

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: P843257

Luminaire Tested: **LD4C08DE010B40 EU4C08B40 4LBLDWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843257
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: LD4C08DE010B40 EU4C08B40 4LBDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

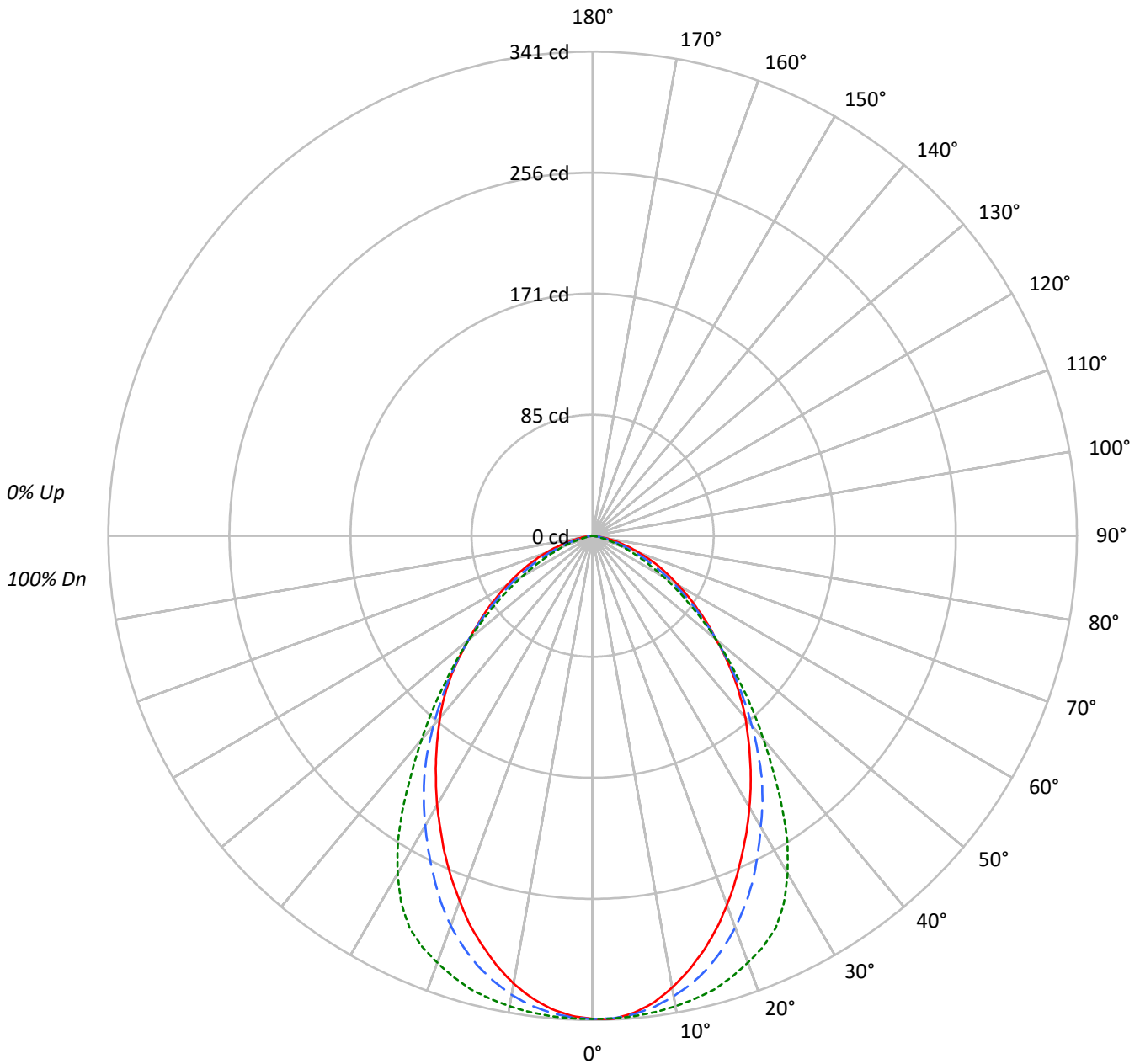
Lumens per Lamp: N/A
Luminaire Lumens: 625.0 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.6
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	93	92	90	88				88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77				77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67				67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	41807	41807	41807
5°	41572	41880	41251
10°	40294	41978	39957
15°	38449	42074	38029
20°	36175	41823	35770
25°	33685	41330	33414
30°	31308	38940	31053
35°	29020	34825	28825
40°	26847	30022	26815
45°	24463	25627	24654
50°	21616	21674	21731
55°	19341	17713	19427
60°	17101	14079	17126
65°	15058	10727	14913
70°	12500	7687	12500
75°	9731	4414	9398
80°	6297	1061	6084
85°	2396	282	1832



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.9	5.1
10°-20°	88.4	14.1
20°-30°	123.6	19.8
30°-40°	130.3	20.9
40°-50°	110.9	17.7
50°-60°	78.2	12.5
60°-70°	44.4	7.1
70°-80°	15.8	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°	243.9	39.0
0°-40°	374.2	59.9
0°-60°	563.4	90.1
0°-90°	625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	625.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	340	340	340	340	340	
5°	337	338	340	337	334	32
15°	302	315	331	313	299	85
25°	248	267	305	265	246	114
35°	194	208	232	206	192	121
45°	141	143	148	143	142	108
55°	90	87	83	88	91	81
65°	52	44	37	44	51	51
75°	20	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°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	340.6	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	340.1	340.1
5°	337.1	336.8	336.6	336.6	336.6	336.6	336.8	337.3	337.5	337.9	338.2
7.5°	331.5	330.9	331.1	331.1	331.5	331.7	332.1	332.6	333.4	333.9	334.5
