

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: P879385

Luminaire Tested: **LD4C20D010 EU4209040 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: P879385
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 EU4209040 4LBLDWWLI
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

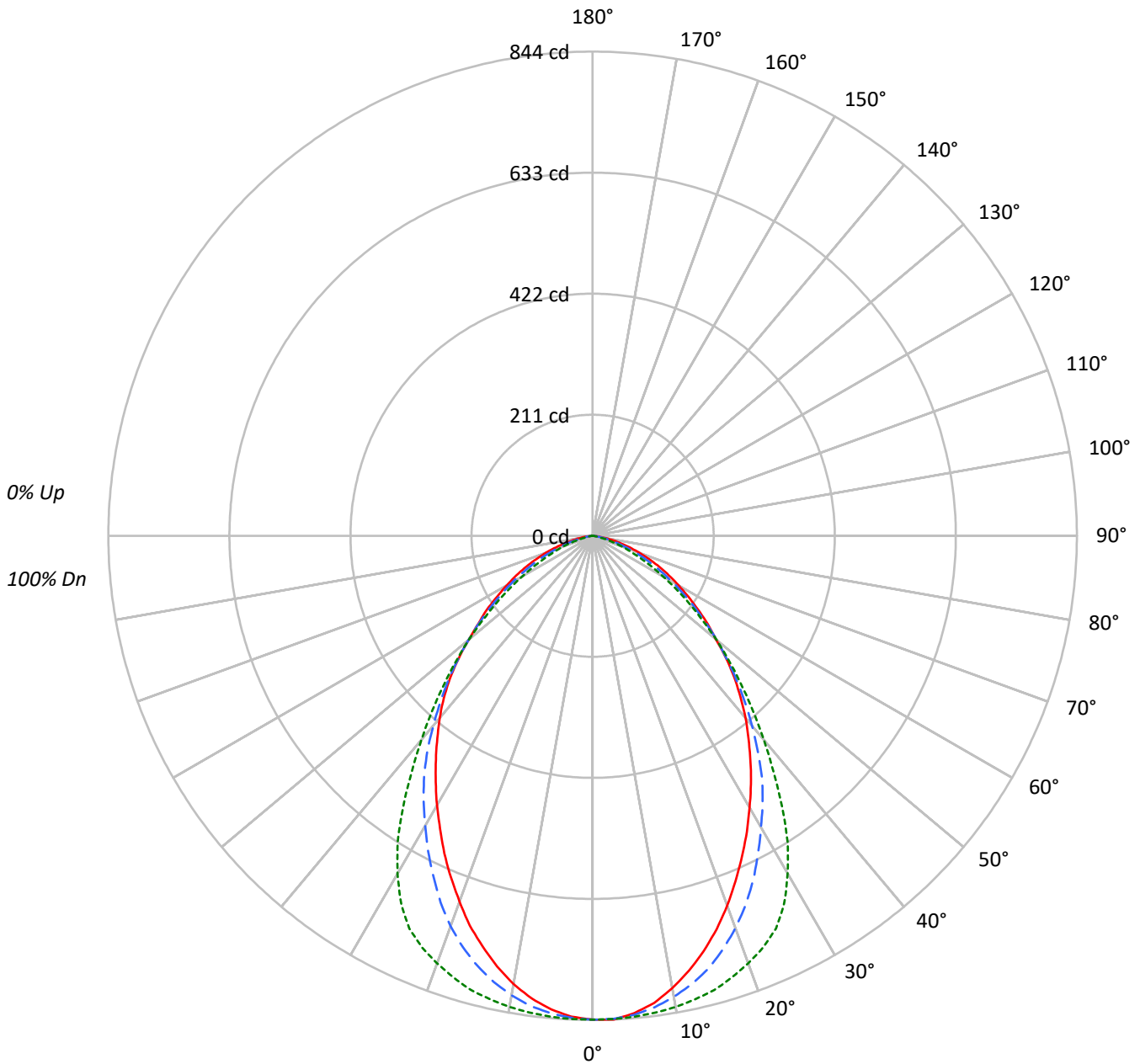
Lumens per Lamp: N/A
Luminaire Lumens: 1549.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			
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	45	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°	103615	103615	103615
5°	102999	103776	102222
10°	99861	104040	99001
15°	95276	104268	94233
20°	89647	103675	88653
25°	83501	102438	82823
30°	77583	96464	76958
35°	71944	86281	71434
40°	66523	74413	66475
45°	60601	63520	61105
50°	53534	53706	53840
55°	47957	43909	48171
60°	42384	34866	42458
65°	37325	26599	36947
70°	30927	19038	30927
75°	24113	10917	23211
80°	15635	2688	14928
85°	5779	846	4511



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	5.1
10°-20°	219.1	14.1
20°-30°	306.2	19.8
30°-40°	323.0	20.9
40°-50°	274.8	17.7
50°-60°	193.9	12.5
60°-70°	109.9	7.1
70°-80°	39.2	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°	604.4	39.0
0°-40°	927.4	59.9
0°-60°	1396.1	90.1
0°-90°	1549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1549.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	843	843	843	843	843	
5°	835	838	842	836	829	79
15°	749	781	820	776	741	210
25°	616	662	756	656	611	283
35°	480	514	575	512	476	300
45°	349	354	366	356	352	268
55°	224	216	205	217	225	201
65°	128	110	92	110	127	127
75°	51	35	23	34	49	55
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°	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4
2.5°	844.1	842.5	842.5	842.5	842.5	842.5	842.5	842.5	842.5	842.8	842.8
5°	835.2	834.6	834.3	834.3	834.3	834.3	834.6	835.9	836.5	837.4	838.1
7.5°	821.3	820.1	820.7	820.7	821.3	822.0	822.9	824.2	826.1	827.3	828.9
10°	800.5	799.3	800.8	801.5	803.4	804.3	805.9	807.8	811.6	813.5	816.0
12.5°	776.2	775.6	776.2	778.8	780.7	781.9	783.8	787.9	791.7	795.8	800.2
15°	749.1	747.5	748.5	751.6	754.8	757.0	758.6	763.9	769.0	775.3	780.7
