

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: P226232

Luminaire Tested: **LD2B05D010 EU2B05WW8035 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226232  
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: LD2B05D010 EU2B05WW8035 2LBSW\*  
Description: 500 Lumen, 2inch Portfolio LED Downlight  
WALL WASH OPTIC  
WALL WASH LENSED TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 555.8 lumens  
Efficiency: N/A  
Efficacy: 76.1 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

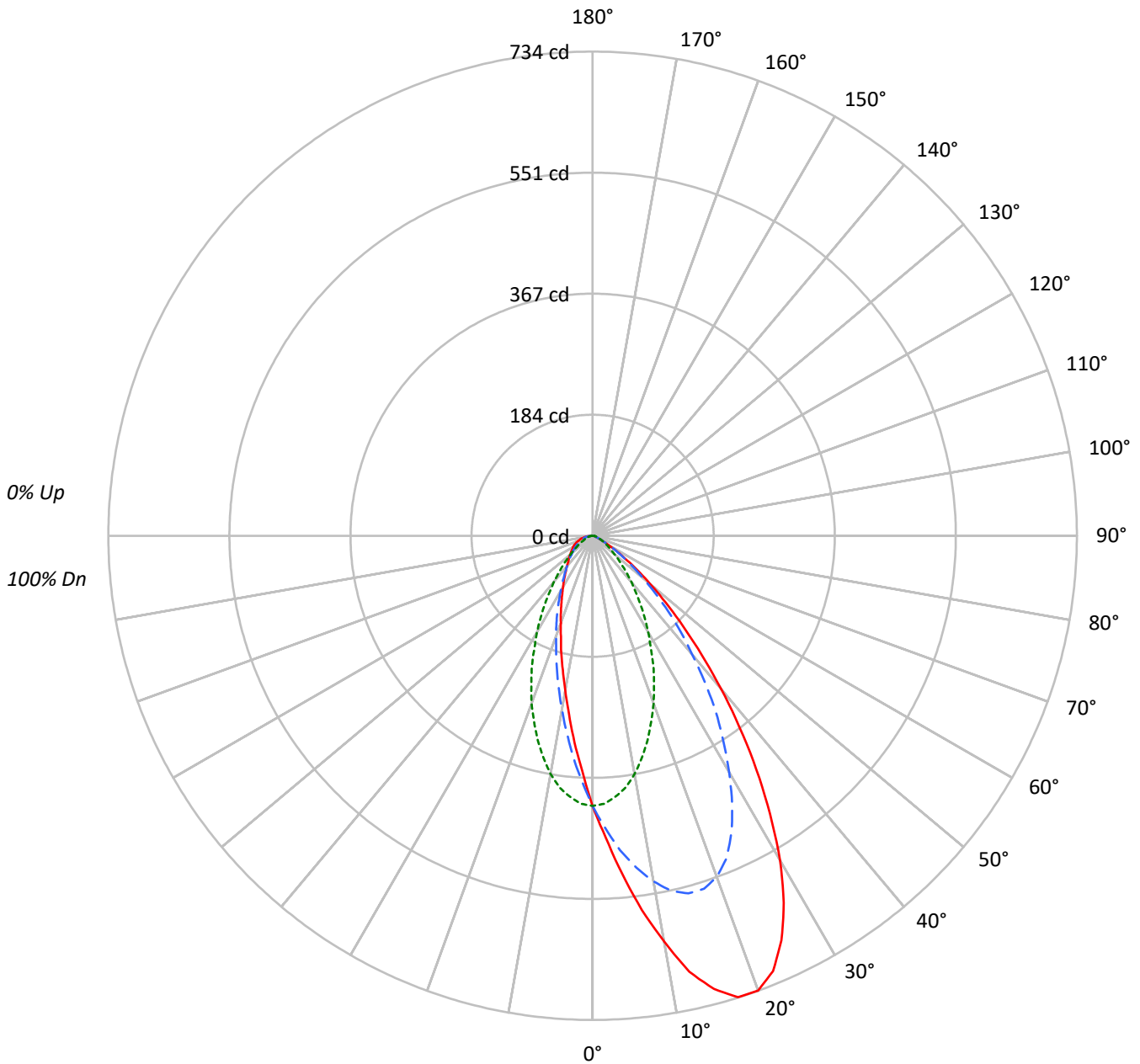
Input Watts (W): 7.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			

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

	0°	90°	180°
0°	158618	158618	158618
5°	199973	154403	122247
10°	245669	144270	93807
15°	285279	128845	73545
20°	302352	111378	57956
25°	289342	93085	47739
30°	254093	75231	40075
35°	204702	59344	34566
40°	152705	46014	30693
45°	105723	34730	27937
50°	68154	25731	26575
55°	40046	19584	26067
60°	21381	16036	26727
65°	10082	12648	26580
70°	4643	10985	26501
75°	6136	10326	28884
80°	6246	9146	27660
85°	6222	12444	24444



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	7.0
10°-20°	108.0	19.4
20°-30°	140.9	25.3
30°-40°	122.0	21.9
40°-50°	77.2	13.9
50°-60°	38.7	7.0
60°-70°	17.8	3.2
70°-80°	9.5	1.7
80°-90°	3.1	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°	287.6	51.7
0°-40°	409.5	73.7
0°-60°	525.4	94.5
0°-90°	555.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	555.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	410	410	410	410	410	
5°	514	478	397	336	314	52
15°	711	561	321	210	183	200
25°	677	498	218	126	112	307
35°	433	325	126	76	73	269
45°	193	161	63	50	51	152
55°	59	55	29	33	39	57
65°	11	12	14	23	29	13
75°	4	4	7	14	19	4
85°	1	1	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°	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5
2.5°	457.8	460.5	460.5	461.9	456.4	457.8	457.8	455.0	450.9	448.1	444.0
5°	514.3	514.3	512.9	514.3	510.1	507.4	508.8	503.3	492.2	486.7	478.4
7.5°	572.2	569.4	569.4	568.1	561.2	557.0	555.6	546.0	530.8	519.8	507.4
