

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: P879346

Luminaire Tested: **LD4C08D010 EU4089050 4LBDWWH**

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: P879346
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08D010 EU4089050 4LBDWWH
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND 4LBDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

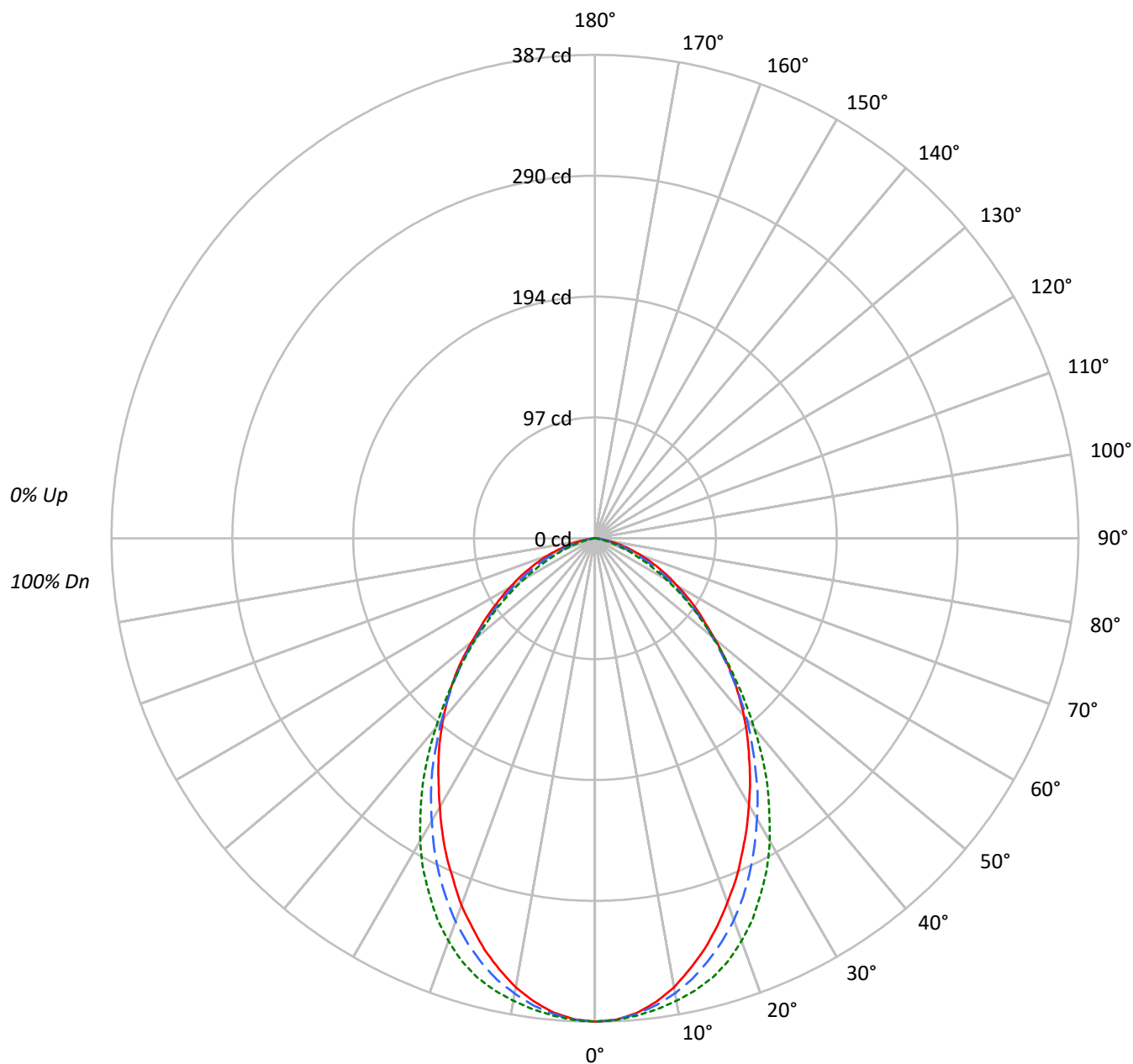
Lumens per Lamp: N/A
Luminaire Lumens: 692.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.87
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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	100	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		90	86	82			87	84	80			84
3	95	86	79	73	92	84	78	73		81	76	71			79	74	70			76
4	88	77	70	64	86	76	69	63		74	68	63			71	66	62			69
5	81	70	62	56	80	69	62	56		67	61	56			65	59	55			63
6	76	64	56	50	74	63	56	50		61	55	50			60	54	49			58
7	71	59	51	45	69	58	50	45		56	50	45			55	49	44			54
8	66	54	46	41	65	53	46	41		52	45	41			51	45	40			50
9	62	50	42	37	61	49	42	37		48	42	37			47	41	37			46
10	59	46	39	34	57	46	39	34		45	39	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	47532	47532	47532
5°	47048	47307	46998
10°	45521	46893	45533
15°	43244	46296	43384
20°	40529	44843	40869
25°	37752	42550	38091
30°	34968	39692	35238
35°	32260	36069	32755
40°	29765	31786	30311
45°	26965	27555	27764
50°	23891	23604	24502
55°	21312	19877	21783
60°	18649	16118	19337
65°	16308	12471	16889
70°	13721	9124	14440
75°	10728	5933	11345
80°	7004	3113	7712
85°	2396	1410	3242



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.1	5.2
10°-20°	98.7	14.3
20°-30°	135.7	19.6
30°-40°	141.6	20.5
40°-50°	121.1	17.5
50°-60°	86.6	12.5
60°-70°	50.3	7.3
70°-80°	19.4	2.8
80°-90°	2.5	0.4
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°	270.5	39.1
0°-40°	412.1	59.6
0°-60°	619.9	89.6
0°-90°	692.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	692.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	387	387	387	387	387	
5°	382	382	384	382	381	36
15°	340	350	364	352	341	95
25°	278	294	314	296	281	128
35°	215	224	240	227	218	135
45°	155	154	159	158	160	120
55°	100	94	93	97	102	89
65°	56	50	43	51	58	56
75°	23	17	12	18	24	24
85°	2	1	1	1	2	3
