

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: P857085

Luminaire Tested: **LX4C15D010 EX4C159030 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P857085
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

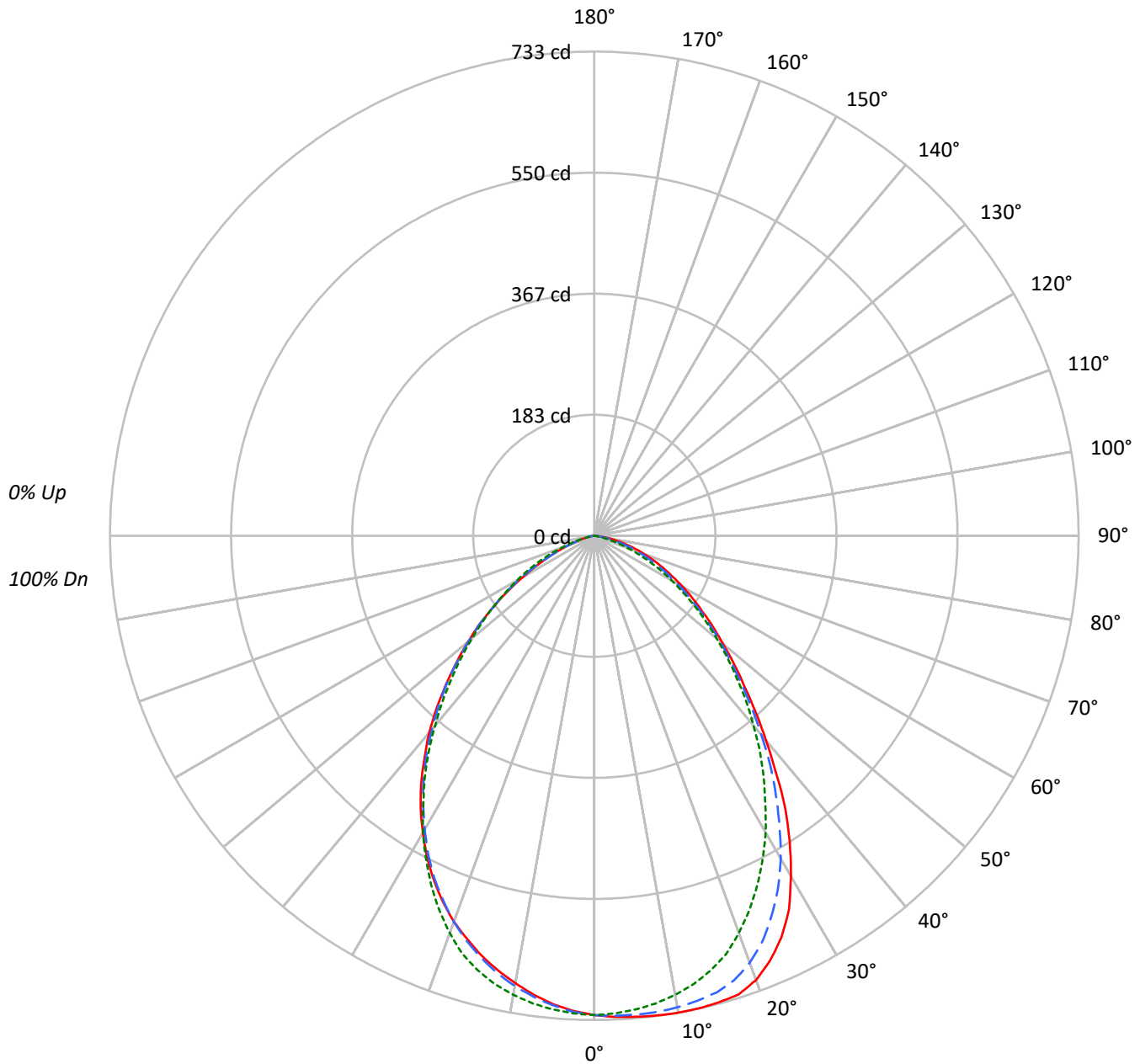
Lumens per Lamp: N/A
Luminaire Lumens: 1367.6 lumens
Efficiency: N/A
Efficacy: 58.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	89155	89155	89155
5°	90149	88780	87806
10°	91466	88023	85802
15°	92974	86615	83740
20°	93556	83672	81267
25°	90889	79150	77943
30°	84449	73568	73611
35°	75603	67069	68494
40°	64727	60108	62305
45°	55719	53008	55006
50°	48450	46138	47533
55°	42645	39711	39325
60°	37937	33121	30517
65°	33285	26541	22064
70°	28592	18750	14943
75°	23164	10870	8734
80°	16555	4740	4316
85°	6202	1973	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	5.0
10°-20°	193.6	14.2
20°-30°	276.5	20.2
30°-40°	289.2	21.1
40°-50°	242.3	17.7
50°-60°	169.6	12.4
60°-70°	92.3	6.8
70°-80°	32.0	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°	538.4	39.4
0°-40°	827.6	60.5
0°-60°	1239.6	90.6
0°-90°	1367.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1367.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	726	726	726	726	726	
5°	731	728	720	714	712	70
15°	731	716	681	662	658	206
25°	670	635	584	572	575	306
35°	504	479	447	450	457	313
45°	321	313	305	315	317	249
55°	199	192	185	185	184	180
65°	114	104	91	77	76	114
75°	49	40	23	18	18	53
85°	4	3	1	1	1	8
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°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	729.1	728.2	728.5	728.5	728.5	728.2	728.5	728.2	728.2	727.9	727.3
5°	731.0	730.5	730.5	730.5	730.2	729.9	729.9	729.6	729.1	728.8	727.7
7.5°	732.4	731.8	731.8	731.6	731.3	731.0	730.7	729.9	729.1	728.5	727.1
10°	733.2	732.4	732.4	731.8	731.3	731.0	730.5	729.3	728.2	726.9	724.9
12.5°	732.7	731.8	731.6	731.0	729.9	729.3	728.8	727.3	725.5	723.5	720.9
15°	731.0	730.5	729.9	729.1	727.7	726.9	726.3	724.1	721.5	718.7	715.6
17.5°	727.7	726.9	725.7	724.5	722.7	721.8	720.4	717.6	714.0	710.0	705.3
