

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: P182790

Luminaire Tested: **LDSQA4A28827D010TE LAR15SP 4LSQAL1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182790
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: LDSQA4A28827D010TE LAR15SP 4LSQAL1H 30°
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT, 30° Tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2375.7 lumens
Efficiency: N/A
Efficacy: 53.4 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

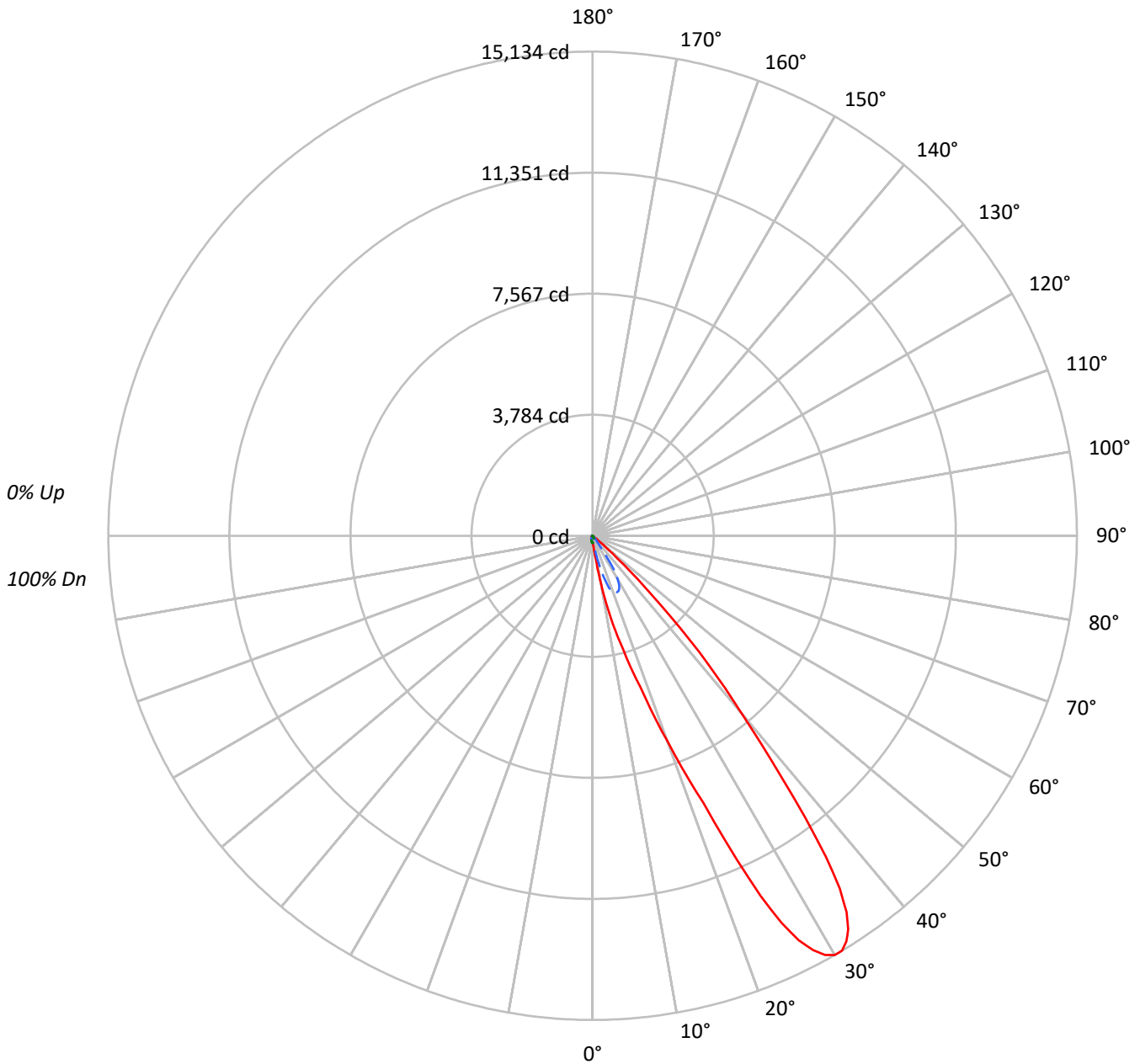
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	71	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°	21719	21719	21719
5°	34493	20645	17825
10°	151116	18287	15178
15°	369228	14813	13229
20°	704422	11010	12103
25°	1327555	7888	10571
30°	1692720	5604	9296
35°	1592306	3430	7947
40°	913460	2340	6842
45°	352631	1630	5782
50°	46901	1191	4762
55°	7127	1115	4003
60°	2034	1027	3313
65°	1215	1215	2407
70°	736	1501	1869
75°	973	1497	1497
80°	0	2232	1450
85°	0	4446	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.0	1.2
10°-20°	254.6	10.7
20°-30°	811.9	34.2
30°-40°	940.8	39.6
40°-50°	305.9	12.9
50°-60°	19.4	0.8
60°-70°	7.0	0.3
70°-80°	5.0	0.2
80°-90°	3.0	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°	1094.5	46.1
0°-40°	2035.3	85.7
0°-60°	2360.6	99.4
0°-90°	2375.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2375.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	224	224	224	224	224	
5°	355	297	212	186	183	69
15°	3682	1326	148	127	132	1167
25°	12420	1908	74	78	99	5581
35°	13464	455	29	45	67	7747
45°	2574	55	12	26	42	2298
55°	42	10	7	14	24	65
65°	5	4	5	10	10	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°	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2
2.5°	272.9	275.6	275.6	271.6	271.6	267.7	265.0	263.7	262.4	258.4	257.1
5°	354.7	357.3	358.7	348.1	344.2	336.2	329.6	323.1	315.1	305.9	296.7
7.5°	684.3	629.0	638.2	559.1	544.6	510.3	482.6	439.1	407.4	375.8	350.7
10°	1536.2	1483.4	1474.2	1358.1	1243.4	1157.7	1065.4	905.9	760.8	606.6	481.3
12.5°	2631.9	2554.1	2510.6	2282.5	2148.0	2021.4	1880.3	1631.1	1352.9	1115.5	867.6