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°	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9
2.5°	385.9	385.6	385.7	385.7	385.7	385.6	385.9	385.9	385.7	385.7	385.7
5°	381.5	381.2	381.3	381.5	381.5	381.5	381.6	381.8	381.9	382.1	382.2
7.5°	374.4	374.0	374.4	375.0	375.0	375.1	375.2	375.4	375.8	376.5	376.9
10°	364.9	364.9	365.0	365.4	366.1	366.0	366.4	367.1	368.0	369.0	369.7
12.5°	352.8	353.1	353.5	353.9	354.6	355.1	355.8	356.6	358.0	359.5	361.0
15°	340.0	340.1	340.3	341.3	342.0	343.0	343.6	345.3	346.5	348.5	350.2
17.5°	325.6	325.5	325.9	326.8	328.5	328.9	329.6	331.5	333.3	336.0	338.3
20°	310.0	310.9	311.4	312.6	313.6	314.7	315.3	317.5	319.7	322.2	325.2
22.5°	295.2	294.5	295.5	296.8	297.7	298.5	299.5	301.9	304.2	307.3	310.3
25°	278.5	278.9	279.6	280.6	281.7	282.9	284.0	286.6	287.9	291.1	293.8
27.5°	262.6	263.3	263.6	264.8	265.8	266.7	267.3	270.2	271.4	274.2	276.9
30°	246.5	247.2	247.2	248.6	249.4	250.2	251.6	253.6	255.3	257.3	259.3
32.5°	231.0	231.0	231.6	232.9	233.6	234.6	235.0	236.4	238.1	240.1	242.2
35°	215.1	215.5	216.1	216.1	217.4	218.0	218.5	219.9	221.1	221.9	223.6
37.5°	200.5	200.5	200.0	200.8	201.6	201.5	202.3	203.0	203.7	204.7	206.2
40°	185.6	185.6	185.0	185.4	186.0	185.8	185.6	186.3	186.8	187.5	189.0
42.5°	170.4	170.1	169.9	169.9	170.2	169.9	170.2	170.4	170.4	170.4	171.2
45°	155.2	155.9	155.0	154.7	154.3	153.9	153.7	153.9	154.4	153.7	153.9
47.5°	140.2	140.5	139.9	139.5	139.1	138.8	139.1	138.2	138.5	138.7	138.1
50°	125.0	124.5	124.5	124.0	124.2	124.0	123.8	123.5	123.5	122.8	122.3
52.5°	111.0	111.2	111.5	110.5	110.7	110.0	110.1	109.4	109.4	108.5	108.8
55°	99.5	99.0	99.0	98.6	98.5	97.8	97.6	97.2	96.2	95.6	94.5
57.5°	87.5	87.4	86.8	87.0	86.1	86.0	85.7	85.0	84.3	83.5	82.3
60°	75.9	76.0	76.0	75.7	75.3	74.6	74.7	73.7	72.7	71.5	70.3
62.5°	66.2	65.8	65.6	65.4	64.5	64.5	63.8	63.1	62.1	60.8	59.8
65°	56.1	56.3	55.8	55.4	54.6	54.4	53.8	53.3	52.3	51.0	49.6
67.5°	47.0	46.7	46.6	46.2	45.3	45.2	44.8	43.5	42.6	41.3	40.2
70°	38.2	37.9	38.1	37.4	36.5	36.1	35.9	35.0	33.7	32.7	31.5
72.5°	30.0	30.0	29.8	29.1	28.7	28.4	27.8	26.7	26.0	24.9	24.0
75°	22.6	22.4	22.2	21.7	21.2	20.9	20.6	19.9	18.9	17.6	16.9
77.5°	15.6	15.8	15.5	15.3	14.6	14.2	14.1	13.6	12.8	11.9	11.2
80°	9.9	9.8	9.7	9.4	9.2	9.1	8.7	8.4	7.5	7.1	6.7
