

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: P843243

Luminaire Tested: **LD4C08DE010B35 EU4C08B35 4LBLDWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08DE010B35 EU4C08B35 4LBDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

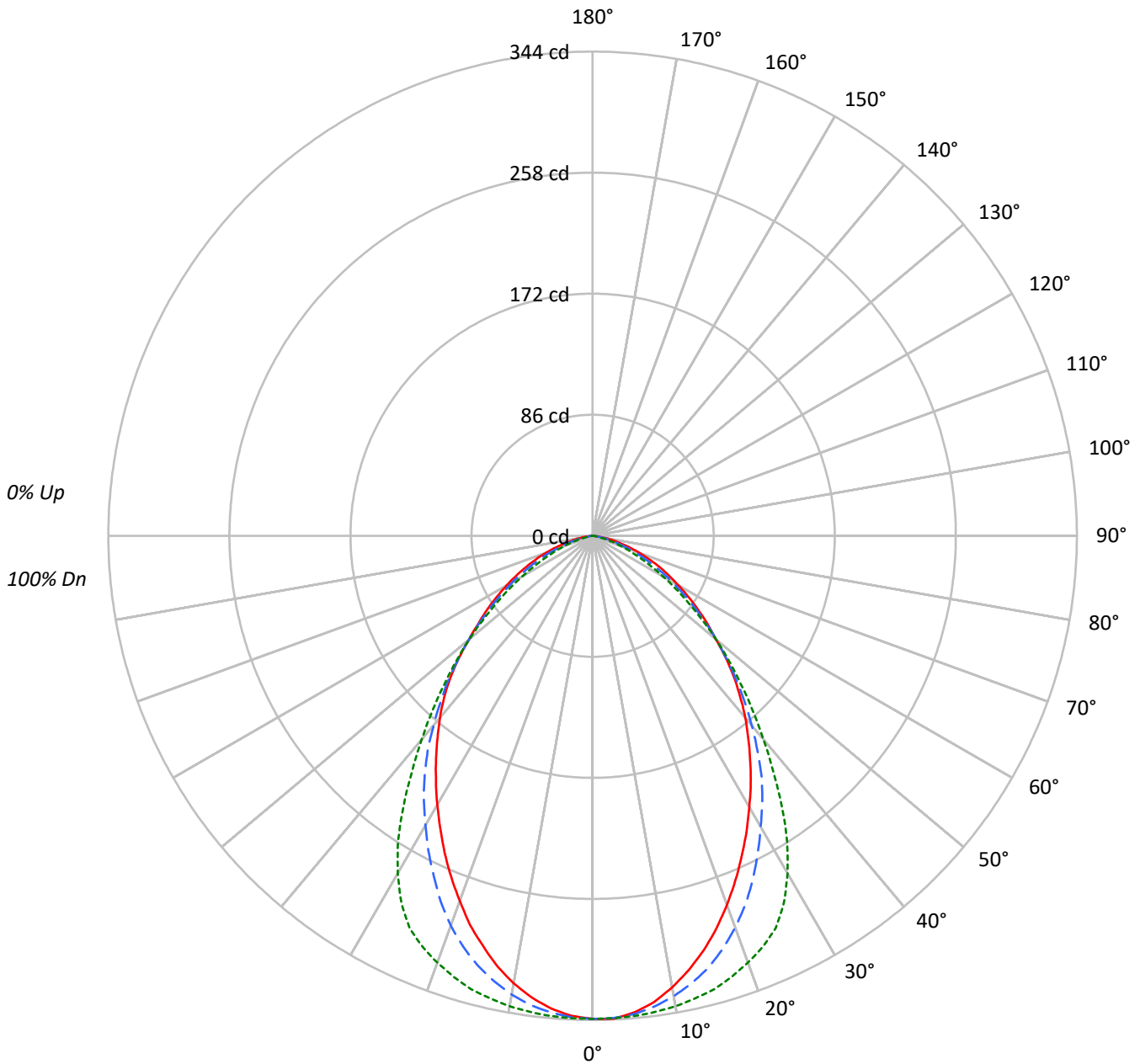
Lumens per Lamp: N/A
Luminaire Lumens: 630.3 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
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				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°	42163	42163	42163
5°	41917	42238	41597
10°	40643	42340	40281
15°	38767	42430	38347
20°	36476	42189	36071
25°	33983	41696	33699
30°	31564	39267	31308
35°	29275	35124	29080
40°	27071	30279	27055
45°	24654	25853	24862
50°	21788	21846	21903
55°	19534	17863	19598
60°	17249	14177	17273
65°	15174	10814	15029
70°	12572	7759	12572
75°	9778	4462	9446
80°	6367	1132	6084
85°	2396	282	1832



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.2	5.1
10°-20°	89.1	14.1
20°-30°	124.6	19.8
30°-40°	131.4	20.9
40°-50°	111.8	17.7
50°-60°	78.9	12.5
60°-70°	44.7	7.1
70°-80°	16.0	2.5
80°-90°	1.5	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°	246.0	39.0
0°-40°	377.4	59.9
0°-60°	568.1	90.1
0°-90°	630.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	630.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	343	343	343	343	343	
5°	340	341	342	340	337	32
15°	305	318	334	316	302	85
25°	251	269	308	267	249	115
35°	195	209	234	208	194	122
45°	142	144	149	145	143	109
55°	91	88	83	88	92	82
65°	52	45	37	45	52	52
75°	21	14	9	14	20	22
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°	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2
2.5°	343.5	342.9	342.9	342.9	342.9	342.9	342.9	342.9	342.9	343.0	343.0
5°	339.9	339.6	339.5	339.5	339.5	339.5	339.6	340.1	340.3	340.8	341.1
7.5°	334.2	333.7	334.0	334.0	334.2	334.5	334.8	335.4	336.1	336.6	337.3
10°	325.8	325.2	325.9	326.2	326.9	327.3	328.0	328.7	330.3	331.0	332.1
12.5°	315.9	315.6	315.9	316.9	317.7	318.2	319.0	320.7	322.2	323.8	325.6
15°	304.8	304.2	304.6	305.9	307.1	308.1	308.7	310.8	313.0	315.5	317.7
