

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P879321

Luminaire Tested: **LD4C02D010 EU4029030 4LBLDWWLI**

Issue Date: 10/1/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P879321  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C02D010 EU4029030 4LBDWWLI  
Description: 4 INCH 250 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LBDWW TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

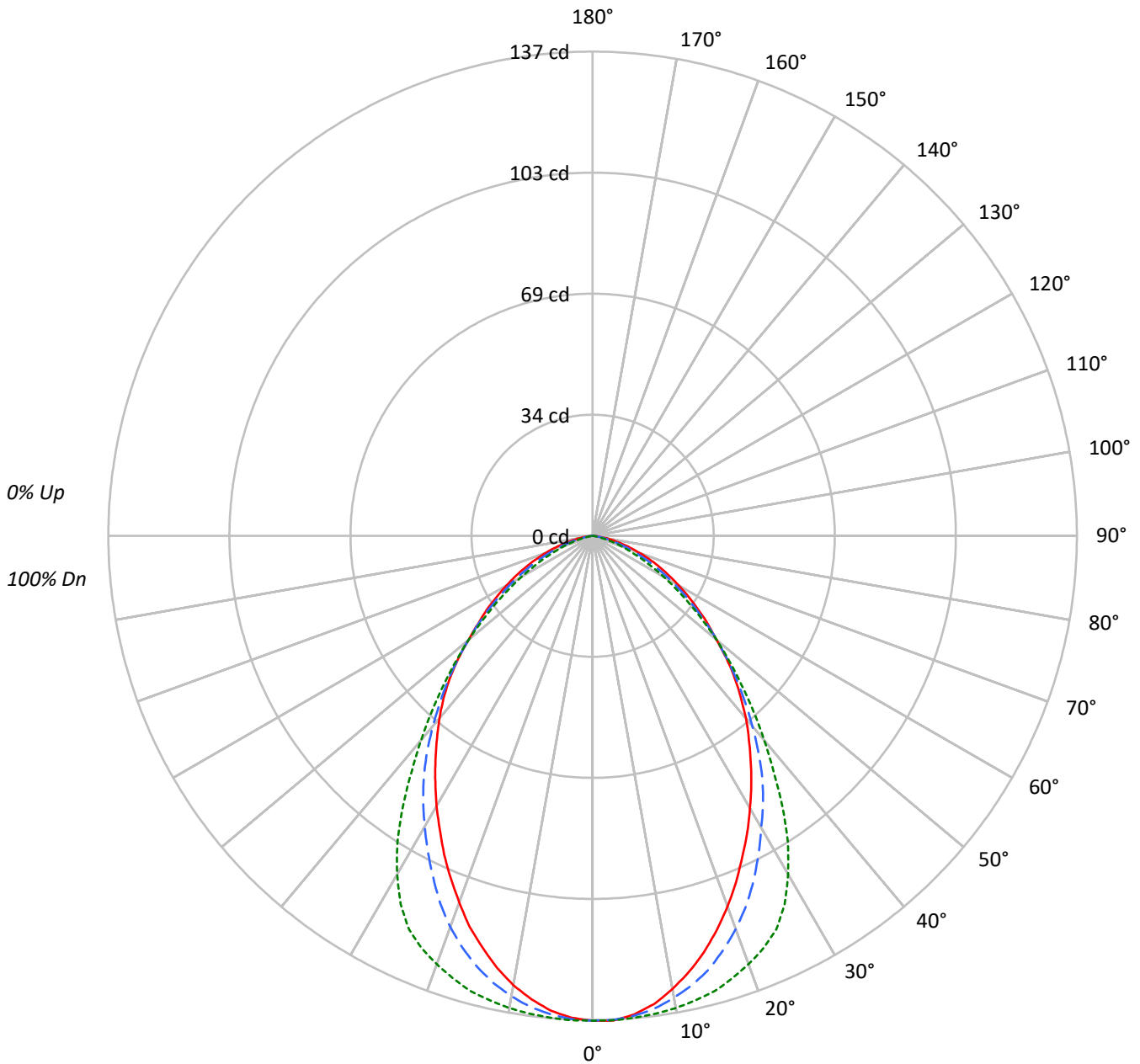
Lumens per Lamp: N/A  
Luminaire Lumens: 252.0 lumens  
Efficiency: N/A  
Efficacy: 72.0 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.5  
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
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32			32

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

	0°	90°	180°
0°	16855	16855	16855
5°	16760	16883	16636
10°	16242	16928	16105
15°	15504	16967	15326
20°	14590	16865	14420
25°	13582	16660	13474
30°	12625	15690	12526
35°	11698	14038	11623
40°	10825	12108	10809
45°	9868	10338	9938
50°	8715	8734	8754
55°	7796	7154	7839
60°	6904	5676	6904
65°	6076	4331	6017
70°	5029	3089	5029
75°	3940	1756	3797
80°	2547	424	2405
85°	987	141	705



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.9	5.1
10°-20°	35.6	14.1
20°-30°	49.8	19.8
30°-40°	52.5	20.9
40°-50°	44.7	17.7
50°-60°	31.5	12.5
60°-70°	17.9	7.1
70°-80°	6.4	2.5
80°-90°	0.6	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°	98.3	39.0
0°-40°	150.9	59.9
0°-60°	227.1	90.1
0°-90°	252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	252.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	137	137	137	137	137	
5°	136	136	137	136	135	13
15°	122	127	133	126	120	34
25°	100	108	123	107	99	46
35°	78	84	94	83	78	49
45°	57	58	60	58	57	44
55°	36	35	33	35	37	33
65°	21	18	15	18	21	21
75°	8	6	4	6	8	9
85°	1	0	0	0	0	1
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°	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2
2.5°	137.3	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1
5°	135.9	135.8	135.7	135.7	135.7	135.7	135.8	136.0	136.1	136.2	136.3
