

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: P182793

Luminaire Tested: **LDSQA4A28840D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182793
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: LDSQA4A28840D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2588.3 lumens
Efficiency: N/A
Efficacy: 58.2 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

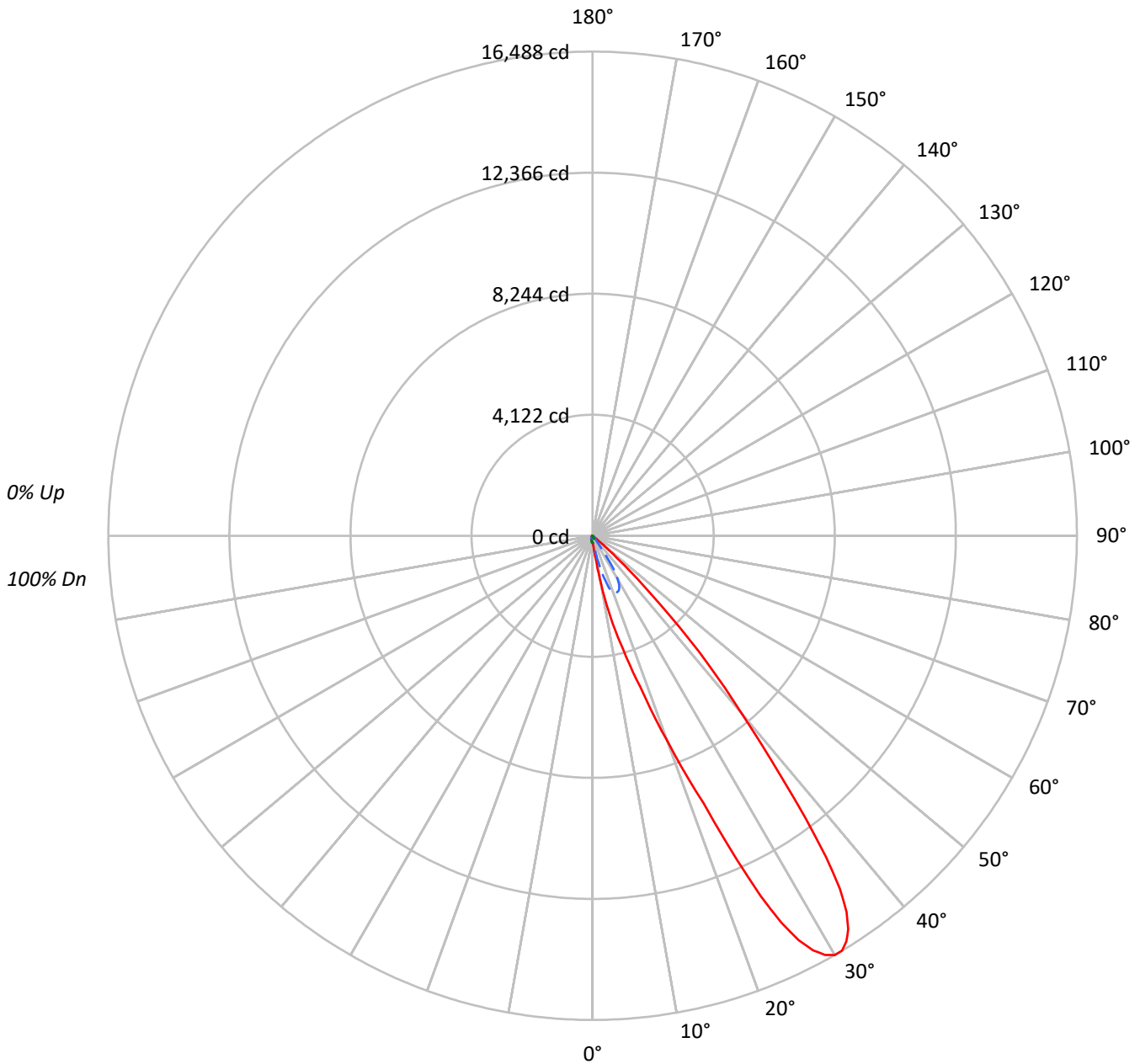
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	23657	23657	23657
5°	37585	22493	19420
10°	164642	19930	16536
15°	402285	16137	14412
20°	767494	12000	13186
25°	1446406	8605	11512
30°	1844259	6108	10124
35°	1734860	3737	8669
40°	995242	2542	7449
45°	384196	1767	6302
50°	51091	1296	5200
55°	7769	1216	4374
60°	2228	1104	3623
65°	1307	1307	2636
70°	821	1614	2039
75°	1085	1609	1609
80°	0	2399	1618
85°	0	4780	1556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.5	1.2
10°-20°	277.4	10.7
20°-30°	884.6	34.2
30°-40°	1025.1	39.6
40°-50°	333.3	12.9
50°-60°	21.1	0.8
60°-70°	7.7	0.3
70°-80°	5.4	0.2
80°-90°	3.2	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°	1192.5	46.1
0°-40°	2217.5	85.7
0°-60°	2571.9	99.4
0°-90°	2588.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2588.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	244	244	244	244	244	
5°	386	323	231	203	200	75
15°	4011	1445	161	138	144	1272
25°	13532	2079	80	85	108	6080
35°	14670	496	32	49	73	8440
45°	2804	60	13	29	46	2504
55°	46	12	7	16	26	71
65°	6	4	6	12	12	5
75°	3	4	4	7	4	2
85°	0	3	4	4	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°	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2
2.5°	297.4	300.3	300.3	295.9	295.9	291.6	288.8	287.3	285.9	281.6	280.1
5°	386.5	389.3	390.8	379.3	375.0	366.3	359.2	352.0	343.4	333.3	323.2
7.5°	745.6	685.3	695.3	609.1	593.3	556.0	525.8	478.4	443.9	409.4	382.1
10°	1673.7	1616.2	1606.2	1479.7	1354.8	1261.4	1160.8	987.0	828.9	660.9	524.4
12.5°	2867.5	2782.8	2735.4	2486.8	2340.3	2202.4	2048.6	1777.1	1474.0	1215.4	945.3
15°	4011.1	4003.9	3834.4	3557.1	3278.4	3108.9	2910.6	2574.5	2215.3	1821.7	1445.3
