

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: P856804

Luminaire Tested: **LX4C10D010 EX4C109730 4LBLWW\***

Issue Date: 2/9/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P856804  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/9/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C10D010 EX4C109730 4LBLWW\*  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 97CRI LEDS  
AND 4LRLWW TRIM WITH \* FINISH  
Light Source: -  
Ballast/Driver: -

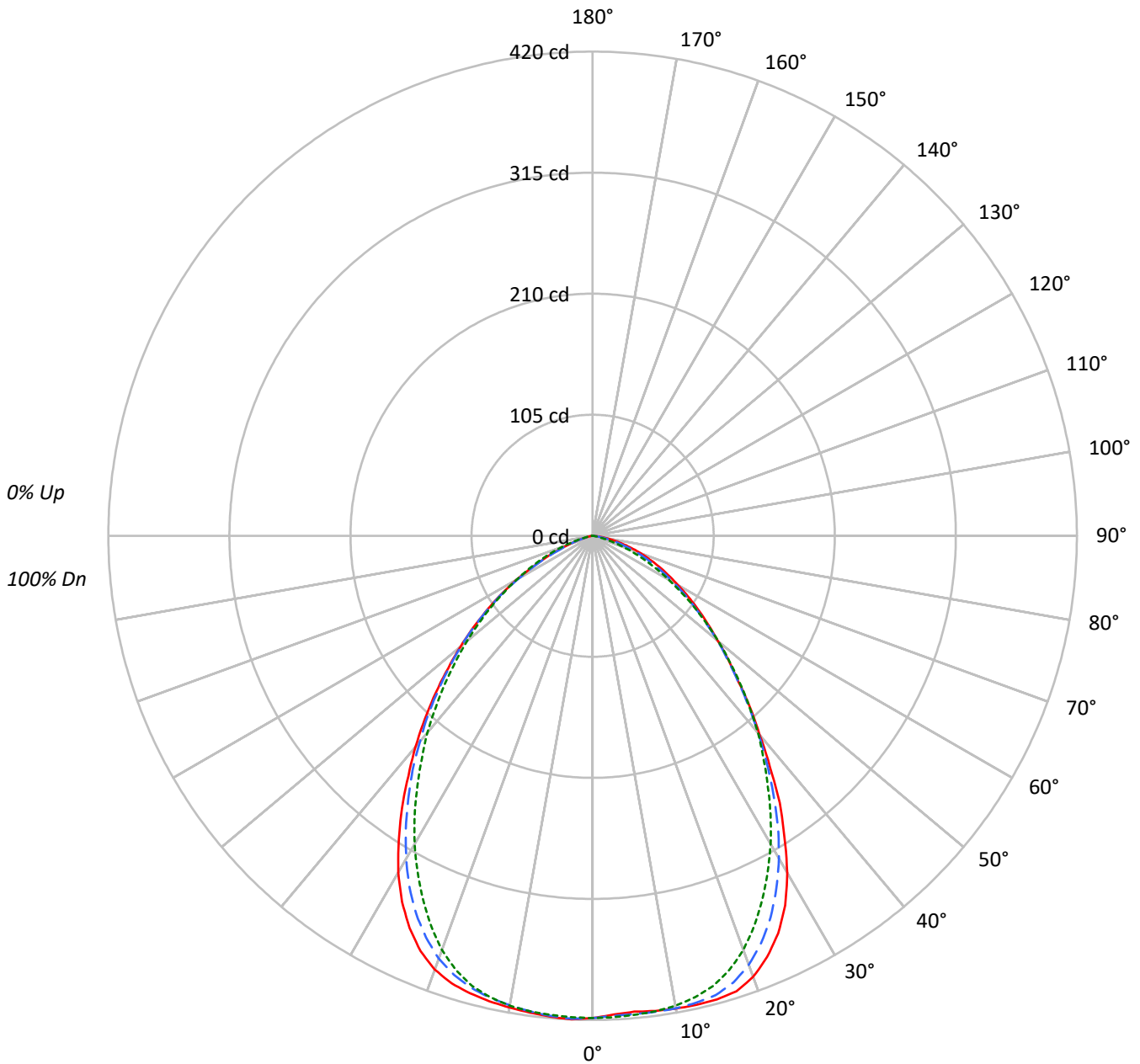
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 802.0 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18  
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

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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	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54																			
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48																			
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43																			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	51390	51390	51390
5°	51105	51450	51648
10°	51945	51633	51833
15°	52961	51409	52261
20°	53236	49968	52347
25°	51592	47186	50887
30°	47892	43792	47806
35°	42413	39714	43208
40°	36148	35779	38313
45°	31065	31412	33376
50°	27102	27178	28612
55°	23946	22940	23711
60°	21008	18723	18649
65°	18575	14535	12936
70°	15841	9986	7687
75°	12816	5364	3513
80°	8773	1344	920
85°	2678	423	423



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.8	5.0
10°-20°	115.1	14.4
20°-30°	166.3	20.7
30°-40°	171.9	21.4
40°-50°	142.0	17.7
50°-60°	98.0	12.2
60°-70°	51.3	6.4
70°-80°	16.2	2.0
80°-90°	1.4	0.2
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°	321.1	40.0
0°-40°	493.1	61.5
0°-60°	733.1	91.4
0°-90°	802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	802.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	418	418	418	418	418	
5°	414	416	417	418	419	40
15°	416	412	404	406	411	117
25°	381	365	348	362	375	174
35°	283	273	265	279	288	176
45°	179	178	181	189	192	139
55°	112	108	107	110	111	100
65°	64	58	50	42	44	63
75°	27	21	11	8	7	29
85°	2	1	0	0	0	4
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°	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3