7.5°	133.6	133.4	133.5	133.5	133.6	133.7	133.9	134.1	134.4	134.6	134.9
10°	130.2	130.0	130.3	130.4	130.7	130.8	131.1	131.4	132.0	132.3	132.7
12.5°	126.3	126.2	126.3	126.7	127.0	127.2	127.5	128.2	128.8	129.5	130.2
15°	121.9	121.6	121.8	122.3	122.8	123.2	123.4	124.3	125.1	126.1	127.0
17.5°	116.9	116.6	117.0	117.4	118.1	118.4	118.7	119.7	120.8	122.0	122.9
20°	111.6	111.5	111.7	112.3	112.9	113.4	113.7	114.7	115.7	117.3	118.4
22.5°	106.0	106.1	106.3	106.9	107.3	107.9	108.4	109.3	110.5	111.9	113.4
25°	100.2	100.4	100.7	101.1	101.9	102.2	102.8	103.8	104.8	106.1	107.7
27.5°	94.7	94.7	95.1	95.3	96.1	96.7	97.0	98.1	99.2	100.2	101.6
30°	89.0	89.1	89.4	90.0	90.7	90.9	91.2	92.2	93.1	94.4	95.4
32.5°	83.5	83.4	83.7	84.1	84.9	85.3	85.5	86.6	87.4	88.7	89.7
35°	78.0	77.8	78.3	78.6	79.3	79.7	79.9	80.8	81.5	82.6	83.7
37.5°	72.6	72.8	73.0	73.2	73.6	73.7	74.3	74.5	75.4	76.3	76.9
40°	67.5	67.4	67.3	67.5	68.0	68.2	68.2	68.8	69.0	69.8	70.3
42.5°	62.0	62.1	62.0	62.1	62.3	62.3	62.5	62.9	63.0	63.3	63.8
45°	56.8	56.8	56.6	56.7	56.7	56.7	56.7	56.9	57.2	57.2	57.6
47.5°	51.3	51.2	51.4	51.2	51.1	51.1	51.2	51.1	51.4	51.4	51.5
50°	45.6	45.6	45.8	45.8	45.9	45.7	45.7	45.7	45.8	45.7	45.9
52.5°	41.2	41.1	40.9	40.7	40.8	40.6	40.6	40.6	40.5	40.4	40.2
55°	36.4	36.5	36.4	36.3	36.3	36.1	36.0	35.7	35.5	35.4	35.2
57.5°	32.2	32.3	32.2	32.0	31.7	31.7	31.6	31.3	30.8	30.5	30.3
60°	28.1	28.2	28.1	27.8	27.7	27.5	27.5	27.0	26.7	26.3	26.0
62.5°	24.4	24.4	24.3	24.0	23.7	23.8	23.5	23.2	22.7	22.2	21.7
65°	20.9	20.8	20.6	20.4	20.2	20.0	19.8	19.3	19.0	18.5	17.9
67.5°	17.4	17.2	17.1	17.0	16.5	16.5	16.3	15.9	15.3	15.0	14.5
70°	14.0	14.0	13.8	13.8	13.4	13.2	12.9	12.6	12.1	11.6	11.2
72.5°	11.1	11.0	10.8	10.6	10.3	10.2	9.9	9.5	9.1	8.6	8.1
75°	8.3	8.2	8.1	7.9	7.6	7.3	7.2	6.9	6.5	6.1	5.6
77.5°	5.8	5.7	5.5	5.4	5.2	5.1	4.9	4.6	4.3	4.0	3.5
80°	3.6	3.5	3.4	3.3	3.2	3.1	2.9	2.8	2.5	2.3	2.0
82.5°	1.8	1.8	1.7	1.7	1.6	1.5	1.5	1.3	1.2	1.0	0.9
85°	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.3
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2
2.5°	137.2	137.1	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2
