

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: P856729

Luminaire Tested: **LX4C10D010 EX4C109030 4LBSWNH**

Issue Date: 2/18/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P856729  
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 EX4C109030 4LBSWNH  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LCSW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

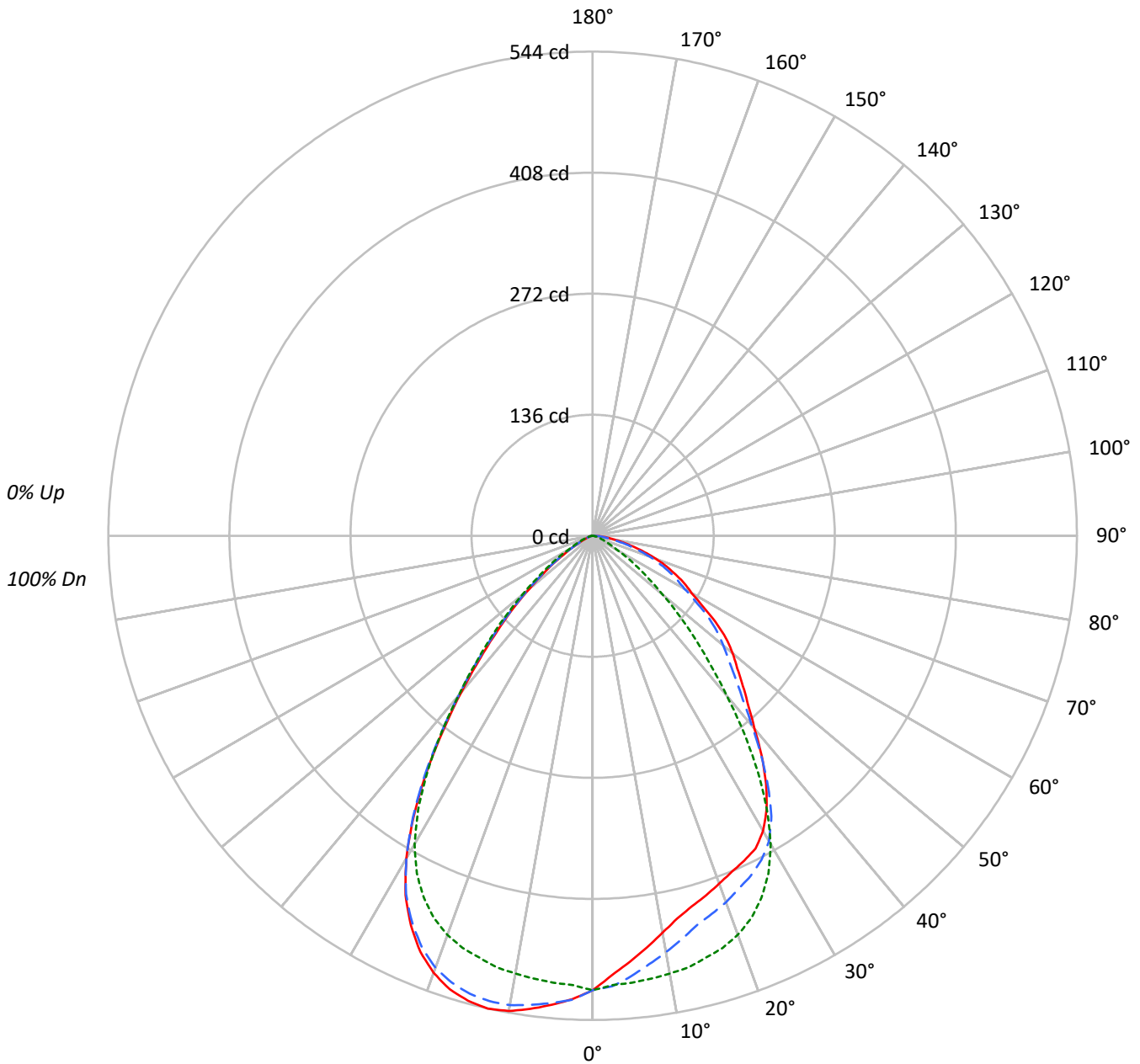
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 895.0 lumens  
Efficiency: N/A  
Efficacy: 91.3 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<sub>in</sub>): 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

