

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: P857084

Luminaire Tested: **LX4C15D010 EX4C159030 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P857084
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C15D010 EX4C159030 4LBLWW*
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

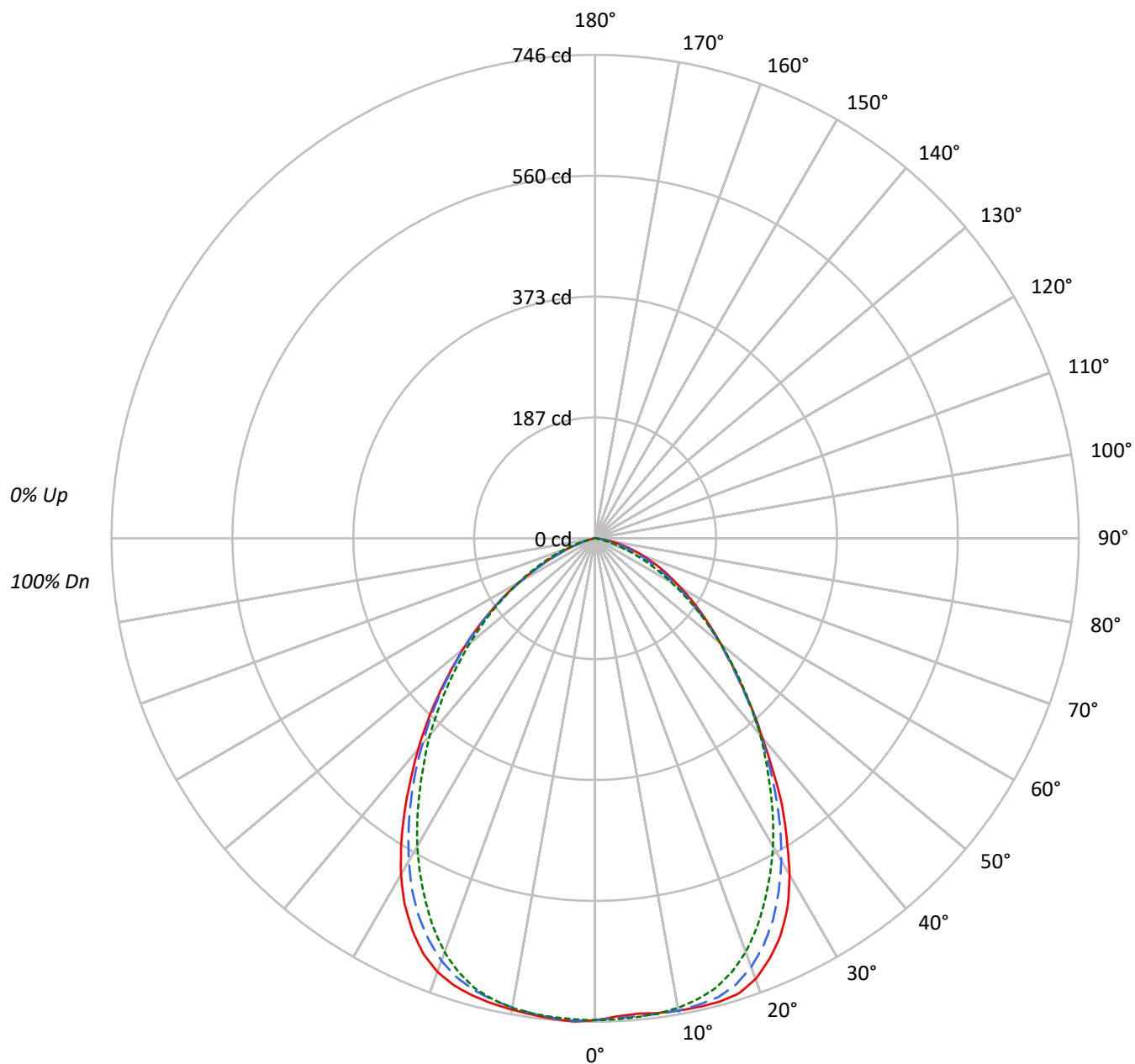
Lumens per Lamp: N/A
Luminaire Lumens: 1425.6 lumens
Efficiency: N/A
Efficacy: 60.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	101	109	105	102	99		101	99	96			97	95	93			94
2	103	96	91	86	101	95	89	85		91	87	83			88	84	81			85
3	95	87	80	74	93	85	79	74		82	77	72			80	75	71			77
4	88	78	71	65	86	77	70	65		75	69	64			72	67	63			70
5	82	71	63	57	80	70	63	57		68	61	57			66	60	56			64
6	76	65	57	51	75	64	56	51		62	56	51			61	55	50			59
7	71	59	51	46	70	59	51	46		57	50	46			56	50	45			54
8	67	55	47	42	65	54	47	42		53	46	41			52	46	41			50
9	63	51	43	38	61	50	43	38		49	42	38			48	42	38			47
10	59	47	40	35	58	46	39	35		45	39	35			45	39	35			44

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	91354	91354	91354
5°	90840	91468	91814
10°	92351	91790	92139
15°	94157	91384	92910
20°	94628	88823	93059
25°	91716	83867	90455
30°	85130	77838	84974
35°	75378	70609	76803
40°	64262	63588	68111
45°	55198	55840	59333
50°	48202	48317	50859
55°	42581	40803	42174
60°	37347	33293	33146
65°	33052	25785	22965
70°	28161	17744	13614
75°	22784	9541	6218
80°	15565	2405	1556
85°	4793	846	846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.7	5.0
10°-20°	204.6	14.4
20°-30°	295.6	20.7
30°-40°	305.6	21.4
40°-50°	252.5	17.7
50°-60°	174.3	12.2
60°-70°	91.2	6.4
70°-80°	28.7	2.0
80°-90°	2.4	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°	570.9	40.0
0°-40°	876.5	61.5
0°-60°	1303.2	91.4
0°-90°	1425.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1425.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	744	744	744	744	744	
5°	737	740	742	743	744	71
15°	740	733	718	722	730	209
25°	677	649	619	644	667	309
35°	503	486	471	495	512	312
45°	318	316	321	336	342	248
55°	199	193	190	196	197	179
65°	114	103	89	74	79	113
75°	48	38	20	14	13	51
85°	3	2	1	1	1	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°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	738.9	739.2	739.2	739.7	739.7	739.7	740.0	740.0	740.3	740.5	740.8
