

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: P182695

Luminaire Tested: **LDSQA4A28830D010TE LAR15SP 4LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182695
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: LDSQA4A28830D010TE 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2606.2 lumens
Efficiency: N/A
Efficacy: 58.6 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

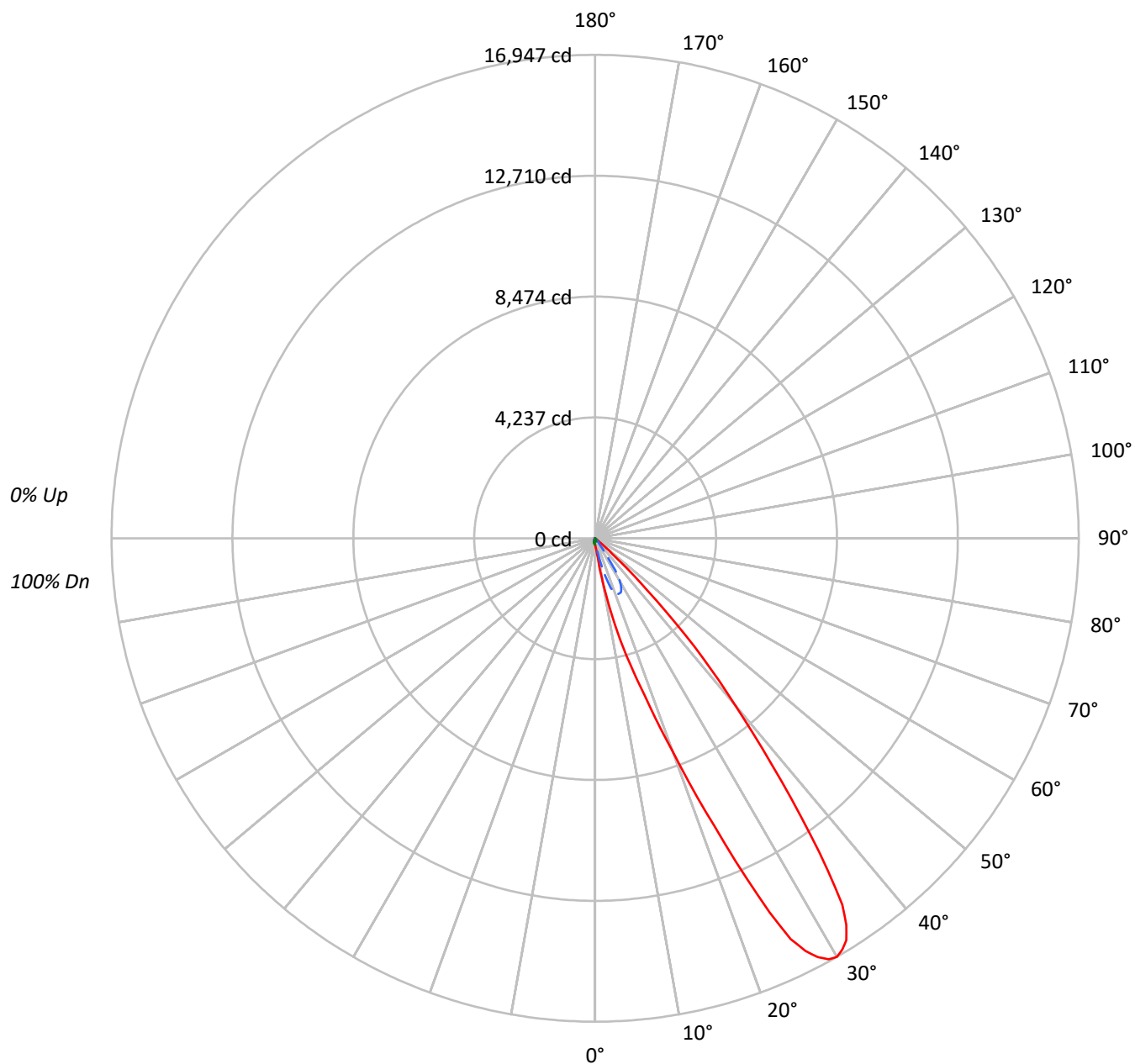
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
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°	21768	21768	21768
5°	36243	20538	17533
10°	154578	18002	15218
15°	427859	14302	13489
20°	820659	10124	12062
25°	1547343	6755	10646
30°	1895772	4519	9329
35°	1683652	3028	7959
40°	959568	2036	6639
45°	350014	1658	5535
50°	38522	1221	4657
55°	5675	912	3868
60°	1298	1046	3119
65°	917	1238	2155
70°	765	1530	1898
75°	1011	2021	1497
80°	0	3013	1506
85°	0	4446	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.3	1.1
10°-20°	282.4	10.8
20°-30°	927.6	35.6
30°-40°	1017.2	39.0
40°-50°	317.7	12.2
50°-60°	17.4	0.7
60°-70°	7.0	0.3
70°-80°	5.3	0.2
80°-90°	3.3	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°	1238.2	47.5
0°-40°	2255.4	86.5
0°-60°	2590.5	99.4
0°-90°	2606.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2606.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	225	225	225	225	225	
5°	373	299	211	187	180	69
15°	4266	1371	143	128	134	1340
25°	14476	2106	63	78	100	6453
35°	14236	414	26	44	67	8323
45°	2555	43	12	26	40	2345
55°	34	8	5	15	23	53
65°	4	4	5	11	9	4
