

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: P879347

Luminaire Tested: **LD4C08D010 EU4089050 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: P879347
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 EU4089050 4LBDWWLI
Description: 4 INCH 800 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

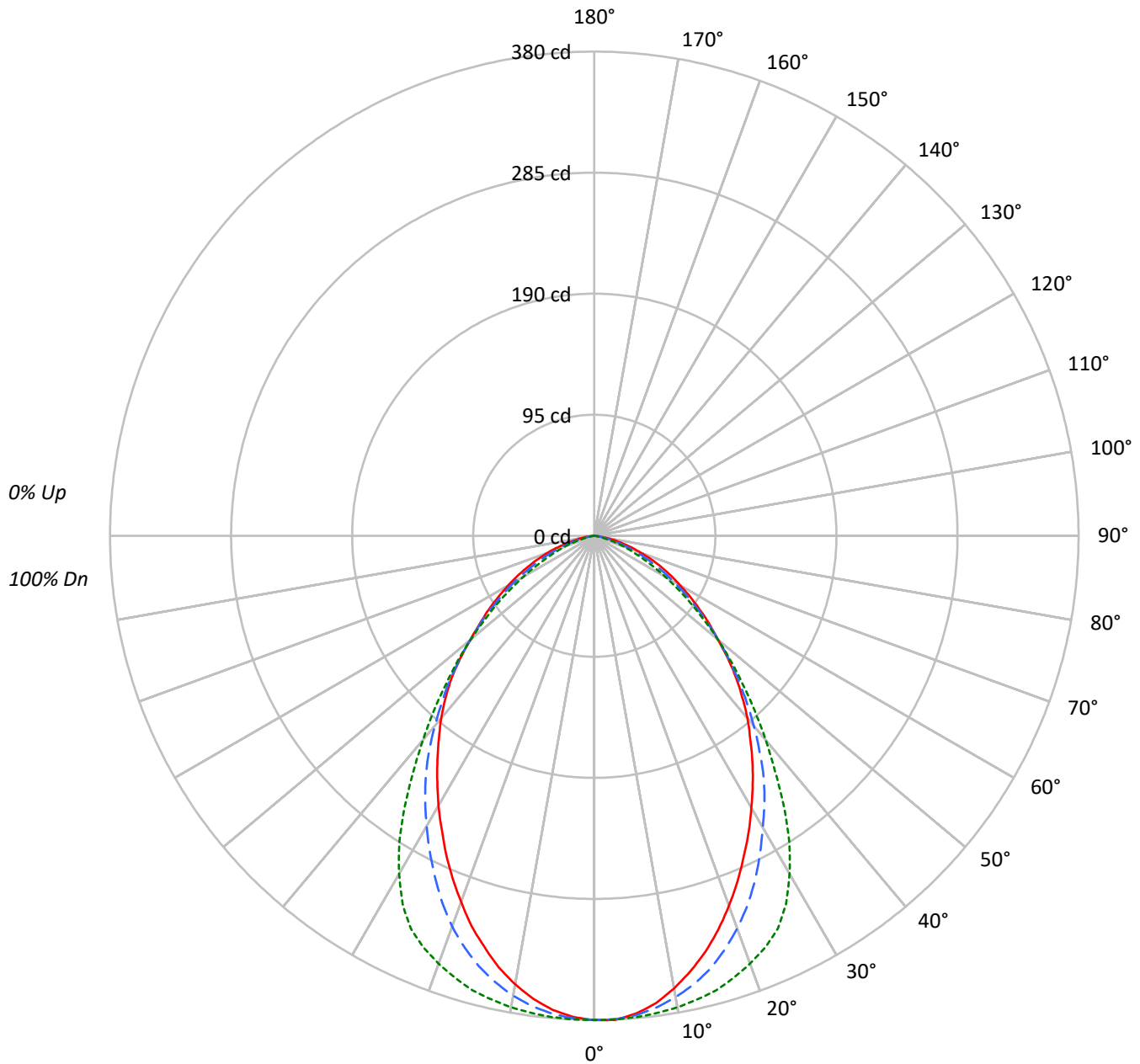
Lumens per Lamp: N/A
Luminaire Lumens: 698.0 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	107	104	101		108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	85		100	94	89	84		91	86	83		87	84	81		85	82	79
3	95	86	79	74		93	84	78	73		82	76	72		79	74	70		77	73	69
4	88	78	70	64		86	76	69	64		74	68	63		72	66	62		70	65	61
5	82	70	62	57		80	69	62	56		67	61	56		65	60	55		64	59	55
6	76	64	56	50		74	63	56	50		61	55	50		60	54	49		58	53	49
7	71	59	51	45		69	58	50	45		56	50	45		55	49	45		54	48	44
8	66	54	46	41		65	53	46	41		52	45	41		51	45	40		50	44	40
9	62	50	42	37		61	49	42	37		48	42	37		47	41	37		46	41	37
10	59	46	39	34		57	46	39	34		45	39	34		44	38	34		43	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	46697	46697	46697
5°	46419	46764	46061
10°	44997	46881	44610
15°	42938	46983	42468
20°	40398	46713	39954
25°	37630	46156	37318
30°	34968	43466	34685
35°	32425	38874	32185
40°	29974	33534	29958
45°	27312	28615	27538
50°	24120	24197	24254
55°	21612	19791	21697
60°	19091	15725	19141
65°	16802	11977	16657
70°	13937	8585	13937
75°	10870	4937	10443
80°	7004	1203	6721
85°	2537	423	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	5.1
10°-20°	98.7	14.1
20°-30°	138.0	19.8
30°-40°	145.5	20.9
40°-50°	123.8	17.7
50°-60°	87.4	12.5
60°-70°	49.5	7.1
70°-80°	17.7	2.5
80°-90°	1.7	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°	272.4	39.0
0°-40°	417.9	59.9
0°-60°	629.1	90.1
0°-90°	698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	698.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	380	380	380	380	380	
5°	376	378	379	376	374	35
15°	338	352	369	350	334	95
25°	278	298	340	296	275	128
35°	216	232	259	230	215	135
45°	157	160	165	160	158	121
55°	101	98	92	98	101	91
65°	58	50	41	50	57	57
75°	23	16	10	15	22	25
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°	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1
