

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: P879377

Luminaire Tested: **LD4C15D010 EU4159050 4LBDWWLI**

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: P879377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C15D010 EU4159050 4LBLDWWLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

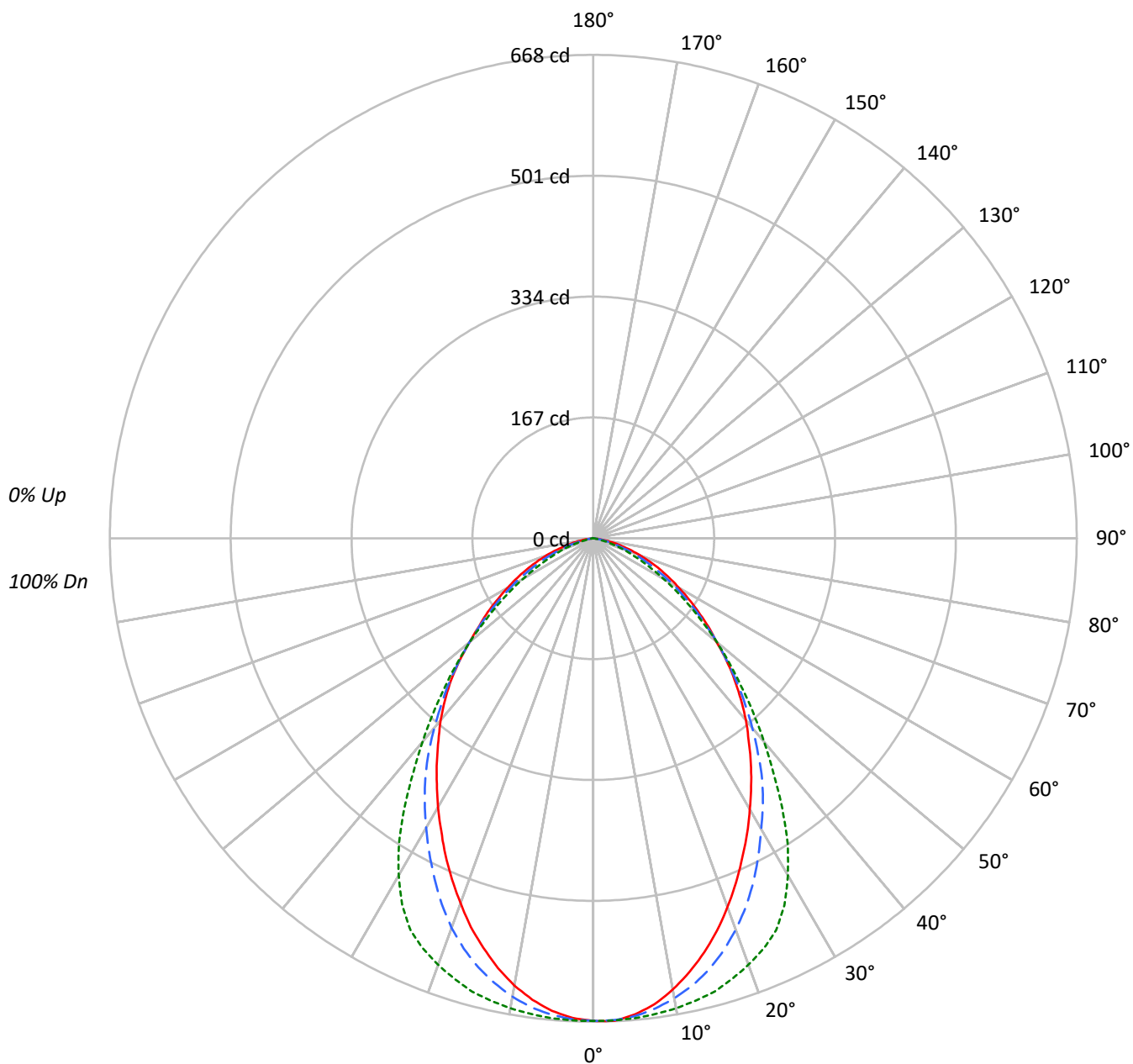
Lumens per Lamp: N/A
Luminaire Lumens: 1225.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 15.8
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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	101	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		91	86	83			87	84	81			85
3	95	86	79	74	93	84	78	73		82	76	72			79	74	70			77
4	88	78	70	64	86	76	69	64		74	68	63			72	66	62			70
5	82	70	62	57	80	69	62	56		67	61	56			65	60	55			64
6	76	64	56	50	74	63	56	50		61	55	50			60	54	49			58
7	71	59	51	45	69	58	50	45		56	50	45			55	49	45			54
8	66	54	46	41	65	53	46	41		52	45	41			51	45	40			50
9	62	50	42	37	61	49	42	37		48	42	37			47	41	37			46
10	59	46	39	34	57	46	39	34		45	39	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	81943	81943	81943
5°	81455	82071	80838
10°	78978	82272	78292
15°	75346	82456	74519
20°	70899	81986	70115
25°	66042	81021	65500
30°	61354	76292	60857
35°	56901	68239	56496
40°	52603	58841	52571
45°	47935	50229	48317
50°	42334	42487	42583
55°	37933	34720	38104
60°	33514	27568	33588
65°	29506	21017	29215
70°	24461	15050	24461
75°	19082	8639	18370
80°	12381	2122	11815
85°	4511	705	3524



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	5.1
10°-20°	173.2	14.1
20°-30°	242.2	19.8
30°-40°	255.4	20.9
40°-50°	217.3	17.7
50°-60°	153.3	12.5
60°-70°	86.9	7.1
70°-80°	31.0	2.5
80°-90°	3.0	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°	478.0	39.0
0°-40°	733.4	59.9
0°-60°	1104.1	90.1
0°-90°	1225.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1225.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	667	667	667	667	667	
5°	660	663	666	661	656	62
15°	592	617	648	614	586	166
25°	487	524	598	519	483	224
35°	379	407	455	405	377	237
45°	276	280	289	281	278	212
55°	177	171	162	172	178	159
65°	102	87	72	87	100	101
75°	40	27	18	27	39	43
85°	3	1	0	1	2	6
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°	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
