

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: P182696

Luminaire Tested: **LDSQA4A28835D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182696
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: LDSQA4A28835D010TE 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 / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2653.0 lumens
Efficiency: N/A
Efficacy: 59.6 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

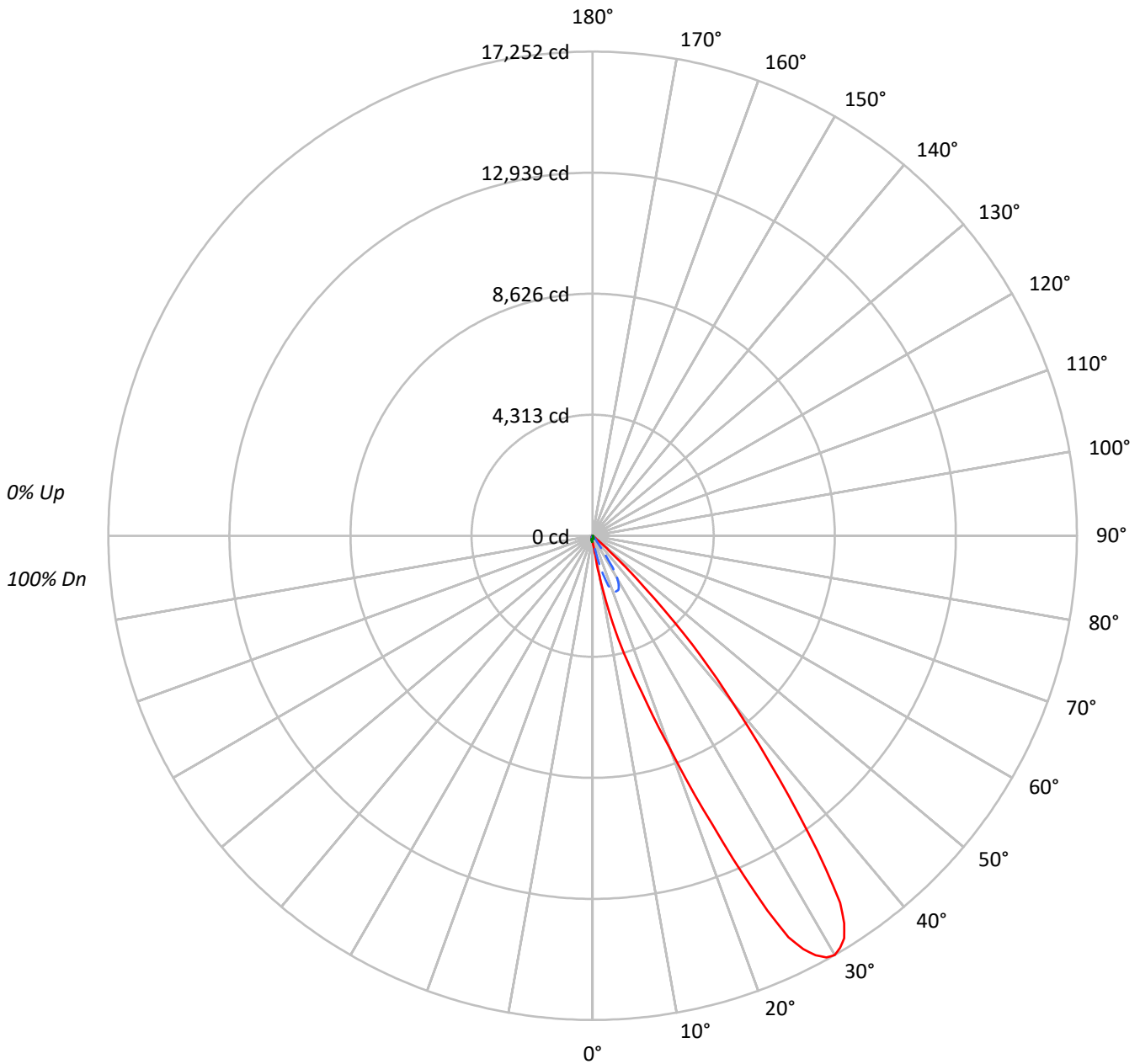
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	0					
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°	22155	22155	22155
5°	36895	20908	17845
10°	157352	18326	15493
15°	435552	14563	13740
20°	835422	10309	12289
25°	1575166	6884	10828
30°	1929856	4598	9497
35°	1713927	3075	8101
40°	976817	2074	6753
45°	356316	1685	5631
50°	39215	1236	4747
55°	5776	929	3935
60°	1318	1066	3178
65°	940	1261	2201
70°	765	1558	1926
75°	1011	2059	1535
80°	0	3068	1506
85°	0	4557	1556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	1.1
10°-20°	287.5	10.8
20°-30°	944.2	35.6
30°-40°	1035.5	39.0
40°-50°	323.4	12.2
50°-60°	17.7	0.7
60°-70°	7.1	0.3
70°-80°	5.4	0.2
80°-90°	3.4	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°	1260.5	47.5
0°-40°	2296.0	86.5
0°-60°	2637.1	99.4
0°-90°	2653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2653.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	229	229	229	229	229	
5°	379	304	215	190	184	70
15°	4343	1396	145	130	137	1364
25°	14736	2143	64	79	101	6569
35°	14492	422	26	45	68	8473
45°	2601	44	12	26	41	2388
55°	34	8	6	15	23	54
65°	4	4	6	11	10	4
75°	3	4	6	8	4	2
