

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: P879327

Luminaire Tested: **LD4C02D010 EU4029050 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: P879327
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 EU4029050 4LBDWWLI
Description: 4 INCH 250 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

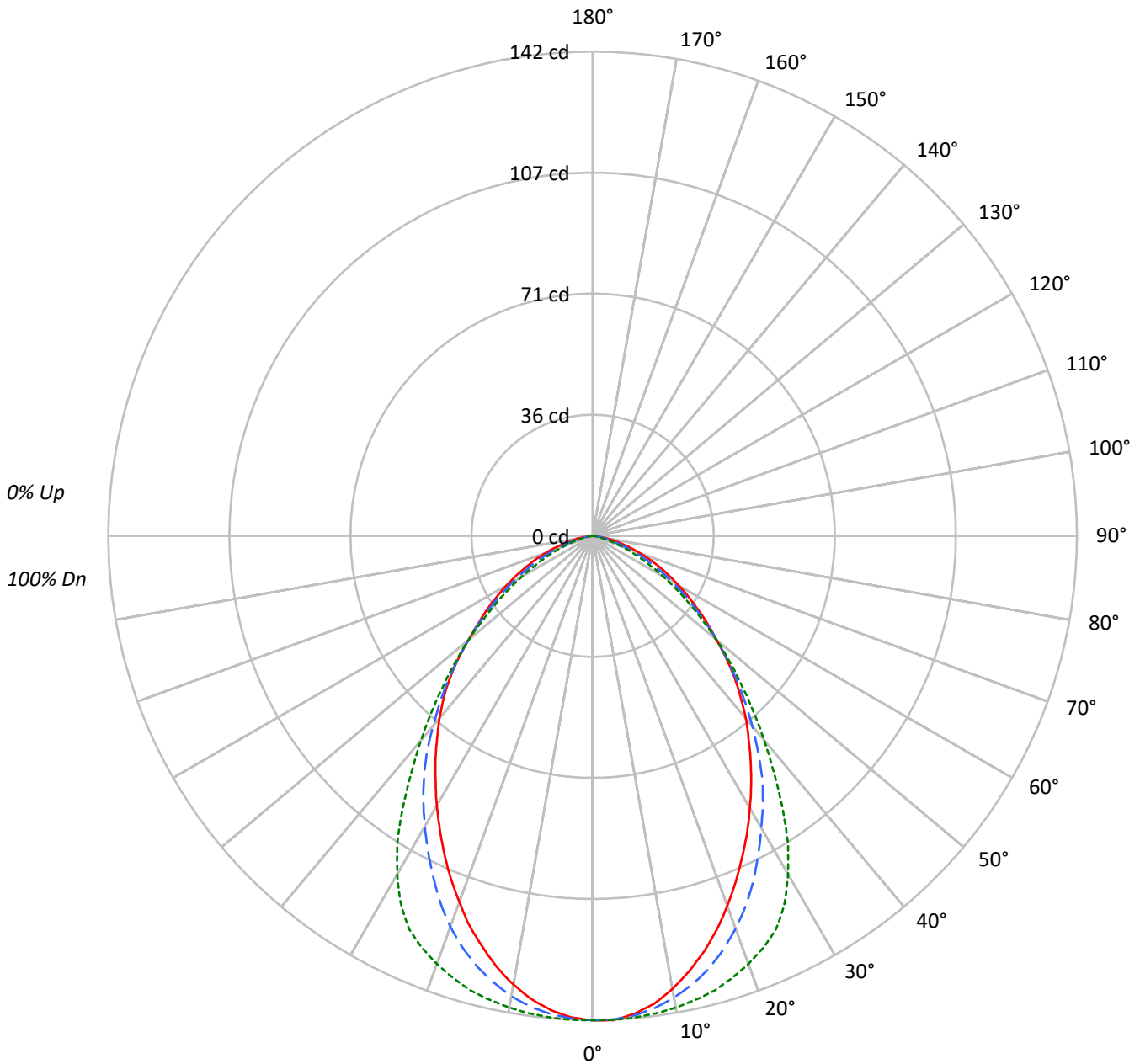
Lumens per Lamp: N/A
Luminaire Lumens: 261.0 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 3.5
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBLDWWLI

