

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: P843271

Luminaire Tested: **LD4C08DE010B2750 EU4C08B50 4LBDWWLI**

Issue Date: 5/7/2024

Test Information

Test Method: LM-79-08
Report Number: P843271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08DE010B2750 EU4C08B50 4LBLDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

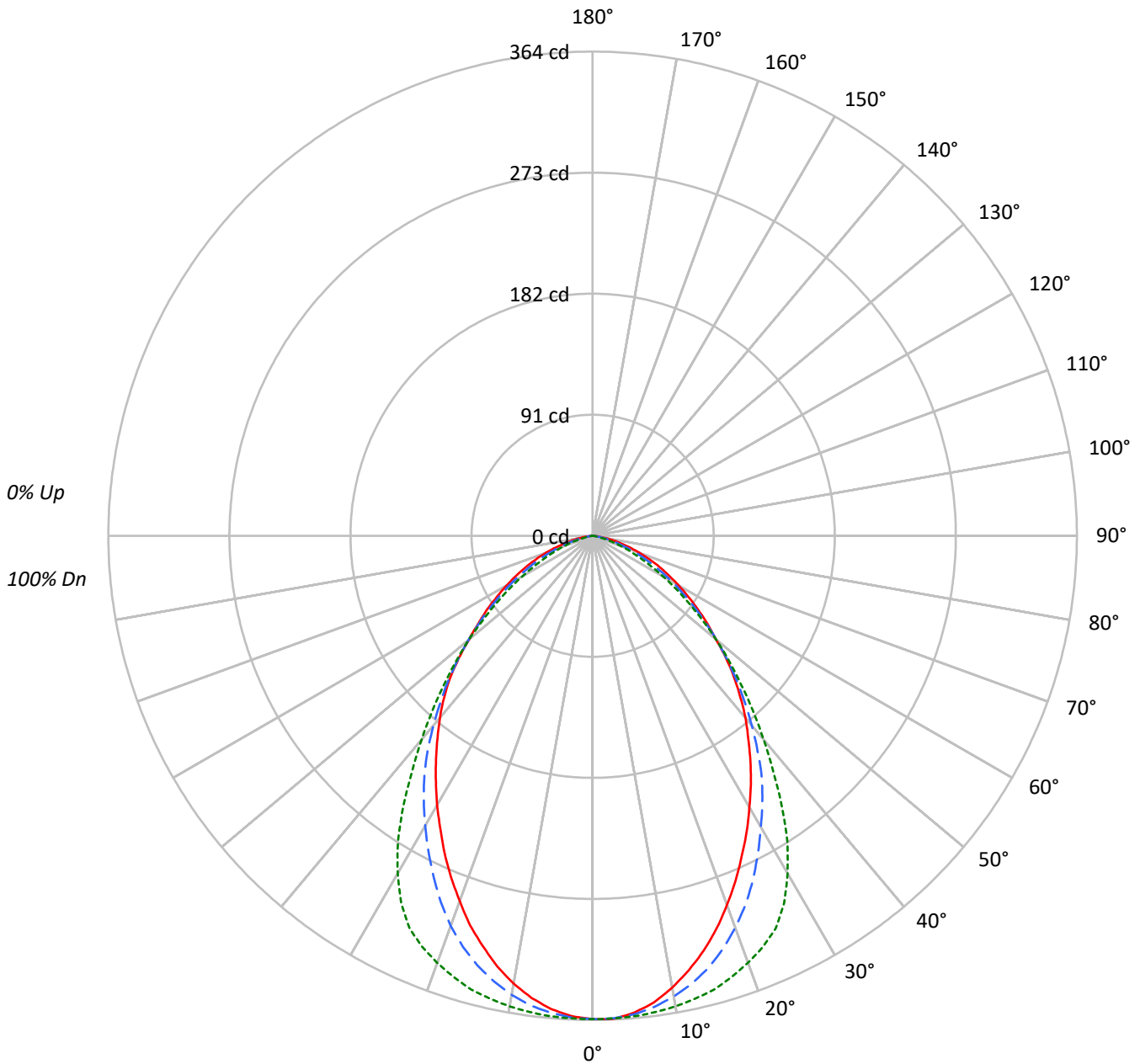
Lumens per Lamp: N/A
Luminaire Lumens: 667.4 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77																			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	44645	44645	44645
5°	44372	44717	44051
10°	43026	44822	42652
15°	41056	44910	40598
20°	38620	44660	38189
25°	35976	44136	35678
30°	33422	41565	33152
35°	31000	37179	30775
40°	28659	32059	28627
45°	26113	27364	26339
50°	23069	23145	23184
55°	20669	18913	20755
60°	18281	15013	18305
65°	16075	11453	15930
70°	13326	8190	13326
75°	10395	4699	9968
80°	6721	1132	6438
85°	2537	423	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	5.1
10°-20°	94.4	14.1
20°-30°	131.9	19.8
30°-40°	139.2	20.9
40°-50°	118.4	17.7
50°-60°	83.5	12.5
60°-70°	47.4	7.1
70°-80°	16.9	2.5
80°-90°	1.6	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°	260.4	39.0
0°-40°	399.6	59.9
0°-60°	601.5	90.1
0°-90°	667.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	667.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	363	363	363	363	363	
5°	360	361	363	360	357	34
15°	323	336	353	334	319	90
25°	265	285	326	283	263	122
35°	207	222	248	220	205	129
45°	150	152	158	153	152	116
55°	96	93	88	94	97	87
65°	55	47	39	48	55	55
75°	22	15	10	15	21	24
85°	2	1	0	1	1	3
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°	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4
2.5°	363.6	363.0	363.0	363.0	363.0	363.0	363.0	363.0	363.0	363.1	363.1
5°	359.8	359.6	359.4	359.4	359.4	359.4	359.6	360.1	360.3	360.8	361.1
7.5°	353.9	353.4	353.6	353.6	353.9	354.1	354.5	355.0	355.9	356.4	357.2
10°	344.9	344.4	345.0	345.3	346.2	346.5	347.2	348.1	349.7	350.5	351.6
12.5°	334.4	334.2	334.4	335.5	336.3	336.9	337.7	339.5	341.1	342.9	344.8