5°	736.6	736.6	737.2	737.4	738.0	738.3	738.9	739.2	739.7	740.0	740.3
7.5°	738.9	738.9	739.2	739.4	739.4	739.7	739.7	740.0	740.3	740.5	740.5
10°	740.3	740.3	740.3	740.3	740.5	740.5	740.5	740.3	740.3	740.3	740.0
12.5°	740.8	740.8	740.5	740.3	740.5	740.3	740.3	739.4	738.9	738.3	737.4
15°	740.3	740.3	740.0	739.7	739.4	738.9	738.6	737.2	736.0	734.4	733.2
17.5°	736.6	736.0	735.6	735.0	733.8	733.0	732.4	729.9	728.0	725.2	722.1
20°	723.8	723.3	722.3	720.9	719.5	718.5	716.8	713.2	711.2	707.0	704.0
22.5°	702.8	702.3	702.6	700.1	697.3	695.5	694.5	691.4	688.0	682.8	679.4
25°	676.6	674.9	674.9	671.1	669.7	668.5	667.1	663.5	658.4	653.7	649.3
27.5°	642.5	640.3	639.2	638.6	635.2	632.8	630.8	628.0	623.8	619.7	613.5
30°	600.1	599.8	598.4	595.9	593.3	592.3	590.0	585.3	581.4	578.3	574.4
32.5°	550.1	549.8	549.8	549.8	548.1	547.9	544.5	542.0	538.9	534.2	531.6
35°	502.6	502.4	502.6	498.5	497.3	496.5	496.2	494.5	490.3	488.1	485.9
37.5°	449.0	449.8	449.3	448.2	449.6	447.1	449.0	445.4	443.7	443.1	440.7
40°	400.7	403.0	400.7	401.0	402.4	399.9	399.9	399.3	398.2	397.6	397.1
42.5°	359.4	356.6	358.2	356.8	358.2	357.4	356.0	356.8	357.2	356.0	355.8
45°	317.7	318.3	318.9	318.1	318.1	317.3	319.5	318.1	318.1	318.3	316.3
47.5°	284.0	283.2	283.7	283.2	283.4	282.9	283.4	283.7	283.2	283.2	281.4
50°	252.2	251.6	253.6	251.8	251.8	251.6	251.8	251.4	250.4	250.4	251.0
52.5°	224.5	223.4	223.1	224.5	222.6	222.6	222.8	222.3	221.2	220.6	219.2
55°	198.8	198.6	198.8	197.7	197.2	197.2	195.7	195.2	194.9	193.5	192.7
57.5°	174.8	174.0	174.2	174.0	172.8	172.6	171.4	171.4	170.3	169.2	167.9
60°	152.0	152.0	152.8	151.6	150.8	150.2	149.6	149.1	147.2	145.2	143.5
62.5°	131.5	131.8	131.5	130.7	130.2	129.6	129.0	127.4	125.6	124.6	122.6
65°	113.7	113.3	112.5	111.9	110.5	110.5	109.5	108.6	106.7	105.0	103.0
67.5°	95.2	94.7	94.7	94.7	93.0	92.7	92.1	90.5	88.7	86.5	84.9
70°	78.4	79.0	78.2	77.4	76.6	76.2	75.4	73.8	71.8	69.5	68.1
72.5°	62.5	63.1	62.3	61.9	60.3	59.7	59.5	58.1	55.8	54.4	52.2
75°	48.0	48.3	47.8	47.2	46.1	45.8	44.4	43.3	41.9	39.7	37.7
77.5°	34.6	34.1	34.1	32.9	31.8	31.8	31.6	29.9	28.0	26.2	24.6
80°	22.0	21.8	21.0	20.4	19.6	19.3	19.0	17.6	16.2	15.1	13.9
82.5°	11.1	10.9	10.6	10.3	9.7	9.2	9.5	8.4	7.8	6.7	5.9