5°	136.3	136.5	136.6	136.7	136.8	136.8	136.8	136.9	136.9	136.9	136.9
7.5°	135.1	135.4	135.7	135.9	136.0	136.1	136.2	136.3	136.4	136.4	136.3
10°	133.4	133.9	134.3	134.7	134.9	135.1	135.3	135.5	135.6	135.7	135.5
12.5°	131.0	131.7	132.3	133.0	133.3	133.5	134.0	134.4	134.6	134.6	134.4
15°	127.9	129.0	129.9	130.8	131.3	131.6	132.4	132.9	133.2	133.4	133.1
17.5°	124.3	125.5	126.6	127.8	128.3	128.7	129.8	130.5	131.2	131.3	131.0
20°	119.6	121.1	122.4	123.8	124.4	125.1	126.3	127.5	128.5	129.0	128.1
22.5°	114.4	116.0	117.3	118.9	119.7	120.5	122.1	123.6	125.4	126.3	124.8
25°	108.9	110.3	111.8	113.5	114.5	115.4	117.2	119.1	121.5	122.9	120.8
27.5°	103.1	104.3	106.1	107.9	108.7	109.8	112.0	114.0	116.3	117.6	116.0
30°	97.0	98.6	100.3	101.9	103.1	104.1	105.9	107.6	109.6	110.6	109.5
32.5°	91.0	92.5	94.0	95.8	96.4	97.3	98.9	100.4	101.9	102.8	101.4
35°	84.7	86.1	87.4	88.6	88.9	90.0	91.2	92.1	92.8	93.6	92.7
37.5°	77.8	78.9	79.5	80.9	81.4	81.5	82.6	83.2	83.9	84.1	84.1
40°	70.9	71.8	72.4	73.2	73.6	73.6	74.3	74.9	75.4	75.5	75.4
42.5°	64.3	64.8	65.3	65.8	65.7	66.3	66.6	66.9	67.3	67.3	67.4
45°	57.8	58.1	58.5	58.7	59.1	59.1	59.3	59.4	59.6	59.5	59.3
47.5°	51.7	51.8	51.9	52.3	52.4	52.1	52.4	52.4	52.4	52.4	52.3
50°	45.9	46.0	45.9	45.8	45.8	46.0	45.8	45.6	45.7	45.7	45.8
52.5°	40.2	40.0	39.9	39.9	39.7	39.7	39.5	39.4	39.3	39.1	39.4
55°	35.0	34.7	34.3	34.2	34.0	34.0	33.7	33.4	33.3	33.4	33.3
57.5°	30.1	29.6	29.3	29.2	29.0	28.7	28.4	28.1	28.1	28.0	28.0
60°	25.6	25.0	24.6	24.1	24.2	24.0	23.6	23.5	23.3	23.1	23.2
62.5°	21.4	20.9	20.4	19.9	19.6	19.4	19.2	18.9	18.8	18.6	18.8
65°	17.4	16.9	16.4	15.9	15.8	15.6	15.3	14.9	14.9	14.9	15.0
67.5°	13.8	13.2	12.7	12.4	12.2	12.0	11.9	11.7	11.5	11.4	11.5
70°	10.6	10.1	9.6	9.3	9.2	9.1	8.8	8.7	8.7	8.6	8.6
72.5°	7.7	7.3	6.9	6.7	6.5	6.4	6.3	6.1	6.1	6.1	6.1
75°	5.3	5.0	4.6	4.3	4.2	4.1	3.9	3.8	3.7	3.7	3.7
77.5°	3.2	2.9	2.6	2.4	2.4	2.2	2.1	1.9	1.8	1.8	1.8
80°	1.7	1.5	1.3	1.1	1.0	1.0	0.8	0.8	0.7	0.6	0.6
82.5°	0.8	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.3