15°	322.8	322.0	322.5	323.8	325.2	326.2	326.8	329.1	331.4	334.0	336.3
17.5°	309.7	308.7	309.9	310.9	312.6	313.5	314.4	317.1	320.0	323.0	325.6
20°	295.4	295.2	295.8	297.3	299.1	300.2	301.0	303.9	306.4	310.5	313.5
22.5°	280.6	280.9	281.4	283.0	284.3	285.8	287.0	289.6	292.5	296.3	300.2
25°	265.4	265.8	266.7	267.8	269.9	270.6	272.2	274.9	277.5	281.0	285.2
27.5°	250.8	250.9	251.9	252.5	254.4	256.2	256.8	259.6	262.7	265.4	269.1
30°	235.6	236.1	236.7	238.2	240.1	240.8	241.7	244.2	246.5	249.9	252.8
32.5°	221.3	220.9	221.8	222.6	224.7	226.0	226.4	229.4	231.4	234.8	237.5
35°	206.7	206.0	207.2	208.0	209.9	211.0	211.6	213.9	215.8	218.6	221.7
37.5°	192.2	192.7	193.2	194.0	194.9	195.1	196.7	197.4	199.8	201.9	203.6
40°	178.7	178.4	178.1	178.8	180.0	180.6	180.7	182.2	182.8	185.0	186.1
42.5°	164.3	164.5	164.3	164.5	165.1	165.1	165.5	166.5	166.9	167.5	169.0
45°	150.3	150.3	149.9	150.1	150.2	150.1	150.2	150.6	151.3	151.3	152.5
47.5°	135.8	135.5	136.0	135.6	135.4	135.2	135.6	135.2	136.0	136.0	136.3
50°	120.7	120.7	121.3	121.2	121.5	121.0	121.1	121.1	121.2	121.1	121.6
52.5°	108.9	108.7	108.4	107.8	108.0	107.5	107.5	107.7	107.2	107.0	106.4
55°	96.5	96.8	96.4	96.0	96.0	95.5	95.4	94.6	94.0	93.6	93.2
57.5°	85.2	85.5	85.4	84.6	83.9	84.0	83.7	82.9	81.6	80.9	80.2
60°	74.4	74.6	74.4	73.6	73.4	72.9	72.7	71.6	70.6	69.6	68.7
62.5°	64.5	64.5	64.4	63.5	62.8	62.9	62.2	61.4	60.2	58.7	57.5
65°	55.3	55.2	54.5	54.0	53.5	52.9	52.5	51.2	50.2	49.1	47.4
67.5°	46.1	45.7	45.4	44.9	43.8	43.6	43.0	42.0	40.6	39.7	38.3
70°	37.1	36.9	36.4	36.4	35.4	35.0	34.3	33.3	32.0	30.7	29.6
72.5°	29.4	29.1	28.6	28.0	27.2	26.9	26.2	25.3	24.2	22.8	21.5
75°	21.9	21.6	21.5	20.8	20.1	19.5	19.1	18.2	17.1	16.2	14.9
77.5°	15.3	15.1	14.7	14.3	13.9	13.4	13.0	12.3	11.3	10.5	9.4
80°	9.5	9.2	9.0	8.9	8.5	8.2	7.7	7.3	6.6	6.0	5.3
82.5°	4.9	4.9	4.7	4.4	4.2	4.1	3.9	3.5	3.2	2.7	2.3
85°	1.8	1.8	1.6	1.5	1.5	1.4	1.4	1.3	1.0	1.0	0.6
87.5°	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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°	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4
2.5°	363.2	363.1	363.2	363.2	363.4	363.4	363.4	363.2	363.4	363.2	363.2
