

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: P856752

Luminaire Tested: **LX4C10D010 EX4C109035 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P856752
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 EX4C109035 4LBSWNH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

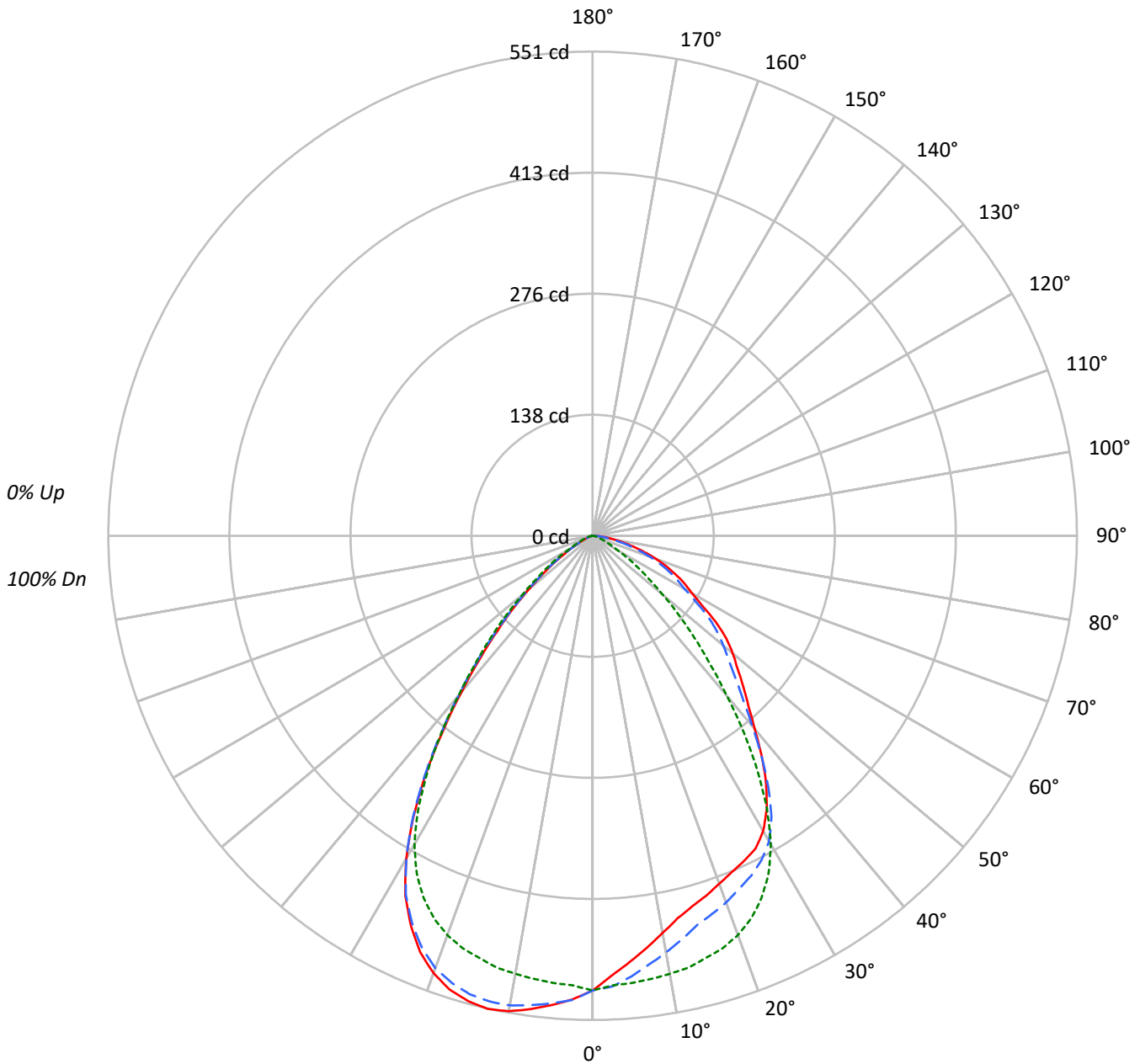
Lumens per Lamp: N/A
Luminaire Lumens: 907.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	63564	63564	63564
5°	60021	62993	66113
10°	57235	63135	68537
15°	55543	63263	69711
20°	55093	63199	69213
25°	55320	61650	66340
30°	55055	57510	60162
35°	51607	49102	49597
40°	45979	38073	37223
45°	42045	28389	26652
50°	39754	19877	17966
55°	36562	13430	11288
60°	31942	7863	6216
65°	30232	5029	3488
70°	27551	3592	2155
75°	22784	2516	1566
80°	17899	1415	920
85°	15928	987	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	5.4
10°-20°	140.3	15.5
20°-30°	207.9	22.9
30°-40°	208.2	23.0
40°-50°	145.5	16.0
50°-60°	86.6	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°	397.1	43.8
0°-40°	605.3	66.7
0°-60°	837.3	92.3
0°-90°	907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	907.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	517	517	517	517	517	
5°	487	503	511	534	536	46
15°	437	459	497	540	548	124
25°	408	427	455	486	489	188
35°	344	348	327	333	331	213
45°	242	230	163	158	153	188
55°	171	160	63	55	53	151
65°	104	95	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°	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4
2.5°	500.8	506.8	500.8	502.8	510.8	503.4	507.4	507.4	505.4	510.1	513.4
5°	486.7	492.8	486.7	489.4	498.1	490.7	495.4	494.1	494.8	498.8	503.4
7.5°	472.8	477.4	472.1	475.4	483.4	477.4	481.4	481.4	482.1	488.1	492.1
10°	458.8	462.7	458.8	461.4	470.1	464.8	467.4	468.1	470.1	475.4	481.4
12.5°	446.1	449.4	445.4	449.4	456.7	451.4	454.8	455.4	457.4	463.4	470.1
15°	436.7	440.1	436.1	439.4	446.1	442.1	444.7	446.1	447.4	452.7	458.8
17.5°	429.4	432.1	428.7	432.7	438.1	433.4	437.4	437.4	439.4	444.7	451.4
20°	421.4	424.1	421.4	424.7	430.8	426.8	430.1	430.1	432.1	438.1	444.1
22.5°	414.1	415.4	414.1	416.7	422.7	419.4	421.4	422.1	424.1	429.4	434.8
25°	408.1	410.7	409.4	412.1	416.1	412.7	414.7	415.4	417.4	422.1	426.8
27.5°	401.4	402.7	401.4	404.7	408.1	405.4	407.4	406.7	408.1	412.1	416.1
30°	388.1	389.4	389.4	391.4	394.1	392.8	394.7	392.8	394.1	397.4	401.4
