

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: P879381

Luminaire Tested: **LD4C20D010 EU4209030 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: P879381
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 EU4209030 4LBLDWWLI
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

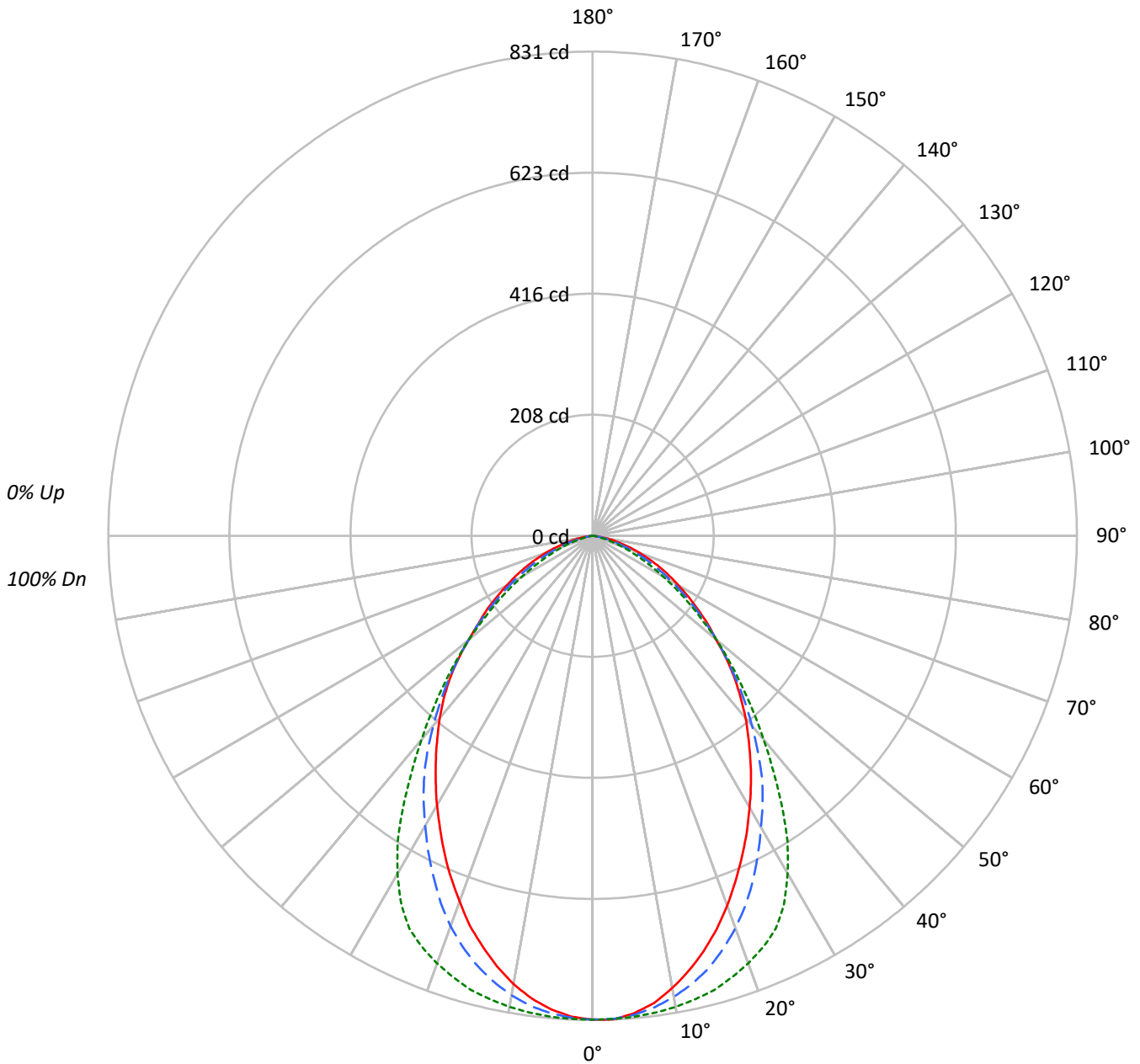
Lumens per Lamp: N/A
Luminaire Lumens: 1525.0 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	102018	102018	102018
5°	101408	102173	100644
10°	98314	102419	97466
15°	93801	102653	92770
20°	88261	102067	87281
25°	82213	100852	81536
30°	76391	94975	75767
35°	70834	84947	70324
40°	65481	73259	65433
45°	59663	62529	60149
50°	52693	52885	52999
55°	47229	43223	47421
60°	41746	34325	41819
65°	36744	26192	36366
70°	30460	18750	30460
75°	23733	10775	22832
80°	15352	2618	14716
85°	5638	846	4370



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	5.1
10°-20°	215.7	14.1
20°-30°	301.5	19.8
30°-40°	318.0	20.9
40°-50°	270.5	17.7
50°-60°	190.9	12.5
60°-70°	108.2	7.1
70°-80°	38.6	2.5
80°-90°	3.7	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°	595.1	39.0
0°-40°	913.1	59.9
0°-60°	1374.5	90.1
0°-90°	1525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1525.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	830	830	830	830	830	
5°	822	825	828	823	816	77
15°	738	769	807	764	729	207
25°	606	652	744	646	602	279
35°	472	506	566	504	469	295
45°	343	348	360	350	346	264
55°	220	213	202	214	221	198
65°	126	108	90	109	125	125
75°	50	34	23	34	48	54
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°	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4
2.5°	831.0	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.7	829.7
5°	822.3	821.7	821.3	821.3	821.3	821.3	821.7	822.9	823.5	824.5	825.1
7.5°	808.6	807.4	808.0	808.0	808.6	809.2	810.2	811.4	813.3	814.5	816.1
10°	788.1	786.9	788.4	789.1	790.9	791.8	793.4	795.3	799.0	800.9	803.3
12.5°	764.2	763.6	764.2	766.7	768.6	769.8	771.7	775.7	779.4	783.5	787.8
15°	737.5	736.0	736.9	740.0	743.1	745.3	746.8	752.1	757.1	763.3	768.6
17.5°	707.7	705.5	708.0	710.5	714.5	716.4	718.6	724.5	731.3	738.1	744.0