17.5°	5391.7	5447.7	5157.5	4615.9	4174.9	3899.0	3626.1	3100.3	2652.0	2269.9	1857.6
20°	7444.7	7295.3	6788.1	5940.5	5194.9	4779.7	4355.9	3581.5	2939.4	2476.8	2058.7
22.5°	9856.8	9741.9	8793.7	7380.0	6197.7	5614.4	5031.1	4024.0	3187.9	2588.8	2097.5
25°	13531.7	13059.1	11218.7	8924.4	7117.1	6291.0	5542.6	4311.4	3300.0	2603.2	2078.8
26°	14659.5	14327.6	12204.3	9537.9	7400.1	6477.8	5670.4	4370.3	3308.6	2590.3	2042.9
27°	15459.7	15206.8	13024.6	9989.0	7605.6	6607.1	5753.7	4394.7	3288.5	2563.0	1994.1
28°	15986.9	15784.4	13643.8	10315.1	7730.6	6676.1	5794.0	4388.9	3248.2	2515.6	1925.1
29°	16321.7	16126.3	14005.8	10500.4	7775.1	6687.6	5783.9	4345.8	3183.6	2445.2	1826.0
30°	16486.9	16274.3	14127.9	10520.5	7726.2	6621.5	5707.8	4251.0	3094.5	2360.4	1716.8
31°	16488.3	16252.7	14025.9	10365.4	7581.1	6480.7	5572.7	4093.0	2978.2	2259.8	1570.2
32°	16297.2	16054.4	13685.4	10050.7	7354.2	6304.0	5391.7	3932.1	2856.0	2147.8	1359.1
33°	15976.9	15689.5	13095.0	9614.0	7064.0	6062.6	5174.8	3752.5	2733.9	1968.2	1081.8
34°	15459.7	15067.5	12270.3	9083.9	6713.4	5781.0	4926.2	3558.6	2610.4	1718.2	772.9
35°	14669.5	14116.4	11316.4	8497.7	6338.5	5476.5	4646.1	3356.0	2459.5	1409.3	495.6
36°	13526.0	12812.0	10323.7	7891.5	5952.0	5156.1	4361.6	3160.6	2221.0	1068.9	324.7
37°	12033.3	11404.0	9374.1	7280.9	5551.2	4814.2	4101.6	2963.8	1928.0	747.1	264.3
38°	10500.4	10036.4	8446.0	6674.6	5136.0	4445.0	3785.5	2758.3	1607.6	491.3	221.2
39°	9118.4	8808.0	7538.0	6074.1	4707.9	4121.7	3469.5	2496.9	1265.7	349.1	186.8
40°	7869.9	7655.9	6660.3	5462.1	4279.7	3731.0	3172.1	2176.5	912.3	278.7	156.6
42.5°	5367.3	5261.0	4659.0	3930.6	3166.4	2851.7	2498.3	1308.8	362.0	176.7	94.8
45°	2804.3	2758.3	2540.0	2301.5	2064.5	1982.6	1606.2	587.6	204.0	103.4	60.3
47.5°	1091.8	1094.7	905.1	772.9	734.1	682.4	517.2	211.2	114.9	63.2	40.2
50°	339.0	364.9	336.2	317.5	242.8	202.6	168.1	104.9	61.8	38.8	25.9
51°	208.3	221.2	208.3	208.3	171.0	149.4	127.9	80.5	48.8	31.6	23.0
52°	135.0	142.2	135.0	126.4	117.8	106.3	91.9	60.3	38.8	25.9	18.7
