

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: P879339

Luminaire Tested: **LD4C08D010 EU4089027 4LBDWWLI**

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: P879339
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: LD4C08D010 EU4089027 4LBDWWLI
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

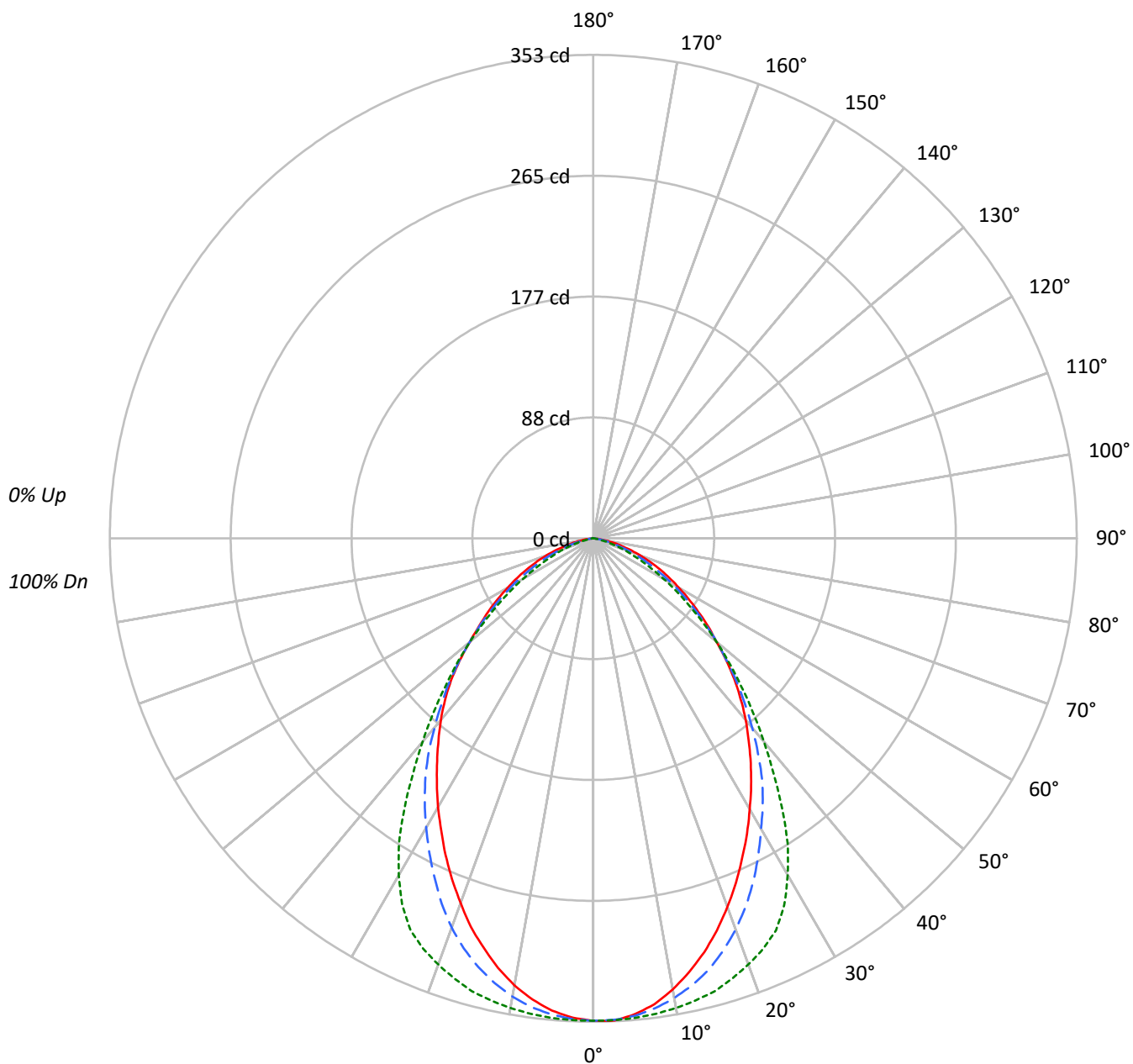
Lumens per Lamp: N/A
Luminaire Lumens: 647.0 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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	30	10	50	30	10
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°	43281	43281	43281
5°	43027	43348	42694
10°	41716	43450	41354
15°	39797	43549	39364
20°	37443	43300	37038
25°	34878	42794	34593
30°	32401	40288	32145
35°	30055	36039	29830
40°	27777	31080	27761
45°	25314	26530	25523
50°	22362	22438	22476
55°	20027	18335	20112
60°	17715	14570	17740
65°	15581	11105	15436
70°	12931	7938	12931
75°	10063	4557	9683
80°	6509	1132	6226
85°	2396	423	1832



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	5.1
10°-20°	91.5	14.1
20°-30°	127.9	19.8
30°-40°	134.9	20.9
40°-50°	114.8	17.7
50°-60°	81.0	12.5
60°-70°	45.9	7.1
70°-80°	16.4	2.5
80°-90°	1.6	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°	252.5	39.0
0°-40°	387.4	59.9
0°-60°	583.1	90.1
0°-90°	647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	647.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	352	352	352	352	352	
5°	349	350	352	349	346	33
15°	313	326	342	324	310	88
25°	257	276	316	274	255	118
35°	200	215	240	214	199	125
45°	146	148	153	148	147	112
55°	94	90	86	91	94	84
65°	54	46	38	46	53	53
75°	21	14	10	14	20	23
85°	2	1	0	1	1	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°	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3
2.5°	352.6	351.9	351.9	351.9	351.9	351.9	351.9	351.9	351.9	352.0	352.0
5°	348.9	348.6	348.5	348.5	348.5	348.5	348.6	349.1	349.4	349.8	350.0
7.5°	343.1	342.5	342.8	342.8	343.1	343.3	343.7	344.3	345.0	345.6	346.2
10°	334.4	333.8	334.5	334.8	335.6	336.0	336.6	337.4	339.0	339.8	340.8
12.5°	324.2	324.0	324.2	325.3	326.1	326.6	327.4	329.1	330.7	332.4	334.2
