

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: P879360

Luminaire Tested: **LD4C10D010 EU4109030 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: P879360
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: LD4C10D010 EU4109030 4LBLDWWH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

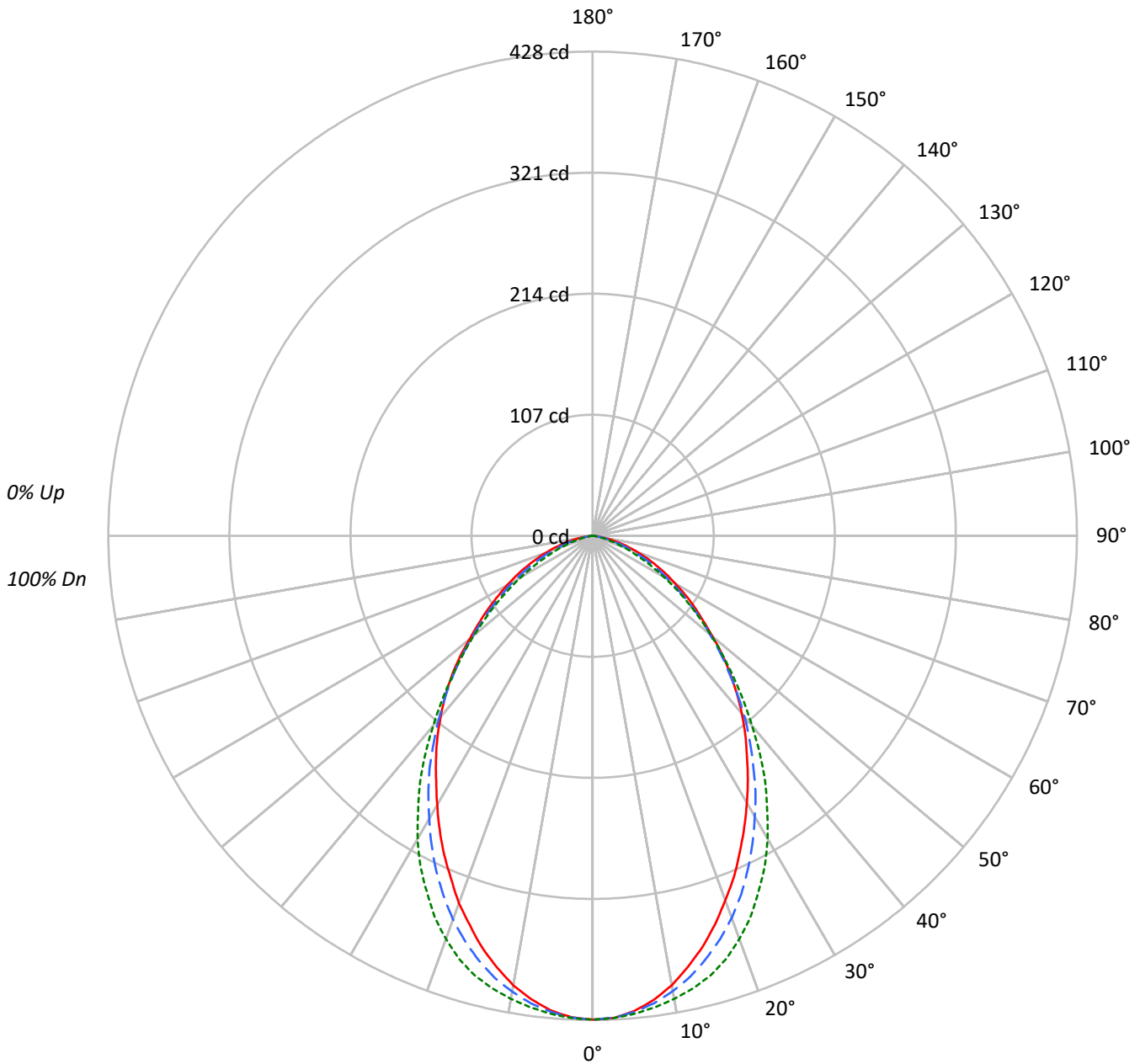
Lumens per Lamp: N/A
Luminaire Lumens: 765.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.75
Input Voltage (V): NR
Input Current (A_{in}): 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	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°	52544	52544	52544
5°	52005	52301	51956
10°	50324	51846	50336
15°	47810	51180	47962
20°	44804	49576	45183
25°	41737	47037	42117
30°	38657	43877	38954
35°	35664	39879	36204
40°	32893	35138	33502
45°	29797	30457	30700
50°	26414	26089	27083
55°	23539	21976	24096
60°	20615	17838	21377
65°	18023	13779	18663
70°	15194	10094	15984
75°	11867	6550	12531
80°	7782	3467	8561
85°	2678	1551	3524



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	5.2
10°-20°	109.1	14.3
20°-30°	150.0	19.6
30°-40°	156.5	20.5
40°-50°	133.9	17.5
50°-60°	95.8	12.5
60°-70°	55.6	7.3
70°-80°	21.4	2.8
80°-90°	2.7	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°	299.1	39.1
0°-40°	455.6	59.6
0°-60°	685.3	89.6
0°-90°	765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	765.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	428	428	428	428	428	
5°	422	422	424	422	421	40
15°	376	387	402	389	377	105
25°	308	325	347	327	311	142
35°	238	247	266	251	241	149
45°	172	170	175	174	177	132
55°	110	104	103	107	112	98
65°	62	55	47	57	64	62
75°	25	19	14	20	26	27
85°	2	1	1	2	2	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°	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
2.5°	426.6	426.3	426.4	426.4	426.4	426.3	426.6	426.6	426.4	426.4	426.4
5°	421.7	421.4	421.6	421.7	421.7	421.7	421.9	422.0	422.2	422.4	422.5
7.5°	413.9	413.4	413.9	414.5	414.5	414.7	414.8	415.0	415.4	416.2	416.7
10°	403.4	403.4	403.5	404.0	404.8	404.6	405.1	405.9	406.8	407.9	408.7
12.5°	390.0	390.3	390.8	391.3	392.0	392.5	393.3	394.2	395.8	397.4	399.1
15°	375.9	376.0	376.2	377.3	378.1	379.2	379.8	381.7	383.1	385.3	387.2
