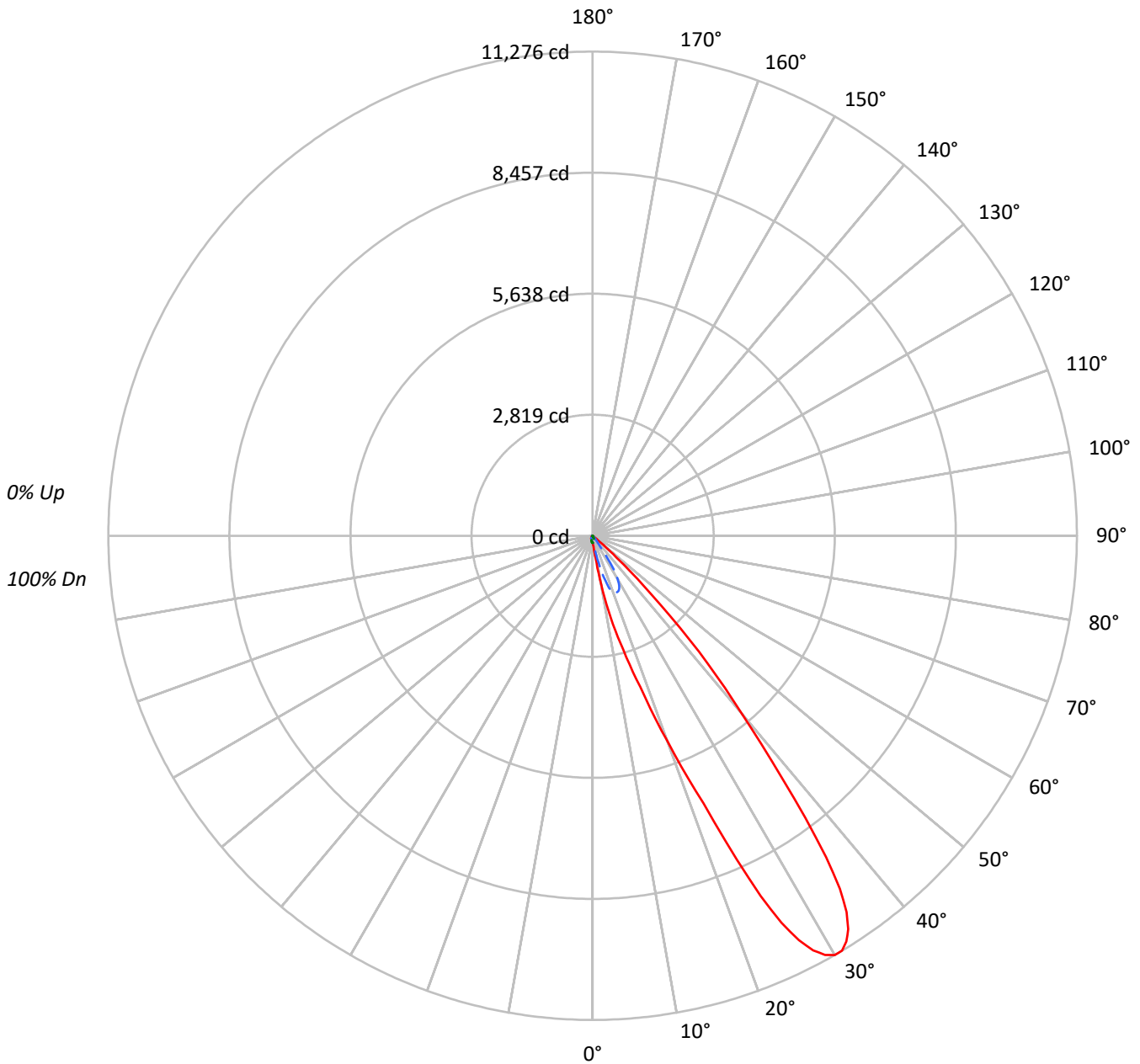
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75																			
4	93	84	77	72	91	82	76	72	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°	16178	16178	16178
5°	25702	15384	13284
10°	112594	13624	11313
15°	275123	11032	9859
20°	524896	8206	9010
25°	989215	5879	7878
30°	1261301	4172	6924
35°	1186486	2554	5925
40°	680656	1745	5096
45°	262757	1206	4302
50°	34950	889	3557
55°	5303	828	2989
60°	1531	756	2480
65°	894	894	1811
70°	566	1105	1388
75°	749	1085	1085
80°	0	1618	1116
85°	0	3223	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.8	1.2
10°-20°	189.7	10.7
20°-30°	605.0	34.2
30°-40°	701.0	39.6
40°-50°	228.0	12.9
50°-60°	14.4	0.8
60°-70°	5.2	0.3
70°-80°	3.7	0.2
80°-90°	2.2	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°	815.5	46.1
0°-40°	1516.6	85.7
0°-60°	1759.0	99.4
0°-90°	1770.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1770.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	167	167	167	167	167	
5°	264	221	158	138	137	51
15°	2743	988	110	94	98	870
25°	9254	1422	55	58	74	4158
35°	10033	339	22	33	50	5772
45°	1918	41	9	20	31	1713
55°	31	8	5	11	18	49
65°	4	3	4	8	8	4
75°	2	3	3	5	3	1
85°	0	2	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°	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0
2.5°	203.4	205.3	205.3	202.4	202.4	199.5	197.5	196.5	195.5	192.6	191.6
5°	264.3	266.3	267.2	259.4	256.4	250.5	245.6	240.7	234.8	227.9	221.1
7.5°	509.9	468.7	475.5	416.6	405.8	380.2	359.6	327.2	303.6	280.0	261.4
10°	1144.6	1105.3	1098.5	1012.0	926.5	862.7	793.9	675.0	566.9	452.0	358.6
12.5°	1961.1	1903.2	1870.7	1700.8	1600.5	1506.2	1401.1	1215.4	1008.1	831.2	646.5
15°	2743.2	2738.3	2622.4	2432.7	2242.1	2126.2	1990.6	1760.7	1515.1	1245.9	988.4
17.5°	3687.4	3725.8	3527.3	3156.9	2855.2	2666.6	2479.9	2120.3	1813.8	1552.4	1270.4
