

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: P274436

Luminaire Tested: **LD6B20DE010W2N2765 EU6B1020W2N902765 6LBLWWOLI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274436  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-5)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20DE010W2N2765 EU6B1020W2N902765 6LBLWW0LI  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, LENSED WALLWASH WITH SPECULAR FINISH  
Light Source: W2N 2700K-6500K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1467.9 lumens  
Efficiency: N/A  
Efficacy: 52.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.02 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

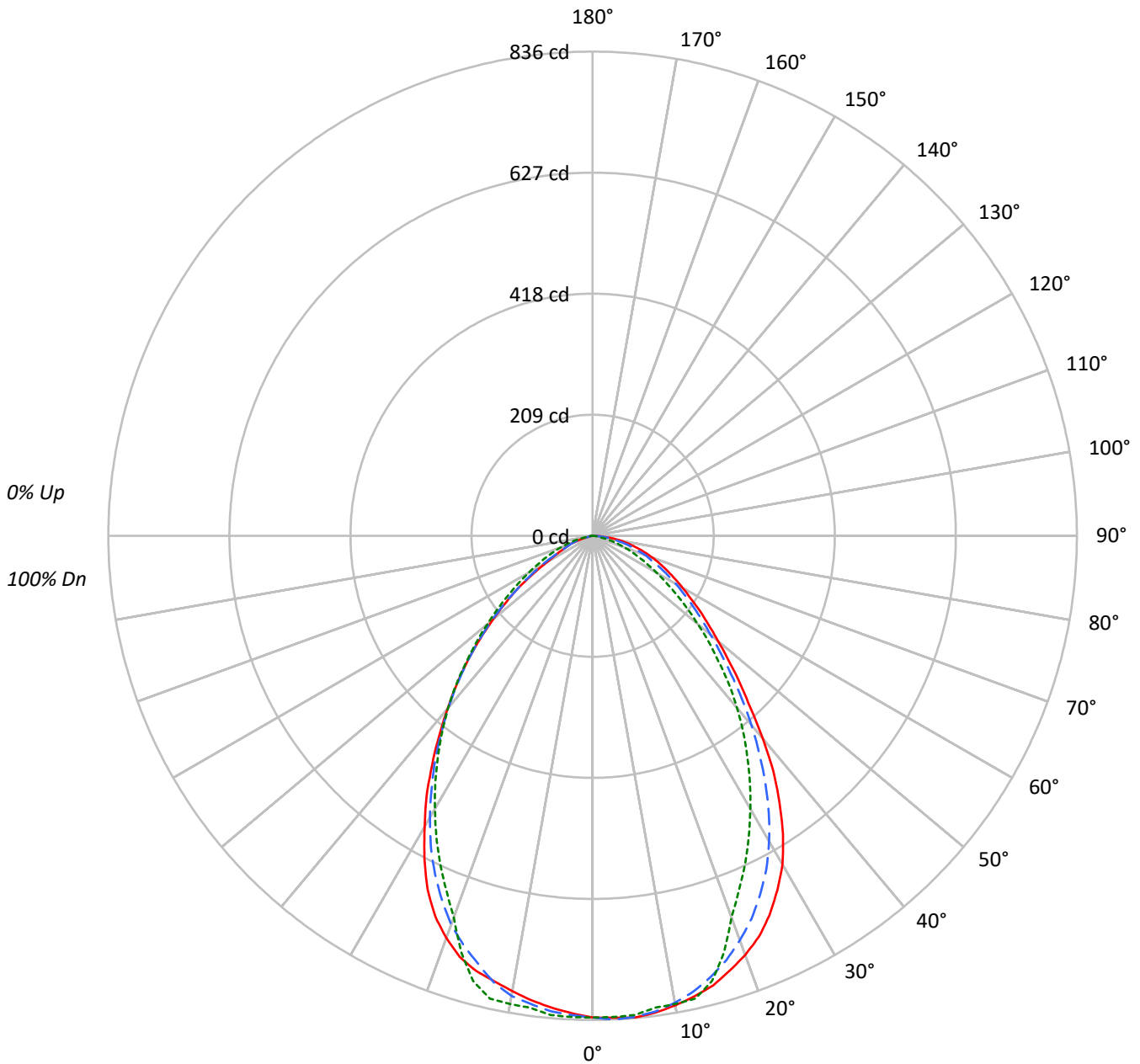
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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					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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77								
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68								
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60								
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54								
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48								
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44								
8	67	55	47	42	66	54	47	42	53	46	42	52	46	42	51	45	41	40								
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36								
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33								

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

	0°	90°	180°
0°	54261	54261	54261
5°	54677	54396	53551
10°	54528	54382	52878
15°	54277	53770	52527
20°	53466	48669	51293
25°	52016	44861	48518
30°	49389	41011	43693
35°	44816	37074	38452
40°	38912	33027	33112
45°	33187	28399	28104
50°	28723	24004	22695
55°	25672	20030	17573
60°	23395	16636	11835
65°	21844	13677	8830
70°	20811	11121	7420
75°	19611	7890	2445
80°	18673	4058	827
85°	15345	2395	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.5	5.4
10°-20°	219.7	15.0
20°-30°	303.2	20.7
30°-40°	308.5	21.0
40°-50°	248.0	16.9
50°-60°	164.9	11.2
60°-70°	94.0	6.4
70°-80°	42.2	2.9
80°-90°	8.9	0.6
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°	601.4	41.0
0°-40°	910.0	62.0
0°-60°	1322.8	90.1
0°-90°	1467.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1467.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	832	832	832	832	832	