17.5°	360.0	359.8	360.3	361.3	363.1	363.6	364.4	366.4	368.5	371.5	374.0
20°	342.7	343.7	344.3	345.6	346.7	347.9	348.5	351.0	353.4	356.2	359.5
22.5°	326.4	325.6	326.7	328.1	329.1	330.0	331.1	333.8	336.3	339.7	343.0
25°	307.9	308.3	309.1	310.2	311.5	312.7	314.0	316.8	318.2	321.8	324.8
27.5°	290.3	291.0	291.4	292.8	293.9	294.8	295.4	298.7	300.0	303.1	306.1
30°	272.5	273.3	273.3	274.9	275.7	276.6	278.2	280.4	282.3	284.5	286.7
32.5°	255.4	255.4	256.0	257.4	258.2	259.3	259.8	261.4	263.2	265.4	267.8
35°	237.8	238.3	238.9	238.9	240.3	240.9	241.6	243.1	244.4	245.3	247.2
37.5°	221.6	221.6	221.2	221.9	222.9	222.7	223.7	224.5	225.2	226.3	227.9
40°	205.1	205.1	204.5	205.0	205.6	205.4	205.1	205.9	206.5	207.3	208.9
42.5°	188.3	188.0	187.9	187.9	188.2	187.9	188.2	188.3	188.3	188.3	189.3
45°	171.5	172.3	171.4	171.0	170.6	170.1	169.9	170.1	170.7	169.9	170.1
47.5°	155.0	155.3	154.7	154.2	153.8	153.5	153.8	152.8	153.1	153.3	152.7
50°	138.2	137.6	137.6	137.1	137.3	137.1	136.8	136.5	136.5	135.7	135.2
52.5°	122.7	123.0	123.3	122.2	122.4	121.6	121.7	120.9	120.9	120.0	120.3
55°	109.9	109.5	109.5	109.0	108.8	108.1	107.9	107.4	106.3	105.7	104.5
57.5°	96.8	96.6	96.0	96.1	95.2	95.0	94.7	93.9	93.1	92.4	90.9
60°	83.9	84.0	84.0	83.7	83.2	82.5	82.6	81.5	80.4	79.0	77.7
62.5°	73.2	72.7	72.6	72.3	71.3	71.3	70.5	69.7	68.6	67.2	66.1
65°	62.0	62.2	61.7	61.3	60.3	60.2	59.5	58.9	57.8	56.4	54.8
67.5°	52.0	51.7	51.5	51.0	50.1	49.9	49.5	48.1	47.1	45.7	44.5
70°	42.3	41.9	42.1	41.3	40.4	39.9	39.7	38.6	37.2	36.1	34.9
72.5°	33.1	33.1	33.0	32.2	31.7	31.4	30.8	29.5	28.7	27.5	26.5
75°	25.0	24.8	24.5	24.0	23.4	23.1	22.8	22.0	20.9	19.5	18.7
77.5°	17.3	17.4	17.1	17.0	16.2	15.7	15.5	15.1	14.1	13.2	12.4
80°	11.0	10.8	10.7	10.4	10.2	10.1	9.6	9.3	8.3	7.9	7.4
82.5°	6.0	5.7	5.7	5.5	5.2	5.0	4.9	4.6	4.4	4.1	3.8
85°	1.9	2.0	1.9	1.9	1.9	1.7	1.7	1.7	1.6	1.6	1.4
87.5°	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	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°	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
2.5°	426.4	426.6	426.6	426.8	426.8	426.8	426.8	426.8	426.8	426.8	426.8
5°	423.0	423.0	423.3	423.6	423.6	423.6	423.8	424.1	424.1	424.1	423.9