20°	5091.5	4989.3	4642.5	4062.8	3552.8	3268.9	2979.0	2449.5	2010.3	1693.9	1408.0
22.5°	6741.2	6662.6	6014.1	5047.3	4238.6	3839.7	3440.8	2752.1	2180.2	1770.5	1434.5
25°	9254.5	8931.2	7672.6	6103.5	4867.5	4302.5	3790.6	2948.6	2256.9	1780.3	1421.7
26°	10025.8	9798.8	8346.6	6523.0	5061.0	4430.2	3878.1	2988.9	2262.8	1771.5	1397.2
27°	10573.0	10400.1	8907.6	6831.5	5201.5	4518.7	3935.0	3005.6	2249.0	1752.8	1363.8
28°	10933.6	10795.1	9331.1	7054.6	5287.0	4565.8	3962.6	3001.6	2221.5	1720.4	1316.6
29°	11162.5	11028.9	9578.7	7181.3	5317.5	4573.7	3955.7	2972.2	2177.3	1672.3	1248.8
30°	11275.5	11130.1	9662.2	7195.1	5284.1	4528.5	3903.6	2907.3	2116.4	1614.3	1174.1
31°	11276.5	11115.4	9592.5	7089.0	5184.8	4432.2	3811.2	2799.2	2036.8	1545.5	1073.9
32°	11145.8	10979.8	9359.6	6873.8	5029.6	4311.4	3687.4	2689.2	1953.3	1468.9	929.5
33°	10926.7	10730.2	8955.8	6575.1	4831.1	4146.3	3539.1	2566.4	1869.8	1346.1	739.8
34°	10573.0	10304.8	8391.8	6212.6	4591.4	3953.7	3369.1	2433.7	1785.3	1175.1	528.6
35°	10032.6	9654.4	7739.4	5811.7	4334.9	3745.4	3177.5	2295.2	1682.1	963.9	339.0
36°	9250.5	8762.2	7060.5	5397.0	4070.6	3526.3	2983.0	2161.6	1519.0	731.0	222.1
37°	8229.7	7799.3	6411.0	4979.5	3796.5	3292.5	2805.1	2027.0	1318.6	510.9	180.8
38°	7181.3	6864.0	5776.3	4564.8	3512.6	3040.0	2589.0	1886.5	1099.5	336.0	151.3
39°	6236.1	6023.9	5155.3	4154.1	3219.8	2818.9	2372.8	1707.6	865.6	238.8	127.7
40°	5382.3	5235.9	4555.0	3735.6	2927.0	2551.6	2169.4	1488.5	623.9	190.6	107.1
42.5°	3670.7	3598.0	3186.4	2688.2	2165.5	1950.3	1708.6	895.1	247.6	120.9	64.8
45°	1917.9	1886.5	1737.1	1574.0	1411.9	1355.9	1098.5	401.9	139.5	70.7	41.3
47.5°	746.7	748.7	619.0	528.6	502.1	466.7	353.7	144.4	78.6	43.2	27.5
50°	231.9	249.6	229.9	217.1	166.0	138.5	115.0	71.7	42.2	26.5	17.7
51°	142.5	151.3	142.5	142.5	116.9	102.2	87.4	55.0	33.4	21.6	15.7
52°	92.4	97.3	92.4	86.5	80.6	72.7	62.9	41.3	26.5	17.7	12.8
