

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: P843244

Luminaire Tested: **LD4C08DE010B35 EU4C08B35 4LBLWWH**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08DE010B35 EU4C08B35 4LBLWWH
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

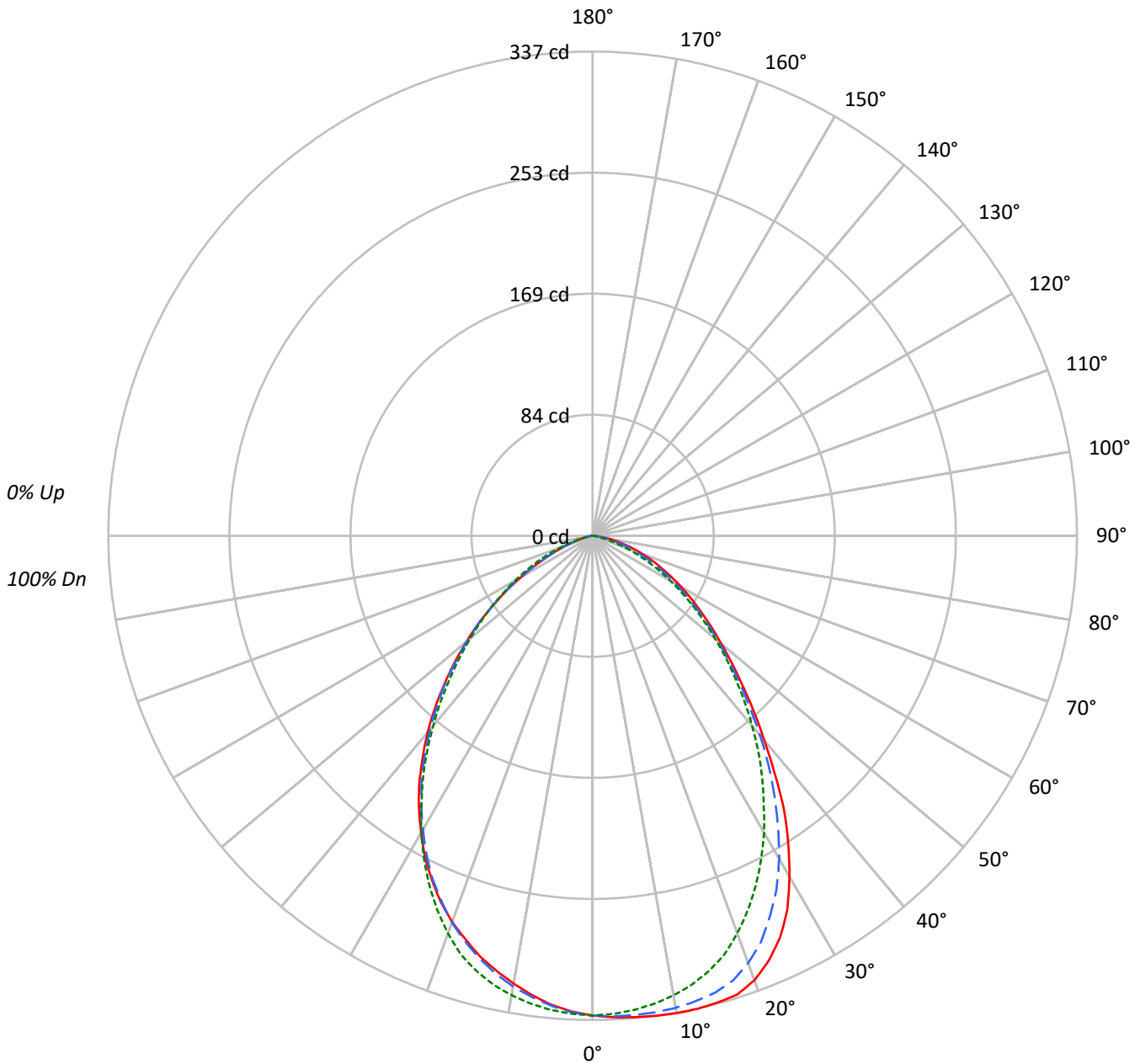
Lumens per Lamp: N/A
Luminaire Lumens: 629.3 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88				88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77				77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68				68
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60				60
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53				53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47				47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39				39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	47	41	37	35				35
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	41021	41021	41021
5°	41473	40857	40413
10°	42090	40506	39470
15°	42773	39860	38538
20°	43039	38489	37391
25°	41818	36410	35854
30°	38855	33848	33862
35°	34780	30850	31525
40°	29781	27664	28659
45°	25627	24376	25297
50°	22304	21234	21865
55°	19620	18249	18099
60°	17470	15258	14030
65°	15320	12209	10145
70°	13147	8621	6861
75°	10680	5031	4035
80°	7641	2193	2052
85°	2819	846	846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.5	5.0
10°-20°	89.1	14.2
20°-30°	127.2	20.2
30°-40°	133.1	21.1
40°-50°	111.5	17.7
50°-60°	78.0	12.4
60°-70°	42.5	6.8
70°-80°	14.8	2.3
80°-90°	1.7	0.3
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°	247.8	39.4
0°-40°	380.8	60.5
0°-60°	570.3	90.6
0°-90°	629.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	629.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	334	334	334	334	334	
5°	336	335	331	328	328	32
15°	336	329	313	304	303	95
25°	308	292	269	264	264	141
35°	232	220	206	207	210	144
45°	148	144	140	145	146	115
55°	92	88	85	85	84	83
65°	53	48	42	35	35	52
75°	22	18	11	8	8	24
85°	2	1	1	1	1	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°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	335.5	335.1	335.2	335.2	335.2	335.1	335.2	335.1	335.1	335.0	334.7
5°	336.3	336.1	336.1	336.1	336.0	335.8	335.8	335.7	335.5	335.4	334.8