2.5°	380.3	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.6	379.8	379.8
5°	376.4	376.1	375.9	375.9	375.9	375.9	376.1	376.6	376.9	377.4	377.6
7.5°	370.1	369.5	369.8	369.8	370.1	370.4	370.8	371.4	372.2	372.8	373.5
10°	360.7	360.2	360.9	361.2	362.0	362.4	363.1	364.0	365.7	366.6	367.7
12.5°	349.8	349.5	349.8	350.9	351.8	352.3	353.2	355.0	356.7	358.6	360.6
15°	337.6	336.8	337.3	338.7	340.1	341.1	341.8	344.2	346.5	349.4	351.8
17.5°	323.9	322.9	324.1	325.2	327.0	327.9	328.9	331.6	334.7	337.8	340.5
20°	309.0	308.7	309.4	311.0	312.8	314.0	314.8	317.8	320.5	324.8	327.9
22.5°	293.5	293.8	294.4	296.1	297.3	298.9	300.2	302.9	306.0	310.0	314.0
25°	277.6	278.0	279.0	280.1	282.3	283.1	284.7	287.5	290.2	293.9	298.3
27.5°	262.2	262.4	263.5	264.1	266.1	267.9	268.6	271.6	274.7	277.6	281.4
30°	246.5	246.9	247.6	249.2	251.1	251.9	252.7	255.4	257.8	261.4	264.4
32.5°	231.4	231.1	232.0	232.8	235.1	236.4	236.8	239.9	242.0	245.6	248.4
35°	216.2	215.5	216.7	217.6	219.6	220.7	221.3	223.7	225.7	228.7	231.8
37.5°	201.0	201.5	202.1	202.8	203.8	204.1	205.8	206.4	208.9	211.2	212.9
40°	186.9	186.6	186.3	187.0	188.3	188.9	189.0	190.6	191.2	193.4	194.7
42.5°	171.8	172.0	171.8	172.0	172.7	172.7	173.1	174.1	174.5	175.2	176.8
45°	157.2	157.2	156.8	156.9	157.1	156.9	157.1	157.5	158.3	158.3	159.5
47.5°	142.0	141.7	142.3	141.8	141.6	141.4	141.8	141.4	142.3	142.3	142.6
50°	126.2	126.2	126.9	126.8	127.1	126.5	126.6	126.6	126.8	126.6	127.2
52.5°	114.0	113.7	113.4	112.7	113.0	112.4	112.4	112.6	112.1	112.0	111.3
55°	100.9	101.2	100.8	100.5	100.5	99.9	99.8	98.9	98.4	97.9	97.5
57.5°	89.1	89.4	89.3	88.5	87.7	87.8	87.6	86.7	85.4	84.6	83.9
60°	77.7	78.0	77.7	77.0	76.8	76.2	76.0	74.9	73.9	72.8	71.9
62.5°	67.5	67.5	67.4	66.4	65.7	65.8	65.1	64.2	63.0	61.4	60.1
65°	57.8	57.7	57.0	56.6	56.0	55.3	54.9	53.6	52.6	51.3	49.6
67.5°	48.2	47.8	47.5	47.0	45.8	45.6	45.1	43.9	42.5	41.5	40.1
70°	38.8	38.7	38.1	38.1	37.1	36.7	35.8	34.8	33.5	32.1	31.0
72.5°	30.7	30.4	29.8	29.3	28.4	28.1	27.4	26.4	25.3	23.9	22.5
75°	22.9	22.6	22.5	21.7	21.0	20.3	20.0	19.0	17.9	16.9	15.6
77.5°	16.1	15.8	15.4	14.9	14.5	14.1	13.6	12.8	11.8	10.9	9.8
80°	9.9	9.7	9.4	9.2	8.8	8.7	8.1	7.7	6.8	6.3	5.5