85°	3.4	3.6	3.6	3.4	3.0	3.0	3.0	2.8	2.2	2.0	1.6
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	741.1	741.4	741.7	741.9	741.9	742.2	742.5	742.7	743.1	743.1	743.3
5°	740.5	741.1	741.1	741.4	741.4	741.4	741.7	741.7	741.7	741.7	741.9
7.5°	740.8	740.8	740.8	740.5	740.5	740.3	740.3	740.3	739.7	739.7	739.7
10°	739.4	739.2	738.9	738.3	738.0	737.8	737.2	736.6	736.0	735.8	735.2
12.5°	736.6	735.6	734.4	733.2	732.8	732.4	731.4	730.5	729.6	728.8	728.2
15°	731.0	729.4	727.4	725.2	724.7	724.1	722.1	720.5	719.3	718.5	717.1
17.5°	719.9	716.5	714.3	711.0	709.6	709.0	705.9	704.2	702.3	701.7	700.6
20°	700.1	696.9	692.8	689.7	688.0	686.4	683.8	681.6	679.4	679.4	678.0
22.5°	675.2	671.3	666.0	662.1	661.8	658.4	656.2	653.7	652.8	651.2	651.2
25°	643.9	640.6	634.8	631.4	629.6	628.8	625.2	621.9	620.1	618.7	619.9
27.5°	609.3	604.2	599.8	595.7	594.3	592.5	589.2	587.8	584.8	584.4	584.2
30°	569.7	564.6	560.2	558.2	555.4	554.0	551.5	549.8	548.7	548.7	548.1
32.5°	528.0	523.6	521.3	517.1	515.7	513.8	512.1	510.4	511.0	510.4	510.7
35°	483.1	482.0	477.8	475.3	475.3	475.0	472.2	471.1	470.5	470.8	472.2
37.5°	440.3	437.0	434.2	432.6	434.0	432.2	432.0	432.0	433.6	432.6	434.8
40°	394.9	394.5	393.5	394.1	394.3	392.3	392.9	393.1	394.3	396.5	396.8
42.5°	355.2	355.0	355.0	355.0	354.4	353.2	354.4	356.4	356.0	357.7	359.1
45°	316.9	316.3	317.5	316.7	318.3	318.9	318.1	318.7	320.3	321.4	323.6
47.5°	282.0	282.0	282.3	282.9	281.2	282.6	283.2	284.3	285.1	285.7	286.8
50°	249.6	249.6	249.1	249.1	249.1	249.9	248.8	250.2	250.4	252.8	254.2
52.5°	219.7	218.3	219.2	218.7	217.5	216.9	217.5	217.8	219.5	220.1	221.7
55°	191.3	191.3	189.1	188.5	189.3	189.1	188.7	188.7	189.7	190.5	191.9
57.5°	166.1	164.5	162.7	162.5	161.7	161.9	161.9	161.7	161.1	161.4	161.7
60°	142.4	141.3	138.7	138.7	138.5	138.3	136.9	136.5	135.1	135.5	134.3
62.5°	120.6	120.1	116.7	115.7	115.7	114.7	113.3	113.1	111.1	111.1	110.0
65°	101.0	99.4	97.4	95.5	95.5	94.4	93.5	91.1	89.7	88.7	87.1
67.5°	83.2	80.7	78.8	77.0	76.0	75.6	73.8	72.0	69.8	68.4	65.9
70°	65.9	63.9	61.9	60.3	59.2	58.1	56.1	53.6	52.0	49.4	47.8
72.5°	49.6	48.0	46.4	44.1	42.7	41.9	39.9	37.7	34.9	33.2	31.0
75°	35.7	33.8	31.6	29.6	28.8	28.0	25.6	24.0	22.0	20.1	17.9
77.5°	23.2	21.0	19.3	17.1	16.7	16.2	13.9	12.3	10.9	9.7	8.4