TEST NUMBER: P856729

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

### 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°	62729	62729	62729
5°	59232	62155	65238
10°	56474	62299	67639
15°	54818	62436	68783
20°	54361	62362	68297
25°	54588	60823	65459
30°	54318	56744	59368
35°	50917	48457	48937
40°	45370	37560	36726
45°	41489	28007	26287
50°	39238	19629	17737
55°	36069	13237	11138
60°	31524	7764	6143
65°	29854	4971	3430
70°	27191	3556	2119
75°	22499	2516	1566
80°	17687	1415	920
85°	15787	987	0



TEST NUMBER: P856729

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.2	5.4
10°-20°	138.4	15.5
20°-30°	205.2	22.9
30°-40°	205.4	23.0
40°-50°	143.6	16.0
50°-60°	85.4	9.5
60°-70°	44.6	5.0
70°-80°	19.8	2.2
80°-90°	4.3	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°	391.8	43.8
0°-40°	597.2	66.7
0°-60°	826.3	92.3
0°-90°	895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	511	511	511	511	511	
5°	480	497	504	527	529	45
15°	431	453	491	533	541	122
25°	403	421	449	480	483	186
35°	340	344	323	329	326	210
45°	239	227	161	156	151	185
55°	168	158	62	54	52	149
65°	103	94	17	12	12	102
75°	47	41	5	3	3	51
85°	11	9	1	1	0	13
90°	0	0	0	0	0	



TEST NUMBER: P856729

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6
2.5°	494.1	500.1	494.1	496.1	504.0	496.8	500.7	500.7	498.7	503.3	506.6
5°	480.3	486.2	480.3	482.9	491.5	484.3	488.9	487.6	488.2	492.2	496.8
7.5°	466.5	471.1	465.8	469.1	477.0	471.1	475.0	475.0	475.7	481.6	485.6
10°	452.7	456.6	452.7	455.3	463.9	458.6	461.2	461.9	463.9	469.1	475.0
12.5°	440.2	443.5	439.5	443.5	450.7	445.4	448.7	449.4	451.4	457.3	463.9
15°	431.0	434.3	430.3	433.6	440.2	436.2	438.9	440.2	441.5	446.7	452.7
17.5°	423.7	426.4	423.1	427.0	432.3	427.7	431.6	431.6	433.6	438.9	445.4
20°	415.8	418.5	415.8	419.1	425.1	421.1	424.4	424.4	426.4	432.3	438.2
22.5°	408.6	409.9	408.6	411.2	417.1	413.9	415.8	416.5	418.5	423.7	429.0
25°	402.7	405.3	404.0	406.6	410.6	407.3	409.2	409.9	411.9	416.5	421.1
27.5°	396.1	397.4	396.1	399.4	402.7	400.0	402.0	401.4	402.7	406.6	410.6
30°	382.9	384.3	384.3	386.2	388.9	387.6	389.5	387.6	388.9	392.1	396.1
32.5°	363.9	364.5	365.2	367.2	369.1	367.2	368.5	368.5	368.5	371.1	373.7
35°	339.5	340.8	340.2	341.5	343.5	342.8	342.8	342.1	340.8	342.1	343.5
37.5°	311.9	309.9	309.9	311.9	313.2	310.6	311.9	310.6	310.6	311.2	311.2
40°	282.9	281.0	282.9	283.6	284.2	282.9	282.3	281.0	279.0	279.6	278.3
42.5°	258.6	257.3	257.9	257.9	258.6	257.3	257.9	255.3	253.3	252.0	250.0
45°	238.8	236.9	238.8	237.5	237.5	236.9	236.2	234.9	232.3	230.3	227.0
47.5°	220.4	220.4	221.1	221.1	221.1	219.8	219.8	217.1	214.5	211.9	207.3
50°	205.3	204.0	206.6	206.6	204.6	204.0	204.6	201.3	199.4	196.1	191.5
52.5°	188.8	188.8	189.5	189.5	188.8	187.5	188.2	185.5	183.6	180.3	175.7
55°	168.4	167.1	169.1	169.1	168.4	167.8	168.4	166.5	164.5	161.9	157.9
57.5°	145.4	144.7	146.1	146.7	145.4	145.4	146.1	144.1	143.4	140.8	136.9
60°	128.3	127.6	129.0	129.6	128.3	128.3	128.3	125.7	124.3	121.7	119.1
62.5°	116.5	115.8	117.1	116.5	115.8	115.1	115.8	113.2	111.9	109.2	106.6
65°	102.7	103.3	104.0	104.0	103.3	102.7	102.7	101.3	100.0	97.4	94.1
67.5°	89.5	89.5	90.1	90.8	90.1	90.1	90.1	88.2	86.8	84.9	80.9
70°	75.7	75.0	77.0	77.0	75.7	76.3	75.7	75.0	73.7	71.1	67.8
72.5°	61.2	61.2	61.8	61.8	61.2	61.2	61.2	60.5	58.5	57.2	54.0
75°	47.4	47.4	48.0	48.7	47.4	47.4	48.0	46.7	45.4	43.4	41.4
77.5°	35.5	34.9	35.5	35.5	34.9	34.9	34.9	34.2	33.6	31.6	29.6
80°	25.0	24.3	25.0	25.0	25.0	24.3	24.3	23.7	23.7	22.4	20.4
82.5°	17.1	16.5	17.1	17.1	17.1	16.5	16.5	16.5	15.8	15.1	13.8
85°	11.2	10.5	10.5	11.2	10.5	10.5	10.5	10.5	9.9	9.2	8.6
87.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.6	4.6	4.6	3.9
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: P856729