53°	62.9	65.8	62.9	59.0	54.0	50.1	44.2	30.5	21.6	14.7	10.8
54°	44.2	46.2	44.2	41.3	38.3	35.4	32.4	23.6	17.7	12.8	9.8
55°	31.4	33.4	32.4	30.5	27.5	26.5	24.6	18.7	14.7	10.8	7.9
57.5°	14.7	15.7	15.7	14.7	14.7	13.8	12.8	11.8	8.8	6.9	5.9
60°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	5.9	4.9	4.9
61°	5.9	5.9	5.9	5.9	5.9	5.9	6.9	5.9	4.9	4.9	3.9
62°	4.9	4.9	4.9	4.9	4.9	5.9	5.9	4.9	4.9	3.9	3.9
63°	3.9	3.9	3.9	3.9	4.9	4.9	4.9	4.9	3.9	3.9	3.9
64°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.9
65°	3.9	3.9	2.9	2.9	2.9	3.9	2.9	3.9	2.9	2.9	2.9
66°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	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°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9
75°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9
77.5°	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9
80°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
82.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
85°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
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°	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0
2.5°	185.7	180.8	178.8	176.9	175.9	173.9	171.0	168.0	167.0	163.1	159.2
5°	209.3	200.4	193.6	186.7	184.7	179.8	173.9	167.0	164.1	158.2	153.3
7.5°	236.8	219.1	206.3	194.5	189.6	183.7	172.9	164.1	158.2	149.3	143.4
10°	283.0	241.7	217.1	196.5	188.6	180.8	167.0	155.2	147.4	138.5	131.7
12.5°	448.0	313.4	235.8	197.5	186.7	174.9	158.2	144.4	134.6	124.8	118.9
15°	706.4	477.5	305.6	207.3	182.8	165.1	145.4	129.7	119.9	110.0	104.1
17.5°	943.2	642.6	398.9	230.9	184.7	156.2	129.7	114.0	103.2	94.3	90.4
20°	1057.2	720.2	444.1	235.8	172.9	139.5	112.0	97.3	87.4	79.6	75.7
22.5°	1068.0	715.3	416.6	201.4	143.4	117.9	94.3	80.6	72.7	66.8	62.9
25°	1016.9	634.7	334.1	148.4	112.0	98.3	77.6	65.8	59.9	55.0	52.1
26°	977.6	588.5	293.8	128.7	102.2	89.4	70.7	60.9	55.0	51.1	48.1
