

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: P843251

Luminaire Tested: **LD4C08DE010B35 EU4C08B35 4LBSWLI**

Issue Date: 5/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P843251  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251556)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C08DE010B35 EU4C08B35 4LBSWLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

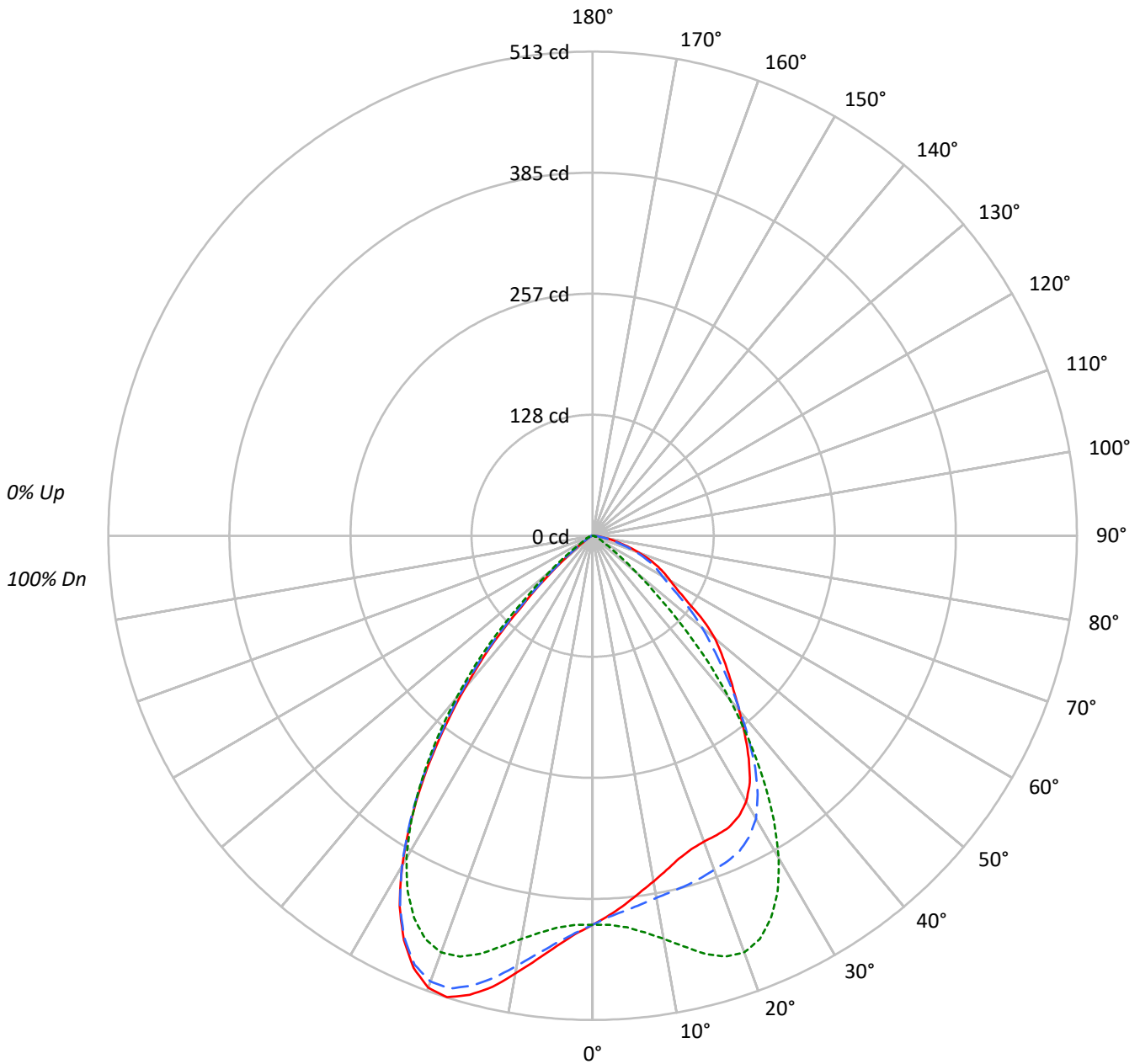
Lumens per Lamp: N/A  
Luminaire Lumens: 760.4 lumens  
Efficiency: N/A  
Efficacy: 79.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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				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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58				58
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	75	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37				37

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

	0°	90°	180°
0°	50628	50628	50628
5°	48367	51352	53806
10°	46382	54091	58732
15°	45024	58303	64039
20°	45078	61408	66611
25°	46237	60606	64103
30°	46161	55935	57240
35°	43238	47288	46628
40°	38746	36068	33646
45°	35130	22899	18781
50°	32281	11620	8027
55°	26495	5183	2656
60°	23268	2899	1450
65°	21889	2180	1105
70°	18714	1760	970
75°	14288	1282	759
80°	10259	778	354
85°	7612	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.0	5.3
10°-20°	124.7	16.4
20°-30°	193.0	25.4
30°-40°	190.2	25.0
40°-50°	116.8	15.4
50°-60°	51.9	6.8
60°-70°	29.0	3.8
70°-80°	12.5	1.6
80°-90°	2.2	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°	357.8	47.1
0°-40°	548.0	72.1
0°-60°	716.6	94.2
0°-90°	760.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	760.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	412	412	412	412	412	
5°	392	399	416	433	436	37
15°	354	384	458	493	504	100
25°	341	368	447	471	473	157
35°	288	300	315	314	311	179
45°	202	192	132	115	108	157
55°	124	112	24	14	12	114
65°	75	68	8	4	4	74
75°	30	26	3	2	2	33
85°	5	4	0	0	0	7
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°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	402.4	402.4	402.4	402.4	403.5	401.9	403.5	403.5	405.1	405.6	404.0
