

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: P843230

Luminaire Tested: **LD4C08DE010B2750 EU4C08B30 4LBLWWH**

Issue Date: 5/7/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843230  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C08DE010B2750 EU4C08B30 4LBLWWH  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

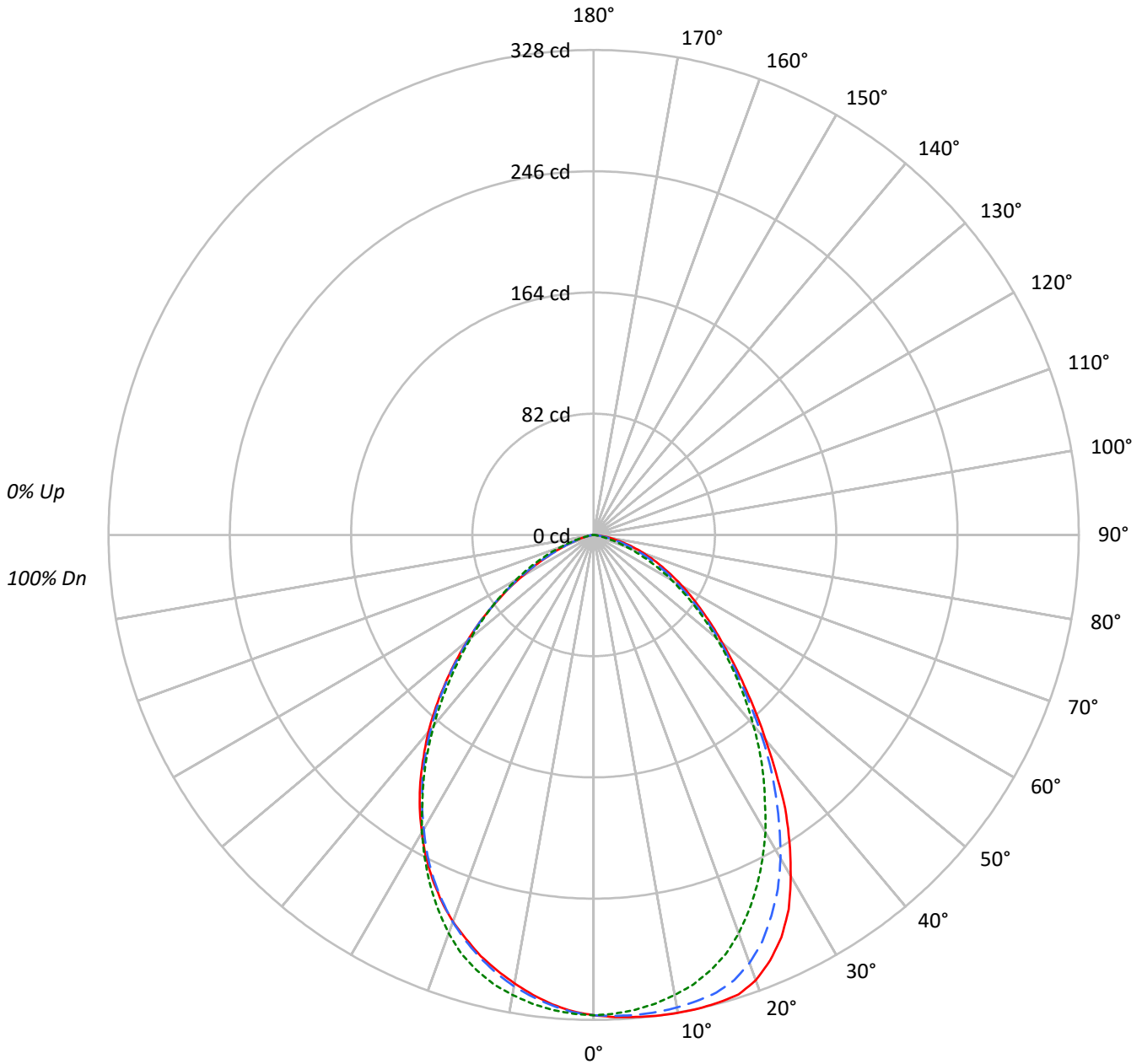
Lumens per Lamp: N/A  
Luminaire Lumens: 612.4 lumens  
Efficiency: N/A  
Efficacy: 63.8 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.6  
Input Voltage (V):  
Input Current (Ain): 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	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	49	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°	39915	39915	39915
5°	40364	39759	39315
10°	40955	39408	38423
15°	41628	38779	37508
20°	41902	37469	36397
25°	40693	35434	34892
30°	37805	32954	32968
35°	33850	30025	30655
40°	28980	26911	27905
45°	24949	23733	24619
50°	21693	20661	21291
55°	19106	17778	17628
60°	16978	14841	13661
65°	14884	11860	9884
70°	12788	8405	6681
75°	10395	4889	3892
80°	7429	2122	1910
85°	2819	846	846



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.6	5.0
10°-20°	86.7	14.2
20°-30°	123.8	20.2
30°-40°	129.5	21.1
40°-50°	108.5	17.7
50°-60°	75.9	12.4
60°-70°	41.3	6.8
70°-80°	14.4	2.3
80°-90°	1.6	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°	241.1	39.4
0°-40°	370.6	60.5
0°-60°	555.0	90.6
0°-90°	612.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	612.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	325	325	325	325	325	
5°	327	326	322	320	319	31
15°	327	320	305	296	295	92
25°	300	284	261	256	257	137
35°	226	215	200	202	204	140
45°	144	140	137	141	142	112
55°	89	86	83	83	82	81
65°	51	47	41	34	34	51
75°	22	18	10	8	8	24
85°	2	1	1	1	1	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°	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9
2.5°	326.4	326.1	326.2	326.2	326.2	326.1	326.2	326.1	326.1	326.0	325.6
5°	327.3	327.0	327.0	327.0	326.9	326.8	326.8	326.7	326.4	326.3	325.9
7.5°	328.0	327.7	327.7	327.5	327.4	327.3	327.2	326.8	326.4	326.2	325.5
