

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: P879325

Luminaire Tested: **LD4C02D010 EU4029040 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: P879325
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 EU4029040 4LBDWWLI
Description: 4 INCH 250 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

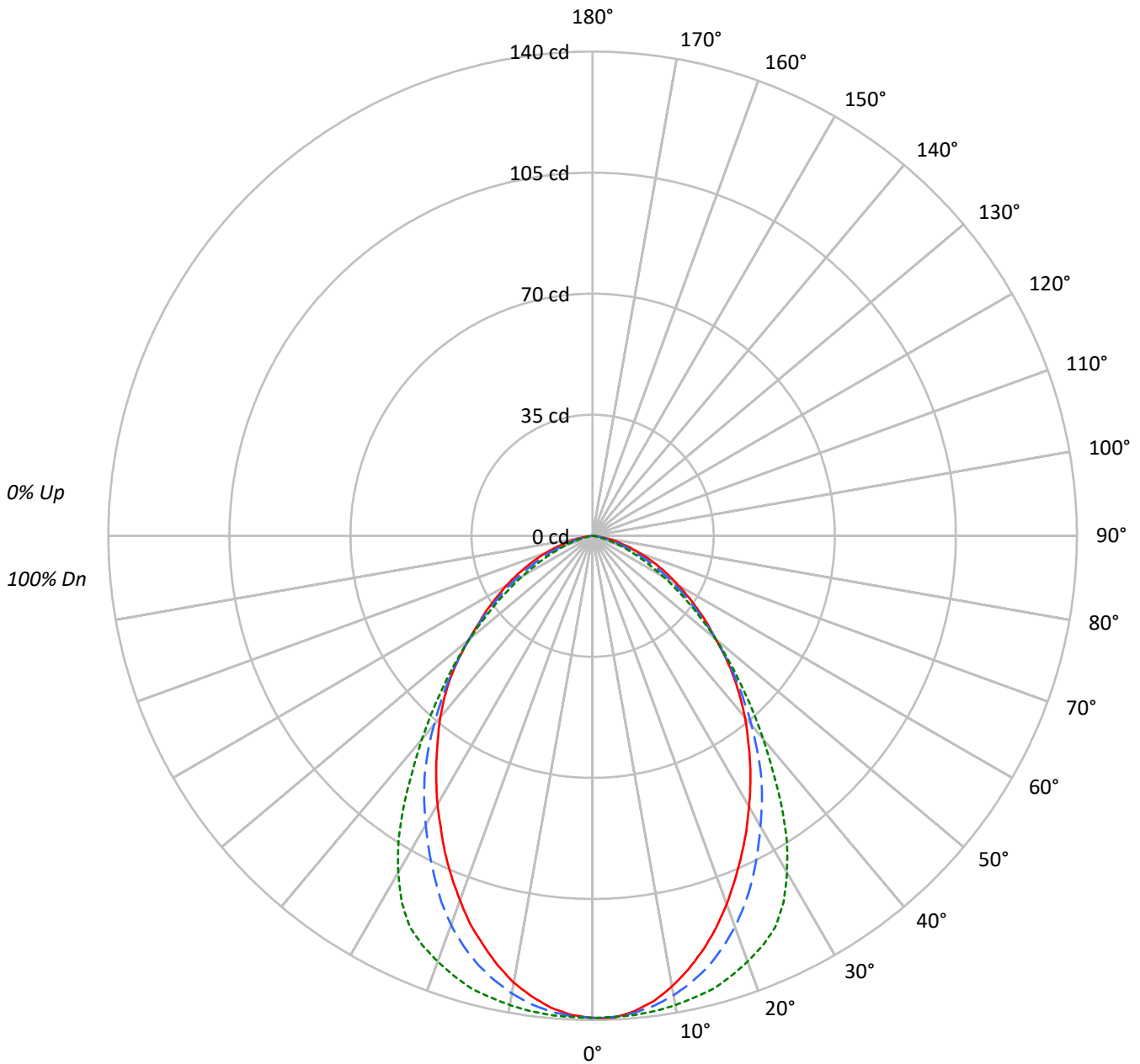
Lumens per Lamp: N/A
Luminaire Lumens: 256.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 3.5
Input Voltage (V): NR
Input Current (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				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°	17126	17126	17126
5°	17019	17154	16895
10°	16504	17190	16367
15°	15746	17234	15568
20°	14813	17127	14656
25°	13799	16931	13691
30°	12824	15945	12725
35°	11893	14263	11803
40°	10986	12301	10986
45°	10025	10494	10094
50°	8849	8868	8906
55°	7925	7261	7968
60°	7003	5774	7027
65°	6163	4390	6105
70°	5101	3161	5101
75°	3987	1804	3845
80°	2547	424	2476
85°	987	141	705



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.1	5.1
10°-20°	36.2	14.1
20°-30°	50.6	19.8
30°-40°	53.4	20.9
40°-50°	45.4	17.7
50°-60°	32.0	12.5
60°-70°	18.2	7.1
70°-80°	6.5	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°	99.9	39.0
0°-40°	153.3	59.9
0°-60°	230.7	90.1
0°-90°	256.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	256.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	139	139	139	139	139	
5°	138	138	139	138	137	13
15°	124	129	136	128	122	35
25°	102	109	125	108	101	47
35°	79	85	95	85	79	50
45°	58	58	60	59	58	44
55°	37	36	34	36	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°	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4
2.5°	139.5	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.2	139.3	139.3
5°	138.0	137.9	137.9	137.9	137.9	137.9	137.9	138.1	138.2	138.4	138.5
7.5°	135.7	135.5	135.6	135.6	135.7	135.8	136.0	136.2	136.5	136.7	137.0
10°	132.3	132.1	132.4	132.5	132.8	132.9	133.2	133.5	134.1	134.4	134.9