Luminous Intensity Polar Plot





TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBLDWWLI

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	17457	17457	17457
5°	17352	17487	17228
10°	16829	17527	16679
15°	16051	17565	15873
20°	15100	17467	14943
25°	14070	17256	13948
30°	13079	16257	12966
35°	12118	14533	12043
40°	11210	12541	11194
45°	10216	10702	10303
50°	9021	9059	9078
55°	8075	7390	8118
60°	7150	5872	7150
65°	6279	4477	6221
70°	5208	3197	5208
75°	4082	1851	3892
80°	2618	424	2547
85°	987	141	705



TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBLDWWLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.3	5.1
10°-20°	36.9	14.1
20°-30°	51.6	19.8
30°-40°	54.4	20.9
40°-50°	46.3	17.7
50°-60°	32.7	12.5
60°-70°	18.5	7.1
70°-80°	6.6	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°	101.8	39.0
0°-40°	156.3	59.9
0°-60°	235.2	90.1
0°-90°	261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	261.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	142	142	142	142	142	
5°	141	141	142	141	140	13
15°	126	132	138	131	125	35
25°	104	112	127	110	103	48
35°	81	87	97	86	80	51
45°	59	60	62	60	59	45
55°	38	36	34	37	38	34
65°	22	18	15	19	21	21
75°	9	6	4	6	8	9
85°	1	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBLDWWLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1
2.5°	142.2	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0	142.0
5°	140.7	140.6	140.6	140.6	140.6	140.6	140.6	140.8	140.9	141.1	141.2
7.5°	138.4	138.2	138.3	138.3	138.4	138.5	138.7	138.9	139.2	139.4	139.7
10°	134.9	134.7	134.9	135.0	135.4	135.5	135.8	136.1	136.7	137.1	137.5
12.5°	130.8	130.7	130.8	131.2	131.5	131.7	132.1	132.8	133.4	134.1	134.8
15°	126.2	126.0	126.1	126.6	127.2	127.6	127.8	128.7	129.6	130.6	131.5
17.5°	121.1	120.7	121.2	121.6	122.3	122.6	123.0	124.0	125.2	126.3	127.3
20°	115.5	115.4	115.7	116.3	117.0	117.4	117.7	118.8	119.8	121.4	122.6
22.5°	109.7	109.9	110.1	110.7	111.2	111.8	112.2	113.3	114.4	115.9	117.4
25°	103.8	104.0	104.3	104.8	105.5	105.9	106.5	107.5	108.5	109.9	111.6
27.5°	98.1	98.1	98.5	98.7	99.5	100.2	100.4	101.6	102.7	103.8	105.2
30°	92.2	92.3	92.6	93.2	93.9	94.2	94.5	95.5	96.4	97.7	98.9
32.5°	86.5	86.4	86.7	87.1	87.9	88.4	88.5	89.7	90.5	91.8	92.9
35°	80.8	80.6	81.0	81.4	82.1	82.5	82.7	83.7	84.4	85.5	86.7
37.5°	75.1	75.4	75.6	75.8	76.2	76.3	77.0	77.2	78.1	79.0	79.6
40°	69.9	69.8	69.7	69.9	70.4	70.6	70.7	71.3	71.5	72.3	72.8
42.5°	64.3	64.3	64.3	64.3	64.6	64.6	64.7	65.1	65.3	65.5	66.1
45°	58.8	58.8	58.6	58.7	58.7	58.7	58.7	58.9	59.2	59.2	59.6
47.5°	53.1	53.0	53.2	53.0	52.9	52.9	53.0	52.9	53.2	53.2	53.3
50°	47.2	47.2	47.5	47.4	47.5	47.3	47.4	47.4	47.4	47.4	47.6
52.5°	42.6	42.5	42.4	42.1	42.3	42.0	42.0	42.1	41.9	41.9	41.6
55°	37.7	37.8	37.7	37.6	37.6	37.4	37.3	37.0	36.8	36.6	36.5
57.5°	33.3	33.4	33.4	33.1	32.8	32.8	32.7	32.4	31.9	31.6	31.4
60°	29.1	29.2	29.1	28.8	28.7	28.5	28.4	28.0	27.6	27.2	26.9
62.5°	25.2	25.2	25.2	24.8	24.6	24.6	24.3	24.0	23.5	23.0	22.5
65°	21.6	21.6	21.3	21.2	20.9	20.7	20.5	20.0	19.7	19.2	18.5
67.5°	18.0	17.9	17.8	17.6	17.1	17.1	16.8	16.4	15.9	15.5	15.0
70°	14.5	14.5	14.2	14.2	13.9	13.7	13.4	13.0	12.5	12.0	11.6
72.5°	11.5	11.4	11.2	10.9	10.6	10.5	10.3	9.9	9.5	8.9	8.4
75°	8.6	8.5	8.4	8.1	7.9	7.6	7.5	7.1	6.7	6.3	5.8
77.5°	6.0	5.9	5.7	5.6	5.4	5.3	5.1	4.8	4.4	4.1	3.7
80°	3.7	3.6	3.5	3.5	3.3	3.2	3.0	2.9	2.6	2.3	2.1
82.5°	1.9	1.9	1.8	1.8	1.6	1.6	1.5	1.4	1.2	1.1	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



TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1
2.5°	142.1	142.0	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1
5°	141.2	141.4	141.5	141.6	141.6	141.7	141.7	141.7	141.8	141.8	141.7
7.5°	139.9	140.2	140.5	140.7	140.8	140.9	141.1	141.2	141.3	141.3	141.2
10°	138.1	138.7	139.1	139.5	139.7	139.9	140.1	140.4	140.5	140.5	140.4
12.5°	135.6	136.4	137.1	137.8	138.1	138.3	138.8	139.2	139.4	139.4	139.2
15°	132.5	133.6	134.6	135.5	136.0	136.3	137.1	137.6	138.0	138.1	137.9
17.5°	128.7	129.9	131.2	132.3	132.9	133.3	134.5	135.2	135.9	136.0	135.7
20°	123.9	125.4	126.8	128.2	128.8	129.6	130.8	132.1	133.1	133.6	132.7
22.5°	118.5	120.2	121.4	123.2	124.0	124.8	126.4	128.0	129.8	130.8	129.3
25°	112.8	114.3	115.8	117.5	118.6	119.5	121.4	123.4	125.9	127.3	125.1
27.5°	106.8	108.0	109.9	111.8	112.6	113.7	116.0	118.1	120.5	121.8	120.2
30°	100.5	102.1	103.8	105.5	106.8	107.8	109.6	111.4	113.5	114.6	113.4
32.5°	94.3	95.8	97.3	99.2	99.9	100.8	102.4	104.0	105.5	106.5	105.1
35°	87.7	89.1	90.5	91.8	92.1	93.2	94.5	95.4	96.1	96.9	96.0
37.5°	80.6	81.7	82.4	83.8	84.3	84.4	85.5	86.1	86.9	87.1	87.1
40°	73.4	74.4	74.9	75.8	76.2	76.2	77.0	77.5	78.1	78.2	78.1
42.5°	66.6	67.1	67.6	68.1	68.0	68.7	69.0	69.2	69.7	69.7	69.8
45°	59.8	60.2	60.6	60.7	61.2	61.2	61.4	61.5	61.8	61.6	61.4
47.5°	53.5	53.7	53.7	54.2	54.3	53.9	54.3	54.3	54.3	54.3	54.2
50°	47.5	47.6	47.6	47.4	47.5	47.6	47.5	47.2	47.4	47.4	47.5
52.5°	41.7	41.5	41.3	41.3	41.1	41.1	40.9	40.8	40.7	40.5	40.8
55°	36.3	36.0	35.5	35.4	35.2	35.2	34.9	34.6	34.5	34.5	34.5
57.5°	31.1	30.7	30.3	30.2	30.1	29.8	29.4	29.1	29.1	29.0	29.0
60°	26.5	25.9	25.5	25.0	25.0	24.8	24.4	24.3	24.1	23.9	24.1
62.5°	22.2	21.6	21.1	20.6	20.3	20.1	19.9	19.6	19.5	19.3	19.5
65°	18.0	17.5	17.0	16.5	16.3	16.2	15.9	15.5	15.4	15.4	15.5
67.5°	14.2	13.7	13.2	12.9	12.6	12.4	12.3	12.1	12.0	11.9	11.9
70°	10.9	10.4	10.0	9.7	9.5	9.5	9.1	9.0	9.0	8.9	8.9
72.5°	8.0	7.5	7.2	7.0	6.7	6.6	6.5	6.3	6.3	6.3	6.3
75°	5.5	5.2	4.7	4.5	4.4	4.2	4.0	3.9	3.8	3.9	3.9
77.5°	3.3	3.0	2.7	2.5	2.4	2.3	2.1	2.0	1.9	1.9	1.9
80°	1.8	1.5	1.3	1.2	1.1	1.0	0.9	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



TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1
2.5°	142.0	142.0	142.0	142.0	142.0	141.8	141.8	141.8	141.7	141.7	141.6
5°	141.6	141.6	141.5	141.4	141.4	141.2	141.1	140.9	140.8	140.6	140.5
7.5°	141.1	140.9	140.7	140.6	140.5	140.1	139.8	139.6	139.3	138.9	138.5
10°	140.2	139.9	139.6	139.3	139.1	138.6	138.1	137.6	137.1	136.5	135.9
12.5°	138.9	138.6	137.9	137.6	137.3	136.6	135.9	135.0	134.2	133.5	132.8
15°	137.3	136.6	135.9	135.5	135.0	133.9	132.8	131.9	130.8	129.9	128.8
17.5°	135.0	134.0	132.9	132.4	131.8	130.5	129.3	127.9	126.7	125.6	124.2
20°	131.5	130.4	129.0	128.2	127.7	126.0	124.8	123.3	122.0	120.6	119.1
22.5°	127.4	125.9	124.3	123.2	122.7	121.0	119.3	118.0	116.6	115.0	113.9
25°	122.8	120.9	119.0	117.9	117.0	115.2	113.6	112.2	110.5	109.2	108.0
27.5°	117.6	115.4	113.2	112.1	111.3	109.3	107.6	106.2	104.5	103.3	102.1
30°	111.3	109.4	107.3	106.5	105.4	103.4	101.5	100.2	98.4	97.1	95.8
32.5°	103.6	102.3	100.7	99.5	99.0	97.1	95.5	93.9	92.4	91.4	90.1
35°	95.1	94.0	92.6	91.9	91.3	90.1	88.8	87.4	86.2	85.2	84.1
37.5°	86.5	85.4	84.5	83.8	83.4	82.3	81.5	80.5	79.7	78.8	78.1
40°	77.5	77.2	76.3	76.0	75.9	74.7	74.0	73.2	72.7	72.2	71.8
42.5°	69.6	69.1	68.4	68.5	68.1	67.5	67.0	66.5	66.1	65.8	65.5
45°	61.8	61.4	61.1	61.3	60.8	60.6	60.2	60.2	59.9	59.4	59.3
47.5°	54.4	54.3	54.4	54.2	54.1	54.0	54.0	53.8	53.5	53.4	53.1
50°	47.6	47.6	47.7	47.9	47.5	47.7	47.6	47.6	47.6	47.4	47.5
52.5°	41.0	41.0	41.1	41.3	41.3	41.3	41.5	41.6	41.8	42.1	42.1
55°	34.8	35.1	35.3	35.6	35.4	35.8	35.9	36.4	36.6	36.6	36.8
57.5°	29.2	29.6	29.8	30.1	30.2	30.5	30.9	31.1	31.5	31.8	32.2
60°	24.2	24.3	24.8	25.2	25.1	25.8	26.1	26.5	27.0	27.2	27.6
62.5°	19.7	19.9	20.2	20.4	20.7	21.0	21.8	22.2	22.6	23.2	23.6
65°	15.6	15.8	16.2	16.5	16.6	17.1	17.5	18.2	18.6	19.2	19.7
67.5°	12.0	12.3	12.5	12.8	12.9	13.3	13.9	14.2	14.9	15.5	15.9
70°	8.9	9.2	9.5	9.5	9.7	10.0	10.5	10.9	11.5	12.0	12.4
72.5°	6.2	6.5	6.7	6.7	7.0	7.2	7.5	7.9	8.3	8.9	9.5
75°	3.9	4.0	4.2	4.3	4.4	4.7	5.0	5.4	5.7	6.2	6.5
77.5°	2.0	2.1	2.2	2.3	2.4	2.7	2.9	3.2	3.6	4.0	4.4
80°	0.7	0.8	1.0	1.0	1.1	1.3	1.5	1.6	1.9	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