7.5°	417.3	418.0	418.6	419.2	419.4	419.5	419.8	420.5	420.5	420.5	420.5
10°	409.9	411.4	412.1	413.1	413.6	413.9	414.8	415.0	415.4	415.6	415.4
12.5°	400.5	402.4	404.1	405.7	406.3	407.0	407.9	408.8	409.3	409.8	409.6
15°	390.0	392.0	394.7	396.4	397.7	398.6	400.1	401.3	402.1	402.4	402.4
17.5°	377.3	379.8	382.6	385.4	386.2	387.8	389.4	391.1	392.0	392.2	392.0
20°	363.1	366.0	368.3	371.2	372.9	373.7	375.9	378.1	379.0	379.2	379.0
22.5°	346.3	349.0	352.1	355.1	356.5	358.0	360.3	362.5	363.8	364.7	363.8
25°	327.6	331.4	334.4	336.9	339.0	340.4	343.4	345.1	347.1	347.0	347.1
27.5°	309.3	312.4	315.7	318.7	319.9	321.5	323.9	326.7	328.4	329.5	329.4
30°	290.4	292.9	295.8	298.4	300.5	301.7	305.2	306.4	308.6	309.3	308.8
32.5°	270.5	272.2	275.0	278.6	279.4	280.7	282.9	286.0	286.8	287.1	287.3
35°	249.3	252.6	254.9	257.1	257.7	258.8	261.4	263.7	264.5	265.9	265.3
37.5°	229.6	231.5	232.6	234.8	236.7	237.6	238.9	240.5	242.0	242.7	242.5
40°	210.0	210.9	211.9	214.2	214.4	214.4	216.3	218.5	218.5	219.1	219.1
42.5°	189.9	190.1	191.3	192.6	192.9	193.2	195.1	195.4	196.3	196.8	197.4
45°	170.4	171.4	172.1	172.3	173.1	173.2	173.7	174.2	175.6	175.3	175.6
47.5°	152.7	153.1	153.6	153.6	154.1	153.9	154.7	154.2	155.2	155.5	156.0
50°	135.2	136.0	135.6	135.9	135.7	136.2	135.9	135.9	135.9	136.5	137.0
52.5°	119.2	119.4	118.9	119.1	119.1	118.7	119.1	118.9	118.7	118.7	118.9
55°	104.5	103.8	103.5	102.9	102.1	103.0	102.6	102.3	102.9	102.6	102.9
57.5°	90.2	89.4	88.7	88.4	87.3	88.0	87.3	87.0	87.0	87.0	87.8
60°	76.6	75.9	75.1	74.1	74.0	73.7	73.4	72.6	72.7	72.6	72.9
62.5°	64.9	63.3	62.2	61.4	61.3	60.8	60.3	59.5	59.7	59.7	59.8
65°	54.0	52.3	50.7	49.6	49.6	48.8	48.1	48.1	47.1	47.4	47.6
67.5°	43.2	41.8	40.2	39.4	39.0	38.3	37.9	37.5	37.1	37.1	37.4
70°	33.5	32.0	31.3	30.0	29.8	29.4	28.7	28.3	28.1	28.1	28.0
72.5°	25.3	24.0	23.1	22.3	21.8	21.4	20.7	20.6	20.3	20.3	20.6
75°	17.6	16.8	16.0	15.2	14.9	14.8	14.3	14.0	14.0	13.8	14.0
77.5°	11.8	11.0	10.2	9.9	9.6	9.3	9.1	9.0	8.5	8.5	8.5
80°	6.8	6.4	6.1	5.7	5.7	5.5	5.2	5.0	4.9	4.9	4.9
82.5°	3.5	3.3	3.0	2.8	2.8	2.8	2.7	2.7	2.5	2.5	2.5
85°	1.4	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.1	1.3