10°	328.3	328.0	328.0	327.7	327.4	327.3	327.0	326.6	326.1	325.4	324.6
12.5°	328.1	327.7	327.5	327.3	326.8	326.6	326.3	325.6	324.8	324.0	322.8
15°	327.3	327.0	326.8	326.4	325.9	325.4	325.2	324.2	323.1	321.8	320.5
17.5°	325.9	325.4	324.9	324.5	323.5	323.2	322.6	321.3	319.7	317.9	315.8
20°	320.5	320.1	319.7	318.8	317.4	317.0	316.0	314.4	312.3	310.2	308.0
22.5°	311.6	311.2	310.4	309.7	308.4	307.6	306.8	304.6	302.2	299.9	297.8
25°	300.2	299.8	298.8	297.8	296.6	295.1	294.3	292.5	290.2	287.4	284.2
27.5°	285.6	284.3	284.0	282.8	280.9	280.5	279.3	277.1	274.8	272.3	269.7
30°	266.5	266.5	265.8	265.4	263.6	263.0	261.9	259.4	258.2	254.7	252.7
32.5°	246.4	246.2	245.6	245.2	244.2	243.4	242.1	240.8	238.1	236.4	233.6
35°	225.7	224.2	224.4	223.7	223.1	222.1	222.0	220.6	218.1	217.1	214.6
37.5°	202.1	201.5	202.3	201.2	200.6	200.7	199.7	198.8	197.9	196.1	195.6
40°	180.7	181.2	181.1	180.1	180.5	180.0	179.0	178.1	177.6	176.5	176.1
42.5°	161.6	160.9	160.5	160.5	160.8	160.8	160.2	159.6	159.6	158.4	157.4
45°	143.6	143.6	143.3	144.0	143.0	143.0	142.6	142.5	141.9	141.7	140.3
47.5°	128.1	128.0	127.9	127.8	127.6	127.6	126.8	126.2	126.1	125.3	124.6
50°	113.5	114.2	114.0	113.4	113.1	113.3	112.7	112.3	112.2	110.9	111.1
52.5°	101.2	101.1	101.3	101.0	100.4	100.5	99.9	99.5	99.0	98.4	97.8
55°	89.2	89.7	89.5	89.2	88.9	88.7	88.3	87.8	87.6	86.2	86.1
57.5°	79.0	78.9	78.6	77.9	77.8	77.5	77.5	77.0	76.3	75.5	74.9
60°	69.1	69.1	68.7	68.6	68.1	68.0	67.9	67.4	66.5	65.9	64.8
62.5°	59.7	59.9	59.7	59.2	58.9	58.4	58.1	57.7	57.0	56.4	55.5
65°	51.2	51.1	51.0	50.4	50.3	49.8	49.7	49.0	48.2	47.7	46.7
67.5°	43.3	42.8	42.8	42.6	42.4	42.0	41.8	41.0	40.1	39.7	38.6
70°	35.6	35.3	35.3	35.3	34.8	34.4	34.3	33.8	32.6	32.2	31.1
72.5°	28.7	28.5	28.3	28.0	27.6	27.6	27.1	26.3	25.7	25.2	24.3
75°	21.9	22.1	21.9	21.4	21.3	21.0	20.6	20.0	19.4	18.6	17.8
77.5°	16.0	15.8	15.5	15.5	15.2	14.7	14.6	14.2	13.3	12.9	12.0
80°	10.5	10.4	10.2	9.8	9.7	9.6	9.5	9.0	8.2	7.8	7.1
82.5°	5.7	5.6	5.6	5.5	5.1	5.1	5.0	4.5	4.1	3.9	3.5
85°	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.6	1.5	1.4	1.2
87.5°	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