85°	0	4	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°	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7
2.5°	282.1	284.9	286.2	279.4	280.8	278.0	280.8	275.3	265.7	268.4	260.2
5°	379.4	373.9	372.5	361.6	358.8	353.3	353.3	341.0	323.2	320.5	304.0
7.5°	671.1	642.3	617.7	580.7	545.1	517.7	506.7	462.9	415.0	397.2	358.8
10°	1599.6	1594.1	1532.5	1416.1	1281.9	1184.7	1128.5	958.7	743.7	612.2	475.2
12.5°	2911.6	2884.3	2796.6	2583.0	2351.5	2206.3	2092.7	1750.3	1431.2	1175.1	842.3
15°	4342.8	4231.9	4103.2	3771.7	3447.1	3258.1	3096.5	2685.7	2191.3	1822.9	1395.6
17.5°	5871.2	5920.5	5608.3	5037.2	4460.6	4164.8	3890.9	3259.5	2718.5	2335.1	1854.4
20°	8103.6	7999.5	7450.3	6504.0	5653.5	5159.1	4770.1	3859.4	3043.1	2565.2	2110.5
22.5°	11120.7	10789.3	9718.3	8117.3	6768.3	6082.1	5530.2	4303.1	3315.7	2682.9	2151.6
25°	14736.3	14429.5	12446.4	9669.0	7673.6	6784.7	6034.2	4585.2	3425.2	2702.1	2143.3
26°	15916.8	15460.8	13453.0	10220.9	7951.6	6962.8	6158.8	4640.0	3428.0	2687.0	2107.7
27°	16527.6	16170.2	14285.7	10668.7	8141.9	7075.1	6228.7	4653.7	3400.6	2652.8	2052.9
28°	16930.3	16596.1	14813.0	10961.8	8239.2	7118.9	6249.2	4623.6	3338.9	2592.5	1966.7
29°	17179.5	16827.6	15070.5	11094.7	8246.0	7099.7	6210.9	4544.1	3255.4	2520.0	1866.7
30°	17252.1	16871.4	15077.3	11039.9	8144.7	6997.0	6102.7	4415.4	3154.1	2428.2	1755.8
31°	17123.4	16730.3	14829.4	10790.6	7936.5	6797.0	5932.9	4245.6	3028.1	2331.0	1584.6
32°	16909.7	16388.0	14310.4	10377.0	7651.6	6556.0	5720.6	4060.7	2893.8	2207.7	1343.5
33°	16455.1	15825.1	13516.0	9858.0	7309.3	6279.4	5472.7	3855.3	2766.5	1995.4	998.4
