

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: P879344

Luminaire Tested: **LD4C08D010 EU4089040 4LBDWWH**

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: P879344
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08D010 EU4089040 4LBDWWH
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

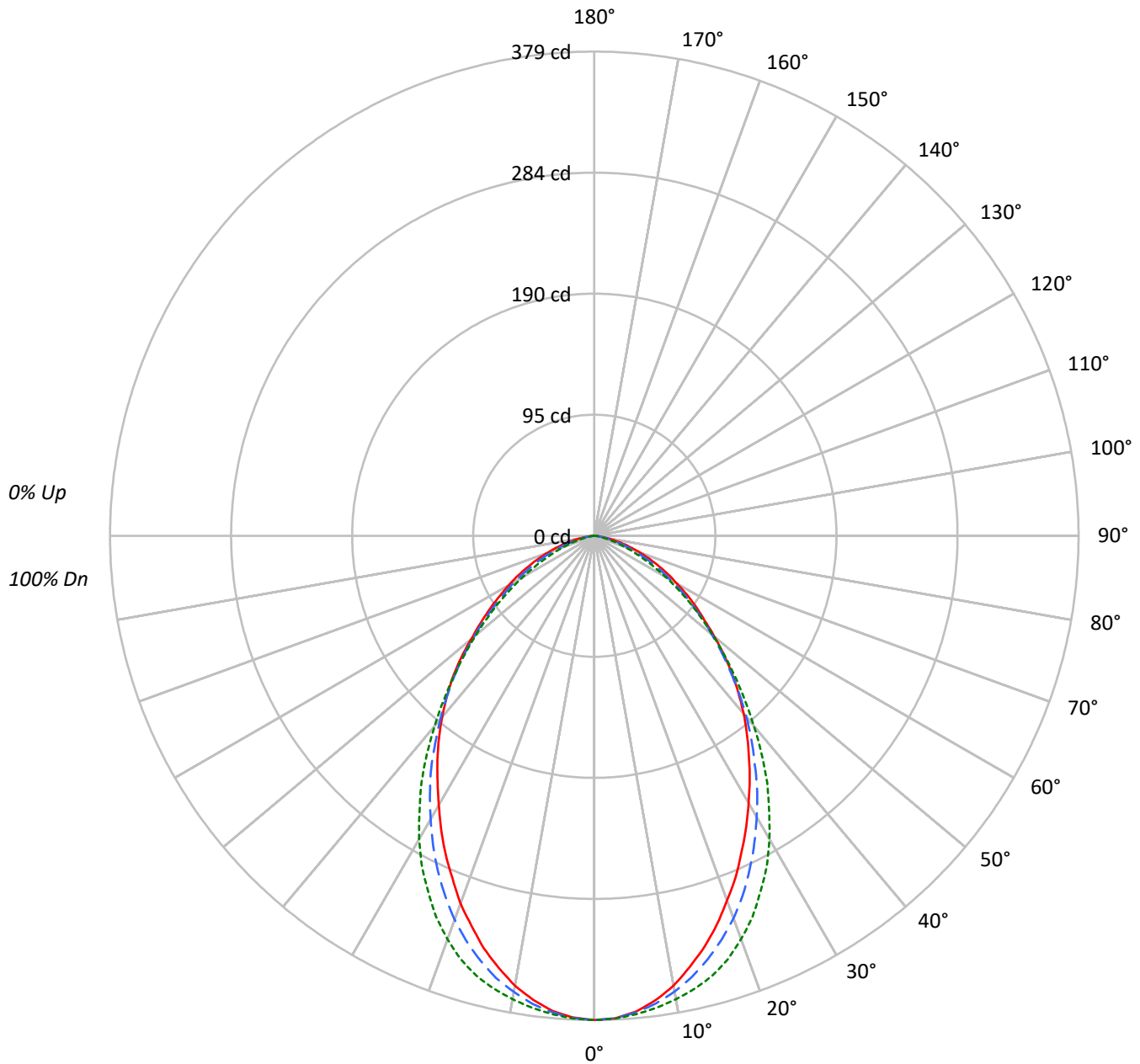
Lumens per Lamp: N/A
Luminaire Lumens: 678.0 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77		
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59		
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52		
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	44	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°	46574	46574	46574
5°	46098	46357	46049
10°	44598	45945	44610
15°	42366	45355	42506
20°	39705	43928	40045
25°	36979	41683	37318
30°	34259	38884	34514
35°	31615	35349	32095
40°	29156	31145	29685
45°	26409	26999	27208
50°	23413	23126	24005
55°	20862	19470	21355
60°	18256	15799	18944
65°	15988	12209	16541
70°	13434	8944	14152
75°	10490	5838	11107
80°	6863	3042	7570
85°	2396	1410	3101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	5.2
10°-20°	96.7	14.3
20°-30°	133.0	19.6
30°-40°	138.7	20.5
40°-50°	118.7	17.5
50°-60°	84.9	12.5
60°-70°	49.3	7.3
70°-80°	19.0	2.8
80°-90°	2.4	0.4
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°	265.0	39.1
0°-40°	403.8	59.6
0°-60°	607.3	89.6
0°-90°	678.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	678.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	379	379	379	379	379	
5°	374	374	376	374	373	35
15°	333	343	357	344	334	93
25°	273	288	308	290	275	126
35°	211	219	236	223	214	132
45°	152	151	155	154	157	117
55°	97	93	91	95	100	87
65°	55	49	42	50	57	55
75°	22	17	12	18	23	24
85°	2	1	1	1	2	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°	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1
2.5°	378.1	377.8	377.9	377.9	377.9	377.8	378.1	378.1	377.9	377.9	377.9
5°	373.8	373.5	373.6	373.8	373.8	373.8	373.9	374.0	374.2	374.3	374.5
7.5°	366.8	366.4	366.8	367.4	367.4	367.5	367.6	367.8	368.2	368.9	369.3
10°	357.5	357.5	357.6	358.0	358.7	358.6	359.0	359.7	360.5	361.5	362.2
12.5°	345.6	345.9	346.3	346.8	347.5	347.9	348.6	349.4	350.8	352.2	353.7
