

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: P857164

Luminaire Tested: **LX4C20D010 EX4C209035 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P857164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 2/14/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C20D010 EX4C209035 4LBLWWH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

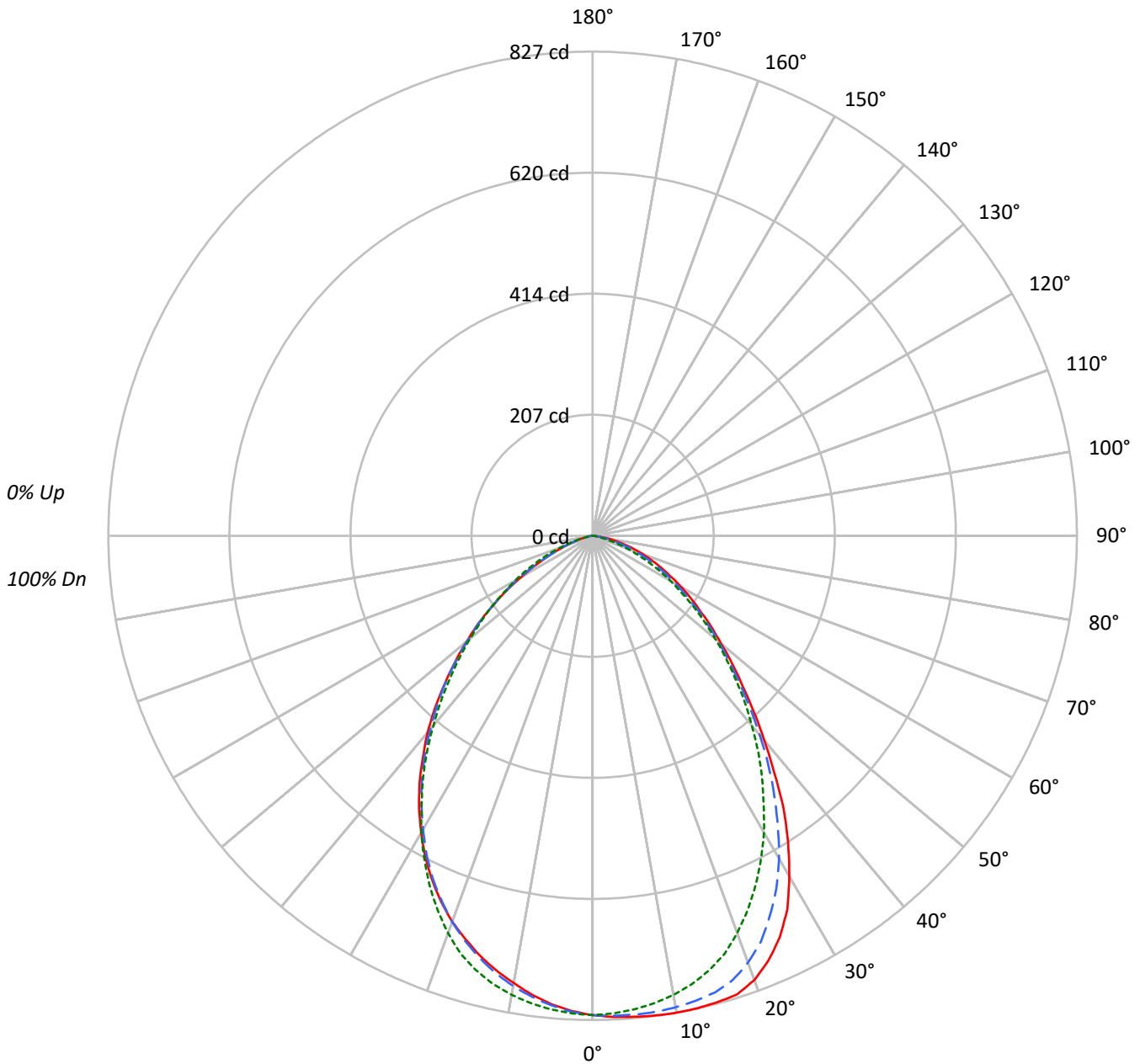
Lumens per Lamp: N/A
Luminaire Lumens: 1543.0 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V):
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	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68																			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60																			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47																			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39																			
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35																			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	100592	100592	100592
5°	101704	100150	99065
10°	103205	99312	96793
15°	104891	97731	94487
20°	105558	94406	91687
25°	102533	89303	87934
30°	95287	83002	83044
35°	85292	75663	77268
40°	73034	67822	70292
45°	62860	59802	62043
50°	54643	52063	53630
55°	48085	44787	44380
60°	42778	37372	34424
65°	37529	29942	24913
70°	32220	21157	16846
75°	26154	12246	9873
80°	18748	5377	4882
85°	7048	2255	2255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	5.0
10°-20°	218.4	14.2
20°-30°	311.9	20.2
30°-40°	326.3	21.1
40°-50°	273.4	17.7
50°-60°	191.3	12.4
60°-70°	104.2	6.8
70°-80°	36.2	2.3
80°-90°	4.2	0.3
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°	607.5	39.4
0°-40°	933.8	60.5
0°-60°	1398.5	90.6
0°-90°	1543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1543.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	819	819	819	819	819	
5°	825	821	812	805	803	79
15°	825	807	768	746	743	233
25°	756	716	659	646	649	345
35°	569	541	504	508	515	353
45°	362	354	344	356	357	281
55°	224	217	209	209	207	203
65°	129	118	103	87	86	129
75°	55	45	26	21	21	59
85°	5	3	2	2	2	9
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°	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8
2.5°	822.5	821.6	821.9	821.9	821.9	821.6	821.9	821.6	821.6	821.3	820.6
