

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: P857120

Luminaire Tested: **LX4C20D010 EX4C209027 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P857120
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 EX4C209027 4LBLWWH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

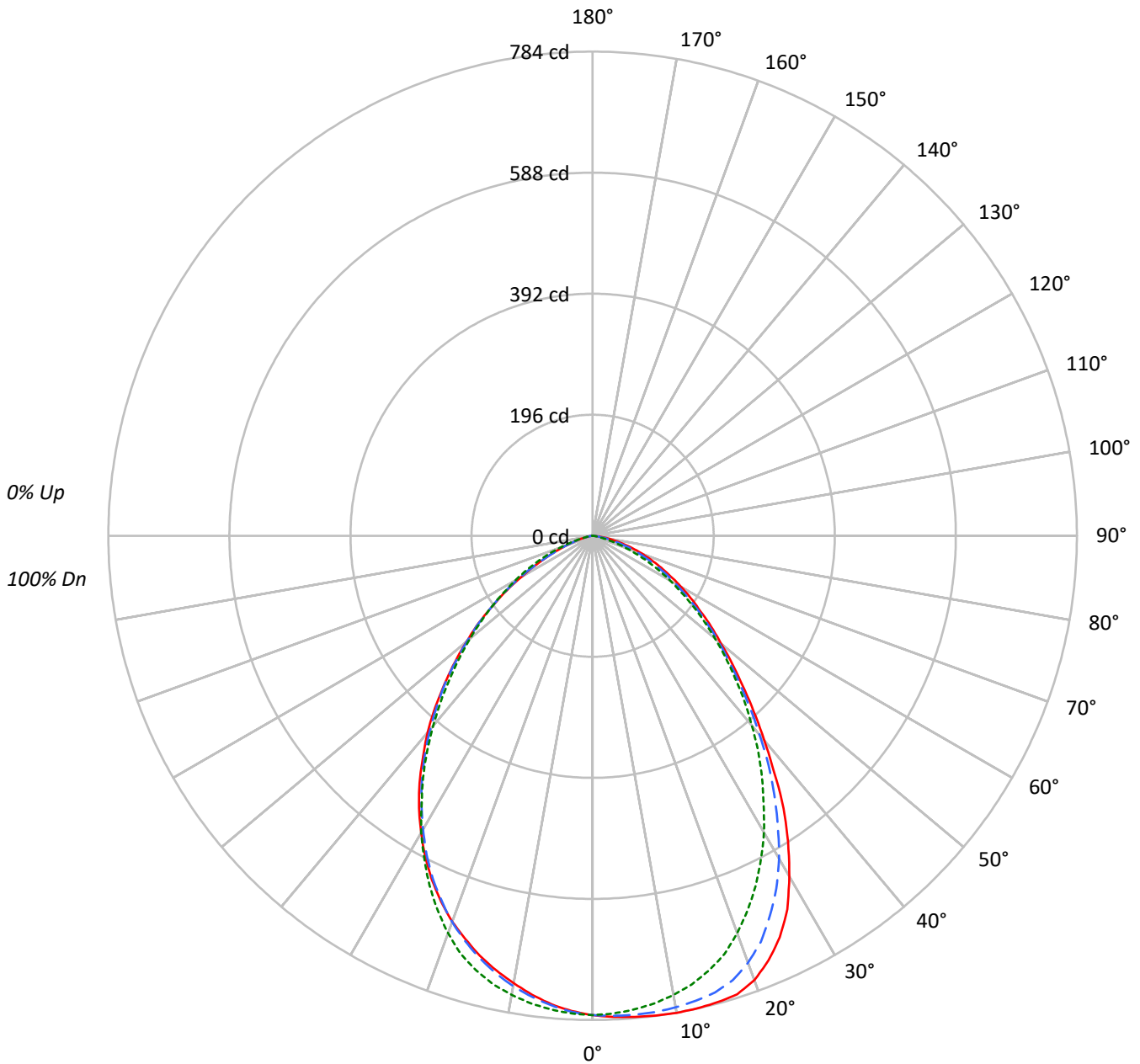
Lumens per Lamp: N/A
Luminaire Lumens: 1463.0 lumens
Efficiency: N/A
Efficacy: 67.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	48	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°	95371	95371	95371
5°	96438	94959	93935
10°	97853	94160	91778
15°	99460	92656	89578
20°	100093	89503	86928
25°	97219	84667	83379
30°	90350	78703	78746
35°	80867	71734	73263
40°	69233	64310	66651
45°	59611	56692	58829
50°	51814	49368	50840
55°	45601	42474	42088
60°	40566	35431	32654
65°	35581	28372	23605
70°	30568	20043	15984
75°	24825	11629	9351
80°	17758	5094	4669
85°	6766	2114	2114



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	5.0
10°-20°	207.1	14.2
20°-30°	295.7	20.2
30°-40°	309.4	21.1
40°-50°	259.2	17.7
50°-60°	181.4	12.4
60°-70°	98.8	6.8
70°-80°	34.3	2.3
80°-90°	4.0	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°	576.0	39.4
0°-40°	885.4	60.5
0°-60°	1326.0	90.6
0°-90°	1463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1463.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	776	776	776	776	776	
5°	782	778	770	764	762	75
15°	782	766	728	708	704	221
25°	717	679	625	612	615	328
35°	539	513	478	482	488	334
45°	343	335	326	337	339	267
55°	213	206	198	198	196	192
65°	122	112	98	82	81	122
75°	52	42	24	20	20	56
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°	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3
2.5°	779.9	779.0	779.3	779.3	779.3	779.0	779.3	779.0	779.0	778.7	778.1
5°	782.0	781.4	781.4	781.4	781.1	780.8	780.8	780.5	779.9	779.6	778.4
7.5°	783.5	782.9	782.9	782.6	782.3	782.0	781.7	780.8	779.9	779.3	777.8
10°	784.4	783.5	783.5	782.9	782.3	782.0	781.4	780.2	779.0	777.5	775.4
12.5°	783.8	782.9	782.6	782.0	780.8	780.2	779.6	778.1	776.0	773.9	771.2
15°	782.0	781.4	780.8	779.9	778.4	777.5	776.9	774.5	771.8	768.8	765.6