34°	15771.7	14976.0	12542.3	9254.0	6921.7	5934.2	5187.8	3664.9	2633.6	1714.7	683.4
35°	14492.5	13751.6	11467.2	8610.3	6504.0	5600.1	4874.2	3415.6	2452.9	1375.0	421.8
36°	13061.3	12516.3	10425.0	7955.7	6076.7	5253.6	4551.0	3232.1	2185.8	1012.1	286.2
37°	11598.7	11115.2	9441.6	7312.0	5648.0	4870.1	4222.3	3024.0	1868.1	675.2	230.1
38°	10205.8	9822.4	8507.6	6679.3	5202.9	4468.8	3877.2	2802.1	1525.7	434.1	189.0
39°	8926.7	8639.1	7592.7	6067.1	4756.4	4075.8	3545.7	2522.7	1164.1	309.5	157.5
40°	7724.2	7521.5	6710.8	5463.1	4312.7	3689.5	3245.8	2184.4	808.0	245.1	127.4
42.5°	5253.6	5202.9	4722.2	3932.0	3203.4	2839.1	2566.5	1228.5	310.9	147.9	71.2
45°	2600.8	2636.4	2444.6	2248.8	2096.8	1985.8	1617.4	512.2	172.6	80.8	43.8
47.5°	920.3	921.7	793.0	706.7	675.2	672.4	488.9	180.8	91.8	49.3	31.5
50°	260.2	280.8	264.3	269.8	210.9	179.4	146.5	87.7	46.6	31.5	20.5
51°	160.2	172.6	161.6	167.1	145.2	130.1	109.6	65.7	37.0	26.0	19.2
52°	102.7	109.6	104.1	105.5	97.2	84.9	74.0	47.9	30.1	21.9	16.4
53°	69.8	74.0	69.8	69.8	64.4	60.3	52.0	35.6	24.7	17.8	12.3
54°	47.9	49.3	49.3	49.3	45.2	42.5	37.0	27.4	20.5	16.4	11.0
55°	34.2	35.6	34.2	34.2	32.9	30.1	27.4	20.5	16.4	13.7	8.2
57.5°	15.1	15.1	15.1	16.4	15.1	15.1	13.7	12.3	11.0	8.2	5.5
60°	6.8	6.8	6.8	6.8	8.2	8.2	8.2	8.2	6.8	5.5	5.5
61°	5.5	5.5	5.5	5.5	5.5	6.8	6.8	6.8	5.5	5.5	4.1
62°	4.1	4.1	4.1	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1
63°	4.1	4.1	4.1	4.1	4.1	4.1	5.5	5.5	4.1	4.1	4.1
64°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
65°	4.1	2.7	2.7	2.7	2.7	4.1	4.1	4.1	4.1	4.1	4.1
66°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.1	4.1