15°	333.1	333.3	333.4	334.4	335.1	336.0	336.6	338.3	339.5	341.5	343.1
17.5°	319.1	318.9	319.3	320.2	321.8	322.3	323.0	324.8	326.6	329.2	331.4
20°	303.7	304.6	305.1	306.3	307.2	308.3	308.9	311.1	313.2	315.7	318.6
22.5°	289.3	288.6	289.5	290.8	291.6	292.5	293.4	295.8	298.0	301.1	304.0
25°	272.8	273.3	274.0	274.9	276.0	277.2	278.3	280.8	282.0	285.2	287.9
27.5°	257.3	257.9	258.2	259.5	260.5	261.3	261.8	264.8	265.9	268.7	271.3
30°	241.5	242.2	242.2	243.6	244.3	245.1	246.5	248.5	250.2	252.1	254.1
32.5°	226.3	226.3	226.9	228.2	228.9	229.8	230.2	231.6	233.3	235.3	237.3
35°	210.8	211.2	211.7	211.7	213.0	213.5	214.1	215.5	216.6	217.4	219.1
37.5°	196.4	196.4	196.0	196.7	197.5	197.4	198.2	198.9	199.6	200.6	202.0
40°	181.8	181.8	181.2	181.7	182.2	182.1	181.8	182.5	183.1	183.8	185.1
42.5°	166.9	166.6	166.5	166.5	166.8	166.5	166.8	166.9	166.9	166.9	167.7
45°	152.0	152.7	151.9	151.6	151.2	150.8	150.6	150.8	151.3	150.6	150.8
47.5°	137.4	137.7	137.1	136.7	136.3	136.0	136.3	135.4	135.7	135.9	135.3
50°	122.5	121.9	121.9	121.5	121.7	121.5	121.2	121.0	121.0	120.3	119.9
52.5°	108.7	109.0	109.3	108.3	108.4	107.7	107.9	107.2	107.2	106.4	106.6
55°	97.4	97.0	97.0	96.6	96.5	95.8	95.6	95.2	94.2	93.7	92.6
57.5°	85.8	85.6	85.1	85.2	84.4	84.2	83.9	83.2	82.5	81.9	80.6
60°	74.3	74.5	74.5	74.2	73.8	73.1	73.2	72.2	71.3	70.0	68.9
62.5°	64.9	64.5	64.3	64.0	63.2	63.2	62.5	61.8	60.8	59.6	58.6
65°	55.0	55.1	54.7	54.3	53.5	53.3	52.8	52.2	51.2	50.0	48.6
67.5°	46.1	45.8	45.7	45.2	44.4	44.3	43.8	42.6	41.8	40.5	39.4
70°	37.4	37.2	37.3	36.6	35.8	35.4	35.2	34.2	33.0	32.0	30.9
72.5°	29.4	29.4	29.2	28.5	28.1	27.8	27.3	26.2	25.5	24.4	23.5
75°	22.1	22.0	21.7	21.3	20.7	20.5	20.2	19.5	18.5	17.3	16.6
77.5°	15.3	15.5	15.2	15.0	14.3	13.9	13.8	13.4	12.5	11.7	11.0
80°	9.7	9.6	9.5	9.2	9.0	8.9	8.5	8.2	7.4	7.0	6.5
82.5°	5.3	5.0	5.0	4.9	4.6	4.5	4.3	4.0	3.9	3.6	3.3
85°	1.7	1.8	1.7	1.7	1.7	1.5	1.5	1.5	1.4	1.4	1.3
87.5°	0.1	0.3	0.1	0.1	0.3	0.1	0.1	0.3	0.1	0.1	0.3
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°	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1
2.5°	377.9	378.1	378.1	378.2	378.2	378.2	378.2	378.2	378.2	378.2	378.2
