

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: P182792

Luminaire Tested: **LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182792
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: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2468.1 lumens
Efficiency: N/A
Efficacy: 55.5 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

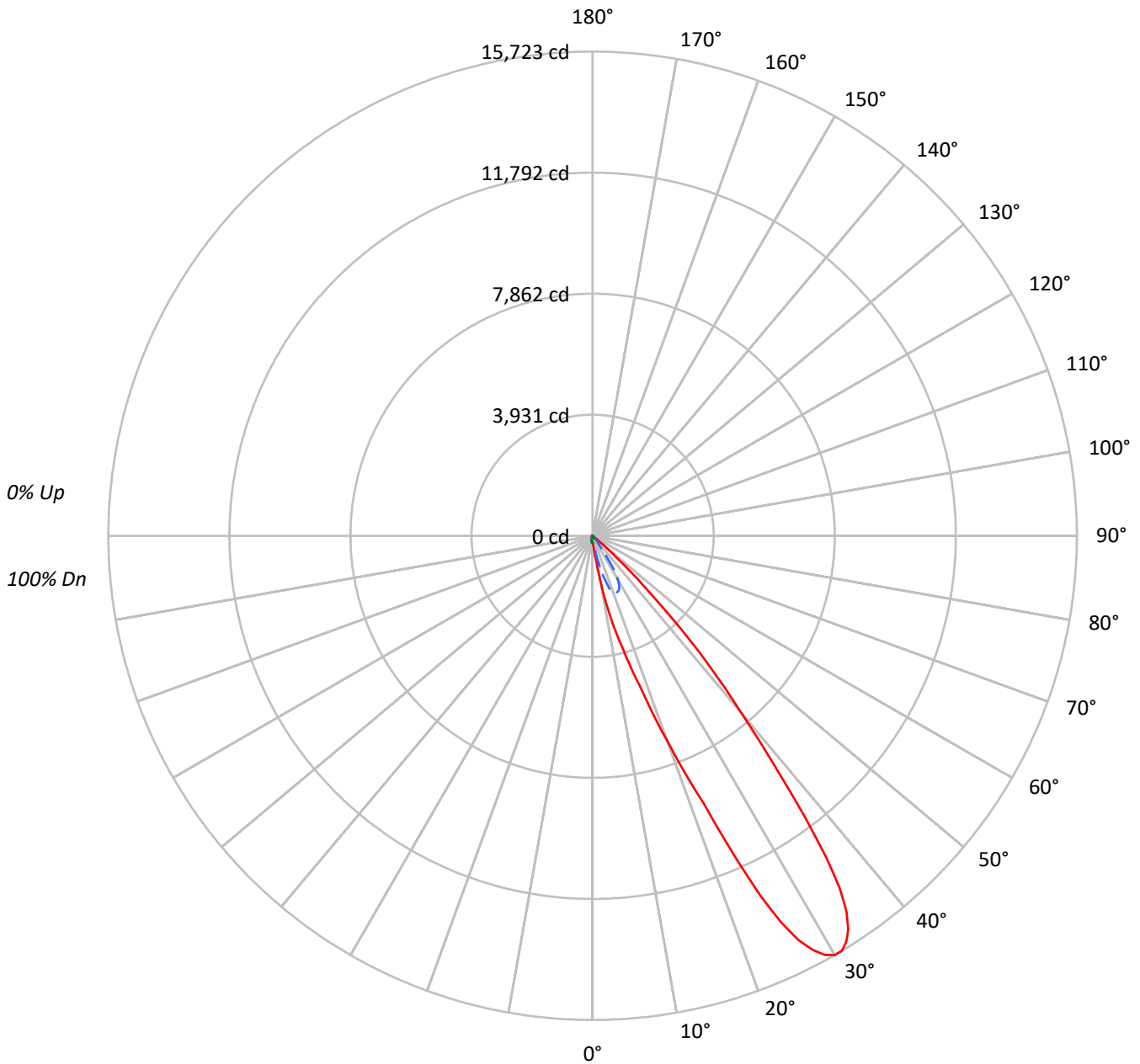
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

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°	22562	22562	22562
5°	35835	21452	18516
10°	156998	19005	15769
15°	383610	15385	13740
20°	731855	11443	12567
25°	1379258	8198	10978
30°	1758640	5828	9654
35°	1654323	3560	8267
40°	949033	2428	7107
45°	366359	1685	6001
50°	48725	1236	4958
55°	7398	1149	4172
60°	2131	1066	3449
65°	1261	1261	2521
70°	765	1558	1926
75°	1011	1535	1535
80°	0	2287	1506
85°	0	4557	1556