17.5°	718.8	716.6	719.1	721.7	725.8	727.7	729.9	735.9	742.8	749.7	755.7
20°	685.7	685.1	686.7	690.1	694.2	696.8	698.6	705.3	711.3	720.7	727.7
22.5°	651.3	652.0	653.2	657.0	659.8	663.3	666.2	672.2	679.1	687.9	696.8
25°	616.0	617.0	619.2	621.7	626.4	628.3	631.8	638.1	644.1	652.3	662.1
27.5°	581.9	582.3	584.8	586.0	590.5	594.6	596.1	602.8	609.7	616.0	624.5
30°	546.9	547.9	549.5	552.9	557.3	558.9	560.8	566.8	572.2	580.0	586.7
32.5°	513.5	512.9	514.8	516.7	521.7	524.5	525.5	532.4	537.2	545.0	551.3
35°	479.7	478.2	481.0	482.9	487.3	489.8	491.1	496.5	500.9	507.5	514.4
37.5°	446.0	447.3	448.5	450.1	452.3	452.9	456.7	458.0	463.7	468.7	472.5
40°	414.8	414.1	413.5	415.1	417.9	419.2	419.5	423.0	424.2	429.3	432.1
42.5°	381.3	381.7	381.3	381.7	383.2	383.2	384.2	386.4	387.3	388.9	392.4
45°	348.8	348.8	347.9	348.2	348.5	348.2	348.5	349.5	351.4	351.4	353.9
47.5°	315.1	314.5	315.7	314.8	314.2	313.8	314.8	313.8	315.7	315.7	316.4
50°	280.1	280.1	281.7	281.4	282.0	280.7	281.0	281.0	281.4	281.0	282.3
52.5°	253.0	252.3	251.7	250.1	250.8	249.5	249.5	249.8	248.9	248.5	247.0
55°	223.9	224.6	223.6	223.0	223.0	221.7	221.4	219.5	218.3	217.3	216.4
57.5°	197.8	198.4	198.1	196.5	194.6	194.9	194.3	192.4	189.6	187.7	186.1
60°	172.5	173.2	172.5	171.0	170.3	169.1	168.7	166.2	164.0	161.5	159.6
62.5°	149.8	149.8	149.5	147.3	145.7	146.0	144.5	142.6	139.7	136.3	133.4
65°	128.4	128.1	126.5	125.5	124.3	122.7	121.8	118.9	116.7	113.9	110.1
67.5°	106.9	106.0	105.3	104.4	101.6	101.2	100.0	97.5	94.3	92.1	88.9
70°	86.1	85.8	84.5	84.5	82.3	81.4	79.5	77.3	74.4	71.3	68.8
72.5°	68.1	67.5	66.2	65.0	63.1	62.5	60.9	58.7	56.1	53.0	49.8
75°	50.8	50.2	49.8	48.3	46.7	45.1	44.5	42.3	39.7	37.5	34.7
77.5°	35.6	35.0	34.1	33.1	32.2	31.2	30.3	28.4	26.2	24.3	21.8
80°	22.1	21.4	20.8	20.5	19.6	19.2	18.0	17.0	15.1	13.9	12.3
82.5°	11.4	11.4	10.7	10.4	9.8	9.5	9.1	8.2	7.3	6.3	5.4
85°	4.1	4.1	3.8	3.5	3.5	3.2	3.2	2.8	2.2	2.2	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°	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4
2.5°	843.1	842.8	843.1	843.1	843.4	843.4	843.4	843.1	843.4	843.1	843.1
5°	838.1	839.0	839.6	840.3	840.6	840.9	840.9	841.2	841.5	841.5	841.2
