

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: P274457

Luminaire Tested: **LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274457  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0LI  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH SPECULAR FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1424.9 lumens  
Efficiency: N/A  
Efficacy: 50.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

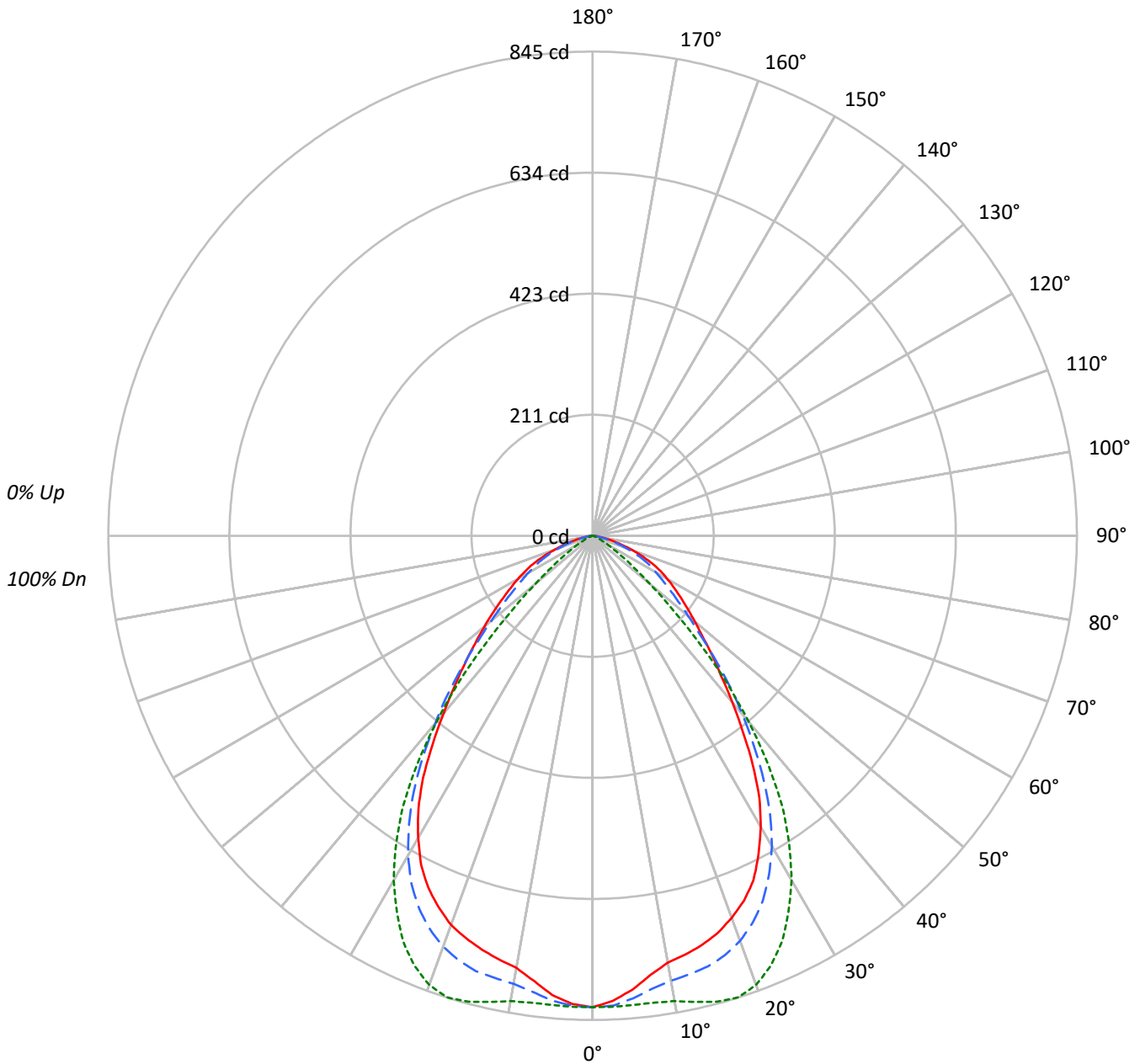
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50																			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
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°	53673	53673	53673
5°	52071	53813	52693
10°	50089	54627	50719
15°	49914	56850	50488
20°	49259	57910	50182
25°	47784	56278	48813
30°	44206	52304	45855
35°	38779	45979	41057
40°	32320	36042	34424
45°	27199	23776	29045
50°	23557	13032	24999
55°	21316	6927	21850
60°	19611	3601	19611
65°	17768	1914	17321
70°	14325	1087	13238
75°	9831	731	9100
80°	6425	376	5711
85°	4267	749	3593



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.7	5.4
10°-20°	221.8	15.6
20°-30°	327.7	23.0
30°-40°	331.1	23.2
40°-50°	228.2	16.0
50°-60°	131.0	9.2
60°-70°	76.3	5.4
70°-80°	27.8	2.0
80°-90°	4.3	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°	626.3	44.0
0°-40°	957.3	67.2
0°-60°	1316.6	92.4
0°-90°	1424.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1424.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	823	823	823	823	823	
5°	795	810	822	814	805	75
15°	739	778	842	786	748	208
25°	664	703	782	717	678	302
35°	487	520	577	544	516	302
45°	295	299	258	318	315	229
55°	187	164	61	171	192	169
65°	115	97	12	96	112	113
75°	39	31	3	30	36	44
85°	6	3	1	4	5	7
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°	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7
2.5°	812.2	813.2	814.1	813.2	814.1	817.9	815.1	817.0	817.0	817.9	820.8
5°	795.1	795.1	797.0	796.0	798.9	802.7	799.9	802.7	803.7	805.6	810.3
7.5°	773.2	773.2	774.2	774.2	778.0	781.8	779.9	783.7	787.5	791.3	797.0
10°	756.1	758.0	758.0	759.0	762.8	767.5	766.6	771.3	775.1	780.8	788.4
12.5°	748.5	749.4	749.4	751.3	755.2	759.9	759.0	763.7	769.4	776.1	783.7