5°	392.2	391.6	392.2	392.2	393.2	392.7	394.3	395.3	397.6	398.6	398.6
7.5°	381.4	381.4	381.4	382.5	384.1	383.6	385.2	386.8	390.1	392.2	393.8
10°	371.8	371.2	372.8	373.3	374.9	374.9	377.7	379.3	383.0	387.3	389.5
12.5°	362.6	362.0	363.1	364.8	367.4	367.4	369.5	372.3	377.7	382.5	386.2
15°	354.0	354.5	356.1	357.2	360.4	360.4	363.1	366.4	372.3	378.2	383.6
17.5°	348.1	348.6	349.7	351.2	354.5	354.5	357.2	361.0	367.4	373.9	380.3
20°	344.8	345.4	346.5	348.1	350.7	351.2	353.5	357.8	363.6	370.7	376.6
22.5°	343.2	344.3	345.4	346.5	349.1	349.1	351.9	355.0	361.0	368.0	373.3
25°	341.1	342.1	342.7	344.3	346.5	346.5	348.1	351.9	357.2	363.1	368.5
27.5°	335.2	336.2	336.8	338.3	340.6	340.0	342.1	344.8	349.7	355.0	359.4
30°	325.4	326.0	327.1	327.7	329.2	329.2	330.8	333.6	336.8	341.6	346.0
32.5°	309.9	310.9	311.5	312.0	313.6	313.1	313.6	315.3	318.5	322.8	325.4
35°	288.3	290.5	290.5	291.6	292.1	291.6	291.6	293.7	295.3	298.6	300.2
37.5°	264.7	266.3	265.8	266.8	267.4	265.8	266.8	267.4	269.5	271.2	271.7
40°	241.6	242.1	242.1	242.1	242.1	241.6	242.1	242.6	244.2	244.2	242.6
42.5°	220.5	221.2	221.2	220.0	221.2	220.5	220.5	220.5	220.5	218.4	216.8
45°	202.2	202.9	202.9	202.2	202.2	201.2	200.6	200.1	198.5	195.9	192.1
47.5°	185.1	186.1	186.7	185.6	185.1	184.0	184.0	180.7	178.6	175.4	170.0
50°	168.9	170.0	170.0	168.9	168.9	167.3	165.7	164.6	161.4	157.6	151.1
52.5°	148.5	150.1	150.1	149.5	149.5	147.4	146.9	144.7	142.0	137.7	132.3
55°	123.7	125.9	125.3	124.8	123.7	123.7	123.7	122.2	120.5	117.3	111.9
57.5°	106.0	106.5	106.5	106.0	106.0	104.9	104.9	103.3	102.7	99.5	95.2
60°	94.7	94.7	95.2	94.7	94.1	93.6	93.1	92.0	90.4	88.2	85.0
62.5°	85.6	86.1	86.1	85.6	85.0	84.5	84.0	82.8	81.8	80.2	76.9
65°	75.3	76.4	75.8	75.3	74.8	74.2	74.2	73.2	72.1	71.0	67.8
67.5°	64.0	64.5	65.0	64.0	64.0	63.5	63.5	62.4	61.9	59.8	57.5
70°	52.1	52.7	52.7	52.1	52.1	51.6	51.6	51.1	50.6	49.0	46.9
72.5°	40.9	41.5	40.9	40.3	40.3	40.3	39.8	39.2	38.7	37.7	36.1
75°	30.1	30.1	30.7	30.1	29.6	29.6	29.1	29.1	27.9	27.4	25.8
77.5°	21.5	22.0	21.5	21.5	20.9	20.4	20.4	19.9	19.9	19.4	18.3
