

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P226250

Luminaire Tested: **LD2B10D010 EU2B10WW9030 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226250  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14828)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B10D010 EU2B10WW9030 2LBSW\*  
Description: 1000 Lumen, 2inch Portfolio LED Downlight  
WALL WASH OPTIC  
WALL WASH LENSED TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 591.6 lumens  
Efficiency: N/A  
Efficacy: 57.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.79 / 1.02  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

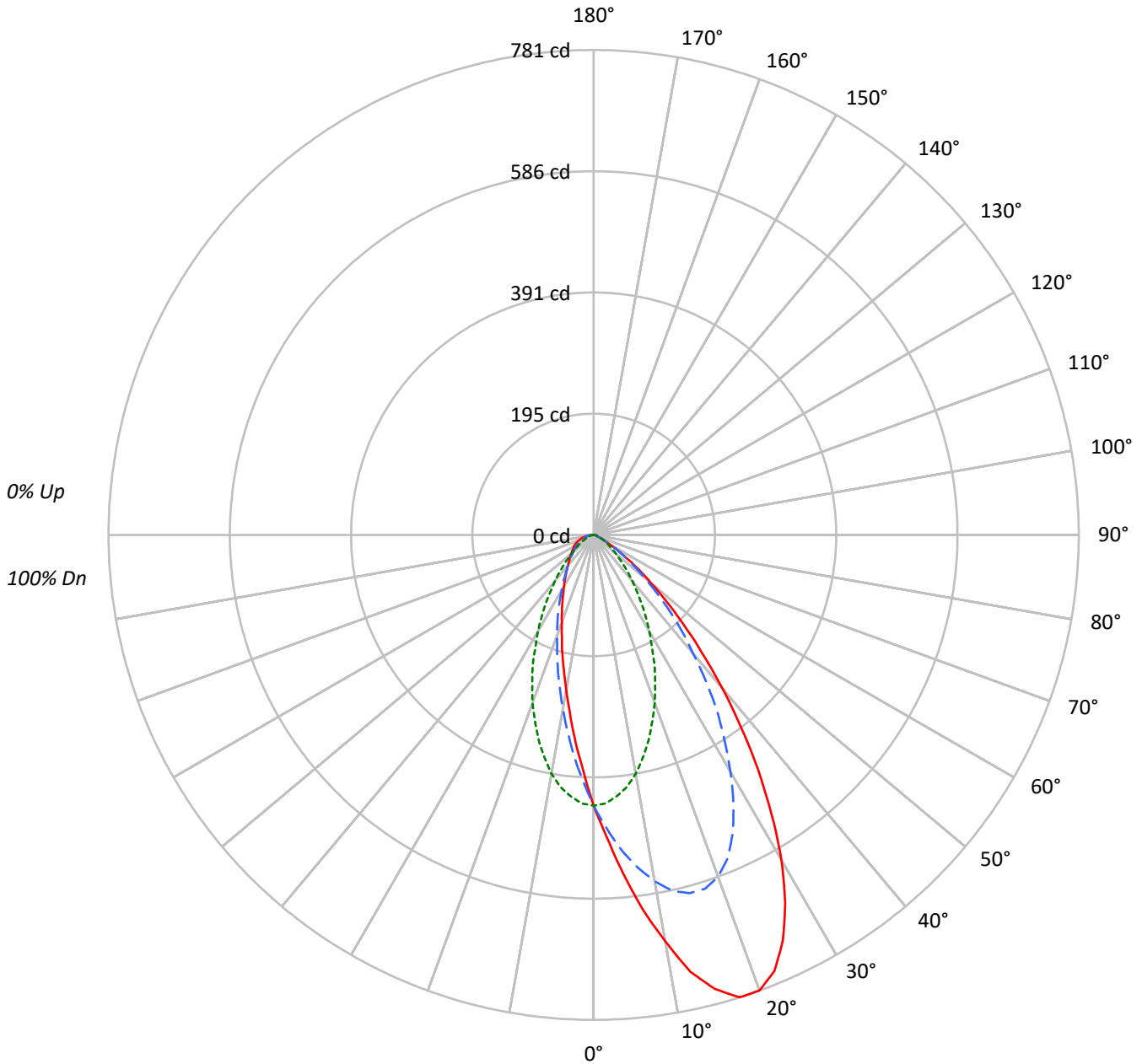
Input Watts (W): 10.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			50
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			40

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

	0°	90°	180°
0°	168844	168844	168844
5°	212843	164318	130101
10°	261480	153553	99864
15°	303645	137105	78277
20°	321808	118550	61707
25°	307977	99112	50817
30°	270419	80061	42669
35°	217895	63127	36789
40°	162514	48997	32665
45°	112571	36976	29745
50°	72493	27418	28322
55°	42613	20800	27756
60°	22776	17043	28431
65°	10724	13473	28229
70°	4983	11665	28200
75°	6585	10925	30680
80°	6469	9815	29444
85°	6666	12888	26221



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.2	7.0
10°-20°	114.9	19.4
20°-30°	149.9	25.3
30°-40°	129.8	21.9
40°-50°	82.2	13.9
50°-60°	41.2	7.0
60°-70°	18.9	3.2
70°-80°	10.2	1.7
80°-90°	3.3	0.6
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°	306.1	51.7
0°-40°	435.9	73.7
0°-60°	559.2	94.5
0°-90°	591.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	591.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	436	436	436	436	436	
5°	547	509	423	358	335	56
15°	757	597	342	223	195	213
25°	721	530	232	134	119	326
35°	461	346	134	81	78	286
45°	206	172	68	53	54	162
55°	63	59	31	35	41	60
65°	12	13	15	25	31	13
75°	4	4	7	15	20	4
85°	2	2	3	4	6	1
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°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	487.2	490.2	490.2	491.6	485.8	487.2	487.2	484.3	479.9	476.9	472.5