5°	361.1	361.5	361.7	362.0	362.1	362.2	362.2	362.5	362.6	362.6	362.5
7.5°	357.7	358.5	359.3	359.8	360.1	360.3	360.8	361.1	361.3	361.2	361.1
10°	353.1	354.5	355.7	356.7	357.3	357.7	358.3	358.9	359.2	359.3	358.9
12.5°	346.8	348.7	350.5	352.2	353.0	353.6	354.9	355.9	356.4	356.4	356.0
15°	338.8	341.5	344.0	346.4	347.7	348.6	350.6	352.0	352.8	353.1	352.5
17.5°	329.1	332.3	335.4	338.3	339.7	341.0	343.8	345.7	347.4	347.7	346.9
20°	316.8	320.7	324.3	327.9	329.5	331.4	334.5	337.7	340.5	341.6	339.3
22.5°	302.9	307.2	310.5	315.0	317.1	319.1	323.3	327.2	332.0	334.5	330.5
25°	288.5	292.1	296.1	300.5	303.3	305.4	310.4	315.4	321.8	325.6	319.9
27.5°	273.0	276.3	281.0	285.8	288.0	290.6	296.6	302.0	308.1	311.5	307.2
30°	257.0	261.0	265.6	269.9	273.0	275.6	280.4	284.9	290.1	293.0	289.9
32.5°	241.0	245.1	248.9	253.6	255.3	257.6	261.9	265.8	269.7	272.3	268.6
35°	224.3	227.9	231.4	234.7	235.5	238.2	241.7	243.9	245.8	247.9	245.4
37.5°	206.1	208.9	210.7	214.2	215.5	216.0	218.6	220.3	222.3	222.7	222.6
40°	187.6	190.2	191.6	193.8	194.9	194.9	196.7	198.3	199.8	199.9	199.8
42.5°	170.4	171.7	172.8	174.2	174.0	175.6	176.4	177.0	178.1	178.1	178.4
45°	153.0	154.0	155.0	155.4	156.4	156.4	157.1	157.4	157.9	157.5	157.0
47.5°	136.9	137.3	137.4	138.7	138.9	137.9	138.8	138.9	138.8	138.8	138.4
50°	121.5	121.7	121.6	121.2	121.3	121.7	121.3	120.8	121.1	121.1	121.3
52.5°	106.5	106.0	105.8	105.8	105.1	105.1	104.5	104.2	104.1	103.5	104.2
55°	92.9	92.0	90.7	90.5	90.1	90.0	89.2	88.4	88.2	88.3	88.2
57.5°	79.6	78.4	77.6	77.3	76.9	76.1	75.2	74.5	74.4	74.0	74.0
60°	67.7	66.3	65.0	63.9	64.0	63.5	62.5	62.1	61.7	61.1	61.6
62.5°	56.8	55.3	53.9	52.8	51.9	51.5	50.9	50.1	49.7	49.3	49.9
65°	46.1	44.8	43.4	42.1	41.7	41.4	40.6	39.6	39.4	39.4	39.7
67.5°	36.4	35.0	33.7	32.9	32.4	31.8	31.5	31.0	30.6	30.4	30.5
70°	28.0	26.7	25.6	24.7	24.3	24.2	23.3	23.1	23.0	22.8	22.7
72.5°	20.4	19.2	18.3	17.8	17.2	16.8	16.6	16.2	16.1	16.1	16.1
75°	14.0	13.2	12.1	11.4	11.1	10.8	10.4	10.0	9.8	9.9	9.9
77.5°	8.5	7.6	7.0	6.3	6.2	5.8	5.4	5.2	4.8	4.8	4.9
80°	4.7	3.9	3.4	3.0	2.7	2.5	2.2	2.0	1.8	1.6	1.6
82.5°	2.0	1.6	1.4	1.3	1.1	1.0	0.8	0.6	0.6	0.5	0.6
