

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: P856873

Luminaire Tested: **LX4C10D010 EX4C109030 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P856873
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: LX4C10D010 EX4C109030 4LBLWWH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

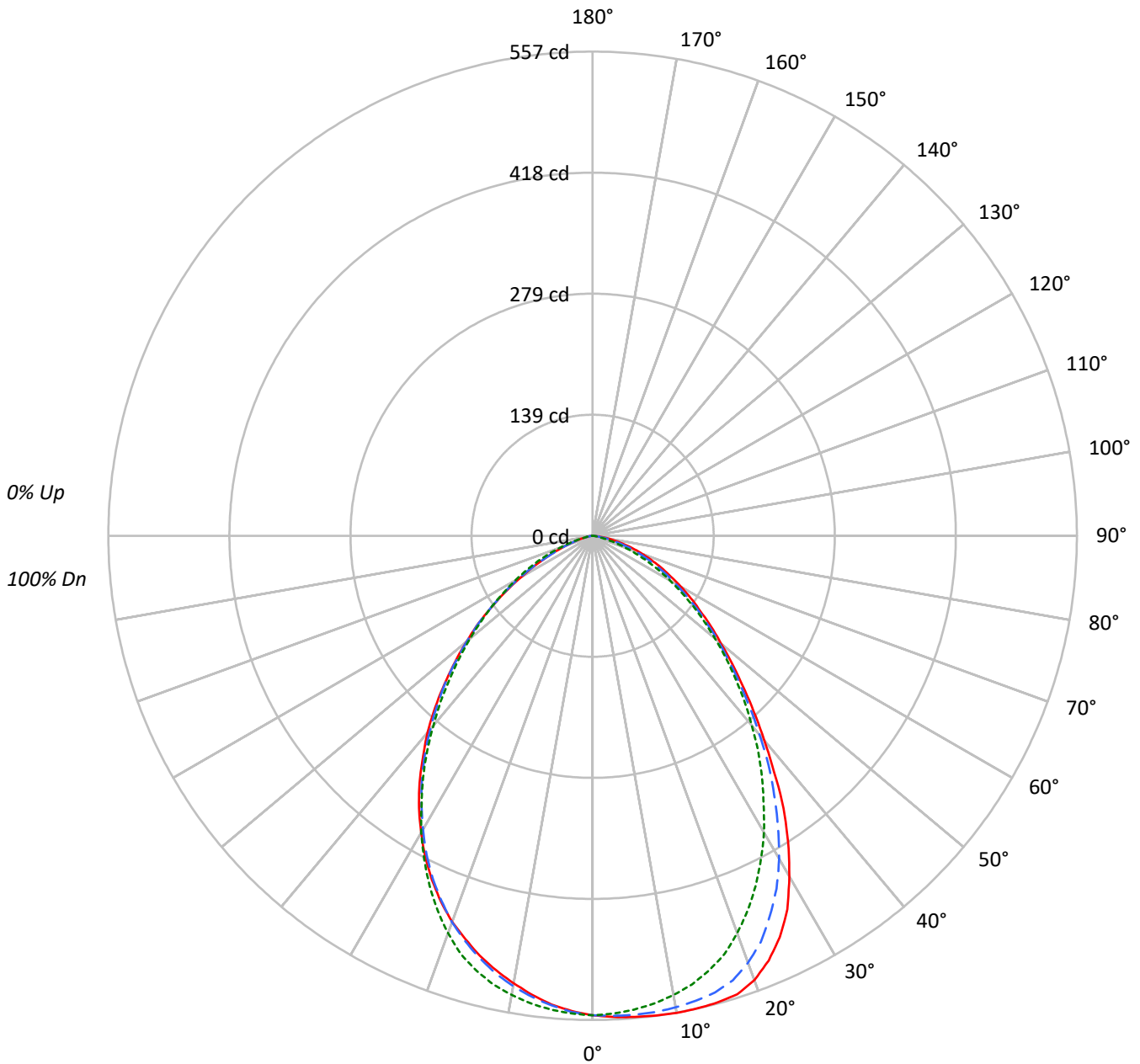
Lumens per Lamp: N/A
Luminaire Lumens: 1039.5 lumens
Efficiency: N/A
Efficacy: 61.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 17
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				20				
RC	80				70				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°	67766	67766	67766
5°	68530	67482	66742
10°	69522	66915	65206
15°	70678	65832	63645
20°	71108	63591	61774
25°	69078	60172	59237
30°	64191	55921	55935
35°	57456	50962	52057
40°	49187	45674	47342
45°	42358	40291	41802
50°	36811	35072	36123
55°	32385	30158	29901
60°	28821	25185	23195
65°	25261	20174	16744
70°	21732	14260	11351
75°	17610	8259	6645
80°	12593	3608	3325
85°	4793	1551	1551



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	5.0
10°-20°	147.2	14.2
20°-30°	210.1	20.2
30°-40°	219.8	21.1
40°-50°	184.2	17.7
50°-60°	128.9	12.4
60°-70°	70.2	6.8
70°-80°	24.4	2.3
80°-90°	2.8	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°	409.3	39.4
0°-40°	629.1	60.5
0°-60°	942.1	90.6
0°-90°	1039.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1039.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	552	552	552	552	552	
5°	556	553	547	542	541	53
15°	556	544	518	503	500	157
25°	510	482	444	435	437	233
35°	383	364	340	342	347	238
45°	244	238	232	240	241	190
55°	151	146	141	141	140	137
65°	87	79	69	58	58	87
75°	37	30	17	14	14	40
85°	3	2	1	1	1	6
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°	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6
2.5°	554.2	553.5	553.8	553.8	553.8	553.5	553.8	553.5	553.5	553.2	552.8
5°	555.7	555.3	555.3	555.3	555.0	554.7	554.7	554.6	554.2	553.9	553.1
7.5°	556.7	556.2	556.2	556.1	555.8	555.7	555.4	554.7	554.2	553.8	552.7
10°	557.3	556.7	556.7	556.2	555.8	555.7	555.3	554.3	553.5	552.4	550.9
12.5°	556.9	556.2	556.1	555.7	554.7	554.3	553.9	552.8	551.3	549.9	548.0