20°	715.6	715.1	714.0	712.0	709.0	707.8	705.9	702.3	697.5	692.8	687.8
22.5°	695.9	695.0	693.3	691.7	688.8	687.0	685.2	680.2	674.9	669.9	665.1
25°	670.5	669.6	667.3	665.1	662.4	659.0	657.4	653.4	648.1	641.7	634.8
27.5°	637.8	635.0	634.2	631.6	627.4	626.3	623.8	618.7	613.8	608.2	602.4
30°	595.3	595.3	593.7	592.5	588.7	587.5	584.8	579.4	576.6	568.9	564.3
32.5°	550.4	549.8	548.4	547.6	545.4	543.5	540.7	537.9	531.7	527.8	521.7
35°	504.1	500.8	501.2	499.6	498.2	496.0	495.7	492.7	487.1	484.9	479.2
37.5°	451.4	450.0	451.9	449.4	448.0	448.2	446.0	444.0	441.8	437.9	436.9
40°	403.6	404.7	404.5	402.2	403.3	401.9	399.7	397.8	396.6	394.2	393.2
42.5°	360.9	359.3	358.7	358.7	358.9	358.9	357.9	356.5	356.5	353.9	351.4
45°	320.7	320.7	320.2	321.8	319.3	319.3	318.4	318.2	317.0	316.6	313.4
47.5°	286.1	285.8	285.6	285.2	285.0	285.0	283.3	281.9	281.6	279.9	278.3
50°	253.5	255.1	254.5	253.1	252.6	252.9	251.7	250.9	250.7	247.9	248.1
52.5°	226.1	225.9	226.3	225.5	224.1	224.5	223.3	222.1	221.1	219.7	218.5
55°	199.1	200.4	199.9	199.1	198.7	198.1	197.3	195.9	195.7	192.6	192.3
57.5°	176.4	176.1	175.5	174.1	173.9	173.1	173.1	171.9	170.3	168.5	167.2
60°	154.4	154.4	153.5	153.2	152.1	151.8	151.6	150.5	148.5	147.1	144.9
62.5°	133.2	133.7	133.2	132.4	131.4	130.4	129.8	129.0	127.3	125.9	123.9
65°	114.5	114.1	113.9	112.8	112.5	111.4	111.1	109.4	107.8	106.6	104.4
67.5°	96.6	95.7	95.7	95.2	94.7	93.7	93.3	91.5	89.6	88.5	86.3
70°	79.6	79.0	79.0	79.0	77.6	76.8	76.4	75.6	72.8	71.7	69.5
72.5°	63.9	63.7	63.3	62.5	61.7	61.7	60.6	58.9	57.5	56.1	54.4
75°	48.8	49.4	48.8	47.7	47.4	46.9	46.1	44.7	43.3	41.6	39.7
77.5°	35.7	35.1	34.6	34.6	34.1	32.9	32.7	31.6	29.8	28.8	26.8
80°	23.4	23.2	22.6	22.0	21.8	21.5	21.2	20.1	18.4	17.6	15.9
82.5°	12.9	12.5	12.5	12.3	11.5	11.5	11.1	10.1	9.2	8.7	7.8
85°	4.4	4.4	4.4	4.2	4.2	4.2	3.9	3.6	3.4	3.0	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	726.9	726.3	725.9	725.7	725.5	725.1	724.9	724.3	724.1	723.7	723.1
5°	726.9	725.7	725.1	724.3	723.7	723.1	722.3	721.5	720.7	719.9	719.0
7.5°	725.7	724.1	722.9	721.3	720.7	719.9	718.2	717.0	715.6	714.0	712.0