17.5°	292.5	291.6	292.6	293.7	295.4	296.1	297.0	299.4	302.3	305.1	307.6
20°	279.0	278.8	279.4	280.8	282.5	283.6	284.3	287.0	289.5	293.3	296.1
22.5°	265.0	265.4	265.8	267.4	268.5	269.9	271.1	273.5	276.4	280.0	283.6
25°	250.7	251.1	251.9	253.0	254.9	255.7	257.1	259.6	262.1	265.5	269.4
27.5°	236.8	236.9	238.0	238.5	240.3	242.0	242.6	245.3	248.1	250.7	254.1
30°	222.5	222.9	223.6	225.0	226.8	227.5	228.2	230.7	232.8	236.1	238.7
32.5°	209.0	208.7	209.5	210.3	212.3	213.4	213.9	216.7	218.6	221.8	224.3
35°	195.2	194.6	195.8	196.5	198.3	199.4	199.9	202.0	203.8	206.6	209.3
37.5°	181.5	182.0	182.5	183.2	184.0	184.3	185.8	186.4	188.7	190.7	192.3
40°	168.8	168.5	168.3	168.9	170.1	170.6	170.7	172.1	172.6	174.7	175.9
42.5°	155.2	155.3	155.2	155.3	156.0	156.0	156.3	157.3	157.6	158.2	159.7
45°	141.9	141.9	141.6	141.7	141.8	141.7	141.8	142.3	143.0	143.0	144.0
47.5°	128.2	128.0	128.5	128.1	127.9	127.8	128.1	127.8	128.5	128.5	128.7
50°	114.0	114.0	114.6	114.5	114.8	114.2	114.3	114.3	114.5	114.3	114.9
52.5°	102.9	102.7	102.4	101.7	102.1	101.5	101.5	101.6	101.3	101.1	100.5
55°	91.2	91.4	91.0	90.7	90.7	90.2	90.1	89.4	88.8	88.4	88.1
57.5°	80.5	80.7	80.6	80.0	79.2	79.3	79.1	78.3	77.1	76.4	75.7
60°	70.2	70.4	70.2	69.6	69.3	68.7	68.6	67.7	66.7	65.7	64.9
62.5°	60.9	60.9	60.8	60.0	59.3	59.4	58.8	58.1	56.9	55.4	54.3
65°	52.2	52.1	51.5	51.1	50.6	49.9	49.5	48.4	47.5	46.3	44.8
67.5°	43.5	43.2	42.8	42.5	41.4	41.2	40.7	39.7	38.4	37.4	36.2
70°	35.0	34.9	34.4	34.4	33.5	33.1	32.4	31.4	30.2	29.0	28.0
72.5°	27.7	27.5	27.0	26.4	25.7	25.4	24.7	23.9	22.8	21.6	20.3
75°	20.6	20.4	20.3	19.7	19.0	18.4	18.1	17.2	16.2	15.2	14.1
77.5°	14.5	14.3	13.9	13.4	13.1	12.7	12.4	11.5	10.7	9.8	8.9
80°	9.0	8.8	8.5	8.4	7.9	7.8	7.3	7.0	6.1	5.6	5.0
82.5°	4.7	4.7	4.3	4.2	4.0	3.8	3.7	3.4	3.0	2.5	2.2
85°	1.7	1.7	1.6	1.4	1.4	1.3	1.3	1.2	0.8	0.8	0.6
87.5°	0.1	0.1	0.2	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°	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2
2.5°	343.1	343.0	343.1	343.1	343.2	343.2	343.2	343.1	343.2	343.1	343.1
5°	341.1	341.4	341.7	341.9	342.0	342.1	342.1	342.4	342.5	342.5	342.4