15°	312.9	312.2	312.6	313.9	315.3	316.2	316.8	319.1	321.2	323.8	326.1
17.5°	300.2	299.3	300.4	301.4	303.1	303.9	304.9	307.4	310.3	313.2	315.7
20°	286.4	286.2	286.8	288.3	290.0	291.0	291.8	294.6	297.1	301.0	303.9
22.5°	272.1	272.3	272.8	274.4	275.6	277.1	278.2	280.7	283.6	287.3	291.0
25°	257.3	257.7	258.6	259.7	261.6	262.4	263.9	266.5	269.0	272.4	276.5
27.5°	243.1	243.2	244.3	244.8	246.6	248.3	249.0	251.8	254.7	257.3	260.9
30°	228.4	228.8	229.5	230.9	232.8	233.5	234.2	236.7	239.0	242.3	245.0
32.5°	214.5	214.2	215.0	215.8	217.9	219.1	219.5	222.4	224.4	227.7	230.3
35°	200.4	199.7	200.9	201.7	203.5	204.6	205.1	207.4	209.2	212.0	214.9
37.5°	186.3	186.8	187.3	188.0	188.9	189.2	190.8	191.3	193.7	195.8	197.4
40°	173.2	173.0	172.7	173.4	174.6	175.1	175.2	176.7	177.2	179.3	180.5
42.5°	159.3	159.4	159.3	159.4	160.1	160.1	160.5	161.4	161.8	162.4	163.9
45°	145.7	145.7	145.3	145.4	145.6	145.4	145.6	146.0	146.8	146.8	147.8
47.5°	131.6	131.4	131.9	131.5	131.2	131.1	131.5	131.1	131.9	131.9	132.1
50°	117.0	117.0	117.6	117.5	117.8	117.3	117.4	117.4	117.5	117.4	117.9
52.5°	105.7	105.4	105.1	104.5	104.7	104.2	104.2	104.3	103.9	103.8	103.2
55°	93.5	93.8	93.4	93.1	93.1	92.6	92.5	91.7	91.2	90.8	90.4
57.5°	82.6	82.9	82.7	82.1	81.3	81.4	81.2	80.4	79.2	78.4	77.7
60°	72.1	72.3	72.1	71.4	71.1	70.6	70.5	69.4	68.5	67.5	66.7
62.5°	62.6	62.6	62.4	61.5	60.9	61.0	60.3	59.5	58.4	56.9	55.7
65°	53.6	53.5	52.8	52.4	51.9	51.2	50.9	49.7	48.7	47.6	46.0
67.5°	44.7	44.3	44.0	43.6	42.4	42.3	41.8	40.7	39.4	38.5	37.2
70°	36.0	35.8	35.3	35.3	34.4	34.0	33.2	32.3	31.1	29.8	28.7
72.5°	28.5	28.2	27.7	27.1	26.3	26.1	25.4	24.5	23.5	22.1	20.8
75°	21.2	20.9	20.8	20.2	19.5	18.8	18.6	17.7	16.6	15.7	14.5
77.5°	14.9	14.6	14.2	13.8	13.4	13.0	12.6	11.9	10.9	10.1	9.1
80°	9.2	9.0	8.7	8.6	8.2	8.0	7.5	7.1	6.3	5.8	5.1
82.5°	4.7	4.7	4.5	4.3	4.1	4.0	3.8	3.4	3.0	2.6	2.2
85°	1.7	1.7	1.6	1.4	1.4	1.3	1.3	1.2	0.9	0.9	0.7
87.5°	0.1	0.1	0.3	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°	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3
2.5°	352.2	352.0	352.2	352.2	352.3	352.3	352.3	352.2	352.3	352.2	352.2
5°	350.0	350.4	350.7	351.0	351.1	351.2	351.2	351.4	351.5	351.5	351.4
