

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: P226251

Luminaire Tested: **LD2B10D010 EU2B10WW9035 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226251
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 EU2B10WW9035 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: 614.2 lumens
Efficiency: N/A
Efficacy: 59.6 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

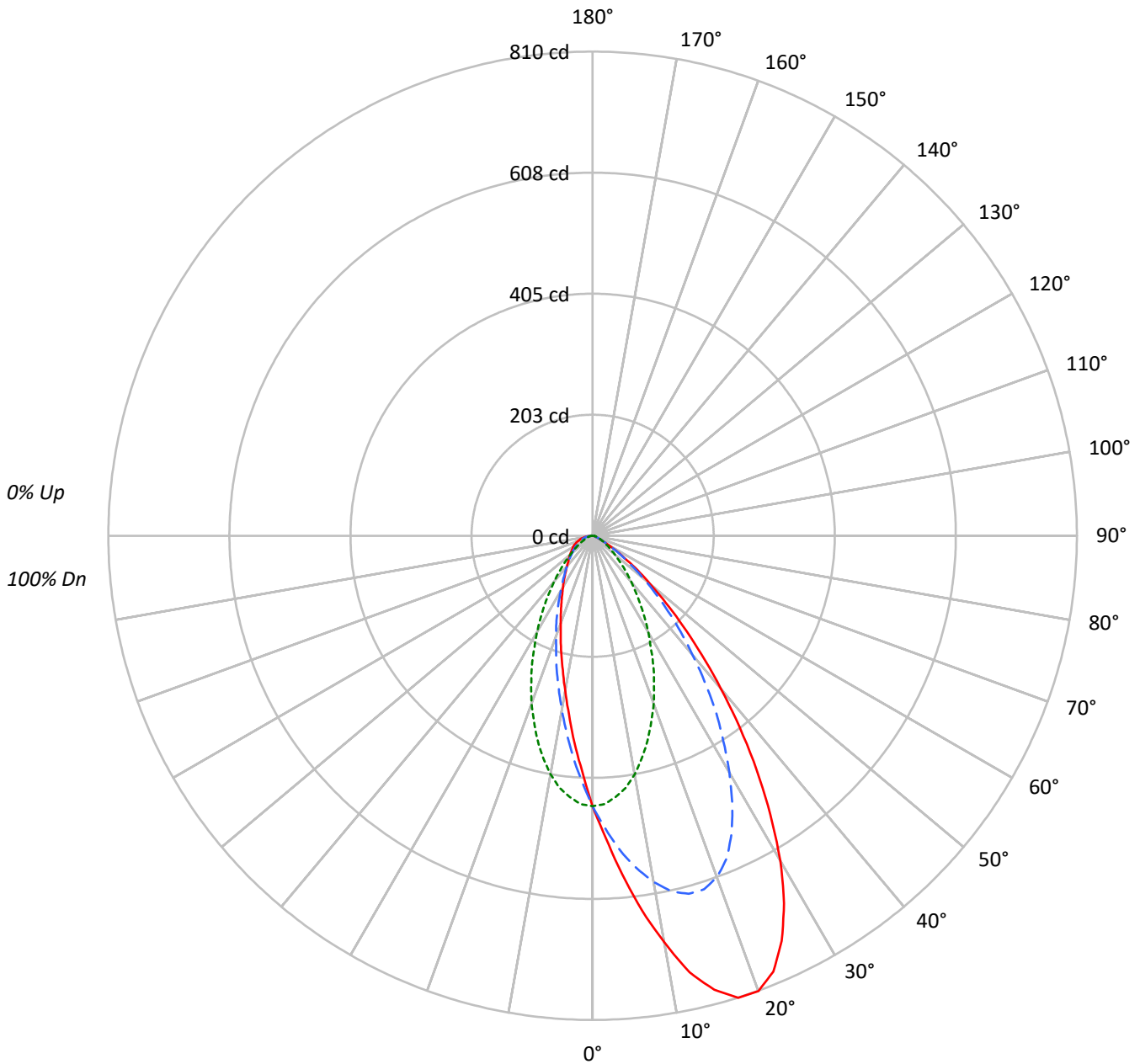
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	175274	175274	175274
5°	220970	170617	135078
10°	271470	159413	103680
15°	315234	142359	81245
20°	334092	123084	64057
25°	319730	102873	52740
30°	280751	83147	44280
35°	226217	65539	38160
40°	168733	50868	33878
45°	116844	38400	30895
50°	75265	28443	29407
55°	44233	21610	28836
60°	23628	17740	29516
65°	11182	13931	29329
70°	5210	12118	29332
75°	6884	11374	31877
80°	6692	10261	30560
85°	6666	13333	27110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	7.0
10°-20°	119.3	19.4
20°-30°	155.7	25.3
30°-40°	134.8	21.9
40°-50°	85.3	13.9
50°-60°	42.7	7.0
60°-70°	19.7	3.2
70°-80°	10.5	1.7
80°-90°	3.4	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°	317.8	51.7
0°-40°	452.5	73.7
0°-60°	580.6	94.5
0°-90°	614.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	452	452	452	452	452	
5°	568	529	439	372	347	58
15°	786	620	355	232	203	221
25°	748	550	241	139	123	339
35°	478	360	139	84	81	297
45°	213	178	70	55	56	168
55°	66	61	32	37	43	63
65°	12	14	15	26	32	14
75°	5	5	8	15	21	4
85°	2	2	3	5	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°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	505.8	508.9	508.9	510.4	504.3	505.8	505.8	502.8	498.2	495.1	490.6
5°	568.3	568.3	566.8	568.3	563.7	560.7	562.2	556.1	543.9	537.8	528.7
7.5°	632.3	629.2	629.2	627.7	620.1	615.5	614.0	603.3	586.6	574.4	560.7
10°	690.2	690.2	687.1	684.1	673.4	667.3	662.7	646.0	627.7	607.9	588.1
12.5°	748.1	745.0	740.4	734.3	719.1	713.0	705.4	685.6	658.2	635.3	609.4
15°	786.1	787.7	780.0	772.4	755.7	746.5	737.4	713.0	681.0	652.1	620.1