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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	0.0	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	4.1
82.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.7	2.7	4.1
85°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.7	2.7	4.1
87.5°	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	2.7	2.7	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7
2.5°	254.7	253.4	246.5	239.7	241.0	238.3	235.6	231.5	228.7	221.9	221.9
5°	290.3	283.5	268.4	254.7	253.4	247.9	239.7	231.5	224.6	215.0	212.3
7.5°	331.4	312.3	287.6	265.7	261.6	253.4	238.3	227.3	215.0	202.7	198.6
10°	390.3	345.1	302.7	269.8	261.6	249.3	230.1	215.0	201.3	186.3	180.8
12.5°	599.9	425.9	321.8	269.8	254.7	239.7	216.4	198.6	182.1	165.7	160.2
15°	999.8	680.7	408.1	269.8	242.4	224.6	195.8	178.0	160.2	145.2	139.7
17.5°	1380.5	968.3	568.4	304.0	243.8	206.8	171.2	152.0	137.0	121.9	117.8
20°	1601.0	1128.5	673.8	338.3	241.0	186.3	146.5	126.0	110.9	100.0	95.9
22.5°	1629.8	1135.4	650.5	302.7	202.7	154.8	121.9	102.7	90.4	80.8	78.1
25°	1553.1	1002.5	520.4	215.0	150.6	126.0	95.9	82.2	72.6	64.4	63.0
26°	1494.2	923.1	453.3	178.0	132.8	112.3	86.3	74.0	65.7	58.9	57.5
27°	1410.6	838.2	387.6	147.9	117.8	101.3	76.7	67.1	60.3	53.4	53.4
28°	1316.1	746.4	312.3	124.6	105.5	90.4	69.8	60.3	53.4	49.3	49.3
29°	1202.5	613.6	228.7	108.2	93.1	79.4	61.6	53.4	47.9	45.2	45.2
30°	1034.0	445.1	157.5	94.5	80.8	69.8	54.8	47.9	43.8	41.1	41.1
31°	808.0	273.9	123.3	82.2	71.2	61.6	49.3	42.5	39.7	37.0	38.3
32°	550.6	171.2	105.5	71.2	63.0	53.4	43.8	38.3	35.6	34.2	34.2
33°	313.6	142.4	91.8	61.6	53.4	46.6	38.3	34.2	32.9	31.5	31.5
34°	208.2	121.9	79.4	52.0	43.8	39.7	32.9	30.1	28.8	28.8	28.8
35°	175.3	105.5	64.4	43.8	38.3	34.2	28.8	27.4	26.0	26.0	27.4
36°	147.9	87.7	52.0	37.0	32.9	30.1	26.0	24.7	23.3	23.3	24.7
37°	124.6	69.8	43.8	31.5	27.4	26.0	23.3	21.9	21.9	21.9	23.3
38°	101.3	56.2	37.0	27.4	24.7	21.9	20.5	19.2	19.2	20.5	21.9
39°	79.4	45.2	30.1	23.3	20.5	19.2	17.8	17.8	17.8	17.8	19.2
40°	63.0	38.3	26.0	20.5	17.8	17.8	16.4	15.1	16.4	16.4	19.2
42.5°	39.7	27.4	19.2	15.1	13.7	13.7	12.3	12.3	12.3	13.7	15.1
45°	28.8	21.9	15.1	12.3	11.0	9.6	9.6	9.6	11.0	12.3	13.7
47.5°	21.9	15.1	11.0	8.2	6.8	6.8	6.8	6.8	8.2	9.6	11.0
50°	15.1	9.6	6.8	5.5	5.5	5.5	5.5	5.5	6.8	8.2	9.6
51°	12.3	8.2	6.8	5.5	5.5	4.1	4.1	5.5	6.8	6.8	8.2
52°	9.6	6.8	5.5	4.1	4.1	4.1	4.1	5.5	5.5	6.8	8.2
53°	8.2	6.8	5.5	4.1	4.1	4.1	4.1	4.1	5.5	6.8	8.2
54°	6.8	5.5	4.1	4.1	4.1	4.1	4.1	4.1	5.5	6.8	8.2
55°	5.5	5.5	4.1	4.1	4.1	4.1	4.1	4.1	5.5	5.5	6.8
57.5°	5.5	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	6.8
60°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	6.8
61°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	6.8
62°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	6.8
63°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	5.5	6.8
64°	4.1	4.1	4.1	4.1	5.5	5.5	4.1	4.1	5.5	5.5	6.8
65°	4.1	4.1	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	4.1	4.1	5.5	5.5	6.8