15°	555.7	555.3	554.7	554.2	553.1	552.4	552.0	550.3	548.4	546.3	543.9
17.5°	553.1	552.4	551.6	550.8	549.3	548.6	547.6	545.4	542.7	539.7	536.1
20°	543.9	543.5	542.7	541.2	538.9	538.0	536.5	533.8	530.1	526.5	522.7
22.5°	528.9	528.3	527.0	525.7	523.5	522.0	520.8	517.1	513.0	509.2	505.6
25°	509.6	509.0	507.2	505.6	503.4	500.8	499.6	496.7	492.6	487.8	482.5
27.5°	484.8	482.6	482.0	480.1	477.0	476.0	474.1	470.3	466.6	462.2	457.8
30°	452.5	452.5	451.3	450.4	447.4	446.6	444.4	440.4	438.3	432.4	429.0
32.5°	418.4	418.0	416.9	416.2	414.6	413.1	410.9	408.8	404.2	401.2	396.5
35°	383.1	380.6	381.0	379.8	378.7	376.9	376.8	374.5	370.2	368.6	364.2
37.5°	343.0	342.0	343.4	341.6	340.5	340.7	339.0	337.5	335.9	332.9	332.0
40°	306.7	307.7	307.4	305.6	306.6	305.5	303.8	302.3	301.5	299.6	298.9
42.5°	274.3	273.0	272.6	272.6	272.8	272.8	272.0	270.9	270.9	269.1	267.0
45°	243.8	243.8	243.3	244.6	242.7	242.7	242.1	241.8	241.0	240.6	238.3
47.5°	217.5	217.2	217.1	216.8	216.5	216.5	215.3	214.2	214.1	212.8	211.5
50°	192.6	193.9	193.5	192.4	192.0	192.2	191.3	190.8	190.5	188.3	188.6
52.5°	171.9	171.6	172.0	171.5	170.4	170.5	169.7	168.9	168.1	167.0	166.0
55°	151.2	152.3	151.9	151.2	151.1	150.7	150.0	148.9	148.8	146.3	146.2
57.5°	134.1	133.9	133.4	132.4	132.2	131.5	131.5	130.7	129.5	128.1	127.0
60°	117.3	117.3	116.6	116.5	115.6	115.4	115.2	114.3	112.9	111.8	110.2
62.5°	101.2	101.7	101.2	100.6	99.9	99.1	98.7	98.0	96.8	95.7	94.2
65°	86.9	86.8	86.5	85.7	85.5	84.6	84.4	83.2	81.9	81.0	79.4
67.5°	73.4	72.8	72.8	72.4	72.0	71.3	70.9	69.5	68.0	67.2	65.6
70°	60.5	60.1	60.1	60.1	59.0	58.3	58.2	57.5	55.4	54.5	52.8
72.5°	48.6	48.3	48.2	47.5	46.8	46.8	46.0	44.8	43.7	42.7	41.3
75°	37.1	37.5	37.1	36.3	36.0	35.6	35.0	33.9	32.9	31.6	30.1
77.5°	27.1	26.7	26.3	26.3	25.9	25.0	24.8	24.0	22.7	21.9	20.4
80°	17.8	17.6	17.1	16.7	16.6	16.3	16.1	15.3	14.0	13.4	12.2
82.5°	9.7	9.6	9.6	9.3	8.6	8.6	8.5	7.7	7.0	6.6	5.9
85°	3.4	3.4	3.4	3.2	3.2	3.2	3.0	2.7	2.6	2.3	1.9
87.5°	0.4	0.3	0.4	0.3	0.4	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°	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6
2.5°	552.4	552.0	551.7	551.6	551.3	551.2	550.9	550.5	550.3	550.1	549.7
5°	552.4	551.6	551.2	550.5	550.1	549.7	549.0	548.4	547.8	547.2	546.5