82.5°	5.4	5.1	5.1	5.0	4.7	4.5	4.4	4.1	4.0	3.7	3.4
85°	1.7	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.4	1.4	1.3
87.5°	0.1	0.3	0.1	0.1	0.3	0.1	0.1	0.3	0.1	0.1	0.3
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°	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9
2.5°	385.7	385.9	385.9	386.0	386.0	386.0	386.0	386.0	386.0	386.0	386.0
5°	382.6	382.6	382.9	383.2	383.2	383.2	383.3	383.6	383.6	383.6	383.5
7.5°	377.5	378.1	378.6	379.2	379.4	379.5	379.8	380.3	380.3	380.3	380.3
10°	370.8	372.1	372.8	373.7	374.1	374.4	375.2	375.4	375.8	375.9	375.8
12.5°	362.3	364.0	365.6	367.0	367.6	368.1	369.0	369.8	370.3	370.7	370.5
15°	352.8	354.6	357.0	358.6	359.7	360.6	361.9	363.0	363.7	364.0	364.0
17.5°	341.3	343.6	346.1	348.7	349.4	350.8	352.2	353.8	354.6	354.8	354.6
20°	328.5	331.0	333.2	335.7	337.3	338.0	340.0	342.0	342.8	343.0	342.8
22.5°	313.3	315.7	318.5	321.2	322.5	323.8	325.9	327.9	329.1	329.9	329.1
25°	296.4	299.8	302.5	304.8	306.6	307.9	310.6	312.2	314.0	313.9	314.0
27.5°	279.8	282.6	285.6	288.3	289.4	290.8	293.0	295.5	297.1	298.1	297.9
30°	262.7	265.0	267.5	270.0	271.8	272.9	276.1	277.2	279.2	279.8	279.3
32.5°	244.7	246.2	248.8	252.1	252.8	253.9	255.9	258.7	259.4	259.7	259.9
35°	225.5	228.5	230.6	232.6	233.2	234.1	236.4	238.6	239.3	240.5	240.0
37.5°	207.7	209.4	210.4	212.4	214.1	215.0	216.1	217.5	218.9	219.5	219.4
40°	190.0	190.8	191.7	193.8	193.9	193.9	195.6	197.6	197.6	198.2	198.2
42.5°	171.8	171.9	173.1	174.2	174.5	174.8	176.5	176.7	177.6	178.0	178.6
45°	154.2	155.0	155.7	155.9	156.6	156.7	157.1	157.6	158.8	158.6	158.8
47.5°	138.1	138.5	139.0	139.0	139.4	139.2	139.9	139.5	140.4	140.7	141.1
50°	122.3	123.0	122.6	122.9	122.8	123.2	122.9	122.9	122.9	123.5	123.9
52.5°	107.8	108.0	107.6	107.7	107.7	107.4	107.7	107.6	107.4	107.4	107.6
55°	94.5	93.9	93.6	93.1	92.4	93.2	92.8	92.5	93.1	92.8	93.1
57.5°	81.6	80.8	80.3	80.0	79.0	79.6	79.0	78.7	78.7	78.7	79.4
60°	69.3	68.6	67.9	67.1	66.9	66.6	66.4	65.6	65.8	65.6	65.9
62.5°	58.7	57.3	56.3	55.6	55.4	55.0	54.6	53.8	54.0	54.0	54.1
65°	48.9	47.3	45.9	44.9	44.9	44.2	43.5	43.5	42.6	42.9	43.1
67.5°	39.1	37.8	36.4	35.7	35.2	34.7	34.2	34.0	33.5	33.5	33.8
70°	30.3	29.0	28.3	27.1	27.0	26.6	26.0	25.6	25.4	25.4	25.3
72.5°	22.9	21.7	20.9	20.2	19.7	19.3	18.8	18.6	18.3	18.3	18.6