82.5°	5.1	5.1	4.8	4.7	4.4	4.3	4.1	3.7	3.3	2.8	2.4
85°	1.8	1.8	1.7	1.6	1.6	1.4	1.4	1.3	1.0	1.0	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°	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1
2.5°	379.9	379.8	379.9	379.9	380.1	380.1	380.1	379.9	380.1	379.9	379.9
5°	377.6	378.1	378.4	378.6	378.8	378.9	378.9	379.1	379.2	379.2	379.1
7.5°	374.1	374.9	375.8	376.4	376.6	376.9	377.4	377.6	377.9	377.8	377.6
10°	369.4	370.8	372.0	373.1	373.7	374.1	374.8	375.4	375.7	375.8	375.4
12.5°	362.7	364.7	366.6	368.4	369.3	369.8	371.2	372.2	372.8	372.8	372.4
15°	354.3	357.2	359.9	362.3	363.7	364.6	366.7	368.1	369.0	369.4	368.7
17.5°	344.2	347.5	350.8	353.9	355.3	356.6	359.6	361.6	363.4	363.7	362.9
20°	331.3	335.4	339.1	343.0	344.5	346.5	349.9	353.2	356.0	357.3	354.9
22.5°	316.8	321.4	324.8	329.5	331.6	333.7	338.1	342.3	347.2	349.9	345.7
25°	301.7	305.6	309.7	314.3	317.2	319.5	324.6	329.9	336.6	340.5	334.6
27.5°	285.5	289.0	293.9	298.9	301.2	304.0	310.1	315.8	322.2	325.8	321.4
30°	268.8	273.0	277.7	282.3	285.5	288.2	293.2	298.0	303.4	306.4	303.2
32.5°	252.1	256.3	260.2	265.2	267.1	269.5	273.9	278.0	282.1	284.8	281.0
35°	234.7	238.4	242.0	245.5	246.3	249.2	252.7	255.1	257.1	259.2	256.7
37.5°	215.6	218.5	220.3	224.0	225.4	225.8	228.7	230.4	232.5	233.0	232.8
40°	196.3	198.8	200.4	202.7	203.8	203.8	205.8	207.4	208.9	209.1	208.9
42.5°	178.2	179.5	180.8	182.2	181.9	183.6	184.5	185.2	186.3	186.3	186.6
45°	160.0	161.0	162.2	162.5	163.6	163.6	164.3	164.6	165.2	164.7	164.2
47.5°	143.1	143.6	143.7	145.0	145.3	144.3	145.1	145.3	145.1	145.1	144.8
50°	127.1	127.3	127.2	126.8	126.9	127.3	126.9	126.4	126.6	126.6	126.9
52.5°	111.4	110.9	110.6	110.6	110.0	110.0	109.3	109.0	108.9	108.3	109.0
55°	97.1	96.2	94.9	94.7	94.2	94.1	93.2	92.5	92.2	92.4	92.2
57.5°	83.3	82.0	81.2	80.9	80.4	79.6	78.6	77.9	77.7	77.5	77.5
60°	70.8	69.4	68.1	66.8	66.9	66.4	65.4	65.0	64.5	64.0	64.4
62.5°	59.4	57.8	56.4	55.1	54.3	53.9	53.2	52.4	52.0	51.6	52.2
65°	48.2	46.9	45.3	44.1	43.6	43.2	42.5	41.4	41.2	41.2	41.5
67.5°	38.1	36.7	35.2	34.4	33.8	33.3	33.0	32.4	32.0	31.7	31.8
70°	29.3	27.9	26.7	25.9	25.4	25.3	24.3	24.2	24.0	23.9	23.7
72.5°	21.3	20.2	19.2	18.6	18.1	17.6	17.3	16.9	16.8	16.8	16.8