17.5°	810.5	809.0	801.4	792.2	774.0	763.3	752.6	723.7	690.2	655.1	620.1
20°	810.5	810.5	801.4	792.2	772.4	760.2	749.6	719.1	682.5	646.0	607.9
22.5°	789.2	786.1	780.0	770.9	751.1	740.4	728.2	697.8	659.7	624.6	585.0
25°	748.1	748.1	740.4	729.8	713.0	700.8	690.2	659.7	623.1	588.1	550.0
27.5°	693.2	691.7	684.1	676.4	658.2	649.0	638.4	609.4	577.4	545.4	505.8
30°	627.7	624.6	621.6	609.4	597.2	589.6	580.5	554.6	522.6	492.1	457.1
32.5°	553.0	557.6	550.0	542.4	531.7	524.1	516.5	496.7	467.7	440.3	406.8
35°	478.4	481.4	476.9	470.8	460.1	455.5	447.9	431.2	409.8	383.9	359.6
37.5°	403.7	403.7	403.7	399.2	393.1	388.5	383.9	368.7	350.4	330.6	307.8
40°	333.7	338.2	332.1	330.6	326.0	324.5	319.9	309.3	294.0	280.3	259.0
42.5°	269.7	269.7	271.2	268.1	266.6	263.6	260.5	254.4	243.8	231.6	217.9
45°	213.3	214.8	216.3	211.8	211.8	211.8	210.2	204.2	195.0	187.4	178.3
47.5°	166.1	166.1	167.6	166.1	166.1	166.1	163.0	163.0	156.9	149.3	141.7
50°	124.9	126.5	128.0	128.0	128.0	126.5	126.5	123.4	120.4	117.3	109.7
52.5°	94.5	94.5	92.9	94.5	94.5	94.5	94.5	92.9	91.4	88.4	83.8
55°	65.5	65.5	67.0	67.0	67.0	68.6	68.6	68.6	67.0	65.5	60.9
57.5°	45.7	45.7	45.7	47.2	48.8	48.8	48.8	48.8	47.2	45.7	44.2
60°	30.5	30.5	30.5	32.0	32.0	32.0	32.0	33.5	32.0	32.0	30.5
62.5°	19.8	19.8	19.8	19.8	19.8	21.3	21.3	21.3	21.3	21.3	19.8
65°	12.2	12.2	12.2	12.2	12.2	12.2	13.7	13.7	13.7	13.7	13.7
67.5°	7.6	7.6	7.6	7.6	7.6	9.1	9.1	9.1	9.1	9.1	9.1
70°	4.6	4.6	4.6	4.6	6.1	6.1	6.1	6.1	6.1	6.1	6.1
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
75°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.6	4.6
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	3.0	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°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	490.6	484.5	481.4	473.8	472.3	466.2	466.2	460.1	452.5	449.4	441.8
5°	522.6	510.4	504.3	490.6	486.0	476.9	472.3	460.1	447.9	438.8	428.1
7.5°	550.0	531.7	519.5	501.2	493.6	479.9	470.8	455.5	438.8	425.1	409.8
