

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: P879387

Luminaire Tested: **LD4C20D010 EU4209050 4LBLDWWLI**

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: P879387
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: LD4C20D010 EU4209050 4LBLDWWLI
Description: 4 INCH 2000 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

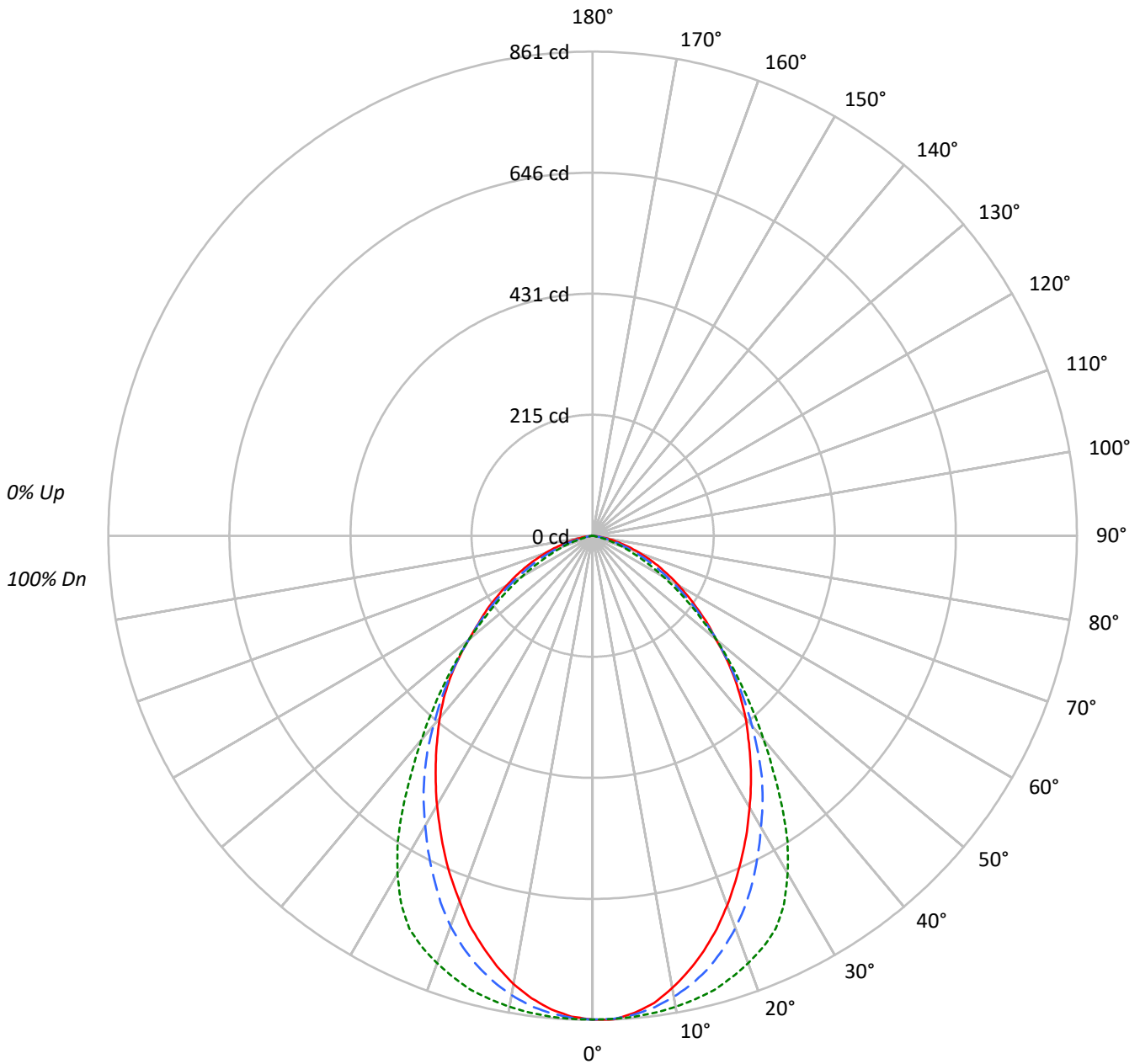
Lumens per Lamp: N/A
Luminaire Lumens: 1580.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
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			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°	105691	105691	105691
5°	105059	105860	104269
10°	101857	106111	100984
15°	97184	106354	96115
20°	91438	105741	90431
25°	85168	104498	84477
30°	79143	98393	78505
35°	73383	88006	72859
40°	67854	75905	67806
45°	61817	64788	62321
50°	54605	54796	54911
55°	48921	44787	49135
60°	43244	35578	43318
65°	38052	27122	37703
70°	31538	19433	31538
75°	24588	11155	23686
80°	15918	2759	15282
85°	5920	846	4511



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.8	5.1
10°-20°	223.4	14.1
20°-30°	312.3	19.8
30°-40°	329.5	20.9
40°-50°	280.3	17.7
50°-60°	197.8	12.5
60°-70°	112.1	7.1
70°-80°	40.0	2.5
80°-90°	3.8	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°	616.5	39.0
0°-40°	946.0	59.9
0°-60°	1424.1	90.1
0°-90°	1580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1580.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	860	860	860	860	860	
5°	852	855	858	852	846	80
15°	764	796	836	792	756	214
25°	628	675	771	669	623	289
35°	489	525	587	522	486	306
45°	356	361	373	363	359	274
55°	228	221	209	221	229	205
65°	131	112	93	113	130	130
75°	52	35	24	35	50	56
85°	4	2	1	2	3	7
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°	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3
2.5°	860.9	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.3	859.7	859.7
5°	851.9	851.3	851.0	851.0	851.0	851.0	851.3	852.6	853.2	854.2	854.8
7.5°	837.8	836.5	837.1	837.1	837.8	838.4	839.4	840.7	842.6	843.9	845.5
10°	816.5	815.3	816.9	817.5	819.4	820.4	822.0	823.9	827.8	829.7	832.3
12.5°	791.8	791.1	791.8	794.3	796.3	797.6	799.5	803.7	807.5	811.7	816.2
15°	764.1	762.5	763.5	766.7	769.9	772.1	773.8	779.2	784.4	790.8	796.3