85°	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87.5°	0.1	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2
2.5°	137.1	137.1	137.1	137.1	137.1	137.0	137.0	136.9	136.9	136.8	136.7
5°	136.8	136.7	136.6	136.5	136.5	136.3	136.2	136.1	135.9	135.7	135.6
7.5°	136.2	136.1	135.9	135.8	135.6	135.3	135.0	134.7	134.5	134.1	133.7
10°	135.4	135.1	134.7	134.5	134.3	133.8	133.3	132.9	132.3	131.8	131.3
12.5°	134.1	133.8	133.2	132.9	132.5	131.9	131.2	130.3	129.6	128.8	128.2
15°	132.6	131.9	131.2	130.8	130.3	129.3	128.2	127.3	126.3	125.4	124.3
17.5°	130.3	129.4	128.3	127.9	127.3	126.0	124.8	123.5	122.3	121.3	119.9
20°	126.9	125.9	124.5	123.8	123.3	121.7	120.5	119.0	117.8	116.5	115.0
22.5°	123.0	121.5	120.0	119.0	118.4	116.8	115.2	113.9	112.6	111.0	110.0
25°	118.5	116.7	114.9	113.9	113.0	111.2	109.7	108.4	106.7	105.4	104.3
27.5°	113.5	111.4	109.3	108.3	107.5	105.6	103.9	102.5	100.9	99.8	98.6
30°	107.5	105.6	103.6	102.8	101.8	99.9	98.0	96.7	95.0	93.7	92.5
32.5°	100.0	98.8	97.2	96.1	95.5	93.7	92.2	90.7	89.2	88.2	87.0
35°	91.8	90.7	89.4	88.8	88.1	87.0	85.7	84.4	83.2	82.3	81.2
37.5°	83.5	82.4	81.6	80.9	80.5	79.5	78.7	77.7	76.9	76.0	75.4
40°	74.9	74.6	73.7	73.4	73.3	72.1	71.5	70.7	70.2	69.7	69.3
42.5°	67.2	66.7	66.0	66.1	65.8	65.2	64.7	64.2	63.8	63.6	63.2
45°	59.7	59.3	59.0	59.2	58.7	58.5	58.1	58.1	57.8	57.4	57.2
47.5°	52.5	52.4	52.5	52.3	52.2	52.1	52.2	51.9	51.7	51.5	51.3
50°	45.9	46.0	46.1	46.2	45.9	46.0	46.0	45.9	45.9	45.8	45.9
52.5°	39.6	39.6	39.7	39.9	39.9	39.9	40.1	40.2	40.4	40.6	40.6
55°	33.6	33.9	34.1	34.4	34.2	34.5	34.7	35.1	35.3	35.3	35.5
57.5°	28.2	28.6	28.7	29.0	29.1	29.4	29.8	30.1	30.4	30.7	31.0
60°	23.3	23.5	23.9	24.4	24.3	24.9	25.2	25.6	26.1	26.3	26.7
62.5°	19.0	19.2	19.5	19.7	20.0	20.3	21.0	21.4	21.9	22.4	22.8
65°	15.1	15.3	15.6	15.9	16.1	16.5	16.9	17.6	18.0	18.5	19.0
67.5°	11.5	11.9	12.1	12.3	12.4	12.9	13.4	13.8	14.4	15.0	15.3
70°	8.6	8.9	9.2	9.1	9.3	9.7	10.1	10.6	11.1	11.6	12.0
72.5°	6.0	6.3	6.5	6.5	6.7	7.0	7.3	7.6	8.1	8.6	9.1
75°	3.8	3.8	4.1	4.2	4.3	4.6	4.8	5.2	5.5	6.0	6.3
77.5°	1.9	2.1	2.2	2.3	2.3	2.6	2.8	3.1	3.4	3.8	4.2