5°	547.4	547.4	545.9	547.4	543.0	540.0	541.5	535.6	523.9	518.0	509.2
7.5°	609.0	606.1	606.1	604.6	597.3	592.9	591.4	581.1	565.0	553.3	540.0
10°	664.8	664.8	661.9	658.9	648.6	642.8	638.4	622.2	604.6	585.5	566.5
12.5°	720.6	717.6	713.2	707.3	692.7	686.8	679.5	660.4	634.0	612.0	587.0
15°	757.2	758.7	751.4	744.0	727.9	719.1	710.3	686.8	656.0	628.1	597.3
17.5°	780.7	779.3	771.9	763.1	745.5	735.2	725.0	697.1	664.8	631.0	597.3
20°	780.7	780.7	771.9	763.1	744.0	732.3	722.0	692.7	657.5	622.2	585.5
22.5°	760.2	757.2	751.4	742.6	723.5	713.2	701.5	672.1	635.4	601.7	563.5
25°	720.6	720.6	713.2	702.9	686.8	675.1	664.8	635.4	600.2	566.5	529.8
27.5°	667.7	666.3	658.9	651.6	634.0	625.2	614.9	587.0	556.2	525.4	487.2
30°	604.6	601.7	598.7	587.0	575.3	567.9	559.1	534.2	503.4	474.0	440.3
32.5°	532.7	537.1	529.8	522.4	512.2	504.8	497.5	478.4	450.5	424.1	391.8
35°	460.8	463.7	459.3	453.5	443.2	438.8	431.5	415.3	394.8	369.8	346.3
37.5°	388.9	388.9	388.9	384.5	378.6	374.2	369.8	355.1	337.5	318.5	296.4
40°	321.4	325.8	319.9	318.5	314.1	312.6	308.2	297.9	283.2	270.0	249.5
42.5°	259.8	259.8	261.2	258.3	256.8	253.9	250.9	245.1	234.8	223.1	209.9
45°	205.5	206.9	208.4	204.0	204.0	204.0	202.5	196.6	187.8	180.5	171.7
47.5°	160.0	160.0	161.4	160.0	160.0	160.0	157.0	157.0	151.2	143.8	136.5
50°	120.3	121.8	123.3	123.3	123.3	121.8	121.8	118.9	115.9	113.0	105.7
52.5°	91.0	91.0	89.5	91.0	91.0	91.0	91.0	89.5	88.1	85.1	80.7
55°	63.1	63.1	64.6	64.6	64.6	66.0	66.0	66.0	64.6	63.1	58.7
57.5°	44.0	44.0	44.0	45.5	47.0	47.0	47.0	47.0	45.5	44.0	42.6
60°	29.4	29.4	29.4	30.8	30.8	30.8	30.8	32.3	30.8	30.8	29.4
62.5°	19.1	19.1	19.1	19.1	19.1	20.5	20.5	20.5	20.5	20.5	19.1
65°	11.7	11.7	11.7	11.7	11.7	11.7	13.2	13.2	13.2	13.2	13.2
67.5°	7.3	7.3	7.3	7.3	7.3	8.8	8.8	8.8	8.8	8.8	8.8
70°	4.4	4.4	4.4	4.4	5.9	5.9	5.9	5.9	5.9	5.9	5.9
72.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
75°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.4	4.4	4.4
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	2.9	1.5
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	472.5	466.7	463.7	456.4	454.9	449.1	449.1	443.2	435.9	432.9	425.6
