

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: P857098

Luminaire Tested: **LX4C15D010 EX4C159030 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P857098
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: LX4C15D010 EX4C159030 4LBLWWH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

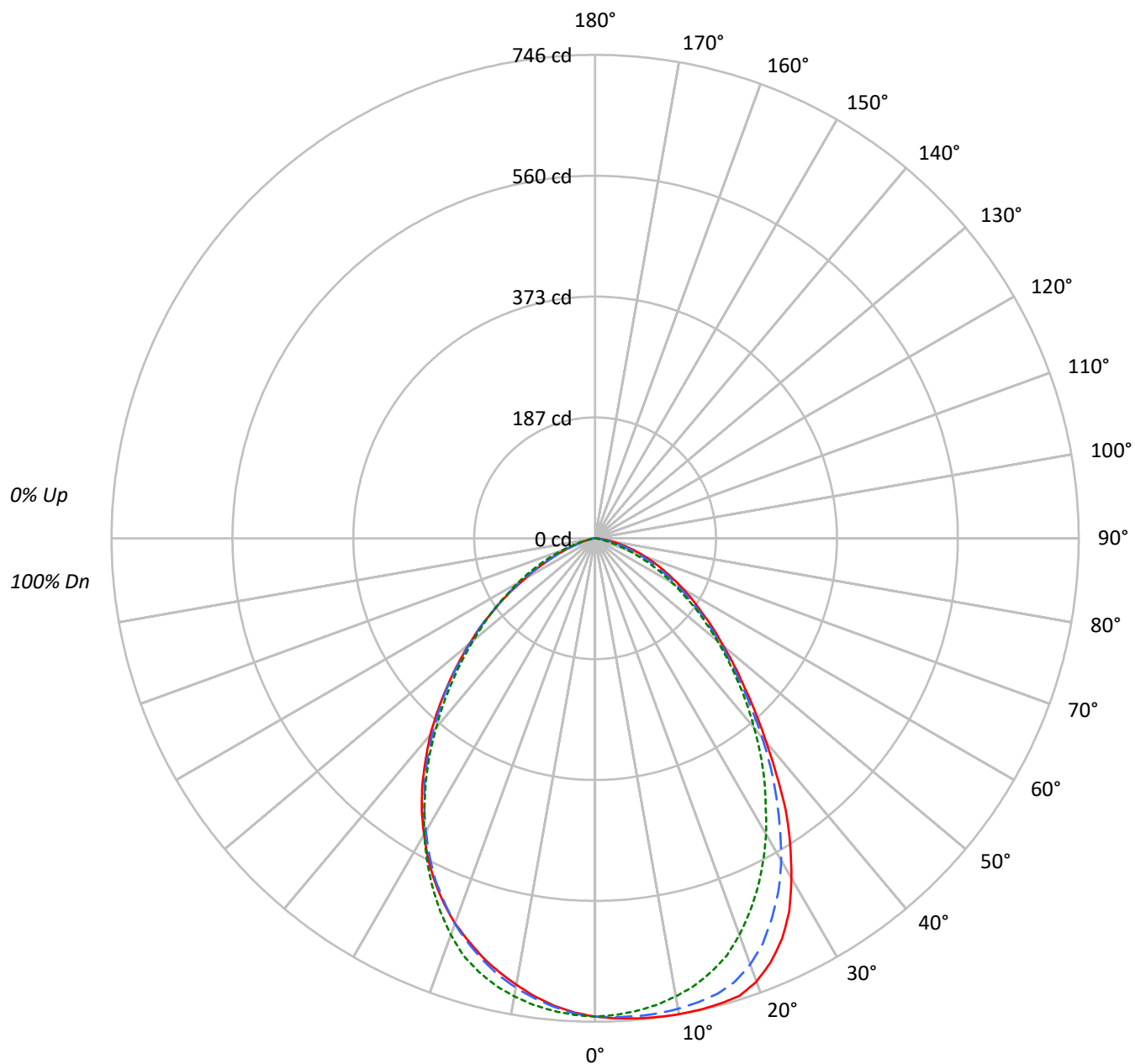
Lumens per Lamp: N/A
Luminaire Lumens: 1391.1 lumens
Efficiency: N/A
Efficacy: 59.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V):
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