7.5°	551.6	550.3	549.4	548.2	547.8	547.2	545.8	545.0	543.9	542.7	541.2
10°	549.4	548.0	546.3	544.6	543.9	542.8	541.2	539.7	538.0	536.4	534.9
12.5°	546.1	543.8	541.6	539.3	538.0	536.9	534.6	532.4	530.4	528.5	526.0
15°	540.9	538.2	535.4	532.3	530.8	529.5	526.1	523.5	520.2	517.6	515.2
17.5°	532.7	528.5	525.0	521.1	518.9	517.5	514.5	510.4	507.2	504.5	501.5
20°	518.5	514.5	509.8	505.3	503.0	501.1	496.8	492.6	489.4	486.4	483.3
22.5°	499.8	494.8	491.4	485.9	484.0	481.5	476.6	472.6	469.1	466.2	463.2
25°	477.1	472.6	468.0	462.9	460.6	457.8	453.6	449.6	447.3	443.9	440.2
27.5°	451.0	447.4	441.7	437.3	435.0	432.8	428.8	425.1	421.7	419.4	416.1
30°	423.5	419.2	414.0	409.5	408.1	405.7	402.0	399.2	395.7	394.2	392.7
32.5°	393.1	388.3	384.3	381.4	378.9	376.8	374.9	370.4	369.8	366.0	365.6
35°	360.0	357.9	354.2	351.7	349.7	348.2	344.9	342.8	340.5	339.8	338.3
37.5°	328.9	326.3	322.9	320.5	319.0	318.9	316.6	315.2	313.6	312.7	311.0
40°	296.2	295.1	292.1	291.7	289.3	289.2	287.8	286.3	284.8	284.8	285.1
42.5°	266.1	264.7	263.5	262.0	260.7	260.7	260.1	259.6	259.2	258.7	259.6
45°	237.9	236.1	235.3	233.8	234.4	233.1	232.7	232.7	232.1	231.9	233.4
47.5°	211.5	209.7	208.7	208.3	208.3	208.6	206.7	207.2	207.1	207.5	208.2
50°	187.5	185.9	184.5	184.5	184.8	183.9	183.1	183.7	183.1	183.5	185.0
52.5°	165.2	163.6	162.9	162.9	161.6	161.5	161.9	161.1	161.2	161.5	162.3
55°	144.7	143.6	142.6	141.5	141.8	141.3	140.4	140.3	140.7	140.8	141.9
57.5°	126.2	124.7	123.3	122.8	122.4	122.4	121.4	121.1	121.5	120.6	120.6
60°	108.7	107.7	105.8	105.2	105.2	104.2	103.3	103.7	102.7	102.5	102.7
62.5°	92.3	91.7	90.3	89.1	88.7	88.3	87.2	86.8	86.4	85.5	84.2
65°	78.0	76.5	75.1	74.2	73.6	72.5	72.0	71.0	69.8	69.4	68.0
67.5°	63.9	62.4	60.9	60.2	59.7	59.0	57.9	56.8	55.4	53.7	52.2
70°	51.3	49.4	48.6	46.8	46.4	45.6	44.1	43.1	41.6	39.7	38.2
72.5°	39.3	37.9	36.7	35.2	34.2	33.5	32.3	30.5	28.9	27.8	26.3
75°	28.2	27.5	25.9	24.2	23.8	23.0	21.5	20.4	19.0	17.4	16.1
77.5°	19.0	17.8	16.7	15.3	14.8	14.0	13.1	12.2	11.2	10.1	9.3
80°	11.2	10.1	9.6	8.5	8.1	7.7	7.0	6.2	5.5	5.1	4.9
82.5°	5.5	4.7	4.5	3.8	3.6	3.4	3.0	2.7	2.3	2.3	2.3