75°	15.9	15.2	14.5	13.8	13.5	13.4	12.9	12.6	12.6	12.5	12.6
77.5°	10.7	9.9	9.2	9.0	8.7	8.4	8.2	8.1	7.7	7.7	7.7
80°	6.1	5.8	5.5	5.1	5.1	5.0	4.7	4.5	4.4	4.4	4.4
82.5°	3.1	3.0	2.7	2.6	2.6	2.6	2.4	2.4	2.3	2.3	2.3
85°	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1
87.5°	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9
2.5°	386.0	385.9	385.9	385.9	385.9	385.9	385.7	385.7	385.6	385.6	385.6
5°	383.6	383.5	383.3	383.2	383.0	382.9	382.8	382.6	382.2	382.1	381.8
7.5°	380.2	379.9	379.5	379.4	379.1	378.6	378.1	377.8	377.2	376.5	376.2
10°	375.7	375.1	374.7	374.0	373.8	373.2	371.8	371.1	370.1	369.3	368.3
12.5°	370.1	369.6	368.6	367.6	367.0	365.7	364.4	363.3	362.0	360.2	358.8
15°	363.3	362.4	360.5	360.2	359.3	357.3	355.6	353.5	351.5	349.5	347.8
17.5°	354.2	352.4	351.4	350.1	349.1	346.5	344.7	342.3	339.6	337.3	334.9
20°	342.3	340.3	338.6	337.9	336.6	334.3	332.0	329.1	326.4	323.5	321.4
22.5°	328.1	326.8	324.2	323.4	321.8	319.5	316.8	314.0	311.4	308.3	305.5
25°	312.9	311.0	309.0	307.3	306.2	304.1	300.6	298.5	295.7	292.3	290.1
27.5°	296.7	294.5	291.7	290.6	289.6	286.7	283.9	281.2	278.9	275.9	274.1
30°	277.9	276.3	274.5	273.1	271.7	269.4	266.8	263.7	261.3	259.9	257.3
32.5°	258.9	257.6	255.2	254.5	252.9	251.1	249.2	246.9	244.4	242.2	240.3
35°	238.6	237.3	235.6	234.3	233.7	232.4	230.5	228.5	227.2	224.8	223.8
37.5°	218.2	217.8	216.1	214.8	214.4	212.8	211.8	210.4	208.6	208.0	206.9
40°	197.3	197.1	196.1	195.9	195.1	194.7	193.2	192.1	191.2	190.8	190.1
42.5°	178.2	177.9	177.0	177.2	176.3	176.0	175.9	174.9	174.2	173.3	173.5
45°	159.3	159.0	158.4	158.1	158.6	158.4	158.1	157.7	157.7	157.9	157.4
47.5°	141.1	141.4	140.8	141.1	141.1	140.7	140.7	141.2	141.4	141.7	141.9
50°	123.9	124.7	124.5	124.9	125.0	125.2	124.7	125.5	125.3	126.6	126.3
52.5°	108.3	108.4	109.0	109.1	109.3	109.4	110.1	110.7	110.8	111.4	112.4
55°	93.2	93.3	94.5	94.5	95.2	95.3	96.3	96.6	97.0	98.6	98.9
57.5°	79.0	79.8	80.4	80.7	81.1	81.8	82.4	83.7	84.4	85.4	86.4
60°	66.2	67.2	67.9	68.2	68.8	69.6	70.3	71.8	73.0	74.2	74.9
62.5°	54.4	55.3	55.8	56.8	56.8	57.5	59.2	60.1	61.5	62.5	63.8
65°	43.9	44.5	45.5	45.5	46.0	47.2	48.6	49.9	51.3	52.7	54.0
67.5°	34.4	34.8	35.4	35.9	36.2	37.7	38.8	40.6	41.9	42.9	44.5
70°	26.0	26.3	27.0	27.6	28.0	29.0	30.3	31.5	32.8	34.0	35.5
