

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: P208861

Luminaire Tested: **LDSQA6A20830D010TE LARL20NF 6LSQA1H 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208861
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29056)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A20830D010TE LARL20NF 6LSQA1H 30°
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD, 30° Tilt
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1913.4 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 2.38 / 0.63 / 1.23
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

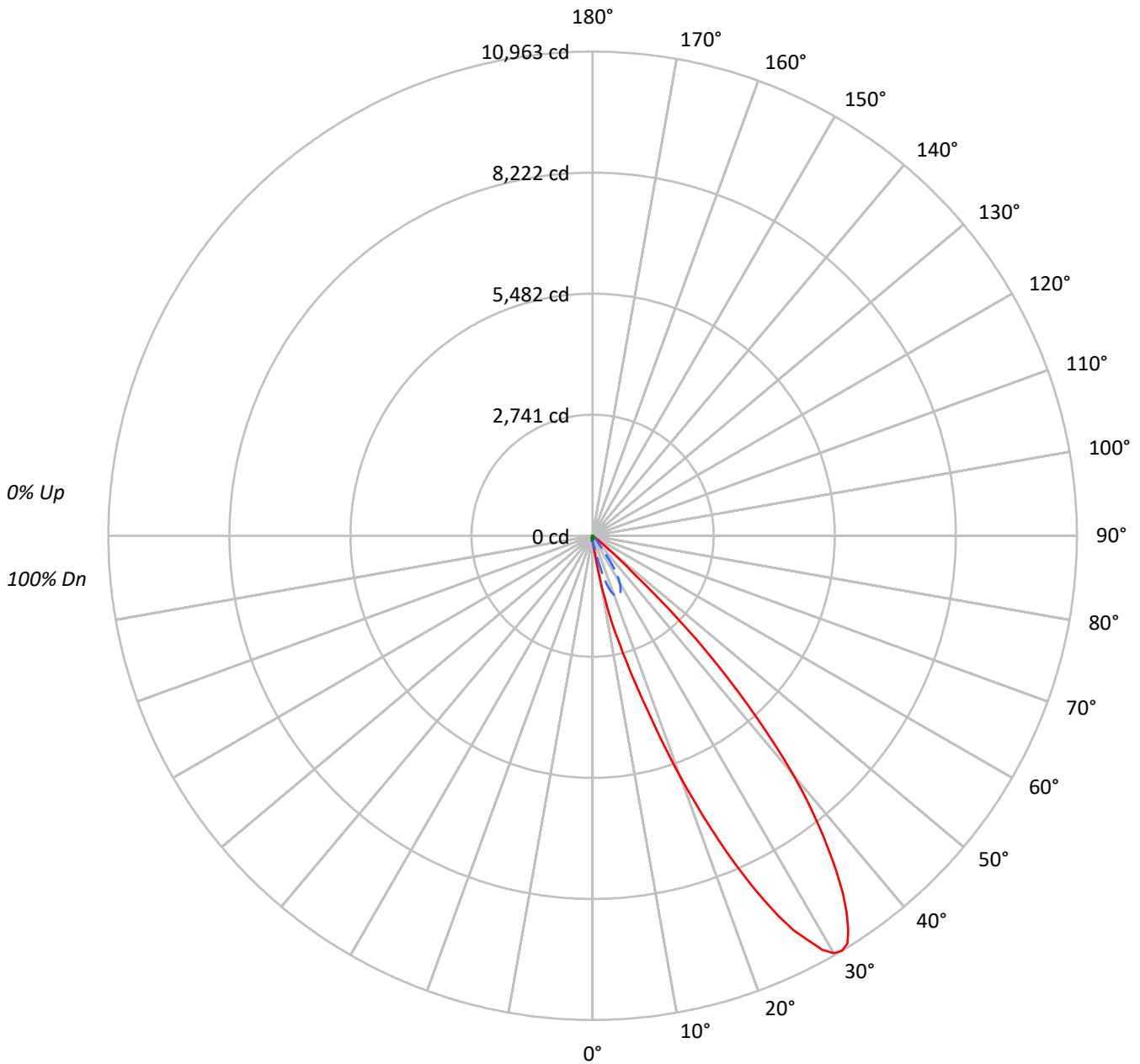
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	102	103	101	99	99	97	96	96	94	93	91																			
2	105	100	95	91	103	98	94	90	95	91	88	92	89	86	89	86	84	82																			
3	99	91	85	80	96	89	84	80	87	82	78	84	80	77	82	79	76	74																			
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66																			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60																			
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	41	39																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5554	5554	5554
5°	11090	5385	3643
10°	49867	4713	2724
15°	130733	3856	2189
20°	266180	2923	1847
25°	428306	2157	1568
30°	542510	1531	1387
35°	518958	1004	1235
40°	397916	618	1152
45°	202374	402	1072
50°	31033	295	931
55°	4069	278	661
60°	439	250	439
65°	71	295	377
70°	88	466	466
75°	0	616	366
80°	0	719	372
85°	0	1433	346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.2	0.9
10°-20°	189.2	9.9
20°-30°	619.5	32.4
30°-40°	754.1	39.4
40°-50°	306.3	16.0
50°-60°	18.2	1.0
60°-70°	3.5	0.2
70°-80°	3.1	0.2
80°-90°	2.2	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°	825.9	43.2
0°-40°	1580.0	82.6
0°-60°	1904.5	99.5