27°	923.6	534.5	246.6	111.0	94.3	80.6	64.8	56.0	51.1	48.1	45.2
28°	858.7	481.4	204.4	98.3	85.5	72.7	59.9	51.1	47.2	44.2	41.3
29°	789.0	411.7	160.2	88.4	76.6	65.8	54.0	46.2	42.2	40.3	38.3
30°	690.7	320.3	122.8	79.6	68.8	59.0	49.1	42.2	39.3	37.3	35.4
31°	552.2	220.1	99.2	70.7	61.9	53.1	44.2	38.3	35.4	33.4	32.4
32°	396.0	135.6	86.5	62.9	55.0	48.1	38.3	34.4	31.4	30.5	29.5
33°	243.7	111.0	76.6	56.0	48.1	42.2	34.4	30.5	28.5	27.5	26.5
34°	160.2	96.3	67.8	48.1	42.2	36.4	29.5	26.5	25.5	24.6	24.6
35°	135.6	85.5	59.0	41.3	35.4	31.4	25.5	23.6	22.6	21.6	22.6
36°	116.9	74.7	49.1	35.4	30.5	26.5	22.6	20.6	19.7	19.7	20.6
37°	103.2	62.9	41.3	29.5	26.5	23.6	19.7	18.7	17.7	17.7	18.7
38°	87.4	51.1	34.4	25.5	22.6	19.7	17.7	16.7	16.7	16.7	17.7
39°	71.7	43.2	29.5	21.6	19.7	17.7	15.7	14.7	14.7	15.7	15.7
40°	59.0	36.4	24.6	18.7	16.7	15.7	13.8	13.8	13.8	13.8	14.7
42.5°	38.3	24.6	17.7	13.8	12.8	11.8	10.8	10.8	10.8	10.8	11.8
45°	25.5	17.7	13.8	10.8	9.8	8.8	8.8	7.9	8.8	8.8	9.8
47.5°	17.7	12.8	9.8	7.9	6.9	5.9	5.9	5.9	6.9	7.9	7.9
50°	12.8	8.8	6.9	4.9	4.9	4.9	4.9	4.9	5.9	5.9	6.9
51°	10.8	7.9	5.9	4.9	4.9	3.9	3.9	3.9	4.9	5.9	6.9
52°	8.8	6.9	4.9	3.9	3.9	3.9	3.9	3.9	4.9	4.9	5.9
53°	7.9	5.9	4.9	3.9	3.9	3.9	3.9	3.9	4.9	4.9	5.9
54°	6.9	4.9	3.9	3.9	3.9	2.9	2.9	3.9	3.9	4.9	5.9
55°	5.9	4.9	3.9	3.9	2.9	2.9	2.9	2.9	3.9	4.9	4.9
57.5°	4.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	4.9
60°	3.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	4.9
61°	3.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.9	3.9	4.9
62°	3.9	2.9	3.9	3.9	3.9	2.9	2.9	2.9	3.9	3.9	4.9
63°	3.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	3.9	3.9	3.9
64°	3.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	3.9	3.9	4.9
65°	2.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	3.9	3.9	4.9
66°	2.9	3.9	3.9	3.9	3.9	3.9	3.9	2.9	3.9	3.9	3.9