75°	14.6	13.8	12.6	11.9	11.7	11.2	10.8	10.5	10.2	10.4	10.4
77.5°	8.8	8.0	7.2	6.7	6.5	6.1	5.7	5.4	5.0	5.0	5.1
80°	4.8	4.1	3.6	3.1	2.8	2.7	2.3	2.1	1.8	1.7	1.7
82.5°	2.1	1.7	1.4	1.3	1.1	1.0	0.9	0.7	0.7	0.6	0.7
85°	0.7	0.6	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°	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1
2.5°	379.8	379.8	379.6	379.6	379.6	379.3	379.3	379.2	379.1	378.9	378.6
5°	378.8	378.6	378.4	378.2	378.1	377.6	377.2	376.9	376.5	375.9	375.7
7.5°	377.4	376.9	376.4	376.1	375.7	374.7	373.9	373.2	372.5	371.5	370.4
10°	374.9	374.1	373.2	372.7	372.0	370.7	369.3	368.1	366.6	365.1	363.6
12.5°	371.5	370.5	368.8	368.0	367.1	365.3	363.4	361.0	358.9	356.9	355.0
15°	367.3	365.4	363.4	362.3	361.0	358.0	355.2	352.6	349.8	347.4	344.4
17.5°	361.0	358.3	355.5	354.2	352.5	349.1	345.7	342.1	338.8	335.9	332.2
20°	351.6	348.6	345.0	343.0	341.5	337.0	333.7	329.7	326.3	322.6	318.5
22.5°	340.7	336.6	332.4	329.6	328.0	323.5	319.1	315.5	311.8	307.6	304.6
25°	328.3	323.2	318.2	315.4	313.0	308.1	303.9	300.2	295.6	291.9	289.0
27.5°	314.4	308.6	302.7	299.9	297.6	292.4	287.8	284.0	279.6	276.3	273.2
30°	297.8	292.5	287.0	284.7	282.0	276.6	271.3	267.9	263.1	259.7	256.3
32.5°	277.0	273.6	269.2	266.1	264.6	259.7	255.3	251.1	247.0	244.3	240.9
35°	254.3	251.3	247.6	245.9	244.0	240.9	237.4	233.8	230.5	228.0	224.9
37.5°	231.2	228.3	226.0	224.1	223.0	220.2	218.0	215.3	213.1	210.6	208.9
40°	207.4	206.5	204.1	203.2	203.0	199.8	198.0	195.9	194.4	193.0	192.0
42.5°	186.2	184.8	182.9	183.1	182.2	180.5	179.2	177.8	176.8	176.1	175.1
45°	165.3	164.2	163.3	164.0	162.6	162.0	161.0	160.9	160.2	158.9	158.5
47.5°	145.4	145.3	145.4	145.0	144.7	144.4	144.5	143.8	143.1	142.7	142.1
50°	127.2	127.3	127.6	128.1	127.1	127.5	127.3	127.2	127.2	126.8	127.1
52.5°	109.6	109.7	110.0	110.4	110.6	110.6	111.0	111.3	111.9	112.6	112.6
55°	93.0	93.9	94.5	95.2	94.8	95.7	96.1	97.4	97.8	97.8	98.4
57.5°	78.2	79.2	79.6	80.4	80.7	81.4	82.6	83.3	84.3	85.1	86.0
60°	64.7	65.1	66.2	67.5	67.2	68.9	69.8	70.9	72.2	72.8	73.9
62.5°	52.6	53.2	54.0	54.4	55.4	56.3	58.3	59.4	60.5	62.0	63.1
65°	41.8	42.4	43.2	44.1	44.5	45.8	46.8	48.8	49.7	51.3	52.6
67.5°	32.0	32.8	33.5	34.1	34.4	35.7	37.2	38.1	39.9	41.5	42.5
70°	23.9	24.6	25.4	25.3	25.9	26.9	28.0	29.3	30.7	32.1	33.3
