

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: P135917

Luminaire Tested: **LD6A15D010TE ERM6A15930 6LM121H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135917  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23373)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A15D010TE ERM6A15930 6LM121H  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE  
SEMI-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: 1392.5 lumens  
Efficiency: N/A  
Efficacy: 61.6 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 1.06 / 1.01  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

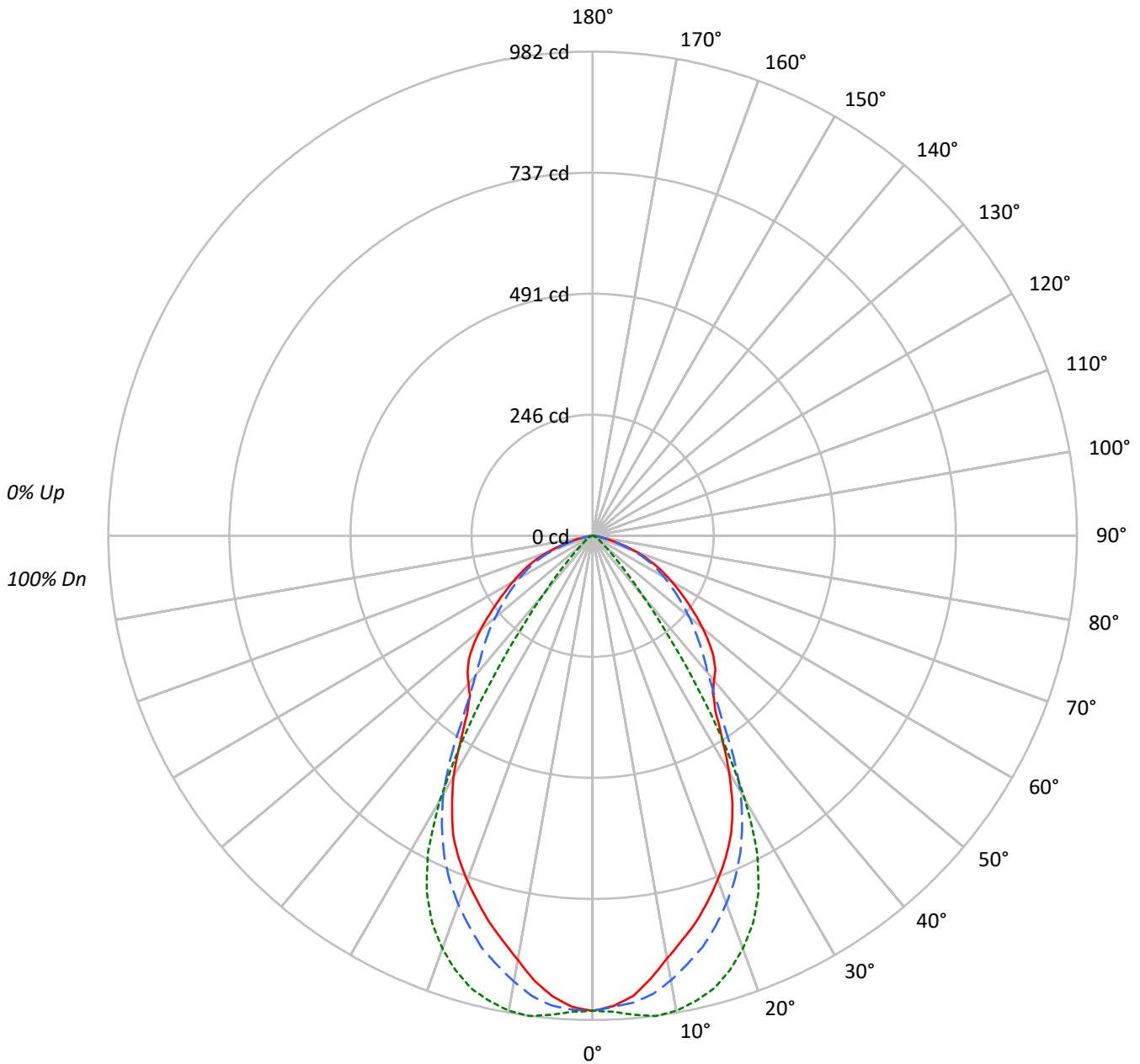
Input Watts (W): 22.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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	100	100	100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70	70	70	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62	62	62	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56	56	56	56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51	51	51	51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47	47	47	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43	43	43	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39	39	39	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36	36	36	36

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

	0°	90°	180°
0°	62859	62859	62859
5°	61384	63866	61384
10°	57655	64790	57847
15°	54756	64192	54756
20°	51529	61839	51633
25°	47877	57307	48194
30°	41667	46594	42541
35°	34542	28170	35354
40°	32601	13141	33342
45°	31960	6182	32763
50°	29535	3258	30134
55°	26650	2150	26821
60°	24113	1709	24309
65°	21566	1343	22230
70°	17759	1106	18331
75°	11746	731	11746
80°	6575	564	6575
85°	4342	0	3219



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.9	6.5
10°-20°	243.8	17.5
20°-30°	325.9	23.4
30°-40°	269.5	19.4
40°-50°	193.4	13.9
50°-60°	142.1	10.2
60°-70°	91.8	6.6
70°-80°	32.5	2.3
80°-90°	3.8	0.3
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°	659.6	47.4
0°-40°	929.0	66.7
0°-60°	1264.5	90.8
0°-90°	1392.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1392.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	964	964	964	964	964	