75°	3	4	5	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°	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7
2.5°	277.1	279.8	281.2	274.5	275.8	273.1	275.8	270.4	261.0	263.7	255.6
5°	372.7	367.3	365.9	355.2	352.5	347.1	347.1	335.0	317.5	314.8	298.7
7.5°	659.2	631.0	606.8	570.4	535.4	508.5	497.8	454.7	407.6	390.2	352.5
10°	1571.4	1566.0	1505.4	1391.1	1259.2	1163.7	1108.6	941.7	730.5	601.4	466.8
12.5°	2860.2	2833.3	2747.2	2537.3	2310.0	2167.4	2055.7	1719.4	1405.9	1154.3	827.4
15°	4266.1	4157.1	4030.7	3705.1	3386.2	3200.6	3041.8	2638.2	2152.6	1790.7	1370.9
17.5°	5767.5	5816.0	5509.2	4948.2	4381.8	4091.2	3822.1	3201.9	2670.5	2293.8	1821.6
20°	7960.4	7858.2	7318.7	6389.1	5553.6	5067.9	4685.9	3791.2	2989.4	2519.8	2073.2
22.5°	10924.2	10598.7	9546.6	7973.9	6648.7	5974.7	5432.5	4227.1	3257.1	2635.5	2113.5
25°	14476.0	14174.6	12226.5	9498.2	7538.0	6664.9	5927.6	4504.2	3364.7	2654.4	2105.5
26°	15635.7	15187.7	13215.4	10040.4	7811.1	6839.8	6050.0	4558.0	3367.4	2639.6	2070.5
27°	16235.7	15884.6	14033.4	10480.3	7998.1	6950.1	6118.7	4571.5	3340.5	2605.9	2016.7
28°	16631.2	16303.0	14551.3	10768.2	8093.6	6993.1	6138.8	4541.9	3280.0	2546.7	1931.9
29°	16876.1	16530.3	14804.2	10898.7	8100.4	6974.3	6101.2	4463.9	3197.9	2475.4	1833.7
30°	16947.4	16573.4	14811.0	10844.9	8000.8	6873.4	5994.9	4337.4	3098.3	2385.3	1724.7
31°	16820.9	16434.8	14567.5	10600.0	7796.3	6677.0	5828.1	4170.6	2974.6	2289.8	1556.6
32°	16611.0	16098.5	14057.6	10193.7	7516.5	6440.2	5619.5	3989.0	2842.7	2168.7	1319.8
33°	16164.4	15545.5	13277.3	9683.8	7180.1	6168.4	5376.0	3787.2	2717.6	1960.2	980.8
34°	15493.1	14711.4	12320.7	9090.5	6799.4	5829.4	5096.2	3600.2	2587.1	1684.4	671.3
