

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: P856775

Luminaire Tested: **LX4C10D010 EX4C109040 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P856775
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C10D010 EX4C109040 4LBSWNH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

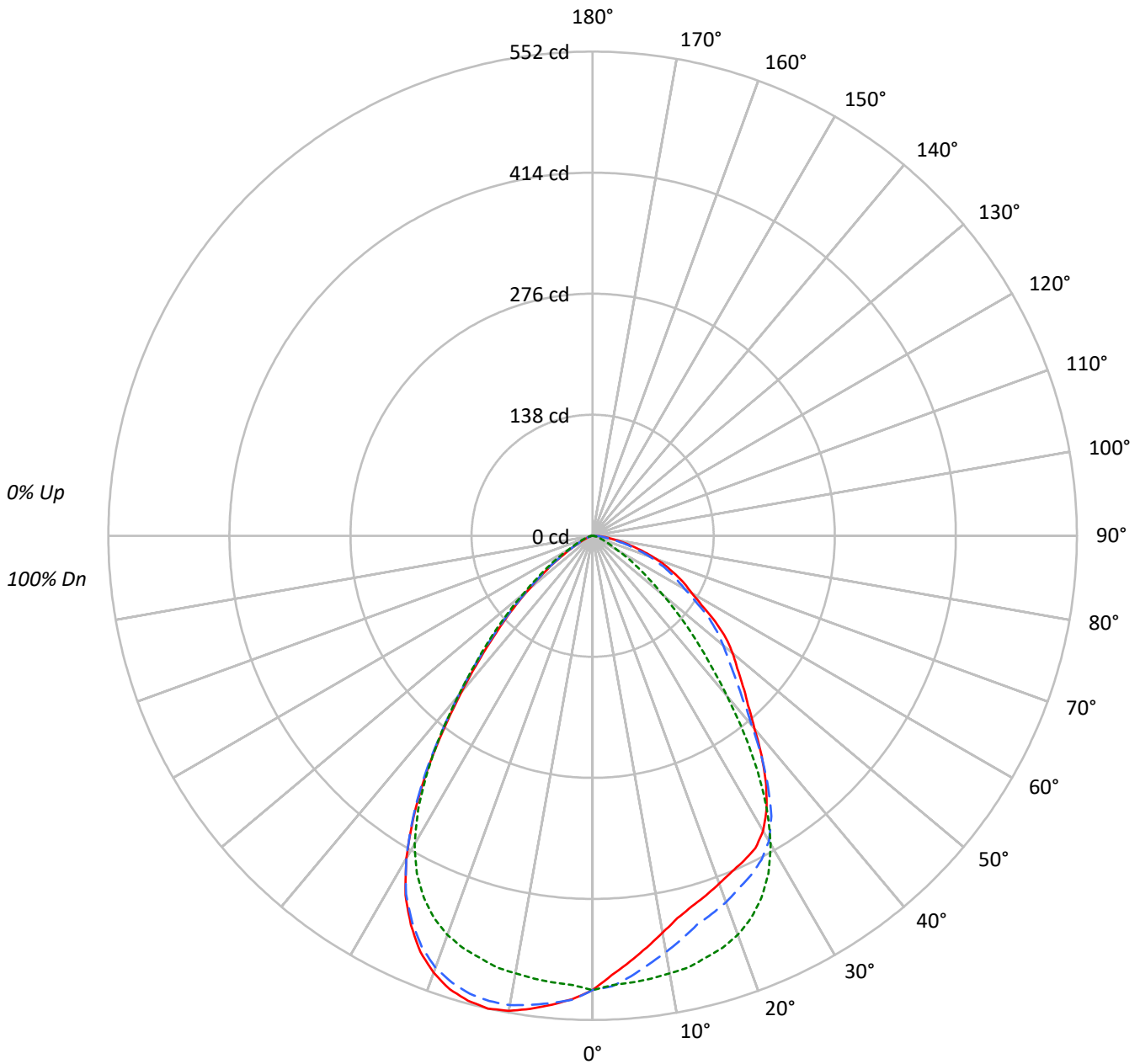
Lumens per Lamp: N/A
Luminaire Lumens: 908.0 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.8
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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																			
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70																			
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56																			
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50																			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46																			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38																			
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	63638	63638	63638
5°	60095	63055	66187
10°	57297	63198	68612
15°	55606	63339	69788
20°	55158	63277	69291
25°	55374	61718	66408
30°	55112	57566	60219
35°	51652	49162	49657
40°	46027	38105	37255
45°	42097	28407	26669
50°	39812	19896	17985
55°	36605	13430	11288
60°	31991	7863	6241
65°	30261	5029	3488
70°	27587	3592	2155
75°	22832	2516	1566
80°	17970	1415	920
85°	16069	987	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	5.4
10°-20°	140.4	15.5
20°-30°	208.1	22.9
30°-40°	208.4	23.0
40°-50°	145.7	16.0
50°-60°	86.7	9.5
60°-70°	45.2	5.0
70°-80°	20.1	2.2
80°-90°	4.4	0.5
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°	397.5	43.8
0°-40°	605.9	66.7
0°-60°	838.3	92.3
0°-90°	908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	908.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	518	518	518	518	518	
5°	487	504	511	535	537	46
15°	437	459	498	541	549	124
25°	408	427	455	487	490	188
35°	344	348	328	334	331	214
45°	242	230	164	158	154	188
55°	171	160	63	55	53	152
65°	104	96	17	13	12	103
75°	48	42	5	3	3	52
85°	11	9	1	1	0	13
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°	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
2.5°	501.3	507.3	501.3	503.3	511.3	504.0	508.0	508.0	506.0	510.6	514.0