17.5°	778.4	777.5	776.3	775.1	773.0	772.1	770.6	767.6	763.8	759.6	754.5
20°	765.6	765.0	763.8	761.7	758.4	757.2	755.1	751.2	746.1	741.1	735.7
22.5°	744.4	743.5	741.7	739.9	736.9	734.8	733.0	727.6	722.0	716.6	711.5
25°	717.2	716.3	713.9	711.5	708.5	704.9	703.2	699.0	693.3	686.4	679.0
27.5°	682.3	679.3	678.4	675.7	671.2	670.0	667.3	661.9	656.6	650.6	644.3
30°	636.9	636.9	635.1	633.9	629.7	628.5	625.5	619.8	616.9	608.5	603.7
32.5°	588.8	588.2	586.7	585.8	583.4	581.3	578.3	575.4	568.8	564.6	558.0
35°	539.2	535.6	536.2	534.5	533.0	530.6	530.3	527.0	521.0	518.6	512.7
37.5°	482.8	481.3	483.4	480.7	479.2	479.5	477.1	475.0	472.6	468.5	467.3
40°	431.7	432.9	432.6	430.3	431.4	430.0	427.6	425.5	424.3	421.6	420.7
42.5°	386.1	384.3	383.7	383.7	384.0	384.0	382.8	381.3	381.3	378.6	375.9
45°	343.1	343.1	342.5	344.3	341.6	341.6	340.7	340.4	339.2	338.6	335.3
47.5°	306.0	305.7	305.4	305.1	304.8	304.8	303.1	301.6	301.3	299.5	297.7
50°	271.1	272.9	272.3	270.8	270.2	270.5	269.3	268.4	268.1	265.1	265.4
52.5°	241.8	241.5	242.1	241.3	239.8	240.1	238.9	237.7	236.5	235.0	233.8
55°	212.9	214.4	213.8	212.9	212.6	212.0	211.1	209.6	209.3	206.0	205.7
57.5°	188.7	188.4	187.8	186.3	186.0	185.1	185.1	183.9	182.1	180.3	178.8
60°	165.1	165.1	164.2	163.9	162.7	162.4	162.1	160.9	158.8	157.4	155.0
62.5°	142.4	143.0	142.4	141.5	140.6	139.4	138.8	137.9	136.2	134.7	132.6
65°	122.4	122.1	121.8	120.6	120.3	119.1	118.8	117.0	115.3	114.1	111.7
67.5°	103.3	102.4	102.4	101.8	101.2	100.3	99.7	97.9	95.8	94.6	92.3
70°	85.1	84.5	84.5	84.5	83.0	82.1	81.8	80.9	77.9	76.7	74.3
72.5°	68.4	68.1	67.8	66.9	66.0	66.0	64.8	63.0	61.5	60.0	58.2
75°	52.3	52.8	52.3	51.1	50.8	50.2	49.3	47.8	46.3	44.5	42.4
77.5°	38.2	37.6	37.0	37.0	36.4	35.2	34.9	33.7	31.9	30.8	28.7
80°	25.1	24.8	24.2	23.6	23.3	23.0	22.7	21.5	19.7	18.8	17.0
82.5°	13.7	13.4	13.4	13.1	12.2	12.2	11.9	10.7	9.9	9.3	8.4
85°	4.8	4.8	4.8	4.5	4.5	4.5	4.2	3.9	3.6	3.3	2.7
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°	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3
2.5°	777.5	776.9	776.6	776.3	776.0	775.7	775.4	774.8	774.5	774.2	773.6
5°	777.5	776.3	775.7	774.8	774.2	773.6	772.7	771.8	770.9	770.0	769.1
7.5°	776.3	774.5	773.3	771.5	770.9	770.0	768.2	767.0	765.6	763.8	761.7