TEST NUMBER: P857098

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

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			94
2	103	96	90	86	100	94	89	85		91	86	83			88	84	81			85
3	95	86	79	74	93	85	78	73		82	76	72			79	75	71			77
4	88	78	70	64	86	77	69	64		74	68	63			72	67	62			70
5	82	71	63	57	80	69	62	57		67	61	56			66	60	55			64
6	76	64	56	51	74	63	56	50		62	55	50			60	54	50			59
7	71	59	51	46	69	58	51	45		57	50	45			55	49	45			54
8	67	54	47	41	65	54	46	41		52	46	41			51	45	41			50
9	62	50	43	38	61	50	42	37		49	42	37			47	41	37			47
10	59	47	39	34	58	46	39	34		45	39	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	90690	90690	90690
5°	91703	90309	89310
10°	93038	89532	87274
15°	94576	88103	85177
20°	95164	85110	82666
25°	92448	80505	79285
30°	85896	74831	74873
35°	76908	68224	69679
40°	65833	61135	63380
45°	56674	53912	55945
50°	49291	46941	48355
55°	43373	40396	40010
60°	38601	33686	31033
65°	33866	27006	22442
70°	29095	19073	15194
75°	23544	11060	8876
80°	16838	4811	4386
85°	6343	1973	1973



TEST NUMBER: P857098

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	5.0
10°-20°	196.9	14.2
20°-30°	281.2	20.2
30°-40°	294.2	21.1
40°-50°	246.5	17.7
50°-60°	172.5	12.4
60°-70°	93.9	6.8
70°-80°	32.6	2.3
80°-90°	3.7	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°	547.7	39.4
0°-40°	841.9	60.5
0°-60°	1260.9	90.6
0°-90°	1391.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1391.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	738	738	738	738	738	
5°	744	740	732	726	724	71
15°	744	728	693	673	670	210
25°	682	646	594	582	585	311
35°	513	487	455	458	465	318
45°	326	319	310	321	322	254
55°	202	196	189	189	187	183
65°	116	106	93	78	77	116
75°	50	40	23	19	19	54
85°	4	3	1	1	1	8
90°	0	0	0	0	0	



TEST NUMBER: P857098

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2
2.5°	741.6	740.7	741.0	741.0	741.0	740.7	741.0	740.7	740.7	740.4	739.8
5°	743.6	743.1	743.1	743.1	742.8	742.5	742.5	742.1	741.6	741.3	740.2
7.5°	745.0	744.4	744.4	744.2	743.9	743.6	743.3	742.5	741.6	741.0	739.6
10°	745.8	745.0	745.0	744.4	743.9	743.6	743.1	741.8	740.7	739.4	737.4
12.5°	745.3	744.4	744.2	743.6	742.5	741.8	741.3	739.8	738.0	735.9	733.3
15°	743.6	743.1	742.5	741.6	740.2	739.4	738.8	736.6	733.9	731.1	727.9
17.5°	740.2	739.4	738.2	737.0	735.1	734.2	732.8	729.9	726.3	722.2	717.4
20°	727.9	727.4	726.3	724.2	721.2	720.0	718.0	714.4	709.5	704.7	699.6
22.5°	707.9	707.0	705.2	703.6	700.6	698.8	697.0	691.9	686.5	681.4	676.5
25°	682.0	681.1	678.8	676.5	673.8	670.3	668.7	664.6	659.2	652.7	645.7
27.5°	648.8	645.9	645.1	642.5	638.2	637.1	634.5	629.3	624.4	618.7	612.8
30°	605.5	605.5	603.9	602.7	598.8	597.6	594.9	589.4	586.5	578.7	574.0
32.5°	559.9	559.3	557.8	557.0	554.8	552.8	550.0	547.2	540.8	536.9	530.7
35°	512.8	509.4	509.8	508.2	506.8	504.5	504.2	501.2	495.5	493.2	487.4
37.5°	459.2	457.7	459.7	457.1	455.7	455.9	453.7	451.6	449.4	445.4	444.4
40°	410.5	411.7	411.5	409.1	410.2	408.8	406.6	404.6	403.4	401.0	400.0
42.5°	367.1	365.5	364.9	364.9	365.1	365.1	364.1	362.6	362.6	360.0	357.4
45°	326.2	326.2	325.7	327.3	324.8	324.8	323.9	323.7	322.5	322.0	318.8
47.5°	291.0	290.7	290.5	290.1	289.9	289.9	288.2	286.7	286.4	284.7	283.1
50°	257.9	259.5	258.9	257.5	256.9	257.2	256.0	255.2	255.0	252.2	252.4
52.5°	230.0	229.8	230.2	229.4	228.0	228.4	227.1	225.9	224.9	223.5	222.3
55°	202.5	203.8	203.3	202.5	202.1	201.5	200.7	199.3	199.1	195.9	195.6
57.5°	179.4	179.1	178.5	177.1	176.9	176.1	176.1	174.9	173.2	171.4	170.1
60°	157.1	157.1	156.1	155.8	154.7	154.4	154.2	153.1	151.1	149.6	147.4
62.5°	135.5	136.0	135.5	134.7	133.7	132.6	132.0	131.2	129.5	128.1	126.0
65°	116.5	116.1	115.9	114.7	114.4	113.3	113.0	111.3	109.7	108.4	106.2
67.5°	98.3	97.3	97.3	96.8	96.3	95.3	94.9	93.1	91.1	90.0	87.8
70°	81.0	80.4	80.4	80.4	78.9	78.1	77.7	76.9	74.1	72.9	70.7
72.5°	65.0	64.8	64.4	63.6	62.8	62.8	61.6	59.9	58.5	57.1	55.3
75°	49.6	50.2	49.6	48.5	48.2	47.7	46.9	45.5	44.0	42.3	40.4
77.5°	36.3	35.7	35.2	35.2	34.7	33.5	33.3	32.1	30.3	29.3	27.3
80°	23.8	23.6	23.0	22.4	22.2	21.9	21.6	20.4	18.7	17.9	16.2
82.5°	13.1	12.7	12.7	12.5	11.7	11.7	11.3	10.3	9.4	8.8	7.9
85°	4.5	4.5	4.5	4.3	4.3	4.3	4.0	3.7	3.5	3.1	2.6
87.5°	0.6	0.2	0.6	0.2	0.6	0.2	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	0.0	0.0	0.0