17.5°	733.2	731.0	733.5	736.1	740.3	742.2	744.5	750.6	757.7	764.7	770.9
20°	699.4	698.8	700.4	703.9	708.1	710.7	712.6	719.4	725.5	735.1	742.2
22.5°	664.4	665.0	666.3	670.2	673.1	676.6	679.5	685.6	692.7	701.7	710.7
25°	628.3	629.3	631.6	634.1	639.0	640.9	644.4	650.9	657.0	665.3	675.3
27.5°	593.6	593.9	596.5	597.8	602.3	606.5	608.1	614.8	621.9	628.3	637.0
30°	557.9	558.8	560.5	564.0	568.5	570.1	572.0	578.1	583.6	591.7	598.4
32.5°	523.8	523.1	525.1	527.0	532.1	535.0	536.0	543.1	547.9	555.9	562.4
35°	489.3	487.7	490.6	492.6	497.1	499.6	500.9	506.4	510.9	517.7	524.7
37.5°	454.9	456.2	457.5	459.1	461.4	462.0	465.9	467.1	472.9	478.1	481.9
40°	423.1	422.4	421.8	423.4	426.3	427.6	427.9	431.4	432.7	437.9	440.8
42.5°	389.0	389.3	389.0	389.3	390.9	390.9	391.9	394.1	395.1	396.7	400.2
45°	355.8	355.8	354.9	355.2	355.5	355.2	355.5	356.5	358.4	358.4	361.0
47.5°	321.4	320.8	322.0	321.1	320.4	320.1	321.1	320.1	322.0	322.0	322.7
50°	285.7	285.7	287.3	287.0	287.6	286.3	286.7	286.7	287.0	286.7	287.9
52.5°	258.0	257.4	256.7	255.1	255.8	254.5	254.5	254.8	253.8	253.5	251.9
55°	228.4	229.1	228.1	227.5	227.5	226.2	225.9	223.9	222.6	221.7	220.7
57.5°	201.7	202.4	202.0	200.4	198.5	198.8	198.2	196.3	193.4	191.4	189.8
60°	176.0	176.6	176.0	174.4	173.7	172.4	172.1	169.6	167.3	164.7	162.8
62.5°	152.8	152.8	152.5	150.2	148.6	149.0	147.4	145.4	142.5	139.0	136.1
65°	130.9	130.6	129.0	128.0	126.8	125.2	124.2	121.3	119.0	116.1	112.3
67.5°	109.1	108.1	107.5	106.5	103.6	103.3	102.0	99.4	96.2	93.9	90.7
70°	87.8	87.5	86.2	86.2	84.0	83.0	81.1	78.8	75.9	72.7	70.1
72.5°	69.5	68.8	67.6	66.3	64.3	63.7	62.1	59.8	57.3	54.1	50.8
75°	51.8	51.2	50.8	49.2	47.6	46.0	45.4	43.1	40.5	38.3	35.4
77.5°	36.4	35.7	34.7	33.8	32.8	31.9	30.9	29.0	26.7	24.8	22.2
80°	22.5	21.9	21.2	20.9	19.9	19.6	18.3	17.4	15.4	14.2	12.5
82.5°	11.6	11.6	10.9	10.6	10.0	9.7	9.3	8.4	7.4	6.4	5.5
85°	4.2	4.2	3.9	3.5	3.5	3.2	3.2	2.9	2.3	2.3	1.6
87.5°	0.3	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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°	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3
2.5°	860.0	859.7	860.0	860.0	860.3	860.3	860.3	860.0	860.3	860.0	860.0