12.5°	128.3	128.2	128.3	128.7	129.0	129.2	129.5	130.2	130.8	131.5	132.2
15°	123.8	123.5	123.7	124.2	124.7	125.1	125.4	126.3	127.1	128.1	129.0
17.5°	118.8	118.4	118.9	119.3	119.9	120.3	120.6	121.6	122.8	123.9	124.9
20°	113.3	113.2	113.5	114.1	114.7	115.2	115.5	116.6	117.5	119.1	120.3
22.5°	107.6	107.7	108.0	108.6	109.1	109.6	110.1	111.1	112.2	113.7	115.2
25°	101.8	102.0	102.3	102.7	103.5	103.8	104.4	105.5	106.4	107.8	109.4
27.5°	96.2	96.2	96.6	96.9	97.6	98.3	98.5	99.6	100.8	101.8	103.2
30°	90.4	90.5	90.8	91.4	92.1	92.4	92.7	93.7	94.6	95.9	97.0
32.5°	84.9	84.8	85.1	85.4	86.2	86.7	86.8	88.0	88.8	90.1	91.1
35°	79.3	79.0	79.5	79.8	80.5	81.0	81.2	82.0	82.8	83.9	85.0
37.5°	73.7	73.9	74.1	74.4	74.8	74.9	75.5	75.7	76.6	77.5	78.1
40°	68.5	68.4	68.3	68.6	69.1	69.3	69.3	69.9	70.1	70.9	71.4
42.5°	63.0	63.1	63.0	63.1	63.3	63.3	63.5	63.9	64.0	64.3	64.8
45°	57.7	57.7	57.5	57.5	57.6	57.5	57.6	57.8	58.1	58.1	58.5
47.5°	52.1	52.0	52.2	52.0	51.9	51.9	52.0	51.9	52.2	52.2	52.3
50°	46.3	46.3	46.6	46.5	46.6	46.4	46.4	46.4	46.5	46.4	46.7
52.5°	41.8	41.7	41.6	41.3	41.4	41.2	41.2	41.3	41.1	41.1	40.8
55°	37.0	37.1	37.0	36.9	36.9	36.6	36.6	36.3	36.1	35.9	35.8
57.5°	32.7	32.8	32.7	32.5	32.2	32.2	32.1	31.8	31.3	31.0	30.8
60°	28.5	28.6	28.5	28.3	28.1	27.9	27.9	27.5	27.1	26.7	26.4
62.5°	24.8	24.8	24.7	24.3	24.1	24.1	23.9	23.6	23.1	22.5	22.1
65°	21.2	21.2	20.9	20.7	20.5	20.3	20.1	19.7	19.3	18.8	18.2
67.5°	17.7	17.5	17.4	17.3	16.8	16.7	16.5	16.1	15.6	15.2	14.7
70°	14.2	14.2	14.0	14.0	13.6	13.4	13.1	12.8	12.3	11.8	11.4
72.5°	11.3	11.2	10.9	10.7	10.4	10.3	10.1	9.7	9.3	8.8	8.2
75°	8.4	8.3	8.2	8.0	7.7	7.5	7.4	7.0	6.6	6.2	5.7
77.5°	5.9	5.8	5.6	5.5	5.3	5.2	5.0	4.7	4.3	4.0	3.6
80°	3.6	3.5	3.4	3.4	3.2	3.2	3.0	2.8	2.5	2.3	2.0
82.5°	1.9	1.9	1.8	1.7	1.6	1.6	1.5	1.4	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°	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4
2.5°	139.3	139.3	139.3	139.3	139.4	139.4	139.4	139.3	139.4	139.3	139.3