35°	14236.5	13508.7	11264.6	8458.2	6389.1	5501.1	4788.1	3355.3	2409.5	1350.7	414.4
36°	12830.6	12295.2	10240.8	7815.1	5969.3	5160.8	4470.6	3175.0	2147.2	994.2	281.2
37°	11393.8	10918.9	9274.8	7182.8	5548.2	4784.1	4147.7	2970.5	1835.1	663.3	226.0
38°	10025.6	9648.9	8357.3	6561.3	5111.0	4389.9	3808.7	2752.6	1498.7	426.5	185.7
39°	8769.0	8486.5	7458.6	5959.9	4672.4	4003.8	3483.1	2478.1	1143.5	304.0	154.7
40°	7587.8	7388.7	6592.2	5366.6	4236.5	3624.4	3188.5	2145.8	793.8	240.8	125.1
42.5°	5160.8	5111.0	4638.8	3862.5	3146.8	2788.9	2521.2	1206.8	305.4	145.3	70.0
45°	2554.8	2589.8	2401.5	2209.1	2059.7	1950.8	1588.9	503.2	169.5	79.4	43.1
47.5°	904.1	905.4	779.0	694.2	663.3	660.6	480.3	177.6	90.1	48.4	30.9
50°	255.6	275.8	259.7	265.0	207.2	176.2	144.0	86.1	45.7	30.9	20.2
51°	157.4	169.5	158.8	164.1	142.6	127.8	107.6	64.6	36.3	25.6	18.8
52°	100.9	107.6	102.2	103.6	95.5	83.4	72.6	47.1	29.6	21.5	16.1
53°	68.6	72.6	68.6	68.6	63.2	59.2	51.1	35.0	24.2	17.5	12.1
54°	47.1	48.4	48.4	48.4	44.4	41.7	36.3	26.9	20.2	16.1	10.8
55°	33.6	35.0	33.6	33.6	32.3	29.6	26.9	20.2	16.1	13.5	8.1
57.5°	14.8	14.8	14.8	16.1	14.8	14.8	13.5	12.1	10.8	8.1	5.4
60°	6.7	6.7	6.7	6.7	8.1	8.1	8.1	8.1	6.7	5.4	5.4
61°	5.4	5.4	5.4	5.4	5.4	6.7	6.7	6.7	5.4	5.4	4.0
62°	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4	5.4	4.0	4.0
63°	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4	4.0	4.0	4.0
64°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
65°	4.0	2.7	2.7	2.7	2.7	4.0	4.0	4.0	4.0	4.0	4.0
66°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0	4.0