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	1.2
10°-20°	264.5	10.7
20°-30°	843.5	34.2
30°-40°	977.5	39.6
40°-50°	317.8	12.9
50°-60°	20.1	0.8
60°-70°	7.3	0.3
70°-80°	5.2	0.2
80°-90°	3.1	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°	1137.1	46.1
0°-40°	2114.6	85.7
0°-60°	2452.5	99.4
0°-90°	2468.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2468.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	233	233	233	233	233	
5°	368	308	221	193	190	72
15°	3825	1378	153	132	137	1213
25°	12904	1982	77	81	103	5798
35°	13988	473	30	47	70	8049
45°	2674	58	12	27	44	2388
55°	44	11	7	15	25	68
65°	6	4	6	11	11	5
75°	3	4	4	7	4	2
85°	0	3	4	4	1	0
90°	0	0	0	0	0	



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9
2.5°	283.6	286.3	286.3	282.2	282.2	278.1	275.4	274.0	272.6	268.5	267.1
5°	368.5	371.3	372.6	361.7	357.6	349.3	342.5	335.6	327.4	317.8	308.2
7.5°	711.0	653.5	663.1	580.9	565.8	530.2	501.4	456.2	423.3	390.4	364.4
10°	1596.0	1541.2	1531.6	1411.0	1291.9	1202.8	1106.9	941.2	790.5	630.2	500.0
12.5°	2734.4	2653.6	2608.4	2371.4	2231.6	2100.1	1953.5	1694.6	1405.6	1159.0	901.4
15°	3824.9	3818.0	3656.4	3392.0	3126.2	2964.6	2775.5	2454.9	2112.5	1737.1	1378.2
17.5°	5141.4	5194.8	4918.1	4401.6	3981.1	3718.0	3457.7	2956.3	2528.9	2164.5	1771.3
20°	7099.0	6956.6	6473.0	5664.7	4953.7	4557.8	4153.7	3415.3	2802.9	2361.8	1963.1
22.5°	9399.2	9289.6	8385.4	7037.4	5909.9	5353.7	4797.5	3837.2	3039.9	2468.6	2000.1
25°	12903.5	12452.8	10697.9	8510.1	6786.7	5999.0	5285.2	4111.2	3146.8	2482.3	1982.3
26°	13978.9	13662.4	11637.7	9095.0	7056.6	6177.1	5407.2	4167.4	3155.0	2470.0	1948.1
27°	14742.0	14500.8	12419.9	9525.2	7252.5	6300.4	5486.6	4190.7	3135.8	2444.0	1901.5
28°	15244.7	15051.6	13010.3	9836.2	7371.7	6366.1	5525.0	4185.2	3097.4	2398.8	1835.7
29°	15563.9	15377.6	13355.6	10012.9	7414.1	6377.1	5515.4	4144.1	3035.8	2331.6	1741.2
30°	15721.5	15518.7	13472.0	10032.1	7367.6	6314.1	5442.8	4053.7	2950.9	2250.8	1637.1
31°	15722.8	15498.2	13374.8	9884.1	7229.2	6179.8	5314.0	3903.0	2839.9	2154.9	1497.3
32°	15540.6	15309.1	13050.1	9584.1	7012.7	6011.3	5141.4	3749.5	2723.4	2048.1	1296.0
33°	15235.1	14961.1	12487.0	9167.7	6736.0	5781.2	4934.5	3578.3	2607.0	1876.8	1031.6
34°	14742.0	14368.0	11700.7	8662.1	6401.7	5512.6	4697.5	3393.3	2489.2	1638.5	737.0