5°	138.5	138.7	138.8	138.9	138.9	139.0	139.0	139.0	139.1	139.1	139.0
7.5°	137.2	137.5	137.8	138.0	138.1	138.2	138.4	138.5	138.6	138.6	138.5
10°	135.5	136.0	136.4	136.8	137.0	137.2	137.5	137.7	137.8	137.8	137.7
12.5°	133.0	133.8	134.4	135.1	135.4	135.6	136.2	136.5	136.7	136.7	136.6
15°	130.0	131.0	132.0	132.9	133.4	133.7	134.5	135.0	135.3	135.5	135.2
17.5°	126.3	127.5	128.7	129.8	130.3	130.8	131.9	132.6	133.3	133.4	133.1
20°	121.5	123.0	124.4	125.8	126.4	127.1	128.3	129.5	130.6	131.0	130.2
22.5°	116.2	117.9	119.1	120.8	121.6	122.4	124.0	125.5	127.3	128.3	126.8
25°	110.7	112.1	113.6	115.3	116.3	117.2	119.1	121.0	123.4	124.9	122.7
27.5°	104.7	106.0	107.8	109.6	110.5	111.5	113.7	115.8	118.2	119.5	117.9
30°	98.6	100.1	101.9	103.5	104.7	105.7	107.5	109.3	111.3	112.4	111.2
32.5°	92.5	94.0	95.4	97.3	97.9	98.8	100.5	102.0	103.5	104.5	103.1
35°	86.1	87.4	88.8	90.0	90.3	91.4	92.7	93.6	94.3	95.1	94.1
37.5°	79.1	80.1	80.8	82.2	82.7	82.8	83.9	84.5	85.3	85.4	85.4
40°	72.0	72.9	73.5	74.3	74.8	74.8	75.5	76.1	76.6	76.7	76.6
42.5°	65.4	65.8	66.3	66.8	66.7	67.3	67.7	67.9	68.3	68.3	68.4
45°	58.7	59.1	59.5	59.6	60.0	60.0	60.3	60.4	60.6	60.4	60.2
47.5°	52.5	52.6	52.7	53.2	53.3	52.9	53.2	53.3	53.2	53.2	53.1
50°	46.6	46.7	46.7	46.5	46.6	46.7	46.6	46.3	46.4	46.4	46.6
52.5°	40.9	40.7	40.6	40.6	40.3	40.3	40.1	40.0	39.9	39.7	40.0
55°	35.6	35.3	34.8	34.7	34.6	34.5	34.2	33.9	33.8	33.9	33.8
57.5°	30.5	30.1	29.8	29.7	29.5	29.2	28.8	28.6	28.5	28.4	28.4
60°	26.0	25.4	25.0	24.5	24.6	24.3	24.0	23.8	23.7	23.5	23.6
62.5°	21.8	21.2	20.7	20.2	19.9	19.8	19.5	19.2	19.1	18.9	19.1
65°	17.7	17.2	16.6	16.2	16.0	15.8	15.6	15.2	15.1	15.1	15.2
67.5°	14.0	13.4	12.9	12.6	12.4	12.2	12.1	11.9	11.7	11.6	11.7
70°	10.7	10.2	9.8	9.5	9.3	9.3	8.9	8.9	8.8	8.8	8.7
72.5°	7.8	7.4	7.0	6.8	6.6	6.5	6.4	6.2	6.2	6.2	6.2
75°	5.4	5.1	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.8	3.8
77.5°	3.2	2.9	2.7	2.5	2.4	2.2	2.1	2.0	1.8	1.8	1.9
