

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: P843231

Luminaire Tested: **LD4C08DE010B2750 EU4C08B30 4LBLWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843231
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08DE010B2750 EU4C08B30 4LBLWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

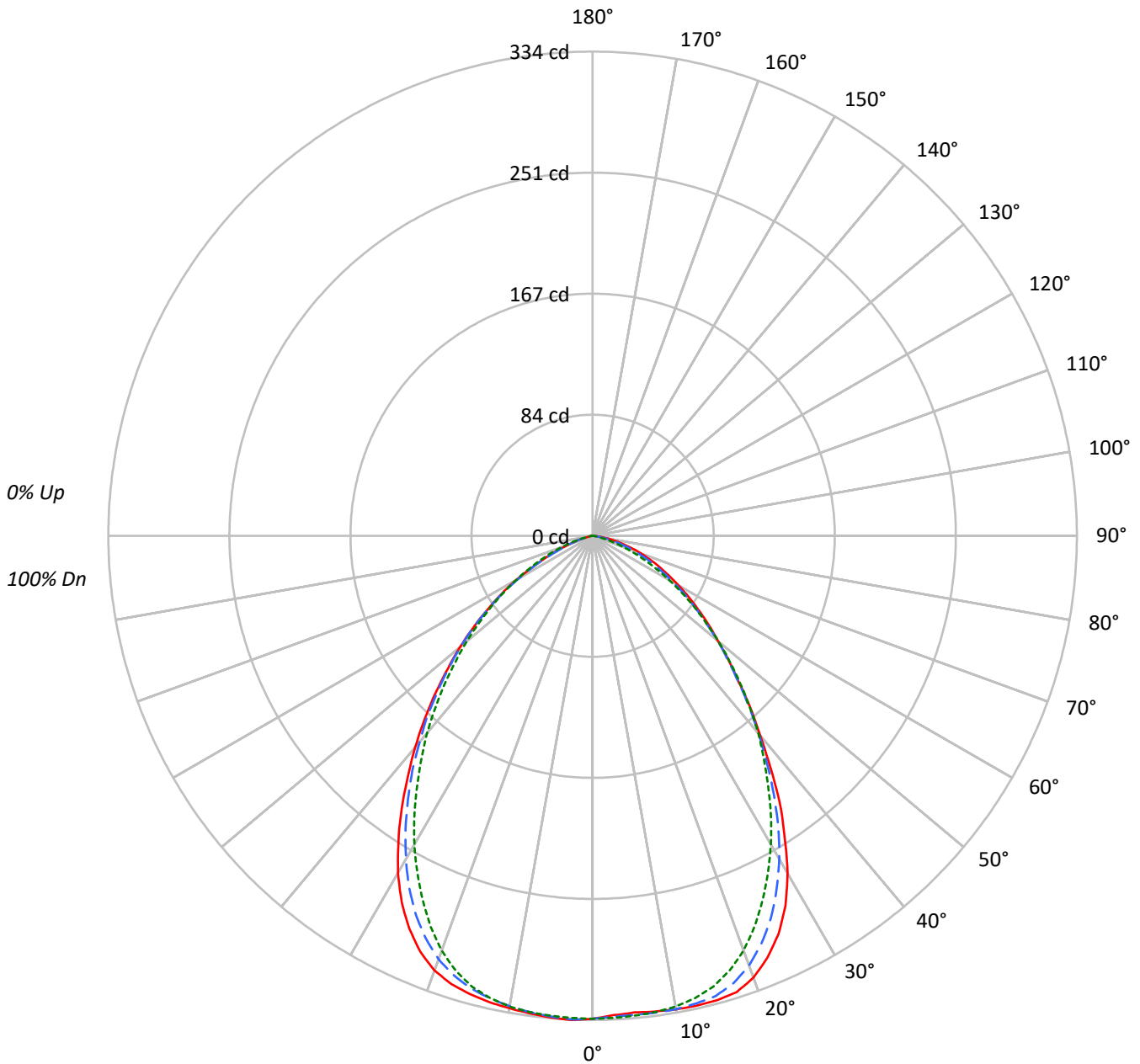
Lumens per Lamp: N/A
Luminaire Lumens: 638.8 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
Input Voltage (V):
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									
RC	80									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	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54																			
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48																			
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43																			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	40935	40935	40935
5°	40709	40980	41140
10°	41379	41130	41279
15°	42188	40942	41628
20°	42398	39797	41705
25°	41100	37589	40531
30°	38146	34883	38075
35°	33775	31645	34420
40°	28803	28498	30519
45°	24741	25019	26582
50°	21597	21655	22782
55°	19084	18292	18891
60°	16733	14914	14841
65°	14826	11570	10291
70°	12608	7938	6106
75°	10205	4272	2801
80°	6933	1061	707
85°	2114	282	282



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	5.0
10°-20°	91.7	14.4
20°-30°	132.5	20.7
30°-40°	136.9	21.4
40°-50°	113.1	17.7
50°-60°	78.1	12.2
60°-70°	40.9	6.4
70°-80°	12.9	2.0
80°-90°	1.1	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°	255.8	40.0
0°-40°	392.7	61.5
0°-60°	584.0	91.4
0°-90°	638.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	638.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	333	333	333	333	333	
5°	330	332	332	333	334	32
15°	332	329	322	323	327	94
25°	303	291	277	288	299	138
35°	225	218	211	222	230	140
45°	142	142	144	151	153	111
55°	89	86	85	88	88	80
65°	51	46	40	33	35	50
75°	22	17	9	6	6	23
85°	2	1	0	0	0	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°	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2
2.5°	331.0	331.3	331.3	331.5	331.5	331.5	331.6	331.6	331.7	331.8	332.0