0°-90°	1913.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1913.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	129	129	129	129	129	
5°	257	196	125	92	84	48
15°	2933	978	86	53	49	954
25°	9016	1455	45	31	33	4143
35°	9873	581	19	18	24	5972
45°	3324	66	7	12	18	2550
55°	54	7	4	8	9	94
65°	1	2	3	5	4	1
75°	0	2	4	4	2	0
85°	0	2	3	3	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	181.8	173.7	177.4	176.7	173.7	174.5	175.9	173.0	174.5	170.1	170.8
5°	256.6	244.8	251.4	244.1	247.8	244.1	244.1	239.7	236.0	235.3	231.6
7.5°	447.9	419.3	428.1	396.6	401.7	391.4	381.9	371.7	354.1	345.3	326.2
10°	1140.6	1060.0	1079.0	1010.1	1008.7	984.5	939.8	909.0	843.7	797.6	731.6
11°	1442.6	1387.7	1404.5	1329.0	1325.3	1292.4	1239.6	1157.5	1120.8	1059.2	977.1
12°	1837.0	1744.6	1754.9	1672.1	1664.0	1620.0	1560.7	1459.5	1415.5	1340.7	1244.0
13°	2195.5	2113.4	2114.1	2023.9	2014.4	1958.7	1893.5	1771.0	1721.9	1638.4	1521.8
14°	2524.6	2462.3	2449.8	2401.5	2350.1	2284.9	2216.0	2077.4	2023.2	1929.4	1796.0
15°	2932.9	2811.2	2787.0	2726.2	2663.9	2581.8	2497.5	2339.1	2279.0	2175.7	2043.0
17.5°	4137.3	3987.0	3921.1	3797.2	3679.9	3522.3	3339.8	3059.0	2920.4	2735.0	2527.5
20°	5809.4	5572.6	5439.9	5241.3	5052.1	4794.1	4478.9	4036.9	3831.6	3472.4	3132.3
21°	6471.3	6267.5	6101.1	5877.5	5654.0	5348.3	4973.7	4506.0	4189.3	3769.3	3370.5
22°	7139.9	6946.3	6752.1	6506.5	6256.5	5899.5	5467.8	4925.3	4544.9	4054.5	3594.8
23°	7798.1	7601.7	7452.1	7115.7	6831.2	6428.8	5950.1	5330.0	4887.9	4325.7	3806.0
24°	8430.0	8215.2	8029.0	7689.6	7367.8	6919.9	6404.6	5722.9	5219.3	4584.5	4001.7
25°	9015.7	8778.9	8550.2	8201.3	7851.6	7362.7	6805.6	6078.4	5521.3	4819.0	4179.8
26°	9554.5	9231.2	8982.7	8660.2	8262.9	7749.7	7158.2	6385.5	5781.5	5014.8	4319.8
27°	10021.4	9694.5	9409.4	9064.1	8620.6	8067.9	7449.2	6606.2	5987.5	5161.4	4417.3