10°	624.6	624.6	621.8	619.1	609.4	603.9	599.8	584.6	568.1	550.1	532.2
12.5°	677.0	674.2	670.1	664.6	650.8	645.3	638.4	620.4	595.6	574.9	551.5
15°	711.4	712.8	705.9	699.0	683.9	675.6	667.3	645.3	616.3	590.1	561.2
17.5°	733.5	732.1	725.2	717.0	700.4	690.8	681.1	654.9	624.6	592.9	561.2
20°	733.5	733.5	725.2	717.0	699.0	688.0	678.4	650.8	617.7	584.6	550.1
22.5°	714.2	711.4	705.9	697.7	679.7	670.1	659.1	631.5	597.0	565.3	529.5
25°	677.0	677.0	670.1	660.4	645.3	634.2	624.6	597.0	563.9	532.2	497.7
27.5°	627.3	626.0	619.1	612.2	595.6	587.4	577.7	551.5	522.6	493.6	457.8
30°	568.1	565.3	562.5	551.5	540.5	533.6	525.3	501.9	472.9	445.3	413.6
32.5°	500.5	504.6	497.7	490.8	481.2	474.3	467.4	449.5	423.3	398.5	368.1
35°	432.9	435.7	431.6	426.0	416.4	412.3	405.4	390.2	370.9	347.5	325.4
37.5°	365.4	365.4	365.4	361.2	355.7	351.6	347.5	333.7	317.1	299.2	278.5
40°	302.0	306.1	300.6	299.2	295.1	293.7	289.5	279.9	266.1	253.7	234.4
42.5°	244.0	244.0	245.4	242.7	241.3	238.5	235.8	230.3	220.6	209.6	197.2
45°	193.0	194.4	195.8	191.6	191.6	191.6	190.3	184.8	176.5	169.6	161.3
47.5°	150.3	150.3	151.7	150.3	150.3	150.3	147.5	147.5	142.0	135.1	128.2
50°	113.1	114.4	115.8	115.8	115.8	114.4	114.4	111.7	108.9	106.2	99.3
52.5°	85.5	85.5	84.1	85.5	85.5	85.5	85.5	84.1	82.7	80.0	75.8
55°	59.3	59.3	60.7	60.7	60.7	62.0	62.0	62.0	60.7	59.3	55.2
57.5°	41.4	41.4	41.4	42.7	44.1	44.1	44.1	44.1	42.7	41.4	40.0
60°	27.6	27.6	27.6	29.0	29.0	29.0	29.0	30.3	29.0	29.0	27.6
62.5°	17.9	17.9	17.9	17.9	17.9	19.3	19.3	19.3	19.3	19.3	17.9
65°	11.0	11.0	11.0	11.0	11.0	11.0	12.4	12.4	12.4	12.4	12.4
67.5°	6.9	6.9	6.9	6.9	6.9	8.3	8.3	8.3	8.3	8.3	8.3
70°	4.1	4.1	4.1	4.1	5.5	5.5	5.5	5.5	5.5	5.5	5.5
72.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.1	4.1	4.1
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8	1.4
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5
2.5°	444.0	438.5	435.7	428.8	427.4	421.9	421.9	416.4	409.5	406.7	399.8
5°	472.9	461.9	456.4	444.0	439.8	431.6	427.4	416.4	405.4	397.1	387.4
7.5°	497.7	481.2	470.2	453.6	446.7	434.3	426.0	412.3	397.1	384.7	370.9
10°	517.0	495.0	478.4	456.4	448.1	432.9	420.5	401.2	381.9	366.8	350.2