5°	854.8	855.8	856.4	857.1	857.4	857.7	857.7	858.0	858.4	858.4	858.0
7.5°	846.8	848.7	850.6	851.9	852.6	853.2	854.2	854.8	855.5	855.2	854.8
10°	836.2	839.4	842.0	844.5	845.8	846.8	848.4	849.7	850.3	850.6	849.7
12.5°	821.0	825.6	829.7	833.9	835.8	837.1	840.4	842.6	843.9	843.9	842.9
15°	802.1	808.5	814.6	820.1	823.3	825.2	830.1	833.3	835.2	836.2	834.6
17.5°	779.2	786.6	794.0	801.1	804.3	807.2	814.0	818.5	822.7	823.3	821.4
20°	749.9	759.3	767.6	776.3	779.9	784.4	792.1	799.5	805.9	808.8	803.4
22.5°	717.1	727.4	735.1	745.8	750.6	755.4	765.4	774.7	786.0	792.1	782.4
25°	683.0	691.7	701.0	711.3	718.1	723.2	734.8	746.7	761.9	770.9	757.3
27.5°	646.4	654.1	665.3	676.6	681.7	688.2	702.0	714.9	729.4	737.4	727.4
30°	608.4	618.0	628.7	639.0	646.4	652.5	663.7	674.7	686.9	693.6	686.2
32.5°	570.7	580.1	589.1	600.3	604.5	610.0	620.0	629.3	638.6	644.7	636.1
35°	531.2	539.5	547.9	555.6	557.6	564.0	572.0	577.5	582.0	586.8	581.0
37.5°	488.1	494.5	498.7	507.0	510.3	511.2	517.7	521.5	526.3	527.3	527.0
40°	444.3	450.1	453.6	458.8	461.4	461.4	465.9	469.4	472.9	473.3	472.9
42.5°	403.4	406.3	409.2	412.5	411.8	415.7	417.6	419.2	421.8	421.8	422.4
45°	362.3	364.5	367.1	367.7	370.3	370.3	371.9	372.6	373.8	372.9	371.6
47.5°	324.0	324.9	325.3	328.2	328.8	326.6	328.5	328.8	328.5	328.5	327.8
50°	287.6	288.3	287.9	287.0	287.3	288.3	287.3	286.0	286.7	286.7	287.3
52.5°	252.2	250.9	250.3	250.3	249.0	249.0	247.4	246.8	246.4	245.2	246.8
55°	219.7	217.8	214.9	214.3	213.3	213.0	211.1	209.4	208.8	209.1	208.8
57.5°	188.5	185.6	183.7	183.1	182.1	180.2	177.9	176.3	176.0	175.3	175.3
60°	160.2	157.0	154.1	151.2	151.5	150.2	148.0	147.0	146.1	144.8	145.7
62.5°	134.5	130.9	127.7	124.8	122.9	121.9	120.3	118.7	117.8	116.8	118.1
65°	109.1	106.2	102.6	99.7	98.8	97.8	96.2	93.6	93.3	93.3	93.9
67.5°	86.2	83.0	79.8	77.9	76.6	75.3	74.6	73.4	72.4	71.7	72.1
70°	66.3	63.1	60.5	58.6	57.6	57.3	55.0	54.7	54.4	54.1	53.7
72.5°	48.3	45.7	43.4	42.1	40.9	39.9	39.3	38.3	38.0	38.0	38.0
75°	33.1	31.2	28.6	27.0	26.4	25.4	24.5	23.8	23.2	23.5	23.5
77.5°	19.9	18.0	16.4	15.1	14.8	13.8	12.9	12.2	11.3	11.3	11.6
80°	10.9	9.3	8.0	7.1	6.4	6.1	5.1	4.8	4.2	3.9	3.9
82.5°	4.8	3.9	3.2	2.9	2.6	2.3	1.9	1.6	1.6	1.3	1.6