28°	10360.8	10084.5	9756.1	9384.4	8897.0	8287.1	7646.4	6782.1	6111.4	5237.6	4457.6
29°	10720.8	10406.3	10023.6	9601.4	9070.7	8424.9	7754.9	6873.8	6162.7	5255.2	4449.6
30°	10912.1	10622.5	10172.5	9712.1	9145.5	8468.9	7778.3	6887.7	6146.6	5212.7	4396.8
31°	10963.4	10692.9	10194.4	9714.3	9122.0	8425.6	7720.4	6815.8	6059.3	5113.7	4298.6
32°	10889.4	10618.9	10101.4	9620.5	9014.2	8304.7	7592.9	6687.6	5917.1	4965.6	4158.6
33°	10623.3	10404.1	9904.9	9442.3	8850.0	8125.1	7405.2	6478.6	5695.8	4773.6	3990.0
34°	10283.1	10078.6	9618.3	9144.0	8589.8	7878.8	7146.4	6225.7	5441.4	4537.5	3789.8
35°	9873.4	9671.8	9247.4	8776.0	8245.3	7551.1	6815.1	5908.3	5140.8	4270.7	3567.7
36°	9390.3	9180.6	8788.5	8339.8	7856.8	7155.2	6422.9	5543.3	4799.2	3980.4	3330.2
37°	8858.8	8647.7	8297.3	7881.7	7403.7	6709.6	5983.8	5140.8	4438.6	3679.1	3081.7
38°	8298.1	8101.6	7783.5	7368.6	6895.7	6214.0	5503.7	4772.9	4071.3	3374.2	2830.3
39°	7722.6	7515.9	7216.1	6808.5	6343.8	5670.8	5003.0	4349.9	3754.7	3074.4	2599.4
40°	7079.7	6884.8	6537.3	6217.7	5751.5	5110.8	4501.6	3882.9	3402.8	2786.3	2389.7
42.5°	5236.9	5084.4	4898.9	4571.3	4226.7	3767.1	3341.2	2912.4	2563.5	2213.8	1922.8
45°	3323.6	3211.5	3116.2	2912.4	2773.1	2514.3	2294.4	2075.2	1910.3	1727.1	1403.8
47.5°	1230.0	1177.3	1143.5	1054.1	1046.1	963.2	955.2	1060.7	1123.0	1057.1	795.4
50°	463.3	450.1	442.0	414.2	395.1	357.0	328.4	307.1	263.9	233.8	209.7
51°	304.2	294.7	280.8	278.6	270.5	249.2	236.0	231.6	202.3	170.8	146.6
52°	193.5	187.7	178.9	179.6	175.2	162.0	157.6	164.2	148.8	131.2	113.6
53°	121.7	118.8	112.9	112.9	112.2	103.4	101.9	107.8	104.8	96.8	86.5
54°	79.2	78.4	73.3	74.0	74.0	68.9	68.2	70.4	69.6	66.7	61.6
55°	54.2	53.5	52.8	50.6	49.1	47.6	47.6	48.4	47.6	46.2	43.2
57.5°	19.1	18.3	19.1	18.3	18.3	19.1	18.3	19.8	20.5	20.5	19.1
60°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.6	7.3	7.3	7.3