2.5°	415.7	415.8	415.8	416.1	416.1	416.1	416.3	416.3	416.4	416.6	416.8
5°	414.4	414.4	414.7	414.9	415.2	415.3	415.7	415.8	416.1	416.3	416.4
7.5°	415.7	415.7	415.8	416.0	416.0	416.1	416.1	416.3	416.4	416.6	416.6
10°	416.4	416.4	416.4	416.4	416.6	416.6	416.6	416.4	416.4	416.4	416.3
12.5°	416.8	416.8	416.6	416.4	416.6	416.4	416.4	416.0	415.7	415.3	414.9
15°	416.4	416.4	416.3	416.1	416.0	415.7	415.5	414.7	414.1	413.1	412.5
17.5°	414.4	414.1	413.8	413.5	412.8	412.4	412.0	410.6	409.5	408.0	406.2
20°	407.2	406.9	406.4	405.6	404.8	404.2	403.2	401.2	400.1	397.7	396.0
22.5°	395.4	395.1	395.2	393.8	392.2	391.3	390.7	388.9	387.1	384.1	382.2
25°	380.6	379.7	379.7	377.5	376.7	376.1	375.3	373.2	370.4	367.7	365.2
27.5°	361.5	360.2	359.6	359.3	357.4	356.0	354.9	353.3	350.9	348.6	345.1
30°	337.6	337.4	336.6	335.2	333.8	333.2	331.9	329.3	327.1	325.3	323.1
32.5°	309.5	309.3	309.3	309.3	308.4	308.2	306.3	304.9	303.2	300.5	299.1
35°	282.8	282.6	282.8	280.4	279.8	279.3	279.1	278.2	275.8	274.6	273.3
37.5°	252.6	253.1	252.8	252.1	252.9	251.5	252.6	250.6	249.6	249.3	247.9
40°	225.4	226.7	225.4	225.6	226.4	224.9	224.9	224.6	224.0	223.7	223.4
42.5°	202.2	200.6	201.5	200.8	201.5	201.1	200.3	200.8	200.9	200.3	200.1
45°	178.8	179.1	179.4	178.9	178.9	178.5	179.7	178.9	178.9	179.1	178.0
47.5°	159.8	159.3	159.6	159.3	159.4	159.1	159.4	159.6	159.3	159.3	158.3
50°	141.8	141.5	142.6	141.7	141.7	141.5	141.7	141.4	140.9	140.9	141.2
52.5°	126.3	125.7	125.5	126.3	125.2	125.2	125.4	125.0	124.4	124.1	123.3
55°	111.8	111.7	111.8	111.2	110.9	110.9	110.1	109.8	109.6	108.9	108.4
57.5°	98.3	97.9	98.0	97.9	97.2	97.1	96.5	96.5	95.8	95.2	94.4
60°	85.5	85.5	85.9	85.3	84.8	84.5	84.2	83.9	82.8	81.7	80.7
62.5°	74.0	74.1	74.0	73.5	73.2	72.9	72.6	71.6	70.7	70.1	69.0
65°	63.9	63.8	63.3	63.0	62.2	62.2	61.6	61.1	60.0	59.1	58.0
67.5°	53.6	53.3	53.3	53.3	52.3	52.2	51.8	50.9	50.0	48.7	47.8
70°	44.1	44.5	44.0	43.5	43.0	42.9	42.4	41.5	40.4	39.1	38.3
72.5°	35.2	35.5	35.0	34.9	33.9	33.6	33.5	32.7	31.4	30.6	29.4
75°	27.0	27.2	26.9	26.5	25.9	25.8	25.0	24.3	23.6	22.3	21.2
77.5°	19.5	19.2	19.2	18.5	17.9	17.9	17.8	16.8	15.7	14.8	13.8
80°	12.4	12.3	11.8	11.5	11.0	10.8	10.7	9.9	9.1	8.5	7.9
82.5°	6.3	6.1	6.0	5.8	5.5	5.2	5.3	4.7	4.4	3.8	3.3