80°	12.3	11.1	9.7	8.4	7.8	7.0	5.9	5.0	4.2	3.4	2.8
82.5°	5.3	4.5	3.6	3.0	2.8	2.6	2.0	1.6	1.4	1.4	1.2
85°	1.4	1.2	1.2	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.2	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°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	743.6	743.9	744.1	744.1	744.5	744.7	744.7	745.0	745.3	745.5	745.5
5°	742.2	742.2	742.2	742.5	742.5	742.5	742.5	743.1	743.1	743.3	743.6
7.5°	739.4	739.4	739.4	739.4	739.2	739.4	739.2	739.2	739.7	740.0	740.3
10°	735.0	734.6	734.6	734.4	734.4	734.4	734.6	735.0	735.2	735.6	736.4
12.5°	728.0	727.7	727.7	727.4	727.4	727.7	728.0	728.5	729.6	730.2	731.4
15°	716.8	716.5	716.8	717.1	717.7	718.5	719.3	720.1	721.9	723.3	724.7
17.5°	700.6	700.9	701.2	701.7	702.6	703.7	705.9	708.2	710.2	712.4	714.6
20°	678.3	679.4	679.6	681.6	682.2	684.7	687.2	690.5	693.7	696.5	699.5
22.5°	651.5	652.3	653.4	655.6	657.0	660.4	663.5	667.3	670.7	674.3	678.8
25°	621.1	621.3	624.7	624.7	628.0	630.8	634.4	638.6	643.7	648.4	651.5
27.5°	586.4	587.8	590.3	591.5	593.9	598.4	601.5	606.4	611.6	615.7	619.1
30°	550.1	551.2	555.4	556.0	558.0	561.8	566.0	570.7	574.7	579.4	582.4
32.5°	511.8	514.9	517.5	519.3	519.9	525.8	528.0	531.4	535.8	540.6	543.7
35°	474.7	476.1	479.8	480.8	482.6	485.9	490.3	493.1	495.3	498.5	502.0
37.5°	435.3	439.5	440.3	443.7	444.3	447.3	449.6	453.0	455.8	458.5	459.0
40°	398.8	400.2	403.2	404.0	404.6	408.8	411.6	412.4	413.9	416.3	419.7
42.5°	361.6	363.0	366.3	365.5	368.1	370.0	371.4	374.7	376.2	377.0	377.0
45°	325.0	325.6	327.8	329.0	330.4	331.4	334.0	335.6	336.2	338.7	339.5
47.5°	290.1	290.7	292.3	294.3	293.7	295.1	298.0	298.8	299.0	300.8	301.6
50°	255.8	257.2	259.4	258.8	260.5	261.3	263.9	264.5	264.5	264.7	264.9
52.5°	223.6	224.8	225.4	225.9	226.8	228.2	229.2	228.8	229.8	231.0	230.1
55°	191.9	192.7	194.1	194.6	194.6	194.9	194.3	196.9	195.7	195.5	195.7
57.5°	162.7	161.7	161.4	162.7	163.3	163.1	162.3	163.3	163.3	162.7	161.9
60°	134.6	133.7	133.5	133.7	132.6	131.8	132.4	131.8	130.4	129.8	130.2
62.5°	108.9	108.1	105.8	105.8	105.3	105.0	102.8	103.0	102.0	100.2	100.8
65°	85.1	82.9	81.8	81.5	79.6	78.0	77.4	75.4	73.8	73.4	73.8
67.5°	63.9	61.5	59.5	58.7	57.5	56.1	54.2	52.5	53.0	52.8	53.9
70°	44.4	42.7	40.7	39.3	39.9	38.3	37.1	37.1	37.5	37.7	38.3