5°	330.1	330.1	330.3	330.4	330.7	330.8	331.0	331.3	331.5	331.6	331.7
7.5°	331.0	331.0	331.3	331.4	331.4	331.5	331.5	331.6	331.7	331.8	331.8
10°	331.7	331.7	331.7	331.7	331.8	331.8	331.8	331.7	331.7	331.7	331.6
12.5°	332.0	332.0	331.8	331.7	331.8	331.7	331.7	331.4	331.0	330.8	330.4
15°	331.7	331.7	331.6	331.5	331.4	331.0	330.9	330.3	329.9	329.0	328.6
17.5°	330.1	329.9	329.6	329.3	328.8	328.4	328.2	327.0	326.2	324.9	323.5
20°	324.3	324.1	323.7	323.1	322.5	321.9	321.2	319.6	318.7	316.8	315.4
22.5°	315.0	314.6	314.9	313.7	312.4	311.7	311.2	309.8	308.3	306.0	304.4
25°	303.2	302.4	302.4	300.7	300.1	299.5	298.9	297.3	295.1	293.0	291.0
27.5°	287.9	286.9	286.4	286.2	284.6	283.6	282.7	281.4	279.5	277.6	274.9
30°	268.9	268.7	268.1	267.1	265.9	265.4	264.4	262.3	260.5	259.1	257.4
32.5°	246.5	246.3	246.3	246.3	245.6	245.5	244.0	242.8	241.5	239.3	238.3
35°	225.2	225.1	225.2	223.4	222.8	222.4	222.3	221.6	219.7	218.7	217.8
37.5°	201.2	201.6	201.4	200.8	201.5	200.3	201.2	199.6	198.8	198.5	197.5
40°	179.6	180.5	179.6	179.7	180.3	179.2	179.2	179.0	178.4	178.2	177.9
42.5°	161.1	159.8	160.5	159.9	160.5	160.1	159.5	159.9	160.0	159.5	159.4
45°	142.4	142.7	142.9	142.5	142.5	142.1	143.1	142.5	142.5	142.7	141.7
47.5°	127.2	126.9	127.1	126.9	127.0	126.7	127.0	127.1	126.9	126.9	126.2
50°	113.0	112.7	113.6	112.8	112.8	112.7	112.8	112.6	112.2	112.2	112.5
52.5°	100.6	100.1	99.9	100.6	99.7	99.7	99.8	99.6	99.1	98.9	98.3
55°	89.1	88.9	89.1	88.6	88.3	88.3	87.7	87.5	87.4	86.7	86.3
57.5°	78.4	77.9	78.1	77.9	77.4	77.3	76.8	76.8	76.4	75.8	75.2
60°	68.1	68.1	68.4	67.9	67.6	67.3	67.1	66.8	65.9	65.0	64.3
62.5°	58.9	59.0	58.9	58.6	58.3	58.1	57.9	57.0	56.3	55.8	54.9
65°	51.0	50.8	50.4	50.1	49.5	49.5	49.1	48.7	47.8	47.1	46.2
67.5°	42.6	42.4	42.4	42.4	41.7	41.6	41.2	40.5	39.8	38.8	38.1
70°	35.1	35.4	35.0	34.7	34.3	34.2	33.7	33.0	32.2	31.2	30.6
72.5°	28.0	28.2	27.9	27.8	27.1	26.8	26.7	26.0	25.1	24.4	23.4
75°	21.5	21.7	21.4	21.2	20.6	20.5	19.9	19.4	18.7	17.8	16.9
77.5°	15.5	15.2	15.2	14.8	14.3	14.3	14.2	13.4	12.5	11.7	11.0
80°	9.8	9.7	9.4	9.1	8.8	8.7	8.5	7.9	7.3	6.8	6.2
82.5°	5.0	4.9	4.8	4.7	4.3	4.1	4.2	3.7	3.5	3.0	2.6
