

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: P136961

Luminaire Tested: **LDSQ6A10D010TE ESQ6A10930 6LSQLWW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P136961  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23675)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQ6A10D010TE ESQ6A10930 6LSQLWW1LI  
Description: PORTFOLIO LED SQUARE 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL  
WASH LUMINAIRE  
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER  
Light Source: (1) HIGH LUMEN LED 3000K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 808.9 lumens  
Efficiency: N/A  
Efficacy: 57.8 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.06 / 1.13  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

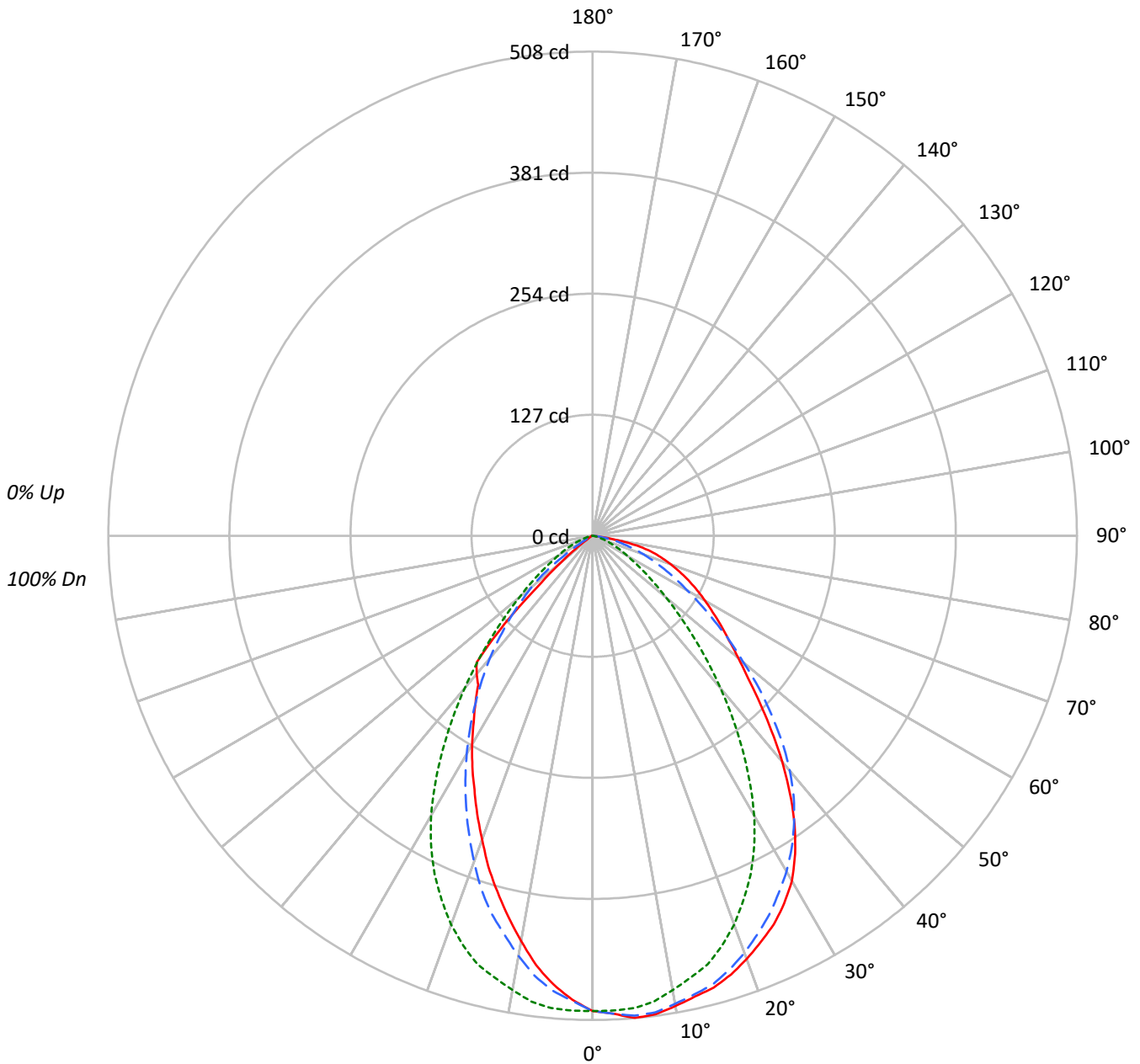
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10930 6LSQLWW1LI

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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			100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	71	70			70
4	89	80	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64	62			62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55			55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50			50
7	73	61	53	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45			45
8	68	56	49	44	67	56	49	44	55	48	43	53	47	43	52	47	43	41			41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	39	38			38
10	61	49	42	37	59	48	41	37	47	41	37	46	41	37	46	40	36	35			35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	21468	21468	21468
5°	21943	21502	20422
10°	21899	21156	18874
15°	21873	20758	17224
20°	21649	19885	15523
25°	21368	18627	13943
30°	20786	16844	12563
35°	19416	14412	11259
40°	17390	11719	10634
45°	15107	9036	7934
50°	13356	6678	2887
55°	12333	4932	683
60°	11711	3617	388
65°	11319	2659	234
70°	10977	1851	138
75°	10547	1131	183
80°	6471	570	273
85°	0	0	543



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.5	5.8
10°-20°	126.5	15.6
20°-30°	174.3	21.6
30°-40°	179.1	22.1
40°-50°	139.9	17.3
50°-60°	78.7	9.7
60°-70°	42.8	5.3
70°-80°	19.1	2.4
80°-90°	1.8	0.2
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°	347.4	42.9
0°-40°	526.5	65.1
0°-60°	745.2	92.1
0°-90°	808.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	499	499	499	499	499	
5°	508	505	498	479	472	48
15°	491	487	466	410	386	138
25°	450	438	392	314	294	207
35°	369	368	274	214	214	229
45°	248	265	148	122	130	193
55°	164	156	66	37	9	148
65°	111	83	26	3	2	110
75°	63	33	7	1	1	64