15°	3681.5	3674.9	3519.3	3264.8	3009.0	2853.4	2671.5	2362.9	2033.3	1672.0	1326.5
17.5°	4948.7	5000.1	4733.7	4236.6	3831.8	3578.7	3328.1	2845.5	2434.1	2083.4	1704.9
20°	6832.9	6695.8	6230.3	5452.4	4768.0	4387.0	3998.0	3287.2	2697.8	2273.3	1889.5
22.5°	9046.9	8941.4	8071.1	6773.6	5688.4	5153.1	4617.7	3693.4	2926.0	2376.1	1925.1
25°	12419.8	11986.0	10296.9	8191.1	6532.3	5774.1	5087.1	3957.1	3028.8	2389.3	1908.0
26°	13454.9	13150.3	11201.4	8754.1	6792.1	5945.5	5204.5	4011.2	3036.7	2377.4	1875.0
27°	14189.4	13957.3	11954.4	9168.2	6980.6	6064.2	5281.0	4033.6	3018.3	2352.4	1830.2
28°	14673.3	14487.4	12522.7	9467.5	7095.3	6127.5	5317.9	4028.3	2981.3	2308.9	1766.9
29°	14980.5	14801.2	12855.0	9637.6	7136.2	6138.0	5308.7	3988.7	2922.0	2244.2	1675.9
30°	15132.2	14937.0	12967.0	9656.0	7091.4	6077.4	5238.8	3901.7	2840.2	2166.4	1575.7
31°	15133.5	14917.2	12873.4	9513.6	6958.2	5948.2	5114.8	3756.7	2733.4	2074.1	1441.2
32°	14958.1	14735.3	12560.9	9224.9	6749.9	5786.0	4948.7	3609.0	2621.4	1971.3	1247.4
33°	14664.1	14400.3	12019.0	8824.0	6483.5	5564.5	4749.6	3444.2	2509.3	1806.5	992.9
34°	14189.4	13829.4	11262.1	8337.5	6161.8	5306.0	4521.5	3266.2	2395.9	1577.0	709.4
35°	13464.1	12956.5	10386.5	7799.5	5817.6	5026.5	4264.3	3080.2	2257.4	1293.5	454.9
36°	12414.5	11759.2	9475.4	7243.0	5462.9	4732.4	4003.2	2900.9	2038.5	981.0	298.0
37°	11044.5	10467.0	8603.8	6682.6	5095.0	4418.6	3764.6	2720.3	1769.6	685.7	242.6
38°	9637.6	9211.7	7752.0	6126.2	4714.0	4079.7	3474.5	2531.7	1475.5	451.0	203.1
39°	8369.1	8084.3	6918.7	5575.0	4321.0	3783.0	3184.4	2291.7	1161.7	320.4	171.4
40°	7223.2	7026.8	6113.0	5013.3	3928.1	3424.4	2911.5	1997.7	837.3	255.8	143.7
42.5°	4926.3	4828.7	4276.2	3607.7	2906.2	2617.4	2293.0	1201.2	332.3	162.2	87.0
45°	2573.9	2531.7	2331.3	2112.4	1894.8	1819.7	1474.2	539.3	187.2	94.9	55.4
47.5°	1002.1	1004.8	830.7	709.4	673.8	626.3	474.7	193.8	105.5	58.0	36.9
50°	311.2	334.9	308.6	291.4	222.8	185.9	154.3	96.3	56.7	35.6	23.7
51°	191.2	203.1	191.2	191.2	156.9	137.1	117.4	73.8	44.8	29.0	21.1
52°	123.9	130.5	123.9	116.0	108.1	97.6	84.4	55.4	35.6	23.7	17.1