15°	739.0	740.9	739.9	741.8	745.6	750.4	749.4	754.2	760.9	767.5	778.0
17.5°	726.6	727.6	728.5	728.5	732.3	736.1	736.1	740.9	748.5	756.1	767.5
20°	709.5	711.4	711.4	712.4	715.2	720.9	720.0	724.7	732.3	739.9	752.3
22.5°	689.5	690.5	690.5	691.4	696.2	699.0	700.0	703.8	710.4	719.0	730.4
25°	663.8	664.8	663.8	666.7	668.6	674.3	672.4	677.2	684.8	691.4	702.8
27.5°	626.8	628.7	628.7	629.6	634.4	639.1	639.1	643.9	650.5	655.3	666.7
30°	586.8	589.7	586.8	591.6	593.5	597.3	600.1	603.0	608.7	615.3	625.8
32.5°	541.2	540.2	541.2	543.1	548.8	551.6	553.5	556.4	562.1	567.8	576.3
35°	486.9	488.9	489.8	493.6	493.6	498.4	499.3	501.2	509.8	513.6	520.2
37.5°	429.9	431.8	432.7	434.6	438.4	440.3	443.2	446.1	451.8	458.4	462.2
40°	379.5	379.5	380.4	382.3	385.2	386.1	389.0	392.8	396.6	402.3	406.1
42.5°	331.9	332.9	331.9	333.8	336.7	340.5	339.5	344.3	345.2	349.0	351.9
45°	294.8	294.8	292.9	294.8	294.8	298.6	297.7	299.6	298.6	300.5	298.6
47.5°	259.6	260.6	259.6	260.6	260.6	260.6	261.5	259.6	260.6	257.7	252.0
50°	232.1	233.0	231.1	232.1	231.1	230.2	231.1	228.3	227.3	223.5	217.8
52.5°	208.3	207.3	206.4	206.4	206.4	205.4	204.5	201.6	198.8	195.0	188.3
55°	187.4	186.4	185.5	185.5	183.6	182.6	182.6	179.8	176.9	172.1	164.5
57.5°	168.3	167.4	166.4	166.4	165.5	163.6	163.6	160.7	156.9	151.2	144.6
60°	150.3	150.3	150.3	149.3	149.3	147.4	147.4	144.6	140.8	135.1	127.4
62.5°	134.1	133.1	133.1	133.1	133.1	132.2	131.2	129.3	125.5	119.8	113.2
65°	115.1	115.1	115.1	115.1	114.1	114.1	114.1	111.3	109.4	103.7	97.0
67.5°	94.2	94.2	94.2	94.2	93.2	94.2	94.2	92.3	90.4	84.6	78.9
70°	75.1	74.2	73.2	74.2	73.2	73.2	74.2	72.3	71.3	66.6	60.9
72.5°	55.2	56.1	55.2	55.2	55.2	54.2	55.2	54.2	52.3	48.5	44.7
75°	39.0	39.9	39.9	39.0	39.0	39.0	38.0	38.0	36.1	33.3	31.4
77.5°	26.6	26.6	26.6	26.6	25.7	25.7	25.7	24.7	23.8	21.9	20.0
80°	17.1	17.1	17.1	17.1	16.2	16.2	16.2	15.2	15.2	13.3	11.4
82.5°	10.5	10.5	10.5	10.5	10.5	10.5	9.5	9.5	8.6	7.6	6.7
85°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.8	4.8	3.8	2.9
87.5°	1.9	1.9	2.9	2.9	2.9	2.9	2.9	2.9	1.9	1.9	1.9
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°	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7
2.5°	818.9	819.8	819.8	819.8	822.7	823.6	820.8	817.9	823.6	822.7	824.6