5°	937	950	975	956	937	87
15°	811	863	950	866	811	227
25°	665	709	796	713	670	302
35°	434	460	354	464	444	279
45°	346	306	67	310	355	265
55°	234	208	19	211	236	210
65°	140	130	9	131	144	138
75°	47	38	3	38	47	53
85°	6	3	0	3	4	7
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°	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5
2.5°	954.7	947.4	953.3	947.4	948.9	954.7	956.2	959.1	960.6	956.2	956.2
5°	937.3	930.0	937.3	931.4	934.4	941.6	943.1	948.9	951.9	950.4	953.3
7.5°	905.3	899.4	906.7	902.3	906.7	916.9	921.3	928.6	934.4	937.3	941.6
10°	870.3	864.5	871.8	867.4	874.7	886.4	890.7	899.4	908.2	915.5	922.7
12.5°	839.8	834.0	838.3	836.8	844.1	854.3	861.6	871.8	881.9	889.2	899.4
15°	810.7	804.9	810.7	807.7	813.5	825.2	832.5	842.7	854.3	863.1	874.7
17.5°	777.1	771.3	775.8	774.3	780.1	790.3	797.6	807.7	819.4	829.5	841.2
20°	742.2	736.4	740.8	737.9	743.7	755.3	761.2	772.8	783.0	793.2	803.4
22.5°	705.9	700.1	705.9	701.5	710.3	717.6	723.4	735.0	743.7	753.9	762.6
25°	665.1	659.3	663.7	660.7	666.5	675.3	679.7	691.3	698.6	708.8	717.6
27.5°	614.2	606.9	615.6	609.8	617.1	624.3	628.8	638.9	647.6	656.4	663.7
30°	553.1	547.3	555.9	551.6	560.3	566.1	571.9	582.2	589.4	599.7	601.0
32.5°	489.1	486.1	493.4	490.4	499.2	505.0	509.4	519.5	525.4	531.2	526.8
35°	433.7	430.8	438.0	436.6	443.9	448.3	452.7	458.5	458.5	459.9	448.3
37.5°	400.3	398.8	404.6	403.1	408.9	413.3	413.3	414.8	411.9	404.6	387.1
40°	382.8	381.3	385.7	384.2	388.6	390.0	388.6	385.7	377.0	362.4	339.1
42.5°	368.2	365.3	368.2	366.7	369.7	371.2	366.7	362.4	350.7	333.3	305.6
45°	346.4	343.4	347.9	344.9	347.9	347.9	343.4	337.6	324.6	305.6	276.5
47.5°	320.2	317.3	321.6	318.8	321.6	321.6	317.3	311.5	298.3	279.4	250.3
50°	291.0	288.2	291.0	289.7	292.5	294.0	288.2	283.8	272.2	254.7	225.6
52.5°	261.9	259.1	261.9	261.9	263.4	263.4	259.1	256.1	246.0	230.0	203.7
55°	234.3	231.4	235.8	234.3	235.8	235.8	231.4	228.5	221.2	208.1	183.4
57.5°	208.1	206.7	209.6	208.1	208.1	208.1	205.2	203.7	197.9	186.3	165.9
60°	184.8	181.9	183.4	183.4	183.4	184.8	181.9	180.4	176.1	167.3	148.5
62.5°	161.5	160.1	161.5	160.1	160.1	161.5	160.1	158.6	155.7	148.5	132.4
