

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: P856788

Luminaire Tested: **LX4C10D010 EX4C109050 4LBLWW\***

Issue Date: 2/9/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P856788  
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 EX4C109050 4LBLWW\*  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LRLWW TRIM WITH \* FINISH  
Light Source: -  
Ballast/Driver: -

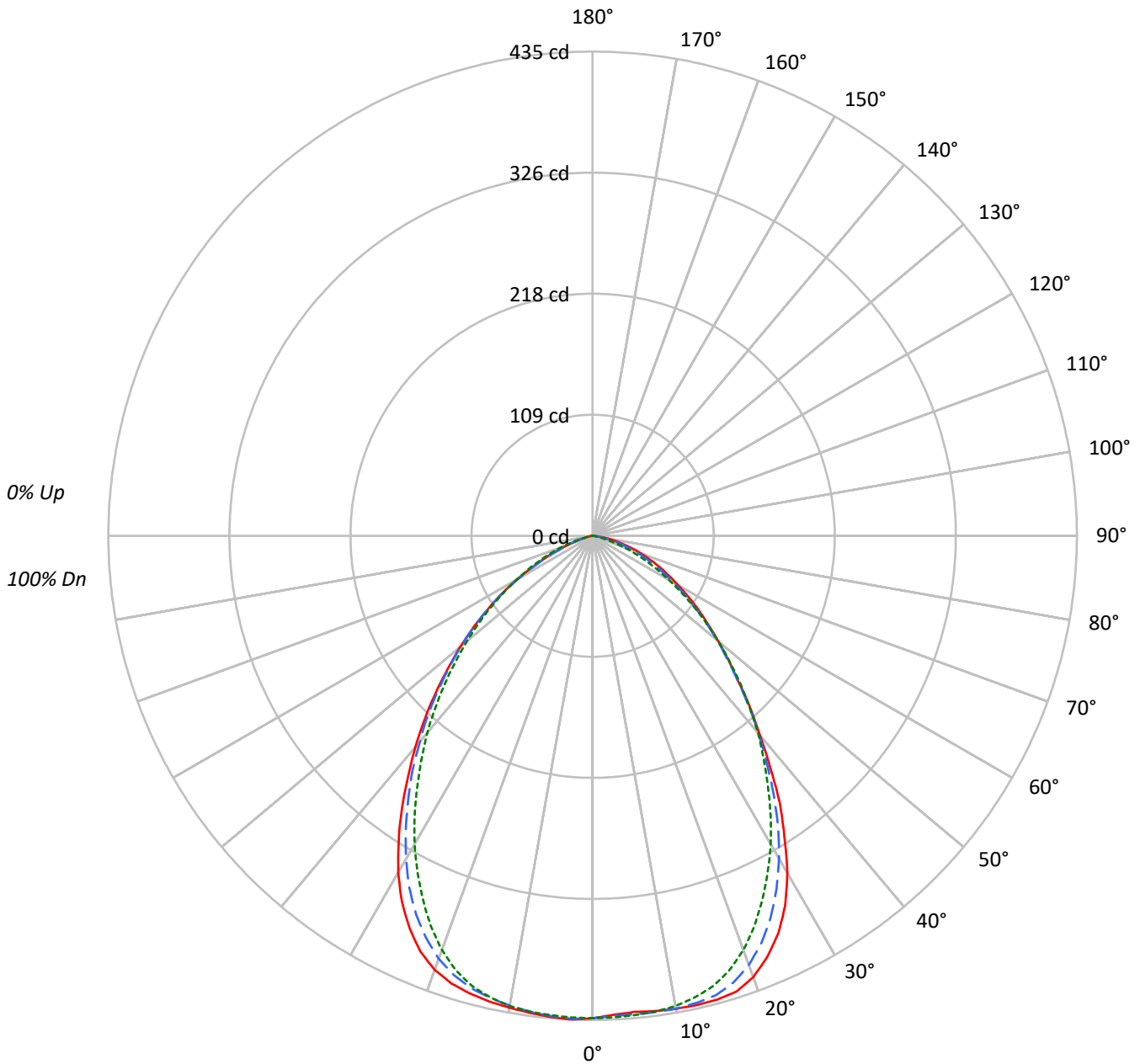
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 831.0 lumens  
Efficiency: N/A  
Efficacy: 84.8 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°	53245	53245	53245
5°	52955	53312	53510
10°	53829	53505	53704
15°	54881	53266	54156
20°	55158	51772	54243
25°	53462	48894	52730
30°	49622	45366	49523
35°	43943	41154	44768
40°	37463	37062	39709
45°	32177	32542	34592
50°	28096	28153	29644
55°	24824	23775	24589
60°	21745	19386	19313
65°	19244	15058	13401
70°	16415	10345	7938
75°	13291	5554	3655
80°	9127	1415	920
85°	2819	423	423



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.2	5.0
10°-20°	119.3	14.4
20°-30°	172.3	20.7
30°-40°	178.1	21.4
40°-50°	147.2	17.7
50°-60°	101.6	12.2
60°-70°	53.2	6.4
70°-80°	16.7	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°	332.8	40.0
0°-40°	510.9	61.5
0°-60°	759.7	91.4
0°-90°	831.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	831.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	433	433	433	433	433	
5°	429	432	432	433	434	41
15°	432	427	419	421	426	122
25°	394	378	361	375	389	180
35°	293	283	274	289	298	182
45°	185	184	187	196	199	144
55°	116	112	111	114	115	104
65°	66	60	52	43	46	66
75°	28	22	12	8	8	30
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°	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4
2.5°	430.7	430.8	430.8	431.2	431.2	431.2	431.3	431.3	431.5	431.7	431.8
5°	429.4	429.4	429.7	429.9	430.2	430.4	430.7	430.8	431.2	431.3	431.5
7.5°	430.7	430.7	430.8	431.0	431.0	431.2	431.2	431.3	431.5	431.7	431.7
10°	431.5	431.5	431.5	431.5	431.7	431.7	431.7	431.5	431.5	431.5	431.3
12.5°	431.8	431.8	431.7	431.5	431.7	431.5	431.5	431.0	430.7	430.4	429.9