85°	0	1	0	1	1	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	502.0	505.4	504.3	506.5	507.7	507.7	507.7	503.1	504.3	502.0	502.0
5°	507.7	509.9	508.8	511.1	512.2	512.2	512.2	507.7	508.8	505.4	505.4
7.5°	506.5	508.8	507.7	509.9	512.2	512.2	511.1	507.7	507.7	504.3	504.3
10°	500.9	503.1	503.1	504.3	506.5	506.5	505.4	502.0	502.0	498.6	498.6
12.5°	495.2	498.6	497.5	499.7	500.9	500.9	500.9	496.3	496.3	492.9	492.9
15°	490.7	494.1	492.9	495.2	496.3	496.3	495.2	491.8	490.7	487.3	487.3
17.5°	482.7	486.1	483.9	486.1	488.4	487.3	486.1	482.7	481.6	477.1	477.1
20°	472.5	474.8	473.7	474.8	477.1	477.1	475.9	471.4	470.2	465.7	464.6
22.5°	461.2	463.4	462.3	463.4	465.7	464.6	463.4	458.9	456.6	452.1	451.0
25°	449.8	452.1	451.0	452.1	454.4	453.2	451.0	446.4	444.2	438.5	437.4
27.5°	435.1	437.4	436.2	438.5	440.8	439.6	437.4	432.8	429.4	422.6	421.5
30°	418.1	420.4	419.3	420.4	422.6	422.6	420.4	417.0	413.6	406.8	403.4
32.5°	395.5	398.9	397.8	401.2	403.4	403.4	403.4	398.9	395.5	388.7	384.1
35°	369.4	372.8	371.7	375.1	378.5	380.7	381.9	379.6	377.3	368.3	362.6
37.5°	339.9	343.3	342.2	346.7	351.2	354.6	356.9	355.8	354.6	346.7	339.9
40°	309.4	311.6	311.6	315.0	321.9	326.3	329.7	329.7	328.6	321.9	316.2
42.5°	277.6	281.0	281.0	285.6	291.2	296.9	299.2	301.4	302.6	294.6	289.0
45°	248.1	250.4	250.4	253.8	260.6	266.3	269.7	271.9	273.1	265.1	259.5
47.5°	221.0	223.3	224.4	228.9	232.3	236.8	240.2	241.3	242.4	236.8	230.1
50°	199.4	200.6	201.7	205.1	207.4	210.8	213.1	214.2	214.2	206.2	200.6
52.5°	180.2	181.3	181.3	184.7	187.0	189.2	189.2	189.2	188.1	181.3	172.2
55°	164.3	165.4	165.4	167.7	168.8	170.0	168.8	166.5	164.3	156.3	147.3
57.5°	149.5	150.7	150.7	151.8	151.8	151.8	149.5	147.3	142.7	133.8	125.8
60°	136.0	137.1	137.1	138.3	138.3	137.1	133.8	129.2	123.5	114.5	106.5
62.5°	123.5	124.7	124.7	124.7	124.7	122.4	117.9	112.2	105.4	98.6	90.6
65°	111.1	112.2	111.1	112.2	111.1	107.7	102.0	96.3	89.5	82.7	75.9
67.5°	98.6	99.7	98.6	98.6	96.3	92.9	87.2	81.6	75.9	69.1	62.3
70°	87.2	87.2	86.1	85.0	81.6	78.2	72.5	68.0	62.3	56.6	50.9
72.5°	74.8	75.9	73.6	71.4	68.0	63.4	58.9	54.3	49.8	44.2	39.7
75°	63.4	63.4	60.0	57.8	54.3	50.9	46.5	42.0	37.4	32.9	29.5
77.5°	47.6	47.6	44.2	43.1	39.7	37.4	32.9	29.5	26.1	23.8	20.4
80°	26.1	26.1	25.0	23.8	22.7	21.6	19.3	18.1	15.9	13.6	11.3
82.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	5.7	4.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	500.9	503.1	499.7	503.1	502.0	495.2	502.0	498.6	496.3	498.6	495.2
5°	504.3	505.4	502.0	505.4	503.1	496.3	500.9	497.5	495.2	496.3	491.8