85°	1.9	2.0	2.0	1.9	1.7	1.7	1.7	1.6	1.3	1.1	0.9
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3
2.5°	416.9	417.1	417.2	417.4	417.4	417.5	417.7	417.9	418.0	418.0	418.2
5°	416.6	416.9	416.9	417.1	417.1	417.1	417.2	417.2	417.2	417.2	417.4
7.5°	416.8	416.8	416.8	416.6	416.6	416.4	416.4	416.4	416.1	416.1	416.1
10°	416.0	415.8	415.7	415.3	415.2	415.0	414.7	414.4	414.1	413.9	413.6
12.5°	414.4	413.8	413.1	412.5	412.2	412.0	411.4	410.9	410.5	410.0	409.7
15°	411.3	410.3	409.2	408.0	407.6	407.3	406.2	405.3	404.7	404.2	403.4
17.5°	405.0	403.1	401.8	399.9	399.2	398.8	397.1	396.2	395.1	394.8	394.1
20°	393.8	392.1	389.7	388.0	387.1	386.1	384.7	383.4	382.2	382.2	381.4
22.5°	379.8	377.6	374.7	372.5	372.3	370.4	369.2	367.7	367.3	366.3	366.3
25°	362.2	360.4	357.1	355.2	354.2	353.8	351.7	349.8	348.9	348.1	348.7
27.5°	342.8	339.9	337.4	335.1	334.3	333.3	331.5	330.7	328.9	328.8	328.6
30°	320.5	317.6	315.1	314.0	312.4	311.7	310.2	309.3	308.7	308.7	308.4
32.5°	297.1	294.5	293.3	290.9	290.1	289.0	288.1	287.2	287.5	287.2	287.3
35°	271.8	271.1	268.8	267.4	267.4	267.2	265.6	265.0	264.7	264.8	265.6
37.5°	247.7	245.8	244.3	243.3	244.1	243.2	243.0	243.0	244.0	243.3	244.6
40°	222.1	222.0	221.3	221.6	221.8	220.7	221.0	221.2	221.8	223.1	223.2
42.5°	199.8	199.7	199.7	199.7	199.3	198.7	199.3	200.4	200.3	201.2	202.0
45°	178.3	178.0	178.6	178.1	179.1	179.4	178.9	179.2	180.2	180.8	182.1
47.5°	158.7	158.7	158.8	159.1	158.2	159.0	159.3	159.9	160.4	160.7	161.3
50°	140.4	140.4	140.1	140.1	140.1	140.6	140.0	140.7	140.9	142.2	142.9
52.5°	123.6	122.8	123.3	123.0	122.4	122.1	122.4	122.5	123.5	123.8	124.7
55°	107.6	107.6	106.3	106.0	106.5	106.3	106.2	106.2	106.7	107.1	107.9
57.5°	93.5	92.5	91.6	91.4	91.0	91.1	91.1	91.0	90.6	90.8	91.0
60°	80.1	79.5	78.1	78.1	77.9	77.8	77.0	76.8	76.0	76.2	75.6
62.5°	67.9	67.5	65.7	65.0	65.0	64.6	63.8	63.6	62.5	62.5	61.9
65°	56.9	55.9	54.8	53.7	53.7	53.1	52.6	51.2	50.4	50.0	49.0
67.5°	46.8	45.4	44.3	43.4	42.7	42.6	41.5	40.5	39.3	38.5	37.1
70°	37.1	36.0	34.9	33.9	33.3	32.7	31.6	30.2	29.2	27.8	26.9
72.5°	28.0	27.0	26.1	24.8	24.0	23.6	22.5	21.2	19.6	18.7	17.4
75°	20.1	19.0	17.8	16.7	16.2	15.7	14.5	13.5	12.4	11.3	10.1
77.5°	13.0	11.8	10.8	9.6	9.4	9.1	7.9	6.9	6.1	5.5	4.7
80°	6.9	6.3	5.5	4.7	4.4	3.9	3.3	2.8	2.4	1.9	1.6
