

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: P879361

Luminaire Tested: **LD4C10D010 EU4109030 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: P879361
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: LD4C10D010 EU4109030 4LBLDWWLI
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

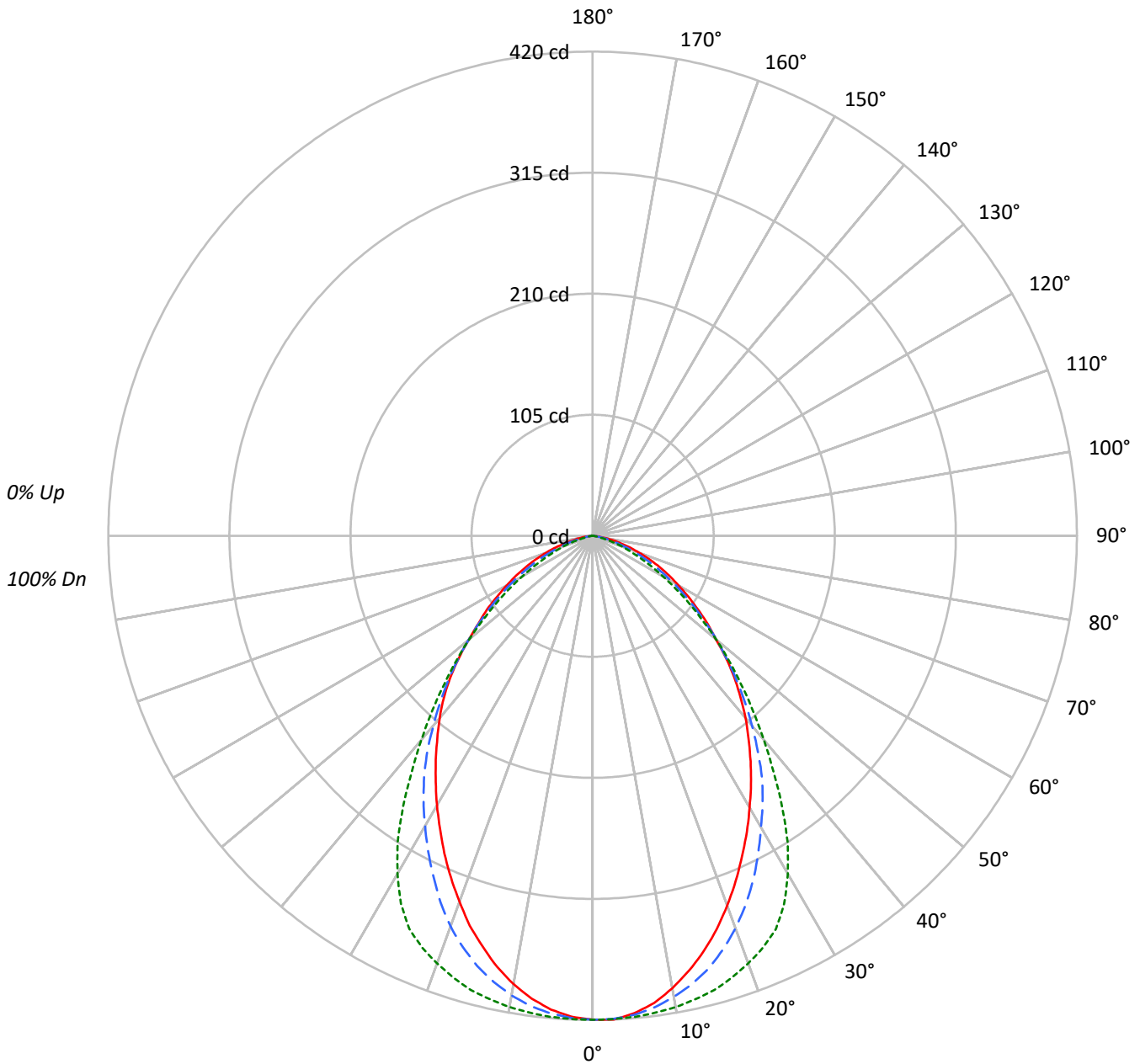
Lumens per Lamp: N/A
Luminaire Lumens: 771.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.75
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					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°	51574	51574	51574
5°	51265	51660	50883
10°	49712	51783	49276
15°	47428	51892	46907
20°	44621	51602	44124
25°	41561	50995	41222
30°	38614	48019	38302
35°	35814	42953	35559
40°	33101	37030	33085
45°	30161	31621	30405
50°	26643	26739	26796
55°	23882	21847	23968
60°	21106	17347	21131
65°	18575	13227	18401
70°	15410	9483	15410
75°	12009	5459	11534
80°	7782	1344	7429
85°	2819	423	2255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	5.1
10°-20°	109.0	14.1
20°-30°	152.4	19.8
30°-40°	160.8	20.9
40°-50°	136.8	17.7
50°-60°	96.5	12.5
60°-70°	54.7	7.1
70°-80°	19.5	2.5
80°-90°	1.9	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°	300.8	39.0
0°-40°	461.6	59.9
0°-60°	694.9	90.1
0°-90°	771.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	771.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	420	420	420	420	420	
5°	416	417	419	416	413	39
15°	373	389	408	386	369	105
25°	307	330	376	326	304	141
35°	239	256	286	255	237	149
45°	174	176	182	177	175	133
55°	112	108	102	108	112	100
65°	64	55	46	55	63	63
75°	25	17	12	17	24	27
85°	2	1	0	1	2	4
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°	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8
2.5°	420.1	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.5	419.5
5°	415.7	415.4	415.3	415.3	415.3	415.3	415.4	416.0	416.4	416.8	417.1
7.5°	408.8	408.2	408.5	408.5	408.8	409.1	409.6	410.2	411.2	411.8	412.6
10°	398.5	397.8	398.6	398.9	399.9	400.3	401.1	402.1	403.9	404.9	406.1
12.5°	386.4	386.1	386.4	387.6	388.6	389.2	390.1	392.2	394.1	396.1	398.3
15°	372.9	372.1	372.5	374.1	375.7	376.8	377.6	380.2	382.8	385.9	388.6