7.5°	337.0	336.8	336.8	336.6	336.5	336.3	336.2	335.8	335.5	335.2	334.5
10°	337.4	337.0	337.0	336.8	336.5	336.3	336.1	335.6	335.1	334.4	333.6
12.5°	337.2	336.8	336.6	336.3	335.8	335.6	335.4	334.7	333.8	332.9	331.8
15°	336.3	336.1	335.8	335.5	334.8	334.4	334.2	333.2	332.0	330.7	329.2
17.5°	334.8	334.4	333.9	333.4	332.5	332.1	331.5	330.2	328.5	326.7	324.6
20°	329.2	329.0	328.5	327.7	326.2	325.6	324.8	323.1	321.0	318.8	316.4
22.5°	320.1	319.8	319.0	318.2	317.0	316.0	315.3	313.0	310.5	308.2	306.1
25°	308.5	308.1	307.0	306.1	304.8	303.2	302.5	300.7	298.3	295.3	292.0
27.5°	293.5	292.2	291.8	290.6	288.7	288.2	287.0	284.7	282.4	279.8	277.1
30°	273.9	273.9	273.2	272.7	270.9	270.3	269.1	266.6	265.4	261.8	259.6
32.5°	253.3	253.0	252.4	251.9	251.0	250.0	248.8	247.5	244.6	242.8	240.1
35°	231.9	230.4	230.7	229.9	229.3	228.2	228.1	226.7	224.1	223.1	220.5
37.5°	207.7	207.0	207.9	206.8	206.1	206.2	205.2	204.3	203.3	201.5	201.0
40°	185.7	186.2	186.1	185.1	185.6	185.0	183.9	183.0	182.5	181.4	181.0
42.5°	166.0	165.3	165.0	165.0	165.2	165.2	164.7	164.0	164.0	162.9	161.7
45°	147.5	147.5	147.3	148.1	146.9	146.9	146.6	146.4	145.8	145.6	144.3
47.5°	131.7	131.5	131.4	131.3	131.1	131.1	130.4	129.7	129.6	128.8	128.1
50°	116.7	117.4	117.1	116.4	116.2	116.3	115.8	115.5	115.3	114.0	114.2
52.5°	104.1	103.9	104.2	103.8	103.1	103.2	102.7	102.3	101.7	101.1	100.6
55°	91.6	92.2	91.9	91.6	91.5	91.2	90.9	90.1	90.0	88.6	88.5
57.5°	81.1	81.0	80.8	80.2	80.1	79.6	79.6	79.1	78.4	77.5	76.9
60°	71.1	71.1	70.6	70.5	70.0	69.9	69.7	69.3	68.3	67.7	66.6
62.5°	61.2	61.6	61.2	60.9	60.5	60.0	59.8	59.3	58.6	58.0	57.0
65°	52.7	52.6	52.4	51.9	51.7	51.3	51.1	50.3	49.6	49.1	48.0
67.5°	44.4	44.1	44.1	43.8	43.6	43.2	42.9	42.1	41.2	40.7	39.7
70°	36.6	36.4	36.4	36.4	35.7	35.3	35.2	34.8	33.5	33.0	31.9
72.5°	29.4	29.3	29.2	28.8	28.3	28.3	27.9	27.1	26.4	25.8	25.1
75°	22.5	22.7	22.5	22.0	21.8	21.6	21.2	20.5	19.9	19.1	18.2
77.5°	16.4	16.2	16.0	16.0	15.7	15.1	15.0	14.5	13.7	13.2	12.4
80°	10.8	10.7	10.4	10.2	10.0	9.9	9.7	9.2	8.5	8.1	7.3
82.5°	5.9	5.8	5.8	5.6	5.3	5.3	5.2	4.7	4.2	4.0	3.6
85°	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.7	1.6	1.4	1.2