85°	1.6	1.3	1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.3	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°	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3
2.5°	859.7	859.7	859.3	859.3	859.3	858.7	858.7	858.4	858.0	857.7	857.1
5°	857.4	857.1	856.4	856.1	855.8	854.8	853.9	853.2	852.3	851.0	850.3
7.5°	854.2	853.2	851.9	851.3	850.3	848.1	846.5	844.9	843.2	841.0	838.4
10°	848.7	846.8	844.9	843.6	842.0	839.1	835.8	833.3	829.7	826.5	823.0
12.5°	841.0	838.7	834.9	833.0	831.0	826.8	822.7	817.2	812.4	807.9	803.7
15°	831.3	827.2	822.7	820.1	817.2	810.4	804.0	798.2	791.8	786.3	779.5
17.5°	817.2	811.1	804.6	801.7	797.9	790.2	782.4	774.4	767.0	760.2	751.9
20°	796.0	789.2	780.8	776.3	773.1	762.8	755.4	746.4	738.7	730.3	721.0
22.5°	771.2	761.9	752.5	746.1	742.5	732.3	722.3	714.2	705.9	696.2	689.5
25°	743.2	731.6	720.3	713.9	708.4	697.5	687.9	679.5	669.2	660.8	654.1
27.5°	711.7	698.5	685.3	678.8	673.7	661.8	651.5	642.8	632.8	625.4	618.4
30°	674.0	662.1	649.6	644.4	638.3	626.1	614.2	606.5	595.5	587.8	580.1
32.5°	627.0	619.3	609.4	602.3	599.1	587.8	577.8	568.5	559.2	553.1	545.3
35°	575.6	568.8	560.5	556.6	552.4	545.3	537.3	529.2	521.8	516.1	509.0
37.5°	523.5	516.7	511.5	507.4	504.8	498.4	493.5	487.4	482.3	476.8	472.9
40°	469.4	467.5	462.0	460.1	459.4	452.3	448.2	443.3	440.1	436.9	434.7
42.5°	421.5	418.2	414.1	414.4	412.5	408.6	405.7	402.5	400.2	398.6	396.4
45°	374.2	371.6	369.7	371.3	368.1	366.8	364.5	364.2	362.6	359.7	358.7
47.5°	329.1	328.8	329.1	328.2	327.5	326.9	327.2	325.6	324.0	323.0	321.7
50°	287.9	288.3	288.9	289.9	287.6	288.6	288.3	287.9	287.9	287.0	287.6
52.5°	248.1	248.4	249.0	250.0	250.3	250.3	251.3	251.9	253.2	254.8	254.8
55°	210.4	212.7	213.9	215.6	214.6	216.5	217.5	220.4	221.3	221.3	222.6
57.5°	177.0	179.2	180.2	182.1	182.7	184.4	186.9	188.5	190.8	192.7	194.6
60°	146.4	147.4	149.9	152.8	152.2	156.0	158.0	160.5	163.4	164.7	167.3
62.5°	119.0	120.3	122.3	123.2	125.5	127.4	131.9	134.5	137.1	140.3	142.8
65°	94.6	95.9	97.8	99.7	100.7	103.6	105.8	110.4	112.6	116.1	119.0
67.5°	72.4	74.3	75.9	77.2	77.9	80.8	84.3	86.2	90.4	93.9	96.2
70°	54.1	55.7	57.6	57.3	58.6	60.8	63.4	66.3	69.5	72.7	75.3
72.5°	37.6	39.3	40.5	40.9	42.1	43.8	45.7	47.9	50.5	53.7	57.3
75°	23.8	24.1	25.4	26.1	26.7	28.6	30.2	32.5	34.7	37.3	39.6