5°	487.3	493.3	487.3	489.9	498.6	491.3	496.0	494.6	495.3	499.3	504.0
7.5°	473.3	477.9	472.6	476.0	484.0	477.9	481.9	481.9	482.6	488.6	492.6
10°	459.3	463.3	459.3	461.9	470.6	465.3	467.9	468.6	470.6	476.0	481.9
12.5°	446.6	449.9	445.9	449.9	457.2	451.9	455.3	455.9	457.9	463.9	470.6
15°	437.2	440.6	436.6	439.9	446.6	442.6	445.2	446.6	447.9	453.2	459.3
17.5°	429.9	432.6	429.2	433.2	438.6	433.9	437.9	437.9	439.9	445.2	451.9
20°	421.9	424.5	421.9	425.2	431.2	427.2	430.6	430.6	432.6	438.6	444.6
22.5°	414.5	415.9	414.5	417.2	423.2	419.9	421.9	422.5	424.5	429.9	435.2
25°	408.5	411.2	409.9	412.5	416.5	413.2	415.2	415.9	417.9	422.5	427.2
27.5°	401.8	403.2	401.8	405.2	408.5	405.8	407.9	407.2	408.5	412.5	416.5
30°	388.5	389.8	389.8	391.8	394.5	393.2	395.2	393.2	394.5	397.8	401.8
32.5°	369.1	369.8	370.5	372.5	374.5	372.5	373.8	373.8	373.8	376.5	379.2
35°	344.4	345.8	345.1	346.5	348.4	347.8	347.8	347.1	345.8	347.1	348.4
37.5°	316.4	314.4	314.4	316.4	317.7	315.1	316.4	315.1	315.1	315.7	315.7
40°	287.0	285.0	287.0	287.7	288.4	287.0	286.4	285.0	283.0	283.7	282.4
42.5°	262.3	261.0	261.7	261.7	262.3	261.0	261.7	259.0	257.0	255.7	253.7
45°	242.3	240.3	242.3	241.0	241.0	240.3	239.6	238.3	235.6	233.6	230.3
47.5°	223.6	223.6	224.3	224.3	224.3	222.9	222.9	220.3	217.6	214.9	210.3
50°	208.3	206.9	209.6	209.6	207.6	206.9	207.6	204.3	202.3	198.9	194.2
52.5°	191.6	191.6	192.2	192.2	191.6	190.2	190.9	188.2	186.2	182.9	178.2
55°	170.9	169.6	171.6	171.6	170.9	170.2	170.9	168.9	166.9	164.2	160.2
57.5°	147.5	146.8	148.2	148.9	147.5	147.5	148.2	146.2	145.5	142.8	138.8
60°	130.2	129.5	130.8	131.5	130.2	130.2	130.2	127.5	126.2	123.5	120.8
62.5°	118.1	117.5	118.8	118.1	117.5	116.8	117.5	114.8	113.5	110.8	108.1
65°	104.1	104.8	105.5	105.5	104.8	104.1	104.1	102.8	101.5	98.8	95.5
67.5°	90.8	90.8	91.5	92.1	91.5	91.5	91.5	89.4	88.1	86.1	82.1
70°	76.8	76.1	78.1	78.1	76.8	77.4	76.8	76.1	74.8	72.1	68.8
72.5°	62.1	62.1	62.7	62.7	62.1	62.1	62.1	61.4	59.4	58.1	54.7
75°	48.1	48.1	48.7	49.4	48.1	48.1	48.7	47.4	46.1	44.1	42.1
77.5°	36.1	35.4	36.1	36.1	35.4	35.4	35.4	34.7	34.0	32.0	30.0
80°	25.4	24.7	25.4	25.4	25.4	24.7	24.7	24.0	24.0	22.7	20.7
82.5°	17.3	16.7	17.3	17.3	17.3	16.7	16.7	16.7	16.0	15.4	14.0