10°	323.0	322.5	323.1	323.4	324.2	324.6	325.2	326.0	327.4	328.3	329.2
12.5°	313.3	313.0	313.3	314.2	315.0	315.5	316.3	317.9	319.5	321.1	322.9
15°	302.3	301.6	302.1	303.3	304.6	305.4	306.1	308.3	310.3	312.8	315.0
17.5°	290.1	289.2	290.2	291.2	292.9	293.6	294.6	297.0	299.7	302.6	304.9
20°	276.7	276.5	277.1	278.5	280.2	281.1	282.0	284.6	287.0	290.8	293.6
22.5°	262.8	263.0	263.6	265.1	266.3	267.7	268.9	271.2	274.0	277.6	281.1
25°	248.5	249.0	249.8	250.9	252.8	253.5	254.9	257.5	259.9	263.2	267.2
27.5°	234.8	235.0	236.0	236.5	238.3	239.9	240.5	243.3	246.0	248.5	252.0
30°	220.7	221.0	221.7	223.2	224.9	225.5	226.3	228.8	230.9	234.1	236.7
32.5°	207.2	207.0	207.7	208.5	210.5	211.6	212.1	214.8	216.7	220.0	222.5
35°	193.5	192.9	194.1	194.8	196.6	197.7	198.2	200.3	202.1	204.8	207.6
37.5°	180.0	180.4	181.0	181.6	182.5	182.8	184.3	184.8	187.1	189.1	190.7
40°	167.4	167.1	166.9	167.5	168.7	169.1	169.3	170.7	171.2	173.2	174.4
42.5°	153.9	154.0	153.9	154.0	154.6	154.6	155.0	155.9	156.3	157.0	158.3
45°	140.8	140.8	140.3	140.6	140.7	140.6	140.7	141.0	141.8	141.8	142.8
47.5°	127.1	126.9	127.4	127.0	126.8	126.6	127.0	126.6	127.4	127.4	127.7
50°	113.1	113.1	113.7	113.5	113.8	113.3	113.4	113.4	113.5	113.4	113.9
52.5°	102.1	101.9	101.5	100.9	101.2	100.7	100.7	100.8	100.5	100.3	99.6
55°	90.3	90.6	90.2	90.0	90.0	89.5	89.4	88.6	88.1	87.7	87.4
57.5°	79.9	80.1	80.0	79.3	78.6	78.7	78.4	77.6	76.5	75.7	75.1
60°	69.6	69.9	69.6	69.0	68.7	68.2	68.1	67.1	66.2	65.2	64.4
62.5°	60.5	60.5	60.3	59.4	58.8	58.9	58.3	57.5	56.4	55.0	53.8
65°	51.8	51.7	51.1	50.7	50.1	49.5	49.2	48.0	47.1	45.9	44.4
67.5°	43.2	42.7	42.5	42.1	41.0	40.8	40.3	39.3	38.1	37.1	35.9
70°	34.8	34.6	34.2	34.2	33.2	32.8	32.0	31.2	30.0	28.8	27.7
72.5°	27.5	27.3	26.8	26.2	25.5	25.2	24.5	23.7	22.6	21.4	20.1
75°	20.5	20.2	20.1	19.5	18.8	18.2	18.0	17.0	16.1	15.1	14.0
77.5°	14.4	14.2	13.7	13.3	13.0	12.6	12.3	11.4	10.6	9.8	8.8
80°	8.9	8.7	8.4	8.2	7.9	7.7	7.3	6.9	6.1	5.6	5.0
82.5°	4.5	4.5	4.3	4.2	3.9	3.8	3.7	3.3	3.0	2.5	2.1
85°	1.7	1.7	1.5	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°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	340.2	340.1	340.2	340.2	340.3	340.3	340.3	340.2	340.3	340.2	340.2