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6
2.5°	504.0	502.7	506.6	505.3	506.0	502.7	508.0	505.3	508.6	505.3	511.9
5°	495.4	494.1	500.1	499.4	500.1	497.4	503.3	502.7	506.6	504.0	511.2
7.5°	486.2	484.9	491.5	492.2	493.5	490.9	498.7	498.7	502.7	502.0	509.9
10°	475.7	476.4	482.9	484.3	486.9	485.6	492.8	494.8	500.1	499.4	509.3
12.5°	465.8	465.8	474.4	477.0	479.0	478.3	486.9	489.5	495.4	496.8	506.0
15°	456.0	456.6	464.5	468.5	471.1	470.5	479.7	482.9	490.2	490.9	502.0
17.5°	448.1	447.4	456.0	459.3	463.2	462.6	472.4	476.4	483.6	485.6	496.1
20°	441.5	440.8	448.7	452.7	455.3	454.7	464.5	469.1	475.7	477.0	487.6
22.5°	433.6	432.3	440.2	443.5	446.1	445.4	454.0	457.3	463.9	465.2	475.0
25°	424.4	423.1	430.3	432.3	434.3	432.9	440.2	442.2	447.4	448.7	458.6
27.5°	413.9	410.6	416.5	416.5	417.8	415.8	421.1	423.1	427.7	427.7	436.9
30°	397.4	392.8	396.1	395.4	396.1	393.5	396.8	397.4	400.7	400.0	406.6
32.5°	374.4	367.8	369.8	367.8	365.8	361.9	365.8	364.5	367.2	364.5	370.4
35°	342.8	336.2	335.6	332.9	331.0	327.7	327.7	324.4	325.0	323.1	327.0
37.5°	308.6	300.0	298.7	293.5	290.2	286.2	286.2	283.6	280.3	279.0	282.3
40°	275.0	265.8	262.5	254.0	250.7	246.7	244.1	240.8	239.5	234.2	236.9
42.5°	246.1	236.2	229.0	219.8	216.5	210.5	206.6	202.7	200.7	194.8	197.4
45°	221.7	209.9	202.0	190.1	185.5	179.0	173.0	168.4	163.8	161.2	159.9
47.5°	201.3	188.8	178.3	165.1	157.9	152.0	144.1	139.5	133.6	130.3	128.3
50°	184.2	170.4	158.6	143.4	136.2	129.6	120.4	113.2	107.9	102.7	101.3
52.5°	169.1	154.6	141.5	124.3	115.8	107.9	98.0	90.1	85.5	79.6	79.0
55°	151.3	138.8	124.3	106.6	98.0	90.1	79.6	71.7	65.8	61.8	60.5
57.5°	132.3	120.4	106.6	88.8	80.3	71.7	61.8	54.6	49.3	46.1	45.4
60°	114.5	103.3	90.1	72.4	63.8	56.6	46.1	38.8	34.2	31.6	30.3
62.5°	101.3	90.8	78.3	61.8	54.0	46.7	36.9	30.3	26.3	23.7	22.4
65°	88.8	78.3	67.1	52.0	45.4	38.8	29.6	23.7	19.7	17.1	15.8
67.5°	75.7	66.5	55.9	43.4	36.9	31.6	23.7	18.4	15.1	13.2	11.8
70°	62.5	54.0	45.4	34.9	30.3	25.0	18.4	14.5	11.2	9.9	8.6
72.5°	49.3	42.8	35.5	27.0	23.0	19.7	14.5	10.5	8.6	7.2	5.9
75°	36.9	32.2	26.3	20.4	17.1	14.5	10.5	7.9	6.6	5.3	4.6
77.5°	26.3	22.4	18.4	13.8	12.5	10.5	7.2	5.9	4.6	3.3	2.6
80°	17.8	15.8	12.5	9.9	7.9	7.2	5.3	3.9	2.6	2.0	2.0
82.5°	11.8	9.9	7.9	5.9	5.3	4.6	3.3	2.6	2.0	1.3	1.3
85°	7.2	5.9	4.6	3.3	3.3	2.6	2.0	1.3	0.7	0.7	0.7
87.5°	3.3	2.6	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