17.5°	357.8	356.7	357.9	359.2	361.2	362.2	363.3	366.3	369.7	373.2	376.2
20°	341.3	341.0	341.8	343.5	345.5	346.8	347.7	351.0	354.0	358.7	362.2
22.5°	324.2	324.5	325.1	327.0	328.4	330.2	331.6	334.6	338.0	342.4	346.8
25°	306.6	307.1	308.2	309.4	311.8	312.7	314.5	317.6	320.6	324.7	329.5
27.5°	289.7	289.8	291.1	291.7	293.9	295.9	296.7	300.0	303.5	306.6	310.9
30°	272.2	272.7	273.5	275.2	277.4	278.2	279.1	282.1	284.8	288.7	292.0
32.5°	255.6	255.3	256.2	257.2	259.7	261.1	261.6	265.0	267.4	271.3	274.4
35°	238.8	238.0	239.4	240.4	242.6	243.8	244.4	247.1	249.3	252.6	256.1
37.5°	222.0	222.6	223.2	224.0	225.1	225.4	227.3	228.0	230.8	233.3	235.2
40°	206.4	206.1	205.8	206.6	208.0	208.6	208.8	210.5	211.2	213.7	215.1
42.5°	189.8	190.0	189.8	190.0	190.7	190.7	191.2	192.3	192.8	193.6	195.3
45°	173.6	173.6	173.2	173.3	173.5	173.3	173.5	174.0	174.9	174.9	176.1
47.5°	156.8	156.5	157.2	156.7	156.4	156.2	156.7	156.2	157.2	157.2	157.5
50°	139.4	139.4	140.2	140.0	140.4	139.7	139.9	139.9	140.0	139.9	140.5
52.5°	125.9	125.6	125.3	124.5	124.8	124.2	124.2	124.3	123.9	123.7	122.9
55°	111.5	111.8	111.3	111.0	111.0	110.4	110.2	109.3	108.6	108.2	107.7
57.5°	98.4	98.7	98.6	97.8	96.9	97.0	96.7	95.8	94.4	93.4	92.6
60°	85.9	86.2	85.9	85.1	84.8	84.1	84.0	82.7	81.6	80.4	79.4
62.5°	74.6	74.6	74.4	73.3	72.5	72.7	71.9	71.0	69.5	67.8	66.4
65°	63.9	63.7	63.0	62.5	61.9	61.1	60.6	59.2	58.1	56.7	54.8
67.5°	53.2	52.8	52.4	52.0	50.6	50.4	49.8	48.5	46.9	45.8	44.3
70°	42.9	42.7	42.1	42.1	41.0	40.5	39.6	38.5	37.1	35.5	34.2
72.5°	33.9	33.6	33.0	32.3	31.4	31.1	30.3	29.2	27.9	26.4	24.8
75°	25.3	25.0	24.8	24.0	23.2	22.5	22.1	21.0	19.8	18.7	17.3
77.5°	17.7	17.4	17.0	16.5	16.0	15.5	15.1	14.1	13.0	12.1	10.8
80°	11.0	10.7	10.4	10.2	9.7	9.6	8.9	8.5	7.5	6.9	6.1
82.5°	5.7	5.7	5.3	5.2	4.9	4.7	4.6	4.1	3.6	3.1	2.7
85°	2.0	2.0	1.9	1.7	1.7	1.6	1.6	1.4	1.1	1.1	0.8
87.5°	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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°	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8
2.5°	419.6	419.5	419.6	419.6	419.8	419.8	419.8	419.6	419.8	419.6	419.6
5°	417.1	417.6	417.9	418.2	418.4	418.5	418.5	418.7	418.9	418.9	418.7