53°	91.9	96.3	91.9	86.2	79.0	73.3	64.6	44.5	31.6	21.5	15.8
54°	64.6	67.5	64.6	60.3	56.0	51.7	47.4	34.5	25.9	18.7	14.4
55°	46.0	48.8	47.4	44.5	40.2	38.8	35.9	27.3	21.5	15.8	11.5
57.5°	21.5	23.0	23.0	21.5	21.5	20.1	18.7	17.2	12.9	10.1	8.6
60°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	8.6	7.2	7.2
61°	8.6	8.6	8.6	8.6	8.6	8.6	10.1	8.6	7.2	7.2	5.7
62°	7.2	7.2	7.2	7.2	7.2	8.6	8.6	7.2	7.2	5.7	5.7
63°	5.7	5.7	5.7	5.7	7.2	7.2	7.2	7.2	5.7	5.7	5.7
64°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.3
65°	5.7	5.7	4.3	4.3	4.3	5.7	4.3	5.7	4.3	4.3	4.3
66°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3
75°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3
77.5°	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	2.9	2.9	4.3
80°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	2.9
82.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	2.9	2.9
85°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.9	2.9	2.9
87.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2
2.5°	271.5	264.3	261.5	258.6	257.2	254.3	250.0	245.7	244.2	238.5	232.7
5°	306.0	293.1	283.0	273.0	270.1	262.9	254.3	244.2	239.9	231.3	224.1
7.5°	346.2	320.4	301.7	284.5	277.3	268.7	252.8	239.9	231.3	218.4	209.7
10°	413.8	353.4	317.5	287.3	275.8	264.3	244.2	227.0	215.5	202.6	192.5
12.5°	655.1	458.3	344.8	288.8	273.0	255.7	231.3	211.2	196.8	182.5	173.8
15°	1032.9	698.2	446.8	303.1	267.2	241.4	212.6	189.6	175.3	160.9	152.3
17.5°	1379.2	939.6	583.3	337.6	270.1	228.4	189.6	166.7	150.8	137.9	132.2
20°	1545.8	1053.1	649.4	344.8	252.8	204.0	163.8	142.2	127.9	116.4	110.6
22.5°	1561.6	1045.9	609.1	294.5	209.7	172.4	137.9	117.8	106.3	97.7	91.9
25°	1486.9	928.1	488.5	216.9	163.8	143.7	113.5	96.3	87.6	80.5	76.1
26°	1429.5	860.5	429.6	188.2	149.4	130.7	103.4	89.1	80.5	74.7	70.4
27°	1350.4	781.5	360.6	162.3	137.9	117.8	94.8	81.9	74.7	70.4	66.1
28°	1255.6	704.0	298.8	143.7	125.0	106.3	87.6	74.7	69.0	64.6	60.3
29°	1153.6	602.0	234.2	129.3	112.1	96.3	79.0	67.5	61.8	58.9	56.0
30°	1010.0	468.3	179.6	116.4	100.6	86.2	71.8	61.8	57.5	54.6	51.7
31°	807.4	321.8	145.1	103.4	90.5	77.6	64.6	56.0	51.7	48.8	47.4