20°	675.1	674.5	676.0	679.4	683.5	686.0	687.8	694.3	700.2	709.6	716.4
22.5°	641.2	641.9	643.1	646.8	649.6	653.0	655.8	661.7	668.6	677.3	686.0
25°	606.5	607.4	609.6	612.1	616.7	618.6	622.0	628.2	634.1	642.2	651.8
27.5°	572.9	573.2	575.7	577.0	581.3	585.3	586.9	593.4	600.3	606.5	614.8
30°	538.5	539.4	540.9	544.4	548.7	550.3	552.1	558.0	563.3	571.1	577.6
32.5°	505.5	504.9	506.8	508.6	513.6	516.4	517.3	524.2	528.8	536.6	542.8
35°	472.3	470.8	473.6	475.4	479.8	482.3	483.5	488.8	493.1	499.6	506.5
37.5°	439.1	440.3	441.6	443.1	445.3	445.9	449.6	450.9	456.5	461.4	465.2
40°	408.3	407.7	407.1	408.7	411.5	412.7	413.0	416.4	417.7	422.6	425.4
42.5°	375.4	375.7	375.4	375.7	377.3	377.3	378.2	380.4	381.3	382.9	386.3
45°	343.4	343.4	342.5	342.8	343.1	342.8	343.1	344.1	345.9	345.9	348.4
47.5°	310.2	309.6	310.8	309.9	309.3	309.0	309.9	309.0	310.8	310.8	311.5
50°	275.7	275.7	277.3	277.0	277.6	276.4	276.7	276.7	277.0	276.7	277.9
52.5°	249.0	248.4	247.8	246.2	246.9	245.6	245.6	245.9	245.0	244.7	243.1
55°	220.5	221.1	220.2	219.5	219.5	218.3	218.0	216.1	214.9	214.0	213.0
57.5°	194.7	195.3	195.0	193.5	191.6	191.9	191.3	189.4	186.6	184.8	183.2
60°	169.9	170.5	169.9	168.3	167.7	166.4	166.1	163.6	161.5	159.0	157.1
62.5°	147.5	147.5	147.2	145.0	143.5	143.8	142.2	140.4	137.6	134.1	131.4
65°	126.4	126.1	124.5	123.6	122.3	120.8	119.9	117.1	114.9	112.1	108.4
67.5°	105.3	104.3	103.7	102.8	100.0	99.7	98.4	96.0	92.8	90.7	87.6
70°	84.8	84.5	83.2	83.2	81.0	80.1	78.3	76.1	73.3	70.2	67.7
72.5°	67.1	66.5	65.2	64.0	62.1	61.5	59.9	57.8	55.3	52.2	49.1
75°	50.0	49.4	49.1	47.5	46.0	44.4	43.8	41.6	39.1	37.0	34.2
77.5°	35.1	34.5	33.5	32.6	31.7	30.7	29.8	27.9	25.8	23.9	21.4
80°	21.7	21.1	20.5	20.2	19.3	18.9	17.7	16.8	14.9	13.7	12.1
82.5°	11.2	11.2	10.6	10.2	9.6	9.3	9.0	8.1	7.1	6.2	5.3
85°	4.0	4.0	3.7	3.4	3.4	3.1	3.1	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°	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4
2.5°	830.0	829.7	830.0	830.0	830.4	830.4	830.4	830.0	830.4	830.0	830.0
5°	825.1	826.0	826.6	827.2	827.6	827.9	827.9	828.2	828.5	828.5	828.2
7.5°	817.3	819.2	821.0	822.3	822.9	823.5	824.5	825.1	825.7	825.4	825.1