35°	13988.5	13461.1	10791.0	8103.2	6044.2	5222.2	4430.4	3200.2	2345.3	1343.9	472.6
36°	12898.0	12217.1	9844.4	7525.1	5675.7	4916.7	4159.1	3013.9	2117.9	1019.2	309.6
37°	11474.6	10874.6	8938.9	6942.9	5293.5	4590.7	3911.2	2826.2	1838.5	712.4	252.1
38°	10012.9	9570.4	8053.9	6364.8	4897.5	4238.6	3609.8	2630.3	1533.0	468.5	211.0
39°	8695.0	8399.1	7188.1	5792.1	4489.3	3930.4	3308.4	2381.0	1206.9	332.9	178.1
40°	7504.5	7300.4	6351.1	5208.5	4081.1	3557.7	3024.8	2075.5	869.9	265.8	149.3
42.5°	5118.1	5016.7	4442.7	3748.2	3019.4	2719.3	2382.3	1248.0	345.2	168.5	90.4
45°	2674.1	2630.3	2422.1	2194.6	1968.6	1890.5	1531.6	560.3	194.5	98.6	57.5
47.5°	1041.2	1043.9	863.1	737.0	700.0	650.7	493.2	201.4	109.6	60.3	38.4
50°	323.3	348.0	320.6	302.8	231.5	193.2	160.3	100.0	58.9	37.0	24.7
51°	198.6	211.0	198.6	198.6	163.0	142.5	121.9	76.7	46.6	30.1	21.9
52°	128.8	135.6	128.8	120.6	112.3	101.4	87.7	57.5	37.0	24.7	17.8
53°	87.7	91.8	87.7	82.2	75.3	69.9	61.6	42.5	30.1	20.5	15.1
54°	61.6	64.4	61.6	57.5	53.4	49.3	45.2	32.9	24.7	17.8	13.7
55°	43.8	46.6	45.2	42.5	38.4	37.0	34.2	26.0	20.5	15.1	11.0
57.5°	20.5	21.9	21.9	20.5	20.5	19.2	17.8	16.4	12.3	9.6	8.2
60°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	8.2	6.8	6.8
61°	8.2	8.2	8.2	8.2	8.2	8.2	9.6	8.2	6.8	6.8	5.5
62°	6.8	6.8	6.8	6.8	6.8	8.2	8.2	6.8	6.8	5.5	5.5
63°	5.5	5.5	5.5	5.5	6.8	6.8	6.8	6.8	5.5	5.5	5.5
64°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.1
65°	5.5	5.5	4.1	4.1	4.1	5.5	4.1	5.5	4.1	4.1	4.1
66°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.1
75°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.1
77.5°	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	2.7	2.7	4.1
80°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.7	2.7	2.7
82.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	2.7	2.7
85°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.7	2.7	2.7
87.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	2.7	2.7
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°	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9
2.5°	258.9	252.1	249.3	246.6	245.2	242.5	238.4	234.3	232.9	227.4	221.9
5°	291.8	279.5	269.9	260.3	257.5	250.7	242.5	232.9	228.8	220.6	213.7
7.5°	330.2	305.5	287.7	271.2	264.4	256.2	241.1	228.8	220.6	208.2	200.0
10°	394.5	337.0	302.8	274.0	263.0	252.1	232.9	216.5	205.5	193.2	183.6