80°	1.8	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°	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4
2.5°	139.3	139.3	139.2	139.2	139.2	139.1	139.1	139.1	139.0	139.0	138.9
5°	138.9	138.9	138.8	138.7	138.7	138.5	138.3	138.2	138.1	137.9	137.8
7.5°	138.4	138.2	138.0	137.9	137.8	137.4	137.1	136.9	136.6	136.3	135.8
10°	137.5	137.2	136.9	136.7	136.4	136.0	135.4	135.0	134.4	133.9	133.3
12.5°	136.3	135.9	135.3	135.0	134.6	134.0	133.3	132.4	131.6	130.9	130.2
15°	134.7	134.0	133.3	132.9	132.4	131.3	130.3	129.3	128.3	127.4	126.3
17.5°	132.4	131.4	130.4	129.9	129.3	128.0	126.8	125.5	124.3	123.2	121.8
20°	129.0	127.9	126.5	125.8	125.3	123.6	122.4	120.9	119.7	118.3	116.8
22.5°	125.0	123.4	121.9	120.9	120.3	118.6	117.0	115.7	114.4	112.8	111.7
25°	120.4	118.5	116.7	115.7	114.8	113.0	111.4	110.1	108.4	107.1	106.0
27.5°	115.3	113.2	111.0	110.0	109.2	107.2	105.6	104.2	102.5	101.3	100.2
30°	109.2	107.3	105.2	104.4	103.4	101.4	99.5	98.3	96.5	95.2	94.0
32.5°	101.6	100.3	98.7	97.6	97.1	95.2	93.6	92.1	90.6	89.6	88.4
35°	93.3	92.2	90.8	90.2	89.5	88.4	87.1	85.8	84.6	83.6	82.5
37.5°	84.8	83.7	82.9	82.2	81.8	80.7	80.0	79.0	78.1	77.3	76.6
40°	76.1	75.7	74.9	74.5	74.4	73.3	72.6	71.8	71.3	70.8	70.4
42.5°	68.3	67.8	67.1	67.1	66.8	66.2	65.7	65.2	64.8	64.6	64.2
45°	60.6	60.2	59.9	60.2	59.6	59.4	59.1	59.0	58.7	58.3	58.1
47.5°	53.3	53.3	53.3	53.2	53.1	53.0	53.0	52.8	52.5	52.3	52.1
50°	46.7	46.7	46.8	47.0	46.6	46.8	46.7	46.7	46.7	46.5	46.6
52.5°	40.2	40.2	40.3	40.5	40.6	40.6	40.7	40.8	41.0	41.3	41.3
55°	34.1	34.5	34.7	34.9	34.8	35.1	35.2	35.7	35.9	35.9	36.1
57.5°	28.7	29.0	29.2	29.5	29.6	29.9	30.3	30.5	30.9	31.2	31.5
60°	23.7	23.9	24.3	24.8	24.7	25.3	25.6	26.0	26.5	26.7	27.1
62.5°	19.3	19.5	19.8	20.0	20.3	20.6	21.4	21.8	22.2	22.7	23.1
65°	15.3	15.5	15.8	16.2	16.3	16.8	17.2	17.9	18.2	18.8	19.3
67.5°	11.7	12.0	12.3	12.5	12.6	13.1	13.7	14.0	14.6	15.2	15.6
70°	8.8	9.0	9.3	9.3	9.5	9.9	10.3	10.7	11.3	11.8	12.2