85°	1.5	1.6	1.6	1.5	1.4	1.4	1.4	1.3	1.0	0.8	0.7
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2
2.5°	332.1	332.2	332.3	332.4	332.4	332.6	332.7	332.8	332.9	332.9	333.0
5°	331.8	332.1	332.1	332.2	332.2	332.2	332.3	332.3	332.3	332.3	332.4
7.5°	332.0	332.0	332.0	331.8	331.8	331.7	331.7	331.7	331.5	331.5	331.5
10°	331.4	331.3	331.0	330.8	330.7	330.6	330.3	330.1	329.9	329.7	329.5
12.5°	330.1	329.6	329.0	328.6	328.3	328.2	327.7	327.3	326.9	326.6	326.3
15°	327.5	326.8	326.0	324.9	324.7	324.5	323.5	322.8	322.4	321.9	321.3
17.5°	322.6	321.1	320.0	318.6	317.9	317.7	316.3	315.6	314.6	314.4	313.9
20°	313.7	312.3	310.4	309.0	308.3	307.6	306.4	305.4	304.4	304.4	303.8
22.5°	302.6	300.8	298.5	296.7	296.6	295.1	294.0	293.0	292.5	291.8	291.8
25°	288.5	287.0	284.4	282.9	282.2	281.8	280.2	278.7	277.9	277.3	277.7
27.5°	273.0	270.8	268.7	266.8	266.3	265.5	264.0	263.4	262.0	261.9	261.8
30°	255.2	253.0	251.0	250.1	248.9	248.2	247.2	246.3	245.9	245.9	245.6
32.5°	236.6	234.6	233.6	231.7	231.1	230.2	229.5	228.8	229.0	228.8	228.9
35°	216.5	216.0	214.1	213.0	213.0	212.8	211.6	211.1	210.8	211.0	211.6
37.5°	197.4	195.8	194.6	193.9	194.4	193.7	193.5	193.5	194.3	193.9	194.8
40°	176.9	176.8	176.3	176.5	176.6	175.8	176.1	176.2	176.6	177.7	177.8
42.5°	159.2	159.1	159.1	159.1	158.8	158.3	158.8	159.7	159.5	160.2	160.9
45°	142.0	141.7	142.3	141.9	142.7	142.9	142.5	142.8	143.5	144.0	145.0
47.5°	126.4	126.4	126.5	126.7	126.0	126.6	126.9	127.3	127.8	128.0	128.5
50°	111.9	111.9	111.6	111.6	111.6	112.0	111.5	112.1	112.2	113.3	113.9
52.5°	98.5	97.8	98.3	97.9	97.5	97.2	97.5	97.6	98.4	98.6	99.3
55°	85.7	85.7	84.7	84.5	84.8	84.7	84.6	84.6	84.9	85.4	86.0
57.5°	74.5	73.7	73.0	72.9	72.4	72.6	72.6	72.4	72.2	72.3	72.4
60°	63.8	63.4	62.2	62.2	62.1	62.0	61.3	61.2	60.6	60.7	60.2
62.5°	54.0	53.8	52.4	51.8	51.8	51.4	50.8	50.7	49.8	49.8	49.3
65°	45.3	44.5	43.7	42.8	42.8	42.3	41.9	40.8	40.2	39.8	39.0
67.5°	37.3	36.2	35.3	34.6	34.1	34.0	33.0	32.3	31.3	30.7	29.5
70°	29.5	28.7	27.8	27.1	26.5	26.0	25.2	24.0	23.3	22.1	21.4
72.5°	22.3	21.5	20.7	19.8	19.1	18.7	17.9	16.9	15.7	14.9	13.9