TEST NUMBER: P857098

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2
2.5°	739.4	738.8	738.4	738.2	738.0	737.6	737.4	736.8	736.6	736.1	735.5
5°	739.4	738.2	737.6	736.8	736.1	735.5	734.7	733.9	733.1	732.3	731.4
7.5°	738.2	736.6	735.3	733.7	733.1	732.3	730.6	729.3	727.9	726.3	724.2
10°	735.3	733.3	731.1	728.8	727.9	726.5	724.2	722.2	720.0	717.7	715.8
12.5°	730.9	727.7	724.9	721.8	720.0	718.6	715.5	712.7	709.7	707.3	703.8
15°	724.0	720.3	716.6	712.3	710.3	708.7	704.1	700.6	696.2	692.7	689.4
17.5°	713.0	707.3	702.7	697.4	694.5	692.5	688.5	683.0	678.8	675.2	671.1
20°	693.9	688.5	682.2	676.3	673.2	670.5	664.9	659.2	655.0	651.0	646.7
22.5°	668.9	662.1	657.6	650.2	647.5	644.5	637.7	632.6	627.7	623.7	619.8
25°	638.5	632.6	626.3	619.5	616.4	612.8	607.0	601.7	598.5	593.9	589.2
27.5°	603.7	598.8	591.2	585.1	582.0	579.2	573.8	569.0	564.3	561.3	556.8
30°	566.7	561.1	554.3	548.0	546.2	542.9	538.1	534.2	529.6	527.5	525.6
32.5°	526.1	519.5	514.5	510.4	507.1	504.2	501.7	495.7	494.9	489.8	489.2
35°	481.7	478.9	474.1	470.7	467.8	466.0	461.6	458.8	455.7	454.9	452.9
37.5°	440.1	436.7	432.1	429.1	427.0	426.7	423.6	421.9	419.6	418.6	416.1
40°	396.3	395.0	390.9	390.3	387.2	387.0	385.2	383.3	381.2	381.2	381.6
42.5°	356.0	354.3	352.6	350.7	348.9	348.9	348.1	347.5	346.9	346.1	347.5
45°	318.3	315.9	314.8	312.9	313.7	312.0	311.5	311.5	310.6	310.3	312.4
47.5°	283.1	280.4	279.4	278.8	278.8	279.0	276.6	277.4	277.1	277.6	278.5
50°	250.9	248.7	247.0	247.0	247.3	246.2	245.0	245.9	245.0	245.6	247.6
52.5°	221.1	218.9	218.1	218.1	216.4	216.1	216.7	215.4	215.8	216.1	217.3
55°	193.7	192.3	190.8	189.4	189.6	189.1	188.0	187.6	188.2	188.6	190.0
57.5°	169.0	166.9	165.0	164.4	163.8	163.8	162.3	162.1	162.8	161.3	161.3
60°	145.4	144.2	141.7	140.8	140.8	139.4	138.3	138.8	137.4	137.1	137.4
62.5°	123.6	122.6	120.9	119.3	118.7	118.1	116.7	116.1	115.6	114.4	112.7
65°	104.5	102.5	100.5	99.4	98.6	97.1	96.3	95.1	93.5	92.9	91.1
67.5°	85.4	83.4	81.6	80.6	79.7	78.9	77.5	76.1	74.1	71.8	69.9
70°	68.7	66.2	65.0	62.8	62.2	61.0	59.0	57.6	55.7	53.1	51.1
72.5°	52.5	50.9	49.1	47.1	45.7	44.9	43.2	40.8	38.6	37.1	35.2
75°	37.7	36.9	34.7	32.3	31.7	30.7	28.7	27.3	25.6	23.3	21.6
77.5°	25.6	23.8	22.4	20.4	19.8	18.7	17.6	16.2	15.1	13.5	12.5
80°	15.1	13.5	12.7	11.3	10.8	10.3	9.4	8.2	7.4	6.8	6.5
82.5°	7.4	6.2	6.0	5.1	4.9	4.5	4.0	3.7	3.1	3.1	3.1
85°	2.6	2.0	2.0	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.2
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: P857098