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
63°	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7	1.5	1.5	1.5
64°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5
65°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5
66°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
67.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
70°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7	0.7
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	168.6	169.3	166.4	165.7	164.9	161.3	159.1	156.9	154.7	151.0	152.5
5°	225.8	225.8	219.2	214.8	212.6	204.5	200.9	195.7	189.9	185.5	183.3
7.5°	315.2	310.1	295.4	284.4	277.8	261.7	252.2	238.2	230.2	221.4	216.2
10°	668.5	634.1	562.2	510.9	462.6	403.9	350.4	308.6	281.5	261.7	249.2
11°	900.9	855.5	763.8	692.7	629.7	546.1	464.0	385.6	329.1	294.7	269.0
12°	1156.0	1097.4	987.4	899.4	822.5	717.7	612.8	509.5	428.1	363.6	310.8
13°	1421.4	1345.9	1218.3	1117.2	1028.5	907.5	782.9	659.0	560.0	472.1	392.2
14°	1684.5	1592.2	1452.2	1335.6	1235.9	1101.0	959.6	821.7	705.9	595.2	497.7
15°	1923.5	1822.3	1699.2	1546.7	1439.0	1266.0	1132.6	977.9	845.9	717.7	604.0
17.5°	2352.3	2216.0	2070.9	1913.2	1810.6	1639.8	1470.5	1283.6	1123.8	964.7	812.2
20°	2823.7	2580.3	2341.3	2106.8	1958.0	1776.2	1610.5	1425.8	1257.2	1076.8	911.2
21°	3009.1	2730.6	2439.6	2176.4	2007.8	1813.6	1642.0	1450.7	1273.3	1081.2	906.8
22°	3185.1	2852.3	2525.3	2235.1	2051.1	1852.4	1667.7	1466.8	1277.7	1076.1	893.6
23°	3345.6	2969.6	2604.5	2286.4	2082.6	1871.5	1680.9	1473.4	1275.5	1064.4	873.8
24°	3491.5	3077.3	2671.9	2324.5	2101.6	1877.3	1679.4	1468.3	1264.5	1046.8	846.7
25°	3617.6	3162.4	2721.1	2345.0	2106.8	1874.4	1672.1	1455.1	1242.5	1016.7	815.1
26°	3712.9	3216.6	2744.5	2347.9	2099.4	1864.9	1655.2	1430.9	1208.1	976.4	772.6
27°	3767.8	3236.4	2744.5	2335.5	2084.8	1847.3	1628.1	1393.5	1163.3	926.6	719.8
28°	3777.4	3227.6	2724.7	2309.8	2056.9	1816.5	1588.5	1345.9	1110.6	867.2	661.9
29°	3752.5	3192.4	2682.2	2265.8	2015.9	1776.9	1537.2	1285.8	1047.5	802.0	601.8
30°	3690.9	3127.9	2619.2	2210.1	1966.8	1724.9	1472.7	1219.1	976.4	734.5	532.9
31°	3594.8	3034.8	2538.5	2142.7	1905.9	1662.5	1401.6	1142.1	896.5	650.9	458.2
32°	3467.3	2904.3	2449.1	2065.7	1838.5	1591.4	1312.9	1043.9	791.0	549.1	371.7
33°	3317.0	2776.8	2349.4	1982.9	1765.2	1493.9	1190.5	897.2	661.9	435.4	281.5
34°	3145.5	2639.7	2242.4	1895.7	1669.1	1351.0	1038.0	746.2	520.5	318.1	198.7
35°	2955.6	2493.8	2130.2	1793.0	1517.4	1176.5	863.5	581.3	376.8	215.5	149.5
36°	2753.3	2330.3	2001.9	1646.4	1335.6	980.8	678.8	418.6	250.0	160.5	129.0
37°	2562.7	2188.1	1869.3	1462.4	1130.4	776.3	495.5	279.3	182.5	140.0	114.4
38°	2383.1	2051.1	1696.3	1258.6	919.2	582.0	326.2	206.0	158.3	123.2	101.2
39°	2215.3	1913.2	1493.9	1040.2	708.1	410.5	236.8	176.7	137.8	109.2	89.4
40°	2053.3	1716.1	1273.3	848.1	516.1	286.6	199.4	156.1	121.7	96.0	75.5
42.5°	1540.1	1102.5	705.2	386.3	242.6	186.9	142.2	110.0	80.6	59.4	45.4
45°	966.9	560.8	302.7	217.0	169.3	126.8	92.4	66.0	48.4	35.9	28.6
47.5°	439.8	241.2	187.7	145.1	109.2	75.5	54.2	39.6	29.3	22.7	16.9
50°	161.3	137.1	111.4	82.8	60.1	43.2	31.5	23.5	17.6	13.2	9.5
51°	126.1	110.0	88.7	62.3	47.6	35.2	25.7	19.1	13.9	10.3	7.3
52°	99.0	87.2	68.2	48.4	37.4	27.9	20.5	14.7	10.3	8.1	5.9
53°	76.2	66.7	51.3	37.4	29.3	22.0	16.1	11.7	8.1	5.9	4.4
54°	56.4	49.1	38.1	28.6	22.7	16.9	11.7	8.8	5.9	4.4	3.7
55°	40.3	35.9	28.6	22.7	17.6	13.2	8.8	6.6	4.4	2.9	2.9
57.5°	16.9	16.1	13.2	11.0	8.8	6.6	4.4	2.9	2.9	2.2	2.9
60°	6.6	6.6	5.9	4.4	3.7	2.9	2.2	2.2	2.2	2.2	2.2