80°	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.6	1.8	2.2	2.4
82.5°	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1
85°	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3
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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	137.2	137.2	137.2	137.2	137.2	137.2	137.2	137.2
2.5°	136.6	136.6	136.6	136.5	136.5	136.5	136.5	136.5
5°	135.4	135.3	135.2	135.1	135.1	135.0	134.9	134.9
7.5°	133.4	133.2	133.1	132.9	132.7	132.5	132.5	132.3
10°	130.7	130.3	130.1	129.9	129.7	129.4	129.3	129.1
12.5°	127.5	126.7	126.5	126.1	125.7	125.5	125.2	125.2
15°	123.5	122.6	122.2	122.0	121.5	121.1	120.9	120.5
17.5°	118.8	118.2	117.5	117.1	116.6	116.1	115.9	115.9
20°	114.1	113.0	112.6	112.1	111.5	111.0	110.7	110.3
22.5°	108.7	107.7	107.0	106.7	106.2	105.4	104.9	104.9
25°	102.9	102.1	101.7	101.0	100.4	100.1	99.5	99.4
27.5°	97.4	96.6	95.9	95.5	94.7	94.4	93.9	93.6
30°	91.7	90.7	90.2	90.2	89.2	88.9	88.5	88.3
32.5°	86.1	85.2	84.7	84.4	83.9	83.3	83.0	82.8
35°	80.4	79.8	79.4	79.0	78.4	78.0	77.7	77.5
37.5°	74.5	74.0	73.8	73.5	73.2	72.6	72.5	72.3
40°	68.8	68.1	68.1	67.9	67.6	67.6	67.4	67.4
42.5°	62.9	62.6	62.5	62.6	62.3	62.2	62.1	62.4
45°	57.0	57.1	56.9	56.9	56.8	57.0	57.0	57.2
47.5°	51.5	51.3	51.4	51.5	51.7	51.7	51.6	51.6
50°	45.7	45.9	46.1	45.9	46.0	46.0	45.8	45.8
52.5°	40.7	40.8	40.9	40.8	40.9	40.9	41.0	40.8
55°	35.9	35.9	36.1	36.2	36.2	36.4	36.4	36.6
57.5°	31.2	31.5	31.8	31.7	31.9	32.1	32.0	32.1
60°	27.2	27.4	27.7	27.8	27.9	28.0	28.0	28.1
62.5°	23.1	23.5	23.7	23.9	23.9	24.1	24.3	24.4
65°	19.4	19.9	20.0	20.2	20.3	20.5	20.7	20.7
67.5°	15.9	16.2	16.4	16.5	16.8	16.9	17.1	17.3
70°	12.5	12.9	13.0	13.2	13.5	13.7	13.9	14.0
72.5°	9.5	9.9	10.0	10.2	10.4	10.6	10.7	10.9
75°	6.7	7.2	7.2	7.4	7.6	7.9	8.0	8.0
77.5°	4.4	4.8	4.8	5.0	5.2	5.4	5.5	5.5
80°	2.6	2.8	2.9	3.0	3.1	3.2	3.3	3.4
82.5°	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7
85°	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.5
87.5°	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
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)