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CATALOG NUMBER: LDSQA4A18830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	2.9	2.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	3.9	3.9
75°	2.9	2.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	3.9
77.5°	2.9	2.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	3.9
80°	2.9	2.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	2.9	2.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	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: P182767

CATALOG NUMBER: LDSQA4A18830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0
2.5°	157.2	157.2	156.2	154.3	156.2	154.3	152.3	151.3	150.3	149.3	147.4
5°	149.3	148.4	146.4	145.4	145.4	143.4	141.5	139.5	138.5	137.6	135.6
7.5°	139.5	138.5	135.6	134.6	134.6	132.6	129.7	128.7	127.7	126.7	124.8
10°	127.7	126.7	123.8	122.8	122.8	120.9	118.9	116.9	115.9	115.0	113.0
12.5°	114.0	113.0	111.0	110.0	110.0	108.1	106.1	105.1	105.1	104.1	103.2
15°	100.2	99.2	97.3	97.3	97.3	95.3	94.3	93.3	94.3	94.3	93.3
17.5°	86.5	85.5	83.5	83.5	83.5	83.5	82.5	82.5	83.5	84.5	84.5
20°	72.7	71.7	71.7	70.7	71.7	72.7	71.7	72.7	74.7	75.7	76.6
22.5°	59.9	59.9	59.9	59.9	60.9	61.9	61.9	63.9	65.8	66.8	68.8
25°	50.1	50.1	51.1	51.1	52.1	53.1	54.0	55.0	58.0	59.9	60.9
26°	46.2	47.2	47.2	48.1	49.1	50.1	51.1	52.1	55.0	57.0	58.0
27°	43.2	43.2	44.2	45.2	46.2	47.2	48.1	50.1	52.1	54.0	56.0
28°	40.3	40.3	41.3	42.2	43.2	44.2	45.2	47.2	49.1	52.1	53.1
29°	37.3	38.3	38.3	39.3	40.3	41.3	43.2	44.2	47.2	49.1	51.1
30°	34.4	35.4	36.4	36.4	37.3	38.3	40.3	42.2	44.2	47.2	48.1
31°	32.4	33.4	33.4	34.4	35.4	36.4	38.3	40.3	42.2	44.2	46.2
32°	29.5	31.4	31.4	31.4	32.4	34.4	36.4	37.3	40.3	42.2	43.2
33°	27.5	28.5	29.5	29.5	30.5	32.4	34.4	35.4	38.3	40.3	41.3
34°	25.5	26.5	27.5	27.5	28.5	30.5	32.4	33.4	36.4	37.3	39.3
35°	23.6	24.6	25.5	25.5	26.5	28.5	30.5	31.4	33.4	35.4	37.3
36°	21.6	22.6	23.6	24.6	25.5	27.5	28.5	30.5	31.4	33.4	35.4
37°	19.7	20.6	22.6	22.6	24.6	25.5	27.5	28.5	30.5	31.4	33.4
38°	17.7	19.7	20.6	21.6	22.6	24.6	25.5	26.5	28.5	30.5	31.4
39°	16.7	18.7	19.7	20.6	21.6	22.6	23.6	25.5	26.5	28.5	29.5
40°	15.7	16.7	18.7	18.7	20.6	21.6	22.6	23.6	25.5	26.5	28.5
42.5°	12.8	14.7	15.7	16.7	17.7	18.7	19.7	20.6	21.6	23.6	24.6
45°	10.8	12.8	13.8	13.8	14.7	15.7	16.7	17.7	19.7	20.6	21.6
47.5°	8.8	10.8	11.8	12.8	12.8	13.8	14.7	15.7	16.7	17.7	18.7
50°	7.9	8.8	9.8	10.8	11.8	11.8	12.8	13.8	14.7	15.7	15.7
51°	7.9	8.8	9.8	9.8	10.8	11.8	12.8	12.8	13.8	14.7	14.7
52°	6.9	7.9	8.8	9.8	10.8	10.8	11.8	12.8	12.8	13.8	14.7
53°	6.9	7.9	8.8	8.8	9.8	10.8	10.8	11.8	12.8	12.8	13.8
54°	5.9	7.9	8.8	8.8	9.8	9.8	10.8	11.8	11.8	11.8	12.8
55°	5.9	6.9	7.9	8.8	8.8	9.8	9.8	10.8	10.8	11.8	11.8
57.5°	5.9	6.9	7.9	7.9	8.8	8.8	9.8	9.8	9.8	9.8	10.8
60°	4.9	5.9	6.9	7.9	7.9	8.8	8.8	8.8	8.8	8.8	9.8
61°	4.9	5.9	6.9	6.9	7.9	7.9	8.8	8.8	8.8	8.8	8.8
62°	4.9	5.9	6.9	6.9	7.9	7.9	7.9	8.8	8.8	8.8	8.8
63°	4.9	5.9	6.9	6.9	7.9	7.9	7.9	7.9	7.9	7.9	8.8
64°	4.9	5.9	6.9	6.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
65°	4.9	5.9	6.9	6.9	6.9	7.9	7.9	7.9	7.9	7.9	7.9
66°	4.9	5.9	6.9	6.9	6.9	6.9	7.9	7.9	7.9	7.9	6.9