7.5°	830.2	832.1	834.0	835.2	835.9	836.5	837.4	838.1	838.7	838.4	838.1
10°	819.8	822.9	825.4	828.0	829.2	830.2	831.8	833.0	833.6	834.0	833.0
12.5°	804.9	809.4	813.5	817.6	819.4	820.7	823.9	826.1	827.3	827.3	826.4
15°	786.3	792.6	798.6	804.0	807.1	809.0	813.8	816.9	818.8	819.8	818.2
17.5°	763.9	771.2	778.4	785.4	788.5	791.4	798.0	802.4	806.5	807.1	805.3
20°	735.2	744.4	752.6	761.1	764.6	769.0	776.6	783.8	790.1	793.0	787.6
22.5°	703.1	713.2	720.7	731.1	735.9	740.6	750.4	759.5	770.6	776.6	767.1
25°	669.6	678.1	687.3	697.4	704.0	709.1	720.4	732.1	746.9	755.7	742.5
27.5°	633.7	641.2	652.3	663.3	668.4	674.7	688.2	700.9	715.0	722.9	713.2
30°	596.5	605.9	616.3	626.4	633.7	639.7	650.7	661.4	673.4	680.0	672.8
32.5°	559.5	568.7	577.5	588.6	592.7	598.0	607.8	617.0	626.1	632.1	623.6
35°	520.8	529.0	537.2	544.7	546.6	552.9	560.8	566.2	570.6	575.3	569.6
37.5°	478.5	484.8	488.9	497.1	500.2	501.2	507.5	511.3	516.0	517.0	516.7
40°	435.6	441.3	444.7	449.8	452.3	452.3	456.7	460.2	463.7	464.0	463.7
42.5°	395.5	398.4	401.2	404.4	403.7	407.5	409.4	411.0	413.5	413.5	414.1
45°	355.2	357.4	359.9	360.5	363.0	363.0	364.6	365.3	366.5	365.6	364.3
47.5°	317.6	318.6	318.9	321.7	322.4	320.1	322.0	322.4	322.0	322.0	321.4
50°	282.0	282.6	282.3	281.4	281.7	282.6	281.7	280.4	281.0	281.0	281.7
52.5°	247.3	246.0	245.4	245.4	244.1	244.1	242.6	241.9	241.6	240.3	241.9
55°	215.4	213.5	210.7	210.1	209.1	208.8	206.9	205.3	204.7	205.0	204.7
57.5°	184.8	182.0	180.1	179.5	178.5	176.6	174.4	172.8	172.5	171.9	171.9
60°	157.1	153.9	151.1	148.2	148.6	147.3	145.1	144.1	143.2	141.9	142.9
62.5°	131.8	128.4	125.2	122.4	120.5	119.5	118.0	116.4	115.4	114.5	115.8
65°	106.9	104.1	100.6	97.8	96.8	95.9	94.3	91.8	91.5	91.5	92.1
67.5°	84.5	81.4	78.2	76.3	75.1	73.8	73.2	71.9	71.0	70.3	70.7
70°	65.0	61.8	59.3	57.4	56.5	56.1	53.9	53.6	53.3	53.0	52.7
72.5°	47.3	44.8	42.6	41.3	40.1	39.1	38.5	37.5	37.2	37.2	37.2
75°	32.5	30.6	28.1	26.5	25.9	24.9	24.0	23.3	22.7	23.0	23.0
77.5°	19.6	17.7	16.1	14.8	14.5	13.6	12.6	12.0	11.0	11.0	11.4
80°	10.7	9.1	7.9	6.9	6.3	6.0	5.0	4.7	4.1	3.8	3.8
82.5°	4.7	3.8	3.2	2.8	2.5	2.2	1.9	1.6	1.6	1.3	1.6
85°	1.6	1.3	0.9	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°	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4