7.5°	503.1	504.3	500.9	503.1	499.7	492.9	497.5	492.9	489.5	489.5	483.9
10°	497.5	498.6	494.1	496.3	492.9	485.0	489.5	483.9	480.5	478.2	472.5
12.5°	491.8	491.8	488.4	489.5	486.1	478.2	480.5	474.8	470.2	468.0	460.0
15°	485.0	485.0	481.6	482.7	478.2	470.2	472.5	465.7	460.0	456.6	447.6
17.5°	474.8	474.8	470.2	471.4	465.7	457.8	460.0	451.0	445.3	439.6	430.5
20°	461.2	460.0	455.5	455.5	449.8	440.8	443.0	434.0	426.0	420.4	410.2
22.5°	447.6	445.3	440.8	439.6	432.8	422.6	423.7	413.6	405.7	398.9	387.5
25°	431.7	428.3	422.6	420.4	413.6	403.4	403.4	392.1	384.1	375.1	363.7
27.5°	415.9	411.4	403.4	400.0	390.9	379.6	378.5	367.1	358.1	349.0	336.5
30°	396.6	390.9	380.7	376.2	366.0	353.5	350.1	338.8	328.6	318.4	308.2
32.5°	375.1	368.3	356.9	350.1	337.6	324.1	320.7	307.1	298.0	287.8	276.5
35°	352.4	343.3	330.8	321.9	308.2	294.6	287.8	274.2	265.1	254.9	245.9
37.5°	328.6	317.3	302.6	292.4	276.5	264.0	254.9	241.3	232.3	223.3	215.3
40°	303.7	290.1	274.2	260.6	244.7	232.3	222.1	208.5	200.6	192.6	185.8
42.5°	276.5	261.7	244.7	230.1	213.1	200.6	189.2	177.9	170.0	162.0	156.3
45°	247.0	232.3	214.2	199.4	182.4	170.0	159.7	148.4	141.6	134.9	130.3
47.5°	216.5	202.8	184.7	170.0	154.1	142.7	132.6	122.4	115.6	111.1	107.7
50°	187.0	173.4	157.5	142.7	128.1	117.9	108.8	99.7	94.0	89.5	86.1
52.5°	159.7	147.3	132.6	120.1	106.5	96.3	88.4	81.6	75.9	71.4	68.0
55°	136.0	124.7	111.1	99.7	88.4	79.3	72.5	65.7	61.2	55.5	52.1
57.5°	114.5	104.3	92.9	82.7	71.4	64.6	58.9	52.1	47.6	44.2	39.7
60°	97.5	88.4	77.0	68.0	58.9	53.2	47.6	42.0	38.6	34.0	30.6
62.5°	81.6	73.6	64.6	55.5	47.6	43.1	38.6	34.0	29.5	26.1	22.7
65°	68.0	60.0	52.1	44.2	38.6	34.0	30.6	26.1	22.7	19.3	15.9
67.5°	55.5	48.7	40.8	35.2	30.6	27.2	23.8	19.3	17.0	13.6	11.3
70°	44.2	38.6	31.8	27.2	23.8	20.4	17.0	14.7	11.3	9.1	6.8
72.5°	34.0	29.5	23.8	20.4	18.1	14.7	12.5	10.2	7.9	6.8	4.5
75°	25.0	20.4	17.0	14.7	12.5	10.2	7.9	6.8	5.7	3.4	2.3
77.5°	17.0	13.6	11.3	9.1	7.9	6.8	4.5	4.5	3.4	2.3	1.1
80°	10.2	6.8	5.7	4.5	3.4	3.4	2.3	2.3	1.1	1.1	0.0
82.5°	3.4	2.3	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6	498.6
2.5°	490.7	492.9	490.7	492.9	492.9	488.4	489.5	489.5	486.1	486.1	487.3
5°	486.1	486.1	483.9	485.0	485.0	479.3	479.3	479.3	474.8	473.7	473.7
7.5°	478.2	477.1	472.5	472.5	471.4	465.7	463.4	462.3	457.8	456.6	455.5
10°	465.7	463.4	457.8	456.6	454.4	447.6	444.2	441.9	437.4	435.1	435.1
12.5°	452.1	449.8	443.0	440.8	436.2	428.3	424.9	422.6	415.9	412.5	412.5
15°	438.5	435.1	427.1	422.6	418.1	410.2	405.7	402.3	395.5	392.1	390.9
17.5°	420.4	415.9	408.0	402.3	396.6	388.7	384.1	378.5	372.8	369.4	367.1