87.5°	0.2	0.1	0.2	0.1	0.2	0.1	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	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°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	334.4	334.2	334.0	333.9	333.8	333.7	333.6	333.3	333.2	333.0	332.7
5°	334.4	333.9	333.7	333.3	333.0	332.7	332.4	332.0	331.6	331.3	330.8
7.5°	333.9	333.2	332.6	331.9	331.6	331.3	330.4	330.0	329.2	328.5	327.7
10°	332.6	331.8	330.7	329.7	329.2	328.6	327.7	326.7	325.6	324.7	323.7
12.5°	330.6	329.1	327.9	326.5	325.6	325.0	323.6	322.4	321.1	319.9	318.3
15°	327.4	325.9	324.2	322.3	321.3	320.6	318.5	317.0	314.9	313.4	311.8
17.5°	322.5	319.9	317.8	315.4	314.1	313.3	311.5	309.0	307.0	305.4	303.6
20°	313.9	311.5	308.6	305.9	304.5	303.3	300.8	298.3	296.2	294.4	292.5
22.5°	302.6	299.5	297.4	294.1	293.0	291.5	288.4	286.1	284.0	282.2	280.4
25°	288.8	286.1	283.3	280.3	278.8	277.1	274.6	272.1	270.8	268.6	266.5
27.5°	273.1	270.9	267.4	264.7	263.2	262.0	259.5	257.3	255.3	253.9	251.8
30°	256.4	253.7	250.7	247.9	247.1	245.6	243.4	241.7	239.6	238.6	237.8
32.5°	238.0	235.0	232.7	230.9	229.4	228.1	227.0	224.2	223.9	221.6	221.3
35°	218.0	216.7	214.5	212.9	211.6	210.8	208.8	207.5	206.1	205.7	204.9
37.5°	199.0	197.6	195.5	194.1	193.1	193.0	191.6	190.8	189.8	189.3	188.3
40°	179.3	178.6	176.8	176.6	175.1	175.0	174.3	173.3	172.5	172.5	172.6
42.5°	161.1	160.2	159.5	158.6	157.8	157.8	157.5	157.2	157.0	156.5	157.2
45°	143.9	143.0	142.5	141.5	141.9	141.2	140.9	140.9	140.5	140.3	141.3
47.5°	128.1	126.9	126.4	126.1	126.1	126.3	125.1	125.4	125.3	125.6	126.0
50°	113.5	112.5	111.7	111.7	111.9	111.4	110.8	111.3	110.8	111.1	112.0
52.5°	100.1	99.0	98.7	98.7	97.8	97.7	98.0	97.5	97.6	97.7	98.3
55°	87.6	86.9	86.3	85.7	85.8	85.6	85.0	84.9	85.1	85.2	85.9
57.5°	76.5	75.5	74.7	74.4	74.1	74.1	73.5	73.3	73.6	73.0	73.0
60°	65.8	65.3	64.1	63.7	63.7	63.0	62.5	62.8	62.2	62.1	62.2
62.5°	55.8	55.5	54.7	53.9	53.7	53.4	52.8	52.6	52.2	51.7	51.0
65°	47.3	46.3	45.5	44.9	44.5	43.9	43.6	43.0	42.3	42.0	41.2
67.5°	38.7	37.8	36.9	36.5	36.1	35.7	35.1	34.4	33.5	32.5	31.6
70°	31.1	29.9	29.4	28.3	28.1	27.6	26.8	26.1	25.2	24.0	23.2
72.5°	23.8	23.0	22.2	21.4	20.7	20.3	19.6	18.5	17.5	16.8	16.0
75°	17.1	16.7	15.7	14.6	14.4	13.9	13.0	12.4	11.5	10.6	9.7
77.5°	11.5	10.8	10.2	9.2	9.0	8.5	7.9	7.3	6.8	6.1	5.6