5°	809.4	812.2	814.1	815.1	817.9	819.8	817.0	816.0	820.8	821.7	822.7
7.5°	797.9	802.7	807.5	809.4	813.2	815.1	814.1	814.1	819.8	821.7	821.7
10°	790.3	797.0	802.7	807.5	812.2	815.1	815.1	816.0	822.7	824.6	826.5
12.5°	788.4	797.0	804.6	811.3	815.1	819.8	820.8	823.6	830.3	833.1	833.1
15°	783.7	795.1	804.6	813.2	818.9	824.6	826.5	832.2	839.8	841.7	843.6
17.5°	775.1	786.5	797.9	808.4	816.0	820.8	826.5	832.2	841.7	844.6	845.5
20°	759.9	773.2	784.6	795.1	802.7	809.4	815.1	821.7	830.3	834.1	835.0
22.5°	737.1	750.4	761.8	773.2	780.8	786.5	792.2	799.9	808.4	812.2	812.2
25°	709.5	721.9	734.2	742.8	750.4	757.1	759.9	768.5	777.0	781.8	781.8
27.5°	674.3	685.7	697.1	706.6	711.4	717.1	721.9	729.5	736.1	739.9	743.7
30°	629.6	641.0	651.5	661.0	666.7	672.4	677.2	682.9	689.5	694.3	695.2
32.5°	581.1	590.6	601.1	610.6	616.3	618.2	623.0	628.7	634.4	638.2	639.1
35°	527.8	534.5	541.2	549.7	555.4	555.4	560.2	564.0	568.7	577.3	575.4
37.5°	465.1	474.6	479.3	482.2	486.0	489.8	490.8	495.5	501.2	503.1	506.0
40°	406.1	409.0	411.8	411.8	415.6	415.6	415.6	416.6	422.3	423.2	427.0
42.5°	347.1	347.1	344.3	341.4	342.4	341.4	336.7	336.7	339.5	343.3	343.3
45°	292.0	285.3	276.8	270.1	265.3	263.4	257.7	257.7	256.8	257.7	261.5
47.5°	245.4	234.0	219.7	206.4	201.6	197.8	189.3	185.5	183.6	184.5	186.4
50°	206.4	194.0	177.9	161.7	153.1	148.4	137.9	131.2	130.3	128.4	132.2
52.5°	177.9	162.6	145.5	126.5	117.9	110.3	98.9	93.2	89.4	89.4	90.4
55°	153.1	137.0	117.9	98.9	90.4	84.6	73.2	65.6	61.8	60.9	63.7
57.5°	132.2	117.0	98.0	78.9	70.4	63.7	52.3	45.7	42.8	40.9	41.8
60°	116.0	100.8	81.8	63.7	56.1	48.5	39.0	31.4	27.6	27.6	28.5
62.5°	100.8	86.5	69.4	52.3	45.7	39.0	28.5	21.9	19.0	18.1	19.0
65°	85.6	72.3	58.0	43.7	37.1	31.4	22.8	17.1	13.3	12.4	13.3
67.5°	69.4	59.0	46.6	35.2	29.5	24.7	17.1	12.4	9.5	8.6	9.5
70°	54.2	44.7	35.2	25.7	21.9	18.1	12.4	9.5	6.7	5.7	6.7
72.5°	39.0	32.3	24.7	18.1	15.2	12.4	8.6	6.7	4.8	3.8	4.8
75°	26.6	21.9	16.2	11.4	9.5	8.6	5.7	3.8	2.9	2.9	2.9
77.5°	17.1	13.3	10.5	7.6	5.7	4.8	2.9	1.9	1.9	1.9	1.9
80°	9.5	7.6	5.7	3.8	2.9	2.9	1.9	1.9	1.0	1.0	1.0
82.5°	5.7	3.8	2.9	1.9	1.9	1.0	1.0	1.0	1.0	1.0	1.0
85°	2.9	1.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7