5°	503.4	491.6	485.8	472.5	468.1	459.3	454.9	443.2	431.5	422.6	412.4
7.5°	529.8	512.2	500.4	482.8	475.5	462.3	453.5	438.8	422.6	409.4	394.8
10°	550.3	526.8	509.2	485.8	476.9	460.8	447.6	427.0	406.5	390.4	372.8
12.5°	563.5	535.6	510.7	482.8	471.1	453.5	434.4	410.9	387.4	366.9	347.8
15°	569.4	535.6	506.3	472.5	459.3	440.3	418.2	390.4	363.9	341.9	321.4
17.5°	565.0	525.4	494.6	456.4	441.7	419.7	394.8	365.4	337.5	314.1	293.5
20°	550.3	509.2	474.0	434.4	418.2	396.2	368.3	339.0	311.1	287.6	265.6
22.5°	525.4	482.8	446.1	406.5	390.4	368.3	339.0	309.6	281.8	258.3	237.7
25°	494.6	449.1	412.4	374.2	356.6	337.5	308.2	278.8	252.4	231.9	211.3
27.5°	453.5	413.8	377.2	339.0	322.9	305.2	275.9	249.5	223.1	202.5	184.9
30°	409.4	371.3	340.5	303.8	289.1	271.5	246.5	220.1	198.1	179.0	162.9
32.5°	365.4	328.7	299.4	268.6	255.3	237.7	215.7	192.2	171.7	155.6	142.3
35°	319.9	289.1	261.2	231.9	221.6	206.9	186.4	165.8	148.2	133.5	120.3
37.5°	274.4	249.5	224.5	201.1	189.3	177.6	158.5	140.9	124.7	113.0	102.7
40°	233.3	211.3	190.8	168.8	158.5	149.7	133.5	118.9	107.1	96.9	88.1
42.5°	193.7	176.1	158.5	140.9	132.1	124.7	111.5	98.3	88.1	80.7	73.4
45°	158.5	145.3	130.6	114.5	110.1	101.3	91.0	82.2	73.4	67.5	61.6
47.5°	127.7	115.9	104.2	92.5	88.1	82.2	73.4	66.0	60.2	55.8	51.4
50°	99.8	91.0	83.6	73.4	70.4	64.6	58.7	52.8	48.4	45.5	42.6
52.5°	76.3	69.0	63.1	57.2	54.3	51.4	45.5	42.6	39.6	38.2	36.7
55°	55.8	51.4	47.0	42.6	41.1	38.2	35.2	32.3	30.8	30.8	30.8
57.5°	39.6	36.7	33.8	30.8	30.8	29.4	27.9	26.4	24.9	24.9	24.9
60°	27.9	26.4	24.9	23.5	22.0	22.0	20.5	22.0	20.5	22.0	22.0
62.5°	19.1	17.6	17.6	16.1	16.1	16.1	16.1	16.1	17.6	17.6	19.1
65°	11.7	11.7	11.7	11.7	11.7	11.7	13.2	13.2	13.2	14.7	14.7
67.5°	8.8	8.8	8.8	10.3	10.3	10.3	10.3	11.7	11.7	11.7	13.2
70°	5.9	7.3	7.3	7.3	7.3	7.3	8.8	8.8	8.8	10.3	10.3
72.5°	5.9	5.9	5.9	5.9	5.9	5.9	7.3	7.3	7.3	8.8	8.8
75°	4.4	5.9	5.9	5.9	5.9	5.9	5.9	7.3	7.3	7.3	8.8
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	5.9	5.9	5.9	5.9
80°	2.9	2.9	2.9	4.4	4.4	4.4	4.4	4.4	4.4	4.4	5.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	4.4
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.9	1.5	2.9	2.9