85°	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.1	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4
2.5°	363.1	363.1	363.0	363.0	363.0	362.7	362.7	362.6	362.5	362.2	362.0
5°	362.1	362.0	361.7	361.6	361.5	361.1	360.7	360.3	360.0	359.4	359.2
7.5°	360.8	360.3	359.8	359.6	359.2	358.2	357.6	356.8	356.2	355.3	354.1
10°	358.5	357.7	356.8	356.3	355.7	354.4	353.0	352.0	350.5	349.1	347.6
12.5°	355.3	354.3	352.6	351.9	351.0	349.2	347.4	345.2	343.1	341.2	339.5
15°	351.1	349.3	347.4	346.4	345.2	342.4	339.6	337.2	334.4	332.1	329.2
17.5°	345.2	342.6	339.8	338.7	337.0	333.8	330.5	327.1	324.0	321.1	317.6
20°	336.2	333.4	329.8	327.9	326.6	322.2	319.1	315.3	312.0	308.5	304.5
22.5°	325.8	321.8	317.8	315.2	313.6	309.3	305.1	301.6	298.1	294.0	291.2
25°	313.9	309.0	304.3	301.5	299.2	294.7	290.5	287.0	282.7	279.1	276.3
27.5°	300.6	295.0	289.5	286.7	284.6	279.5	275.2	271.5	267.3	264.2	261.2
30°	284.7	279.6	274.4	272.2	269.6	264.4	259.4	256.2	251.5	248.2	245.1
32.5°	264.8	261.6	257.4	254.4	253.0	248.2	244.1	240.1	236.2	233.6	230.4
35°	243.1	240.3	236.7	235.1	233.3	230.4	227.0	223.6	220.4	218.0	215.0
37.5°	221.0	218.3	216.1	214.3	213.2	210.5	208.5	205.9	203.7	201.4	199.8
40°	198.3	197.5	195.1	194.3	194.1	191.1	189.3	187.3	185.9	184.6	183.6
42.5°	178.0	176.6	174.9	175.0	174.2	172.6	171.3	170.0	169.0	168.4	167.4
45°	158.0	157.0	156.1	156.8	155.5	154.9	154.0	153.8	153.1	151.9	151.6
47.5°	139.0	138.9	139.0	138.7	138.3	138.0	138.2	137.5	136.9	136.4	135.9
50°	121.6	121.7	122.1	122.5	121.5	121.9	121.7	121.6	121.6	121.2	121.5
52.5°	104.8	104.9	105.1	105.6	105.8	105.8	106.1	106.4	106.9	107.7	107.7
55°	88.8	89.8	90.3	91.1	90.6	91.5	91.9	93.1	93.5	93.5	94.0
57.5°	74.8	75.7	76.1	76.9	77.2	77.8	79.0	79.6	80.6	81.4	82.2
60°	61.9	62.2	63.4	64.5	64.3	65.9	66.7	67.8	69.1	69.6	70.6
62.5°	50.2	50.9	51.6	52.0	53.0	53.8	55.7	56.8	57.9	59.2	60.3
65°	40.0	40.5	41.4	42.1	42.5	43.8	44.7	46.6	47.6	49.1	50.2
67.5°	30.6	31.4	32.0	32.6	32.9	34.2	35.6	36.4	38.2	39.7	40.6
70°	22.8	23.5	24.3	24.2	24.7	25.7	26.8	28.0	29.4	30.7	31.8
72.5°	15.9	16.6	17.1	17.2	17.8	18.5	19.2	20.2	21.4	22.7	24.2