7.5°	337.8	338.5	339.4	339.9	340.1	340.3	340.8	341.1	341.3	341.2	341.1
10°	333.6	334.8	335.9	337.0	337.5	337.8	338.4	339.0	339.3	339.4	339.0
12.5°	327.5	329.3	331.0	332.7	333.5	334.0	335.3	336.1	336.6	336.6	336.3
15°	320.0	322.6	325.0	327.1	328.5	329.2	331.1	332.4	333.3	333.6	332.9
17.5°	310.8	313.8	316.8	319.6	320.9	322.0	324.7	326.5	328.2	328.5	327.7
20°	299.2	302.9	306.3	309.7	311.2	313.0	316.0	319.0	321.5	322.7	320.5
22.5°	286.1	290.2	293.3	297.5	299.4	301.4	305.3	309.0	313.6	316.0	312.1
25°	272.4	275.9	279.6	283.8	286.5	288.5	293.2	297.9	304.0	307.6	302.2
27.5°	257.9	260.9	265.5	269.9	272.0	274.6	280.1	285.2	291.0	294.2	290.2
30°	242.7	246.5	250.8	254.9	257.9	260.3	264.8	269.2	274.0	276.8	273.8
32.5°	227.7	231.4	235.0	239.6	241.1	243.4	247.4	251.1	254.8	257.2	253.7
35°	211.9	215.2	218.6	221.7	222.4	225.0	228.2	230.4	232.2	234.2	231.8
37.5°	194.7	197.2	198.9	202.3	203.6	203.9	206.6	208.0	209.9	210.4	210.3
40°	177.3	179.6	181.0	183.1	184.0	184.0	185.8	187.3	188.7	188.8	188.7
42.5°	161.0	162.1	163.3	164.6	164.3	165.8	166.6	167.2	168.3	168.3	168.5
45°	144.6	145.4	146.5	146.7	147.8	147.8	148.4	148.6	149.1	148.8	148.3
47.5°	129.2	129.7	129.8	130.9	131.1	130.3	131.0	131.1	131.0	131.0	130.8
50°	114.8	115.0	114.9	114.5	114.6	115.0	114.6	114.1	114.3	114.3	114.6
52.5°	100.6	100.2	99.8	99.8	99.3	99.3	98.7	98.5	98.4	97.8	98.5
55°	87.7	86.9	85.8	85.5	85.1	84.9	84.2	83.6	83.3	83.4	83.3
57.5°	75.2	74.0	73.3	73.1	72.7	71.9	71.0	70.3	70.2	69.9	69.9
60°	63.9	62.6	61.4	60.3	60.5	60.0	59.0	58.7	58.3	57.7	58.2
62.5°	53.6	52.2	51.0	49.8	49.1	48.7	48.0	47.4	47.0	46.6	47.1
65°	43.5	42.3	40.9	39.8	39.4	39.0	38.4	37.3	37.2	37.2	37.4
67.5°	34.4	33.1	31.8	31.1	30.6	30.0	29.8	29.3	28.9	28.7	28.8
70°	26.4	25.2	24.1	23.4	23.0	22.8	22.0	21.8	21.7	21.6	21.5
72.5°	19.2	18.2	17.3	16.8	16.3	15.9	15.7	15.2	15.1	15.1	15.1
75°	13.2	12.5	11.4	10.8	10.6	10.2	9.7	9.5	9.2	9.4	9.4
77.5°	7.9	7.2	6.6	6.0	5.9	5.5	5.2	4.9	4.4	4.4	4.7
80°	4.3	3.7	3.2	2.9	2.5	2.4	2.0	1.9	1.7	1.6	1.6
82.5°	1.9	1.6	1.3	1.2	1.1	0.8	0.7	0.6	0.6	0.5	0.6