TEST NUMBER: P182767

CATALOG NUMBER: LDSQA4A18830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	3.9	4.9	4.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	4.9
75°	3.9	4.9	4.9	4.9	5.9	5.9	5.9	4.9	4.9	4.9	4.9
77.5°	3.9	3.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	3.9	3.9
80°	3.9	3.9	3.9	4.9	4.9	4.9	4.9	3.9	3.9	3.9	2.9
82.5°	2.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9
85°	2.9	3.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	2.0
87.5°	2.9	2.9	2.9	3.9	3.9	3.9	2.9	2.9	2.0	2.0	2.0
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: P182767

CATALOG NUMBER: LDSQA4A18830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	167.0	167.0	167.0	167.0	167.0	167.0	167.0	167.0
2.5°	149.3	150.3	149.3	149.3	147.4	148.4	146.4	149.3
5°	136.6	137.6	136.6	136.6	134.6	134.6	133.6	136.6
7.5°	125.8	126.7	124.8	124.8	122.8	123.8	122.8	124.8
10°	115.0	115.0	115.0	114.0	113.0	114.0	113.0	115.0
12.5°	104.1	105.1	105.1	105.1	104.1	104.1	103.2	106.1
15°	95.3	96.3	97.3	97.3	96.3	97.3	96.3	98.3
17.5°	87.4	89.4	89.4	90.4	90.4	91.4	91.4	93.3
20°	79.6	82.5	82.5	83.5	83.5	85.5	85.5	87.4
22.5°	71.7	74.7	75.7	75.7	76.6	78.6	78.6	80.6
25°	64.8	67.8	68.8	68.8	69.8	71.7	71.7	73.7
26°	61.9	64.8	65.8	66.8	67.8	69.8	69.8	71.7
27°	59.0	61.9	62.9	63.9	64.8	66.8	66.8	68.8
28°	57.0	59.9	60.9	61.9	62.9	64.8	64.8	65.8
29°	54.0	57.0	58.0	59.0	59.9	61.9	61.9	63.9
30°	52.1	54.0	55.0	56.0	57.0	59.9	59.9	61.9
31°	49.1	52.1	53.1	54.0	55.0	57.0	57.0	59.9
32°	47.2	49.1	50.1	51.1	53.1	54.0	55.0	57.0
33°	44.2	47.2	48.1	49.1	50.1	52.1	53.1	55.0
34°	42.2	44.2	46.2	47.2	48.1	50.1	51.1	53.1
35°	40.3	42.2	43.2	44.2	46.2	48.1	48.1	50.1
36°	38.3	40.3	41.3	42.2	44.2	46.2	46.2	48.1
37°	36.4	38.3	39.3	40.3	42.2	44.2	44.2	46.2
38°	34.4	36.4	37.3	38.3	40.3	42.2	43.2	45.2
39°	32.4	35.4	36.4	37.3	38.3	40.3	41.3	42.2
40°	31.4	33.4	34.4	35.4	36.4	38.3	39.3	40.3
42.5°	26.5	29.5	30.5	31.4	32.4	33.4	34.4	35.4
45°	23.6	25.5	25.5	26.5	27.5	29.5	29.5	31.4
47.5°	20.6	21.6	22.6	22.6	23.6	25.5	25.5	26.5
50°	17.7	18.7	19.7	19.7	20.6	21.6	22.6	23.6
51°	16.7	17.7	17.7	18.7	19.7	20.6	21.6	22.6
52°	15.7	16.7	16.7	17.7	18.7	19.7	19.7	20.6
53°	14.7	15.7	15.7	16.7	16.7	18.7	18.7	19.7
54°	13.8	14.7	14.7	15.7	15.7	17.7	17.7	18.7
55°	12.8	13.8	14.7	14.7	14.7	15.7	16.7	17.7
57.5°	11.8	12.8	12.8	12.8	13.8	13.8	14.7	14.7
60°	9.8	10.8	10.8	10.8	11.8	11.8	11.8	12.8
61°	9.8	9.8	10.8	10.8	9.8	9.8	9.8	10.8
62°	8.8	9.8	9.8	8.8	8.8	8.8	8.8	9.8
63°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
64°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
65°	7.9	7.9	7.9	7.9	7.9	7.9	6.9	7.9
66°	6.9	7.9	7.9	6.9	6.9	6.9	6.9	6.9



TEST NUMBER: P182767

CATALOG NUMBER: LDSQA4A18830D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	4.9	4.9	4.9	4.9	4.9	3.9	3.9	3.9
75°	4.9	3.9	3.9	3.9	3.9	3.9	3.9	2.9
77.5°	3.9	3.9	3.9	3.9	2.9	2.9	2.9	2.9
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.0	2.0
82.5°	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	2.0	2.0	2.0	2.0	1.0	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°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.9
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	2.9





67.5°	2.9	2.9	3.9	3.9	3.9	3.9	2.9	2.9	2.9	3.9	3.9
70°	2.9	3.9	3.9	3.9	3.9	3.9	3.9	2.9	2.9	3.9	3.9





67.5°	4.9	5.9	5.9	5.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
70°	4.9	4.9	5.9	5.9	5.9	6.9	6.9	5.9	5.9	5.9	5.9	5.9





67.5°	6.9	6.9	6.9	6.9	5.9	5.9	5.9	5.9
70°	5.9	5.9	5.9	5.9	4.9	4.9	4.9	4.9



(END OF REPORT)