7.5°	346.8	347.5	348.3	348.9	349.1	349.4	349.8	350.0	350.3	350.2	350.0
10°	342.4	343.7	344.8	345.8	346.4	346.8	347.4	347.9	348.2	348.3	347.9
12.5°	336.2	338.1	339.8	341.5	342.3	342.8	344.1	345.0	345.6	345.6	345.2
15°	328.4	331.1	333.6	335.8	337.1	337.9	339.9	341.2	342.0	342.4	341.7
17.5°	319.1	322.1	325.1	328.0	329.4	330.5	333.3	335.2	336.9	337.1	336.3
20°	307.1	310.9	314.3	317.9	319.4	321.2	324.4	327.4	330.0	331.2	329.0
22.5°	293.7	297.9	301.0	305.4	307.4	309.3	313.4	317.2	321.9	324.4	320.4
25°	279.7	283.3	287.1	291.3	294.1	296.2	300.9	305.8	312.0	315.7	310.1
27.5°	264.7	267.8	272.4	277.1	279.2	281.8	287.5	292.7	298.7	302.0	297.9
30°	249.1	253.1	257.4	261.6	264.7	267.2	271.8	276.3	281.3	284.0	281.0
32.5°	233.7	237.5	241.2	245.8	247.5	249.8	253.9	257.7	261.5	264.0	260.5
35°	217.5	220.9	224.4	227.5	228.3	230.9	234.2	236.5	238.3	240.3	237.9
37.5°	199.9	202.5	204.2	207.6	208.9	209.3	212.0	213.6	215.5	215.9	215.8
40°	181.9	184.3	185.8	187.9	188.9	188.9	190.8	192.2	193.7	193.8	193.7
42.5°	165.2	166.4	167.6	168.9	168.6	170.2	171.0	171.7	172.7	172.7	173.0
45°	148.3	149.3	150.3	150.6	151.6	151.6	152.3	152.6	153.1	152.7	152.2
47.5°	132.7	133.1	133.2	134.4	134.6	133.7	134.5	134.6	134.5	134.5	134.2
50°	117.8	118.0	117.9	117.5	117.6	118.0	117.6	117.1	117.4	117.4	117.6
52.5°	103.3	102.8	102.5	102.5	102.0	102.0	101.3	101.0	100.9	100.4	101.0
55°	90.0	89.2	88.0	87.7	87.3	87.2	86.4	85.8	85.5	85.6	85.5
57.5°	77.2	76.0	75.2	75.0	74.6	73.8	72.9	72.2	72.1	71.8	71.8
60°	65.6	64.3	63.1	61.9	62.1	61.5	60.6	60.2	59.8	59.3	59.7
62.5°	55.1	53.6	52.3	51.1	50.3	49.9	49.3	48.6	48.2	47.8	48.4
65°	44.7	43.5	42.0	40.8	40.4	40.1	39.4	38.3	38.2	38.2	38.5
67.5°	35.3	34.0	32.7	31.9	31.4	30.8	30.6	30.0	29.6	29.4	29.5
70°	27.1	25.8	24.8	24.0	23.6	23.5	22.5	22.4	22.3	22.1	22.0
72.5°	19.8	18.7	17.8	17.3	16.7	16.3	16.1	15.7	15.5	15.5	15.5
75°	13.6	12.8	11.7	11.1	10.8	10.4	10.0	9.7	9.5	9.6	9.6
77.5°	8.2	7.4	6.7	6.2	6.1	5.7	5.3	5.0	4.6	4.6	4.7
80°	4.5	3.8	3.3	2.9	2.6	2.5	2.1	2.0	1.7	1.6	1.6
82.5°	2.0	1.6	1.3	1.2	1.1	0.9	0.8	0.7	0.7	0.5	0.7