87.5°	0.2	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°	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
2.5°	426.8	426.6	426.6	426.6	426.6	426.6	426.4	426.4	426.3	426.3	426.3
5°	424.1	423.9	423.8	423.6	423.5	423.3	423.1	423.0	422.5	422.4	422.0
7.5°	420.3	420.0	419.5	419.4	419.1	418.6	418.0	417.6	417.0	416.2	415.9
10°	415.3	414.7	414.2	413.4	413.2	412.6	411.0	410.3	409.2	408.2	407.1
12.5°	409.2	408.5	407.4	406.3	405.7	404.3	402.9	401.6	400.2	398.2	396.6
15°	401.6	400.7	398.5	398.2	397.2	395.0	393.1	390.8	388.6	386.4	384.5
17.5°	391.6	389.5	388.4	387.0	385.9	383.1	381.0	378.4	375.4	372.9	370.2
20°	378.4	376.2	374.3	373.5	372.1	369.6	367.1	363.8	360.8	357.6	355.3
22.5°	362.7	361.3	358.4	357.5	355.8	353.2	350.3	347.1	344.3	340.8	337.7
25°	345.9	343.8	341.6	339.7	338.5	336.1	332.4	330.0	326.9	323.1	320.7
27.5°	328.0	325.6	322.5	321.2	320.1	317.0	313.8	310.8	308.3	305.0	303.0
30°	307.2	305.5	303.5	301.9	300.3	297.8	295.0	291.5	288.8	287.3	284.5
32.5°	286.2	284.8	282.1	281.3	279.6	277.5	275.5	273.0	270.2	267.8	265.6
35°	263.7	262.3	260.4	259.0	258.4	257.0	254.8	252.6	251.2	248.5	247.4
37.5°	241.3	240.8	238.9	237.5	237.0	235.3	234.2	232.6	230.6	229.9	228.7
40°	218.2	217.9	216.8	216.6	215.7	215.2	213.6	212.4	211.4	210.9	210.2
42.5°	197.0	196.6	195.7	195.9	194.9	194.6	194.5	193.4	192.6	191.6	191.8
45°	176.1	175.8	175.1	174.8	175.3	175.1	174.8	174.3	174.3	174.5	174.0
47.5°	156.0	156.3	155.7	156.0	156.0	155.5	155.5	156.1	156.3	156.6	156.9
50°	137.0	137.9	137.6	138.1	138.2	138.4	137.9	138.7	138.5	139.9	139.6
52.5°	119.7	119.8	120.5	120.6	120.8	120.9	121.7	122.4	122.5	123.1	124.2
55°	103.0	103.2	104.5	104.5	105.2	105.4	106.5	106.8	107.3	109.0	109.3
57.5°	87.3	88.3	88.9	89.2	89.7	90.5	91.1	92.5	93.3	94.4	95.5
60°	73.2	74.3	75.1	75.4	76.0	77.0	77.7	79.3	80.7	82.0	82.8
62.5°	60.2	61.1	61.7	62.8	62.8	63.6	65.5	66.4	68.0	69.1	70.5
65°	48.5	49.2	50.3	50.3	50.9	52.1	53.7	55.1	56.7	58.3	59.7
67.5°	38.0	38.5	39.1	39.7	40.1	41.6	42.9	44.9	46.3	47.4	49.2
70°	28.7	29.1	29.8	30.5	30.9	32.0	33.5	34.9	36.3	37.5	39.3
72.5°	20.6	21.2	22.0	22.5	22.8	23.6	25.0	26.4	27.6	28.9	29.8
75°	14.1	14.6	14.9	15.4	15.9	16.5	17.4	18.4	19.8	21.0	22.1
77.5°	8.8	9.3	9.7	9.9	10.1	10.7	11.3	12.3	13.2	14.1	14.9