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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	4.0
75°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0
77.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.7	2.7	4.0
80°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.7	2.7	4.0
82.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.7	2.7	4.0
85°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.7	2.7	4.0
87.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.7	2.7	4.0
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°	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7
2.5°	250.2	248.9	242.2	235.4	236.8	234.1	231.4	227.4	224.7	217.9	217.9
5°	285.2	278.5	263.7	250.2	248.9	243.5	235.4	227.4	220.6	211.2	208.5
7.5°	325.6	306.7	282.5	261.0	257.0	248.9	234.1	223.3	211.2	199.1	195.1
10°	383.4	339.0	297.3	265.0	257.0	244.9	226.0	211.2	197.8	183.0	177.6
12.5°	589.3	418.4	316.2	265.0	250.2	235.4	212.6	195.1	178.9	162.8	157.4
15°	982.1	668.6	400.9	265.0	238.1	220.6	192.4	174.9	157.4	142.6	137.2
17.5°	1356.1	951.2	558.3	298.7	239.5	203.1	168.2	149.3	134.5	119.7	115.7
20°	1572.7	1108.6	661.9	332.3	236.8	183.0	144.0	123.8	109.0	98.2	94.2
22.5°	1601.0	1115.3	639.0	297.3	199.1	152.0	119.7	100.9	88.8	79.4	76.7
25°	1525.6	984.8	511.2	211.2	148.0	123.8	94.2	80.7	71.3	63.2	61.9
26°	1467.8	906.8	445.3	174.9	130.5	110.3	84.8	72.6	64.6	57.9	56.5
27°	1385.7	823.4	380.7	145.3	115.7	99.6	75.3	65.9	59.2	52.5	52.5
28°	1292.9	733.2	306.7	122.4	103.6	88.8	68.6	59.2	52.5	48.4	48.4
29°	1181.2	602.7	224.7	106.3	91.5	78.0	60.5	52.5	47.1	44.4	44.4
30°	1015.7	437.2	154.7	92.8	79.4	68.6	53.8	47.1	43.1	40.4	40.4
31°	793.8	269.1	121.1	80.7	70.0	60.5	48.4	41.7	39.0	36.3	37.7
32°	540.8	168.2	103.6	70.0	61.9	52.5	43.1	37.7	35.0	33.6	33.6
33°	308.1	139.9	90.1	60.5	52.5	45.7	37.7	33.6	32.3	30.9	30.9
34°	204.5	119.7	78.0	51.1	43.1	39.0	32.3	29.6	28.3	28.3	28.3
35°	172.2	103.6	63.2	43.1	37.7	33.6	28.3	26.9	25.6	25.6	26.9
36°	145.3	86.1	51.1	36.3	32.3	29.6	25.6	24.2	22.9	22.9	24.2
37°	122.4	68.6	43.1	30.9	26.9	25.6	22.9	21.5	21.5	21.5	22.9
38°	99.6	55.2	36.3	26.9	24.2	21.5	20.2	18.8	18.8	20.2	21.5
39°	78.0	44.4	29.6	22.9	20.2	18.8	17.5	17.5	17.5	17.5	18.8
40°	61.9	37.7	25.6	20.2	17.5	17.5	16.1	14.8	16.1	16.1	18.8
42.5°	39.0	26.9	18.8	14.8	13.5	13.5	12.1	12.1	12.1	13.5	14.8
45°	28.3	21.5	14.8	12.1	10.8	9.4	9.4	9.4	10.8	12.1	13.5
47.5°	21.5	14.8	10.8	8.1	6.7	6.7	6.7	6.7	8.1	9.4	10.8
50°	14.8	9.4	6.7	5.4	5.4	5.4	5.4	5.4	6.7	8.1	9.4
51°	12.1	8.1	6.7	5.4	5.4	4.0	4.0	5.4	6.7	6.7	8.1
52°	9.4	6.7	5.4	4.0	4.0	4.0	4.0	5.4	5.4	6.7	8.1
53°	8.1	6.7	5.4	4.0	4.0	4.0	4.0	4.0	5.4	6.7	8.1
54°	6.7	5.4	4.0	4.0	4.0	4.0	4.0	4.0	5.4	6.7	8.1
55°	5.4	5.4	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4	6.7
57.5°	5.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	6.7
60°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	6.7
61°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	6.7
62°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	6.7
63°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4	6.7
64°	4.0	4.0	4.0	4.0	5.4	5.4	4.0	4.0	5.4	5.4	6.7
65°	4.0	4.0	5.4	5.4	5.4	5.4	4.0	4.0	5.4	5.4	6.7
66°	4.0	5.4	5.4	5.4	5.4	5.4	4.0	4.0	5.4	5.4	6.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	4.0	5.4	5.4	5.4
75°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
77.5°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	4.0	4.0	5.4	5.4
80°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	4.0	4.0	5.4	5.4
82.5°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	4.0	4.0	4.0	5.4
85°	4.0	4.0	5.4	5.4	5.4	5.4	5.4	4.0	4.0	4.0	4.0
87.5°	4.0	4.0	5.4	5.4	5.4	5.4	4.0	4.0	4.0	4.0	4.0
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: P182695