10°	571.3	546.9	528.7	504.3	495.1	478.4	464.7	443.3	422.0	405.3	387.0
12.5°	585.0	556.1	530.2	501.2	489.1	470.8	451.0	426.6	402.2	380.9	361.1
15°	591.1	556.1	525.6	490.6	476.9	457.1	434.2	405.3	377.8	355.0	333.7
17.5°	586.6	545.4	513.4	473.8	458.6	435.7	409.8	379.4	350.4	326.0	304.7
20°	571.3	528.7	492.1	451.0	434.2	411.4	382.4	351.9	323.0	298.6	275.8
22.5°	545.4	501.2	463.2	422.0	405.3	382.4	351.9	321.5	292.5	268.1	246.8
25°	513.4	466.2	428.1	388.5	370.2	350.4	319.9	289.5	262.0	240.7	219.4
27.5°	470.8	429.6	391.5	351.9	335.2	316.9	286.4	259.0	231.6	210.2	192.0
30°	425.1	385.5	353.5	315.4	300.1	281.9	256.0	228.5	205.7	185.9	169.1
32.5°	379.4	341.3	310.8	278.8	265.1	246.8	224.0	199.6	178.3	161.5	147.8
35°	332.1	300.1	271.2	240.7	230.1	214.8	193.5	172.2	153.9	138.6	124.9
37.5°	284.9	259.0	233.1	208.7	196.5	184.3	164.5	146.3	129.5	117.3	106.6
40°	242.2	219.4	198.1	175.2	164.5	155.4	138.6	123.4	111.2	100.6	91.4
42.5°	201.1	182.8	164.5	146.3	137.1	129.5	115.8	102.1	91.4	83.8	76.2
45°	164.5	150.8	135.6	118.8	114.3	105.1	94.5	85.3	76.2	70.1	64.0
47.5°	132.5	120.4	108.2	96.0	91.4	85.3	76.2	68.6	62.5	57.9	53.3
50°	103.6	94.5	86.8	76.2	73.1	67.0	60.9	54.8	50.3	47.2	44.2
52.5°	79.2	71.6	65.5	59.4	56.4	53.3	47.2	44.2	41.1	39.6	38.1
55°	57.9	53.3	48.8	44.2	42.7	39.6	36.6	33.5	32.0	32.0	32.0
57.5°	41.1	38.1	35.0	32.0	32.0	30.5	28.9	27.4	25.9	25.9	25.9
60°	28.9	27.4	25.9	24.4	22.9	22.9	21.3	22.9	21.3	22.9	22.9
62.5°	19.8	18.3	18.3	16.8	16.8	16.8	16.8	16.8	18.3	18.3	19.8
65°	12.2	12.2	12.2	12.2	12.2	12.2	13.7	13.7	13.7	15.2	15.2
67.5°	9.1	9.1	9.1	10.7	10.7	10.7	10.7	12.2	12.2	12.2	13.7
70°	6.1	7.6	7.6	7.6	7.6	7.6	9.1	9.1	9.1	10.7	10.7
72.5°	6.1	6.1	6.1	6.1	6.1	6.1	7.6	7.6	7.6	9.1	9.1
75°	4.6	6.1	6.1	6.1	6.1	6.1	6.1	7.6	7.6	7.6	9.1
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1	6.1	6.1	6.1
80°	3.0	3.0	3.0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.1
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	1.5	3.0	3.0