2.5°	820.8	821.7	818.9	822.7	819.8	823.6	823.6	819.8	820.8	818.9	822.7
5°	818.9	818.9	817.0	819.8	816.0	819.8	818.9	812.2	814.1	810.3	814.1
7.5°	818.9	817.0	814.1	817.0	812.2	815.1	811.3	804.6	802.7	797.9	797.9
10°	821.7	818.9	815.1	816.0	811.3	812.2	806.5	797.0	794.1	788.4	786.5
12.5°	828.4	825.5	819.8	821.7	815.1	815.1	807.5	796.0	790.3	782.7	780.8
15°	837.9	833.1	826.5	827.4	820.8	817.0	807.5	794.1	786.5	776.1	773.2
17.5°	839.8	835.0	826.5	826.5	817.9	813.2	801.8	786.5	777.0	766.6	760.9
20°	829.3	824.6	815.1	814.1	806.5	799.9	787.5	772.3	762.8	751.3	746.6
22.5°	807.5	801.8	793.2	792.2	784.6	780.8	767.5	752.3	742.8	731.4	727.6
25°	775.1	772.3	763.7	762.8	756.1	751.3	739.9	725.7	717.1	705.7	701.9
27.5°	737.1	734.2	725.7	725.7	718.1	715.2	704.7	691.4	684.8	674.3	669.6
30°	691.4	687.6	682.9	681.9	675.3	672.4	662.9	650.5	643.9	635.3	633.4
32.5°	637.2	634.4	631.5	630.6	623.9	621.0	614.4	602.0	596.3	588.7	585.9
35°	574.4	572.5	569.7	568.7	565.9	563.0	556.4	546.9	544.0	538.3	535.5
37.5°	502.2	504.1	502.2	502.2	499.3	500.3	494.6	488.9	486.0	482.2	480.3
40°	424.2	428.0	430.8	430.8	429.9	433.7	432.7	428.0	427.0	425.1	424.2
42.5°	345.2	347.1	352.8	356.7	355.7	365.2	366.2	370.0	372.8	370.9	371.9
45°	262.5	268.2	275.8	279.6	284.4	296.7	303.4	311.0	317.7	321.5	320.5
47.5°	189.3	195.9	204.5	210.2	218.7	234.0	251.1	260.6	270.1	274.9	279.6
50°	137.0	143.6	154.1	162.6	168.3	189.3	207.3	219.7	230.2	236.8	241.6
52.5°	96.1	103.7	115.1	122.7	131.2	151.2	172.1	186.4	197.8	206.4	211.1
55°	66.6	75.1	85.6	93.2	102.7	123.6	143.6	158.8	171.2	178.8	184.5
57.5°	46.6	54.2	64.7	71.3	80.8	100.8	120.8	136.0	148.4	156.0	162.6
60°	31.4	39.0	49.5	56.1	63.7	83.7	101.8	117.9	129.3	137.0	143.6
62.5°	21.9	28.5	39.0	45.7	52.3	69.4	86.5	100.8	112.2	120.8	126.5
65°	17.1	22.8	31.4	37.1	43.7	58.0	72.3	84.6	96.1	104.6	108.4
67.5°	12.4	18.1	24.7	29.5	34.2	46.6	59.0	68.5	78.9	85.6	90.4
70°	8.6	12.4	18.1	21.9	25.7	35.2	44.7	53.3	60.9	65.6	69.4
72.5°	6.7	8.6	12.4	15.2	18.1	24.7	32.3	39.0	44.7	48.5	52.3
75°	3.8	5.7	8.6	10.5	12.4	17.1	21.9	26.6	30.4	33.3	35.2
77.5°	1.9	2.9	4.8	5.7	7.6	10.5	14.3	17.1	20.0	21.9	23.8
80°	1.9	1.9	2.9	2.9	3.8	5.7	7.6	9.5	11.4	13.3	14.3