80°	6.8	6.1	5.8	5.2	4.9	4.7	4.2	3.7	3.4	3.1	3.0
82.5°	3.4	2.9	2.7	2.3	2.2	2.0	1.8	1.7	1.4	1.4	1.4
85°	1.2	1.0	1.0	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
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°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	332.6	332.5	332.4	332.2	332.2	332.1	332.1	332.0	332.0	331.9	331.9
5°	330.3	330.0	329.7	329.5	329.5	329.0	328.8	328.5	328.4	328.4	328.2
7.5°	327.1	326.6	326.1	325.6	325.5	324.9	324.4	324.4	323.8	323.6	323.4
10°	322.9	321.9	321.2	320.8	320.3	319.9	319.3	318.9	318.5	317.8	317.7
12.5°	317.1	316.4	315.3	314.8	314.5	313.8	312.7	312.2	312.1	311.6	311.2
15°	310.5	309.1	308.1	307.5	307.5	306.2	305.7	304.9	304.4	304.0	303.9
17.5°	302.1	300.7	299.6	298.7	298.5	297.4	296.7	296.5	295.8	296.0	295.4
20°	291.2	290.0	289.3	288.1	288.1	287.5	287.1	286.5	286.3	286.0	286.3
22.5°	279.4	278.1	276.8	276.7	276.7	275.7	275.6	275.5	275.0	275.3	275.2
25°	265.7	264.7	263.9	263.8	263.8	263.2	262.7	263.0	263.5	263.2	263.7
27.5°	251.5	250.4	250.1	250.0	249.8	249.7	249.9	249.9	250.3	250.9	251.3
30°	236.1	235.7	235.4	235.3	235.0	235.6	236.0	236.3	236.2	236.9	237.4
32.5°	220.6	220.1	220.0	220.3	220.6	220.5	221.3	221.6	221.8	222.7	223.1
35°	205.1	205.0	204.8	204.8	204.9	205.9	205.9	206.8	207.3	207.5	208.6
37.5°	188.4	188.9	189.2	189.5	189.7	190.1	190.4	191.2	191.7	192.3	192.8
40°	173.1	172.8	174.0	173.2	173.6	174.6	175.1	175.0	175.8	176.6	177.2
42.5°	156.8	157.2	157.5	157.7	158.3	158.4	159.2	160.0	160.2	161.2	161.4
45°	141.0	141.2	141.6	142.1	142.6	143.6	143.8	144.3	145.0	145.0	145.4
47.5°	126.1	126.6	126.6	127.4	128.1	127.9	128.8	129.0	128.9	129.6	129.9
50°	111.9	112.6	112.5	113.1	113.3	113.4	114.2	114.4	113.9	114.5	114.6
52.5°	98.3	98.7	99.1	99.3	99.0	99.6	99.4	99.9	99.8	100.3	99.8
55°	85.8	85.7	85.7	85.9	85.7	85.9	86.2	85.7	85.2	85.8	85.7
57.5°	73.3	73.3	73.1	73.5	73.1	72.7	72.6	72.1	71.8	71.8	71.7
60°	61.7	61.3	60.9	60.7	60.7	60.1	59.9	59.3	59.3	58.8	58.3
62.5°	50.8	50.1	49.7	49.7	49.5	48.8	47.7	46.9	46.6	45.9	45.7
65°	40.5	39.8	39.4	38.7	38.0	37.8	36.6	35.7	35.3	34.6	34.7
67.5°	31.1	30.0	28.9	28.3	28.0	27.1	26.8	26.1	25.7	25.7	25.7
70°	22.3	21.5	20.3	19.9	19.7	18.9	18.5	18.4	18.7	18.6	18.7