5°	374.9	374.9	375.2	375.4	375.4	375.4	375.6	375.9	375.9	375.9	375.7
7.5°	369.9	370.4	371.0	371.5	371.7	371.8	372.1	372.7	372.7	372.7	372.7
10°	363.3	364.6	365.3	366.1	366.5	366.8	367.6	367.8	368.2	368.3	368.2
12.5°	355.0	356.6	358.2	359.6	360.1	360.7	361.5	362.4	362.8	363.2	363.0
15°	345.6	347.5	349.8	351.4	352.5	353.3	354.6	355.7	356.4	356.6	356.6
17.5°	334.4	336.6	339.1	341.6	342.3	343.7	345.1	346.6	347.5	347.6	347.5
20°	321.8	324.3	326.4	328.9	330.5	331.2	333.1	335.1	335.9	336.0	335.9
22.5°	306.9	309.3	312.1	314.7	316.0	317.3	319.3	321.3	322.4	323.2	322.4
25°	290.4	293.7	296.4	298.6	300.4	301.7	304.3	305.8	307.6	307.5	307.6
27.5°	274.1	276.9	279.8	282.4	283.6	285.0	287.0	289.5	291.1	292.1	291.9
30°	257.4	259.6	262.1	264.5	266.3	267.4	270.5	271.6	273.5	274.1	273.7
32.5°	239.7	241.2	243.7	247.0	247.6	248.8	250.7	253.5	254.2	254.5	254.6
35°	220.9	223.8	225.9	227.9	228.4	229.4	231.6	233.7	234.4	235.7	235.1
37.5°	203.5	205.2	206.2	208.1	209.8	210.6	211.7	213.1	214.5	215.1	214.9
40°	186.1	187.0	187.8	189.9	190.0	190.0	191.7	193.6	193.6	194.2	194.2
42.5°	168.3	168.4	169.6	170.7	170.9	171.2	172.9	173.2	174.0	174.4	175.0
45°	151.0	151.9	152.6	152.7	153.4	153.5	154.0	154.4	155.6	155.4	155.6
47.5°	135.3	135.7	136.1	136.1	136.6	136.4	137.1	136.7	137.5	137.8	138.2
50°	119.9	120.6	120.1	120.4	120.3	120.7	120.4	120.4	120.4	121.0	121.4
52.5°	105.7	105.8	105.4	105.5	105.5	105.2	105.5	105.4	105.2	105.2	105.4
55°	92.6	92.0	91.7	91.2	90.5	91.3	90.9	90.6	91.2	90.9	91.2
57.5°	79.9	79.2	78.7	78.4	77.4	78.0	77.4	77.1	77.1	77.1	77.8
60°	67.9	67.2	66.5	65.7	65.6	65.3	65.0	64.3	64.5	64.3	64.6
62.5°	57.5	56.1	55.1	54.4	54.3	53.9	53.5	52.8	52.9	52.9	53.0
65°	47.9	46.4	45.0	44.0	44.0	43.3	42.6	42.6	41.8	42.0	42.2
67.5°	38.3	37.0	35.6	34.9	34.5	34.0	33.5	33.3	32.9	32.9	33.1
70°	29.7	28.4	27.7	26.6	26.4	26.0	25.5	25.1	24.9	24.9	24.8
72.5°	22.4	21.3	20.5	19.8	19.3	18.9	18.4	18.2	18.0	18.0	18.2
75°	15.6	14.9	14.2	13.5	13.2	13.1	12.7	12.4	12.4	12.3	12.4
77.5°	10.4	9.7	9.0	8.8	8.5	8.2	8.1	7.9	7.5	7.5	7.5
80°	6.0	5.7	5.4	5.0	5.0	4.9	4.6	4.5	4.3	4.3	4.3
82.5°	3.1	2.9	2.6	2.5	2.5	2.5	2.4	2.4	2.2	2.2	2.2
85°	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1