5°	835	834	831	824	818	79
15°	804	788	796	765	778	226
25°	723	684	623	644	674	331
35°	563	520	466	474	483	350
45°	360	338	308	305	305	279
55°	226	211	176	157	154	203
65°	142	126	89	57	57	141
75°	78	65	31	13	10	83
85°	20	14	3	1	0	24
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°	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7
2.5°	832.8	837.1	836.0	834.9	836.0	834.9	832.8	832.8	830.6	830.6	836.0
5°	834.9	837.1	836.0	834.9	834.9	836.0	831.7	831.7	829.5	828.5	833.9
7.5°	830.6	833.9	831.7	831.7	830.6	831.7	827.4	827.4	824.1	823.1	828.5
10°	823.1	827.4	825.2	825.2	825.2	823.1	820.9	819.8	816.6	815.5	818.7
12.5°	814.4	817.7	816.6	814.4	814.4	814.4	810.1	809.0	804.7	802.5	805.8
15°	803.6	805.8	804.7	803.6	801.5	801.5	797.1	795.0	790.7	786.3	788.5
17.5°	787.4	790.7	788.5	787.4	784.2	784.2	779.9	777.7	771.2	766.9	768.0
20°	770.1	771.2	770.1	768.0	764.7	763.6	759.3	755.0	749.6	744.2	743.1
22.5°	749.6	750.7	747.4	745.3	742.0	741.0	735.6	732.3	723.7	717.2	716.1
25°	722.6	723.7	723.7	718.3	716.1	714.0	708.6	703.2	695.6	687.0	683.7
27.5°	690.2	693.4	691.3	685.9	681.6	680.5	675.1	670.8	661.0	653.5	649.2
30°	655.6	654.6	653.5	650.2	643.8	642.7	637.3	631.9	624.3	614.6	609.2
32.5°	611.4	611.4	610.3	607.0	600.6	598.4	594.1	587.6	578.9	571.4	566.0
35°	562.7	563.8	562.7	556.3	551.9	549.8	547.6	540.1	532.5	523.9	519.5
37.5°	512.0	508.7	509.8	504.4	499.0	501.2	494.7	491.5	482.8	476.3	472.0
40°	456.9	459.1	454.7	452.6	449.3	446.1	446.1	440.7	436.4	428.8	426.7
42.5°	402.9	406.1	405.0	402.9	398.6	399.6	394.2	392.1	386.7	383.4	380.2
45°	359.7	359.7	359.7	357.5	356.4	354.3	351.0	347.8	344.6	340.2	338.1
47.5°	317.6	317.6	318.6	316.5	314.3	313.2	311.1	311.1	305.7	301.4	299.2
50°	283.0	283.0	283.0	280.8	278.7	278.7	276.5	274.4	271.1	267.9	265.7
52.5°	251.7	251.7	251.7	249.5	248.4	247.3	246.3	245.2	240.9	238.7	236.5
55°	225.7	224.7	224.7	223.6	221.4	221.4	220.3	218.2	214.9	211.7	210.6
57.5°	199.8	200.9	199.8	199.8	197.7	197.7	195.5	194.4	191.2	189.0	186.9
60°	179.3	179.3	179.3	178.2	176.1	177.1	175.0	173.9	170.7	167.4	165.3
62.5°	158.8	159.9	159.9	158.8	156.6	156.6	155.5	154.5	151.2	148.0	144.7
65°	141.5	141.5	141.5	140.4	139.3	139.3	138.3	137.2	133.9	129.6	126.4
67.5°	125.3	124.2	124.2	124.2	123.1	122.1	121.0	119.9	116.7	113.4	109.1
70°	109.1	109.1	109.1	108.0	105.9	106.9	105.9	104.8	101.5	98.3	95.1
72.5°	94.0	94.0	92.9	91.8	91.8	90.7	90.7	89.7	86.4	82.1	78.8