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CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	5.5	5.5	5.5
75°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
77.5°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	5.5	5.5
80°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	5.5	5.5
82.5°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	5.5
85°	4.1	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	4.1
87.5°	4.1	4.1	5.5	5.5	5.5	5.5	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: P182696

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7
2.5°	219.1	215.0	212.3	210.9	212.3	209.5	205.4	206.8	205.4	204.1	204.1
5°	208.2	201.3	198.6	197.2	197.2	195.8	190.4	191.7	190.4	189.0	189.0
7.5°	193.1	187.6	183.5	182.1	182.1	180.8	175.3	178.0	175.3	173.9	175.3
10°	175.3	169.8	168.5	165.7	165.7	164.3	160.2	161.6	160.2	160.2	160.2
12.5°	156.1	150.6	149.3	147.9	149.3	147.9	143.8	146.5	145.2	145.2	146.5
15°	135.6	131.5	131.5	130.1	131.5	130.1	128.7	130.1	130.1	130.1	132.8
17.5°	115.0	112.3	112.3	110.9	112.3	112.3	110.9	115.0	115.0	117.8	120.5
20°	94.5	91.8	93.1	93.1	95.9	95.9	95.9	100.0	101.3	104.1	108.2
22.5°	78.1	76.7	78.1	78.1	80.8	82.2	82.2	86.3	90.4	93.1	97.2
25°	63.0	63.0	65.7	65.7	67.1	69.8	71.2	76.7	79.4	82.2	86.3
26°	58.9	58.9	60.3	61.6	63.0	65.7	67.1	72.6	75.3	78.1	82.2
27°	53.4	53.4	56.2	57.5	58.9	61.6	64.4	68.5	71.2	75.3	78.1
28°	49.3	49.3	52.0	53.4	54.8	58.9	60.3	64.4	67.1	71.2	75.3
29°	45.2	46.6	49.3	49.3	52.0	54.8	56.2	61.6	64.4	67.1	71.2
30°	42.5	43.8	45.2	46.6	47.9	50.7	53.4	57.5	60.3	63.0	67.1
31°	39.7	41.1	42.5	43.8	45.2	47.9	50.7	54.8	57.5	60.3	64.4
32°	37.0	37.0	39.7	41.1	42.5	45.2	47.9	52.0	54.8	57.5	61.6
33°	34.2	35.6	37.0	38.3	39.7	42.5	45.2	47.9	50.7	54.8	58.9
34°	31.5	32.9	35.6	37.0	38.3	41.1	42.5	45.2	47.9	52.0	54.8
35°	28.8	31.5	32.9	34.2	35.6	38.3	39.7	43.8	45.2	49.3	52.0
36°	27.4	28.8	31.5	32.9	34.2	35.6	37.0	41.1	43.8	46.6	49.3
37°	24.7	27.4	28.8	30.1	31.5	34.2	35.6	38.3	41.1	43.8	46.6
38°	23.3	24.7	27.4	28.8	30.1	31.5	32.9	37.0	38.3	41.1	43.8
39°	21.9	23.3	26.0	27.4	27.4	30.1	31.5	34.2	35.6	38.3	42.5
40°	20.5	21.9	24.7	24.7	26.0	28.8	30.1	32.9	34.2	37.0	39.7
42.5°	17.8	19.2	20.5	21.9	23.3	24.7	26.0	28.8	30.1	31.5	34.2
45°	15.1	16.4	19.2	19.2	20.5	21.9	23.3	24.7	26.0	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	15.1	16.4	17.8	19.2	19.2	20.5	23.3
51°	11.0	12.3	13.7	13.7	15.1	16.4	16.4	17.8	19.2	19.2	20.5
52°	9.6	11.0	12.3	13.7	13.7	15.1	16.4	16.4	17.8	19.2	20.5
53°	9.6	11.0	12.3	12.3	13.7	15.1	15.1	16.4	16.4	17.8	19.2
54°	9.6	11.0	12.3	12.3	13.7	13.7	15.1	15.1	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	11.0	12.3	12.3	13.7	13.7	13.7	15.1
60°	8.2	9.6	9.6	11.0	11.0	12.3	12.3	12.3	12.3	13.7	13.7
61°	8.2	8.2	9.6	11.0	11.0	11.0	12.3	12.3	12.3	12.3	13.7
62°	8.2	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	12.3	12.3
64°	6.8	8.2	9.6	9.6	9.6	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	11.0	11.0	11.0	11.0	11.0	11.0



TEST NUMBER: P182696

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	6.8	6.8	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
75°	6.8	6.8	6.8	8.2	8.2	8.2	8.2	8.2	8.2	6.8	6.8
77.5°	5.5	5.5	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	5.5
80°	5.5	5.5	6.8	6.8	6.8	6.8	6.8	6.8	5.5	5.5	5.5
82.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1
85°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.1	4.1	2.7
87.5°	4.1	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	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: P182696