10°	773.3	771.2	768.8	766.5	765.6	764.1	761.7	759.6	757.2	754.8	752.7
12.5°	768.5	765.3	762.3	759.0	757.2	755.7	752.4	749.4	746.4	743.8	740.2
15°	761.4	757.5	753.6	749.1	747.0	745.3	740.5	736.9	732.1	728.5	724.9
17.5°	749.7	743.8	739.0	733.3	730.3	728.2	724.1	718.4	713.9	710.0	705.8
20°	729.7	724.1	717.5	711.2	707.9	705.2	699.3	693.3	688.8	684.6	680.2
22.5°	703.5	696.3	691.5	683.7	681.1	677.8	670.6	665.2	660.2	656.0	651.8
25°	671.5	665.2	658.7	651.5	648.2	644.3	638.4	632.7	629.4	624.6	619.5
27.5°	634.8	629.7	621.6	615.4	612.1	609.1	603.4	598.4	593.6	590.3	585.5
30°	596.0	590.0	582.8	576.3	574.5	570.9	565.8	561.9	556.8	554.8	552.7
32.5°	553.3	546.4	541.0	536.8	533.3	530.3	527.6	521.3	520.4	515.0	514.5
35°	506.7	503.7	498.6	495.0	492.1	490.0	485.5	482.5	479.2	478.3	476.2
37.5°	462.8	459.2	454.4	451.2	449.1	448.8	445.5	443.7	441.3	440.1	437.7
40°	416.8	415.3	411.1	410.5	407.3	407.0	405.2	403.1	401.0	401.0	401.3
42.5°	374.4	372.6	370.8	368.7	367.0	367.0	366.1	365.5	364.9	364.0	365.5
45°	334.7	332.3	331.1	329.0	329.9	328.1	327.5	327.5	326.6	326.3	328.4
47.5°	297.7	295.0	293.8	293.2	293.2	293.5	290.8	291.7	291.4	292.0	292.9
50°	263.9	261.6	259.8	259.8	260.1	258.9	257.7	258.6	257.7	258.3	260.4
52.5°	232.6	230.2	229.3	229.3	227.5	227.2	227.8	226.6	226.9	227.2	228.4
55°	203.6	202.1	200.6	199.2	199.5	198.9	197.7	197.4	198.0	198.3	199.7
57.5°	177.7	175.6	173.5	172.9	172.3	172.3	170.8	170.5	171.1	169.6	169.6
60°	152.9	151.7	149.0	148.1	148.1	146.6	145.4	146.0	144.5	144.2	144.5
62.5°	129.9	129.0	127.2	125.4	124.8	124.2	122.7	122.1	121.5	120.3	118.5
65°	109.9	107.8	105.7	104.5	103.6	102.1	101.2	100.0	98.2	97.6	95.8
67.5°	89.9	87.8	85.7	84.8	83.9	83.0	81.5	80.0	77.9	75.5	73.5
70°	72.3	69.6	68.4	66.0	65.4	64.2	62.1	60.6	58.5	55.8	53.7
72.5°	55.2	53.4	51.7	49.6	48.1	47.2	45.4	43.0	40.6	39.1	37.0
75°	39.7	38.8	36.4	34.0	33.4	32.2	30.2	28.7	26.9	24.5	22.7
77.5°	26.9	25.1	23.6	21.5	20.9	19.7	18.5	17.0	15.8	14.3	13.1
80°	15.8	14.3	13.4	11.9	11.3	10.7	9.9	8.7	7.8	7.2	6.9
82.5°	7.8	6.6	6.3	5.4	5.1	4.8	4.2	3.9	3.3	3.3	3.3