75°	77.8	77.8	77.8	77.8	75.6	76.7	74.5	73.4	71.3	68.0	64.8
77.5°	63.7	63.7	63.7	62.6	61.6	61.6	60.5	59.4	56.2	54.0	49.7
80°	49.7	49.7	49.7	49.7	48.6	47.5	46.4	45.4	43.2	40.0	36.7
82.5°	36.7	36.7	35.6	35.6	35.6	34.6	33.5	32.4	30.2	28.1	25.9
85°	20.5	21.6	21.6	19.4	20.5	19.4	19.4	17.3	17.3	15.1	14.0
87.5°	7.6	6.5	6.5	6.5	6.5	6.5	6.5	5.4	5.4	5.4	4.3
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°	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7
2.5°	831.7	830.6	834.9	834.9	828.5	831.7	832.8	830.6	830.6	831.7	828.5
5°	829.5	827.4	831.7	832.8	826.3	829.5	830.6	828.5	829.5	830.6	826.3
7.5°	822.0	822.0	825.2	826.3	819.8	823.1	823.1	820.9	822.0	822.0	818.7
10°	814.4	811.2	814.4	814.4	809.0	810.1	812.3	811.2	815.5	820.9	820.9
12.5°	800.4	797.1	802.5	802.5	799.3	803.6	809.0	812.3	816.6	818.7	812.3
15°	783.1	784.2	793.9	801.5	798.2	804.7	810.1	807.9	802.5	796.1	786.3
17.5°	760.4	757.2	765.8	770.1	765.8	768.0	772.3	768.0	759.3	753.9	741.0
20°	734.5	725.8	725.8	723.7	716.1	716.1	715.0	707.5	704.2	701.0	695.6
22.5°	705.3	695.6	692.4	685.9	679.4	678.3	675.1	667.5	663.2	661.0	654.6
25°	671.8	663.2	657.8	651.3	641.6	639.4	636.2	628.6	626.5	623.2	617.8
27.5°	637.3	626.5	618.9	612.4	603.8	602.7	596.2	590.8	586.5	584.3	580.0
30°	597.3	585.4	580.0	571.4	564.9	562.7	557.3	549.8	546.5	544.4	541.1
32.5°	553.0	543.3	537.9	530.3	521.7	522.8	516.3	509.8	507.7	505.5	502.3
35°	509.8	500.1	493.6	487.1	481.7	479.6	475.3	469.9	466.6	465.5	463.4
37.5°	462.3	454.7	449.3	442.9	438.5	436.4	434.2	428.8	426.7	426.7	422.3
40°	415.8	409.4	405.0	401.8	396.4	395.3	393.2	389.9	388.8	387.8	384.5
42.5°	373.7	365.1	361.8	359.7	356.4	354.3	353.2	351.0	350.0	348.9	345.6
45°	333.8	326.2	323.0	320.8	317.6	316.5	315.4	312.2	310.0	307.8	306.8
47.5°	294.9	289.5	288.4	283.0	280.8	278.7	276.5	274.4	273.3	272.2	267.9
50°	261.4	258.2	252.7	249.5	247.3	246.3	241.9	238.7	237.6	236.5	233.3
52.5°	231.1	226.8	223.6	218.2	217.1	214.9	212.8	208.5	206.3	205.2	202.0
55°	204.1	200.9	196.6	192.3	189.0	187.9	184.7	180.4	178.2	176.1	173.9
57.5°	181.5	176.1	171.7	167.4	165.3	162.0	158.8	156.6	153.4	150.1	146.9
60°	159.9	155.5	150.1	145.8	143.7	141.5	137.2	133.9	130.7	127.5	124.2
62.5°	139.3	135.0	129.6	125.3	123.1	121.0	116.7	113.4	110.2	106.9	102.6
65°	121.0	116.7	112.3	108.0	105.9	103.7	99.4	95.1	91.8	88.6	84.2
67.5°	105.9	100.5	96.1	91.8	89.7	87.5	83.2	79.9	75.6	72.4	68.0