80°	5.2	5.3	5.5	5.7	6.0	6.4	6.8	7.4	8.0	8.6	9.4
82.5°	2.7	2.8	3.0	3.0	3.0	3.1	3.6	3.9	4.1	4.4	4.9
85°	1.1	1.1	1.1	1.3	1.3	1.4	1.4	1.6	1.6	1.7	1.9
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



TEST NUMBER: P879360

CATALOG NUMBER: LD4C10D010 EU4109030 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	427.7	427.7	427.7	427.7	427.7	427.7	427.7	427.7
2.5°	426.1	426.1	426.1	426.0	426.1	426.1	426.1	426.0
5°	422.0	421.7	421.7	421.6	421.4	421.4	421.6	421.3
7.5°	415.3	414.8	414.5	414.5	414.3	414.2	414.2	413.4
10°	406.5	405.6	405.6	405.2	404.0	403.8	403.5	403.5
12.5°	395.5	394.4	393.8	393.0	392.2	391.6	391.4	390.8
15°	382.5	381.0	379.9	379.6	378.4	377.4	377.4	377.1
17.5°	368.3	366.1	365.3	364.6	362.8	362.7	362.4	360.9
20°	352.3	350.3	349.2	348.4	347.3	345.7	345.4	345.6
22.5°	335.5	332.7	331.7	330.9	329.8	328.4	328.4	327.3
25°	318.1	315.6	314.6	313.7	311.9	311.3	310.5	310.7
27.5°	300.3	298.0	297.2	295.4	294.3	293.6	292.8	292.8
30°	281.8	280.5	279.3	279.1	276.9	276.0	275.2	274.6
32.5°	263.9	262.3	261.7	261.0	259.9	258.7	258.5	257.4
35°	246.3	244.7	243.9	243.3	242.0	241.6	241.1	241.4
37.5°	227.7	227.4	227.0	226.2	225.4	225.2	224.6	225.4
40°	209.5	209.4	208.7	208.9	208.9	208.6	208.9	208.9
42.5°	191.9	191.9	191.3	191.6	191.8	192.1	192.6	192.9
45°	174.8	174.7	174.8	175.1	174.8	175.6	176.2	176.7
47.5°	157.2	157.4	158.0	158.2	158.5	159.6	159.6	159.6
50°	140.4	141.2	140.9	141.8	141.7	142.3	141.7	141.7
52.5°	124.4	125.2	125.3	125.5	126.4	126.6	126.6	126.4
55°	110.1	111.2	110.7	111.5	112.0	112.3	112.8	112.5
57.5°	96.9	97.4	97.9	98.0	98.6	99.0	99.3	99.0
60°	83.9	84.8	85.6	85.8	86.1	86.4	86.5	87.0
62.5°	71.6	73.2	73.5	73.7	74.5	74.9	75.2	75.6
65°	60.8	61.9	62.7	63.1	63.8	63.8	64.2	64.2
67.5°	50.3	51.4	51.8	52.1	53.1	53.2	54.0	54.0
70°	40.7	41.5	41.8	42.3	43.2	43.8	44.1	44.5
72.5°	31.4	32.4	32.8	33.5	34.1	34.6	34.7	35.2
75°	22.9	24.3	24.5	25.1	25.6	26.2	26.5	26.4
77.5°	16.0	16.5	17.1	17.4	17.9	18.4	18.8	18.8
80°	9.9	10.5	10.7	10.8	11.5	11.8	12.1	12.1
82.5°	5.2	5.5	5.8	6.0	6.3	6.3	6.4	6.6
85°	2.0	2.2	2.2	2.2	2.4	2.5	2.5	2.5
87.5°	0.3	0.5	0.3	0.3	0.5	0.5	0.5	0.5
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)