32°	579.0	198.3	126.4	91.9	80.5	70.4	56.0	50.3	46.0	44.5	43.1
33°	356.3	162.3	112.1	81.9	70.4	61.8	50.3	44.5	41.7	40.2	38.8
34°	234.2	140.8	99.1	70.4	61.8	53.2	43.1	38.8	37.4	35.9	35.9
35°	198.3	125.0	86.2	60.3	51.7	46.0	37.4	34.5	33.0	31.6	33.0
36°	171.0	109.2	71.8	51.7	44.5	38.8	33.0	30.2	28.7	28.7	30.2
37°	150.8	91.9	60.3	43.1	38.8	34.5	28.7	27.3	25.9	25.9	27.3
38°	127.9	74.7	50.3	37.4	33.0	28.7	25.9	24.4	24.4	24.4	25.9
39°	104.9	63.2	43.1	31.6	28.7	25.9	23.0	21.5	21.5	23.0	23.0
40°	86.2	53.2	35.9	27.3	24.4	23.0	20.1	20.1	20.1	20.1	21.5
42.5°	56.0	35.9	25.9	20.1	18.7	17.2	15.8	15.8	15.8	15.8	17.2
45°	37.4	25.9	20.1	15.8	14.4	12.9	12.9	11.5	12.9	12.9	14.4
47.5°	25.9	18.7	14.4	11.5	10.1	8.6	8.6	8.6	10.1	11.5	11.5
50°	18.7	12.9	10.1	7.2	7.2	7.2	7.2	7.2	8.6	8.6	10.1
51°	15.8	11.5	8.6	7.2	7.2	5.7	5.7	5.7	7.2	8.6	10.1
52°	12.9	10.1	7.2	5.7	5.7	5.7	5.7	5.7	7.2	7.2	8.6
53°	11.5	8.6	7.2	5.7	5.7	5.7	5.7	5.7	7.2	7.2	8.6
54°	10.1	7.2	5.7	5.7	5.7	4.3	4.3	5.7	5.7	7.2	8.6
55°	8.6	7.2	5.7	5.7	4.3	4.3	4.3	4.3	5.7	7.2	7.2
57.5°	7.2	5.7	5.7	4.3	4.3	4.3	4.3	4.3	5.7	5.7	7.2
60°	5.7	5.7	5.7	4.3	4.3	4.3	4.3	4.3	5.7	5.7	7.2
61°	5.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.7	5.7	7.2
62°	5.7	4.3	5.7	5.7	5.7	4.3	4.3	4.3	5.7	5.7	7.2
63°	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	5.7	5.7	5.7
64°	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7	7.2
65°	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7	7.2
66°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	5.7	5.7	5.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.3	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7
75°	4.3	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	5.7
77.5°	4.3	4.3	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	5.7
80°	4.3	4.3	5.7	5.7	5.7	5.7	4.3	4.3	4.3	4.3	4.3
82.5°	4.3	4.3	4.3	5.7	5.7	4.3	4.3	4.3	4.3	4.3	4.3
85°	4.3	4.3	4.3	5.7	5.7	4.3	4.3	4.3	4.3	4.3	4.3
87.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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: P182793