2.5°	667.5	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.5	666.5
5°	660.5	660.0	659.8	659.8	659.8	659.8	660.0	661.0	661.5	662.3	662.8
7.5°	649.5	648.5	649.0	649.0	649.5	650.0	650.8	651.8	653.3	654.3	655.5
10°	633.1	632.1	633.3	633.8	635.3	636.1	637.3	638.8	641.8	643.3	645.3
12.5°	613.9	613.4	613.9	615.9	617.4	618.4	619.9	623.1	626.1	629.3	632.8
15°	592.4	591.2	591.9	594.4	596.9	598.7	599.9	604.1	608.1	613.1	617.4
17.5°	568.5	566.7	568.7	570.7	574.0	575.5	577.2	581.9	587.4	592.9	597.7
20°	542.3	541.8	543.0	545.8	549.0	551.0	552.5	557.8	562.5	570.0	575.5
22.5°	515.1	515.6	516.6	519.6	521.8	524.6	526.8	531.6	537.0	544.0	551.0
25°	487.2	487.9	489.7	491.6	495.4	496.9	499.6	504.6	509.4	515.8	523.6
27.5°	460.2	460.5	462.5	463.5	467.0	470.2	471.4	476.7	482.2	487.2	493.9
30°	432.5	433.3	434.5	437.3	440.8	442.0	443.5	448.2	452.5	458.7	464.0
32.5°	406.1	405.6	407.1	408.6	412.6	414.8	415.6	421.1	424.8	431.0	436.0
35°	379.4	378.2	380.4	381.9	385.4	387.4	388.4	392.6	396.1	401.4	406.8
37.5°	352.7	353.7	354.7	356.0	357.7	358.2	361.2	362.2	366.7	370.7	373.7
40°	328.0	327.5	327.0	328.3	330.5	331.5	331.8	334.5	335.5	339.5	341.7
42.5°	301.6	301.8	301.6	301.8	303.1	303.1	303.8	305.6	306.3	307.6	310.3
45°	275.9	275.9	275.1	275.4	275.6	275.4	275.6	276.4	277.9	277.9	279.9
47.5°	249.2	248.7	249.7	248.9	248.4	248.2	248.9	248.2	249.7	249.7	250.2
50°	221.5	221.5	222.8	222.5	223.0	222.0	222.3	222.3	222.5	222.3	223.2
52.5°	200.1	199.6	199.1	197.8	198.3	197.3	197.3	197.6	196.8	196.6	195.3
55°	177.1	177.6	176.9	176.4	176.4	175.4	175.1	173.6	172.6	171.9	171.1
57.5°	156.4	156.9	156.6	155.4	153.9	154.2	153.7	152.2	149.9	148.4	147.2
60°	136.4	136.9	136.4	135.2	134.7	133.7	133.5	131.5	129.7	127.7	126.2
62.5°	118.5	118.5	118.2	116.5	115.2	115.5	114.2	112.7	110.5	107.8	105.5
65°	101.5	101.3	100.0	99.3	98.3	97.0	96.3	94.0	92.3	90.0	87.1
67.5°	84.6	83.8	83.3	82.6	80.3	80.1	79.1	77.1	74.6	72.8	70.3
70°	68.1	67.8	66.9	66.9	65.1	64.4	62.9	61.1	58.9	56.4	54.4
72.5°	53.9	53.4	52.4	51.4	49.9	49.4	48.1	46.4	44.4	41.9	39.4
75°	40.2	39.7	39.4	38.2	36.9	35.7	35.2	33.4	31.4	29.7	27.4
77.5°	28.2	27.7	26.9	26.2	25.4	24.7	23.9	22.4	20.7	19.2	17.2
80°	17.5	17.0	16.5	16.2	15.5	15.2	14.2	13.5	12.0	11.0	9.7
82.5°	9.0	9.0	8.5	8.2	7.7	7.5	7.2	6.5	5.7	5.0	4.2
85°	3.2	3.2	3.0	2.7	2.7	2.5	2.5	2.2	1.7	1.7	1.2