32.5°	368.7	369.4	370.1	372.1	374.1	372.1	373.4	373.4	373.4	376.1	378.7
35°	344.1	345.4	344.7	346.1	348.1	347.4	347.4	346.7	345.4	346.7	348.1
37.5°	316.1	314.0	314.0	316.1	317.4	314.7	316.1	314.7	314.7	315.4	315.4
40°	286.7	284.7	286.7	287.4	288.0	286.7	286.1	284.7	282.7	283.4	282.1
42.5°	262.1	260.7	261.4	261.4	262.1	260.7	261.4	258.7	256.7	255.4	253.4
45°	242.0	240.1	242.0	240.7	240.7	240.1	239.4	238.0	235.4	233.4	230.0
47.5°	223.4	223.4	224.0	224.0	224.0	222.7	222.7	220.0	217.4	214.7	210.0
50°	208.0	206.7	209.4	209.4	207.4	206.7	207.4	204.0	202.0	198.7	194.0
52.5°	191.4	191.4	192.0	192.0	191.4	190.0	190.7	188.0	186.0	182.7	178.0
55°	170.7	169.4	171.4	171.4	170.7	170.0	170.7	168.7	166.7	164.0	160.0
57.5°	147.4	146.7	148.0	148.7	147.4	147.4	148.0	146.0	145.4	142.7	138.7
60°	130.0	129.4	130.7	131.4	130.0	130.0	130.0	127.3	126.0	123.3	120.7
62.5°	118.0	117.4	118.7	118.0	117.4	116.7	117.4	114.7	113.4	110.7	108.0
65°	104.0	104.7	105.4	105.4	104.7	104.0	104.0	102.7	101.4	98.7	95.4
67.5°	90.7	90.7	91.4	92.0	91.4	91.4	91.4	89.3	88.0	86.0	82.0
70°	76.7	76.0	78.0	78.0	76.7	77.3	76.7	76.0	74.7	72.0	68.7
72.5°	62.0	62.0	62.7	62.7	62.0	62.0	62.0	61.3	59.3	58.0	54.7
75°	48.0	48.0	48.7	49.3	48.0	48.0	48.7	47.3	46.0	44.0	42.0
77.5°	36.0	35.3	36.0	36.0	35.3	35.3	35.3	34.7	34.0	32.0	30.0
80°	25.3	24.7	25.3	25.3	25.3	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	15.3	14.0
85°	11.3	10.7	10.7	11.3	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°	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4
2.5°	510.8	509.4	513.4	512.1	512.8	509.4	514.8	512.1	515.4	512.1	518.8
5°	502.1	500.8	506.8	506.1	506.8	504.1	510.1	509.4	513.4	510.8	518.1
7.5°	492.8	491.4	498.1	498.8	500.1	497.4	505.4	505.4	509.4	508.8	516.8
10°	482.1	482.7	489.4	490.7	493.4	492.1	499.4	501.4	506.8	506.1	516.1
12.5°	472.1	472.1	480.8	483.4	485.4	484.8	493.4	496.1	502.1	503.4	512.8
15°	462.1	462.7	470.7	474.7	477.4	476.8	486.1	489.4	496.8	497.4	508.8
17.5°	454.1	453.4	462.1	465.4	469.4	468.8	478.7	482.7	490.1	492.1	502.8
20°	447.4	446.8	454.8	458.8	461.4	460.8	470.7	475.4	482.1	483.4	494.1
22.5°	439.4	438.1	446.1	449.4	452.1	451.4	460.1	463.4	470.1	471.4	481.4
25°	430.1	428.7	436.1	438.1	440.1	438.8	446.1	448.1	453.4	454.8	464.8
27.5°	419.4	416.1	422.1	422.1	423.4	421.4	426.8	428.7	433.4	433.4	442.8
30°	402.7	398.1	401.4	400.7	401.4	398.7	402.1	402.7	406.1	405.4	412.1