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CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
63°	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9
64°	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.9
65°	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.9
66°	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.9
67.5°	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.9	2.9
70°	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.9	2.9
72.5°	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9
75°	0.7	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9
77.5°	0.7	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.9	2.9	2.9
80°	0.7	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9
82.5°	0.7	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9
85°	0.7	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9	2.9	2.9
87.5°	0.7	1.5	1.5	1.5	1.5	2.2	2.2	2.2	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: P208861

CATALOG NUMBER: LDSQA6A20830D010TE LARL20NF 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	150.3	150.3	145.1	143.7	142.9	141.5	137.8	137.8	135.6	132.7	131.2
5°	178.1	176.7	168.6	164.2	160.5	156.1	148.8	145.9	141.5	137.1	133.4
7.5°	205.3	200.1	187.7	181.1	175.9	168.6	159.1	152.5	145.1	137.8	132.7
10°	232.4	222.1	204.5	193.5	184.0	173.7	162.0	154.7	145.1	135.6	128.3
11°	243.4	230.2	210.4	196.5	185.5	173.7	162.0	152.5	143.7	134.1	126.1
12°	264.6	239.7	216.2	200.9	186.9	173.7	160.5	150.3	140.7	131.2	123.2
13°	307.9	261.7	222.8	204.5	189.1	173.7	159.1	148.1	137.8	128.3	119.5
14°	386.3	307.1	240.4	208.2	189.9	173.7	157.6	144.4	134.1	123.9	115.8
15°	475.0	376.8	276.4	221.4	190.6	172.3	154.7	140.7	129.7	119.5	111.4
17.5°	659.0	527.1	391.4	287.4	208.9	167.9	143.7	129.7	117.3	107.0	97.5
20°	733.8	580.6	428.1	307.9	216.2	160.5	131.2	116.6	103.4	93.1	85.0
21°	724.2	570.3	417.1	294.0	202.3	150.3	124.6	110.7	98.2	87.2	79.9
22°	704.5	546.1	391.4	268.3	185.5	140.0	118.8	104.1	92.4	82.1	74.8
23°	678.1	511.7	362.1	241.2	167.9	130.5	112.9	98.2	87.2	77.0	70.4
24°	645.1	477.2	328.4	214.0	151.0	123.2	106.3	92.4	81.4	72.6	66.0
25°	608.4	441.3	292.5	191.3	140.7	115.8	99.0	85.8	76.2	68.2	61.6
26°	563.7	398.8	258.8	170.1	128.3	107.8	91.6	79.9	71.1	63.8	57.2
27°	512.4	354.8	221.4	148.1	118.0	99.7	85.0	74.8	66.7	59.4	52.8
28°	466.2	305.7	189.9	131.9	110.0	91.6	79.2	69.6	62.3	55.0	49.1
29°	408.3	258.8	162.0	119.5	101.2	85.8	73.3	64.5	57.2	49.8	44.7
30°	350.4	214.0	138.5	109.2	92.4	78.4	67.4	59.4	52.0	46.2	41.8
31°	290.3	177.4	121.7	100.4	84.3	72.6	62.3	55.0	47.6	42.5	38.1
32°	222.1	145.1	108.5	90.9	77.0	65.2	57.2	49.8	43.2	38.9	34.5
33°	167.1	122.4	98.2	82.1	69.6	60.1	52.0	44.7	39.6	35.2	31.5
34°	133.4	109.2	88.7	74.0	63.0	54.2	46.2	40.3	35.2	31.5	27.9
35°	117.3	98.2	79.2	66.7	56.4	47.6	41.1	35.9	31.5	27.9	24.9
36°	104.1	88.0	70.4	59.4	49.1	41.8	35.9	31.5	27.1	24.2	22.0
37°	93.1	77.7	62.3	51.3	42.5	36.7	31.5	27.1	23.5	21.3	19.8
38°	83.6	66.7	52.8	44.0	36.7	31.5	27.1	23.5	20.5	18.3	16.9
39°	71.1	56.4	44.0	37.4	30.8	26.4	22.7	20.5	17.6	16.1	14.7
40°	59.4	46.9	36.7	30.8	26.4	22.0	19.8	16.9	15.4	13.9	12.5
42.5°	36.7	29.3	23.5	19.8	16.9	14.7	13.2	11.7	10.3	9.5	8.8
45°	22.7	18.3	14.7	12.5	10.3	9.5	8.8	7.3	7.3	6.6	6.6
47.5°	13.2	11.0	8.1	7.3	5.9	5.9	5.1	5.1	4.4	5.1	4.4
50°	7.3	5.1	4.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
51°	5.9	4.4	3.7	2.9	2.9	2.9	2.9	2.9	2.9	3.7	3.7
52°	4.4	3.7	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
53°	3.7	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
54°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
55°	2.9	2.9	2.9	2.9	2.9	2.2	2.9	2.9	2.9	2.9	2.9
57.5°	2.9	2.9	2.2	2.2	2.9	2.2	2.9	2.9	2.9	2.9	2.9
60°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