12.5°	624.7	437.0	328.8	275.4	260.3	243.8	220.6	201.4	187.7	174.0	165.8
15°	985.0	665.8	426.1	289.1	254.8	230.2	202.8	180.8	167.1	153.4	145.2
17.5°	1315.1	895.9	556.2	321.9	257.5	217.8	180.8	158.9	143.8	131.5	126.0
20°	1474.1	1004.2	619.2	328.8	241.1	194.5	156.2	135.6	121.9	111.0	105.5
22.5°	1489.1	997.3	580.9	280.8	200.0	164.4	131.5	112.3	101.4	93.2	87.7
25°	1417.9	885.0	465.8	206.9	156.2	137.0	108.2	91.8	83.6	76.7	72.6
26°	1363.1	820.6	409.6	179.5	142.5	124.7	98.6	84.9	76.7	71.2	67.1
27°	1287.7	745.2	343.9	154.8	131.5	112.3	90.4	78.1	71.2	67.1	63.0
28°	1197.3	671.3	284.9	137.0	119.2	101.4	83.6	71.2	65.8	61.6	57.5
29°	1100.1	574.0	223.3	123.3	106.9	91.8	75.3	64.4	58.9	56.2	53.4
30°	963.1	446.6	171.2	111.0	95.9	82.2	68.5	58.9	54.8	52.1	49.3
31°	769.9	306.9	138.4	98.6	86.3	74.0	61.6	53.4	49.3	46.6	45.2
32°	552.1	189.1	120.6	87.7	76.7	67.1	53.4	47.9	43.8	42.5	41.1
33°	339.7	154.8	106.9	78.1	67.1	58.9	47.9	42.5	39.7	38.4	37.0
34°	223.3	134.3	94.5	67.1	58.9	50.7	41.1	37.0	35.6	34.2	34.2
35°	189.1	119.2	82.2	57.5	49.3	43.8	35.6	32.9	31.5	30.1	31.5
36°	163.0	104.1	68.5	49.3	42.5	37.0	31.5	28.8	27.4	27.4	28.8
37°	143.8	87.7	57.5	41.1	37.0	32.9	27.4	26.0	24.7	24.7	26.0
38°	121.9	71.2	47.9	35.6	31.5	27.4	24.7	23.3	23.3	23.3	24.7
39°	100.0	60.3	41.1	30.1	27.4	24.7	21.9	20.5	20.5	21.9	21.9
40°	82.2	50.7	34.2	26.0	23.3	21.9	19.2	19.2	19.2	19.2	20.5
42.5°	53.4	34.2	24.7	19.2	17.8	16.4	15.1	15.1	15.1	15.1	16.4
45°	35.6	24.7	19.2	15.1	13.7	12.3	12.3	11.0	12.3	12.3	13.7
47.5°	24.7	17.8	13.7	11.0	9.6	8.2	8.2	8.2	9.6	11.0	11.0
50°	17.8	12.3	9.6	6.8	6.8	6.8	6.8	6.8	8.2	8.2	9.6
51°	15.1	11.0	8.2	6.8	6.8	5.5	5.5	5.5	6.8	8.2	9.6
52°	12.3	9.6	6.8	5.5	5.5	5.5	5.5	5.5	6.8	6.8	8.2
53°	11.0	8.2	6.8	5.5	5.5	5.5	5.5	5.5	6.8	6.8	8.2
54°	9.6	6.8	5.5	5.5	5.5	4.1	4.1	5.5	5.5	6.8	8.2
55°	8.2	6.8	5.5	5.5	4.1	4.1	4.1	4.1	5.5	6.8	6.8
57.5°	6.8	5.5	5.5	4.1	4.1	4.1	4.1	4.1	5.5	5.5	6.8
60°	5.5	5.5	5.5	4.1	4.1	4.1	4.1	4.1	5.5	5.5	6.8
61°	5.5	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	5.5	6.8
62°	5.5	4.1	5.5	5.5	5.5	4.1	4.1	4.1	5.5	5.5	6.8
63°	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	5.5	5.5	5.5
64°	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	5.5	5.5	6.8
65°	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1	5.5	5.5	6.8
66°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	5.5	5.5	5.5