2.5°	842.8	842.8	842.5	842.5	842.5	841.8	841.8	841.5	841.2	840.9	840.3
5°	840.6	840.3	839.6	839.3	839.0	838.1	837.1	836.5	835.5	834.3	833.6
7.5°	837.4	836.5	835.2	834.6	833.6	831.4	829.9	828.3	826.7	824.5	822.0
10°	832.1	830.2	828.3	827.0	825.4	822.6	819.4	816.9	813.5	810.3	806.8
12.5°	824.5	822.3	818.5	816.6	814.7	810.6	806.5	801.2	796.4	792.0	787.9
15°	815.0	810.9	806.5	804.0	801.2	794.5	788.2	782.5	776.2	770.9	764.3
17.5°	801.2	795.2	788.9	786.0	782.2	774.7	767.1	759.2	752.0	745.3	737.1
20°	780.3	773.7	765.5	761.1	757.9	747.9	740.6	731.8	724.2	716.0	706.8
22.5°	756.1	746.9	737.8	731.4	728.0	717.9	708.1	700.2	692.0	682.6	675.9
25°	728.6	717.3	706.2	699.9	694.5	683.8	674.4	666.2	656.1	647.9	641.2
27.5°	697.7	684.8	671.8	665.5	660.5	648.8	638.7	630.2	620.4	613.2	606.2
30°	660.8	649.1	636.8	631.8	625.8	613.8	602.1	594.6	583.8	576.3	568.7
32.5°	614.7	607.2	597.4	590.5	587.3	576.3	566.5	557.3	548.2	542.2	534.6
35°	564.3	557.7	549.5	545.7	541.6	534.6	526.7	518.9	511.6	505.9	499.0
37.5°	513.2	506.6	501.5	497.4	494.9	488.6	483.8	477.9	472.8	467.4	463.7
40°	460.2	458.3	452.9	451.0	450.4	443.5	439.4	434.6	431.5	428.3	426.1
42.5°	413.2	410.0	405.9	406.3	404.4	400.6	397.7	394.6	392.4	390.8	388.6
45°	366.8	364.3	362.4	364.0	360.8	359.6	357.4	357.1	355.5	352.6	351.7
47.5°	322.7	322.4	322.7	321.7	321.1	320.5	320.8	319.2	317.6	316.7	315.4
50°	282.3	282.6	283.2	284.2	282.0	282.9	282.6	282.3	282.3	281.4	282.0
52.5°	243.2	243.5	244.1	245.1	245.4	245.4	246.3	247.0	248.2	249.8	249.8
55°	206.3	208.5	209.8	211.3	210.4	212.3	213.2	216.1	217.0	217.0	218.3
57.5°	173.5	175.7	176.6	178.5	179.2	180.7	183.3	184.8	187.0	188.9	190.8
60°	143.5	144.5	147.0	149.8	149.2	153.0	154.9	157.4	160.2	161.5	164.0
62.5°	116.7	118.0	119.9	120.8	123.0	124.9	129.3	131.8	134.4	137.5	140.0
65°	92.7	94.0	95.9	97.8	98.7	101.6	103.8	108.2	110.4	113.9	116.7
67.5°	71.0	72.9	74.4	75.7	76.3	79.2	82.6	84.5	88.6	92.1	94.3
70°	53.0	54.6	56.5	56.1	57.4	59.6	62.1	65.0	68.1	71.3	73.8
72.5°	36.9	38.5	39.7	40.1	41.3	42.9	44.8	47.0	49.5	52.7	56.1
75°	23.3	23.7	24.9	25.5	26.2	28.1	29.6	31.9	34.1	36.6	38.8