12.5°	529.5	503.3	479.8	453.6	442.6	426.0	408.1	386.1	364.0	344.7	326.8
15°	535.0	503.3	475.7	444.0	431.6	413.6	393.0	366.8	341.9	321.3	302.0
17.5°	530.8	493.6	464.6	428.8	415.0	394.3	370.9	343.3	317.1	295.1	275.8
20°	517.0	478.4	445.3	408.1	393.0	372.3	346.1	318.5	292.3	270.2	249.6
22.5°	493.6	453.6	419.1	381.9	366.8	346.1	318.5	290.9	264.7	242.7	223.4
25°	464.6	421.9	387.4	351.6	335.0	317.1	289.5	262.0	237.1	217.8	198.5
27.5°	426.0	388.8	354.3	318.5	303.3	286.8	259.2	234.4	209.6	190.3	173.7
30°	384.7	348.8	319.9	285.4	271.6	255.1	231.6	206.8	186.1	168.2	153.0
32.5°	343.3	308.8	281.3	252.3	239.9	223.4	202.7	180.6	161.3	146.2	133.7
35°	300.6	271.6	245.4	217.8	208.2	194.4	175.1	155.8	139.3	125.5	113.1
37.5°	257.8	234.4	211.0	188.9	177.9	166.8	148.9	132.4	117.2	106.2	96.5
40°	219.2	198.5	179.2	158.6	148.9	140.6	125.5	111.7	100.7	91.0	82.7
42.5°	182.0	165.5	148.9	132.4	124.1	117.2	104.8	92.4	82.7	75.8	68.9
45°	148.9	136.5	122.7	107.5	103.4	95.1	85.5	77.2	68.9	63.4	57.9
47.5°	120.0	108.9	97.9	86.9	82.7	77.2	68.9	62.0	56.5	52.4	48.3
50°	93.8	85.5	78.6	68.9	66.2	60.7	55.2	49.6	45.5	42.7	40.0
52.5°	71.7	64.8	59.3	53.8	51.0	48.3	42.7	40.0	37.2	35.8	34.5
55°	52.4	48.3	44.1	40.0	38.6	35.8	33.1	30.3	29.0	29.0	29.0
57.5°	37.2	34.5	31.7	29.0	29.0	27.6	26.2	24.8	23.4	23.4	23.4
60°	26.2	24.8	23.4	22.1	20.7	20.7	19.3	20.7	19.3	20.7	20.7
62.5°	17.9	16.5	16.5	15.2	15.2	15.2	15.2	15.2	16.5	16.5	17.9
65°	11.0	11.0	11.0	11.0	11.0	11.0	12.4	12.4	12.4	13.8	13.8
67.5°	8.3	8.3	8.3	9.7	9.7	9.7	9.7	11.0	11.0	11.0	12.4
70°	5.5	6.9	6.9	6.9	6.9	6.9	8.3	8.3	8.3	9.7	9.7
72.5°	5.5	5.5	5.5	5.5	5.5	5.5	6.9	6.9	6.9	8.3	8.3
75°	4.1	5.5	5.5	5.5	5.5	5.5	5.5	6.9	6.9	6.9	8.3
77.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5	5.5	5.5	5.5
80°	2.8	2.8	2.8	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.5
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.1
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	1.4	2.8	2.8
87.5°	0.0	0.0	0.0	1.4	0.0	1.4	1.4	1.4	1.4	1.4	1.4
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°	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5