65°	139.7	136.8	139.7	138.2	138.2	138.2	136.8	136.8	133.9	129.5	114.9
67.5°	116.4	114.9	116.4	114.9	113.6	113.6	112.1	112.1	110.6	107.7	94.6
70°	93.1	90.3	91.7	88.8	90.3	87.3	87.3	85.8	84.5	83.0	72.8
72.5°	68.4	67.0	67.0	64.0	64.0	62.5	61.2	61.2	59.7	59.7	52.4
75°	46.6	46.6	45.1	42.2	43.7	40.7	40.7	40.7	39.3	37.9	33.4
77.5°	30.6	29.1	29.1	27.6	27.6	24.8	26.2	24.8	24.8	23.3	20.4
80°	17.5	17.5	17.5	16.0	16.0	14.6	14.6	14.6	13.1	13.1	11.6
82.5°	10.2	10.2	10.2	8.7	8.7	8.7	8.7	7.3	7.3	7.3	5.8
85°	5.8	4.3	4.3	4.3	4.3	4.3	4.3	2.9	2.9	2.9	2.9
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	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°	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5
2.5°	962.0	960.6	959.1	964.9	966.4	962.0	962.0	966.4	969.3	962.0	960.6
5°	960.6	962.0	962.0	969.3	973.7	970.7	970.7	975.2	978.0	969.3	966.4
7.5°	953.3	957.7	960.6	970.7	978.0	976.5	978.0	982.4	983.8	975.2	970.7
10°	937.3	943.1	948.9	962.0	970.7	972.2	973.7	978.0	981.0	969.3	963.5
12.5°	915.5	924.1	932.9	947.4	957.7	959.1	963.5	966.4	967.9	957.7	950.4
15°	890.7	902.3	911.1	927.1	938.7	941.6	946.0	950.4	950.4	938.7	931.4
17.5°	860.1	870.3	881.9	898.0	911.1	914.0	919.8	924.1	924.1	912.5	902.3
20°	822.3	834.0	844.1	861.6	876.1	880.5	886.4	890.7	890.7	880.5	867.4
22.5°	783.0	794.6	804.9	820.8	835.4	839.8	844.1	850.0	848.5	839.8	828.2
25°	736.4	746.7	753.9	769.9	781.6	785.9	791.7	796.1	794.6	785.9	775.8
27.5°	679.7	687.0	688.4	698.6	708.8	713.1	717.6	721.9	720.4	713.1	704.4
30°	614.2	612.7	605.5	605.5	609.8	612.7	615.6	618.5	617.1	612.7	606.9
32.5°	531.2	521.0	502.1	491.9	487.6	487.6	487.6	490.4	489.1	487.6	487.6
35°	442.4	420.6	391.5	369.7	358.0	353.7	350.7	353.7	352.2	353.7	359.5
37.5°	369.7	337.6	298.3	269.2	250.3	241.6	235.8	237.2	237.2	241.6	251.8
40°	315.8	275.1	231.4	195.1	173.1	161.5	154.3	154.3	155.7	161.5	174.6
42.5°	275.1	230.0	181.9	147.0	120.8	109.1	101.9	100.4	101.9	109.1	122.2
45°	243.1	195.1	147.0	109.1	87.3	74.2	68.4	67.0	68.4	75.7	87.3
47.5°	215.4	167.3	122.2	84.5	62.5	52.4	46.6	45.1	48.0	53.9	64.0
50°	192.1	145.5	100.4	67.0	48.0	37.9	33.4	32.1	33.4	39.3	48.0
52.5°	170.3	126.6	84.5	52.4	36.4	29.1	24.8	23.3	24.8	29.1	37.9