85°	11.4	10.7	10.7	11.4	10.7	10.7	10.7	10.7	10.0	9.3	8.7
87.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.7	4.7	4.7	4.0
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°	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
2.5°	511.3	510.0	514.0	512.7	513.3	510.0	515.3	512.7	516.0	512.7	519.3
5°	502.6	501.3	507.3	506.6	507.3	504.7	510.6	510.0	514.0	511.3	518.7
7.5°	493.3	492.0	498.6	499.3	500.7	498.0	506.0	506.0	510.0	509.3	517.3
10°	482.6	483.3	489.9	491.3	494.0	492.6	500.0	502.0	507.3	506.6	516.7
12.5°	472.6	472.6	481.3	484.0	485.9	485.3	494.0	496.6	502.6	504.0	513.3
15°	462.6	463.3	471.3	475.3	477.9	477.3	486.6	489.9	497.3	498.0	509.3
17.5°	454.6	453.9	462.6	465.9	469.9	469.3	479.3	483.3	490.6	492.6	503.3
20°	447.9	447.2	455.3	459.3	461.9	461.3	471.3	476.0	482.6	484.0	494.6
22.5°	439.9	438.6	446.6	449.9	452.6	451.9	460.6	463.9	470.6	471.9	481.9
25°	430.6	429.2	436.6	438.6	440.6	439.2	446.6	448.6	453.9	455.3	465.3
27.5°	419.9	416.5	422.5	422.5	423.9	421.9	427.2	429.2	433.9	433.9	443.2
30°	403.2	398.5	401.8	401.2	401.8	399.2	402.5	403.2	406.5	405.8	412.5
32.5°	379.8	373.1	375.2	373.1	371.2	367.1	371.2	369.8	372.5	369.8	375.8
35°	347.8	341.1	340.4	337.8	335.8	332.4	332.4	329.1	329.8	327.8	331.8
37.5°	313.1	304.4	303.1	297.7	294.4	290.4	290.4	287.7	284.4	283.0	286.4
40°	279.0	269.7	266.4	257.7	254.3	250.3	247.6	244.3	243.0	237.6	240.3
42.5°	249.7	239.6	232.3	222.9	219.6	213.6	209.6	205.6	203.6	197.6	200.3
45°	225.0	212.9	204.9	192.9	188.2	181.6	175.6	170.9	166.2	163.5	162.2
47.5°	204.3	191.6	180.9	167.5	160.2	154.2	146.2	141.5	135.5	132.2	130.2
50°	186.9	172.9	160.9	145.5	138.2	131.5	122.1	114.8	109.5	104.1	102.8
52.5°	171.6	156.9	143.5	126.2	117.5	109.5	99.5	91.5	86.8	80.8	80.1
55°	153.5	140.9	126.2	108.1	99.5	91.5	80.8	72.8	66.8	62.7	61.4
57.5°	134.2	122.1	108.1	90.1	81.4	72.8	62.7	55.4	50.1	46.7	46.1
60°	116.2	104.8	91.5	73.4	64.7	57.4	46.7	39.4	34.7	32.0	30.7
62.5°	102.8	92.1	79.4	62.7	54.7	47.4	37.4	30.7	26.7	24.0	22.7
65°	90.1	79.4	68.1	52.7	46.1	39.4	30.0	24.0	20.0	17.3	16.0
67.5°	76.8	67.4	56.7	44.1	37.4	32.0	24.0	18.7	15.4	13.3	12.0
70°	63.4	54.7	46.1	35.4	30.7	25.4	18.7	14.7	11.4	10.0	8.7