5°	824.7	824.1	824.1	824.1	823.8	823.5	823.5	823.2	822.5	822.2	821.0
7.5°	826.3	825.7	825.7	825.4	825.1	824.7	824.4	823.5	822.5	821.9	820.3
10°	827.3	826.3	826.3	825.7	825.1	824.7	824.1	822.8	821.6	820.0	817.8
12.5°	826.6	825.7	825.4	824.7	823.5	822.8	822.2	820.6	818.4	816.2	813.4
15°	824.7	824.1	823.5	822.5	821.0	820.0	819.4	816.9	814.0	810.9	807.4
17.5°	821.0	820.0	818.8	817.5	815.3	814.3	812.8	809.6	805.5	801.1	795.8
20°	807.4	806.8	805.5	803.3	799.9	798.6	796.4	792.3	786.9	781.6	775.9
22.5°	785.1	784.1	782.2	780.3	777.2	775.0	773.1	767.4	761.4	755.8	750.4
25°	756.4	755.5	752.9	750.4	747.3	743.5	741.6	737.2	731.2	724.0	716.1
27.5°	719.6	716.4	715.5	712.6	707.9	706.6	703.8	698.1	692.5	686.2	679.6
30°	671.7	671.7	669.8	668.5	664.1	662.9	659.7	653.7	650.6	641.8	636.7
32.5°	621.0	620.4	618.8	617.8	615.3	613.1	610.0	606.8	599.9	595.5	588.6
35°	568.7	564.9	565.6	563.7	562.1	559.6	559.3	555.8	549.5	547.0	540.7
37.5°	509.2	507.6	509.8	507.0	505.4	505.7	503.2	501.0	498.5	494.1	492.8
40°	455.4	456.6	456.3	453.8	455.0	453.5	450.9	448.7	447.5	444.6	443.7
42.5°	407.2	405.3	404.7	404.7	405.0	405.0	403.7	402.1	402.1	399.3	396.5
45°	361.8	361.8	361.2	363.1	360.3	360.3	359.3	359.0	357.7	357.1	353.6
47.5°	322.8	322.5	322.1	321.8	321.5	321.5	319.6	318.1	317.7	315.8	314.0
50°	285.9	287.8	287.2	285.6	285.0	285.3	284.0	283.1	282.8	279.6	280.0
52.5°	255.1	254.8	255.4	254.4	252.9	253.2	251.9	250.7	249.4	247.8	246.6
55°	224.5	226.1	225.5	224.5	224.2	223.6	222.6	221.1	220.7	217.3	217.0
57.5°	199.0	198.7	198.1	196.5	196.2	195.2	195.2	194.0	192.1	190.2	188.6
60°	174.1	174.1	173.2	172.9	171.6	171.3	171.0	169.7	167.5	166.0	163.4
62.5°	150.2	150.8	150.2	149.3	148.3	147.1	146.4	145.5	143.6	142.0	139.8
65°	129.1	128.8	128.5	127.2	126.9	125.6	125.3	123.4	121.6	120.3	117.8
67.5°	109.0	108.0	108.0	107.4	106.8	105.8	105.2	103.3	101.1	99.8	97.3
70°	89.7	89.1	89.1	89.1	87.5	86.6	86.3	85.3	82.2	80.9	78.4
72.5°	72.1	71.8	71.5	70.5	69.6	69.6	68.3	66.4	64.9	63.3	61.4
75°	55.1	55.7	55.1	53.8	53.5	52.9	52.0	50.4	48.8	46.9	44.7
77.5°	40.3	39.7	39.0	39.0	38.4	37.2	36.8	35.6	33.7	32.4	30.2
80°	26.5	26.1	25.5	24.9	24.6	24.2	23.9	22.7	20.8	19.8	17.9
82.5°	14.5	14.2	14.2	13.9	12.9	12.9	12.6	11.3	10.4	9.8	8.8
85°	5.0	5.0	5.0	4.7	4.7	4.7	4.4	4.1	3.8	3.5	2.8