87.5°	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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°	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1
2.5°	378.2	378.1	378.1	378.1	378.1	378.1	377.9	377.9	377.8	377.8	377.8
5°	375.9	375.7	375.6	375.4	375.3	375.2	375.0	374.9	374.5	374.3	374.0
7.5°	372.5	372.2	371.8	371.7	371.4	371.0	370.4	370.1	369.6	368.9	368.6
10°	368.1	367.5	367.1	366.4	366.3	365.7	364.3	363.6	362.6	361.8	360.8
12.5°	362.6	362.1	361.1	360.1	359.6	358.3	357.1	355.9	354.7	352.9	351.5
15°	355.9	355.1	353.2	352.9	352.1	350.1	348.4	346.3	344.4	342.4	340.8
17.5°	347.0	345.2	344.3	343.0	342.0	339.5	337.7	335.3	332.7	330.5	328.1
20°	335.3	333.4	331.7	331.0	329.8	327.6	325.3	322.4	319.8	317.0	314.9
22.5°	321.4	320.2	317.7	316.8	315.3	313.1	310.4	307.6	305.1	302.1	299.3
25°	306.5	304.7	302.8	301.1	300.0	297.9	294.6	292.5	289.7	286.3	284.3
27.5°	290.7	288.6	285.8	284.7	283.7	280.9	278.1	275.5	273.3	270.3	268.5
30°	272.3	270.8	268.9	267.6	266.2	263.9	261.4	258.4	256.0	254.6	252.1
32.5°	253.6	252.4	250.0	249.3	247.8	246.0	244.2	241.9	239.4	237.3	235.4
35°	233.7	232.5	230.8	229.6	229.0	227.7	225.8	223.8	222.6	220.2	219.2
37.5°	213.8	213.4	211.7	210.5	210.1	208.5	207.6	206.2	204.4	203.8	202.7
40°	193.4	193.1	192.1	192.0	191.1	190.7	189.3	188.2	187.4	187.0	186.3
42.5°	174.6	174.3	173.5	173.6	172.8	172.5	172.3	171.4	170.7	169.8	170.0
45°	156.0	155.8	155.2	154.9	155.4	155.2	154.9	154.5	154.5	154.7	154.2
47.5°	138.2	138.5	138.0	138.2	138.2	137.8	137.8	138.4	138.5	138.8	139.1
50°	121.4	122.2	121.9	122.4	122.5	122.6	122.2	122.9	122.8	124.0	123.8
52.5°	106.1	106.2	106.8	106.9	107.0	107.2	107.9	108.4	108.6	109.1	110.1
55°	91.3	91.5	92.6	92.6	93.3	93.4	94.4	94.7	95.1	96.6	96.9
57.5°	77.4	78.2	78.8	79.1	79.5	80.2	80.7	82.0	82.7	83.7	84.6
60°	64.9	65.8	66.5	66.8	67.4	68.2	68.9	70.3	71.6	72.7	73.4
62.5°	53.3	54.2	54.7	55.7	55.7	56.4	58.0	58.9	60.3	61.3	62.5
65°	43.0	43.6	44.5	44.5	45.1	46.2	47.6	48.9	50.3	51.6	52.9
67.5°	33.7	34.1	34.7	35.2	35.5	36.9	38.0	39.8	41.1	42.0	43.6
70°	25.5	25.8	26.4	27.0	27.4	28.4	29.7	30.9	32.2	33.3	34.8
72.5°	18.2	18.8	19.5	19.9	20.2	20.9	22.1	23.4	24.5	25.6	26.4
75°	12.5	12.9	13.2	13.6	14.1	14.6	15.5	16.3	17.5	18.7	19.6