85°	1.9	1.5	1.5	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	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°	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6
2.5°	549.4	549.3	549.0	548.8	548.8	548.6	548.6	548.4	548.4	548.2	548.2
5°	545.7	545.0	544.6	544.2	544.2	543.5	543.1	542.7	542.4	542.4	542.0
7.5°	540.4	539.5	538.7	538.0	537.8	536.8	536.0	536.0	535.0	534.6	534.2
10°	533.4	531.9	530.6	530.0	529.1	528.5	527.4	526.8	526.1	525.0	524.9
12.5°	523.8	522.7	520.8	520.0	519.6	518.3	516.6	515.7	515.6	514.6	514.1
15°	513.0	510.7	509.0	507.9	507.9	505.7	504.9	503.7	502.7	502.2	501.9
17.5°	499.0	496.7	494.9	493.4	493.0	491.4	490.0	489.6	488.6	489.0	487.9
20°	481.0	479.0	477.8	475.9	475.9	474.8	474.4	473.3	472.9	472.5	472.9
22.5°	461.7	459.3	457.2	457.0	457.0	455.5	455.2	455.1	454.3	454.8	454.7
25°	438.9	437.3	435.9	435.8	435.8	435.0	434.0	434.4	435.1	435.0	435.5
27.5°	415.4	413.6	413.2	413.1	412.6	412.4	412.8	412.8	413.5	414.3	415.1
30°	389.9	389.5	388.8	388.7	388.3	389.3	389.7	390.3	390.2	391.4	392.3
32.5°	364.5	363.6	363.4	363.8	364.5	364.2	365.6	366.0	366.4	367.9	368.6
35°	338.8	338.6	338.2	338.2	338.3	340.1	340.1	341.6	342.4	342.8	344.5
37.5°	311.2	312.1	312.5	313.1	313.3	314.0	314.4	315.9	316.7	317.5	318.5
40°	285.9	285.5	287.4	286.2	286.6	288.5	289.3	289.2	290.4	291.7	292.5
42.5°	259.1	259.6	260.1	260.6	261.6	261.8	262.8	264.3	264.7	266.2	266.6
45°	232.9	233.1	234.0	234.9	235.4	237.2	237.6	238.3	239.5	239.5	240.2
47.5°	208.3	209.1	209.1	210.5	211.5	211.3	212.8	213.2	213.0	214.1	214.5
50°	184.8	186.0	185.9	186.7	187.1	187.4	188.6	189.0	188.2	189.3	189.4
52.5°	162.3	162.9	163.8	164.0	163.6	164.6	164.2	165.1	164.8	165.6	164.8
55°	141.8	141.5	141.5	141.9	141.5	141.9	142.3	141.5	140.8	141.8	141.5
57.5°	121.1	121.1	120.7	121.4	120.7	120.0	119.9	119.2	118.5	118.5	118.4
60°	101.8	101.4	100.6	100.3	100.3	99.2	98.8	98.0	98.0	97.2	96.3
62.5°	83.8	82.8	82.1	82.1	81.7	80.6	78.7	77.5	77.0	75.7	75.5
65°	66.8	65.7	65.1	63.9	62.8	62.4	60.5	59.0	58.3	57.1	57.2
67.5°	51.3	49.7	47.8	46.8	46.3	44.8	44.1	43.1	42.4	42.4	42.4
70°	36.9	35.4	33.5	32.9	32.4	31.2	30.5	30.4	30.9	30.8	30.9
72.5°	24.8	23.4	22.5	22.0	21.6	21.1	21.5	21.6	21.2	21.5	21.6