77.5°	11.9	12.9	13.5	14.2	14.5	16.1	17.7	19.6	21.6	24.1	26.4
80°	4.5	4.8	5.8	6.1	6.8	7.7	9.0	10.0	11.6	13.5	14.8
82.5°	1.6	1.9	2.3	2.3	2.6	3.2	3.5	4.5	5.5	6.1	6.8
85°	0.6	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.6	1.9	1.9
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°	860.3	860.3	860.3	860.3	860.3	860.3	860.3	860.3
2.5°	856.8	856.8	856.4	856.1	856.1	856.1	855.8	855.8
5°	849.0	848.1	847.8	847.1	846.8	846.5	845.5	845.5
7.5°	836.5	835.2	834.2	833.3	832.0	831.0	831.0	829.7
10°	819.8	817.2	815.9	814.6	813.0	811.1	810.4	809.5
12.5°	799.5	794.3	793.1	790.8	788.2	786.9	784.7	784.7
15°	774.4	768.9	766.0	764.7	761.5	759.3	758.3	755.7
17.5°	745.1	740.9	736.4	734.5	731.0	728.1	726.8	726.5
20°	715.5	708.8	705.9	703.0	698.8	696.2	694.3	691.7
22.5°	681.4	675.3	671.1	669.2	665.7	661.2	657.9	657.9
25°	645.4	639.9	637.7	633.5	629.3	627.7	623.8	623.2
27.5°	611.0	605.5	601.0	598.7	593.9	591.7	588.4	587.2
30°	575.2	568.8	565.6	565.3	559.5	557.2	554.7	553.4
32.5°	539.5	534.1	530.9	528.9	526.3	522.5	520.2	518.9
35°	504.1	500.6	497.7	495.5	491.3	489.3	487.4	485.8
37.5°	467.1	463.9	462.6	460.7	458.8	455.2	454.6	453.3
40°	431.4	427.3	427.3	426.0	424.0	423.7	422.8	422.8
42.5°	394.1	392.2	391.9	392.2	390.9	390.3	389.3	391.5
45°	357.1	358.1	356.5	356.8	356.2	357.4	357.4	358.7
47.5°	323.0	321.7	322.4	323.0	324.0	324.0	323.7	323.3
50°	286.7	287.9	289.2	287.6	288.3	288.6	287.0	287.3
52.5°	255.5	255.8	256.7	255.8	256.7	256.4	257.1	255.8
55°	225.2	225.2	226.5	226.8	227.1	228.1	228.4	229.4
57.5°	195.9	197.5	199.1	198.8	200.1	201.4	200.4	201.4
60°	170.5	171.8	173.4	174.1	175.0	175.7	175.7	176.3
62.5°	144.8	147.4	148.6	149.9	149.9	151.2	152.5	152.8
65°	121.6	124.5	125.5	126.4	127.1	128.4	130.0	129.7
67.5°	99.7	101.7	103.0	103.6	105.5	106.2	107.5	108.7
70°	78.2	80.8	81.7	83.0	84.6	85.9	87.2	87.8
72.5°	59.8	61.8	62.4	63.7	65.3	66.6	67.2	68.2
75°	41.8	45.0	45.4	46.3	47.6	49.2	50.2	49.9
77.5°	27.7	29.9	30.2	31.5	32.8	34.1	34.4	34.7
80°	16.4	17.7	18.0	18.7	19.6	20.3	20.9	21.6
82.5°	7.7	8.4	9.0	9.0	9.7	10.3	10.3	10.6
85°	2.6	2.6	2.9	2.9	3.2	3.2	3.5	3.2
87.5°	0.3	0.3	0.0	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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)