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°	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9
2.5°	325.4	325.2	325.0	324.9	324.8	324.7	324.6	324.3	324.2	324.1	323.8
5°	325.4	324.9	324.7	324.3	324.1	323.8	323.4	323.1	322.7	322.4	321.9
7.5°	324.9	324.2	323.6	322.9	322.7	322.4	321.5	321.1	320.5	319.7	318.8
10°	323.6	322.8	321.8	320.8	320.5	319.8	318.8	317.9	317.0	315.9	315.1
12.5°	321.7	320.4	319.1	317.7	317.0	316.3	315.0	313.7	312.4	311.4	309.8
15°	318.7	317.1	315.5	313.6	312.7	311.9	310.0	308.4	306.4	304.9	303.4
17.5°	313.8	311.4	309.4	306.9	305.7	304.8	303.1	300.7	298.8	297.2	295.4
20°	305.4	303.1	300.4	297.7	296.3	295.2	292.6	290.2	288.3	286.6	284.7
22.5°	294.4	291.5	289.5	286.2	285.0	283.7	280.7	278.5	276.4	274.6	272.9
25°	281.1	278.5	275.7	272.7	271.3	269.7	267.2	264.8	263.5	261.4	259.3
27.5°	265.7	263.6	260.2	257.5	256.2	255.0	252.6	250.4	248.4	247.1	245.1
30°	249.5	247.0	244.0	241.2	240.5	238.9	236.8	235.2	233.1	232.3	231.3
32.5°	231.6	228.7	226.4	224.7	223.2	222.0	220.8	218.2	217.9	215.5	215.3
35°	212.1	210.8	208.7	207.2	205.9	205.1	203.2	202.0	200.6	200.2	199.4
37.5°	193.8	192.2	190.2	188.8	187.9	187.8	186.5	185.7	184.7	184.2	183.2
40°	174.5	173.9	172.1	171.9	170.5	170.4	169.6	168.7	167.8	167.8	168.0
42.5°	156.7	156.0	155.3	154.3	153.6	153.6	153.3	152.9	152.7	152.3	152.9
45°	140.1	139.1	138.6	137.7	138.1	137.4	137.1	137.1	136.8	136.6	137.5
47.5°	124.6	123.4	123.0	122.7	122.7	122.9	121.7	122.1	121.9	122.3	122.6
50°	110.5	109.5	108.7	108.7	108.8	108.3	107.9	108.2	107.9	108.1	108.9
52.5°	97.4	96.4	96.0	96.0	95.2	95.1	95.4	94.9	95.0	95.1	95.6
55°	85.2	84.6	84.0	83.3	83.4	83.2	82.7	82.6	82.8	83.0	83.7
57.5°	74.4	73.5	72.7	72.3	72.1	72.1	71.5	71.4	71.6	71.0	71.0
60°	64.0	63.5	62.4	62.0	62.0	61.3	60.8	61.1	60.5	60.4	60.5
62.5°	54.4	53.9	53.2	52.5	52.2	52.0	51.4	51.1	50.9	50.3	49.6
65°	46.0	45.2	44.2	43.8	43.4	42.7	42.4	41.9	41.1	40.8	40.1
67.5°	37.7	36.7	35.9	35.5	35.1	34.8	34.2	33.5	32.6	31.6	30.8
70°	30.2	29.1	28.7	27.6	27.4	26.9	26.0	25.4	24.5	23.4	22.5
72.5°	23.2	22.4	21.6	20.7	20.1	19.8	19.0	18.0	17.0	16.4	15.5