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7
2.5°	215.3	211.2	208.5	207.2	208.5	205.8	201.8	203.1	201.8	200.5	200.5
5°	204.5	197.8	195.1	193.7	193.7	192.4	187.0	188.3	187.0	185.7	185.7
7.5°	189.7	184.3	180.3	178.9	178.9	177.6	172.2	174.9	172.2	170.9	172.2
10°	172.2	166.8	165.5	162.8	162.8	161.4	157.4	158.8	157.4	157.4	157.4
12.5°	153.4	148.0	146.6	145.3	146.6	145.3	141.3	144.0	142.6	142.6	144.0
15°	133.2	129.2	129.2	127.8	129.2	127.8	126.5	127.8	127.8	127.8	130.5
17.5°	113.0	110.3	110.3	109.0	110.3	110.3	109.0	113.0	113.0	115.7	118.4
20°	92.8	90.1	91.5	91.5	94.2	94.2	94.2	98.2	99.6	102.2	106.3
22.5°	76.7	75.3	76.7	76.7	79.4	80.7	80.7	84.8	88.8	91.5	95.5
25°	61.9	61.9	64.6	64.6	65.9	68.6	70.0	75.3	78.0	80.7	84.8
26°	57.9	57.9	59.2	60.5	61.9	64.6	65.9	71.3	74.0	76.7	80.7
27°	52.5	52.5	55.2	56.5	57.9	60.5	63.2	67.3	70.0	74.0	76.7
28°	48.4	48.4	51.1	52.5	53.8	57.9	59.2	63.2	65.9	70.0	74.0
29°	44.4	45.7	48.4	48.4	51.1	53.8	55.2	60.5	63.2	65.9	70.0
30°	41.7	43.1	44.4	45.7	47.1	49.8	52.5	56.5	59.2	61.9	65.9
31°	39.0	40.4	41.7	43.1	44.4	47.1	49.8	53.8	56.5	59.2	63.2
32°	36.3	36.3	39.0	40.4	41.7	44.4	47.1	51.1	53.8	56.5	60.5
33°	33.6	35.0	36.3	37.7	39.0	41.7	44.4	47.1	49.8	53.8	57.9
34°	30.9	32.3	35.0	36.3	37.7	40.4	41.7	44.4	47.1	51.1	53.8
35°	28.3	30.9	32.3	33.6	35.0	37.7	39.0	43.1	44.4	48.4	51.1
36°	26.9	28.3	30.9	32.3	33.6	35.0	36.3	40.4	43.1	45.7	48.4
37°	24.2	26.9	28.3	29.6	30.9	33.6	35.0	37.7	40.4	43.1	45.7
38°	22.9	24.2	26.9	28.3	29.6	30.9	32.3	36.3	37.7	40.4	43.1
39°	21.5	22.9	25.6	26.9	26.9	29.6	30.9	33.6	35.0	37.7	41.7
40°	20.2	21.5	24.2	24.2	25.6	28.3	29.6	32.3	33.6	36.3	39.0
42.5°	17.5	18.8	20.2	21.5	22.9	24.2	25.6	28.3	29.6	30.9	33.6
45°	14.8	16.1	18.8	18.8	20.2	21.5	22.9	24.2	25.6	28.3	29.6
47.5°	12.1	14.8	16.1	17.5	17.5	18.8	20.2	21.5	22.9	24.2	25.6
50°	10.8	12.1	13.5	14.8	14.8	16.1	17.5	18.8	18.8	20.2	22.9
51°	10.8	12.1	13.5	13.5	14.8	16.1	16.1	17.5	18.8	18.8	20.2
52°	9.4	10.8	12.1	13.5	13.5	14.8	16.1	16.1	17.5	18.8	20.2
53°	9.4	10.8	12.1	12.1	13.5	14.8	14.8	16.1	16.1	17.5	18.8
54°	9.4	10.8	12.1	12.1	13.5	13.5	14.8	14.8	16.1	16.1	17.5
55°	8.1	9.4	10.8	12.1	12.1	13.5	13.5	14.8	14.8	16.1	16.1
57.5°	8.1	9.4	10.8	10.8	10.8	12.1	12.1	13.5	13.5	13.5	14.8
60°	8.1	9.4	9.4	10.8	10.8	12.1	12.1	12.1	12.1	13.5	13.5
61°	8.1	8.1	9.4	10.8	10.8	10.8	12.1	12.1	12.1	12.1	13.5
62°	8.1	8.1	9.4	9.4	10.8	10.8	10.8	12.1	12.1	12.1	12.1
63°	6.7	8.1	9.4	9.4	10.8	10.8	10.8	10.8	10.8	12.1	12.1
64°	6.7	8.1	9.4	9.4	9.4	10.8	10.8	10.8	10.8	10.8	10.8
65°	6.7	8.1	9.4	9.4	9.4	10.8	10.8	10.8	10.8	10.8	10.8
66°	6.7	8.1	9.4	9.4	9.4	10.8	10.8	10.8	10.8	10.8	10.8