85°	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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°	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3
2.5°	352.0	352.0	351.9	351.9	351.9	351.6	351.6	351.5	351.4	351.2	351.0
5°	351.1	351.0	350.7	350.6	350.4	350.0	349.7	349.4	349.0	348.5	348.2
7.5°	349.8	349.4	348.9	348.6	348.2	347.3	346.6	346.0	345.3	344.4	343.3
10°	347.5	346.8	346.0	345.4	344.8	343.6	342.3	341.2	339.8	338.5	337.0
12.5°	344.4	343.5	341.9	341.1	340.3	338.6	336.9	334.6	332.7	330.8	329.1
15°	340.4	338.7	336.9	335.8	334.6	331.9	329.2	326.9	324.2	322.0	319.2
17.5°	334.6	332.1	329.5	328.3	326.7	323.6	320.4	317.1	314.1	311.3	307.9
20°	325.9	323.2	319.7	317.9	316.6	312.4	309.3	305.6	302.5	299.1	295.2
22.5°	315.8	312.0	308.2	305.5	304.1	299.9	295.8	292.5	289.0	285.1	282.3
25°	304.3	299.6	295.0	292.3	290.1	285.6	281.7	278.2	274.0	270.6	267.8
27.5°	291.4	286.0	280.6	278.0	275.9	271.0	266.8	263.2	259.1	256.1	253.2
30°	276.0	271.1	266.0	263.9	261.4	256.4	251.5	248.3	243.9	240.7	237.5
32.5°	256.8	253.6	249.5	246.6	245.3	240.7	236.6	232.8	229.0	226.5	223.3
35°	235.7	232.9	229.5	227.9	226.2	223.3	220.0	216.7	213.7	211.3	208.4
37.5°	214.4	211.6	209.5	207.8	206.7	204.1	202.1	199.6	197.5	195.2	193.7
40°	192.2	191.4	189.2	188.4	188.1	185.2	183.5	181.5	180.2	178.9	178.0
42.5°	172.6	171.3	169.6	169.7	168.9	167.3	166.1	164.8	163.9	163.2	162.3
45°	153.2	152.2	151.4	152.0	150.7	150.2	149.3	149.1	148.5	147.3	146.9
47.5°	134.8	134.6	134.8	134.4	134.1	133.9	134.0	133.3	132.7	132.3	131.7
50°	117.9	118.0	118.3	118.7	117.8	118.2	118.0	117.9	117.9	117.5	117.8
52.5°	101.6	101.7	102.0	102.4	102.5	102.5	102.9	103.2	103.7	104.3	104.3
55°	86.2	87.1	87.6	88.3	87.9	88.7	89.1	90.2	90.6	90.6	91.2
57.5°	72.5	73.4	73.8	74.6	74.8	75.5	76.5	77.2	78.1	78.9	79.7
60°	59.9	60.3	61.4	62.6	62.3	63.9	64.7	65.7	66.9	67.5	68.5
62.5°	48.7	49.3	50.1	50.5	51.4	52.2	54.0	55.1	56.1	57.4	58.5
65°	38.7	39.3	40.1	40.8	41.2	42.4	43.3	45.2	46.1	47.6	48.7
67.5°	29.6	30.4	31.1	31.6	31.9	33.1	34.5	35.3	37.0	38.5	39.4
70°	22.1	22.8	23.6	23.5	24.0	24.9	26.0	27.1	28.5	29.8	30.8
72.5°	15.4	16.1	16.6	16.7	17.3	17.9	18.7	19.6	20.7	22.0	23.5