TEST NUMBER: P208861

CATALOG NUMBER: LDSQA6A20830D010TE LARL20NF 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
63°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
64°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
65°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
66°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
67.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
70°	2.9	2.9	2.9	3.7	3.7	3.7	3.7	2.9	2.9	2.9	2.9
72.5°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	2.9
75°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
77.5°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
80°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
82.5°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
85°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
87.5°	2.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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: P208861

CATALOG NUMBER: LDSQA6A20830D010TE LARL20NF 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
0°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	130.5	130.5	129.7	128.3	117.3	107.8	101.9	101.2
5°	131.2	129.7	126.8	124.6	104.8	92.4	85.0	84.3
7.5°	128.3	125.4	121.7	117.3	93.1	79.9	73.3	71.8
10°	123.2	118.0	113.6	107.8	82.1	69.6	63.8	62.3
11°	119.5	114.4	110.0	104.1	77.7	66.0	60.1	59.4
12°	116.6	110.7	104.8	99.7	73.3	62.3	57.2	56.4
13°	112.2	106.3	101.2	95.3	69.6	59.4	54.2	53.5
14°	108.5	101.9	96.8	91.6	66.0	55.7	52.0	51.3
15°	104.1	97.5	91.6	86.5	62.3	52.8	49.8	49.1
17.5°	92.4	85.0	79.9	74.8	53.5	46.2	44.0	44.7
20°	78.4	72.6	68.2	63.8	45.4	40.3	39.6	40.3
21°	73.3	68.2	64.5	60.1	42.5	38.1	38.1	38.9
22°	68.9	63.8	60.1	55.7	40.3	35.9	35.9	37.4
23°	64.5	59.4	55.7	52.0	37.4	34.5	34.5	35.9
24°	60.1	55.7	52.0	48.4	35.2	32.3	33.0	34.5
25°	55.7	52.0	48.4	45.4	33.0	30.8	31.5	33.0
26°	52.8	48.4	45.4	41.8	30.8	29.3	30.1	32.3
27°	48.4	44.7	41.8	38.9	29.3	27.9	29.3	30.8
28°	45.4	41.8	38.9	35.9	27.1	26.4	27.9	30.1
29°	41.8	38.9	35.9	33.7	25.7	24.9	27.1	28.6