82.5°	3.0	2.5	2.0	1.7	1.6	1.4	1.1	0.9	0.8	0.8	0.6
85°	0.8	0.6	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.2	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°	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3
2.5°	418.3	418.5	418.6	418.6	418.8	419.0	419.0	419.1	419.3	419.4	419.4
5°	417.5	417.5	417.5	417.7	417.7	417.7	417.7	418.0	418.0	418.2	418.3
7.5°	416.0	416.0	416.0	416.0	415.8	416.0	415.8	415.8	416.1	416.3	416.4
10°	413.5	413.3	413.3	413.1	413.1	413.1	413.3	413.5	413.6	413.8	414.2
12.5°	409.5	409.4	409.4	409.2	409.2	409.4	409.5	409.8	410.5	410.8	411.4
15°	403.2	403.1	403.2	403.4	403.7	404.2	404.7	405.1	406.1	406.9	407.6
17.5°	394.1	394.3	394.4	394.8	395.2	395.9	397.1	398.4	399.5	400.7	402.0
20°	381.6	382.2	382.3	383.4	383.8	385.2	386.6	388.5	390.2	391.8	393.5
22.5°	366.5	367.0	367.6	368.8	369.6	371.5	373.2	375.4	377.3	379.4	381.9
25°	349.4	349.5	351.4	351.4	353.3	354.9	356.9	359.3	362.1	364.8	366.5
27.5°	329.9	330.7	332.1	332.7	334.1	336.6	338.4	341.2	344.0	346.4	348.3
30°	309.5	310.1	312.4	312.8	313.9	316.1	318.4	321.1	323.3	326.0	327.7
32.5°	287.9	289.7	291.1	292.2	292.5	295.8	297.1	298.9	301.4	304.1	305.8
35°	267.0	267.8	269.9	270.5	271.4	273.3	275.8	277.4	278.7	280.4	282.4
37.5°	244.9	247.3	247.7	249.6	249.9	251.7	252.9	254.8	256.4	257.9	258.3
40°	224.3	225.1	226.8	227.3	227.6	230.0	231.5	232.0	232.8	234.2	236.1
42.5°	203.4	204.2	206.1	205.6	207.0	208.1	208.9	210.8	211.6	212.1	212.1
45°	182.8	183.2	184.4	185.0	185.8	186.5	187.9	188.8	189.1	190.5	191.0
47.5°	163.2	163.5	164.5	165.6	165.3	166.0	167.6	168.1	168.2	169.2	169.7
50°	143.9	144.7	145.9	145.6	146.6	147.0	148.4	148.8	148.8	148.9	149.1
52.5°	125.8	126.5	126.8	127.1	127.6	128.3	129.0	128.7	129.3	129.9	129.4
55°	107.9	108.4	109.2	109.5	109.5	109.6	109.3	110.7	110.1	110.0	110.1
57.5°	91.6	91.0	90.8	91.6	91.9	91.7	91.3	91.9	91.9	91.6	91.1
60°	75.7	75.2	75.1	75.2	74.6	74.1	74.5	74.1	73.4	73.0	73.2
62.5°	61.3	60.8	59.5	59.5	59.2	59.1	57.8	58.0	57.3	56.4	56.7
65°	47.9	46.7	46.0	45.9	44.8	43.8	43.5	42.4	41.5	41.3	41.5
67.5°	36.0	34.6	33.5	33.0	32.4	31.6	30.5	29.5	29.8	29.7	30.3
70°	25.0	24.0	22.9	22.1	22.5	21.5	20.9	20.9	21.0	21.2	21.5
72.5°	16.7	15.4	14.9	14.5	14.1	13.5	13.8	13.8	13.7	13.8	13.5