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2
2.5°	229.9	229.9	228.4	225.6	228.4	225.6	222.7	221.2	219.8	218.4	215.5
5°	218.4	216.9	214.1	212.6	212.6	209.7	206.9	204.0	202.6	201.1	198.3
7.5°	204.0	202.6	198.3	196.8	196.8	193.9	189.6	188.2	186.8	185.3	182.5
10°	186.8	185.3	181.0	179.6	179.6	176.7	173.8	171.0	169.5	168.1	165.2
12.5°	166.7	165.2	162.3	160.9	160.9	158.0	155.2	153.7	153.7	152.3	150.8
15°	146.5	145.1	142.2	142.2	142.2	139.4	137.9	136.5	137.9	137.9	136.5
17.5°	126.4	125.0	122.1	122.1	122.1	122.1	120.7	120.7	122.1	123.6	123.6
20°	106.3	104.9	104.9	103.4	104.9	106.3	104.9	106.3	109.2	110.6	112.1
22.5°	87.6	87.6	87.6	87.6	89.1	90.5	90.5	93.4	96.3	97.7	100.6
25°	73.3	73.3	74.7	74.7	76.1	77.6	79.0	80.5	84.8	87.6	89.1
26°	67.5	69.0	69.0	70.4	71.8	73.3	74.7	76.1	80.5	83.3	84.8
27°	63.2	63.2	64.6	66.1	67.5	69.0	70.4	73.3	76.1	79.0	81.9
28°	58.9	58.9	60.3	61.8	63.2	64.6	66.1	69.0	71.8	76.1	77.6
29°	54.6	56.0	56.0	57.5	58.9	60.3	63.2	64.6	69.0	71.8	74.7
30°	50.3	51.7	53.2	53.2	54.6	56.0	58.9	61.8	64.6	69.0	70.4
31°	47.4	48.8	48.8	50.3	51.7	53.2	56.0	58.9	61.8	64.6	67.5
32°	43.1	46.0	46.0	46.0	47.4	50.3	53.2	54.6	58.9	61.8	63.2
33°	40.2	41.7	43.1	43.1	44.5	47.4	50.3	51.7	56.0	58.9	60.3
34°	37.4	38.8	40.2	40.2	41.7	44.5	47.4	48.8	53.2	54.6	57.5
35°	34.5	35.9	37.4	37.4	38.8	41.7	44.5	46.0	48.8	51.7	54.6
36°	31.6	33.0	34.5	35.9	37.4	40.2	41.7	44.5	46.0	48.8	51.7
37°	28.7	30.2	33.0	33.0	35.9	37.4	40.2	41.7	44.5	46.0	48.8
38°	25.9	28.7	30.2	31.6	33.0	35.9	37.4	38.8	41.7	44.5	46.0
39°	24.4	27.3	28.7	30.2	31.6	33.0	34.5	37.4	38.8	41.7	43.1
40°	23.0	24.4	27.3	27.3	30.2	31.6	33.0	34.5	37.4	38.8	41.7
42.5°	18.7	21.5	23.0	24.4	25.9	27.3	28.7	30.2	31.6	34.5	35.9
45°	15.8	18.7	20.1	20.1	21.5	23.0	24.4	25.9	28.7	30.2	31.6
47.5°	12.9	15.8	17.2	18.7	18.7	20.1	21.5	23.0	24.4	25.9	27.3
50°	11.5	12.9	14.4	15.8	17.2	17.2	18.7	20.1	21.5	23.0	23.0
51°	11.5	12.9	14.4	14.4	15.8	17.2	18.7	18.7	20.1	21.5	21.5
52°	10.1	11.5	12.9	14.4	15.8	15.8	17.2	18.7	18.7	20.1	21.5
53°	10.1	11.5	12.9	12.9	14.4	15.8	15.8	17.2	18.7	18.7	20.1
54°	8.6	11.5	12.9	12.9	14.4	14.4	15.8	17.2	17.2	17.2	18.7
55°	8.6	10.1	11.5	12.9	12.9	14.4	14.4	15.8	15.8	17.2	17.2
57.5°	8.6	10.1	11.5	11.5	12.9	12.9	14.4	14.4	14.4	14.4	15.8
60°	7.2	8.6	10.1	11.5	11.5	12.9	12.9	12.9	12.9	12.9	14.4
61°	7.2	8.6	10.1	10.1	11.5	11.5	12.9	12.9	12.9	12.9	12.9
62°	7.2	8.6	10.1	10.1	11.5	11.5	11.5	12.9	12.9	12.9	12.9
63°	7.2	8.6	10.1	10.1	11.5	11.5	11.5	11.5	11.5	11.5	12.9
64°	7.2	8.6	10.1	10.1	11.5	11.5	11.5	11.5	11.5	11.5	11.5
65°	7.2	8.6	10.1	10.1	10.1	11.5	11.5	11.5	11.5	11.5	11.5
66°	7.2	8.6	10.1	10.1	10.1	10.1	11.5	11.5	11.5	11.5	10.1