87.5°	0.0	0.0	0.0	1.5	0.0	1.5	1.5	1.5	1.5	1.5	1.5
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°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	422.6	418.2	419.7	410.9	412.4	406.5	403.6	399.2	396.2	391.8	393.3
5°	405.0	397.7	394.8	384.5	386.0	377.2	371.3	363.9	358.1	350.7	349.3
7.5°	383.0	371.3	366.9	356.6	355.1	343.4	336.1	327.3	319.9	312.6	309.6
10°	358.1	344.9	336.1	325.8	324.3	311.1	302.3	293.5	284.7	277.4	274.4
12.5°	331.7	317.0	306.7	295.0	292.0	280.3	270.0	261.2	252.4	245.1	240.7
15°	303.8	287.6	277.4	265.6	262.7	249.5	240.7	230.4	223.1	215.7	212.8
17.5°	275.9	259.8	248.0	237.7	234.8	221.6	211.3	204.0	195.2	190.8	186.4
20°	248.0	231.9	220.1	211.3	206.9	196.6	186.4	179.0	171.7	167.3	162.9
22.5°	220.1	205.5	195.2	186.4	183.4	173.2	164.4	157.0	152.6	146.8	143.8
25°	195.2	180.5	171.7	162.9	160.0	151.2	145.3	137.9	133.5	129.1	126.2
27.5°	171.7	158.5	149.7	142.3	140.9	133.5	126.2	121.8	117.4	114.5	113.0
30°	148.2	137.9	130.6	124.7	123.3	115.9	110.1	107.1	102.7	101.3	99.8
32.5°	130.6	120.3	114.5	108.6	107.1	101.3	98.3	93.9	91.0	89.5	89.5
35°	111.5	104.2	98.3	95.4	93.9	89.5	85.1	83.6	80.7	79.2	79.2
37.5°	95.4	89.5	85.1	80.7	80.7	77.8	74.8	73.4	71.9	71.9	70.4
40°	82.2	76.3	74.8	71.9	70.4	69.0	67.5	66.0	64.6	64.6	64.6
42.5°	69.0	66.0	63.1	61.6	61.6	60.2	58.7	58.7	57.2	58.7	58.7
45°	58.7	55.8	54.3	52.8	54.3	52.8	52.8	51.4	52.8	52.8	52.8
47.5°	49.9	48.4	47.0	47.0	47.0	47.0	47.0	47.0	47.0	48.4	48.4
50°	42.6	41.1	41.1	41.1	41.1	41.1	42.6	42.6	42.6	44.0	44.0
52.5°	35.2	35.2	35.2	35.2	36.7	36.7	38.2	38.2	39.6	39.6	41.1
55°	30.8	30.8	30.8	30.8	32.3	32.3	33.8	35.2	35.2	36.7	38.2
57.5°	26.4	26.4	27.9	27.9	29.4	29.4	30.8	32.3	32.3	33.8	35.2
60°	22.0	23.5	24.9	24.9	24.9	26.4	27.9	29.4	29.4	30.8	32.3
62.5°	19.1	20.5	22.0	22.0	22.0	23.5	24.9	26.4	26.4	27.9	29.4
65°	16.1	17.6	19.1	19.1	19.1	20.5	22.0	23.5	24.9	24.9	26.4
67.5°	14.7	14.7	16.1	16.1	17.6	19.1	19.1	20.5	22.0	23.5	24.9
70°	11.7	13.2	14.7	14.7	14.7	16.1	17.6	19.1	19.1	20.5	22.0
72.5°	10.3	10.3	11.7	11.7	13.2	14.7	14.7	16.1	17.6	17.6	19.1
75°	8.8	10.3	10.3	10.3	11.7	11.7	13.2	14.7	14.7	16.1	16.1
77.5°	7.3	7.3	8.8	8.8	8.8	10.3	10.3	11.7	11.7	13.2	13.2