TEST NUMBER: P856729

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6
2.5°	517.2	513.2	510.6	513.9	515.2	513.2	515.2	518.5	521.8	522.4	513.2
5°	517.8	513.9	512.5	516.5	517.2	516.5	518.5	523.1	527.0	528.4	519.1
7.5°	517.8	515.2	514.5	519.1	519.8	519.1	522.4	527.7	531.6	534.3	525.1
10°	516.5	515.2	515.8	519.8	521.1	521.1	525.7	531.6	535.6	538.2	529.0
12.5°	514.5	514.5	514.5	519.1	520.5	521.1	525.1	532.9	535.6	539.5	530.3
15°	511.2	511.2	511.2	515.8	517.8	517.8	522.4	529.7	532.9	536.9	527.7
17.5°	505.3	505.3	506.0	509.9	511.9	511.9	516.5	524.4	526.4	531.0	521.8
20°	496.8	496.8	497.4	501.4	503.3	502.0	508.0	514.5	516.5	520.5	511.2
22.5°	484.3	484.3	484.3	488.2	489.5	488.9	494.8	500.7	500.7	506.0	496.1
25°	465.8	467.2	465.8	469.8	471.1	470.5	475.7	481.0	479.7	485.6	475.7
27.5°	443.5	442.8	442.8	446.1	446.1	445.4	449.4	455.3	454.0	457.9	448.7
30°	412.5	414.5	411.2	415.8	413.9	412.5	415.2	420.4	418.5	421.8	414.5
32.5°	377.0	374.4	374.4	374.4	375.7	372.4	375.0	377.7	375.7	379.0	371.1
35°	330.3	331.0	329.0	329.7	330.3	326.3	329.0	331.6	329.0	331.0	323.7
37.5°	283.6	284.2	279.6	282.3	279.6	278.3	281.0	282.3	279.6	281.6	273.7
40°	236.9	235.6	234.9	234.9	235.6	232.3	234.2	236.2	234.2	235.6	228.3
42.5°	196.1	195.4	194.1	194.8	192.8	192.1	192.8	194.8	192.8	194.1	188.8
45°	160.5	159.2	157.3	157.9	157.9	154.6	156.6	157.9	155.9	156.6	152.0
47.5°	127.6	125.7	125.7	125.0	125.0	123.7	125.7	125.0	123.0	124.3	119.8
50°	99.4	98.0	98.0	98.0	98.0	96.1	96.7	98.0	96.1	96.1	93.4
52.5°	77.6	75.7	74.4	74.4	74.4	73.7	73.7	74.4	72.4	72.4	71.7
55°	58.5	57.9	55.9	55.9	55.9	54.0	54.6	54.6	54.0	54.0	52.0
57.5°	43.4	41.4	40.1	40.1	38.8	38.8	38.2	38.8	37.5	37.5	36.2
60°	28.9	27.6	27.0	26.3	26.3	25.7	26.3	25.7	25.7	25.0	24.3
62.5°	21.0	19.7	18.4	18.4	18.4	17.8	17.8	17.8	17.8	17.8	17.1
65°	15.1	13.8	13.8	13.2	13.2	12.5	12.5	12.5	12.5	12.5	11.8
67.5°	10.5	9.9	9.2	9.2	9.2	9.2	9.2	9.2	8.6	8.6	8.6
70°	7.9	7.2	6.6	6.6	6.6	6.6	6.6	5.9	6.6	6.6	5.9
72.5°	5.3	5.3	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
75°	3.9	3.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
77.5°	2.6	2.6	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: P856729