15°	431.5	431.5	431.3	431.2	431.0	430.7	430.5	429.7	429.1	428.1	427.4
17.5°	429.4	429.1	428.7	428.4	427.8	427.3	426.9	425.5	424.3	422.7	420.9
20°	421.9	421.6	421.1	420.3	419.5	418.8	417.8	415.7	414.6	412.1	410.3
22.5°	409.7	409.4	409.5	408.1	406.4	405.5	404.8	403.0	401.1	398.0	396.0
25°	394.4	393.4	393.4	391.1	390.3	389.7	388.9	386.7	383.8	381.0	378.4
27.5°	374.5	373.2	372.6	372.2	370.3	368.8	367.7	366.1	363.6	361.2	357.6
30°	349.8	349.6	348.8	347.3	345.9	345.2	343.9	341.2	338.9	337.1	334.8
32.5°	320.7	320.5	320.5	320.5	319.5	319.3	317.4	315.9	314.1	311.4	309.9
35°	293.0	292.8	293.0	290.5	289.9	289.4	289.2	288.3	285.8	284.5	283.2
37.5°	261.7	262.2	261.9	261.2	262.1	260.6	261.7	259.6	258.6	258.3	256.8
40°	233.6	234.9	233.6	233.7	234.5	233.1	233.1	232.8	232.1	231.8	231.5
42.5°	209.5	207.9	208.8	208.0	208.8	208.3	207.5	208.0	208.2	207.5	207.4
45°	185.2	185.6	185.9	185.4	185.4	184.9	186.2	185.4	185.4	185.6	184.4
47.5°	165.5	165.0	165.4	165.0	165.2	164.9	165.2	165.4	165.0	165.0	164.1
50°	147.0	146.7	147.8	146.8	146.8	146.7	146.8	146.5	146.0	146.0	146.3
52.5°	130.9	130.2	130.1	130.9	129.7	129.7	129.9	129.6	128.9	128.6	127.8
55°	115.9	115.7	115.9	115.2	114.9	114.9	114.1	113.8	113.6	112.8	112.3
57.5°	101.9	101.4	101.6	101.4	100.8	100.6	99.9	99.9	99.3	98.6	97.8
60°	88.5	88.5	89.0	88.4	87.9	87.6	87.2	86.9	85.8	84.6	83.7
62.5°	76.7	76.8	76.7	76.2	75.8	75.5	75.2	74.2	73.2	72.6	71.5
65°	66.2	66.1	65.6	65.3	64.5	64.5	63.8	63.3	62.2	61.2	60.1
67.5°	55.5	55.2	55.2	55.2	54.2	54.0	53.7	52.7	51.8	50.5	49.5
70°	45.7	46.1	45.6	45.1	44.6	44.4	43.9	43.0	41.8	40.5	39.7
72.5°	36.5	36.8	36.3	36.1	35.2	34.8	34.7	33.9	32.6	31.7	30.4
75°	28.0	28.2	27.8	27.5	26.9	26.7	25.9	25.2	24.4	23.1	22.0
77.5°	20.2	19.9	19.9	19.2	18.6	18.6	18.4	17.4	16.3	15.3	14.3
80°	12.9	12.7	12.2	11.9	11.4	11.2	11.1	10.3	9.4	8.8	8.1
82.5°	6.5	6.3	6.2	6.0	5.7	5.4	5.5	4.9	4.6	3.9	3.4
85°	2.0	2.1	2.1	2.0	1.8	1.8	1.8	1.6	1.3	1.1	1.0
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4
2.5°	432.0	432.1	432.3	432.5	432.5	432.6	432.8	433.0	433.1	433.1	433.3