80°	5.9	5.9	7.3	7.3	7.3	7.3	8.8	8.8	10.3	10.3	10.3
82.5°	4.4	4.4	4.4	4.4	5.9	5.9	5.9	5.9	7.3	7.3	7.3
85°	2.9	2.9	2.9	2.9	2.9	4.4	4.4	4.4	4.4	4.4	5.9
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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: P226250

CATALOG NUMBER: LD2B10D010 EU2B10WW9030 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	435.9	435.9	435.9	435.9	435.9	435.9	435.9	435.9
2.5°	388.9	388.9	387.4	386.0	384.5	383.0	381.6	380.1
5°	344.9	346.3	340.5	339.0	339.0	336.1	337.5	334.6
7.5°	303.8	303.8	299.4	297.9	296.4	293.5	292.0	290.6
10°	267.1	265.6	262.7	261.2	258.3	256.8	256.8	253.9
12.5°	234.8	233.3	230.4	228.9	226.0	224.5	223.1	221.6
15°	206.9	205.5	202.5	201.1	199.6	196.6	196.6	195.2
17.5°	180.5	179.0	177.6	174.6	174.6	171.7	170.2	170.2
20°	160.0	158.5	155.6	154.1	154.1	152.6	152.6	149.7
22.5°	140.9	139.4	137.9	136.5	136.5	135.0	133.5	133.5
25°	124.7	123.3	121.8	121.8	120.3	118.9	118.9	118.9
27.5°	110.1	110.1	108.6	108.6	108.6	107.1	107.1	105.7
30°	98.3	98.3	96.9	96.9	96.9	95.4	96.9	95.4
32.5°	88.1	88.1	88.1	88.1	88.1	86.6	86.6	86.6
35°	79.2	79.2	79.2	79.2	79.2	77.8	79.2	77.8
37.5°	70.4	71.9	70.4	70.4	71.9	70.4	70.4	70.4
40°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
42.5°	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
45°	52.8	54.3	54.3	54.3	54.3	54.3	54.3	54.3
47.5°	49.9	49.9	49.9	49.9	51.4	49.9	51.4	51.4
50°	45.5	45.5	45.5	47.0	47.0	47.0	47.0	47.0
52.5°	42.6	42.6	42.6	42.6	44.0	44.0	44.0	44.0
55°	38.2	39.6	39.6	39.6	41.1	41.1	41.1	41.1
57.5°	36.7	36.7	36.7	38.2	38.2	38.2	39.6	38.2
60°	33.8	33.8	35.2	35.2	35.2	36.7	36.7	36.7
62.5°	30.8	32.3	32.3	32.3	32.3	33.8	33.8	33.8
65°	27.9	29.4	29.4	29.4	30.8	30.8	30.8	30.8
67.5°	24.9	26.4	26.4	27.9	27.9	27.9	27.9	27.9
70°	22.0	23.5	23.5	23.5	24.9	24.9	24.9	24.9
72.5°	20.5	20.5	20.5	22.0	22.0	22.0	23.5	22.0
75°	17.6	19.1	19.1	19.1	19.1	19.1	20.5	20.5
77.5°	14.7	14.7	14.7	14.7	16.1	16.1	16.1	16.1
80°	11.7	11.7	11.7	11.7	13.2	13.2	13.2	13.2
82.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
85°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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)