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°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	438.8	434.2	435.7	426.6	428.1	422.0	419.0	414.4	411.4	406.8	408.3
5°	420.5	412.9	409.8	399.2	400.7	391.5	385.5	377.8	371.7	364.1	362.6
7.5°	397.6	385.5	380.9	370.2	368.7	356.5	348.9	339.7	332.1	324.5	321.5
10°	371.7	358.0	348.9	338.2	336.7	323.0	313.8	304.7	295.6	287.9	284.9
12.5°	344.3	329.1	318.4	306.2	303.2	291.0	280.3	271.2	262.0	254.4	249.9
15°	315.4	298.6	287.9	275.8	272.7	259.0	249.9	239.2	231.6	224.0	220.9
17.5°	286.4	269.7	257.5	246.8	243.8	230.1	219.4	211.8	202.6	198.1	193.5
20°	257.5	240.7	228.5	219.4	214.8	204.2	193.5	185.9	178.3	173.7	169.1
22.5°	228.5	213.3	202.6	193.5	190.4	179.8	170.6	163.0	158.4	152.4	149.3
25°	202.6	187.4	178.3	169.1	166.1	156.9	150.8	143.2	138.6	134.1	131.0
27.5°	178.3	164.5	155.4	147.8	146.3	138.6	131.0	126.5	121.9	118.8	117.3
30°	153.9	143.2	135.6	129.5	128.0	120.4	114.3	111.2	106.6	105.1	103.6
32.5°	135.6	124.9	118.8	112.7	111.2	105.1	102.1	97.5	94.5	92.9	92.9
35°	115.8	108.2	102.1	99.0	97.5	92.9	88.4	86.8	83.8	82.3	82.3
37.5°	99.0	92.9	88.4	83.8	83.8	80.7	77.7	76.2	74.7	74.7	73.1
40°	85.3	79.2	77.7	74.7	73.1	71.6	70.1	68.6	67.0	67.0	67.0
42.5°	71.6	68.6	65.5	64.0	64.0	62.5	60.9	60.9	59.4	60.9	60.9
45°	60.9	57.9	56.4	54.8	56.4	54.8	54.8	53.3	54.8	54.8	54.8
47.5°	51.8	50.3	48.8	48.8	48.8	48.8	48.8	48.8	48.8	50.3	50.3
50°	44.2	42.7	42.7	42.7	42.7	42.7	44.2	44.2	44.2	45.7	45.7
52.5°	36.6	36.6	36.6	36.6	38.1	38.1	39.6	39.6	41.1	41.1	42.7
55°	32.0	32.0	32.0	32.0	33.5	33.5	35.0	36.6	36.6	38.1	39.6
57.5°	27.4	27.4	28.9	28.9	30.5	30.5	32.0	33.5	33.5	35.0	36.6
60°	22.9	24.4	25.9	25.9	25.9	27.4	28.9	30.5	30.5	32.0	33.5
62.5°	19.8	21.3	22.9	22.9	22.9	24.4	25.9	27.4	27.4	28.9	30.5
65°	16.8	18.3	19.8	19.8	19.8	21.3	22.9	24.4	25.9	25.9	27.4
67.5°	15.2	15.2	16.8	16.8	18.3	19.8	19.8	21.3	22.9	24.4	25.9
70°	12.2	13.7	15.2	15.2	15.2	16.8	18.3	19.8	19.8	21.3	22.9
72.5°	10.7	10.7	12.2	12.2	13.7	15.2	15.2	16.8	18.3	18.3	19.8
75°	9.1	10.7	10.7	10.7	12.2	12.2	13.7	15.2	15.2	16.8	16.8