32.5°	379.4	372.7	374.7	372.7	370.7	366.7	370.7	369.4	372.1	369.4	375.4
35°	347.4	340.7	340.1	337.4	335.4	332.1	332.1	328.7	329.4	327.4	331.4
37.5°	312.7	304.1	302.7	297.4	294.1	290.1	290.1	287.4	284.0	282.7	286.1
40°	278.7	269.4	266.1	257.4	254.0	250.0	247.4	244.1	242.7	237.4	240.1
42.5°	249.4	239.4	232.1	222.7	219.4	213.4	209.4	205.4	203.4	197.4	200.0
45°	224.7	212.7	204.7	192.7	188.0	181.4	175.4	170.7	166.0	163.4	162.0
47.5°	204.0	191.4	180.7	167.4	160.0	154.0	146.0	141.4	135.4	132.0	130.0
50°	186.7	172.7	160.7	145.4	138.0	131.4	122.0	114.7	109.4	104.0	102.7
52.5°	171.4	156.7	143.4	126.0	117.4	109.4	99.4	91.4	86.7	80.7	80.0
55°	153.4	140.7	126.0	108.0	99.4	91.4	80.7	72.7	66.7	62.7	61.3
57.5°	134.0	122.0	108.0	90.0	81.3	72.7	62.7	55.3	50.0	46.7	46.0
60°	116.0	104.7	91.4	73.3	64.7	57.3	46.7	39.3	34.7	32.0	30.7
62.5°	102.7	92.0	79.4	62.7	54.7	47.3	37.4	30.7	26.7	24.0	22.7
65°	90.0	79.4	68.0	52.7	46.0	39.3	30.0	24.0	20.0	17.3	16.0
67.5°	76.7	67.4	56.7	44.0	37.4	32.0	24.0	18.7	15.3	13.3	12.0
70°	63.3	54.7	46.0	35.3	30.7	25.3	18.7	14.7	11.3	10.0	8.7
72.5°	50.0	43.3	36.0	27.3	23.3	20.0	14.7	10.7	8.7	7.3	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	7.3	6.0	4.7	3.3	2.7
80°	18.0	16.0	12.7	10.0	8.0	7.3	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°	7.3	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°	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4
2.5°	524.1	520.1	517.4	520.7	522.1	520.1	522.1	525.4	528.8	529.4	520.1
5°	524.8	520.7	519.4	523.4	524.1	523.4	525.4	530.1	534.1	535.4	526.1
7.5°	524.8	522.1	521.4	526.1	526.8	526.1	529.4	534.8	538.8	541.4	532.1
10°	523.4	522.1	522.8	526.8	528.1	528.1	532.8	538.8	542.8	545.4	536.1
12.5°	521.4	521.4	521.4	526.1	527.4	528.1	532.1	540.1	542.8	546.8	537.4
15°	518.1	518.1	518.1	522.8	524.8	524.8	529.4	536.8	540.1	544.1	534.8
17.5°	512.1	512.1	512.8	516.8	518.8	518.8	523.4	531.4	533.4	538.1	528.8
20°	503.4	503.4	504.1	508.1	510.1	508.8	514.8	521.4	523.4	527.4	518.1
22.5°	490.7	490.7	490.7	494.8	496.1	495.4	501.4	507.4	507.4	512.8	502.8
25°	472.1	473.4	472.1	476.1	477.4	476.8	482.1	487.4	486.1	492.1	482.1
27.5°	449.4	448.7	448.7	452.1	452.1	451.4	455.4	461.4	460.1	464.1	454.8
30°	418.1	420.1	416.7	421.4	419.4	418.1	420.7	426.1	424.1	427.4	420.1
32.5°	382.1	379.4	379.4	379.4	380.7	377.4	380.1	382.7	380.7	384.1	376.1