75°	10.0	10.2	10.8	11.0	11.3	12.1	12.8	13.7	14.7	15.8	16.7
77.5°	5.1	5.4	5.7	6.0	6.1	6.8	7.5	8.2	9.1	10.2	11.1
80°	1.9	2.0	2.4	2.5	2.9	3.3	3.8	4.2	4.9	5.7	6.2
82.5°	0.6	0.8	1.0	1.0	1.1	1.4	1.5	1.9	2.3	2.5	2.9
85°	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.8	0.8
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4
2.5°	361.9	361.9	361.7	361.6	361.6	361.6	361.5	361.5
5°	358.6	358.2	358.1	357.8	357.7	357.6	357.2	357.2
7.5°	353.4	352.8	352.4	352.0	351.5	351.0	351.0	350.5
10°	346.3	345.2	344.6	344.0	343.4	342.6	342.4	341.9
12.5°	337.7	335.5	335.0	334.0	332.9	332.4	331.5	331.5
15°	327.1	324.8	323.5	323.0	321.6	320.7	320.3	319.2
17.5°	314.8	313.0	311.1	310.2	308.7	307.6	307.0	306.8
20°	302.3	299.4	298.1	296.9	295.2	294.0	293.3	292.1
22.5°	287.8	285.2	283.4	282.7	281.1	279.2	277.9	277.9
25°	272.6	270.3	269.4	267.6	265.8	265.1	263.5	263.2
27.5°	258.1	255.7	253.8	252.9	250.9	249.9	248.5	248.0
30°	242.9	240.3	238.9	238.8	236.3	235.3	234.3	233.7
32.5°	227.9	225.6	224.2	223.4	222.3	220.7	219.8	219.2
35°	212.9	211.4	210.3	209.3	207.5	206.7	205.9	205.2
37.5°	197.4	196.0	195.5	194.6	193.8	192.3	192.1	191.4
40°	182.2	180.4	180.4	179.9	179.1	179.0	178.5	178.5
42.5°	166.5	165.6	165.5	165.6	165.1	164.9	164.5	165.4
45°	150.8	151.2	150.6	150.7	150.4	150.9	150.9	151.6
47.5°	136.4	135.9	136.1	136.4	136.9	136.9	136.8	136.5
50°	121.1	121.6	122.2	121.5	121.7	121.9	121.2	121.3
52.5°	107.9	108.0	108.4	108.0	108.4	108.3	108.6	108.0
55°	95.1	95.1	95.7	95.8	95.9	96.4	96.5	96.9
57.5°	82.7	83.4	84.1	84.0	84.5	85.0	84.6	85.0
60°	72.0	72.6	73.3	73.5	73.9	74.2	74.2	74.5
62.5°	61.1	62.2	62.8	63.4	63.4	63.9	64.4	64.5
65°	51.4	52.6	53.0	53.4	53.7	54.3	54.9	54.8
67.5°	42.1	42.9	43.5	43.8	44.5	44.8	45.4	45.9
70°	33.0	34.2	34.5	35.0	35.7	36.3	36.8	37.1
72.5°	25.3	26.1	26.3	26.9	27.6	28.1	28.5	28.8
75°	17.7	19.0	19.1	19.6	20.1	20.8	21.2	21.0
77.5°	11.6	12.6	12.8	13.3	13.9	14.4	14.5	14.7
80°	7.0	7.5	7.6	7.9	8.2	8.6	8.9	9.1
82.5°	3.3	3.5	3.8	3.8	4.1	4.3	4.3	4.4
85°	1.1	1.1	1.3	1.3	1.4	1.4	1.5	1.4
87.5°	0.1	0.1	0.0	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)