7.5°	413.2	414.2	415.1	415.7	416.0	416.4	416.8	417.1	417.4	417.3	417.1
10°	408.0	409.6	410.9	412.1	412.7	413.2	414.0	414.6	414.9	415.1	414.6
12.5°	400.7	402.8	404.9	406.9	407.9	408.5	410.1	411.2	411.8	411.8	411.3
15°	391.4	394.5	397.5	400.2	401.8	402.7	405.0	406.6	407.6	408.0	407.2
17.5°	380.2	383.9	387.5	390.9	392.5	393.9	397.2	399.4	401.4	401.8	400.8
20°	366.0	370.5	374.6	378.8	380.6	382.8	386.5	390.1	393.3	394.7	392.0
22.5°	349.9	355.0	358.7	363.9	366.3	368.6	373.5	378.0	383.5	386.5	381.8
25°	333.3	337.5	342.1	347.1	350.4	352.9	358.6	364.4	371.8	376.2	369.6
27.5°	315.4	319.2	324.7	330.2	332.7	335.8	342.6	348.8	355.9	359.8	355.0
30°	296.9	301.6	306.8	311.8	315.4	318.4	323.9	329.2	335.2	338.5	334.9
32.5°	278.5	283.1	287.5	293.0	295.0	297.7	302.5	307.1	311.6	314.6	310.4
35°	259.2	263.3	267.4	271.1	272.1	275.2	279.1	281.8	284.0	286.4	283.5
37.5°	238.2	241.3	243.3	247.4	249.0	249.5	252.6	254.5	256.8	257.3	257.2
40°	216.8	219.6	221.4	223.9	225.1	225.1	227.3	229.1	230.8	230.9	230.8
42.5°	196.9	198.3	199.7	201.3	201.0	202.8	203.8	204.6	205.8	205.8	206.1
45°	176.8	177.9	179.1	179.4	180.7	180.7	181.5	181.8	182.4	182.0	181.3
47.5°	158.1	158.6	158.7	160.1	160.4	159.4	160.3	160.4	160.3	160.3	160.0
50°	140.4	140.7	140.5	140.0	140.2	140.7	140.2	139.6	139.9	139.9	140.2
52.5°	123.1	122.5	122.1	122.1	121.5	121.5	120.7	120.4	120.3	119.6	120.4
55°	107.2	106.3	104.9	104.6	104.1	103.9	103.0	102.2	101.9	102.0	101.9
57.5°	92.0	90.6	89.6	89.3	88.9	87.9	86.8	86.0	85.9	85.6	85.6
60°	78.2	76.6	75.2	73.8	73.9	73.3	72.2	71.7	71.3	70.6	71.1
62.5°	65.6	63.9	62.3	60.9	60.0	59.5	58.7	57.9	57.5	57.0	57.6
65°	53.2	51.8	50.1	48.7	48.2	47.7	46.9	45.7	45.5	45.5	45.8
67.5°	42.1	40.5	38.9	38.0	37.4	36.7	36.4	35.8	35.3	35.0	35.2
70°	32.3	30.8	29.5	28.6	28.1	27.9	26.8	26.7	26.5	26.4	26.2
72.5°	23.5	22.3	21.2	20.6	19.9	19.5	19.2	18.7	18.5	18.5	18.5
75°	16.2	15.2	14.0	13.2	12.9	12.4	11.9	11.6	11.3	11.5	11.5
77.5°	9.7	8.8	8.0	7.4	7.2	6.8	6.3	6.0	5.5	5.5	5.7
80°	5.3	4.6	3.9	3.5	3.1	3.0	2.5	2.4	2.0	1.9	1.9
82.5°	2.4	1.9	1.6	1.4	1.3	1.1	0.9	0.8	0.8	0.6	0.8