10°	807.1	810.2	812.7	815.1	816.4	817.3	818.9	820.1	820.7	821.0	820.1
12.5°	792.5	796.8	800.9	804.9	806.8	808.0	811.1	813.3	814.5	814.5	813.6
15°	774.1	780.4	786.3	791.5	794.6	796.5	801.2	804.3	806.1	807.1	805.5
17.5°	752.1	759.2	766.4	773.2	776.3	779.1	785.6	790.0	794.0	794.6	792.8
20°	723.8	732.8	740.9	749.3	752.7	757.1	764.5	771.7	777.9	780.7	775.4
22.5°	692.2	702.1	709.6	719.8	724.5	729.1	738.7	747.8	758.6	764.5	755.2
25°	659.3	667.6	676.6	686.6	693.1	698.1	709.2	720.7	735.3	744.0	731.0
27.5°	623.9	631.3	642.2	653.0	658.0	664.2	677.6	690.0	704.0	711.7	702.1
30°	587.2	596.5	606.8	616.7	623.9	629.8	640.6	651.2	663.0	669.5	662.4
32.5°	550.9	559.9	568.6	579.4	583.5	588.8	598.4	607.4	616.4	622.3	613.9
35°	512.7	520.8	528.8	536.3	538.1	544.4	552.1	557.4	561.7	566.4	560.8
37.5°	471.1	477.3	481.3	489.4	492.5	493.4	499.6	503.4	508.0	509.0	508.6
40°	428.8	434.4	437.8	442.8	445.3	445.3	449.6	453.1	456.5	456.8	456.5
42.5°	389.4	392.2	395.0	398.1	397.5	401.2	403.1	404.6	407.1	407.1	407.7
45°	349.7	351.8	354.3	354.9	357.4	357.4	359.0	359.6	360.8	359.9	358.7
47.5°	312.7	313.6	313.9	316.7	317.4	315.2	317.0	317.4	317.0	317.0	316.4
50°	277.6	278.2	277.9	277.0	277.3	278.2	277.3	276.1	276.7	276.7	277.3
52.5°	243.5	242.2	241.6	241.6	240.3	240.3	238.8	238.2	237.9	236.6	238.2
55°	212.1	210.2	207.4	206.8	205.9	205.6	203.7	202.2	201.5	201.8	201.5
57.5°	182.0	179.2	177.3	176.7	175.8	173.9	171.7	170.2	169.9	169.2	169.2
60°	154.6	151.5	148.7	145.9	146.3	145.0	142.8	141.9	141.0	139.7	140.7
62.5°	129.8	126.4	123.3	120.5	118.6	117.7	116.1	114.6	113.7	112.7	114.0
65°	105.3	102.5	99.1	96.3	95.3	94.4	92.8	90.4	90.1	90.1	90.7
67.5°	83.2	80.1	77.0	75.1	73.9	72.7	72.0	70.8	69.9	69.2	69.6
70°	64.0	60.9	58.4	56.5	55.6	55.3	53.1	52.8	52.5	52.2	51.9
72.5°	46.6	44.1	41.9	40.7	39.4	38.5	37.9	37.0	36.6	36.6	36.6
75°	32.0	30.1	27.6	26.1	25.5	24.5	23.6	23.0	22.4	22.7	22.7
77.5°	19.3	17.4	15.8	14.6	14.3	13.4	12.4	11.8	10.9	10.9	11.2
80°	10.6	9.0	7.8	6.8	6.2	5.9	5.0	4.7	4.0	3.7	3.7
82.5°	4.7	3.7	3.1	2.8	2.5	2.2	1.9	1.6	1.6	1.2	1.6
85°	1.6	1.2	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°	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4