53°	84.4	88.3	84.4	79.1	72.5	67.2	59.3	40.9	29.0	19.8	14.5
54°	59.3	62.0	59.3	55.4	51.4	47.5	43.5	31.6	23.7	17.1	13.2
55°	42.2	44.8	43.5	40.9	36.9	35.6	33.0	25.1	19.8	14.5	10.5
57.5°	19.8	21.1	21.1	19.8	19.8	18.5	17.1	15.8	11.9	9.2	7.9
60°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	7.9	6.6	6.6
61°	7.9	7.9	7.9	7.9	7.9	7.9	9.2	7.9	6.6	6.6	5.3
62°	6.6	6.6	6.6	6.6	6.6	7.9	7.9	6.6	6.6	5.3	5.3
63°	5.3	5.3	5.3	5.3	6.6	6.6	6.6	6.6	5.3	5.3	5.3
64°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.0
65°	5.3	5.3	4.0	4.0	4.0	5.3	4.0	5.3	4.0	4.0	4.0
66°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0
75°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0
77.5°	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	2.6	2.6	4.0
80°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	2.6
82.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	2.6	2.6
85°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	2.6	2.6	2.6
87.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	2.6	2.6
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°	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2
2.5°	249.2	242.6	240.0	237.3	236.0	233.4	229.4	225.5	224.2	218.9	213.6
5°	280.9	269.0	259.8	250.5	247.9	241.3	233.4	224.2	220.2	212.3	205.7
7.5°	317.8	294.0	276.9	261.1	254.5	246.6	232.1	220.2	212.3	200.4	192.5
10°	379.8	324.4	291.4	263.7	253.2	242.6	224.2	208.3	197.8	185.9	176.7
12.5°	601.3	420.6	316.5	265.0	250.5	234.7	212.3	193.8	180.6	167.5	159.5
15°	948.1	640.8	410.1	278.2	245.3	221.5	195.2	174.1	160.9	147.7	139.8
17.5°	1265.8	862.4	535.3	309.9	247.9	209.7	174.1	153.0	138.5	126.6	121.3
20°	1418.8	966.5	596.0	316.5	232.1	187.2	150.3	130.5	117.4	106.8	101.5
22.5°	1433.3	959.9	559.1	270.3	192.5	158.2	126.6	108.1	97.6	89.7	84.4
25°	1364.7	851.8	448.3	199.1	150.3	131.9	104.2	88.3	80.4	73.8	69.9
26°	1312.0	789.8	394.3	172.7	137.1	120.0	94.9	81.8	73.8	68.6	64.6
27°	1239.5	717.3	331.0	149.0	126.6	108.1	87.0	75.2	68.6	64.6	60.7
28°	1152.4	646.1	274.3	131.9	114.7	97.6	80.4	68.6	63.3	59.3	55.4
29°	1058.8	552.5	214.9	118.7	102.9	88.3	72.5	62.0	56.7	54.1	51.4
30°	927.0	429.9	164.8	106.8	92.3	79.1	65.9	56.7	52.7	50.1	47.5