87.5°	0.6	0.3	0.6	0.3	0.6	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8
2.5°	820.0	819.4	819.1	818.8	818.4	818.1	817.8	817.2	816.9	816.5	815.9
5°	820.0	818.8	818.1	817.2	816.5	815.9	815.0	814.0	813.1	812.1	811.2
7.5°	818.8	816.9	815.6	813.7	813.1	812.1	810.3	809.0	807.4	805.5	803.3
10°	815.6	813.4	810.9	808.4	807.4	805.8	803.3	801.1	798.6	796.1	793.9
12.5°	810.6	807.1	804.0	800.5	798.6	797.0	793.6	790.4	787.3	784.4	780.6
15°	803.0	798.9	794.8	790.1	787.9	786.0	781.0	777.2	772.1	768.4	764.6
17.5°	790.7	784.4	779.4	773.4	770.3	768.1	763.6	757.7	752.9	748.8	744.4
20°	769.6	763.6	756.7	750.1	746.6	743.8	737.5	731.2	726.5	722.1	717.4
22.5°	741.9	734.4	729.3	721.1	718.3	714.8	707.3	701.6	696.3	691.8	687.4
25°	708.2	701.6	694.7	687.1	683.7	679.6	673.3	667.3	663.8	658.8	653.4
27.5°	669.5	664.1	655.6	649.0	645.6	642.4	636.4	631.1	626.0	622.6	617.5
30°	628.6	622.3	614.7	607.8	605.9	602.1	596.7	592.7	587.3	585.1	582.9
32.5°	583.5	576.3	570.6	566.2	562.4	559.3	556.4	549.8	548.9	543.2	542.6
35°	534.4	531.2	525.9	522.1	519.0	516.8	512.0	508.9	505.4	504.5	502.3
37.5°	488.1	484.3	479.3	475.8	473.6	473.3	469.8	467.9	465.4	464.2	461.7
40°	439.6	438.0	433.6	433.0	429.5	429.2	427.3	425.1	422.9	422.9	423.2
42.5°	394.9	393.0	391.1	388.9	387.0	387.0	386.1	385.4	384.8	383.9	385.4
45°	353.0	350.5	349.2	347.0	348.0	346.1	345.5	345.5	344.5	344.2	346.4
47.5°	314.0	311.1	309.9	309.2	309.2	309.6	306.7	307.7	307.3	308.0	308.9
50°	278.4	275.9	274.0	274.0	274.3	273.0	271.8	272.7	271.8	272.4	274.6
52.5°	245.3	242.8	241.8	241.8	240.0	239.6	240.3	239.0	239.3	239.6	240.9
55°	214.8	213.2	211.6	210.0	210.4	209.7	208.5	208.2	208.8	209.1	210.7
57.5°	187.4	185.2	183.0	182.3	181.7	181.7	180.1	179.8	180.4	178.9	178.9
60°	161.2	160.0	157.1	156.2	156.2	154.6	153.4	154.0	152.4	152.1	152.4
62.5°	137.0	136.0	134.1	132.3	131.6	131.0	129.4	128.8	128.2	126.9	125.0
65°	115.9	113.7	111.5	110.2	109.3	107.7	106.8	105.5	103.6	103.0	101.1
67.5°	94.8	92.6	90.4	89.4	88.5	87.5	86.0	84.4	82.2	79.7	77.5
70°	76.2	73.4	72.1	69.6	69.0	67.7	65.5	63.9	61.7	58.9	56.7
72.5°	58.3	56.4	54.5	52.3	50.7	49.8	47.9	45.3	42.8	41.3	39.0
75°	41.9	40.9	38.4	35.9	35.3	34.0	31.8	30.2	28.3	25.8	23.9
77.5°	28.3	26.5	24.9	22.7	22.0	20.8	19.5	17.9	16.7	15.1	13.9
80°	16.7	15.1	14.2	12.6	12.0	11.3	10.4	9.1	8.2	7.6	7.2