35°	334.7	335.4	333.4	334.1	334.7	330.7	333.4	336.1	333.4	335.4	328.1
37.5°	287.4	288.0	283.4	286.1	283.4	282.1	284.7	286.1	283.4	285.4	277.4
40°	240.1	238.7	238.0	238.0	238.7	235.4	237.4	239.4	237.4	238.7	231.4
42.5°	198.7	198.0	196.7	197.4	195.4	194.7	195.4	197.4	195.4	196.7	191.4
45°	162.7	161.4	159.4	160.0	160.0	156.7	158.7	160.0	158.0	158.7	154.0
47.5°	129.4	127.3	127.3	126.7	126.7	125.4	127.3	126.7	124.7	126.0	121.4
50°	100.7	99.4	99.4	99.4	99.4	97.3	98.0	99.4	97.3	97.3	94.7
52.5°	78.7	76.7	75.4	75.4	75.4	74.7	74.7	75.4	73.3	73.3	72.7
55°	59.3	58.7	56.7	56.7	56.7	54.7	55.3	55.3	54.7	54.7	52.7
57.5°	44.0	42.0	40.7	40.7	39.3	39.3	38.7	39.3	38.0	38.0	36.7
60°	29.3	28.0	27.3	26.7	26.7	26.0	26.7	26.0	26.0	25.3	24.7
62.5°	21.3	20.0	18.7	18.7	18.7	18.0	18.0	18.0	18.0	18.0	17.3
65°	15.3	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	7.3	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: P856752

CATALOG NUMBER: LX4C10D010 EX4C109035 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	517.4	517.4	517.4	517.4	517.4	517.4	517.4	517.4
2.5°	530.1	529.4	528.1	530.1	524.8	522.8	522.1	528.1
5°	537.4	536.1	536.1	538.1	532.1	530.8	529.4	536.1
7.5°	544.1	542.8	542.8	544.8	539.4	538.1	536.8	543.4
10°	548.1	548.1	548.1	549.4	544.8	543.4	542.8	549.4
12.5°	550.1	550.1	549.4	552.1	546.1	546.1	544.8	551.4
15°	547.4	547.4	547.4	549.4	544.1	542.8	542.8	548.1
17.5°	540.8	540.8	540.1	542.1	536.1	536.1	535.4	541.4
20°	530.8	530.8	529.4	532.1	526.1	524.1	523.4	529.4
22.5°	514.8	514.1	513.4	514.8	509.4	508.1	507.4	512.8
25°	494.1	493.4	492.1	493.4	487.4	485.4	485.4	489.4
27.5°	464.8	464.8	462.7	464.8	458.1	457.4	456.7	461.4
30°	428.7	426.1	424.7	427.4	420.7	420.7	419.4	424.1
32.5°	384.1	381.4	380.7	382.1	376.1	374.1	376.7	379.4
35°	332.7	333.4	330.7	330.7	325.4	326.0	326.7	330.7
37.5°	283.4	282.1	281.4	282.1	278.1	276.7	275.4	279.4
40°	237.4	234.0	233.4	233.4	230.0	229.4	230.0	232.1
42.5°	194.0	193.4	190.7	192.0	188.7	190.0	189.4	189.4
45°	156.7	157.4	154.7	156.7	154.0	152.0	152.0	153.4
47.5°	124.0	124.0	123.3	123.3	121.4	122.0	120.7	122.7
50°	96.0	96.0	94.7	95.4	94.0	94.0	93.3	94.0
52.5°	73.3	72.7	72.7	72.0	70.7	71.4	72.0	70.7
55°	53.3	54.0	52.7	53.3	52.0	52.7	52.0	52.7
57.5°	36.7	37.4	36.0	37.4	36.0	36.7	36.0	36.0
60°	25.3	25.3	24.7	25.3	24.7	24.7	24.0	25.3
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)