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	228.7	228.7	228.7	228.7	228.7	228.7	228.7	228.7
2.5°	205.4	201.3	200.0	200.0	201.3	200.0	201.3	200.0
5°	189.0	184.9	184.9	183.5	184.9	183.5	184.9	183.5
7.5°	175.3	171.2	171.2	171.2	171.2	171.2	172.6	171.2
10°	161.6	157.5	157.5	156.1	157.5	157.5	158.9	157.5
12.5°	147.9	145.2	145.2	143.8	146.5	145.2	147.9	146.5
15°	135.6	132.8	132.8	134.2	135.6	135.6	137.0	137.0
17.5°	123.3	123.3	123.3	124.6	126.0	127.4	128.7	127.4
20°	112.3	112.3	113.7	115.0	116.4	117.8	119.2	119.2
22.5°	101.3	101.3	102.7	105.5	108.2	109.6	110.9	110.9
25°	90.4	91.8	93.1	94.5	98.6	100.0	101.3	101.3
26°	86.3	87.7	90.4	91.8	94.5	95.9	98.6	98.6
27°	83.5	84.9	86.3	87.7	91.8	93.1	95.9	94.5
28°	79.4	80.8	82.2	84.9	87.7	90.4	91.8	91.8
29°	75.3	78.1	79.4	80.8	84.9	86.3	87.7	87.7
30°	72.6	74.0	75.3	78.1	80.8	83.5	84.9	84.9
31°	68.5	71.2	72.6	74.0	78.1	79.4	82.2	82.2
32°	65.7	67.1	68.5	71.2	74.0	76.7	78.1	78.1
33°	61.6	64.4	65.7	67.1	71.2	74.0	75.3	74.0
34°	58.9	61.6	61.6	64.4	67.1	69.8	71.2	71.2
35°	56.2	57.5	58.9	61.6	64.4	67.1	68.5	68.5
36°	53.4	54.8	56.2	58.9	61.6	64.4	65.7	65.7
37°	50.7	52.0	53.4	54.8	58.9	61.6	63.0	63.0
38°	47.9	49.3	50.7	53.4	56.2	57.5	60.3	60.3
39°	45.2	46.6	47.9	50.7	53.4	54.8	57.5	56.2
40°	42.5	45.2	45.2	47.9	50.7	52.0	54.8	53.4
42.5°	37.0	38.3	39.7	41.1	43.8	46.6	47.9	47.9
45°	32.9	34.2	35.6	37.0	38.3	39.7	42.5	41.1
47.5°	27.4	28.8	30.1	31.5	32.9	34.2	35.6	35.6
50°	24.7	24.7	26.0	26.0	28.8	30.1	31.5	31.5
51°	21.9	23.3	24.7	24.7	27.4	27.4	28.8	28.8
52°	21.9	21.9	23.3	23.3	24.7	26.0	27.4	27.4
53°	20.5	20.5	21.9	21.9	23.3	24.7	26.0	26.0
54°	19.2	19.2	20.5	20.5	21.9	23.3	24.7	24.7
55°	17.8	17.8	19.2	19.2	20.5	21.9	23.3	23.3
57.5°	15.1	16.4	16.4	17.8	17.8	19.2	19.2	20.5
60°	13.7	15.1	15.1	15.1	16.4	16.4	16.4	16.4
61°	13.7	13.7	13.7	15.1	15.1	13.7	15.1	13.7
62°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
63°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
64°	12.3	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	11.0	9.6
66°	11.0	11.0	9.6	11.0	9.6	9.6	9.6	9.6



TEST NUMBER: P182696

CATALOG NUMBER: LDSQA4A28835D010TE LAR15SP 4LSQA1H 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	6.8	6.8	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	2.7	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	5.5	5.5	5.5	5.5	5.5	5.5	4.1	5.5	5.5	6.8
70°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	4.1	5.5	5.5	5.5





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





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



(END OF REPORT)