31°	741.0	295.4	133.2	94.9	83.1	71.2	59.3	51.4	47.5	44.8	43.5
32°	531.4	182.0	116.0	84.4	73.8	64.6	51.4	46.2	42.2	40.9	39.6
33°	327.0	149.0	102.9	75.2	64.6	56.7	46.2	40.9	38.2	36.9	35.6
34°	214.9	129.2	91.0	64.6	56.7	48.8	39.6	35.6	34.3	33.0	33.0
35°	182.0	114.7	79.1	55.4	47.5	42.2	34.3	31.6	30.3	29.0	30.3
36°	156.9	100.2	65.9	47.5	40.9	35.6	30.3	27.7	26.4	26.4	27.7
37°	138.5	84.4	55.4	39.6	35.6	31.6	26.4	25.1	23.7	23.7	25.1
38°	117.4	68.6	46.2	34.3	30.3	26.4	23.7	22.4	22.4	22.4	23.7
39°	96.3	58.0	39.6	29.0	26.4	23.7	21.1	19.8	19.8	21.1	21.1
40°	79.1	48.8	33.0	25.1	22.4	21.1	18.5	18.5	18.5	18.5	19.8
42.5°	51.4	33.0	23.7	18.5	17.1	15.8	14.5	14.5	14.5	14.5	15.8
45°	34.3	23.7	18.5	14.5	13.2	11.9	11.9	10.5	11.9	11.9	13.2
47.5°	23.7	17.1	13.2	10.5	9.2	7.9	7.9	7.9	9.2	10.5	10.5
50°	17.1	11.9	9.2	6.6	6.6	6.6	6.6	6.6	7.9	7.9	9.2
51°	14.5	10.5	7.9	6.6	6.6	5.3	5.3	5.3	6.6	7.9	9.2
52°	11.9	9.2	6.6	5.3	5.3	5.3	5.3	5.3	6.6	6.6	7.9
53°	10.5	7.9	6.6	5.3	5.3	5.3	5.3	5.3	6.6	6.6	7.9
54°	9.2	6.6	5.3	5.3	5.3	4.0	4.0	5.3	5.3	6.6	7.9
55°	7.9	6.6	5.3	5.3	4.0	4.0	4.0	4.0	5.3	6.6	6.6
57.5°	6.6	5.3	5.3	4.0	4.0	4.0	4.0	4.0	5.3	5.3	6.6
60°	5.3	5.3	5.3	4.0	4.0	4.0	4.0	4.0	5.3	5.3	6.6
61°	5.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3	5.3	6.6
62°	5.3	4.0	5.3	5.3	5.3	4.0	4.0	4.0	5.3	5.3	6.6
63°	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	5.3	5.3	5.3
64°	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3	6.6
65°	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3	6.6
66°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	5.3	5.3	5.3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
72.5°	4.0	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3
75°	4.0	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	5.3
77.5°	4.0	4.0	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	5.3
80°	4.0	4.0	5.3	5.3	5.3	5.3	4.0	4.0	4.0	4.0	4.0
82.5°	4.0	4.0	4.0	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0
85°	4.0	4.0	4.0	5.3	5.3	4.0	4.0	4.0	4.0	4.0	4.0
87.5°	4.0	4.0	4.0	4.0	4.0	4.0	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