82.5°	8.2	6.9	6.6	5.7	5.4	5.0	4.4	4.1	3.5	3.5	3.5
85°	2.8	2.2	2.2	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	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°	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8
2.5°	815.6	815.3	815.0	814.7	814.7	814.3	814.3	814.0	814.0	813.7	813.7
5°	809.9	809.0	808.4	807.7	807.7	806.8	806.2	805.5	805.2	805.2	804.6
7.5°	802.1	800.8	799.5	798.6	798.3	796.7	795.5	795.5	794.2	793.6	792.9
10°	791.7	789.5	787.6	786.6	785.4	784.4	782.9	781.9	781.0	779.4	779.1
12.5°	777.5	775.9	773.1	771.8	771.2	769.3	766.8	765.5	765.2	764.0	763.0
15°	761.4	758.0	755.5	753.9	753.9	750.7	749.5	747.6	746.3	745.4	745.1
17.5°	740.7	737.2	734.7	732.5	731.8	729.3	727.4	726.8	725.2	725.9	724.3
20°	713.9	711.1	709.2	706.3	706.3	704.8	704.1	702.6	701.9	701.3	701.9
22.5°	685.2	681.8	678.6	678.3	678.3	676.1	675.8	675.5	674.2	675.2	674.8
25°	651.5	649.0	647.1	646.8	646.8	645.6	644.3	644.9	645.9	645.6	646.5
27.5°	616.6	614.1	613.4	613.1	612.5	612.2	612.8	612.8	613.8	615.0	616.3
30°	578.8	578.2	577.2	576.9	576.3	577.9	578.5	579.4	579.1	581.0	582.3
32.5°	541.0	539.7	539.4	540.1	541.0	540.7	542.6	543.2	543.8	546.0	547.0
35°	502.9	502.6	502.0	502.0	502.3	504.8	504.8	507.0	508.3	508.9	511.4
37.5°	462.0	463.2	463.9	464.8	465.1	466.1	466.7	468.9	470.2	471.4	472.7
40°	424.5	423.9	426.7	424.8	425.4	428.3	429.5	429.2	431.1	433.0	434.3
42.5°	384.5	385.4	386.1	386.7	388.3	388.6	390.2	392.4	393.0	395.2	395.8
45°	345.8	346.1	347.3	348.6	349.5	352.1	352.7	353.6	355.5	355.5	356.5
47.5°	309.2	310.5	310.5	312.4	314.0	313.6	315.8	316.5	316.2	317.7	318.4
50°	274.3	276.2	275.9	277.1	277.7	278.1	280.0	280.6	279.3	280.9	281.2
52.5°	240.9	241.8	243.1	243.4	242.8	244.4	243.7	245.0	244.7	245.9	244.7
55°	210.4	210.0	210.0	210.7	210.0	210.7	211.3	210.0	209.1	210.4	210.0
57.5°	179.8	179.8	179.2	180.1	179.2	178.2	177.9	177.0	176.0	176.0	175.7
60°	151.2	150.5	149.3	149.0	149.0	147.4	146.7	145.5	145.5	144.2	143.0
62.5°	124.4	122.8	121.9	121.9	121.2	119.7	116.8	114.9	114.3	112.4	112.1
65°	99.2	97.6	96.7	94.8	93.2	92.6	89.7	87.5	86.6	84.7	85.0
67.5°	76.2	73.7	70.9	69.6	68.6	66.4	65.5	63.9	63.0	63.0	63.0
70°	54.8	52.6	49.8	48.8	48.2	46.3	45.3	45.0	46.0	45.7	46.0
72.5°	36.8	34.6	33.4	32.8	32.1	31.2	31.8	32.1	31.5	31.8	32.1