72.5°	29.6	27.4	26.6	25.6	25.2	24.0	24.6	24.6	24.2	24.6	24.0
75°	16.7	15.7	14.8	14.5	13.9	13.9	13.9	13.9	13.7	13.5	13.5
77.5°	7.5	7.0	6.7	6.4	6.4	6.4	6.1	5.9	5.9	5.9	5.6
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	1.2	1.2	1.4	1.4	1.4	1.2	1.4	1.4	1.2	1.2	1.4
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.0	0.2	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°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	745.9	746.1	746.1	746.1	746.5	746.5	746.5	746.5
5°	743.9	744.1	744.1	744.1	744.5	744.5	744.5	744.5
7.5°	740.5	740.8	740.8	741.1	741.1	741.4	741.4	741.7
10°	736.6	737.2	737.4	737.8	738.0	738.3	738.3	738.6
12.5°	732.4	733.0	733.2	733.8	734.4	734.6	735.0	735.2
15°	726.3	727.4	728.0	728.2	729.4	729.9	730.2	730.5
17.5°	716.5	718.7	719.5	720.1	721.3	722.3	723.3	723.5
20°	702.6	705.0	706.2	707.6	709.2	710.6	711.2	711.8
22.5°	683.0	685.8	687.5	689.2	690.5	691.9	694.1	693.3
25°	655.1	659.8	661.8	662.6	665.7	667.3	668.5	667.3
27.5°	623.8	626.6	628.3	630.2	632.4	634.2	634.8	636.4
30°	586.1	590.9	590.6	592.5	595.3	597.1	597.5	599.0
32.5°	547.1	549.3	550.9	550.7	551.8	554.8	553.8	556.2
35°	505.4	505.6	508.5	508.2	510.4	510.4	510.4	512.1
37.5°	461.0	464.3	463.0	466.3	465.2	466.1	466.1	466.6
40°	420.5	421.7	421.7	422.8	423.6	422.8	423.3	424.7
42.5°	378.6	379.8	380.0	379.4	380.4	382.8	380.8	382.6
45°	339.5	340.3	341.5	340.7	342.1	341.3	342.1	341.5
47.5°	302.6	302.4	302.2	304.4	302.4	302.6	303.8	301.8
50°	264.9	266.7	265.5	266.3	266.9	266.9	266.1	266.1
52.5°	231.5	231.2	230.4	231.2	230.6	231.0	231.5	231.0
55°	196.9	198.0	197.4	197.2	197.4	197.4	199.1	196.9
57.5°	162.7	162.3	163.1	165.1	163.1	164.5	165.3	165.5
60°	130.4	130.4	132.1	131.2	132.9	134.3	135.5	134.9
62.5°	99.4	100.8	101.4	101.6	103.4	104.4	104.4	104.2
65°	73.8	75.6	75.6	76.8	77.4	77.4	78.0	79.0
67.5°	54.4	54.4	54.8	55.3	55.0	55.0	55.6	55.8
70°	37.9	37.5	38.3	37.9	37.9	37.7	37.9	37.9
72.5°	24.0	24.0	24.2	24.0	23.4	23.8	23.8	24.2
75°	12.9	13.5	12.9	12.9	13.1	12.5	12.9	13.1
77.5°	5.3	5.3	5.3	5.3	5.3	5.0	5.0	5.0
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.2	2.2
82.5°	1.2	1.4	1.2	1.4	1.2	1.2	1.2	1.2
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.2	0.0	0.2	0.0	0.0	0.0	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)