20°	398.9	393.2	383.0	378.5	372.8	363.7	358.1	354.6	347.8	344.4	343.3
22.5°	376.2	369.4	359.2	353.5	346.7	338.8	335.4	329.7	324.1	321.9	319.6
25°	351.2	345.6	334.2	328.6	321.9	313.9	310.5	306.0	301.4	300.3	296.9
27.5°	324.1	318.4	309.4	302.6	296.9	289.0	285.6	282.1	277.6	276.5	275.3
30°	295.8	290.1	281.0	275.3	269.7	264.0	260.6	257.2	253.8	253.8	253.8
32.5°	266.3	260.6	253.8	248.1	243.6	239.0	236.8	233.4	231.2	232.3	233.4
35°	235.7	232.3	225.5	222.1	218.7	214.2	213.1	210.8	208.5	209.7	209.7
37.5°	206.2	204.0	199.4	196.0	193.8	190.4	190.4	188.1	185.8	188.1	188.1
40°	177.9	175.6	172.2	171.1	168.8	167.7	166.5	166.5	165.4	167.7	172.2
42.5°	150.7	149.5	147.3	146.1	145.0	143.9	145.0	145.0	147.3	155.2	164.3
45°	125.8	125.8	123.5	123.5	122.4	122.4	123.5	126.9	133.8	142.7	143.9
47.5°	103.1	103.1	100.9	100.9	100.9	100.9	105.4	111.1	109.9	105.4	95.2
50°	82.7	81.6	80.4	80.4	80.4	82.7	85.0	78.2	69.1	58.9	53.2
52.5°	64.6	62.3	61.2	61.2	62.3	62.3	55.5	45.3	38.6	35.2	30.6
55°	48.7	46.5	44.2	44.2	43.1	37.4	29.5	26.1	20.4	18.1	15.9
57.5°	35.2	34.0	30.6	28.4	23.8	19.3	15.9	11.3	10.2	7.9	6.8
60°	26.1	23.8	20.4	17.0	13.6	10.2	6.8	5.7	5.7	4.5	4.5
62.5°	19.3	17.0	13.6	10.2	6.8	4.5	4.5	4.5	3.4	3.4	3.4
65°	13.6	11.3	7.9	5.7	3.4	3.4	3.4	3.4	3.4	2.3	2.3
67.5°	9.1	6.8	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
70°	5.7	3.4	1.1	2.3	1.1	1.1	2.3	2.3	2.3	2.3	1.1
72.5°	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
85°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	1.1
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):**

	165°	170°	175°	180°
0°	498.6	498.6	498.6	498.6
2.5°	485.0	485.0	486.1	487.3
5°	471.4	472.5	472.5	472.5
7.5°	453.2	453.2	454.4	454.4
10°	430.5	430.5	431.7	431.7
12.5°	409.1	408.0	409.1	409.1
15°	387.5	386.4	386.4	386.4
17.5°	363.7	362.6	362.6	363.7
20°	339.9	338.8	338.8	338.8
22.5°	316.2	316.2	316.2	316.2
25°	294.6	293.5	293.5	293.5
27.5°	273.1	273.1	273.1	273.1
30°	251.5	251.5	252.7	252.7
32.5°	232.3	232.3	232.3	232.3
35°	209.7	211.9	213.1	214.2
37.5°	189.2	192.6	196.0	197.2
40°	176.8	183.6	188.1	189.2
42.5°	171.1	176.8	179.0	180.2
45°	140.5	134.9	131.5	130.3
47.5°	86.1	78.2	73.6	72.5
50°	49.8	46.5	44.2	43.1
52.5°	27.2	23.8	22.7	22.7
55°	13.6	11.3	10.2	9.1
57.5°	5.7	5.7	5.7	5.7
60°	4.5	4.5	4.5	4.5
62.5°	3.4	3.4	3.4	3.4
65°	2.3	2.3	2.3	2.3
67.5°	2.3	2.3	2.3	2.3
70°	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	1.1
75°	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	0.0	1.1
85°	1.1	1.1	1.1	1.1
87.5°	0.0	1.1	0.0	1.1
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)