75°	16.6	16.3	15.2	14.3	14.0	13.5	12.6	12.0	11.2	10.3	9.5
77.5°	11.2	10.5	9.8	9.0	8.8	8.2	7.7	7.1	6.7	6.0	5.5
80°	6.7	6.0	5.6	5.0	4.8	4.5	4.1	3.6	3.3	3.0	2.9
82.5°	3.3	2.7	2.6	2.2	2.1	2.0	1.8	1.6	1.4	1.4	1.4
85°	1.2	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
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°	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9
2.5°	323.6	323.5	323.4	323.3	323.3	323.2	323.2	323.1	323.1	322.9	322.9
5°	321.4	321.1	320.8	320.6	320.6	320.1	319.9	319.7	319.6	319.6	319.3
7.5°	318.3	317.8	317.3	317.0	316.9	316.2	315.7	315.7	315.2	315.0	314.6
10°	314.2	313.3	312.5	312.2	311.7	311.4	310.7	310.3	310.0	309.4	309.1
12.5°	308.6	308.0	306.8	306.3	306.1	305.3	304.3	303.9	303.6	303.2	302.8
15°	302.2	300.8	299.8	299.2	299.2	297.9	297.4	296.7	296.2	295.8	295.7
17.5°	293.9	292.5	291.6	290.7	290.4	289.5	288.7	288.4	287.8	288.1	287.5
20°	283.3	282.2	281.4	280.3	280.3	279.7	279.4	278.8	278.6	278.4	278.6
22.5°	271.9	270.5	269.3	269.2	269.2	268.3	268.2	268.1	267.6	267.9	267.8
25°	258.6	257.5	256.8	256.7	256.7	256.2	255.7	255.9	256.4	256.2	256.6
27.5°	244.7	243.7	243.5	243.4	243.0	242.9	243.3	243.3	243.6	244.1	244.6
30°	229.7	229.5	229.1	229.0	228.7	229.3	229.6	229.9	229.8	230.6	231.1
32.5°	214.7	214.2	214.1	214.4	214.7	214.6	215.3	215.5	215.9	216.7	217.1
35°	199.6	199.5	199.3	199.3	199.4	200.3	200.3	201.2	201.7	202.0	203.0
37.5°	183.3	183.8	184.1	184.5	184.6	185.0	185.2	186.0	186.6	187.1	187.6
40°	168.5	168.3	169.3	168.6	168.8	170.0	170.5	170.4	171.1	171.9	172.4
42.5°	152.6	152.9	153.3	153.5	154.1	154.2	154.8	155.7	156.0	156.8	157.1
45°	137.2	137.4	137.8	138.3	138.8	139.7	139.9	140.3	141.1	141.1	141.5
47.5°	122.7	123.2	123.2	124.0	124.6	124.5	125.3	125.6	125.4	126.1	126.4
50°	108.8	109.6	109.5	110.0	110.2	110.3	111.1	111.4	110.8	111.5	111.6
52.5°	95.6	96.0	96.5	96.6	96.4	97.0	96.8	97.2	97.1	97.6	97.1
55°	83.4	83.3	83.3	83.7	83.3	83.7	83.9	83.3	83.0	83.4	83.3
57.5°	71.4	71.4	71.1	71.5	71.1	70.8	70.6	70.2	69.9	69.9	69.7
60°	60.0	59.8	59.2	59.1	59.1	58.5	58.3	57.7	57.7	57.2	56.7
62.5°	49.4	48.8	48.3	48.3	48.1	47.5	46.3	45.6	45.4	44.6	44.5
65°	39.3	38.7	38.4	37.7	37.0	36.7	35.6	34.8	34.4	33.6	33.7