TEST NUMBER: P182695

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	6.7	6.7	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
75°	6.7	6.7	6.7	8.1	8.1	8.1	8.1	8.1	8.1	6.7	6.7
77.5°	5.4	5.4	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	5.4
80°	5.4	5.4	6.7	6.7	6.7	6.7	6.7	6.7	5.4	5.4	5.4
82.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	4.0	4.0
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	4.0	4.0	2.7
87.5°	4.0	5.4	5.4	5.4	5.4	5.4	4.0	4.0	4.0	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: P182695

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	224.7	224.7	224.7	224.7	224.7	224.7	224.7	224.7
2.5°	201.8	197.8	196.4	196.4	197.8	196.4	197.8	196.4
5°	185.7	181.6	181.6	180.3	181.6	180.3	181.6	180.3
7.5°	172.2	168.2	168.2	168.2	168.2	168.2	169.5	168.2
10°	158.8	154.7	154.7	153.4	154.7	154.7	156.1	154.7
12.5°	145.3	142.6	142.6	141.3	144.0	142.6	145.3	144.0
15°	133.2	130.5	130.5	131.8	133.2	133.2	134.5	134.5
17.5°	121.1	121.1	121.1	122.4	123.8	125.1	126.5	125.1
20°	110.3	110.3	111.7	113.0	114.4	115.7	117.0	117.0
22.5°	99.6	99.6	100.9	103.6	106.3	107.6	109.0	109.0
25°	88.8	90.1	91.5	92.8	96.9	98.2	99.6	99.6
26°	84.8	86.1	88.8	90.1	92.8	94.2	96.9	96.9
27°	82.1	83.4	84.8	86.1	90.1	91.5	94.2	92.8
28°	78.0	79.4	80.7	83.4	86.1	88.8	90.1	90.1
29°	74.0	76.7	78.0	79.4	83.4	84.8	86.1	86.1
30°	71.3	72.6	74.0	76.7	79.4	82.1	83.4	83.4
31°	67.3	70.0	71.3	72.6	76.7	78.0	80.7	80.7
32°	64.6	65.9	67.3	70.0	72.6	75.3	76.7	76.7
33°	60.5	63.2	64.6	65.9	70.0	72.6	74.0	72.6
34°	57.9	60.5	60.5	63.2	65.9	68.6	70.0	70.0
35°	55.2	56.5	57.9	60.5	63.2	65.9	67.3	67.3
36°	52.5	53.8	55.2	57.9	60.5	63.2	64.6	64.6
37°	49.8	51.1	52.5	53.8	57.9	60.5	61.9	61.9
38°	47.1	48.4	49.8	52.5	55.2	56.5	59.2	59.2
39°	44.4	45.7	47.1	49.8	52.5	53.8	56.5	55.2
40°	41.7	44.4	44.4	47.1	49.8	51.1	53.8	52.5
42.5°	36.3	37.7	39.0	40.4	43.1	45.7	47.1	47.1
45°	32.3	33.6	35.0	36.3	37.7	39.0	41.7	40.4
47.5°	26.9	28.3	29.6	30.9	32.3	33.6	35.0	35.0
50°	24.2	24.2	25.6	25.6	28.3	29.6	30.9	30.9
51°	21.5	22.9	24.2	24.2	26.9	26.9	28.3	28.3
52°	21.5	21.5	22.9	22.9	24.2	25.6	26.9	26.9
53°	20.2	20.2	21.5	21.5	22.9	24.2	25.6	25.6
54°	18.8	18.8	20.2	20.2	21.5	22.9	24.2	24.2
55°	17.5	17.5	18.8	18.8	20.2	21.5	22.9	22.9
57.5°	14.8	16.1	16.1	17.5	17.5	18.8	18.8	20.2
60°	13.5	14.8	14.8	14.8	16.1	16.1	16.1	16.1
61°	13.5	13.5	13.5	14.8	14.8	13.5	14.8	13.5
62°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
63°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
64°	12.1	10.8	10.8	10.8	10.8	10.8	10.8	10.8
65°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	9.4
66°	10.8	10.8	9.4	10.8	9.4	9.4	9.4	9.4



TEST NUMBER: P182695

CATALOG NUMBER: LDSQA4A28830D010TE LAR15SP 4LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	6.7	6.7	6.7	6.7	6.7	5.4	5.4	5.4
75°	6.7	6.7	6.7	5.4	5.4	5.4	5.4	4.0
77.5°	5.4	5.4	5.4	5.4	4.0	4.0	4.0	4.0
80°	4.0	4.0	4.0	4.0	4.0	4.0	2.7	2.7
82.5°	4.0	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	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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	4.0	4.0
70°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0	4.0





67.5°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	4.0	5.4	5.4	6.7
70°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	4.0	5.4	5.4	5.4





67.5°	6.7	8.1	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
70°	6.7	8.1	8.1	8.1	9.4	9.4	9.4	9.4	9.4	9.4	9.4





67.5°	9.4	9.4	9.4	9.4	9.4	8.1	8.1	8.1
70°	8.1	8.1	8.1	8.1	8.1	6.7	6.7	6.7



(END OF REPORT)