75°	9.7	9.9	10.4	10.7	10.9	11.7	12.4	13.3	14.2	15.3	16.2
77.5°	4.9	5.3	5.5	5.8	5.9	6.6	7.2	8.0	8.8	9.9	10.8
80°	1.8	2.0	2.4	2.5	2.8	3.2	3.7	4.1	4.7	5.5	6.1
82.5°	0.7	0.8	0.9	0.9	1.1	1.3	1.4	1.8	2.2	2.5	2.8
85°	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.7	0.8	0.8
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°	352.3	352.3	352.3	352.3	352.3	352.3	352.3	352.3
2.5°	350.8	350.8	350.7	350.6	350.6	350.6	350.4	350.4
5°	347.7	347.3	347.1	346.9	346.8	346.6	346.2	346.2
7.5°	342.5	342.0	341.6	341.2	340.7	340.3	340.3	339.8
10°	335.7	334.6	334.1	333.6	332.9	332.1	331.9	331.5
12.5°	327.4	325.3	324.8	323.8	322.8	322.2	321.3	321.3
15°	317.1	314.9	313.7	313.2	311.8	310.9	310.5	309.5
17.5°	305.1	303.4	301.6	300.8	299.3	298.1	297.6	297.5
20°	293.0	290.2	289.0	287.9	286.2	285.1	284.3	283.3
22.5°	279.0	276.5	274.8	274.0	272.6	270.7	269.4	269.4
25°	264.3	262.0	261.1	259.4	257.7	257.0	255.5	255.2
27.5°	250.2	247.9	246.1	245.2	243.2	242.3	241.0	240.4
30°	235.6	232.9	231.6	231.5	229.1	228.2	227.1	226.6
32.5°	220.9	218.7	217.4	216.6	215.5	214.0	213.0	212.5
35°	206.4	205.0	203.8	202.9	201.2	200.4	199.6	198.9
37.5°	191.3	190.0	189.5	188.7	187.9	186.4	186.2	185.6
40°	176.7	175.0	175.0	174.4	173.6	173.5	173.1	173.1
42.5°	161.4	160.6	160.5	160.6	160.1	159.8	159.4	160.3
45°	146.2	146.6	146.0	146.1	145.8	146.4	146.4	146.9
47.5°	132.3	131.7	132.0	132.3	132.7	132.7	132.5	132.4
50°	117.4	117.9	118.4	117.8	118.0	118.2	117.5	117.6
52.5°	104.6	104.7	105.1	104.7	105.1	105.0	105.3	104.7
55°	92.2	92.2	92.7	92.9	93.0	93.4	93.5	93.9
57.5°	80.2	80.9	81.6	81.4	81.9	82.5	82.1	82.5
60°	69.8	70.4	71.0	71.3	71.7	71.9	71.9	72.2
62.5°	59.3	60.3	60.9	61.4	61.4	61.9	62.4	62.6
65°	49.8	51.0	51.4	51.8	52.0	52.6	53.2	53.1
67.5°	40.8	41.6	42.2	42.4	43.2	43.5	44.0	44.5
70°	32.0	33.1	33.5	34.0	34.6	35.2	35.7	36.0
72.5°	24.5	25.3	25.6	26.1	26.7	27.3	27.5	27.9
75°	17.1	18.4	18.6	19.0	19.5	20.2	20.6	20.4
77.5°	11.3	12.3	12.4	12.9	13.4	14.0	14.1	14.2
80°	6.7	7.2	7.4	7.6	8.0	8.3	8.6	8.8
82.5°	3.2	3.4	3.7	3.7	4.0	4.2	4.2	4.3
85°	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.3
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)