67.5°	30.2	29.3	28.1	27.6	27.3	26.3	26.0	25.4	25.0	25.0	25.0
70°	21.8	20.8	19.8	19.4	19.1	18.4	18.0	17.9	18.3	18.1	18.3
72.5°	14.6	13.7	13.2	13.0	12.8	12.4	12.6	12.8	12.5	12.6	12.8
75°	8.9	8.7	8.2	8.1	8.1	8.2	8.1	8.1	8.2	8.2	8.4
77.5°	5.1	4.9	4.9	4.8	5.0	4.9	4.9	4.9	5.0	5.0	5.0
80°	2.7	2.7	2.7	2.7	2.9	2.7	2.9	2.9	2.9	2.9	2.9
82.5°	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9
2.5°	322.7	322.7	322.7	322.5	322.6	322.6	322.5	322.5
5°	319.2	319.1	318.8	318.8	318.6	318.8	318.7	318.8
7.5°	314.4	314.4	314.1	314.1	313.9	313.8	313.7	313.8
10°	308.8	308.8	308.6	308.4	308.6	308.1	308.1	308.0
12.5°	302.6	302.3	302.1	302.2	302.1	301.7	301.5	301.7
15°	295.3	295.0	295.1	294.7	294.7	294.6	294.9	294.9
17.5°	287.4	287.0	286.8	286.9	286.7	286.8	286.7	286.6
20°	278.5	278.4	278.4	277.8	277.9	277.8	277.9	278.4
22.5°	268.2	268.1	268.2	267.8	268.1	268.1	268.4	268.4
25°	256.9	256.8	257.1	257.2	257.3	257.7	257.3	257.4
27.5°	244.4	244.8	245.2	245.4	245.8	245.5	245.2	245.6
30°	231.8	231.8	231.7	232.3	232.6	233.0	232.4	232.4
32.5°	217.3	218.0	218.0	218.1	218.5	218.5	218.5	218.9
35°	203.5	203.8	203.9	203.5	203.7	203.6	204.4	204.4
37.5°	187.9	187.9	188.0	189.0	189.0	188.6	188.8	188.8
40°	173.2	173.3	172.8	173.1	173.8	173.5	173.8	174.0
42.5°	157.1	158.0	157.5	157.7	157.6	157.7	157.8	157.8
45°	141.7	141.9	141.9	142.1	142.4	142.6	141.8	141.7
47.5°	126.7	126.8	127.2	126.6	127.3	126.6	127.3	126.5
50°	111.6	112.1	111.7	112.0	111.6	111.6	111.5	111.4
52.5°	97.2	97.1	97.1	97.0	97.0	97.2	97.0	97.4
55°	82.8	83.0	82.7	82.6	82.5	82.8	82.5	82.3
57.5°	69.3	69.5	69.0	69.3	68.3	68.7	68.9	69.0
60°	56.6	56.3	56.3	55.7	55.7	56.2	55.6	55.6
62.5°	43.9	44.1	43.8	44.2	44.2	44.7	44.5	44.7
65°	33.6	33.7	33.8	33.8	33.8	34.6	34.4	34.0
67.5°	25.4	25.5	25.6	25.5	25.9	25.6	25.6	25.7
70°	18.4	18.5	18.6	18.6	18.5	18.6	18.6	18.6
72.5°	12.8	12.9	12.8	12.9	13.0	12.9	12.9	13.0
75°	8.4	8.4	8.2	8.2	8.2	8.2	8.4	8.2
77.5°	4.9	5.0	4.9	5.0	5.0	5.0	5.0	5.0
80°	2.9	2.9	2.9	2.7	2.9	2.9	2.9	2.7
82.5°	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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)