2.5°	397.1	393.0	394.3	386.1	387.4	381.9	379.2	375.0	372.3	368.1	369.5
5°	380.5	373.6	370.9	361.2	362.6	354.3	348.8	341.9	336.4	329.5	328.1
7.5°	359.9	348.8	344.7	335.0	333.7	322.6	315.7	307.5	300.6	293.7	290.9
10°	336.4	324.0	315.7	306.1	304.7	292.3	284.0	275.8	267.5	260.6	257.8
12.5°	311.6	297.8	288.2	277.1	274.4	263.3	253.7	245.4	237.1	230.3	226.1
15°	285.4	270.2	260.6	249.6	246.8	234.4	226.1	216.5	209.6	202.7	199.9
17.5°	259.2	244.0	233.0	223.4	220.6	208.2	198.5	191.6	183.4	179.2	175.1
20°	233.0	217.8	206.8	198.5	194.4	184.8	175.1	168.2	161.3	157.2	153.0
22.5°	206.8	193.0	183.4	175.1	172.3	162.7	154.4	147.5	143.4	137.9	135.1
25°	183.4	169.6	161.3	153.0	150.3	142.0	136.5	129.6	125.5	121.3	118.6
27.5°	161.3	148.9	140.6	133.7	132.4	125.5	118.6	114.4	110.3	107.5	106.2
30°	139.3	129.6	122.7	117.2	115.8	108.9	103.4	100.7	96.5	95.1	93.8
32.5°	122.7	113.1	107.5	102.0	100.7	95.1	92.4	88.2	85.5	84.1	84.1
35°	104.8	97.9	92.4	89.6	88.2	84.1	80.0	78.6	75.8	74.5	74.5
37.5°	89.6	84.1	80.0	75.8	75.8	73.1	70.3	68.9	67.6	67.6	66.2
40°	77.2	71.7	70.3	67.6	66.2	64.8	63.4	62.0	60.7	60.7	60.7
42.5°	64.8	62.0	59.3	57.9	57.9	56.5	55.2	55.2	53.8	55.2	55.2
45°	55.2	52.4	51.0	49.6	51.0	49.6	49.6	48.3	49.6	49.6	49.6
47.5°	46.9	45.5	44.1	44.1	44.1	44.1	44.1	44.1	44.1	45.5	45.5
50°	40.0	38.6	38.6	38.6	38.6	38.6	40.0	40.0	40.0	41.4	41.4
52.5°	33.1	33.1	33.1	33.1	34.5	34.5	35.8	35.8	37.2	37.2	38.6
55°	29.0	29.0	29.0	29.0	30.3	30.3	31.7	33.1	33.1	34.5	35.8
57.5°	24.8	24.8	26.2	26.2	27.6	27.6	29.0	30.3	30.3	31.7	33.1
60°	20.7	22.1	23.4	23.4	23.4	24.8	26.2	27.6	27.6	29.0	30.3
62.5°	17.9	19.3	20.7	20.7	20.7	22.1	23.4	24.8	24.8	26.2	27.6
65°	15.2	16.5	17.9	17.9	17.9	19.3	20.7	22.1	23.4	23.4	24.8
67.5°	13.8	13.8	15.2	15.2	16.5	17.9	17.9	19.3	20.7	22.1	23.4
70°	11.0	12.4	13.8	13.8	13.8	15.2	16.5	17.9	17.9	19.3	20.7
72.5°	9.7	9.7	11.0	11.0	12.4	13.8	13.8	15.2	16.5	16.5	17.9
75°	8.3	9.7	9.7	9.7	11.0	11.0	12.4	13.8	13.8	15.2	15.2
77.5°	6.9	6.9	8.3	8.3	8.3	9.7	9.7	11.0	11.0	12.4	12.4
80°	5.5	5.5	6.9	6.9	6.9	6.9	8.3	8.3	9.7	9.7	9.7
82.5°	4.1	4.1	4.1	4.1	5.5	5.5	5.5	5.5	6.9	6.9	6.9
85°	2.8	2.8	2.8	2.8	2.8	4.1	4.1	4.1	4.1	4.1	5.5