55°	152.8	112.1	72.8	43.7	29.1	23.3	20.4	18.9	20.4	23.3	30.6
57.5°	136.8	99.0	62.5	36.4	24.8	18.9	16.0	16.0	16.0	18.9	24.8
60°	122.2	87.3	53.9	30.6	20.4	16.0	13.1	13.1	13.1	16.0	20.4
62.5°	109.1	77.2	46.6	26.2	17.5	13.1	11.6	11.6	11.6	13.1	17.5
65°	93.1	65.5	39.3	21.8	14.6	11.6	10.2	8.7	10.2	11.6	14.6
67.5°	77.2	53.9	32.1	17.5	11.6	8.7	7.3	7.3	7.3	8.7	11.6
70°	59.7	42.2	24.8	13.1	8.7	7.3	5.8	5.8	5.8	7.3	8.7
72.5°	40.7	29.1	17.5	10.2	7.3	5.8	4.3	4.3	4.3	5.8	7.3
75°	26.2	18.9	11.6	7.3	4.3	4.3	2.9	2.9	2.9	4.3	4.3
77.5°	16.0	11.6	7.3	4.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9
80°	8.7	7.3	4.3	2.9	2.9	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	4.3	4.3	2.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	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°	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5	963.5
2.5°	960.6	963.5	964.9	959.1	960.6	962.0	953.3	954.7	950.4	959.1	954.7
5°	964.9	966.4	967.9	959.1	957.7	956.2	946.0	944.6	938.7	946.0	941.6
7.5°	966.4	963.5	963.5	950.4	946.0	941.6	928.6	924.1	916.9	919.8	914.0
10°	959.1	953.3	948.9	932.9	925.6	918.3	902.3	896.5	886.4	887.8	880.5
12.5°	943.1	935.8	928.6	911.1	902.3	892.2	876.1	867.4	857.3	857.3	848.5
15°	922.7	914.0	905.3	887.8	876.1	865.9	847.0	838.3	828.2	826.7	819.4
17.5°	893.6	883.4	874.7	854.3	842.7	831.0	813.5	803.4	793.2	793.2	784.4
20°	858.6	847.0	836.8	817.9	806.2	796.1	775.8	767.0	758.3	756.8	749.5
22.5°	817.9	806.2	797.6	780.1	767.0	756.8	739.4	732.1	723.4	721.9	713.1
25°	767.0	756.8	748.0	733.5	721.9	713.1	697.1	688.4	682.6	682.6	675.3
27.5°	698.6	689.8	688.4	676.8	668.0	662.2	649.1	643.3	636.0	636.0	627.3
30°	606.9	608.3	614.2	611.3	608.3	605.5	593.8	592.4	583.6	582.2	571.9
32.5°	494.9	505.0	521.0	529.8	534.1	537.0	534.1	531.2	524.0	522.5	510.9
35°	375.5	395.8	422.1	439.5	454.1	464.3	468.6	468.6	465.7	464.3	454.1
37.5°	272.2	302.7	337.6	366.7	390.0	408.9	417.7	423.5	423.5	423.5	419.1
40°	199.4	235.8	276.5	314.3	343.4	368.2	381.3	391.5	394.4	398.8	395.8
42.5°	148.5	187.7	231.4	275.1	308.5	336.2	353.7	365.3	372.5	377.0	377.0
45°	113.6	152.8	197.9	244.5	279.4	310.0	327.5	340.6	347.9	353.7	353.7