75°	16.0	15.1	14.2	13.2	12.9	12.5	11.5	10.8	9.8	9.0	8.0
77.5°	10.4	9.4	8.7	7.6	7.5	7.3	6.2	5.5	4.9	4.3	3.7
80°	5.5	5.0	4.3	3.7	3.5	3.2	2.6	2.2	1.9	1.5	1.3
82.5°	2.3	2.0	1.6	1.4	1.3	1.2	0.8	0.7	0.6	0.6	0.5
85°	0.6	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2
2.5°	333.2	333.4	333.5	333.5	333.6	333.7	333.7	333.8	334.0	334.1	334.1
5°	332.6	332.6	332.6	332.7	332.7	332.7	332.7	332.9	332.9	333.0	333.2
7.5°	331.4	331.4	331.4	331.4	331.3	331.4	331.3	331.3	331.5	331.6	331.7
10°	329.3	329.2	329.2	329.0	329.0	329.0	329.2	329.3	329.5	329.6	330.0
12.5°	326.2	326.1	326.1	326.0	326.0	326.1	326.2	326.5	326.9	327.2	327.7
15°	321.2	321.1	321.2	321.3	321.5	321.9	322.4	322.7	323.4	324.1	324.7
17.5°	313.9	314.0	314.2	314.4	314.9	315.3	316.3	317.3	318.1	319.2	320.1
20°	304.0	304.4	304.6	305.4	305.7	306.8	307.9	309.5	310.8	312.1	313.5
22.5°	291.9	292.3	292.8	293.8	294.4	295.9	297.3	299.0	300.6	302.2	304.2
25°	278.3	278.4	279.8	279.8	281.4	282.7	284.3	286.2	288.4	290.5	291.9
27.5°	262.7	263.4	264.5	265.0	266.1	268.1	269.5	271.8	274.0	275.9	277.4
30°	246.5	247.0	248.9	249.1	250.0	251.7	253.6	255.7	257.5	259.6	261.0
32.5°	229.4	230.8	231.8	232.7	233.0	235.6	236.6	238.1	240.1	242.2	243.6
35°	212.7	213.3	214.9	215.4	216.2	217.8	219.7	220.9	222.0	223.4	225.0
37.5°	195.0	196.9	197.4	198.8	199.0	200.4	201.5	203.0	204.2	205.5	205.7
40°	178.6	179.3	180.6	181.1	181.3	183.2	184.5	184.8	185.4	186.6	188.0
42.5°	162.0	162.7	164.1	163.8	164.9	165.8	166.4	168.0	168.6	168.9	168.9
45°	145.6	145.8	146.9	147.4	148.1	148.5	149.7	150.4	150.6	151.8	152.2
47.5°	130.0	130.3	131.0	131.9	131.7	132.2	133.5	133.9	134.0	134.7	135.2
50°	114.6	115.3	116.2	116.0	116.8	117.1	118.2	118.5	118.5	118.7	118.8
52.5°	100.3	100.7	101.0	101.2	101.6	102.3	102.7	102.5	103.0	103.4	103.1
55°	86.0	86.3	86.9	87.3	87.3	87.4	87.0	88.2	87.7	87.6	87.7
57.5°	73.0	72.4	72.3	73.0	73.2	73.1	72.7	73.2	73.2	73.0	72.6
60°	60.3	60.0	59.8	60.0	59.4	59.0	59.3	59.0	58.4	58.2	58.3
62.5°	48.8	48.4	47.4	47.4	47.2	47.1	46.0	46.2	45.7	44.9	45.2
65°	38.2	37.1	36.7	36.5	35.6	34.9	34.7	33.7	33.0	32.9	33.0
67.5°	28.7	27.5	26.7	26.2	25.8	25.2	24.3	23.5	23.8	23.7	24.1