30°	38.1	35.2	33.0	30.8	24.2	23.5	25.7	27.9
31°	35.2	33.0	30.8	28.6	22.7	22.7	24.9	27.1
32°	32.3	30.1	27.9	25.7	21.3	21.3	24.2	25.7
33°	29.3	27.1	24.9	23.5	19.8	20.5	22.7	24.9
34°	25.7	24.2	22.7	21.3	18.3	19.1	22.0	24.2
35°	23.5	22.0	20.5	19.1	17.6	18.3	21.3	23.5
36°	20.5	19.8	18.3	17.6	16.1	17.6	20.5	22.7
37°	18.3	17.6	16.1	15.4	15.4	16.9	19.8	22.0
38°	16.1	15.4	14.7	13.9	14.7	16.1	19.1	21.3
39°	13.9	13.2	13.2	12.5	13.9	15.4	18.3	20.5
40°	12.5	11.7	11.7	11.0	13.2	14.7	17.6	20.5
42.5°	8.8	8.8	8.8	8.8	11.0	13.2	16.1	19.1
45°	6.6	6.6	6.6	6.6	9.5	11.7	13.9	17.6
47.5°	5.1	5.1	5.1	5.1	8.8	11.0	13.2	15.4
50°	3.7	3.7	4.4	4.4	8.1	9.5	11.7	13.9
51°	3.7	3.7	3.7	4.4	7.3	9.5	11.0	13.2
52°	3.7	3.7	3.7	3.7	7.3	8.8	10.3	11.7
53°	2.9	3.7	3.7	3.7	6.6	8.8	9.5	11.0
54°	2.9	2.9	2.9	3.7	6.6	8.1	8.8	10.3
55°	2.9	2.9	2.9	3.7	5.9	8.1	8.8	8.8
57.5°	2.9	2.9	2.9	2.9	5.9	7.3	8.1	7.3
60°	2.9	2.9	2.9	2.9	5.1	6.6	7.3	5.1



TEST NUMBER: P208861

CATALOG NUMBER: LDSQA6A20830D010TE LARL20NF 6LSQA1H 30°

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
63°	2.9	2.9	2.9	2.9	5.1	5.9	5.9	4.4
64°	2.9	2.9	2.9	2.9	5.1	5.9	5.9	4.4
65°	2.9	2.9	2.9	2.9	5.1	5.1	5.1	3.7
66°	2.9	2.9	2.9	2.9	5.1	5.1	5.1	3.7
67.5°	2.9	2.9	2.9	2.9	5.1	5.1	4.4	3.7
70°	2.9	2.9	2.9	3.7	4.4	4.4	4.4	3.7
72.5°	2.9	2.9	2.9	3.7	4.4	4.4	3.7	2.9
75°	3.7	3.7	3.7	3.7	4.4	4.4	3.7	2.2
77.5°	3.7	3.7	3.7	3.7	4.4	3.7	2.9	2.2
80°	3.7	3.7	2.9	2.9	3.7	3.7	2.2	1.5
82.5°	3.7	3.7	2.9	2.9	3.7	2.9	2.2	1.5
85°	3.7	3.7	2.9	2.9	3.7	2.9	1.5	0.7
87.5°	3.7	2.9	2.9	2.9	3.7	2.9	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°







61°	2.2	2.2	2.2	2.2	2.9	2.2	2.9	3.7	4.4	4.4	4.4
62°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.9





61°	4.4	4.4	3.7	3.7	2.9	2.2	2.2	2.2	2.2	2.2	2.2
62°	2.9	2.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.9





61°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
62°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9





61°	2.9	2.9	2.9	2.9	5.1	6.6	6.6	5.1
62°	2.9	2.9	2.9	2.9	5.1	5.9	6.6	4.4



(END OF REPORT)