70°	89.7	85.3	82.1	77.8	75.6	73.4	69.1	64.8	61.6	58.3	54.0
72.5°	75.6	70.2	67.0	62.6	60.5	59.4	55.1	51.8	48.6	44.3	41.0
75°	60.5	56.2	51.8	48.6	46.4	45.4	41.0	37.8	34.6	31.3	28.1
77.5°	46.4	43.2	38.9	35.6	33.5	32.4	28.1	24.8	21.6	19.4	16.2
80°	34.6	30.2	28.1	24.8	23.8	21.6	19.4	16.2	14.0	10.8	8.6
82.5°	23.8	20.5	18.4	16.2	15.1	14.0	11.9	9.7	7.6	6.5	5.4
85°	13.0	10.8	9.7	8.6	7.6	7.6	6.5	5.4	4.3	3.2	2.2
87.5°	4.3	3.2	3.2	3.2	3.2	2.2	2.2	2.2	1.1	1.1	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7
2.5°	830.6	830.6	830.6	829.5	829.5	829.5	828.5	832.8	828.5	827.4	830.6
5°	829.5	827.4	827.4	827.4	827.4	826.3	825.2	827.4	824.1	823.1	823.1
7.5°	823.1	822.0	822.0	820.9	819.8	818.7	817.7	818.7	815.5	814.4	814.4
10°	824.1	822.0	822.0	818.7	816.6	813.3	810.1	811.2	806.9	803.6	803.6
12.5°	811.2	805.8	802.5	799.3	797.1	796.1	791.7	793.9	789.6	788.5	788.5
15°	782.0	775.5	770.1	768.0	768.0	765.8	762.6	766.9	764.7	765.8	771.2
17.5°	736.6	733.4	730.2	729.1	730.2	732.3	734.5	741.0	741.0	744.2	749.6
20°	696.7	694.5	696.7	696.7	697.8	702.1	706.4	711.8	714.0	717.2	724.8
22.5°	657.8	657.8	660.0	663.2	662.1	669.7	670.8	680.5	680.5	687.0	693.4
25°	620.0	620.0	622.2	623.2	625.4	629.7	634.0	641.6	643.8	650.2	655.6
27.5°	583.3	582.2	582.2	583.3	585.4	590.8	593.0	601.6	604.9	609.2	614.6
30°	542.2	541.1	543.3	545.5	544.4	549.8	553.0	559.5	561.7	566.0	570.3
32.5°	503.3	503.3	503.3	505.5	505.5	509.8	509.8	517.4	517.4	520.6	524.9
35°	463.4	463.4	464.5	465.5	466.6	467.7	468.8	473.1	474.2	475.3	477.4
37.5°	425.6	424.5	425.6	425.6	423.4	427.7	427.7	432.1	428.8	432.1	433.1
40°	386.7	386.7	385.6	385.6	385.6	387.8	385.6	388.8	386.7	388.8	387.8
42.5°	346.7	346.7	344.6	346.7	345.6	345.6	345.6	347.8	344.6	346.7	347.8
45°	306.8	305.7	305.7	304.6	304.6	304.6	305.7	305.7	304.6	306.8	306.8
47.5°	267.9	266.8	266.8	266.8	266.8	267.9	264.6	266.8	264.6	264.6	264.6
50°	234.4	233.3	232.2	231.1	230.1	230.1	229.0	229.0	226.8	225.7	224.7
52.5°	202.0	200.9	198.7	198.7	197.7	196.6	193.3	193.3	190.1	189.0	189.0
55°	172.8	169.6	168.5	166.3	166.3	164.2	162.0	159.9	156.6	154.5	154.5
57.5°	145.8	142.6	140.4	139.3	138.3	136.1	131.8	130.7	126.4	125.3	124.2
60°	122.1	118.8	115.6	113.4	112.3	109.1	104.8	102.6	100.5	97.2	94.0
62.5°	99.4	96.1	91.8	90.7	88.6	85.3	82.1	78.8	76.7	73.4	71.3
65°	79.9	76.7	73.4	71.3	69.1	65.9	62.6	59.4	57.2	56.2	55.1
67.5°	64.8	60.5	57.2	56.2	54.0	51.8	48.6	47.5	45.4	45.4	45.4