75°	22.4	21.7	20.8	20.5	20.5	20.8	20.5	20.5	20.8	20.8	21.1
77.5°	12.9	12.3	12.3	12.0	12.6	12.3	12.3	12.3	12.6	12.6	12.6
80°	6.9	6.9	6.9	6.9	7.2	6.9	7.2	7.2	7.2	7.2	7.2
82.5°	3.5	3.5	3.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.5
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.6	0.6	0.6	0.6	0.6	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	818.8	818.8	818.8	818.8	818.8	818.8	818.8	818.8
2.5°	813.1	813.1	813.1	812.5	812.8	812.8	812.5	812.5
5°	804.3	804.0	803.3	803.3	802.7	803.3	803.0	803.3
7.5°	792.3	792.3	791.4	791.4	791.0	790.7	790.4	790.7
10°	778.1	778.1	777.5	777.2	777.5	776.2	776.2	775.9
12.5°	762.4	761.8	761.1	761.4	761.1	760.2	759.9	760.2
15°	744.1	743.2	743.5	742.5	742.5	742.2	742.9	742.9
17.5°	724.0	723.3	722.7	723.0	722.4	722.7	722.4	722.1
20°	701.6	701.3	701.3	700.0	700.3	700.0	700.3	701.3
22.5°	675.8	675.5	675.8	674.8	675.5	675.5	676.4	676.4
25°	647.4	647.1	647.8	648.1	648.4	649.3	648.4	648.7
27.5°	616.0	616.9	617.8	618.2	619.4	618.5	617.8	618.8
30°	584.1	584.1	583.8	585.1	586.0	587.0	585.4	585.4
32.5°	547.6	549.2	549.2	549.5	550.5	550.5	550.5	551.7
35°	512.7	513.6	513.9	512.7	513.3	513.0	515.2	515.2
37.5°	473.6	473.6	473.9	476.1	476.1	475.2	475.8	475.8
40°	436.5	436.8	435.5	436.1	437.7	437.1	437.7	438.3
42.5°	395.8	398.0	396.8	397.4	397.1	397.4	397.7	397.7
45°	357.1	357.7	357.7	358.0	358.7	359.3	357.4	357.1
47.5°	319.3	319.6	320.6	319.0	320.9	319.0	320.9	318.7
50°	281.2	282.5	281.5	282.2	281.2	281.2	280.9	280.6
52.5°	245.0	244.7	244.7	244.4	244.4	245.0	244.4	245.3
55°	208.8	209.1	208.5	208.2	207.8	208.8	207.8	207.2
57.5°	174.5	175.1	173.8	174.5	172.3	173.2	173.5	173.8
60°	142.7	141.7	141.7	140.4	140.4	141.4	140.1	140.1
62.5°	110.5	111.2	110.2	111.5	111.5	112.7	112.1	112.7
65°	84.7	85.0	85.3	85.3	85.3	87.2	86.6	85.7
67.5°	63.9	64.2	64.6	64.2	65.2	64.6	64.6	64.9
70°	46.3	46.6	46.9	46.9	46.6	46.9	46.9	46.9
72.5°	32.1	32.4	32.1	32.4	32.8	32.4	32.4	32.8
75°	21.1	21.1	20.8	20.8	20.8	20.8	21.1	20.8
77.5°	12.3	12.6	12.3	12.6	12.6	12.6	12.6	12.6
80°	7.2	7.2	7.2	6.9	7.2	7.2	7.2	6.9
82.5°	3.8	3.8	3.5	3.5	3.8	3.8	3.8	3.8
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	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



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













(END OF REPORT)