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CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2
2.5°	211.0	211.0	209.7	207.0	209.7	207.0	204.4	203.1	201.7	200.4	197.8
5°	200.4	199.1	196.5	195.2	195.2	192.5	189.9	187.2	185.9	184.6	182.0
7.5°	187.2	185.9	182.0	180.6	180.6	178.0	174.1	172.7	171.4	170.1	167.5
10°	171.4	170.1	166.1	164.8	164.8	162.2	159.5	156.9	155.6	154.3	151.6
12.5°	153.0	151.6	149.0	147.7	147.7	145.0	142.4	141.1	141.1	139.8	138.5
15°	134.5	133.2	130.5	130.5	130.5	127.9	126.6	125.3	126.6	126.6	125.3
17.5°	116.0	114.7	112.1	112.1	112.1	112.1	110.8	110.8	112.1	113.4	113.4
20°	97.6	96.3	96.3	94.9	96.3	97.6	96.3	97.6	100.2	101.5	102.9
22.5°	80.4	80.4	80.4	80.4	81.8	83.1	83.1	85.7	88.3	89.7	92.3
25°	67.2	67.2	68.6	68.6	69.9	71.2	72.5	73.8	77.8	80.4	81.8
26°	62.0	63.3	63.3	64.6	65.9	67.2	68.6	69.9	73.8	76.5	77.8
27°	58.0	58.0	59.3	60.7	62.0	63.3	64.6	67.2	69.9	72.5	75.2
28°	54.1	54.1	55.4	56.7	58.0	59.3	60.7	63.3	65.9	69.9	71.2
29°	50.1	51.4	51.4	52.7	54.1	55.4	58.0	59.3	63.3	65.9	68.6
30°	46.2	47.5	48.8	48.8	50.1	51.4	54.1	56.7	59.3	63.3	64.6
31°	43.5	44.8	44.8	46.2	47.5	48.8	51.4	54.1	56.7	59.3	62.0
32°	39.6	42.2	42.2	42.2	43.5	46.2	48.8	50.1	54.1	56.7	58.0
33°	36.9	38.2	39.6	39.6	40.9	43.5	46.2	47.5	51.4	54.1	55.4
34°	34.3	35.6	36.9	36.9	38.2	40.9	43.5	44.8	48.8	50.1	52.7
35°	31.6	33.0	34.3	34.3	35.6	38.2	40.9	42.2	44.8	47.5	50.1
36°	29.0	30.3	31.6	33.0	34.3	36.9	38.2	40.9	42.2	44.8	47.5
37°	26.4	27.7	30.3	30.3	33.0	34.3	36.9	38.2	40.9	42.2	44.8
38°	23.7	26.4	27.7	29.0	30.3	33.0	34.3	35.6	38.2	40.9	42.2
39°	22.4	25.1	26.4	27.7	29.0	30.3	31.6	34.3	35.6	38.2	39.6
40°	21.1	22.4	25.1	25.1	27.7	29.0	30.3	31.6	34.3	35.6	38.2
42.5°	17.1	19.8	21.1	22.4	23.7	25.1	26.4	27.7	29.0	31.6	33.0
45°	14.5	17.1	18.5	18.5	19.8	21.1	22.4	23.7	26.4	27.7	29.0
47.5°	11.9	14.5	15.8	17.1	17.1	18.5	19.8	21.1	22.4	23.7	25.1
50°	10.5	11.9	13.2	14.5	15.8	15.8	17.1	18.5	19.8	21.1	21.1
51°	10.5	11.9	13.2	13.2	14.5	15.8	17.1	17.1	18.5	19.8	19.8
52°	9.2	10.5	11.9	13.2	14.5	14.5	15.8	17.1	17.1	18.5	19.8
53°	9.2	10.5	11.9	11.9	13.2	14.5	14.5	15.8	17.1	17.1	18.5
54°	7.9	10.5	11.9	11.9	13.2	13.2	14.5	15.8	15.8	15.8	17.1
55°	7.9	9.2	10.5	11.9	11.9	13.2	13.2	14.5	14.5	15.8	15.8
57.5°	7.9	9.2	10.5	10.5	11.9	11.9	13.2	13.2	13.2	13.2	14.5
60°	6.6	7.9	9.2	10.5	10.5	11.9	11.9	11.9	11.9	11.9	13.2
61°	6.6	7.9	9.2	9.2	10.5	10.5	11.9	11.9	11.9	11.9	11.9
62°	6.6	7.9	9.2	9.2	10.5	10.5	10.5	11.9	11.9	11.9	11.9
63°	6.6	7.9	9.2	9.2	10.5	10.5	10.5	10.5	10.5	10.5	11.9
64°	6.6	7.9	9.2	9.2	10.5	10.5	10.5	10.5	10.5	10.5	10.5
65°	6.6	7.9	9.2	9.2	9.2	10.5	10.5	10.5	10.5	10.5	10.5
66°	6.6	7.9	9.2	9.2	9.2	9.2	10.5	10.5	10.5	10.5	9.2