70°	50.8	47.5	44.3	43.2	42.1	40.0	37.8	37.8	37.8	37.8	37.8
72.5°	37.8	35.6	32.4	31.3	30.2	29.2	27.0	28.1	27.0	27.0	27.0
75°	23.8	21.6	19.4	18.4	17.3	16.2	15.1	14.0	13.0	11.9	11.9
77.5°	13.0	10.8	9.7	8.6	8.6	7.6	6.5	6.5	5.4	5.4	5.4
80°	7.6	6.5	5.4	4.3	4.3	3.2	3.2	3.2	3.2	2.2	2.2
82.5°	4.3	3.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1
85°	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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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CATALOG NUMBER: LD6B20DE010W2N2765 EU6B1020W2N902765 6LBLWW0LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	831.7	831.7	831.7	831.7	831.7	831.7	831.7	831.7
2.5°	825.2	828.5	825.2	828.5	828.5	828.5	828.5	825.2
5°	819.8	822.0	818.7	820.9	822.0	820.9	820.9	817.7
7.5°	810.1	812.3	809.0	812.3	813.3	812.3	811.2	809.0
10°	800.4	801.5	798.2	800.4	802.5	802.5	801.5	798.2
12.5°	785.3	788.5	785.3	787.4	789.6	790.7	790.7	787.4
15°	768.0	773.4	771.2	774.5	777.7	778.8	778.8	777.7
17.5°	750.7	756.1	752.8	758.2	761.5	763.6	764.7	762.6
20°	725.8	732.3	730.2	734.5	738.8	742.0	742.0	738.8
22.5°	693.4	702.1	701.0	704.2	709.6	710.7	712.9	710.7
25°	657.8	664.3	663.2	666.4	672.9	672.9	674.0	674.0
27.5°	616.8	623.2	622.2	624.3	628.6	629.7	630.8	628.6
30°	572.5	575.7	575.7	578.9	582.2	583.3	583.3	580.0
32.5°	523.9	528.2	530.3	529.3	532.5	534.7	533.6	533.6
35°	479.6	480.7	481.7	482.8	483.9	486.1	483.9	482.8
37.5°	432.1	435.3	433.1	435.3	437.5	436.4	435.3	435.3
40°	388.8	389.9	387.8	389.9	391.0	391.0	391.0	388.8
42.5°	345.6	347.8	345.6	347.8	347.8	347.8	347.8	346.7
45°	302.4	304.6	304.6	305.7	305.7	304.6	304.6	304.6
47.5°	262.5	264.6	262.5	264.6	265.7	263.6	263.6	263.6
50°	224.7	223.6	223.6	224.7	224.7	224.7	224.7	223.6
52.5°	185.8	186.9	186.9	186.9	187.9	186.9	187.9	187.9
55°	152.3	152.3	152.3	153.4	152.3	152.3	153.4	154.5
57.5°	122.1	121.0	119.9	119.9	121.0	119.9	119.9	119.9
60°	94.0	92.9	91.8	91.8	91.8	91.8	91.8	90.7
62.5°	70.2	70.2	70.2	71.3	71.3	71.3	71.3	72.4
65°	56.2	56.2	56.2	56.2	56.2	56.2	56.2	57.2
67.5°	45.4	45.4	45.4	46.4	46.4	46.4	46.4	46.4
70°	37.8	37.8	38.9	37.8	38.9	38.9	38.9	38.9
72.5°	25.9	25.9	25.9	25.9	25.9	24.8	25.9	24.8
75°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	9.7
77.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0
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°















(END OF REPORT)