5°	338.2	338.5	338.9	339.1	339.2	339.3	339.3	339.5	339.6	339.6	339.5
7.5°	335.0	335.8	336.5	337.1	337.3	337.5	337.9	338.2	338.4	338.3	338.2
10°	330.8	332.1	333.0	334.1	334.6	335.0	335.6	336.1	336.4	336.5	336.1
12.5°	324.8	326.6	328.3	329.9	330.6	331.1	332.4	333.4	333.9	333.9	333.5
15°	317.3	319.8	322.3	324.5	325.8	326.5	328.4	329.7	330.4	330.8	330.2
17.5°	308.3	311.2	314.1	317.0	318.2	319.3	322.0	323.8	325.4	325.8	324.9
20°	296.7	300.4	303.6	307.1	308.5	310.3	313.4	316.3	318.9	319.9	317.8
22.5°	283.7	287.8	290.8	295.1	297.0	298.9	302.8	306.5	310.9	313.4	309.6
25°	270.2	273.6	277.3	281.4	284.1	286.1	290.7	295.4	301.4	304.9	299.6
27.5°	255.7	258.8	263.2	267.7	269.7	272.2	277.7	282.8	288.5	291.7	287.8
30°	240.7	244.5	248.6	252.8	255.7	258.2	262.6	266.9	271.7	274.5	271.5
32.5°	225.8	229.5	233.0	237.5	239.1	241.4	245.3	249.0	252.7	255.1	251.6
35°	210.2	213.4	216.7	219.8	220.6	223.2	226.3	228.4	230.2	232.2	229.8
37.5°	193.1	195.7	197.2	200.6	201.9	202.2	204.8	206.3	208.2	208.6	208.5
40°	175.8	178.1	179.5	181.5	182.5	182.5	184.3	185.7	187.1	187.2	187.1
42.5°	159.6	160.8	161.9	163.2	162.9	164.5	165.2	165.8	166.9	166.9	167.1
45°	143.3	144.2	145.2	145.5	146.5	146.5	147.1	147.4	147.9	147.5	147.0
47.5°	128.2	128.5	128.7	129.8	130.1	129.1	130.0	130.1	130.0	130.0	129.7
50°	113.8	114.0	113.9	113.5	113.7	114.0	113.7	113.2	113.4	113.4	113.7
52.5°	99.7	99.3	99.0	99.0	98.5	98.5	97.8	97.6	97.5	97.0	97.6
55°	86.9	86.2	85.0	84.7	84.4	84.3	83.4	82.8	82.6	82.7	82.6
57.5°	74.6	73.4	72.7	72.4	72.0	71.3	70.3	69.7	69.6	69.4	69.4
60°	63.4	62.1	60.9	59.9	60.0	59.4	58.6	58.2	57.7	57.3	57.6
62.5°	53.2	51.8	50.6	49.4	48.7	48.2	47.6	47.0	46.5	46.2	46.7
65°	43.2	42.0	40.6	39.4	39.0	38.7	38.1	37.0	36.9	36.9	37.1
67.5°	34.2	32.8	31.5	30.8	30.2	29.8	29.5	29.0	28.7	28.3	28.6
70°	26.2	25.0	23.9	23.2	22.7	22.6	21.8	21.7	21.5	21.4	21.3
72.5°	19.1	18.1	17.1	16.7	16.2	15.8	15.5	15.1	15.0	15.0	15.0
75°	13.1	12.4	11.3	10.7	10.5	10.0	9.6	9.4	9.2	9.3	9.3
77.5°	7.9	7.1	6.5	6.0	5.8	5.5	5.1	4.9	4.4	4.4	4.5