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2
2.5°	735.3	735.1	734.7	734.5	734.5	734.2	734.2	733.9	733.9	733.7	733.7
5°	730.2	729.3	728.8	728.3	728.3	727.4	726.9	726.3	726.0	726.0	725.5
7.5°	723.2	722.0	720.8	720.0	719.8	718.3	717.1	717.1	716.0	715.5	714.9
10°	713.8	711.7	710.1	709.3	708.1	707.3	705.8	705.0	704.1	702.7	702.4
12.5°	701.1	699.6	697.0	696.0	695.4	693.5	691.3	690.2	690.0	688.7	687.9
15°	686.5	683.5	681.1	679.7	679.7	676.8	675.7	674.0	672.9	672.0	671.8
17.5°	667.7	664.6	662.4	660.5	659.9	657.6	655.8	655.2	653.9	654.4	652.9
20°	643.7	641.0	639.4	636.9	636.9	635.4	634.8	633.4	632.8	632.3	632.8
22.5°	617.8	614.6	611.8	611.5	611.5	609.6	609.3	609.0	607.9	608.7	608.4
25°	587.3	585.1	583.5	583.2	583.2	582.0	580.9	581.4	582.3	582.0	582.9
27.5°	555.9	553.7	553.1	552.8	552.2	551.9	552.4	552.4	553.4	554.5	555.6
30°	521.9	521.3	520.5	520.1	519.5	520.9	521.5	522.3	522.1	523.8	525.0
32.5°	487.7	486.6	486.4	486.9	487.7	487.4	489.2	489.8	490.3	492.3	493.2
35°	453.5	453.1	452.6	452.6	452.9	455.1	455.1	457.1	458.2	458.8	461.1
37.5°	416.5	417.6	418.2	419.1	419.4	420.2	420.8	422.7	423.9	425.0	426.2
40°	382.8	382.2	384.7	383.0	383.6	386.1	387.2	387.0	388.7	390.3	391.5
42.5°	346.7	347.5	348.1	348.7	350.1	350.3	351.7	353.8	354.3	356.3	356.9
45°	311.8	312.0	313.2	314.3	315.1	317.4	318.0	318.8	320.6	320.6	321.4
47.5°	278.8	279.9	279.9	281.7	283.1	282.9	284.7	285.3	285.1	286.4	287.1
50°	247.3	249.0	248.7	249.8	250.4	250.7	252.4	253.0	251.8	253.2	253.6
52.5°	217.3	218.1	219.2	219.5	218.9	220.3	219.7	220.9	220.6	221.7	220.6
55°	189.6	189.4	189.4	190.0	189.4	190.0	190.5	189.4	188.6	189.6	189.4
57.5°	162.1	162.1	161.5	162.3	161.5	160.7	160.3	159.5	158.7	158.7	158.5
60°	136.3	135.7	134.7	134.3	134.3	132.8	132.2	131.2	131.2	130.0	128.9
62.5°	112.1	110.7	109.9	109.9	109.2	107.8	105.4	103.6	103.0	101.3	101.1
65°	89.4	88.0	87.2	85.4	84.0	83.4	81.0	78.9	78.1	76.4	76.7
67.5°	68.7	66.4	63.9	62.8	61.9	59.9	59.0	57.6	56.8	56.8	56.8
70°	49.4	47.4	44.9	44.0	43.4	41.8	40.8	40.6	41.4	41.2	41.4
72.5°	33.3	31.2	30.1	29.5	28.9	28.1	28.7	28.9	28.5	28.7	28.9
75°	20.1	19.6	18.7	18.4	18.4	18.7	18.4	18.4	18.7	18.7	19.0
77.5°	11.7	11.1	11.1	10.8	11.3	11.1	11.1	11.1	11.3	11.3	11.3
80°	6.2	6.2	6.2	6.2	6.5	6.2	6.5	6.5	6.5	6.5	6.5
82.5°	3.1	3.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.1
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.2	0.6	0.6	0.6	0.6	0.6	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	0.0	0.0	0.0