85°	2.7	2.1	2.1	1.8	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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°	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3
2.5°	773.3	773.0	772.7	772.4	772.4	772.1	772.1	771.8	771.8	771.5	771.5
5°	767.9	767.0	766.5	765.9	765.9	765.0	764.4	763.8	763.5	763.5	762.9
7.5°	760.5	759.3	758.1	757.2	756.9	755.4	754.2	754.2	753.0	752.4	751.8
10°	750.6	748.5	746.7	745.8	744.7	743.8	742.3	741.4	740.5	739.0	738.7
12.5°	737.2	735.7	733.0	731.8	731.2	729.4	727.0	725.8	725.5	724.4	723.5
15°	722.0	718.7	716.3	714.8	714.8	711.8	710.6	708.8	707.6	706.7	706.4
17.5°	702.3	699.0	696.6	694.5	693.9	691.5	689.7	689.1	687.6	688.2	686.7
20°	676.9	674.2	672.4	669.7	669.7	668.2	667.6	666.1	665.5	664.9	665.5
22.5°	649.7	646.4	643.4	643.1	643.1	641.0	640.7	640.5	639.3	640.2	639.9
25°	617.8	615.4	613.6	613.3	613.3	612.1	610.9	611.5	612.4	612.1	613.0
27.5°	584.6	582.2	581.6	581.3	580.7	580.4	581.0	581.0	581.9	583.1	584.3
30°	548.8	548.2	547.3	547.0	546.4	547.9	548.5	549.4	549.1	550.9	552.1
32.5°	513.0	511.8	511.5	512.1	513.0	512.7	514.5	515.0	515.6	517.7	518.6
35°	476.8	476.5	475.9	475.9	476.2	478.6	478.6	480.7	481.9	482.5	484.9
37.5°	438.0	439.2	439.8	440.7	441.0	441.9	442.5	444.6	445.8	447.0	448.2
40°	402.5	401.9	404.6	402.8	403.4	406.1	407.3	407.0	408.8	410.5	411.7
42.5°	364.6	365.5	366.1	366.7	368.1	368.4	369.9	372.0	372.6	374.7	375.3
45°	327.8	328.1	329.3	330.5	331.4	333.8	334.4	335.3	337.1	337.1	338.0
47.5°	293.2	294.4	294.4	296.2	297.7	297.4	299.5	300.1	299.8	301.3	301.9
50°	260.1	261.9	261.6	262.7	263.3	263.6	265.4	266.0	264.8	266.3	266.6
52.5°	228.4	229.3	230.5	230.8	230.2	231.7	231.1	232.3	232.0	233.2	232.0
55°	199.5	199.2	199.2	199.7	199.2	199.7	200.3	199.2	198.3	199.5	199.2
57.5°	170.5	170.5	169.9	170.8	169.9	169.0	168.7	167.8	166.9	166.9	166.6
60°	143.3	142.7	141.5	141.2	141.2	139.7	139.1	137.9	137.9	136.7	135.6
62.5°	117.9	116.4	115.5	115.5	115.0	113.5	110.8	109.0	108.4	106.6	106.3
65°	94.1	92.6	91.7	89.9	88.4	87.8	85.1	83.0	82.1	80.3	80.6
67.5°	72.3	69.9	67.2	66.0	65.1	63.0	62.1	60.6	59.7	59.7	59.7
70°	52.0	49.9	47.2	46.3	45.7	43.9	43.0	42.7	43.6	43.3	43.6
72.5°	34.9	32.8	31.6	31.1	30.5	29.6	30.2	30.5	29.9	30.2	30.5