75°	15.1	14.6	14.0	13.8	13.8	14.0	13.8	13.8	14.0	14.0	14.2
77.5°	8.6	8.2	8.2	8.1	8.5	8.2	8.2	8.2	8.5	8.5	8.5
80°	4.7	4.7	4.7	4.7	4.9	4.7	4.9	4.9	4.9	4.9	4.9
82.5°	2.3	2.3	2.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.3
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.3	0.4	0.4	0.4	0.4	0.4	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



TEST NUMBER: P856873

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	551.6	551.6	551.6	551.6	551.6	551.6	551.6	551.6
2.5°	547.8	547.8	547.8	547.3	547.6	547.6	547.3	547.3
5°	541.9	541.6	541.2	541.2	540.8	541.2	540.9	541.2
7.5°	533.8	533.8	533.1	533.1	533.0	532.7	532.4	532.7
10°	524.2	524.2	523.8	523.5	523.8	523.0	523.0	522.7
12.5°	513.7	513.1	512.7	513.0	512.7	512.2	511.9	512.2
15°	501.3	500.7	500.8	500.3	500.3	500.0	500.4	500.4
17.5°	487.8	487.4	486.9	487.1	486.7	486.9	486.7	486.4
20°	472.6	472.5	472.5	471.6	471.8	471.6	471.8	472.5
22.5°	455.2	455.1	455.2	454.7	455.1	455.1	455.8	455.8
25°	436.2	435.9	436.5	436.6	436.9	437.4	436.9	437.0
27.5°	415.0	415.5	416.2	416.5	417.3	416.6	416.2	416.9
30°	393.5	393.5	393.3	394.2	394.7	395.4	394.3	394.3
32.5°	369.0	370.0	370.0	370.2	370.8	370.8	370.8	371.7
35°	345.3	346.0	346.3	345.3	345.7	345.6	347.1	347.1
37.5°	319.0	319.0	319.3	320.8	320.8	320.1	320.5	320.5
40°	294.0	294.3	293.4	293.8	294.8	294.4	294.8	295.2
42.5°	266.6	268.1	267.3	267.7	267.6	267.7	268.0	268.0
45°	240.6	241.0	241.0	241.2	241.6	242.1	240.8	240.6
47.5°	215.1	215.3	216.0	214.9	216.1	214.9	216.1	214.6
50°	189.4	190.4	189.7	190.1	189.4	189.4	189.3	189.0
52.5°	165.1	164.8	164.8	164.6	164.6	165.1	164.6	165.2
55°	140.7	140.8	140.4	140.3	140.0	140.7	140.0	139.6
57.5°	117.6	118.0	117.0	117.6	116.1	116.6	116.9	117.0
60°	96.1	95.4	95.4	94.6	94.6	95.3	94.4	94.4
62.5°	74.5	74.9	74.2	75.1	75.1	76.0	75.5	76.0
65°	57.1	57.2	57.5	57.5	57.5	58.7	58.3	57.6
67.5°	43.1	43.3	43.5	43.3	43.9	43.5	43.5	43.7
70°	31.2	31.5	31.6	31.6	31.5	31.6	31.6	31.6
72.5°	21.6	21.9	21.6	21.9	22.0	21.9	21.9	22.0
75°	14.2	14.2	14.0	14.0	14.0	14.0	14.2	14.0
77.5°	8.2	8.5	8.2	8.5	8.5	8.5	8.5	8.5
80°	4.9	4.9	4.9	4.7	4.9	4.9	4.9	4.7
82.5°	2.6	2.6	2.3	2.3	2.6	2.6	2.6	2.6
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)