77.5°	11.7	12.6	13.2	13.9	14.2	15.8	17.3	19.2	21.1	23.7	25.9
80°	4.4	4.7	5.7	6.0	6.6	7.6	8.8	9.8	11.4	13.2	14.5
82.5°	1.6	1.9	2.2	2.2	2.5	3.2	3.5	4.4	5.4	6.0	6.6
85°	0.6	0.6	0.6	0.6	0.6	0.9	0.9	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



TEST NUMBER: P879385

CATALOG NUMBER: LD4C20D010 EU4209040 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	843.4	843.4	843.4	843.4	843.4	843.4	843.4	843.4
2.5°	840.0	840.0	839.6	839.3	839.3	839.3	839.0	839.0
5°	832.4	831.4	831.1	830.5	830.2	829.9	828.9	828.9
7.5°	820.1	818.8	817.9	816.9	815.7	814.7	814.7	813.5
10°	803.7	801.2	799.9	798.6	797.1	795.2	794.5	793.6
12.5°	783.8	778.8	777.5	775.3	772.8	771.5	769.3	769.3
15°	759.2	753.8	751.0	749.7	746.6	744.4	743.4	740.9
17.5°	730.5	726.4	722.0	720.1	716.6	713.8	712.5	712.2
20°	701.5	694.9	692.0	689.2	685.1	682.6	680.7	678.1
22.5°	668.1	662.1	658.0	656.1	652.6	648.2	645.0	645.0
25°	632.7	627.4	625.2	621.1	617.0	615.4	611.6	611.0
27.5°	599.0	593.6	589.2	587.0	582.3	580.0	576.9	575.6
30°	564.0	557.7	554.5	554.2	548.5	546.3	543.8	542.5
32.5°	529.0	523.6	520.4	518.5	516.0	512.2	510.0	508.8
35°	494.3	490.8	487.9	485.7	481.6	479.7	477.9	476.3
37.5°	458.0	454.8	453.6	451.7	449.8	446.3	445.7	444.4
40°	423.0	418.9	418.9	417.6	415.7	415.4	414.5	414.5
42.5°	386.4	384.5	384.2	384.5	383.2	382.6	381.7	383.9
45°	350.1	351.1	349.5	349.8	349.2	350.4	350.4	351.7
47.5°	316.7	315.4	316.0	316.7	317.6	317.6	317.3	317.0
50°	281.0	282.3	283.6	282.0	282.6	282.9	281.4	281.7
52.5°	250.4	250.8	251.7	250.8	251.7	251.4	252.0	250.8
55°	220.8	220.8	222.1	222.4	222.7	223.6	223.9	224.9
57.5°	192.1	193.7	195.2	194.9	196.2	197.5	196.5	197.5
60°	167.2	168.4	170.0	170.6	171.6	172.2	172.2	172.8
62.5°	141.9	144.5	145.7	147.0	147.0	148.2	149.5	149.8
65°	119.2	122.1	123.0	124.0	124.6	125.9	127.4	127.1
67.5°	97.8	99.7	100.9	101.6	103.5	104.1	105.3	106.6
70°	76.6	79.2	80.1	81.4	83.0	84.2	85.5	86.1
72.5°	58.7	60.6	61.2	62.5	64.0	65.3	65.9	66.9
75°	41.0	44.2	44.5	45.4	46.7	48.3	49.2	48.9
77.5°	27.1	29.3	29.6	30.9	32.2	33.4	33.7	34.1
80°	16.1	17.3	17.7	18.3	19.2	19.9	20.5	21.1
82.5°	7.6	8.2	8.8	8.8	9.5	10.1	10.1	10.4
85°	2.5	2.5	2.8	2.8	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)