TEST NUMBER: P182790

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
72.5°	5.3	6.6	6.6	7.9	7.9	7.9	7.9	7.9	7.9	7.9	6.6
75°	5.3	6.6	6.6	6.6	7.9	7.9	7.9	6.6	6.6	6.6	6.6
77.5°	5.3	5.3	6.6	6.6	6.6	6.6	6.6	6.6	6.6	5.3	5.3
80°	5.3	5.3	5.3	6.6	6.6	6.6	6.6	5.3	5.3	5.3	4.0
82.5°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0
85°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	2.6
87.5°	4.0	4.0	4.0	5.3	5.3	5.3	4.0	4.0	2.6	2.6	2.6
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: P182790

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	224.2	224.2	224.2	224.2	224.2	224.2	224.2	224.2
2.5°	200.4	201.7	200.4	200.4	197.8	199.1	196.5	200.4
5°	183.3	184.6	183.3	183.3	180.6	180.6	179.3	183.3
7.5°	168.8	170.1	167.5	167.5	164.8	166.1	164.8	167.5
10°	154.3	154.3	154.3	153.0	151.6	153.0	151.6	154.3
12.5°	139.8	141.1	141.1	141.1	139.8	139.8	138.5	142.4
15°	127.9	129.2	130.5	130.5	129.2	130.5	129.2	131.9
17.5°	117.4	120.0	120.0	121.3	121.3	122.6	122.6	125.3
20°	106.8	110.8	110.8	112.1	112.1	114.7	114.7	117.4
22.5°	96.3	100.2	101.5	101.5	102.9	105.5	105.5	108.1
25°	87.0	91.0	92.3	92.3	93.6	96.3	96.3	98.9
26°	83.1	87.0	88.3	89.7	91.0	93.6	93.6	96.3
27°	79.1	83.1	84.4	85.7	87.0	89.7	89.7	92.3
28°	76.5	80.4	81.8	83.1	84.4	87.0	87.0	88.3
29°	72.5	76.5	77.8	79.1	80.4	83.1	83.1	85.7
30°	69.9	72.5	73.8	75.2	76.5	80.4	80.4	83.1
31°	65.9	69.9	71.2	72.5	73.8	76.5	76.5	80.4
32°	63.3	65.9	67.2	68.6	71.2	72.5	73.8	76.5
33°	59.3	63.3	64.6	65.9	67.2	69.9	71.2	73.8
34°	56.7	59.3	62.0	63.3	64.6	67.2	68.6	71.2
35°	54.1	56.7	58.0	59.3	62.0	64.6	64.6	67.2
36°	51.4	54.1	55.4	56.7	59.3	62.0	62.0	64.6
37°	48.8	51.4	52.7	54.1	56.7	59.3	59.3	62.0
38°	46.2	48.8	50.1	51.4	54.1	56.7	58.0	60.7
39°	43.5	47.5	48.8	50.1	51.4	54.1	55.4	56.7
40°	42.2	44.8	46.2	47.5	48.8	51.4	52.7	54.1
42.5°	35.6	39.6	40.9	42.2	43.5	44.8	46.2	47.5
45°	31.6	34.3	34.3	35.6	36.9	39.6	39.6	42.2
47.5°	27.7	29.0	30.3	30.3	31.6	34.3	34.3	35.6
50°	23.7	25.1	26.4	26.4	27.7	29.0	30.3	31.6
51°	22.4	23.7	23.7	25.1	26.4	27.7	29.0	30.3
52°	21.1	22.4	22.4	23.7	25.1	26.4	26.4	27.7
53°	19.8	21.1	21.1	22.4	22.4	25.1	25.1	26.4
54°	18.5	19.8	19.8	21.1	21.1	23.7	23.7	25.1
55°	17.1	18.5	19.8	19.8	19.8	21.1	22.4	23.7
57.5°	15.8	17.1	17.1	17.1	18.5	18.5	19.8	19.8
60°	13.2	14.5	14.5	14.5	15.8	15.8	15.8	17.1
61°	13.2	13.2	14.5	14.5	13.2	13.2	13.2	14.5
62°	11.9	13.2	13.2	11.9	11.9	11.9	11.9	13.2
63°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
64°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
65°	10.5	10.5	10.5	10.5	10.5	10.5	9.2	10.5
66°	9.2	10.5	10.5	9.2	9.2	9.2	9.2	9.2



TEST NUMBER: P182790

CATALOG NUMBER: LDSQA4A28827D010TE LAR15SP 4LSQAL1H 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
72.5°	6.6	6.6	6.6	6.6	6.6	5.3	5.3	5.3
75°	6.6	5.3	5.3	5.3	5.3	5.3	5.3	4.0
77.5°	5.3	5.3	5.3	5.3	4.0	4.0	4.0	4.0
80°	4.0	4.0	4.0	4.0	4.0	4.0	2.6	2.6
82.5°	4.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
85°	2.6	2.6	2.6	2.6	1.3	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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0	4.0
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	4.0	4.0





67.5°	4.0	4.0	5.3	5.3	5.3	5.3	4.0	4.0	4.0	5.3	5.3
70°	4.0	5.3	5.3	5.3	5.3	5.3	5.3	4.0	4.0	5.3	5.3





67.5°	6.6	7.9	7.9	7.9	9.2	9.2	9.2	9.2	9.2	9.2	9.2
70°	6.6	6.6	7.9	7.9	7.9	9.2	9.2	7.9	7.9	7.9	7.9





67.5°	9.2	9.2	9.2	9.2	7.9	7.9	7.9	7.9
70°	7.9	7.9	7.9	7.9	6.6	6.6	6.6	6.6



(END OF REPORT)