87.5°	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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°	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
2.5°	666.8	666.5	666.8	666.8	667.0	667.0	667.0	666.8	667.0	666.8	666.8
5°	662.8	663.5	664.0	664.5	664.8	665.0	665.0	665.3	665.5	665.5	665.3
7.5°	656.5	658.0	659.5	660.5	661.0	661.5	662.3	662.8	663.3	663.0	662.8
10°	648.3	650.8	652.8	654.8	655.8	656.5	657.8	658.8	659.3	659.5	658.8
12.5°	636.6	640.1	643.3	646.6	648.0	649.0	651.5	653.3	654.3	654.3	653.5
15°	621.9	626.8	631.6	635.8	638.3	639.8	643.6	646.1	647.5	648.3	647.0
17.5°	604.1	609.9	615.6	621.1	623.6	625.8	631.1	634.6	637.8	638.3	636.8
20°	581.4	588.7	595.2	601.9	604.6	608.1	614.1	619.9	624.8	627.1	622.9
22.5°	556.0	564.0	570.0	578.2	581.9	585.7	593.4	600.7	609.4	614.1	606.6
25°	529.6	536.3	543.5	551.5	556.8	560.7	569.7	579.0	590.7	597.7	587.2
27.5°	501.1	507.1	515.8	524.6	528.6	533.6	544.3	554.3	565.5	571.7	564.0
30°	471.7	479.2	487.4	495.4	501.1	505.9	514.6	523.1	532.6	537.8	532.1
32.5°	442.5	449.7	456.7	465.5	468.7	472.9	480.7	487.9	495.1	499.9	493.1
35°	411.8	418.3	424.8	430.8	432.3	437.3	443.5	447.7	451.2	455.0	450.5
37.5°	378.4	383.4	386.6	393.1	395.6	396.4	401.4	404.3	408.1	408.8	408.6
40°	344.5	349.0	351.7	355.7	357.7	357.7	361.2	363.9	366.7	366.9	366.7
42.5°	312.8	315.0	317.3	319.8	319.3	322.3	323.8	325.0	327.0	327.0	327.5
45°	280.9	282.6	284.6	285.1	287.1	287.1	288.4	288.9	289.9	289.1	288.1
47.5°	251.2	251.9	252.2	254.4	254.9	253.2	254.7	254.9	254.7	254.7	254.2
50°	223.0	223.5	223.2	222.5	222.8	223.5	222.8	221.8	222.3	222.3	222.8
52.5°	195.6	194.6	194.1	194.1	193.1	193.1	191.8	191.3	191.1	190.1	191.3
55°	170.4	168.9	166.6	166.1	165.4	165.1	163.6	162.4	161.9	162.1	161.9
57.5°	146.2	143.9	142.4	141.9	141.2	139.7	137.9	136.7	136.4	135.9	135.9
60°	124.2	121.7	119.5	117.2	117.5	116.5	114.7	114.0	113.2	112.2	113.0
62.5°	104.3	101.5	99.0	96.8	95.3	94.5	93.3	92.0	91.3	90.5	91.5
65°	84.6	82.3	79.6	77.3	76.6	75.8	74.6	72.6	72.3	72.3	72.8
67.5°	66.9	64.4	61.9	60.4	59.4	58.4	57.9	56.9	56.1	55.6	55.9
70°	51.4	48.9	46.9	45.4	44.6	44.4	42.7	42.4	42.2	41.9	41.7
72.5°	37.4	35.4	33.7	32.7	31.7	30.9	30.4	29.7	29.4	29.4	29.4
75°	25.7	24.2	22.2	21.0	20.5	19.7	19.0	18.5	18.0	18.2	18.2