85°	0.8	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.2	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°	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8
2.5°	419.5	419.5	419.3	419.3	419.3	419.0	419.0	418.9	418.7	418.5	418.2
5°	418.4	418.2	417.9	417.8	417.6	417.1	416.7	416.4	415.9	415.3	414.9
7.5°	416.8	416.4	415.7	415.4	414.9	413.8	413.1	412.3	411.5	410.4	409.1
10°	414.2	413.2	412.3	411.6	410.9	409.4	407.9	406.6	404.9	403.3	401.6
12.5°	410.4	409.3	407.4	406.5	405.5	403.5	401.4	398.8	396.4	394.2	392.2
15°	405.7	403.6	401.4	400.2	398.8	395.5	392.3	389.5	386.4	383.7	380.4
17.5°	398.8	395.8	392.6	391.2	389.3	385.6	381.8	377.9	374.3	371.0	366.9
20°	388.4	385.1	381.0	378.8	377.3	372.2	368.6	364.2	360.5	356.4	351.8
22.5°	376.3	371.8	367.2	364.1	362.3	357.3	352.5	348.5	344.4	339.7	336.4
25°	362.7	357.0	351.5	348.4	345.7	340.4	335.7	331.6	326.5	322.5	319.2
27.5°	347.3	340.8	334.4	331.3	328.7	322.9	317.9	313.7	308.8	305.2	301.7
30°	328.9	323.1	317.0	314.5	311.5	305.5	299.7	295.9	290.6	286.8	283.1
32.5°	306.0	302.2	297.3	293.9	292.3	286.8	282.0	277.4	272.9	269.9	266.1
35°	280.9	277.6	273.5	271.6	269.6	266.1	262.2	258.3	254.6	251.8	248.4
37.5°	255.4	252.1	249.6	247.6	246.3	243.2	240.8	237.8	235.3	232.7	230.8
40°	229.1	228.1	225.4	224.5	224.2	220.7	218.7	216.3	214.8	213.2	212.1
42.5°	205.7	204.1	202.1	202.2	201.3	199.4	198.0	196.4	195.3	194.5	193.4
45°	182.6	181.3	180.4	181.2	179.6	179.0	177.9	177.7	176.9	175.5	175.0
47.5°	160.6	160.4	160.6	160.1	159.8	159.5	159.7	158.9	158.1	157.6	157.0
50°	140.5	140.7	141.0	141.5	140.4	140.8	140.7	140.5	140.5	140.0	140.4
52.5°	121.0	121.2	121.5	122.0	122.1	122.1	122.6	122.9	123.6	124.3	124.3
55°	102.7	103.8	104.4	105.2	104.7	105.7	106.1	107.5	108.0	108.0	108.6
57.5°	86.3	87.4	87.9	88.9	89.2	90.0	91.2	92.0	93.1	94.0	95.0
60°	71.4	71.9	73.2	74.6	74.3	76.1	77.1	78.3	79.8	80.4	81.6
62.5°	58.1	58.7	59.7	60.1	61.2	62.2	64.4	65.6	66.9	68.4	69.7
65°	46.2	46.8	47.7	48.7	49.1	50.6	51.7	53.8	54.9	56.7	58.1
67.5°	35.3	36.3	37.1	37.7	38.0	39.4	41.1	42.1	44.1	45.8	46.9
70°	26.4	27.2	28.1	27.9	28.6	29.7	30.9	32.3	33.9	35.5	36.7
72.5°	18.4	19.2	19.8	19.9	20.6	21.4	22.3	23.4	24.6	26.2	27.9
75°	11.6	11.8	12.4	12.7	13.0	14.0	14.8	15.9	17.0	18.2	19.3