72.5°	16.6	17.3	17.9	18.1	18.6	19.3	20.2	21.2	22.3	23.7	25.3
75°	10.5	10.7	11.2	11.5	11.8	12.6	13.4	14.4	15.4	16.5	17.5
77.5°	5.3	5.7	6.0	6.3	6.4	7.1	7.8	8.7	9.5	10.7	11.7
80°	2.0	2.1	2.6	2.7	3.0	3.4	4.0	4.4	5.1	6.0	6.5
82.5°	0.7	0.9	1.0	1.0	1.1	1.4	1.6	2.0	2.4	2.7	3.0
85°	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.7	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°	380.1	380.1	380.1	380.1	380.1	380.1	380.1	380.1
2.5°	378.5	378.5	378.4	378.2	378.2	378.2	378.1	378.1
5°	375.1	374.7	374.5	374.2	374.1	373.9	373.5	373.5
7.5°	369.5	369.0	368.5	368.1	367.5	367.1	367.1	366.6
10°	362.1	361.0	360.4	359.9	359.2	358.3	358.0	357.6
12.5°	353.2	350.9	350.4	349.4	348.2	347.7	346.7	346.7
15°	342.1	339.7	338.4	337.8	336.4	335.4	335.0	333.9
17.5°	329.2	327.3	325.3	324.5	322.9	321.6	321.1	320.9
20°	316.1	313.1	311.8	310.6	308.7	307.6	306.7	305.6
22.5°	301.0	298.3	296.5	295.6	294.1	292.1	290.7	290.7
25°	285.1	282.7	281.7	279.9	278.0	277.3	275.6	275.3
27.5°	269.9	267.5	265.5	264.5	262.4	261.4	260.0	259.4
30°	254.1	251.3	249.9	249.7	247.2	246.2	245.0	244.5
32.5°	238.4	235.9	234.5	233.7	232.5	230.8	229.8	229.3
35°	222.7	221.2	219.9	218.9	217.0	216.2	215.3	214.6
37.5°	206.4	205.0	204.4	203.5	202.7	201.1	200.8	200.3
40°	190.6	188.7	188.7	188.2	187.3	187.2	186.8	186.8
42.5°	174.1	173.3	173.1	173.3	172.7	172.4	172.0	173.0
45°	157.8	158.2	157.5	157.6	157.3	157.9	157.9	158.5
47.5°	142.7	142.1	142.4	142.7	143.1	143.1	143.0	142.8
50°	126.6	127.2	127.8	127.1	127.3	127.5	126.8	126.9
52.5°	112.9	113.0	113.4	113.0	113.4	113.3	113.6	113.0
55°	99.5	99.5	100.1	100.2	100.3	100.8	100.9	101.3
57.5°	86.6	87.3	88.0	87.8	88.4	89.0	88.5	89.0
60°	75.3	75.9	76.6	76.9	77.3	77.6	77.6	77.9
62.5°	64.0	65.1	65.7	66.2	66.2	66.8	67.4	67.5
65°	53.7	55.0	55.4	55.9	56.1	56.7	57.4	57.3
67.5°	44.1	44.9	45.5	45.8	46.6	46.9	47.5	48.0
70°	34.5	35.7	36.1	36.7	37.4	37.9	38.5	38.8
72.5°	26.4	27.3	27.6	28.1	28.9	29.4	29.7	30.1
75°	18.5	19.9	20.0	20.5	21.0	21.7	22.2	22.0
77.5°	12.2	13.2	13.4	13.9	14.5	15.1	15.2	15.4
80°	7.2	7.8	8.0	8.2	8.7	9.0	9.2	9.5
82.5°	3.4	3.7	4.0	4.0	4.3	4.5	4.5	4.7
85°	1.1	1.1	1.3	1.3	1.4	1.4	1.6	1.4
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)