75°	21.2	20.6	19.7	19.4	19.4	19.7	19.4	19.4	19.7	19.7	20.0
77.5°	12.2	11.6	11.6	11.3	11.9	11.6	11.6	11.6	11.9	11.9	11.9
80°	6.6	6.6	6.6	6.6	6.9	6.6	6.9	6.9	6.9	6.9	6.9
82.5°	3.3	3.3	3.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.3
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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°	776.3	776.3	776.3	776.3	776.3	776.3	776.3	776.3
2.5°	770.9	770.9	770.9	770.3	770.6	770.6	770.3	770.3
5°	762.6	762.3	761.7	761.7	761.1	761.7	761.4	761.7
7.5°	751.2	751.2	750.3	750.3	750.0	749.7	749.4	749.7
10°	737.8	737.8	737.2	736.9	737.2	736.0	736.0	735.7
12.5°	722.9	722.3	721.7	722.0	721.7	720.8	720.5	720.8
15°	705.5	704.6	704.9	704.0	704.0	703.7	704.3	704.3
17.5°	686.4	685.8	685.2	685.5	684.9	685.2	684.9	684.6
20°	665.2	664.9	664.9	663.7	664.0	663.7	664.0	664.9
22.5°	640.7	640.5	640.7	639.9	640.5	640.5	641.3	641.3
25°	613.9	613.6	614.2	614.5	614.8	615.7	614.8	615.1
27.5°	584.0	584.9	585.8	586.1	587.3	586.4	585.8	586.7
30°	553.9	553.9	553.6	554.8	555.7	556.5	555.1	555.1
32.5°	519.2	520.7	520.7	521.0	521.9	521.9	521.9	523.1
35°	486.1	487.0	487.3	486.1	486.7	486.4	488.5	488.5
37.5°	449.1	449.1	449.4	451.5	451.5	450.6	451.2	451.2
40°	413.8	414.1	412.9	413.5	415.0	414.4	415.0	415.6
42.5°	375.3	377.4	376.2	376.8	376.5	376.8	377.1	377.1
45°	338.6	339.2	339.2	339.5	340.1	340.7	338.9	338.6
47.5°	302.8	303.1	304.0	302.5	304.3	302.5	304.3	302.2
50°	266.6	267.8	266.9	267.5	266.6	266.6	266.3	266.0
52.5°	232.3	232.0	232.0	231.7	231.7	232.3	231.7	232.6
55°	198.0	198.3	197.7	197.4	197.1	198.0	197.1	196.5
57.5°	165.4	166.0	164.8	165.4	163.3	164.2	164.5	164.8
60°	135.3	134.4	134.4	133.2	133.2	134.1	132.9	132.9
62.5°	104.8	105.4	104.5	105.7	105.7	106.9	106.3	106.9
65°	80.3	80.6	80.9	80.9	80.9	82.7	82.1	81.2
67.5°	60.6	60.9	61.2	60.9	61.8	61.2	61.2	61.5
70°	43.9	44.2	44.5	44.5	44.2	44.5	44.5	44.5
72.5°	30.5	30.8	30.5	30.8	31.1	30.8	30.8	31.1
75°	20.0	20.0	19.7	19.7	19.7	19.7	20.0	19.7
77.5°	11.6	11.9	11.6	11.9	11.9	11.9	11.9	11.9
80°	6.9	6.9	6.9	6.6	6.9	6.9	6.9	6.6
82.5°	3.6	3.6	3.3	3.3	3.6	3.6	3.6	3.6
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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)