80°	14.5	14.5	15.0	14.5	14.0	14.5	14.0	13.4	13.4	12.9	11.8
82.5°	9.1	9.6	9.1	9.1	9.1	9.1	9.1	8.6	8.6	8.0	7.5
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	4.9	4.9	4.9	4.3
87.5°	2.7	2.7	2.1	2.1	2.7	2.7	2.7	2.1	2.1	2.1	2.1
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°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	406.1	406.7	407.7	409.4	409.4	408.4	411.0	411.0	412.1	412.6	414.8
5°	401.9	403.0	405.1	407.7	408.4	407.7	411.5	413.1	414.8	416.4	419.6
7.5°	398.1	400.2	404.0	407.7	409.4	409.4	415.3	417.4	420.7	423.9	427.7
10°	396.0	399.2	404.5	410.5	412.1	413.6	420.7	425.0	429.3	433.6	439.0
12.5°	393.2	399.2	406.1	413.6	416.9	419.0	428.8	434.2	440.1	445.5	452.5
15°	392.7	399.7	408.9	418.5	422.8	426.0	436.8	444.3	451.4	458.4	465.4
17.5°	390.6	399.2	410.5	421.3	426.6	430.9	443.3	452.5	460.5	467.5	475.6
20°	387.8	397.6	409.9	421.8	427.7	431.9	445.5	454.0	463.1	469.7	477.2
22.5°	384.1	393.8	406.1	418.0	423.4	427.2	440.6	448.1	456.2	462.6	469.7
25°	377.7	386.8	397.6	407.2	412.6	415.9	427.7	434.7	440.6	447.1	453.5
27.5°	368.5	375.5	384.7	391.6	394.8	398.1	407.7	413.6	419.0	424.4	428.8
30°	352.4	357.8	364.2	370.2	373.3	373.9	383.0	386.2	390.6	394.3	397.6
32.5°	330.8	335.2	338.9	342.1	344.3	344.8	351.9	352.9	357.2	357.2	362.0
35°	303.4	305.6	308.2	308.2	309.9	308.2	313.1	314.1	314.8	315.3	319.0
37.5°	272.2	273.3	274.9	271.7	271.7	270.0	271.7	272.8	270.6	270.6	273.3
40°	242.6	240.5	238.3	235.1	233.5	230.2	230.2	227.6	225.9	224.9	225.4
42.5°	214.1	209.3	204.4	197.5	194.2	191.0	187.7	184.0	182.9	180.2	178.6
45°	186.7	179.7	173.2	161.9	155.5	152.2	145.2	137.7	132.8	131.8	127.4
47.5°	163.5	153.4	142.6	129.1	122.7	116.8	106.5	100.1	93.6	90.4	87.7
50°	143.1	134.0	119.9	105.4	97.4	91.5	80.2	72.7	65.7	60.8	57.5
52.5°	125.3	115.1	102.3	85.6	77.5	71.0	58.6	50.0	44.1	39.2	35.5
55°	105.4	97.4	84.5	68.9	60.8	53.3	42.5	33.3	27.4	24.2	21.5
57.5°	91.0	84.0	71.6	56.5	49.0	42.0	31.2	23.7	18.8	15.5	14.0
60°	81.2	74.8	64.0	49.5	42.5	36.1	25.8	18.8	14.5	11.8	10.8
62.5°	73.2	66.7	57.0	43.6	37.7	31.2	22.0	15.5	11.8	9.6	8.0