2.5°	829.7	829.7	829.4	829.4	829.4	828.8	828.8	828.5	828.2	827.9	827.2
5°	827.6	827.2	826.6	826.3	826.0	825.1	824.1	823.5	822.6	821.3	820.7
7.5°	824.5	823.5	822.3	821.7	820.7	818.6	817.0	815.4	813.9	811.7	809.2
10°	819.2	817.3	815.4	814.2	812.7	809.9	806.8	804.3	800.9	797.7	794.3
12.5°	811.7	809.5	805.8	804.0	802.1	798.1	794.0	788.7	784.1	779.7	775.7
15°	802.4	798.4	794.0	791.5	788.7	782.2	776.0	770.4	764.2	758.9	752.4
17.5°	788.7	782.8	776.6	773.8	770.1	762.7	755.2	747.4	740.3	733.8	725.7
20°	768.2	761.7	753.7	749.3	746.2	736.3	729.1	720.4	713.0	704.9	695.9
22.5°	744.3	735.3	726.3	720.1	716.7	706.8	697.1	689.4	681.3	672.0	665.5
25°	717.3	706.1	695.3	689.1	683.8	673.2	663.9	655.8	645.9	637.8	631.3
27.5°	686.9	674.2	661.4	655.2	650.2	638.8	628.8	620.4	610.8	603.7	596.8
30°	650.6	639.1	627.0	622.0	616.1	604.3	592.8	585.3	574.8	567.3	559.9
32.5°	605.2	597.8	588.1	581.3	578.2	567.3	557.7	548.7	539.7	533.8	526.3
35°	555.5	549.0	540.9	537.2	533.2	526.3	518.6	510.8	503.7	498.1	491.3
37.5°	505.2	498.7	493.7	489.7	487.2	481.0	476.4	470.5	465.5	460.2	456.5
40°	453.1	451.2	445.9	444.1	443.4	436.6	432.6	427.9	424.8	421.7	419.5
42.5°	406.8	403.7	399.7	400.0	398.1	394.4	391.6	388.5	386.3	384.7	382.6
45°	361.1	358.7	356.8	358.3	355.2	354.0	351.8	351.5	350.0	347.2	346.2
47.5°	317.7	317.4	317.7	316.7	316.1	315.5	315.8	314.3	312.7	311.8	310.5
50°	277.9	278.2	278.9	279.8	277.6	278.5	278.2	277.9	277.9	277.0	277.6
52.5°	239.4	239.7	240.3	241.3	241.6	241.6	242.5	243.1	244.4	245.9	245.9
55°	203.1	205.3	206.5	208.1	207.1	209.0	209.9	212.7	213.6	213.6	214.9
57.5°	170.8	173.0	173.9	175.8	176.4	177.9	180.4	182.0	184.1	186.0	187.9
60°	141.3	142.2	144.7	147.5	146.9	150.6	152.5	155.0	157.7	159.0	161.5
62.5°	114.9	116.1	118.0	118.9	121.1	123.0	127.3	129.8	132.3	135.4	137.9
65°	91.3	92.5	94.4	96.3	97.2	100.0	102.2	106.5	108.7	112.1	114.9
67.5°	69.9	71.7	73.3	74.5	75.1	77.9	81.4	83.2	87.3	90.7	92.8
70°	52.2	53.7	55.6	55.3	56.5	58.7	61.2	64.0	67.1	70.2	72.7
72.5°	36.3	37.9	39.1	39.4	40.7	42.2	44.1	46.3	48.8	51.9	55.3
75°	23.0	23.3	24.5	25.2	25.8	27.6	29.2	31.4	33.5	36.0	38.2