77.5°	15.5	14.0	12.7	11.7	11.5	10.7	10.0	9.5	8.7	8.7	9.0
80°	8.5	7.2	6.2	5.5	5.0	4.7	4.0	3.7	3.2	3.0	3.0
82.5°	3.7	3.0	2.5	2.2	2.0	1.7	1.5	1.2	1.2	1.0	1.2
85°	1.2	1.0	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.2	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°	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
2.5°	666.5	666.5	666.3	666.3	666.3	665.8	665.8	665.5	665.3	665.0	664.5
5°	664.8	664.5	664.0	663.8	663.5	662.8	662.0	661.5	660.8	659.8	659.3
7.5°	662.3	661.5	660.5	660.0	659.3	657.5	656.3	655.0	653.8	652.0	650.0
10°	658.0	656.5	655.0	654.0	652.8	650.5	648.0	646.1	643.3	640.8	638.1
12.5°	652.0	650.3	647.3	645.8	644.3	641.1	637.8	633.6	629.8	626.3	623.1
15°	644.6	641.3	637.8	635.8	633.6	628.3	623.4	618.9	613.9	609.6	604.4
17.5°	633.6	628.8	623.9	621.6	618.6	612.6	606.6	600.4	594.7	589.4	582.9
20°	617.1	611.9	605.4	601.9	599.4	591.4	585.7	578.7	572.7	566.2	559.0
22.5°	597.9	590.7	583.4	578.5	575.7	567.7	560.0	553.8	547.3	539.8	534.6
25°	576.2	567.2	558.5	553.5	549.3	540.8	533.3	526.8	518.8	512.4	507.1
27.5°	551.8	541.5	531.3	526.3	522.3	513.1	505.1	498.4	490.7	484.9	479.4
30°	522.6	513.3	503.6	499.6	494.9	485.4	476.2	470.2	461.7	455.7	449.7
32.5°	486.2	480.2	472.4	467.0	464.5	455.7	448.0	440.8	433.5	428.8	422.8
35°	446.2	441.0	434.5	431.5	428.3	422.8	416.6	410.3	404.6	400.1	394.6
37.5°	405.8	400.6	396.6	393.4	391.4	386.4	382.6	377.9	373.9	369.7	366.7
40°	363.9	362.4	358.2	356.7	356.2	350.7	347.5	343.7	341.2	338.7	337.0
42.5°	326.8	324.3	321.0	321.3	319.8	316.8	314.5	312.1	310.3	309.1	307.3
45°	290.1	288.1	286.6	287.9	285.4	284.4	282.6	282.4	281.1	278.9	278.1
47.5°	255.2	254.9	255.2	254.4	253.9	253.4	253.7	252.4	251.2	250.4	249.4
50°	223.2	223.5	224.0	224.7	223.0	223.7	223.5	223.2	223.2	222.5	223.0
52.5°	192.3	192.6	193.1	193.8	194.1	194.1	194.8	195.3	196.3	197.6	197.6
55°	163.1	164.9	165.9	167.1	166.4	167.9	168.6	170.9	171.6	171.6	172.6
57.5°	137.2	138.9	139.7	141.2	141.7	142.9	144.9	146.2	147.9	149.4	150.9
60°	113.5	114.2	116.2	118.5	118.0	121.0	122.5	124.5	126.7	127.7	129.7
62.5°	92.3	93.3	94.8	95.5	97.3	98.8	102.3	104.3	106.3	108.8	110.8
65°	73.3	74.3	75.8	77.3	78.1	80.3	82.1	85.6	87.3	90.0	92.3
67.5°	56.1	57.6	58.9	59.9	60.4	62.6	65.4	66.9	70.1	72.8	74.6
70°	41.9	43.2	44.6	44.4	45.4	47.1	49.1	51.4	53.9	56.4	58.4