65°	64.0	58.1	49.5	37.7	32.3	26.9	18.8	12.9	9.6	7.5	6.5
67.5°	54.4	49.0	41.5	31.2	26.9	22.6	15.0	10.8	8.0	6.5	5.4
70°	44.1	39.8	32.8	25.3	21.5	17.8	12.4	8.6	5.9	4.9	4.3
72.5°	33.8	30.1	25.3	19.4	16.2	13.4	9.1	6.5	4.9	3.8	3.2
75°	24.2	21.5	17.8	14.0	11.8	9.6	7.0	4.9	3.2	2.7	2.1
77.5°	16.7	15.0	12.4	9.6	8.0	7.0	4.9	3.2	2.7	2.1	1.6
80°	10.8	9.6	8.0	5.9	4.9	4.3	2.7	2.1	1.6	1.1	1.1
82.5°	6.5	5.9	4.9	3.2	2.7	2.1	1.6	1.1	1.1	0.5	0.5
85°	3.8	3.2	2.1	1.6	1.6	1.1	1.1	0.5	0.5	0.0	0.0
87.5°	1.6	1.1	1.1	0.5	0.5	0.5	0.5	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°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	413.6	416.4	415.9	417.4	416.9	416.9	419.6	418.5	421.3	421.3	421.8
5°	419.6	423.4	423.4	426.0	425.5	426.6	429.3	429.3	432.6	433.6	433.6
7.5°	428.2	433.1	434.2	436.8	437.3	439.6	441.7	442.2	446.5	447.6	448.1
10°	440.1	446.0	447.6	450.2	451.4	453.5	456.2	457.3	462.6	463.1	465.4
12.5°	454.6	461.0	462.6	465.9	466.4	469.1	472.9	473.9	479.3	480.9	482.5
15°	468.5	474.5	477.2	480.4	480.9	484.2	487.4	488.4	493.3	495.5	497.1
17.5°	478.3	485.2	486.8	491.2	491.2	493.8	497.1	498.1	503.0	504.6	505.7
20°	480.4	486.8	489.0	492.2	492.8	494.3	497.1	498.1	502.5	503.0	504.6
22.5°	472.3	478.8	479.8	483.1	483.7	485.2	487.4	486.8	492.2	491.7	492.2
25°	455.1	461.0	461.0	464.8	464.3	465.9	466.9	466.4	471.3	471.3	471.3
27.5°	430.4	435.7	436.3	439.0	437.3	437.9	439.0	438.4	441.7	441.7	441.7
30°	399.7	404.0	402.4	404.5	403.5	404.5	403.5	403.0	404.0	405.1	404.5
32.5°	361.5	364.8	364.8	365.3	365.3	362.0	361.0	361.0	360.4	359.9	359.9
35°	317.4	320.0	319.0	319.0	318.5	315.3	313.6	312.5	314.1	310.9	313.1
37.5°	272.2	272.8	271.2	270.6	267.9	267.9	265.3	263.0	264.1	263.6	261.4
40°	222.7	224.9	221.7	220.5	222.2	220.0	217.3	214.6	216.8	214.1	215.2
42.5°	174.3	173.8	172.7	172.7	172.7	169.4	168.9	168.4	168.9	166.8	165.2
45°	125.9	124.3	122.7	122.7	120.5	119.4	119.4	117.8	115.1	115.1	111.9
47.5°	85.0	81.2	80.2	79.6	78.6	78.6	77.5	76.4	75.8	73.2	73.2
50°	55.4	51.6	50.6	50.0	50.6	49.5	48.4	47.4	46.2	45.7	44.6
52.5°	33.3	31.7	30.7	30.1	29.1	28.6	27.9	26.9	26.3	26.3	25.8