5°	431.7	432.0	432.0	432.1	432.1	432.1	432.3	432.3	432.3	432.3	432.5
7.5°	431.8	431.8	431.8	431.7	431.7	431.5	431.5	431.5	431.2	431.2	431.2
10°	431.0	430.8	430.7	430.4	430.2	430.0	429.7	429.4	429.1	428.9	428.6
12.5°	429.4	428.7	428.1	427.4	427.1	426.9	426.3	425.8	425.3	424.8	424.5
15°	426.1	425.1	424.0	422.7	422.4	422.1	420.9	419.9	419.3	418.8	418.0
17.5°	419.6	417.7	416.4	414.4	413.6	413.3	411.5	410.5	409.4	409.0	408.4
20°	408.1	406.3	403.8	402.0	401.1	400.1	398.6	397.3	396.0	396.0	395.2
22.5°	393.6	391.3	388.2	385.9	385.8	383.8	382.5	381.0	380.5	379.6	379.6
25°	375.3	373.4	370.0	368.0	367.0	366.6	364.4	362.5	361.5	360.7	361.3
27.5°	355.2	352.2	349.6	347.2	346.4	345.4	343.4	342.6	340.8	340.7	340.5
30°	332.0	329.1	326.5	325.4	323.7	322.9	321.5	320.5	319.8	319.8	319.5
32.5°	307.8	305.2	303.9	301.4	300.6	299.5	298.5	297.5	297.9	297.5	297.7
35°	281.6	280.9	278.5	277.0	277.0	276.9	275.2	274.6	274.3	274.4	275.2
37.5°	256.7	254.7	253.1	252.1	252.9	252.0	251.8	251.8	252.8	252.1	253.4
40°	230.2	230.0	229.3	229.7	229.8	228.7	229.0	229.2	229.8	231.1	231.3
42.5°	207.0	206.9	206.9	206.9	206.6	205.9	206.6	207.7	207.5	208.5	209.3
45°	184.7	184.4	185.1	184.6	185.6	185.9	185.4	185.7	186.7	187.3	188.6
47.5°	164.4	164.4	164.6	164.9	163.9	164.7	165.0	165.7	166.2	166.5	167.2
50°	145.5	145.5	145.2	145.2	145.2	145.7	145.0	145.8	146.0	147.3	148.1
52.5°	128.1	127.3	127.8	127.4	126.8	126.5	126.8	127.0	127.9	128.3	129.2
55°	111.5	111.5	110.2	109.9	110.4	110.2	110.0	110.0	110.5	111.0	111.8
57.5°	96.8	95.9	94.9	94.7	94.2	94.4	94.4	94.2	93.9	94.1	94.2
60°	83.0	82.4	80.9	80.9	80.7	80.6	79.8	79.6	78.8	78.9	78.3
62.5°	70.3	70.0	68.0	67.4	67.4	66.9	66.1	65.9	64.8	64.8	64.1
65°	58.9	57.9	56.8	55.7	55.7	55.0	54.5	53.1	52.2	51.8	50.8
67.5°	48.5	47.0	45.9	44.9	44.3	44.1	43.0	42.0	40.7	39.9	38.4
70°	38.4	37.3	36.1	35.2	34.5	33.9	32.7	31.3	30.3	28.8	27.8
72.5°	29.0	28.0	27.0	25.7	24.9	24.4	23.3	22.0	20.3	19.4	18.1
75°	20.8	19.7	18.4	17.3	16.8	16.3	15.0	14.0	12.9	11.7	10.4
77.5°	13.5	12.2	11.2	9.9	9.8	9.4	8.1	7.2	6.3	5.7	4.9
80°	7.2	6.5	5.7	4.9	4.6	4.1	3.4	2.9	2.4	2.0	1.6
82.5°	3.1	2.6	2.1	1.8	1.6	1.5	1.1	1.0	0.8	0.8	0.7