77.5°	5.8	6.3	6.6	6.9	7.1	7.8	8.6	9.6	10.5	11.8	12.9
80°	2.2	2.4	2.8	3.0	3.3	3.8	4.4	4.9	5.7	6.6	7.2
82.5°	0.8	0.9	1.1	1.1	1.3	1.6	1.7	2.2	2.7	3.0	3.3
85°	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.6	0.8	0.9	0.9
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°	419.8	419.8	419.8	419.8	419.8	419.8	419.8	419.8
2.5°	418.1	418.1	417.9	417.8	417.8	417.8	417.6	417.6
5°	414.3	413.8	413.7	413.4	413.2	413.1	412.6	412.6
7.5°	408.2	407.6	407.1	406.6	406.0	405.5	405.5	404.9
10°	400.0	398.8	398.1	397.5	396.7	395.8	395.5	395.0
12.5°	390.1	387.6	387.0	385.9	384.6	384.0	382.9	382.9
15°	377.9	375.2	373.8	373.2	371.6	370.5	370.0	368.8
17.5°	363.6	361.6	359.4	358.4	356.7	355.3	354.7	354.5
20°	349.2	345.9	344.4	343.0	341.0	339.7	338.8	337.5
22.5°	332.5	329.5	327.5	326.5	324.8	322.6	321.1	321.1
25°	314.9	312.3	311.2	309.1	307.1	306.3	304.4	304.1
27.5°	298.1	295.5	293.3	292.2	289.8	288.7	287.1	286.5
30°	280.7	277.6	276.0	275.8	273.0	271.9	270.7	270.0
32.5°	263.3	260.6	259.0	258.1	256.8	255.0	253.9	253.2
35°	246.0	244.3	242.9	241.8	239.7	238.8	237.8	237.1
37.5°	228.0	226.4	225.8	224.8	223.9	222.1	221.8	221.2
40°	210.5	208.5	208.5	207.9	206.9	206.8	206.3	206.3
42.5°	192.3	191.4	191.2	191.4	190.7	190.4	190.0	191.1
45°	174.3	174.7	174.0	174.1	173.8	174.4	174.4	175.0
47.5°	157.6	157.0	157.3	157.6	158.1	158.1	157.9	157.8
50°	139.9	140.5	141.1	140.4	140.7	140.8	140.0	140.2
52.5°	124.7	124.8	125.3	124.8	125.3	125.1	125.4	124.8
55°	109.9	109.9	110.5	110.7	110.8	111.3	111.5	111.9
57.5°	95.6	96.4	97.2	97.0	97.7	98.3	97.8	98.3
60°	83.2	83.8	84.6	84.9	85.4	85.7	85.7	86.0
62.5°	70.6	71.9	72.5	73.2	73.2	73.8	74.4	74.6
65°	59.3	60.8	61.2	61.7	62.0	62.6	63.4	63.3
67.5°	48.7	49.6	50.2	50.6	51.5	51.8	52.4	53.1
70°	38.1	39.4	39.9	40.5	41.3	41.9	42.5	42.9
72.5°	29.2	30.1	30.5	31.1	31.9	32.5	32.8	33.3
75°	20.4	22.0	22.1	22.6	23.2	24.0	24.5	24.3
77.5°	13.5	14.6	14.8	15.4	16.0	16.6	16.8	17.0
80°	8.0	8.6	8.8	9.1	9.6	9.9	10.2	10.5
82.5°	3.8	4.1	4.4	4.4	4.7	5.0	5.0	5.2
85°	1.3	1.3	1.4	1.4	1.6	1.6	1.7	1.6
87.5°	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2
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)