77.5°	7.6	7.6	9.1	9.1	9.1	10.7	10.7	12.2	12.2	13.7	13.7
80°	6.1	6.1	7.6	7.6	7.6	7.6	9.1	9.1	10.7	10.7	10.7
82.5°	4.6	4.6	4.6	4.6	6.1	6.1	6.1	6.1	7.6	7.6	7.6
85°	3.0	3.0	3.0	3.0	3.0	4.6	4.6	4.6	4.6	4.6	6.1
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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	403.7	403.7	402.2	400.7	399.2	397.6	396.1	394.6
5°	358.0	359.6	353.5	351.9	351.9	348.9	350.4	347.4
7.5°	315.4	315.4	310.8	309.3	307.8	304.7	303.2	301.7
10°	277.3	275.8	272.7	271.2	268.1	266.6	266.6	263.6
12.5°	243.8	242.2	239.2	237.7	234.6	233.1	231.6	230.1
15°	214.8	213.3	210.2	208.7	207.2	204.2	204.2	202.6
17.5°	187.4	185.9	184.3	181.3	181.3	178.3	176.7	176.7
20°	166.1	164.5	161.5	160.0	160.0	158.4	158.4	155.4
22.5°	146.3	144.7	143.2	141.7	141.7	140.2	138.6	138.6
25°	129.5	128.0	126.5	126.5	124.9	123.4	123.4	123.4
27.5°	114.3	114.3	112.7	112.7	112.7	111.2	111.2	109.7
30°	102.1	102.1	100.6	100.6	100.6	99.0	100.6	99.0
32.5°	91.4	91.4	91.4	91.4	91.4	89.9	89.9	89.9
35°	82.3	82.3	82.3	82.3	82.3	80.7	82.3	80.7
37.5°	73.1	74.7	73.1	73.1	74.7	73.1	73.1	73.1
40°	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
42.5°	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
45°	54.8	56.4	56.4	56.4	56.4	56.4	56.4	56.4
47.5°	51.8	51.8	51.8	51.8	53.3	51.8	53.3	53.3
50°	47.2	47.2	47.2	48.8	48.8	48.8	48.8	48.8
52.5°	44.2	44.2	44.2	44.2	45.7	45.7	45.7	45.7
55°	39.6	41.1	41.1	41.1	42.7	42.7	42.7	42.7
57.5°	38.1	38.1	38.1	39.6	39.6	39.6	41.1	39.6
60°	35.0	35.0	36.6	36.6	36.6	38.1	38.1	38.1
62.5°	32.0	33.5	33.5	33.5	33.5	35.0	35.0	35.0
65°	28.9	30.5	30.5	30.5	32.0	32.0	32.0	32.0
67.5°	25.9	27.4	27.4	28.9	28.9	28.9	28.9	28.9
70°	22.9	24.4	24.4	24.4	25.9	25.9	25.9	25.9
72.5°	21.3	21.3	21.3	22.9	22.9	22.9	24.4	22.9
75°	18.3	19.8	19.8	19.8	19.8	19.8	21.3	21.3
77.5°	15.2	15.2	15.2	15.2	16.8	16.8	16.8	16.8
80°	12.2	12.2	12.2	12.2	13.7	13.7	13.7	13.7
82.5°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
85°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)