80°	4.3	3.7	3.2	2.7	2.5	2.4	2.0	1.9	1.7	1.5	1.5
82.5°	1.9	1.5	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°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	340.1	340.1	339.9	339.9	339.9	339.7	339.7	339.6	339.5	339.3	339.1
5°	339.2	339.1	338.9	338.7	338.5	338.2	337.8	337.5	337.2	336.6	336.4
7.5°	337.9	337.5	337.1	336.8	336.4	335.5	334.8	334.2	333.6	332.7	331.7
10°	335.8	335.0	334.2	333.7	333.0	332.0	330.6	329.7	328.3	327.0	325.5
12.5°	332.7	331.8	330.3	329.6	328.7	327.1	325.4	323.3	321.4	319.6	317.9
15°	328.9	327.2	325.4	324.5	323.3	320.6	318.0	315.8	313.3	311.1	308.4
17.5°	323.3	320.9	318.3	317.2	315.6	312.6	309.6	306.4	303.4	300.8	297.4
20°	314.9	312.2	308.9	307.1	305.9	301.7	298.9	295.3	292.2	288.9	285.2
22.5°	305.1	301.4	297.7	295.2	293.8	289.7	285.8	282.6	279.2	275.4	272.8
25°	294.0	289.5	284.9	282.4	280.3	275.9	272.1	268.9	264.7	261.4	258.8
27.5°	281.5	276.4	271.1	268.5	266.5	261.8	257.7	254.3	250.3	247.4	244.6
30°	266.6	262.0	257.0	254.9	252.6	247.7	242.9	239.9	235.6	232.6	229.5
32.5°	248.0	245.1	241.0	238.3	237.0	232.6	228.6	224.9	221.3	218.8	215.8
35°	227.7	225.1	221.7	220.2	218.5	215.8	212.6	209.4	206.5	204.1	201.4
37.5°	207.1	204.4	202.3	200.7	199.7	197.1	195.2	192.8	190.8	188.6	187.1
40°	185.7	185.0	182.8	182.0	181.7	179.0	177.3	175.4	174.1	172.8	172.0
42.5°	166.7	165.4	163.8	163.9	163.2	161.6	160.5	159.2	158.3	157.7	156.8
45°	148.1	147.0	146.3	146.9	145.6	145.1	144.2	144.0	143.4	142.3	141.9
47.5°	130.2	130.1	130.2	129.8	129.6	129.3	129.5	128.8	128.2	127.8	127.2
50°	113.9	114.0	114.3	114.6	113.8	114.1	114.0	113.9	113.9	113.5	113.8
52.5°	98.1	98.3	98.5	98.9	99.0	99.0	99.4	99.6	100.2	100.8	100.8
55°	83.2	84.1	84.6	85.2	84.9	85.7	86.1	87.1	87.6	87.6	88.1
57.5°	70.0	70.9	71.3	72.0	72.3	73.0	73.9	74.6	75.5	76.3	77.0
60°	58.0	58.3	59.3	60.5	60.2	61.8	62.5	63.6	64.6	65.2	66.2
62.5°	47.1	47.6	48.3	48.8	49.6	50.4	52.1	53.2	54.3	55.5	56.5
65°	37.4	38.0	38.7	39.4	39.9	41.0	41.9	43.7	44.5	45.9	47.1
67.5°	28.7	29.4	30.0	30.6	30.8	31.9	33.3	34.2	35.7	37.1	38.1
70°	21.4	22.0	22.7	22.6	23.2	24.0	25.1	26.2	27.5	28.8	29.8