TEST NUMBER: P182793

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	5.7	7.2	7.2	8.6	8.6	8.6	8.6	8.6	8.6	8.6	7.2
75°	5.7	7.2	7.2	7.2	8.6	8.6	8.6	7.2	7.2	7.2	7.2
77.5°	5.7	5.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	5.7	5.7
80°	5.7	5.7	5.7	7.2	7.2	7.2	7.2	5.7	5.7	5.7	4.3
82.5°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3
85°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	2.9
87.5°	4.3	4.3	4.3	5.7	5.7	5.7	4.3	4.3	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: P182793

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	244.2	244.2	244.2	244.2	244.2	244.2	244.2	244.2
2.5°	218.4	219.8	218.4	218.4	215.5	216.9	214.1	218.4
5°	199.7	201.1	199.7	199.7	196.8	196.8	195.4	199.7
7.5°	183.9	185.3	182.5	182.5	179.6	181.0	179.6	182.5
10°	168.1	168.1	168.1	166.7	165.2	166.7	165.2	168.1
12.5°	152.3	153.7	153.7	153.7	152.3	152.3	150.8	155.2
15°	139.4	140.8	142.2	142.2	140.8	142.2	140.8	143.7
17.5°	127.9	130.7	130.7	132.2	132.2	133.6	133.6	136.5
20°	116.4	120.7	120.7	122.1	122.1	125.0	125.0	127.9
22.5°	104.9	109.2	110.6	110.6	112.1	114.9	114.9	117.8
25°	94.8	99.1	100.6	100.6	102.0	104.9	104.9	107.7
26°	90.5	94.8	96.3	97.7	99.1	102.0	102.0	104.9
27°	86.2	90.5	91.9	93.4	94.8	97.7	97.7	100.6
28°	83.3	87.6	89.1	90.5	91.9	94.8	94.8	96.3
29°	79.0	83.3	84.8	86.2	87.6	90.5	90.5	93.4
30°	76.1	79.0	80.5	81.9	83.3	87.6	87.6	90.5
31°	71.8	76.1	77.6	79.0	80.5	83.3	83.3	87.6
32°	69.0	71.8	73.3	74.7	77.6	79.0	80.5	83.3
33°	64.6	69.0	70.4	71.8	73.3	76.1	77.6	80.5
34°	61.8	64.6	67.5	69.0	70.4	73.3	74.7	77.6
35°	58.9	61.8	63.2	64.6	67.5	70.4	70.4	73.3
36°	56.0	58.9	60.3	61.8	64.6	67.5	67.5	70.4
37°	53.2	56.0	57.5	58.9	61.8	64.6	64.6	67.5
38°	50.3	53.2	54.6	56.0	58.9	61.8	63.2	66.1
39°	47.4	51.7	53.2	54.6	56.0	58.9	60.3	61.8
40°	46.0	48.8	50.3	51.7	53.2	56.0	57.5	58.9
42.5°	38.8	43.1	44.5	46.0	47.4	48.8	50.3	51.7
45°	34.5	37.4	37.4	38.8	40.2	43.1	43.1	46.0
47.5°	30.2	31.6	33.0	33.0	34.5	37.4	37.4	38.8
50°	25.9	27.3	28.7	28.7	30.2	31.6	33.0	34.5
51°	24.4	25.9	25.9	27.3	28.7	30.2	31.6	33.0
52°	23.0	24.4	24.4	25.9	27.3	28.7	28.7	30.2
53°	21.5	23.0	23.0	24.4	24.4	27.3	27.3	28.7
54°	20.1	21.5	21.5	23.0	23.0	25.9	25.9	27.3
55°	18.7	20.1	21.5	21.5	21.5	23.0	24.4	25.9
57.5°	17.2	18.7	18.7	18.7	20.1	20.1	21.5	21.5
60°	14.4	15.8	15.8	15.8	17.2	17.2	17.2	18.7
61°	14.4	14.4	15.8	15.8	14.4	14.4	14.4	15.8
62°	12.9	14.4	14.4	12.9	12.9	12.9	12.9	14.4
63°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
64°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
65°	11.5	11.5	11.5	11.5	11.5	11.5	10.1	11.5
66°	10.1	11.5	11.5	10.1	10.1	10.1	10.1	10.1



TEST NUMBER: P182793

CATALOG NUMBER: LDSQA4A28840D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	7.2	7.2	7.2	7.2	7.2	5.7	5.7	5.7
75°	7.2	5.7	5.7	5.7	5.7	5.7	5.7	4.3
77.5°	5.7	5.7	5.7	5.7	4.3	4.3	4.3	4.3
80°	4.3	4.3	4.3	4.3	4.3	4.3	2.9	2.9
82.5°	4.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	2.9	2.9	2.9	1.4	1.4	1.4	1.4
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3	4.3
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3	4.3





67.5°	4.3	4.3	5.7	5.7	5.7	5.7	4.3	4.3	4.3	5.7	5.7
70°	4.3	5.7	5.7	5.7	5.7	5.7	5.7	4.3	4.3	5.7	5.7





67.5°	7.2	8.6	8.6	8.6	10.1	10.1	10.1	10.1	10.1	10.1	10.1
70°	7.2	7.2	8.6	8.6	8.6	10.1	10.1	8.6	8.6	8.6	8.6





67.5°	10.1	10.1	10.1	10.1	8.6	8.6	8.6	8.6
70°	8.6	8.6	8.6	8.6	7.2	7.2	7.2	7.2



(END OF REPORT)