72.5°	6.1	6.4	6.6	6.6	6.8	7.1	7.4	7.8	8.2	8.7	9.3
75°	3.9	3.9	4.1	4.2	4.3	4.6	4.9	5.3	5.6	6.0	6.4
77.5°	1.9	2.1	2.2	2.3	2.3	2.6	2.9	3.2	3.5	3.9	4.3
80°	0.7	0.8	0.9	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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	139.4	139.4	139.4	139.4	139.4	139.4	139.4	139.4
2.5°	138.8	138.8	138.8	138.7	138.7	138.7	138.7	138.7
5°	137.6	137.4	137.4	137.3	137.2	137.1	137.0	137.0
7.5°	135.5	135.3	135.2	135.0	134.8	134.6	134.6	134.4
10°	132.8	132.4	132.2	132.0	131.7	131.4	131.3	131.2
12.5°	129.5	128.7	128.5	128.1	127.7	127.5	127.1	127.1
15°	125.5	124.6	124.1	123.9	123.4	123.0	122.9	122.4
17.5°	120.7	120.1	119.3	119.0	118.4	118.0	117.8	117.7
20°	115.9	114.8	114.4	113.9	113.2	112.8	112.5	112.1
22.5°	110.4	109.4	108.7	108.4	107.9	107.1	106.6	106.6
25°	104.6	103.7	103.3	102.6	102.0	101.7	101.1	101.0
27.5°	99.0	98.1	97.4	97.0	96.2	95.9	95.3	95.1
30°	93.2	92.2	91.6	91.6	90.7	90.3	89.9	89.7
32.5°	87.4	86.5	86.0	85.7	85.3	84.7	84.3	84.1
35°	81.7	81.1	80.6	80.3	79.6	79.3	79.0	78.7
37.5°	75.7	75.2	75.0	74.6	74.3	73.8	73.7	73.4
40°	69.9	69.2	69.2	69.0	68.7	68.7	68.5	68.5
42.5°	63.9	63.5	63.5	63.5	63.3	63.2	63.1	63.4
45°	57.9	58.0	57.8	57.8	57.7	57.9	57.9	58.1
47.5°	52.3	52.1	52.2	52.3	52.5	52.5	52.4	52.4
50°	46.4	46.7	46.9	46.6	46.7	46.8	46.5	46.6
52.5°	41.4	41.4	41.6	41.4	41.6	41.5	41.7	41.4
55°	36.5	36.5	36.7	36.8	36.8	37.0	37.0	37.2
57.5°	31.7	32.0	32.3	32.2	32.4	32.6	32.5	32.6
60°	27.6	27.8	28.1	28.2	28.4	28.5	28.5	28.6
62.5°	23.5	23.9	24.1	24.3	24.3	24.5	24.7	24.8
65°	19.7	20.2	20.3	20.5	20.6	20.8	21.1	21.0
67.5°	16.2	16.5	16.7	16.8	17.1	17.2	17.4	17.6
70°	12.7	13.1	13.2	13.4	13.7	13.9	14.1	14.2
72.5°	9.7	10.0	10.1	10.3	10.6	10.8	10.9	11.1
75°	6.8	7.3	7.4	7.5	7.7	8.0	8.1	8.1
77.5°	4.5	4.8	4.9	5.1	5.3	5.5	5.6	5.6
80°	2.7	2.9	2.9	3.0	3.2	3.3	3.4	3.5
82.5°	1.3	1.4	1.5	1.5	1.6	1.7	1.7	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)