72.5°	14.9	15.5	16.1	16.2	16.7	17.3	18.1	18.9	20.0	21.3	22.6
75°	9.4	9.5	10.0	10.3	10.6	11.3	12.0	12.9	13.7	14.8	15.7
77.5°	4.8	5.1	5.4	5.6	5.7	6.3	7.0	7.7	8.6	9.5	10.5
80°	1.8	1.9	2.3	2.4	2.6	3.1	3.6	3.9	4.5	5.4	5.8
82.5°	0.6	0.7	0.8	0.8	1.1	1.3	1.4	1.8	2.1	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°	340.3	340.3	340.3	340.3	340.3	340.3	340.3	340.3
2.5°	339.0	339.0	338.9	338.7	338.7	338.7	338.5	338.5
5°	335.9	335.5	335.4	335.2	335.0	334.8	334.5	334.5
7.5°	330.9	330.4	330.0	329.7	329.1	328.7	328.7	328.3
10°	324.3	323.3	322.8	322.3	321.6	320.9	320.6	320.3
12.5°	316.3	314.2	313.7	312.8	311.8	311.4	310.4	310.4
15°	306.4	304.2	303.0	302.6	301.3	300.4	299.9	299.0
17.5°	294.8	293.1	291.4	290.5	289.2	288.0	287.6	287.4
20°	283.0	280.4	279.2	278.1	276.5	275.4	274.7	273.6
22.5°	269.6	267.2	265.5	264.7	263.4	261.6	260.3	260.3
25°	255.3	253.2	252.2	250.7	249.0	248.3	246.7	246.5
27.5°	241.7	239.6	237.8	236.9	235.0	234.1	232.8	232.3
30°	227.6	225.1	223.8	223.6	221.4	220.4	219.5	218.9
32.5°	213.4	211.3	210.0	209.2	208.2	206.7	205.8	205.3
35°	199.5	198.1	196.9	196.0	194.4	193.5	192.8	192.2
37.5°	184.8	183.5	183.1	182.2	181.5	180.1	179.8	179.4
40°	170.7	169.0	169.0	168.5	167.7	167.6	167.2	167.2
42.5°	155.9	155.2	155.0	155.2	154.6	154.4	154.0	154.9
45°	141.3	141.6	141.0	141.2	140.9	141.4	141.4	141.9
47.5°	127.8	127.2	127.6	127.8	128.2	128.2	128.1	127.9
50°	113.4	113.9	114.4	113.8	114.0	114.1	113.5	113.7
52.5°	101.1	101.2	101.5	101.2	101.5	101.4	101.7	101.2
55°	89.1	89.1	89.6	89.7	89.9	90.2	90.3	90.7
57.5°	77.5	78.2	78.8	78.7	79.2	79.6	79.3	79.6
60°	67.5	68.0	68.6	68.9	69.3	69.5	69.5	69.7
62.5°	57.3	58.3	58.8	59.3	59.3	59.9	60.3	60.5
65°	48.1	49.3	49.6	50.0	50.2	50.8	51.4	51.3
67.5°	39.4	40.2	40.7	41.0	41.8	42.0	42.5	43.0
70°	30.9	31.9	32.4	32.8	33.5	34.0	34.5	34.8
72.5°	23.7	24.4	24.6	25.2	25.8	26.3	26.7	27.0
75°	16.5	17.8	18.0	18.3	18.8	19.5	19.9	19.8
77.5°	10.9	11.8	12.0	12.5	13.0	13.5	13.6	13.7
80°	6.5	7.0	7.1	7.4	7.7	8.0	8.2	8.6
82.5°	3.1	3.3	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)