72.5°	18.6	19.2	19.9	20.3	20.6	21.3	22.6	23.9	25.0	26.1	27.0
75°	12.8	13.2	13.5	13.9	14.4	14.9	15.8	16.6	17.9	19.0	20.0
77.5°	8.0	8.4	8.8	9.0	9.1	9.7	10.2	11.1	11.9	12.8	13.5
80°	4.7	4.8	5.0	5.1	5.4	5.8	6.1	6.7	7.2	7.8	8.5
82.5°	2.4	2.6	2.7	2.7	2.7	2.8	3.3	3.6	3.7	4.0	4.4
85°	1.0	1.0	1.0	1.1	1.1	1.3	1.3	1.4	1.4	1.6	1.7
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	386.9	386.9	386.9	386.9	386.9	386.9	386.9	386.9
2.5°	385.5	385.5	385.5	385.3	385.5	385.5	385.5	385.3
5°	381.8	381.5	381.5	381.3	381.2	381.2	381.3	381.1
7.5°	375.7	375.2	375.0	375.0	374.8	374.7	374.7	374.0
10°	367.7	366.9	366.9	366.6	365.4	365.3	365.0	365.0
12.5°	357.8	356.8	356.2	355.5	354.8	354.2	354.1	353.5
15°	346.0	344.7	343.7	343.4	342.3	341.4	341.4	341.1
17.5°	333.2	331.2	330.5	329.8	328.2	328.1	327.8	326.5
20°	318.7	316.8	315.8	315.1	314.1	312.7	312.4	312.6
22.5°	303.5	300.9	300.1	299.4	298.4	297.1	297.1	296.1
25°	287.7	285.4	284.6	283.7	282.2	281.6	280.9	281.0
27.5°	271.7	269.5	268.8	267.3	266.3	265.5	264.8	264.8
30°	254.9	253.8	252.6	252.5	250.5	249.6	248.9	248.4
32.5°	238.7	237.3	236.7	236.1	235.1	234.0	233.9	232.9
35°	222.8	221.4	220.7	220.1	218.9	218.5	218.1	218.4
37.5°	206.0	205.7	205.3	204.6	203.9	203.7	203.2	203.9
40°	189.5	189.4	188.8	189.0	189.0	188.7	189.0	189.0
42.5°	173.6	173.6	173.1	173.3	173.5	173.8	174.2	174.5
45°	158.1	158.0	158.1	158.4	158.1	158.8	159.4	159.8
47.5°	142.2	142.4	142.9	143.1	143.4	144.4	144.4	144.4
50°	127.0	127.7	127.4	128.3	128.2	128.7	128.2	128.2
52.5°	112.5	113.2	113.4	113.5	114.4	114.5	114.5	114.4
55°	99.6	100.6	100.2	100.9	101.3	101.6	102.0	101.7
57.5°	87.7	88.1	88.5	88.7	89.2	89.5	89.8	89.5
60°	75.9	76.7	77.4	77.6	77.9	78.1	78.3	78.7
62.5°	64.8	66.2	66.5	66.6	67.3	67.8	68.1	68.3
65°	55.0	56.0	56.7	57.1	57.7	57.7	58.1	58.1
67.5°	45.5	46.5	46.9	47.2	48.0	48.2	48.9	48.9
70°	36.8	37.5	37.8	38.2	39.1	39.6	39.9	40.2
72.5°	28.4	29.3	29.7	30.3	30.8	31.3	31.4	31.8
75°	20.7	22.0	22.2	22.7	23.2	23.7	24.0	23.9
77.5°	14.5	14.9	15.5	15.8	16.2	16.6	17.0	17.0
80°	9.0	9.5	9.7	9.8	10.4	10.7	10.9	10.9
82.5°	4.7	5.0	5.3	5.4	5.7	5.7	5.8	6.0
85°	1.8	2.0	2.0	2.0	2.1	2.3	2.3	2.3
87.5°	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4
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)