77.5°	11.5	12.4	13.0	13.7	14.0	15.5	17.1	18.9	20.8	23.3	25.5
80°	4.3	4.7	5.6	5.9	6.5	7.5	8.7	9.6	11.2	13.0	14.3
82.5°	1.6	1.9	2.2	2.2	2.5	3.1	3.4	4.3	5.3	5.9	6.5
85°	0.6	0.6	0.6	0.6	0.6	0.9	0.9	1.2	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°	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4
2.5°	826.9	826.9	826.6	826.3	826.3	826.3	826.0	826.0
5°	819.5	818.6	818.2	817.6	817.3	817.0	816.1	816.1
7.5°	807.4	806.1	805.2	804.3	803.0	802.1	802.1	800.9
10°	791.2	788.7	787.5	786.3	784.7	782.8	782.2	781.3
12.5°	771.7	766.7	765.5	763.3	760.8	759.6	757.4	757.4
15°	747.4	742.2	739.4	738.1	735.0	732.8	731.9	729.4
17.5°	719.2	715.1	710.8	708.9	705.5	702.7	701.5	701.2
20°	690.6	684.1	681.3	678.5	674.5	672.0	670.1	667.6
22.5°	657.7	651.8	647.8	645.9	642.5	638.1	635.0	635.0
25°	622.9	617.6	615.5	611.4	607.4	605.8	602.1	601.5
27.5°	589.7	584.4	580.1	577.9	573.2	571.1	568.0	566.7
30°	555.2	549.0	545.9	545.6	540.0	537.8	535.4	534.1
32.5°	520.8	515.5	512.4	510.5	508.0	504.3	502.1	500.9
35°	486.6	483.2	480.4	478.2	474.2	472.3	470.5	468.9
37.5°	450.9	447.8	446.5	444.7	442.8	439.4	438.8	437.5
40°	416.4	412.4	412.4	411.1	409.3	409.0	408.0	408.0
42.5°	380.4	378.5	378.2	378.5	377.3	376.7	375.7	377.9
45°	344.7	345.6	344.1	344.4	343.8	345.0	345.0	346.2
47.5°	311.8	310.5	311.1	311.8	312.7	312.7	312.4	312.1
50°	276.7	277.9	279.2	277.6	278.2	278.5	277.0	277.3
52.5°	246.6	246.9	247.8	246.9	247.8	247.5	248.1	246.9
55°	217.4	217.4	218.6	218.9	219.2	220.2	220.5	221.4
57.5°	189.1	190.7	192.2	191.9	193.1	194.4	193.5	194.4
60°	164.6	165.8	167.4	168.0	168.9	169.5	169.5	170.2
62.5°	139.7	142.2	143.5	144.7	144.7	145.9	147.2	147.5
65°	117.4	120.2	121.1	122.0	122.7	123.9	125.5	125.1
67.5°	96.3	98.1	99.4	100.0	101.9	102.5	103.7	105.0
70°	75.5	77.9	78.9	80.1	81.7	82.9	84.2	84.8
72.5°	57.8	59.6	60.2	61.5	63.0	64.3	64.9	65.8
75°	40.4	43.5	43.8	44.7	46.0	47.5	48.4	48.1
77.5°	26.7	28.9	29.2	30.4	31.7	32.9	33.2	33.5
80°	15.8	17.1	17.4	18.0	18.9	19.6	20.2	20.8
82.5°	7.5	8.1	8.7	8.7	9.3	9.9	9.9	10.2
85°	2.5	2.5	2.8	2.8	3.1	3.1	3.4	3.1
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)