85°	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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°	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2
2.5°	343.0	343.0	342.9	342.9	342.9	342.6	342.6	342.5	342.4	342.1	341.9
5°	342.0	341.9	341.7	341.5	341.4	341.1	340.7	340.3	340.0	339.5	339.3
7.5°	340.8	340.3	339.9	339.6	339.3	338.3	337.7	337.1	336.4	335.5	334.5
10°	338.5	337.8	337.1	336.5	335.9	334.7	333.5	332.4	331.0	329.8	328.3
12.5°	335.5	334.6	333.0	332.3	331.6	329.9	328.2	326.1	324.1	322.3	320.7
15°	331.7	330.0	328.2	327.1	326.1	323.3	320.8	318.5	315.9	313.7	311.1
17.5°	326.1	323.6	321.0	319.8	318.3	315.3	312.1	308.9	306.0	303.3	299.9
20°	317.5	314.9	311.5	309.7	308.4	304.3	301.4	297.8	294.7	291.4	287.7
22.5°	307.7	304.0	300.3	297.6	296.2	292.1	288.2	284.9	281.6	277.7	275.1
25°	296.5	291.9	287.4	284.8	282.6	278.3	274.5	271.1	266.9	263.7	260.9
27.5°	283.9	278.7	273.4	270.9	268.7	264.0	260.0	256.5	252.5	249.5	246.7
30°	269.0	264.2	259.1	257.1	254.7	249.8	245.1	242.0	237.5	234.5	231.4
32.5°	250.1	247.1	243.1	240.3	239.0	234.5	230.6	226.8	223.1	220.6	217.6
35°	229.6	227.0	223.6	222.1	220.4	217.6	214.4	211.1	208.1	205.9	203.1
37.5°	208.9	206.1	204.1	202.4	201.4	198.8	196.9	194.5	192.4	190.3	188.7
40°	187.3	186.5	184.3	183.5	183.3	180.4	178.8	176.8	175.6	174.3	173.5
42.5°	168.2	166.9	165.2	165.3	164.6	163.0	161.8	160.5	159.7	159.1	158.1
45°	149.2	148.3	147.4	148.2	146.8	146.4	145.4	145.3	144.7	143.5	143.1
47.5°	131.4	131.1	131.4	130.9	130.6	130.4	130.5	129.9	129.2	128.8	128.4
50°	114.9	115.0	115.3	115.6	114.8	115.2	115.0	114.9	114.9	114.5	114.8
52.5°	99.0	99.1	99.3	99.7	99.8	99.8	100.3	100.5	101.0	101.6	101.6
55°	84.0	84.8	85.4	86.0	85.6	86.4	86.7	87.9	88.3	88.3	88.8
57.5°	70.5	71.5	71.9	72.7	72.9	73.5	74.6	75.2	76.1	76.9	77.6
60°	58.4	58.8	59.9	60.9	60.7	62.3	63.0	64.1	65.3	65.7	66.7
62.5°	47.5	48.0	48.8	49.2	50.0	50.9	52.7	53.6	54.7	55.9	57.0
65°	37.8	38.3	39.0	39.8	40.2	41.4	42.2	44.0	44.9	46.3	47.5
67.5°	28.9	29.6	30.2	30.8	31.1	32.3	33.6	34.4	36.1	37.4	38.4
70°	21.6	22.2	23.0	22.8	23.4	24.2	25.3	26.4	27.7	29.0	30.0
72.5°	15.0	15.7	16.2	16.3	16.8	17.5	18.2	19.1	20.2	21.5	22.8