47.5°	87.3	125.2	170.3	216.9	253.3	283.8	301.3	312.9	320.2	326.0	326.0
50°	68.4	103.3	147.0	192.1	228.5	257.6	273.6	285.2	291.0	295.5	296.9
52.5°	55.3	87.3	129.5	173.1	206.7	232.8	246.0	256.1	261.9	264.9	266.4
55°	45.1	75.7	114.9	154.3	186.3	211.0	222.7	230.0	234.3	237.2	237.2
57.5°	37.9	65.5	101.9	139.7	170.3	189.2	199.4	205.2	208.1	211.0	211.0
60°	32.1	56.7	90.3	125.2	152.8	170.3	177.6	181.9	184.8	186.3	186.3
62.5°	27.6	48.0	78.6	110.6	135.4	151.3	157.2	160.1	161.5	161.5	163.0
65°	23.3	40.7	67.0	96.1	116.4	131.0	135.4	136.8	136.8	138.2	139.7
67.5°	17.5	32.1	53.9	78.6	96.1	107.7	112.1	112.1	112.1	112.1	113.6
70°	14.6	24.8	40.7	59.7	74.2	83.0	85.8	85.8	85.8	85.8	87.3
72.5°	10.2	17.5	29.1	42.2	53.9	59.7	59.7	61.2	59.7	59.7	62.5
75°	7.3	11.6	18.9	27.6	33.4	37.9	39.3	39.3	39.3	39.3	40.7
77.5°	4.3	7.3	11.6	16.0	21.8	23.3	24.8	24.8	24.8	24.8	26.2
80°	2.9	4.3	7.3	10.2	11.6	13.1	14.6	14.6	14.6	14.6	14.6
82.5°	1.5	2.9	4.3	4.3	5.8	7.3	7.3	7.3	7.3	7.3	8.7
85°	0.0	1.5	1.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.3
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):**

	165°	170°	175°	180°
0°	963.5	963.5	963.5	963.5
2.5°	946.0	956.2	948.9	956.2
5°	931.4	940.2	931.4	937.3
7.5°	902.3	909.6	900.9	909.6
10°	867.4	874.7	865.9	873.2
12.5°	835.4	841.2	832.5	841.2
15°	806.2	812.1	803.4	810.7
17.5°	772.8	777.1	769.9	777.1
20°	737.9	742.2	736.4	743.7
22.5°	703.0	708.8	701.5	708.8
25°	663.7	668.0	660.7	669.5
27.5°	617.1	620.0	612.7	617.1
30°	560.3	561.8	555.9	564.7
32.5°	500.7	500.7	491.9	500.7
35°	445.4	443.9	438.0	443.9
37.5°	410.4	410.4	406.1	408.9
40°	390.0	391.5	385.7	391.5
42.5°	372.5	375.5	371.2	375.5
45°	350.7	353.7	349.3	355.1
47.5°	323.1	326.0	323.1	327.5
50°	292.5	295.5	292.5	296.9
52.5°	261.9	264.9	261.9	264.9
55°	234.3	235.8	232.8	235.8
57.5°	208.1	209.6	206.7	209.6
60°	183.4	186.3	183.4	186.3
62.5°	161.5	163.0	163.0	164.5
65°	138.2	144.0	142.7	144.0
67.5°	114.9	119.4	119.4	120.8
70°	88.8	91.7	94.6	96.1
72.5°	62.5	67.0	68.4	69.9
75°	40.7	45.1	45.1	46.6
77.5°	26.2	29.1	29.1	29.1
80°	16.0	17.5	16.0	17.5
82.5°	8.7	8.7	8.7	10.2
85°	4.3	4.3	4.3	4.3
87.5°	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)