85°	0.8	0.7	0.7	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°	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4
2.5°	433.4	433.6	433.8	433.8	433.9	434.1	434.1	434.3	434.4	434.6	434.6
5°	432.6	432.6	432.6	432.8	432.8	432.8	432.8	433.1	433.1	433.3	433.4
7.5°	431.0	431.0	431.0	431.0	430.8	431.0	430.8	430.8	431.2	431.3	431.5
10°	428.4	428.2	428.2	428.1	428.1	428.1	428.2	428.4	428.6	428.7	429.2
12.5°	424.3	424.2	424.2	424.0	424.0	424.2	424.3	424.7	425.3	425.6	426.3
15°	417.8	417.7	417.8	418.0	418.3	418.8	419.3	419.8	420.8	421.6	422.4
17.5°	408.4	408.5	408.7	409.0	409.5	410.2	411.5	412.8	413.9	415.2	416.5
20°	395.4	396.0	396.2	397.3	397.6	399.1	400.6	402.5	404.3	405.9	407.7
22.5°	379.7	380.2	380.9	382.2	383.0	384.9	386.7	389.0	391.0	393.1	395.7
25°	362.0	362.2	364.1	364.1	366.1	367.7	369.8	372.2	375.2	377.9	379.7
27.5°	341.8	342.6	344.1	344.7	346.2	348.8	350.6	353.5	356.5	358.9	360.9
30°	320.7	321.3	323.7	324.1	325.2	327.5	329.9	332.7	335.0	337.7	339.5
32.5°	298.4	300.1	301.6	302.7	303.1	306.5	307.8	309.7	312.3	315.1	316.9
35°	276.7	277.5	279.6	280.3	281.3	283.2	285.8	287.4	288.7	290.5	292.7
37.5°	253.8	256.2	256.7	258.6	259.0	260.8	262.1	264.0	265.6	267.3	267.6
40°	232.4	233.2	235.0	235.5	235.8	238.3	239.9	240.4	241.2	242.7	244.6
42.5°	210.8	211.6	213.6	213.1	214.5	215.7	216.5	218.4	219.2	219.7	219.7
45°	189.5	189.8	191.1	191.7	192.6	193.2	194.7	195.6	196.0	197.4	197.9
47.5°	169.1	169.4	170.4	171.6	171.2	172.0	173.7	174.2	174.3	175.3	175.8
50°	149.1	149.9	151.2	150.9	151.9	152.3	153.8	154.1	154.1	154.3	154.5
52.5°	130.4	131.0	131.4	131.7	132.2	133.0	133.6	133.3	134.0	134.6	134.1
55°	111.8	112.3	113.1	113.4	113.4	113.6	113.3	114.8	114.1	113.9	114.1
57.5°	94.9	94.2	94.1	94.9	95.2	95.1	94.6	95.2	95.2	94.9	94.4
60°	78.5	78.0	77.8	78.0	77.3	76.8	77.2	76.8	76.0	75.7	75.8
62.5°	63.5	63.0	61.7	61.7	61.4	61.2	59.9	60.1	59.4	58.4	58.8
65°	49.6	48.3	47.7	47.5	46.4	45.4	45.1	43.9	43.0	42.8	43.0
67.5°	37.3	35.8	34.7	34.2	33.5	32.7	31.6	30.6	30.9	30.8	31.4
70°	25.9	24.9	23.8	23.0	23.3	22.3	21.6	21.6	21.8	22.0	22.3