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.1	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1	5.5	5.5
75°	4.1	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	5.5
77.5°	4.1	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	5.5
80°	4.1	4.1	5.5	5.5	5.5	5.5	4.1	4.1	4.1	4.1	4.1
82.5°	4.1	4.1	4.1	5.5	5.5	4.1	4.1	4.1	4.1	4.1	4.1
85°	4.1	4.1	4.1	5.5	5.5	4.1	4.1	4.1	4.1	4.1	4.1
87.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
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: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9
2.5°	219.2	219.2	217.8	215.1	217.8	215.1	212.3	211.0	209.6	208.2	205.5
5°	208.2	206.9	204.1	202.8	202.8	200.0	197.3	194.5	193.2	191.8	189.1
7.5°	194.5	193.2	189.1	187.7	187.7	184.9	180.8	179.5	178.1	176.7	174.0
10°	178.1	176.7	172.6	171.2	171.2	168.5	165.8	163.0	161.7	160.3	157.5
12.5°	158.9	157.5	154.8	153.4	153.4	150.7	148.0	146.6	146.6	145.2	143.8
15°	139.7	138.4	135.6	135.6	135.6	132.9	131.5	130.1	131.5	131.5	130.1
17.5°	120.6	119.2	116.4	116.4	116.4	116.4	115.1	115.1	116.4	117.8	117.8
20°	101.4	100.0	100.0	98.6	100.0	101.4	100.0	101.4	104.1	105.5	106.9
22.5°	83.6	83.6	83.6	83.6	84.9	86.3	86.3	89.0	91.8	93.2	95.9
25°	69.9	69.9	71.2	71.2	72.6	74.0	75.3	76.7	80.8	83.6	84.9
26°	64.4	65.8	65.8	67.1	68.5	69.9	71.2	72.6	76.7	79.5	80.8
27°	60.3	60.3	61.6	63.0	64.4	65.8	67.1	69.9	72.6	75.3	78.1
28°	56.2	56.2	57.5	58.9	60.3	61.6	63.0	65.8	68.5	72.6	74.0
29°	52.1	53.4	53.4	54.8	56.2	57.5	60.3	61.6	65.8	68.5	71.2
30°	47.9	49.3	50.7	50.7	52.1	53.4	56.2	58.9	61.6	65.8	67.1
31°	45.2	46.6	46.6	47.9	49.3	50.7	53.4	56.2	58.9	61.6	64.4
32°	41.1	43.8	43.8	43.8	45.2	47.9	50.7	52.1	56.2	58.9	60.3
33°	38.4	39.7	41.1	41.1	42.5	45.2	47.9	49.3	53.4	56.2	57.5
34°	35.6	37.0	38.4	38.4	39.7	42.5	45.2	46.6	50.7	52.1	54.8
35°	32.9	34.2	35.6	35.6	37.0	39.7	42.5	43.8	46.6	49.3	52.1
36°	30.1	31.5	32.9	34.2	35.6	38.4	39.7	42.5	43.8	46.6	49.3
37°	27.4	28.8	31.5	31.5	34.2	35.6	38.4	39.7	42.5	43.8	46.6
38°	24.7	27.4	28.8	30.1	31.5	34.2	35.6	37.0	39.7	42.5	43.8
39°	23.3	26.0	27.4	28.8	30.1	31.5	32.9	35.6	37.0	39.7	41.1
40°	21.9	23.3	26.0	26.0	28.8	30.1	31.5	32.9	35.6	37.0	39.7
42.5°	17.8	20.5	21.9	23.3	24.7	26.0	27.4	28.8	30.1	32.9	34.2
45°	15.1	17.8	19.2	19.2	20.5	21.9	23.3	24.7	27.4	28.8	30.1
47.5°	12.3	15.1	16.4	17.8	17.8	19.2	20.5	21.9	23.3	24.7	26.0
50°	11.0	12.3	13.7	15.1	16.4	16.4	17.8	19.2	20.5	21.9	21.9
51°	11.0	12.3	13.7	13.7	15.1	16.4	17.8	17.8	19.2	20.5	20.5
52°	9.6	11.0	12.3	13.7	15.1	15.1	16.4	17.8	17.8	19.2	20.5
53°	9.6	11.0	12.3	12.3	13.7	15.1	15.1	16.4	17.8	17.8	19.2
54°	8.2	11.0	12.3	12.3	13.7	13.7	15.1	16.4	16.4	16.4	17.8
55°	8.2	9.6	11.0	12.3	12.3	13.7	13.7	15.1	15.1	16.4	16.4
57.5°	8.2	9.6	11.0	11.0	12.3	12.3	13.7	13.7	13.7	13.7	15.1
60°	6.8	8.2	9.6	11.0	11.0	12.3	12.3	12.3	12.3	12.3	13.7
61°	6.8	8.2	9.6	9.6	11.0	11.0	12.3	12.3	12.3	12.3	12.3
62°	6.8	8.2	9.6	9.6	11.0	11.0	11.0	12.3	12.3	12.3	12.3
63°	6.8	8.2	9.6	9.6	11.0	11.0	11.0	11.0	11.0	11.0	12.3
64°	6.8	8.2	9.6	9.6	11.0	11.0	11.0	11.0	11.0	11.0	11.0
65°	6.8	8.2	9.6	9.6	9.6	11.0	11.0	11.0	11.0	11.0	11.0
66°	6.8	8.2	9.6	9.6	9.6	9.6	11.0	11.0	11.0	11.0	9.6