72.5°	50.1	43.4	36.1	27.4	23.4	20.0	14.7	10.7	8.7	7.4	6.0
75°	37.4	32.7	26.7	20.7	17.3	14.7	10.7	8.0	6.7	5.3	4.7
77.5°	26.7	22.7	18.7	14.0	12.7	10.7	7.4	6.0	4.7	3.3	2.7
80°	18.0	16.0	12.7	10.0	8.0	7.4	5.3	4.0	2.7	2.0	2.0
82.5°	12.0	10.0	8.0	6.0	5.3	4.7	3.3	2.7	2.0	1.3	1.3
85°	7.4	6.0	4.7	3.3	3.3	2.7	2.0	1.3	0.7	0.7	0.7
87.5°	3.3	2.7	2.0	1.3	1.3	0.7	0.7	0.7	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
2.5°	524.7	520.7	518.0	521.3	522.7	520.7	522.7	526.0	529.4	530.0	520.7
5°	525.4	521.3	520.0	524.0	524.7	524.0	526.0	530.7	534.7	536.0	526.7
7.5°	525.4	522.7	522.0	526.7	527.3	526.7	530.0	535.3	539.4	542.0	532.7
10°	524.0	522.7	523.3	527.3	528.7	528.7	533.4	539.4	543.4	546.0	536.7
12.5°	522.0	522.0	522.0	526.7	528.0	528.7	532.7	540.7	543.4	547.4	538.0
15°	518.7	518.7	518.7	523.3	525.4	525.4	530.0	537.4	540.7	544.7	535.3
17.5°	512.7	512.7	513.3	517.3	519.3	519.3	524.0	532.0	534.0	538.7	529.4
20°	504.0	504.0	504.7	508.7	510.6	509.3	515.3	522.0	524.0	528.0	518.7
22.5°	491.3	491.3	491.3	495.3	496.6	496.0	502.0	508.0	508.0	513.3	503.3
25°	472.6	473.9	472.6	476.6	477.9	477.3	482.6	488.0	486.6	492.6	482.6
27.5°	449.9	449.2	449.2	452.6	452.6	451.9	455.9	461.9	460.6	464.6	455.3
30°	418.5	420.5	417.2	421.9	419.9	418.5	421.2	426.5	424.5	427.9	420.5
32.5°	382.5	379.8	379.8	379.8	381.1	377.8	380.5	383.2	381.1	384.5	376.5
35°	335.1	335.8	333.8	334.4	335.1	331.1	333.8	336.4	333.8	335.8	328.4
37.5°	287.7	288.4	283.7	286.4	283.7	282.4	285.0	286.4	283.7	285.7	277.7
40°	240.3	239.0	238.3	238.3	239.0	235.6	237.6	239.6	237.6	239.0	231.6
42.5°	198.9	198.3	196.9	197.6	195.6	194.9	195.6	197.6	195.6	196.9	191.6
45°	162.9	161.5	159.5	160.2	160.2	156.9	158.9	160.2	158.2	158.9	154.2
47.5°	129.5	127.5	127.5	126.8	126.8	125.5	127.5	126.8	124.8	126.2	121.5
50°	100.8	99.5	99.5	99.5	99.5	97.4	98.1	99.5	97.4	97.4	94.8
52.5°	78.8	76.8	75.4	75.4	75.4	74.8	74.8	75.4	73.4	73.4	72.8
55°	59.4	58.7	56.7	56.7	56.7	54.7	55.4	55.4	54.7	54.7	52.7
57.5°	44.1	42.1	40.7	40.7	39.4	39.4	38.7	39.4	38.0	38.0	36.7
60°	29.4	28.0	27.4	26.7	26.7	26.0	26.7	26.0	26.0	25.4	24.7
62.5°	21.4	20.0	18.7	18.7	18.7	18.0	18.0	18.0	18.0	18.0	17.3
65°	15.4	14.0	14.0	13.3	13.3	12.7	12.7	12.7	12.7	12.7	12.0
67.5°	10.7	10.0	9.3	9.3	9.3	9.3	9.3	9.3	8.7	8.7	8.7