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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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CATALOG NUMBER: LD2B05D010 EU2B05WW8035 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	409.5	409.5	409.5	409.5	409.5	409.5	409.5	409.5
2.5°	365.4	365.4	364.0	362.6	361.2	359.9	358.5	357.1
5°	324.0	325.4	319.9	318.5	318.5	315.7	317.1	314.4
7.5°	285.4	285.4	281.3	279.9	278.5	275.8	274.4	273.0
10°	250.9	249.6	246.8	245.4	242.7	241.3	241.3	238.5
12.5°	220.6	219.2	216.5	215.1	212.3	211.0	209.6	208.2
15°	194.4	193.0	190.3	188.9	187.5	184.8	184.8	183.4
17.5°	169.6	168.2	166.8	164.1	164.1	161.3	159.9	159.9
20°	150.3	148.9	146.2	144.8	144.8	143.4	143.4	140.6
22.5°	132.4	131.0	129.6	128.2	128.2	126.8	125.5	125.5
25°	117.2	115.8	114.4	114.4	113.1	111.7	111.7	111.7
27.5°	103.4	103.4	102.0	102.0	102.0	100.7	100.7	99.3
30°	92.4	92.4	91.0	91.0	91.0	89.6	91.0	89.6
32.5°	82.7	82.7	82.7	82.7	82.7	81.3	81.3	81.3
35°	74.5	74.5	74.5	74.5	74.5	73.1	74.5	73.1
37.5°	66.2	67.6	66.2	66.2	67.6	66.2	66.2	66.2
40°	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7
42.5°	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
45°	49.6	51.0	51.0	51.0	51.0	51.0	51.0	51.0
47.5°	46.9	46.9	46.9	46.9	48.3	46.9	48.3	48.3
50°	42.7	42.7	42.7	44.1	44.1	44.1	44.1	44.1
52.5°	40.0	40.0	40.0	40.0	41.4	41.4	41.4	41.4
55°	35.8	37.2	37.2	37.2	38.6	38.6	38.6	38.6
57.5°	34.5	34.5	34.5	35.8	35.8	35.8	37.2	35.8
60°	31.7	31.7	33.1	33.1	33.1	34.5	34.5	34.5
62.5°	29.0	30.3	30.3	30.3	30.3	31.7	31.7	31.7
65°	26.2	27.6	27.6	27.6	29.0	29.0	29.0	29.0
67.5°	23.4	24.8	24.8	26.2	26.2	26.2	26.2	26.2
70°	20.7	22.1	22.1	22.1	23.4	23.4	23.4	23.4
72.5°	19.3	19.3	19.3	20.7	20.7	20.7	22.1	20.7
75°	16.5	17.9	17.9	17.9	17.9	17.9	19.3	19.3
77.5°	13.8	13.8	13.8	13.8	15.2	15.2	15.2	15.2
80°	11.0	11.0	11.0	11.0	12.4	12.4	12.4	12.4
82.5°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
85°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
87.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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)