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	5.5	6.8	6.8	8.2	8.2	8.2	8.2	8.2	8.2	8.2	6.8
75°	5.5	6.8	6.8	6.8	8.2	8.2	8.2	6.8	6.8	6.8	6.8
77.5°	5.5	5.5	6.8	6.8	6.8	6.8	6.8	6.8	6.8	5.5	5.5
80°	5.5	5.5	5.5	6.8	6.8	6.8	6.8	5.5	5.5	5.5	4.1
82.5°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1
85°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	2.7
87.5°	4.1	4.1	4.1	5.5	5.5	5.5	4.1	4.1	2.7	2.7	2.7
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: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	232.9	232.9	232.9	232.9	232.9	232.9	232.9	232.9
2.5°	208.2	209.6	208.2	208.2	205.5	206.9	204.1	208.2
5°	190.4	191.8	190.4	190.4	187.7	187.7	186.3	190.4
7.5°	175.4	176.7	174.0	174.0	171.2	172.6	171.2	174.0
10°	160.3	160.3	160.3	158.9	157.5	158.9	157.5	160.3
12.5°	145.2	146.6	146.6	146.6	145.2	145.2	143.8	148.0
15°	132.9	134.3	135.6	135.6	134.3	135.6	134.3	137.0
17.5°	121.9	124.7	124.7	126.0	126.0	127.4	127.4	130.1
20°	111.0	115.1	115.1	116.4	116.4	119.2	119.2	121.9
22.5°	100.0	104.1	105.5	105.5	106.9	109.6	109.6	112.3
25°	90.4	94.5	95.9	95.9	97.3	100.0	100.0	102.7
26°	86.3	90.4	91.8	93.2	94.5	97.3	97.3	100.0
27°	82.2	86.3	87.7	89.0	90.4	93.2	93.2	95.9
28°	79.5	83.6	84.9	86.3	87.7	90.4	90.4	91.8
29°	75.3	79.5	80.8	82.2	83.6	86.3	86.3	89.0
30°	72.6	75.3	76.7	78.1	79.5	83.6	83.6	86.3
31°	68.5	72.6	74.0	75.3	76.7	79.5	79.5	83.6
32°	65.8	68.5	69.9	71.2	74.0	75.3	76.7	79.5
33°	61.6	65.8	67.1	68.5	69.9	72.6	74.0	76.7
34°	58.9	61.6	64.4	65.8	67.1	69.9	71.2	74.0
35°	56.2	58.9	60.3	61.6	64.4	67.1	67.1	69.9
36°	53.4	56.2	57.5	58.9	61.6	64.4	64.4	67.1
37°	50.7	53.4	54.8	56.2	58.9	61.6	61.6	64.4
38°	47.9	50.7	52.1	53.4	56.2	58.9	60.3	63.0
39°	45.2	49.3	50.7	52.1	53.4	56.2	57.5	58.9
40°	43.8	46.6	47.9	49.3	50.7	53.4	54.8	56.2
42.5°	37.0	41.1	42.5	43.8	45.2	46.6	47.9	49.3
45°	32.9	35.6	35.6	37.0	38.4	41.1	41.1	43.8
47.5°	28.8	30.1	31.5	31.5	32.9	35.6	35.6	37.0
50°	24.7	26.0	27.4	27.4	28.8	30.1	31.5	32.9
51°	23.3	24.7	24.7	26.0	27.4	28.8	30.1	31.5
52°	21.9	23.3	23.3	24.7	26.0	27.4	27.4	28.8
53°	20.5	21.9	21.9	23.3	23.3	26.0	26.0	27.4
54°	19.2	20.5	20.5	21.9	21.9	24.7	24.7	26.0
55°	17.8	19.2	20.5	20.5	20.5	21.9	23.3	24.7
57.5°	16.4	17.8	17.8	17.8	19.2	19.2	20.5	20.5
60°	13.7	15.1	15.1	15.1	16.4	16.4	16.4	17.8
61°	13.7	13.7	15.1	15.1	13.7	13.7	13.7	15.1
62°	12.3	13.7	13.7	12.3	12.3	12.3	12.3	13.7
63°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
64°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
65°	11.0	11.0	11.0	11.0	11.0	11.0	9.6	11.0
66°	9.6	11.0	11.0	9.6	9.6	9.6	9.6	9.6



TEST NUMBER: P182792

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	6.8	6.8	6.8	6.8	6.8	5.5	5.5	5.5
75°	6.8	5.5	5.5	5.5	5.5	5.5	5.5	4.1
77.5°	5.5	5.5	5.5	5.5	4.1	4.1	4.1	4.1
80°	4.1	4.1	4.1	4.1	4.1	4.1	2.7	2.7
82.5°	4.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	2.7	2.7	2.7	2.7	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°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.1	4.1
70°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.1	4.1





67.5°	4.1	4.1	5.5	5.5	5.5	5.5	4.1	4.1	4.1	5.5	5.5
70°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	5.5	5.5





67.5°	6.8	8.2	8.2	8.2	9.6	9.6	9.6	9.6	9.6	9.6	9.6
70°	6.8	6.8	8.2	8.2	8.2	9.6	9.6	8.2	8.2	8.2	8.2





67.5°	9.6	9.6	9.6	9.6	8.2	8.2	8.2	8.2
70°	8.2	8.2	8.2	8.2	6.8	6.8	6.8	6.8



(END OF REPORT)