82.5°	1.0	1.0	1.9	1.9	1.9	2.9	3.8	5.7	6.7	7.6	8.6
85°	1.0	1.0	1.0	1.0	1.0	1.9	1.9	2.9	3.8	4.8	4.8
87.5°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.9	1.9	1.9	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





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CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7
2.5°	819.8	821.7	820.8	822.7	819.8	818.9	820.8	817.9
5°	809.4	810.3	809.4	809.4	807.5	805.6	807.5	804.6
7.5°	793.2	793.2	790.3	790.3	786.5	784.6	784.6	783.7
10°	779.9	777.0	774.2	775.1	769.4	767.5	766.6	765.6
12.5°	773.2	771.3	766.6	766.6	760.9	759.0	758.0	757.1
15°	765.6	761.8	758.0	757.1	752.3	750.4	749.4	747.5
17.5°	752.3	749.4	744.7	744.7	739.9	739.0	737.1	736.1
20°	738.0	734.2	730.4	730.4	724.7	724.7	721.9	722.8
22.5°	718.1	715.2	711.4	711.4	706.6	705.7	702.8	701.9
25°	694.3	690.5	687.6	686.7	682.9	681.0	680.0	678.1
27.5°	662.9	660.0	657.2	655.3	650.5	649.6	646.7	647.7
30°	623.9	622.0	621.0	619.1	613.4	611.5	611.5	608.7
32.5°	581.1	578.3	576.3	573.5	568.7	567.8	564.9	565.9
35°	528.8	525.0	522.1	523.1	517.4	516.4	514.5	515.5
37.5°	474.6	470.8	467.0	466.0	461.3	461.3	458.4	458.4
40°	418.5	414.7	412.8	412.8	407.1	408.0	405.2	404.2
42.5°	368.1	364.3	363.3	362.4	359.5	358.6	355.7	356.7
45°	320.5	319.6	319.6	317.7	314.8	313.9	314.8	314.8
47.5°	278.7	279.6	278.7	278.7	276.8	278.7	276.8	277.7
50°	243.5	245.4	245.4	245.4	244.4	245.4	245.4	246.3
52.5°	214.0	216.8	215.9	216.8	215.9	217.8	216.8	217.8
55°	188.3	190.2	191.2	192.1	192.1	192.1	192.1	192.1
57.5°	164.5	167.4	168.3	169.3	169.3	171.2	169.3	169.3
60°	145.5	148.4	149.3	150.3	150.3	151.2	149.3	150.3
62.5°	128.4	131.2	131.2	132.2	132.2	132.2	130.3	131.2
65°	111.3	112.2	113.2	113.2	112.2	112.2	111.3	112.2
67.5°	92.3	93.2	92.3	92.3	91.3	91.3	89.4	90.4
70°	71.3	71.3	72.3	71.3	70.4	71.3	70.4	69.4
72.5°	53.3	53.3	53.3	52.3	52.3	51.4	52.3	52.3
75°	36.1	36.1	37.1	37.1	37.1	37.1	36.1	36.1
77.5°	23.8	23.8	23.8	23.8	24.7	23.8	23.8	23.8
80°	15.2	15.2	16.2	16.2	15.2	15.2	15.2	15.2
82.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
85°	5.7	5.7	5.7	5.7	4.8	4.8	4.8	4.8
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	1.9	1.9
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)