72.5°	29.2	30.4	31.4	31.7	32.7	33.9	35.4	37.2	39.2	41.7	44.4
75°	18.5	18.7	19.7	20.2	20.7	22.2	23.4	25.2	26.9	28.9	30.7
77.5°	9.2	10.0	10.5	11.0	11.2	12.5	13.7	15.2	16.7	18.7	20.5
80°	3.5	3.7	4.5	4.7	5.2	6.0	7.0	7.7	9.0	10.5	11.5
82.5°	1.2	1.5	1.7	1.7	2.0	2.5	2.7	3.5	4.2	4.7	5.2
85°	0.5	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.2	1.5	1.5
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°	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
2.5°	664.3	664.3	664.0	663.8	663.8	663.8	663.5	663.5
5°	658.3	657.5	657.3	656.8	656.5	656.3	655.5	655.5
7.5°	648.5	647.5	646.8	646.1	645.1	644.3	644.3	643.3
10°	635.6	633.6	632.6	631.6	630.3	628.8	628.3	627.6
12.5°	619.9	615.9	614.9	613.1	611.1	610.1	608.4	608.4
15°	600.4	596.2	593.9	592.9	590.4	588.7	587.9	585.9
17.5°	577.7	574.5	571.0	569.5	566.7	564.5	563.5	563.2
20°	554.8	549.5	547.3	545.0	541.8	539.8	538.3	536.3
22.5°	528.3	523.6	520.3	518.8	516.1	512.6	510.1	510.1
25°	500.4	496.1	494.4	491.1	487.9	486.7	483.7	483.2
27.5°	473.7	469.4	466.0	464.2	460.5	458.7	456.2	455.2
30°	446.0	441.0	438.5	438.3	433.8	432.0	430.0	429.0
32.5°	418.3	414.1	411.6	410.1	408.1	405.1	403.3	402.3
35°	390.9	388.1	385.9	384.1	380.9	379.4	377.9	376.7
37.5°	362.2	359.7	358.7	357.2	355.7	353.0	352.5	351.5
40°	334.5	331.3	331.3	330.3	328.8	328.5	327.8	327.8
42.5°	305.6	304.1	303.8	304.1	303.1	302.6	301.8	303.6
45°	276.9	277.6	276.4	276.6	276.1	277.1	277.1	278.1
47.5°	250.4	249.4	249.9	250.4	251.2	251.2	250.9	250.7
50°	222.3	223.2	224.2	223.0	223.5	223.7	222.5	222.8
52.5°	198.1	198.3	199.1	198.3	199.1	198.8	199.3	198.3
55°	174.6	174.6	175.6	175.9	176.1	176.9	177.1	177.9
57.5°	151.9	153.2	154.4	154.2	155.2	156.2	155.4	156.2
60°	132.2	133.2	134.4	134.9	135.7	136.2	136.2	136.7
62.5°	112.2	114.2	115.2	116.2	116.2	117.2	118.2	118.5
65°	94.3	96.5	97.3	98.0	98.5	99.5	100.8	100.5
67.5°	77.3	78.8	79.8	80.3	81.8	82.3	83.3	84.3
70°	60.6	62.6	63.4	64.4	65.6	66.6	67.6	68.1
72.5°	46.4	47.9	48.4	49.4	50.6	51.6	52.1	52.9
75°	32.4	34.9	35.2	35.9	36.9	38.2	38.9	38.7
77.5°	21.5	23.2	23.4	24.4	25.4	26.4	26.7	26.9
80°	12.7	13.7	14.0	14.5	15.2	15.7	16.2	16.7
82.5°	6.0	6.5	7.0	7.0	7.5	8.0	8.0	8.2
85°	2.0	2.0	2.2	2.2	2.5	2.5	2.7	2.5
87.5°	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2
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)