TEST NUMBER: P857098

CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	738.2	738.2	738.2	738.2	738.2	738.2	738.2	738.2
2.5°	733.1	733.1	733.1	732.5	732.8	732.8	732.5	732.5
5°	725.1	724.9	724.2	724.2	723.6	724.2	724.0	724.2
7.5°	714.4	714.4	713.6	713.6	713.2	713.0	712.7	713.0
10°	701.6	701.6	701.1	700.6	701.1	699.8	699.8	699.6
12.5°	687.3	686.8	686.3	686.5	686.3	685.4	685.1	685.4
15°	670.9	670.1	670.3	669.5	669.5	669.1	669.7	669.7
17.5°	652.7	652.1	651.6	651.9	651.3	651.6	651.3	651.0
20°	632.6	632.3	632.3	631.2	631.4	631.2	631.4	632.3
22.5°	609.3	609.0	609.3	608.4	609.0	609.0	609.8	609.8
25°	583.8	583.5	584.1	584.3	584.6	585.5	584.6	584.9
27.5°	555.3	556.2	557.0	557.3	558.4	557.6	557.0	557.8
30°	526.6	526.6	526.4	527.5	528.3	529.2	527.8	527.8
32.5°	493.6	495.1	495.1	495.5	496.3	496.3	496.3	497.5
35°	462.2	463.0	463.3	462.2	462.8	462.5	464.6	464.6
37.5°	427.0	427.0	427.2	429.3	429.3	428.4	429.1	429.1
40°	393.6	393.8	392.6	393.2	394.7	394.1	394.7	395.2
42.5°	356.9	358.9	357.7	358.4	358.0	358.4	358.6	358.6
45°	322.0	322.5	322.5	322.9	323.5	323.9	322.2	322.0
47.5°	287.9	288.2	289.0	287.6	289.3	287.6	289.3	287.4
50°	253.6	254.6	253.8	254.4	253.6	253.6	253.2	253.0
52.5°	220.9	220.6	220.6	220.3	220.3	220.9	220.3	221.1
55°	188.2	188.6	188.0	187.6	187.4	188.2	187.4	186.8
57.5°	157.3	157.9	156.6	157.3	155.3	156.1	156.4	156.6
60°	128.6	127.8	127.8	126.6	126.6	127.5	126.3	126.3
62.5°	99.7	100.2	99.4	100.5	100.5	101.6	101.1	101.6
65°	76.4	76.7	76.9	76.9	76.9	78.7	78.1	77.2
67.5°	57.6	58.0	58.2	58.0	58.8	58.2	58.2	58.5
70°	41.8	42.0	42.3	42.3	42.0	42.3	42.3	42.3
72.5°	28.9	29.3	28.9	29.3	29.5	29.3	29.3	29.5
75°	19.0	19.0	18.7	18.7	18.7	18.7	19.0	18.7
77.5°	11.1	11.3	11.1	11.3	11.3	11.3	11.3	11.3
80°	6.5	6.5	6.5	6.2	6.5	6.5	6.5	6.2
82.5°	3.5	3.5	3.1	3.1	3.5	3.5	3.5	3.5
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.2	0.2	0.2	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)