10°	722.9	720.9	718.7	716.5	715.6	714.2	712.0	710.0	707.8	705.6	703.7
12.5°	718.5	715.4	712.6	709.6	707.8	706.4	703.4	700.6	697.7	695.3	691.9
15°	711.8	708.1	704.5	700.3	698.3	696.7	692.2	688.8	684.4	681.0	677.7
17.5°	700.9	695.3	690.8	685.6	682.8	680.8	676.9	671.5	667.3	663.8	659.8
20°	682.2	676.9	670.7	664.9	661.8	659.2	653.7	648.1	643.9	640.0	635.8
22.5°	657.6	650.9	646.5	639.2	636.6	633.6	626.9	621.9	617.1	613.2	609.3
25°	627.7	621.9	615.7	609.0	606.0	602.4	596.7	591.5	588.4	583.9	579.2
27.5°	593.5	588.7	581.2	575.2	572.2	569.4	564.1	559.4	554.8	551.8	547.4
30°	557.1	551.6	544.9	538.7	537.0	533.7	529.0	525.2	520.6	518.6	516.7
32.5°	517.2	510.7	505.8	501.8	498.5	495.7	493.2	487.3	486.5	481.5	480.9
35°	473.6	470.8	466.1	462.7	459.9	458.1	453.8	451.0	448.0	447.2	445.2
37.5°	432.7	429.3	424.8	421.8	419.8	419.5	416.4	414.8	412.5	411.5	409.1
40°	389.6	388.3	384.3	383.7	380.7	380.5	378.7	376.8	374.8	374.8	375.1
42.5°	350.0	348.3	346.6	344.8	343.0	343.0	342.2	341.6	341.0	340.2	341.6
45°	312.9	310.6	309.5	307.6	308.4	306.7	306.2	306.2	305.3	305.1	307.1
47.5°	278.3	275.7	274.7	274.1	274.1	274.3	271.9	272.7	272.4	272.9	273.8
50°	246.7	244.5	242.8	242.8	243.1	242.0	240.9	241.7	240.9	241.4	243.4
52.5°	217.4	215.2	214.4	214.4	212.7	212.4	213.0	211.8	212.2	212.4	213.6
55°	190.4	189.0	187.6	186.2	186.4	185.9	184.8	184.4	185.0	185.4	186.8
57.5°	166.1	164.1	162.2	161.6	161.0	161.0	159.6	159.4	160.0	158.6	158.6
60°	142.9	141.8	139.3	138.4	138.4	137.0	136.0	136.5	135.1	134.8	135.1
62.5°	121.5	120.5	118.9	117.3	116.7	116.1	114.7	114.1	113.6	112.5	110.8
65°	102.7	100.8	98.8	97.7	96.9	95.5	94.7	93.5	91.9	91.3	89.6
67.5°	84.0	82.0	80.2	79.2	78.4	77.6	76.2	74.8	72.8	70.6	68.7
70°	67.5	65.1	63.9	61.7	61.1	60.0	58.0	56.6	54.8	52.2	50.2
72.5°	51.6	50.0	48.3	46.3	44.9	44.1	42.5	40.1	37.9	36.5	34.6
75°	37.1	36.3	34.1	31.8	31.2	30.2	28.2	26.8	25.2	22.9	21.2
77.5°	25.2	23.4	22.0	20.1	19.5	18.4	17.3	15.9	14.8	13.3	12.3
80°	14.8	13.3	12.5	11.1	10.6	10.1	9.2	8.1	7.3	6.7	6.4
82.5°	7.3	6.1	5.9	5.0	4.8	4.4	3.9	3.6	3.0	3.0	3.0
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	722.9	722.7	722.3	722.1	722.1	721.8	721.8	721.5	721.5	721.3	721.3