70°	19.9	19.1	18.3	17.7	17.9	17.1	16.6	16.6	16.8	16.9	17.1
72.5°	13.2	12.3	11.8	11.5	11.2	10.8	11.0	11.0	10.9	11.0	10.8
75°	7.5	7.0	6.7	6.6	6.2	6.2	6.2	6.2	6.1	6.0	6.0
77.5°	3.4	3.2	3.0	2.9	2.9	2.9	2.7	2.6	2.6	2.6	2.5
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.6
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	333.2	333.2	333.2	333.2	333.2	333.2	333.2	333.2
2.5°	334.2	334.3	334.3	334.3	334.4	334.4	334.4	334.4
5°	333.4	333.5	333.5	333.5	333.6	333.6	333.6	333.6
7.5°	331.8	332.0	332.0	332.1	332.1	332.2	332.2	332.3
10°	330.1	330.3	330.4	330.6	330.7	330.8	330.8	330.9
12.5°	328.2	328.4	328.6	328.8	329.0	329.2	329.3	329.5
15°	325.4	326.0	326.2	326.3	326.8	327.0	327.2	327.3
17.5°	321.1	322.0	322.5	322.7	323.2	323.7	324.1	324.2
20°	314.9	315.9	316.4	317.1	317.8	318.5	318.7	319.0
22.5°	306.1	307.3	308.1	308.8	309.5	310.1	311.1	310.7
25°	293.5	295.7	296.6	296.9	298.3	299.0	299.5	299.0
27.5°	279.5	280.8	281.5	282.4	283.4	284.2	284.4	285.1
30°	262.6	264.7	264.6	265.5	266.7	267.5	267.8	268.4
32.5°	245.2	246.1	246.9	246.7	247.3	248.6	248.1	249.3
35°	226.4	226.5	227.8	227.7	228.8	228.8	228.8	229.5
37.5°	206.6	208.0	207.4	209.0	208.5	208.9	208.9	209.1
40°	188.5	188.9	188.9	189.4	189.8	189.4	189.6	190.3
42.5°	169.6	170.2	170.3	170.1	170.4	171.5	170.7	171.4
45°	152.2	152.5	153.0	152.6	153.3	152.9	153.3	153.0
47.5°	135.6	135.5	135.4	136.4	135.5	135.6	136.1	135.3
50°	118.8	119.5	119.0	119.4	119.6	119.6	119.2	119.2
52.5°	103.8	103.6	103.2	103.6	103.3	103.4	103.8	103.4
55°	88.2	88.7	88.4	88.3	88.4	88.4	89.3	88.2
57.5°	73.0	72.7	73.1	73.9	73.1	73.7	74.0	74.2
60°	58.4	58.4	59.2	58.8	59.5	60.2	60.7	60.4
62.5°	44.5	45.2	45.4	45.6	46.3	46.7	46.7	46.6
65°	33.0	34.0	34.0	34.4	34.7	34.7	34.9	35.4
67.5°	24.4	24.4	24.5	24.7	24.6	24.6	24.9	25.1
70°	17.0	16.8	17.1	17.0	17.0	16.9	17.0	17.0
72.5°	10.8	10.8	10.9	10.8	10.5	10.7	10.7	10.9
75°	5.7	6.0	5.7	5.7	5.9	5.6	5.7	5.9
77.5°	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.0	1.0
82.5°	0.5	0.6	0.5	0.6	0.5	0.5	0.5	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	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)