75°	9.5	9.6	10.2	10.4	10.7	11.4	12.1	13.0	13.9	14.9	15.8
77.5°	4.8	5.2	5.4	5.6	5.8	6.5	7.1	7.8	8.6	9.6	10.6
80°	1.8	1.9	2.3	2.4	2.6	3.1	3.6	4.0	4.7	5.4	5.9
82.5°	0.6	0.7	0.8	0.8	1.1	1.3	1.4	1.8	2.2	2.4	2.6
85°	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.6	0.7	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	343.2	343.2	343.2	343.2	343.2	343.2	343.2	343.2
2.5°	341.8	341.8	341.7	341.5	341.5	341.5	341.4	341.4
5°	338.8	338.3	338.2	337.9	337.8	337.7	337.3	337.3
7.5°	333.7	333.3	332.8	332.4	331.9	331.6	331.6	331.0
10°	327.0	326.1	325.5	325.0	324.4	323.6	323.3	322.9
12.5°	319.0	316.9	316.4	315.5	314.4	313.9	313.1	313.1
15°	308.9	306.8	305.7	305.1	303.9	302.9	302.5	301.5
17.5°	297.3	295.6	293.8	293.1	291.6	290.4	290.0	289.8
20°	285.5	282.8	281.6	280.5	278.8	277.7	277.0	275.9
22.5°	271.8	269.4	267.8	266.9	265.6	263.8	262.5	262.5
25°	257.4	255.3	254.4	252.8	251.1	250.4	248.9	248.6
27.5°	243.8	241.6	239.8	238.9	236.9	236.1	234.8	234.3
30°	229.5	227.0	225.7	225.5	223.2	222.3	221.3	220.7
32.5°	215.2	213.1	211.7	211.0	209.9	208.5	207.5	207.1
35°	201.2	199.7	198.5	197.7	196.0	195.2	194.5	193.9
37.5°	186.4	185.1	184.6	183.8	183.1	181.6	181.4	180.9
40°	172.1	170.5	170.5	170.0	169.2	169.0	168.7	168.7
42.5°	157.3	156.4	156.3	156.4	156.0	155.7	155.3	156.2
45°	142.5	142.9	142.3	142.4	142.0	142.6	142.6	143.1
47.5°	128.8	128.4	128.6	128.8	129.2	129.2	129.1	129.0
50°	114.3	114.9	115.4	114.8	115.0	115.2	114.5	114.6
52.5°	102.0	102.1	102.4	102.1	102.4	102.3	102.6	102.1
55°	89.9	89.9	90.3	90.5	90.6	91.0	91.2	91.5
57.5°	78.2	78.8	79.4	79.3	79.9	80.4	80.0	80.4
60°	68.0	68.5	69.2	69.5	69.8	70.1	70.1	70.3
62.5°	57.7	58.8	59.3	59.9	59.9	60.3	60.8	60.9
65°	48.5	49.7	50.0	50.4	50.7	51.2	51.8	51.7
67.5°	39.8	40.5	41.0	41.4	42.1	42.3	42.8	43.4
70°	31.2	32.3	32.6	33.1	33.7	34.3	34.8	35.0
72.5°	23.9	24.6	24.9	25.4	26.0	26.5	26.9	27.2
75°	16.7	18.0	18.1	18.5	19.0	19.7	20.0	19.9
77.5°	11.0	12.0	12.1	12.6	13.1	13.6	13.7	13.9
80°	6.6	7.1	7.2	7.4	7.8	8.0	8.4	8.6
82.5°	3.1	3.4	3.6	3.6	3.8	4.1	4.1	4.2
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)