5°	717.9	717.0	716.5	716.0	716.0	715.1	714.6	714.0	713.7	713.7	713.2
7.5°	711.0	709.8	708.6	707.8	707.6	706.2	705.0	705.0	703.9	703.4	702.8
10°	701.7	699.7	698.1	697.3	696.1	695.3	693.9	693.1	692.2	690.8	690.5
12.5°	689.2	687.8	685.2	684.2	683.6	681.8	679.6	678.5	678.3	677.1	676.3
15°	674.9	671.9	669.6	668.2	668.2	665.4	664.3	662.6	661.5	660.6	660.4
17.5°	656.4	653.4	651.2	649.3	648.7	646.5	644.7	644.1	642.8	643.3	641.9
20°	632.8	630.2	628.6	626.1	626.1	624.7	624.1	622.7	622.1	621.6	622.1
22.5°	607.4	604.2	601.5	601.2	601.2	599.3	599.0	598.7	597.6	598.4	598.1
25°	577.4	575.2	573.6	573.3	573.3	572.2	571.1	571.6	572.5	572.2	573.0
27.5°	546.5	544.3	543.7	543.5	542.9	542.6	543.1	543.1	544.0	545.1	546.2
30°	513.1	512.5	511.7	511.3	510.7	512.1	512.7	513.5	513.3	514.9	516.1
32.5°	479.5	478.4	478.2	478.7	479.5	479.2	480.9	481.5	482.0	484.0	484.9
35°	445.8	445.4	444.9	444.9	445.2	447.4	447.4	449.4	450.5	451.0	453.3
37.5°	409.5	410.5	411.1	412.0	412.3	413.1	413.7	415.6	416.7	417.8	419.0
40°	376.3	375.7	378.2	376.5	377.1	379.6	380.7	380.5	382.1	383.7	384.9
42.5°	340.8	341.6	342.2	342.8	344.2	344.4	345.8	347.8	348.3	350.3	350.9
45°	306.5	306.7	307.9	309.0	309.8	312.0	312.6	313.4	315.2	315.2	316.0
47.5°	274.1	275.2	275.2	276.9	278.3	278.1	279.9	280.5	280.3	281.6	282.2
50°	243.1	244.8	244.5	245.6	246.2	246.5	248.1	248.7	247.5	248.9	249.3
52.5°	213.6	214.4	215.5	215.8	215.2	216.6	216.0	217.2	216.9	218.0	216.9
55°	186.4	186.2	186.2	186.8	186.2	186.8	187.3	186.2	185.4	186.4	186.2
57.5°	159.4	159.4	158.8	159.6	158.8	158.0	157.6	156.8	156.0	156.0	155.8
60°	134.0	133.4	132.4	132.0	132.0	130.6	130.0	129.0	129.0	127.8	126.7
62.5°	110.2	108.8	108.0	108.0	107.4	106.0	103.6	101.8	101.3	99.6	99.4
65°	87.9	86.5	85.7	84.0	82.6	82.0	79.6	77.6	76.8	75.1	75.4
67.5°	67.5	65.3	62.8	61.7	60.9	58.9	58.0	56.6	55.8	55.8	55.8
70°	48.6	46.6	44.1	43.3	42.7	41.1	40.1	39.9	40.7	40.5	40.7
72.5°	32.7	30.7	29.6	29.0	28.4	27.6	28.2	28.4	28.0	28.2	28.4
75°	19.8	19.3	18.4	18.1	18.1	18.4	18.1	18.1	18.4	18.4	18.7