55°	19.9	18.3	16.2	16.2	16.2	15.5	15.0	14.5	14.0	14.0	13.4
57.5°	12.4	11.3	10.3	9.6	9.6	9.6	9.1	9.1	9.1	9.1	8.6
60°	9.1	8.0	7.5	7.5	7.5	7.0	7.0	7.0	7.0	6.5	6.5
62.5°	7.0	6.5	5.9	5.9	5.4	5.4	5.4	5.4	5.4	5.4	4.9
65°	5.9	4.9	4.9	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
67.5°	4.3	3.8	3.8	3.8	3.8	3.2	3.2	3.2	3.2	3.2	3.2
70°	3.2	3.2	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	2.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	2.1	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.6	1.6	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	412.1	412.1	412.1	412.1	412.1	412.1	412.1	412.1
2.5°	421.8	424.4	421.8	421.8	423.4	422.8	423.9	422.3
5°	434.2	437.9	435.2	434.7	437.3	436.8	437.3	436.3
7.5°	449.2	453.0	450.2	450.2	453.0	452.5	454.0	453.0
10°	466.4	470.8	466.9	467.5	471.3	470.8	470.8	470.8
12.5°	484.2	488.4	486.3	486.3	489.0	489.6	490.1	489.6
15°	498.7	503.0	500.3	500.3	504.1	503.5	504.1	503.5
17.5°	507.2	511.6	508.4	508.4	511.6	511.6	512.1	512.6
20°	505.1	510.0	507.2	506.2	510.0	510.0	509.5	509.5
22.5°	492.8	497.1	494.9	493.8	496.6	495.5	494.9	495.5
25°	471.3	475.6	471.3	471.3	473.4	472.9	473.4	472.9
27.5°	442.2	445.5	441.1	440.6	442.7	441.7	441.1	442.7
30°	403.5	406.7	404.5	403.0	405.6	404.0	403.0	403.5
32.5°	359.4	361.5	360.4	357.8	359.4	358.3	357.8	358.3
35°	310.9	313.6	309.4	308.8	311.5	309.4	308.2	310.9
37.5°	260.9	264.1	260.4	260.9	259.3	259.9	258.8	260.4
40°	213.5	213.0	211.9	211.4	211.9	210.4	211.4	209.8
42.5°	162.5	163.5	163.0	162.5	163.0	160.9	159.8	161.9
45°	113.0	112.4	111.4	110.3	110.3	109.8	109.8	108.1
47.5°	72.7	72.1	69.9	70.4	71.6	70.4	68.9	71.0
50°	44.1	43.6	43.6	43.0	44.1	43.0	42.0	42.0
52.5°	24.7	24.7	24.2	24.2	24.2	24.2	23.7	23.2
55°	13.4	12.9	12.9	12.9	12.4	12.4	12.4	12.4
57.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.0	8.0
60°	6.5	6.5	6.5	6.5	5.9	6.5	5.9	5.9
62.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
65°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
67.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
70°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)