TEST NUMBER: P879327

CATALOG NUMBER: LD4C02D010 EU4029050 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	142.1	142.1	142.1	142.1	142.1	142.1	142.1	142.1
2.5°	141.5	141.5	141.5	141.4	141.4	141.4	141.4	141.4
5°	140.3	140.1	140.0	139.9	139.9	139.8	139.7	139.7
7.5°	138.2	138.0	137.8	137.6	137.4	137.3	137.3	137.1
10°	135.4	135.0	134.8	134.6	134.3	134.0	133.9	133.7
12.5°	132.1	131.2	131.0	130.6	130.2	130.0	129.6	129.6
15°	127.9	127.0	126.5	126.3	125.8	125.4	125.3	124.8
17.5°	123.1	122.4	121.7	121.3	120.7	120.3	120.1	120.0
20°	118.2	117.1	116.6	116.1	115.4	115.0	114.7	114.3
22.5°	112.6	111.6	110.9	110.5	110.0	109.2	108.7	108.7
25°	106.6	105.7	105.3	104.6	104.0	103.7	103.1	102.9
27.5°	100.9	100.0	99.3	98.9	98.1	97.7	97.2	97.0
30°	95.0	94.0	93.4	93.4	92.4	92.0	91.6	91.4
32.5°	89.1	88.2	87.7	87.4	86.9	86.3	85.9	85.7
35°	83.3	82.7	82.2	81.8	81.2	80.8	80.5	80.3
37.5°	77.2	76.6	76.4	76.1	75.8	75.2	75.1	74.9
40°	71.3	70.6	70.6	70.4	70.0	70.0	69.8	69.8
42.5°	65.1	64.8	64.7	64.8	64.6	64.5	64.3	64.7
45°	59.0	59.2	58.9	58.9	58.8	59.0	59.0	59.3
47.5°	53.4	53.1	53.3	53.4	53.5	53.5	53.5	53.4
50°	47.4	47.6	47.8	47.5	47.6	47.7	47.4	47.5
52.5°	42.2	42.3	42.4	42.3	42.4	42.4	42.5	42.3
55°	37.2	37.2	37.4	37.5	37.5	37.7	37.7	37.9
57.5°	32.4	32.6	32.9	32.8	33.1	33.3	33.1	33.3
60°	28.2	28.4	28.6	28.8	28.9	29.0	29.0	29.1
62.5°	23.9	24.3	24.6	24.8	24.8	25.0	25.2	25.2
65°	20.1	20.6	20.7	20.9	21.0	21.2	21.5	21.4
67.5°	16.5	16.8	17.0	17.1	17.4	17.5	17.8	18.0
70°	12.9	13.3	13.5	13.7	14.0	14.2	14.4	14.5
72.5°	9.9	10.2	10.3	10.5	10.8	11.0	11.1	11.3
75°	6.9	7.4	7.5	7.7	7.9	8.1	8.3	8.2
77.5°	4.6	4.9	5.0	5.2	5.4	5.6	5.7	5.7
80°	2.7	2.9	3.0	3.1	3.2	3.3	3.5	3.6
82.5°	1.3	1.4	1.5	1.5	1.6	1.7	1.7	1.8
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)