77.5°	11.5	10.9	10.9	10.6	11.1	10.9	10.9	10.9	11.1	11.1	11.1
80°	6.1	6.1	6.1	6.1	6.4	6.1	6.4	6.4	6.4	6.4	6.4
82.5°	3.0	3.0	3.0	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.0
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



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CATALOG NUMBER: LX4C15D010 EX4C159030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	720.7	720.7	720.7	720.1	720.4	720.4	720.1	720.1
5°	712.8	712.6	712.0	712.0	711.4	712.0	711.8	712.0
7.5°	702.3	702.3	701.5	701.5	701.1	700.9	700.6	700.9
10°	689.7	689.7	689.2	688.8	689.2	688.0	688.0	687.8
12.5°	675.7	675.2	674.7	674.9	674.7	673.8	673.5	673.8
15°	659.6	658.8	659.0	658.2	658.2	657.8	658.4	658.4
17.5°	641.7	641.1	640.6	640.9	640.3	640.6	640.3	640.0
20°	621.9	621.6	621.6	620.5	620.7	620.5	620.7	621.6
22.5°	599.0	598.7	599.0	598.1	598.7	598.7	599.5	599.5
25°	573.9	573.6	574.2	574.4	574.7	575.6	574.7	575.0
27.5°	545.9	546.8	547.6	547.9	549.0	548.2	547.6	548.4
30°	517.7	517.7	517.5	518.6	519.4	520.3	518.9	518.9
32.5°	485.3	486.7	486.7	487.1	487.9	487.9	487.9	489.1
35°	454.4	455.2	455.5	454.4	455.0	454.7	456.7	456.7
37.5°	419.8	419.8	420.0	422.0	422.0	421.2	421.8	421.8
40°	386.9	387.1	386.0	386.6	388.0	387.4	388.0	388.5
42.5°	350.9	352.8	351.7	352.3	351.9	352.3	352.5	352.5
45°	316.6	317.0	317.0	317.4	318.0	318.4	316.8	316.6
47.5°	283.0	283.3	284.1	282.7	284.4	282.7	284.4	282.5
50°	249.3	250.3	249.5	250.1	249.3	249.3	248.9	248.7
52.5°	217.2	216.9	216.9	216.6	216.6	217.2	216.6	217.4
55°	185.0	185.4	184.8	184.4	184.2	185.0	184.2	183.6
57.5°	154.6	155.2	154.0	154.6	152.7	153.5	153.8	154.0
60°	126.4	125.6	125.6	124.5	124.5	125.3	124.2	124.2
62.5°	98.0	98.5	97.7	98.8	98.8	99.9	99.4	99.9
65°	75.1	75.4	75.6	75.6	75.6	77.4	76.8	75.9
67.5°	56.6	57.0	57.2	57.0	57.8	57.2	57.2	57.5
70°	41.1	41.3	41.6	41.6	41.3	41.6	41.6	41.6
72.5°	28.4	28.8	28.4	28.8	29.0	28.8	28.8	29.0
75°	18.7	18.7	18.4	18.4	18.4	18.4	18.7	18.4
77.5°	10.9	11.1	10.9	11.1	11.1	11.1	11.1	11.1
80°	6.4	6.4	6.4	6.1	6.4	6.4	6.4	6.1
82.5°	3.4	3.4	3.0	3.0	3.4	3.4	3.4	3.4
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)