70°	8.0	7.4	6.7	6.7	6.7	6.7	6.7	6.0	6.7	6.7	6.0
72.5°	5.3	5.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
75°	4.0	4.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
77.5°	2.7	2.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
82.5°	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0
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



TEST NUMBER: P856775

CATALOG NUMBER: LX4C10D010 EX4C109040 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
2.5°	530.7	530.0	528.7	530.7	525.4	523.3	522.7	528.7
5°	538.0	536.7	536.7	538.7	532.7	531.3	530.0	536.7
7.5°	544.7	543.4	543.4	545.4	540.0	538.7	537.4	544.0
10°	548.7	548.7	548.7	550.0	545.4	544.0	543.4	550.0
12.5°	550.7	550.7	550.0	552.7	546.7	546.7	545.4	552.0
15°	548.0	548.0	548.0	550.0	544.7	543.4	543.4	548.7
17.5°	541.4	541.4	540.7	542.7	536.7	536.7	536.0	542.0
20°	531.3	531.3	530.0	532.7	526.7	524.7	524.0	530.0
22.5°	515.3	514.7	514.0	515.3	510.0	508.7	508.0	513.3
25°	494.6	494.0	492.6	494.0	488.0	485.9	485.9	489.9
27.5°	465.3	465.3	463.3	465.3	458.6	457.9	457.2	461.9
30°	429.2	426.5	425.2	427.9	421.2	421.2	419.9	424.5
32.5°	384.5	381.8	381.1	382.5	376.5	374.5	377.1	379.8
35°	333.1	333.8	331.1	331.1	325.8	326.4	327.1	331.1
37.5°	283.7	282.4	281.7	282.4	278.4	277.0	275.7	279.7
40°	237.6	234.3	233.6	233.6	230.3	229.6	230.3	232.3
42.5°	194.2	193.6	190.9	192.2	188.9	190.2	189.6	189.6
45°	156.9	157.5	154.9	156.9	154.2	152.2	152.2	153.5
47.5°	124.2	124.2	123.5	123.5	121.5	122.1	120.8	122.8
50°	96.1	96.1	94.8	95.5	94.1	94.1	93.4	94.1
52.5°	73.4	72.8	72.8	72.1	70.8	71.4	72.1	70.8
55°	53.4	54.1	52.7	53.4	52.1	52.7	52.1	52.7
57.5°	36.7	37.4	36.1	37.4	36.1	36.7	36.1	36.1
60°	25.4	25.4	24.7	25.4	24.7	24.7	24.0	25.4
62.5°	17.3	17.3	17.3	17.3	17.3	16.7	17.3	17.3
65°	12.7	12.0	12.0	12.0	12.0	12.0	12.0	12.0
67.5°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
70°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
72.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
75°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.0	0.7	0.0	0.0	0.0
87.5°	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



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













(END OF REPORT)