75°	9.4	8.8	8.3	8.2	7.9	7.9	7.9	7.9	7.7	7.5	7.5
77.5°	4.2	3.9	3.8	3.6	3.6	3.6	3.5	3.3	3.3	3.3	3.1
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.6	0.6	0.8	0.8	0.8	0.6	0.8	0.8	0.6	0.6	0.8
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.0	0.2	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: P856804

CATALOG NUMBER: LX4C10D010 EX4C109730 4LBLWW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	418.3	418.3	418.3	418.3	418.3	418.3	418.3	418.3
2.5°	419.6	419.7	419.7	419.7	419.9	419.9	419.9	419.9
5°	418.5	418.6	418.6	418.6	418.8	418.8	418.8	418.8
7.5°	416.6	416.8	416.8	416.9	416.9	417.1	417.1	417.2
10°	414.4	414.7	414.9	415.0	415.2	415.3	415.3	415.5
12.5°	412.0	412.4	412.5	412.8	413.1	413.3	413.5	413.6
15°	408.6	409.2	409.5	409.7	410.3	410.6	410.8	410.9
17.5°	403.1	404.3	404.8	405.1	405.8	406.4	406.9	407.0
20°	395.2	396.6	397.3	398.1	399.0	399.8	400.1	400.4
22.5°	384.2	385.8	386.7	387.7	388.5	389.3	390.5	390.0
25°	368.5	371.2	372.3	372.8	374.5	375.4	376.1	375.4
27.5°	350.9	352.5	353.4	354.5	355.8	356.7	357.1	358.0
30°	329.7	332.4	332.2	333.3	334.9	335.9	336.2	337.0
32.5°	307.7	309.0	309.9	309.8	310.4	312.1	311.5	312.9
35°	284.3	284.5	286.1	285.9	287.2	287.2	287.2	288.1
37.5°	259.4	261.2	260.4	262.3	261.7	262.2	262.2	262.5
40°	236.6	237.2	237.2	237.8	238.3	237.8	238.1	238.9
42.5°	213.0	213.6	213.8	213.5	214.0	215.4	214.3	215.2
45°	191.0	191.5	192.1	191.6	192.4	192.0	192.4	192.1
47.5°	170.3	170.1	170.0	171.2	170.1	170.3	170.9	169.8
50°	149.1	150.0	149.4	149.9	150.2	150.2	149.7	149.7
52.5°	130.2	130.1	129.6	130.1	129.8	129.9	130.2	129.9
55°	110.7	111.4	111.1	110.9	111.1	111.1	112.0	110.7
57.5°	91.6	91.3	91.7	92.8	91.7	92.5	93.0	93.2
60°	73.4	73.4	74.3	73.8	74.8	75.6	76.2	75.9
62.5°	55.9	56.7	57.0	57.2	58.1	58.8	58.8	58.6
65°	41.5	42.6	42.6	43.2	43.5	43.5	43.8	44.5
67.5°	30.6	30.6	30.8	31.1	30.9	30.9	31.3	31.4
70°	21.4	21.0	21.5	21.4	21.4	21.2	21.4	21.4
72.5°	13.5	13.5	13.7	13.5	13.2	13.4	13.4	13.7
75°	7.2	7.5	7.2	7.2	7.4	7.1	7.2	7.4
77.5°	3.0	3.0	3.0	3.0	3.0	2.8	2.8	2.8
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3
82.5°	0.6	0.8	0.6	0.8	0.6	0.6	0.6	0.6
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
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)