77.5°	7.8	8.2	8.6	8.8	8.9	9.5	10.0	10.9	11.7	12.5	13.2
80°	4.6	4.7	4.9	5.0	5.3	5.7	6.0	6.5	7.1	7.7	8.4
82.5°	2.4	2.5	2.6	2.6	2.6	2.8	3.2	3.5	3.6	3.9	4.3
85°	1.0	1.0	1.0	1.1	1.1	1.3	1.3	1.4	1.4	1.5	1.7
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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°	379.1	379.1	379.1	379.1	379.1	379.1	379.1	379.1
2.5°	377.7	377.7	377.7	377.5	377.7	377.7	377.7	377.5
5°	374.0	373.8	373.8	373.6	373.5	373.5	373.6	373.4
7.5°	368.1	367.6	367.4	367.4	367.2	367.1	367.1	366.4
10°	360.3	359.4	359.4	359.2	358.0	357.9	357.6	357.6
12.5°	350.5	349.5	349.0	348.3	347.6	347.0	346.9	346.3
15°	339.0	337.7	336.7	336.5	335.3	334.5	334.5	334.2
17.5°	326.4	324.5	323.8	323.1	321.6	321.4	321.1	319.9
20°	312.2	310.4	309.5	308.8	307.8	306.4	306.1	306.3
22.5°	297.3	294.8	294.0	293.3	292.3	291.1	291.1	290.1
25°	281.9	279.7	278.8	278.0	276.5	275.9	275.2	275.3
27.5°	266.2	264.1	263.4	261.8	260.9	260.2	259.5	259.5
30°	249.7	248.6	247.5	247.4	245.4	244.6	243.9	243.3
32.5°	233.9	232.5	231.9	231.4	230.4	229.3	229.1	228.2
35°	218.3	216.9	216.2	215.6	214.5	214.1	213.7	214.0
37.5°	201.8	201.6	201.2	200.5	199.8	199.6	199.1	199.8
40°	185.7	185.6	185.0	185.1	185.1	184.9	185.1	185.1
42.5°	170.1	170.1	169.6	169.8	170.0	170.2	170.7	170.9
45°	154.9	154.8	154.9	155.2	154.9	155.6	156.2	156.6
47.5°	139.3	139.5	140.0	140.2	140.5	141.4	141.4	141.4
50°	124.5	125.1	124.9	125.7	125.6	126.1	125.6	125.6
52.5°	110.3	110.9	111.1	111.2	112.1	112.2	112.2	112.1
55°	97.6	98.6	98.1	98.8	99.3	99.5	99.9	99.7
57.5°	85.9	86.3	86.7	86.9	87.4	87.7	88.0	87.7
60°	74.3	75.2	75.9	76.0	76.3	76.6	76.7	77.1
62.5°	63.5	64.9	65.1	65.3	66.0	66.4	66.7	67.0
65°	53.9	54.8	55.5	56.0	56.5	56.5	56.9	56.9
67.5°	44.5	45.5	45.9	46.2	47.1	47.2	47.9	47.9
70°	36.1	36.8	37.0	37.4	38.3	38.8	39.1	39.4
72.5°	27.8	28.7	29.1	29.7	30.2	30.6	30.8	31.2
75°	20.3	21.6	21.7	22.3	22.7	23.2	23.5	23.4
77.5°	14.2	14.6	15.2	15.5	15.9	16.3	16.7	16.7
80°	8.8	9.3	9.5	9.6	10.2	10.4	10.7	10.7
82.5°	4.6	4.9	5.2	5.3	5.6	5.6	5.7	5.8
85°	1.8	1.9	1.9	1.9	2.1	2.2	2.2	2.2
87.5°	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4
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)