72.5°	17.3	16.0	15.5	15.0	14.6	14.0	14.3	14.3	14.2	14.3	14.0
75°	9.8	9.1	8.6	8.5	8.1	8.1	8.1	8.1	8.0	7.8	7.8
77.5°	4.4	4.1	3.9	3.7	3.7	3.7	3.6	3.4	3.4	3.4	3.3
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	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: P856788

CATALOG NUMBER: LX4C10D010 EX4C109050 4LBLWW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4
2.5°	434.8	434.9	434.9	434.9	435.1	435.1	435.1	435.1
5°	433.6	433.8	433.8	433.8	433.9	433.9	433.9	433.9
7.5°	431.7	431.8	431.8	432.0	432.0	432.1	432.1	432.3
10°	429.4	429.7	429.9	430.0	430.2	430.4	430.4	430.5
12.5°	426.9	427.3	427.4	427.8	428.1	428.2	428.4	428.6
15°	423.4	424.0	424.3	424.5	425.1	425.5	425.6	425.8
17.5°	417.7	419.0	419.5	419.8	420.4	421.1	421.6	421.7
20°	409.5	411.0	411.6	412.5	413.4	414.2	414.6	414.9
22.5°	398.1	399.8	400.7	401.7	402.5	403.3	404.6	404.2
25°	381.9	384.6	385.8	386.2	388.0	389.0	389.7	389.0
27.5°	363.6	365.2	366.2	367.4	368.7	369.6	370.0	370.9
30°	341.6	344.4	344.3	345.4	347.0	348.0	348.3	349.1
32.5°	318.9	320.2	321.1	321.0	321.6	323.4	322.8	324.2
35°	294.6	294.8	296.4	296.2	297.5	297.5	297.5	298.5
37.5°	268.7	270.7	269.9	271.8	271.2	271.7	271.7	272.0
40°	245.1	245.8	245.8	246.4	246.9	246.4	246.8	247.6
42.5°	220.7	221.4	221.5	221.2	221.7	223.2	222.0	223.0
45°	197.9	198.4	199.1	198.6	199.4	198.9	199.4	199.1
47.5°	176.4	176.3	176.1	177.4	176.3	176.4	177.1	176.0
50°	154.5	155.4	154.8	155.3	155.6	155.6	155.1	155.1
52.5°	134.9	134.8	134.3	134.8	134.4	134.6	134.9	134.6
55°	114.8	115.4	115.1	114.9	115.1	115.1	116.1	114.8
57.5°	94.9	94.6	95.1	96.2	95.1	95.9	96.4	96.5
60°	76.0	76.0	77.0	76.5	77.5	78.3	78.9	78.6
62.5°	57.9	58.8	59.1	59.2	60.2	60.9	60.9	60.7
65°	43.0	44.1	44.1	44.8	45.1	45.1	45.4	46.1
67.5°	31.7	31.7	31.9	32.2	32.1	32.1	32.4	32.6
70°	22.1	21.8	22.3	22.1	22.1	22.0	22.1	22.1
72.5°	14.0	14.0	14.2	14.0	13.7	13.8	13.8	14.2
75°	7.5	7.8	7.5	7.5	7.7	7.3	7.5	7.7
77.5°	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.3
82.5°	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.7
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)