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6
2.5°	523.1	522.4	521.1	523.1	517.8	515.8	515.2	521.1
5°	530.3	529.0	529.0	531.0	525.1	523.7	522.4	529.0
7.5°	536.9	535.6	535.6	537.6	532.3	531.0	529.7	536.2
10°	540.8	540.8	540.8	542.2	537.6	536.2	535.6	542.2
12.5°	542.8	542.8	542.2	544.8	538.9	538.9	537.6	544.1
15°	540.2	540.2	540.2	542.2	536.9	535.6	535.6	540.8
17.5°	533.6	533.6	532.9	534.9	529.0	529.0	528.4	534.3
20°	523.7	523.7	522.4	525.1	519.1	517.2	516.5	522.4
22.5°	508.0	507.3	506.6	508.0	502.7	501.4	500.7	506.0
25°	487.6	486.9	485.6	486.9	481.0	479.0	479.0	482.9
27.5°	458.6	458.6	456.6	458.6	452.0	451.4	450.7	455.3
30°	423.1	420.4	419.1	421.8	415.2	415.2	413.9	418.5
32.5°	379.0	376.4	375.7	377.0	371.1	369.1	371.7	374.4
35°	328.3	329.0	326.3	326.3	321.1	321.7	322.4	326.3
37.5°	279.6	278.3	277.7	278.3	274.4	273.1	271.7	275.7
40°	234.2	230.9	230.3	230.3	227.0	226.4	227.0	229.0
42.5°	191.5	190.8	188.2	189.5	186.2	187.5	186.9	186.9
45°	154.6	155.3	152.6	154.6	152.0	150.0	150.0	151.3
47.5°	122.4	122.4	121.7	121.7	119.8	120.4	119.1	121.1
50°	94.7	94.7	93.4	94.1	92.8	92.8	92.1	92.8
52.5°	72.4	71.7	71.7	71.1	69.7	70.4	71.1	69.7
55°	52.6	53.3	52.0	52.6	51.3	52.0	51.3	52.0
57.5°	36.2	36.9	35.5	36.9	35.5	36.2	35.5	35.5
60°	25.0	25.0	24.3	25.0	24.3	24.3	23.7	25.0
62.5°	17.1	17.1	17.1	17.1	17.1	16.5	17.1	17.1
65°	12.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8
67.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
70°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
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)