72.5°	15.0	14.2	13.6	13.3	13.1	12.7	13.0	13.1	12.8	13.0	13.1
75°	9.1	8.9	8.5	8.4	8.4	8.5	8.4	8.4	8.5	8.5	8.6
77.5°	5.3	5.0	5.0	4.9	5.2	5.0	5.0	5.0	5.2	5.2	5.2
80°	2.9	2.9	2.9	2.9	3.0	2.9	3.0	3.0	3.0	3.0	3.0
82.5°	1.4	1.4	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.4
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.2	0.2	0.2	0.2	0.2	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	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	331.6	331.6	331.6	331.4	331.5	331.5	331.4	331.4
5°	328.0	327.9	327.7	327.7	327.3	327.7	327.4	327.7
7.5°	323.1	323.1	322.8	322.8	322.6	322.5	322.4	322.5
10°	317.4	317.4	317.1	317.0	317.1	316.5	316.5	316.4
12.5°	310.9	310.6	310.4	310.5	310.4	310.0	309.9	310.0
15°	303.4	303.1	303.2	302.8	302.8	302.7	303.0	303.0
17.5°	295.3	295.0	294.8	294.9	294.7	294.8	294.7	294.4
20°	286.1	286.0	286.0	285.5	285.7	285.5	285.7	286.0
22.5°	275.6	275.5	275.6	275.2	275.5	275.5	275.8	275.8
25°	264.1	263.9	264.2	264.3	264.4	264.8	264.4	264.5
27.5°	251.2	251.6	251.9	252.1	252.7	252.2	251.9	252.4
30°	238.3	238.3	238.1	238.6	239.0	239.3	238.7	238.7
32.5°	223.4	224.0	224.0	224.1	224.5	224.5	224.5	225.0
35°	209.1	209.5	209.6	209.1	209.3	209.2	210.2	210.2
37.5°	193.1	193.1	193.3	194.2	194.2	193.8	194.1	194.1
40°	178.0	178.1	177.6	177.9	178.5	178.2	178.5	178.7
42.5°	161.4	162.3	161.8	162.0	161.9	162.0	162.2	162.2
45°	145.6	145.8	145.8	146.1	146.3	146.6	145.7	145.6
47.5°	130.2	130.4	130.7	130.1	130.8	130.1	130.8	130.0
50°	114.6	115.2	114.9	115.1	114.6	114.6	114.5	114.4
52.5°	99.9	99.8	99.8	99.6	99.6	99.9	99.6	100.1
55°	85.1	85.2	85.0	84.9	84.7	85.1	84.7	84.5
57.5°	71.2	71.4	70.9	71.2	70.2	70.6	70.8	70.9
60°	58.2	57.7	57.7	57.3	57.3	57.6	57.1	57.1
62.5°	45.1	45.4	44.9	45.5	45.5	46.0	45.7	46.0
65°	34.6	34.7	34.8	34.8	34.8	35.5	35.3	34.9
67.5°	26.1	26.2	26.3	26.2	26.5	26.3	26.3	26.4
70°	18.9	19.0	19.1	19.1	19.0	19.1	19.1	19.1
72.5°	13.1	13.2	13.1	13.2	13.3	13.2	13.2	13.3
75°	8.6	8.6	8.5	8.5	8.5	8.5	8.6	8.5
77.5°	5.0	5.2	5.0	5.2	5.2	5.2	5.2	5.2
80°	3.0	3.0	3.0	2.9	3.0	3.0	3.0	2.9
82.5°	1.6	1.6	1.4	1.4	1.6	1.6	1.6	1.6
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.1	0.1	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)