

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: P226252

Luminaire Tested: **LD2B10D010 EU2B10WW9040 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226252
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 EU2B10WW9040 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: 627.3 lumens
Efficiency: N/A
Efficacy: 60.9 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

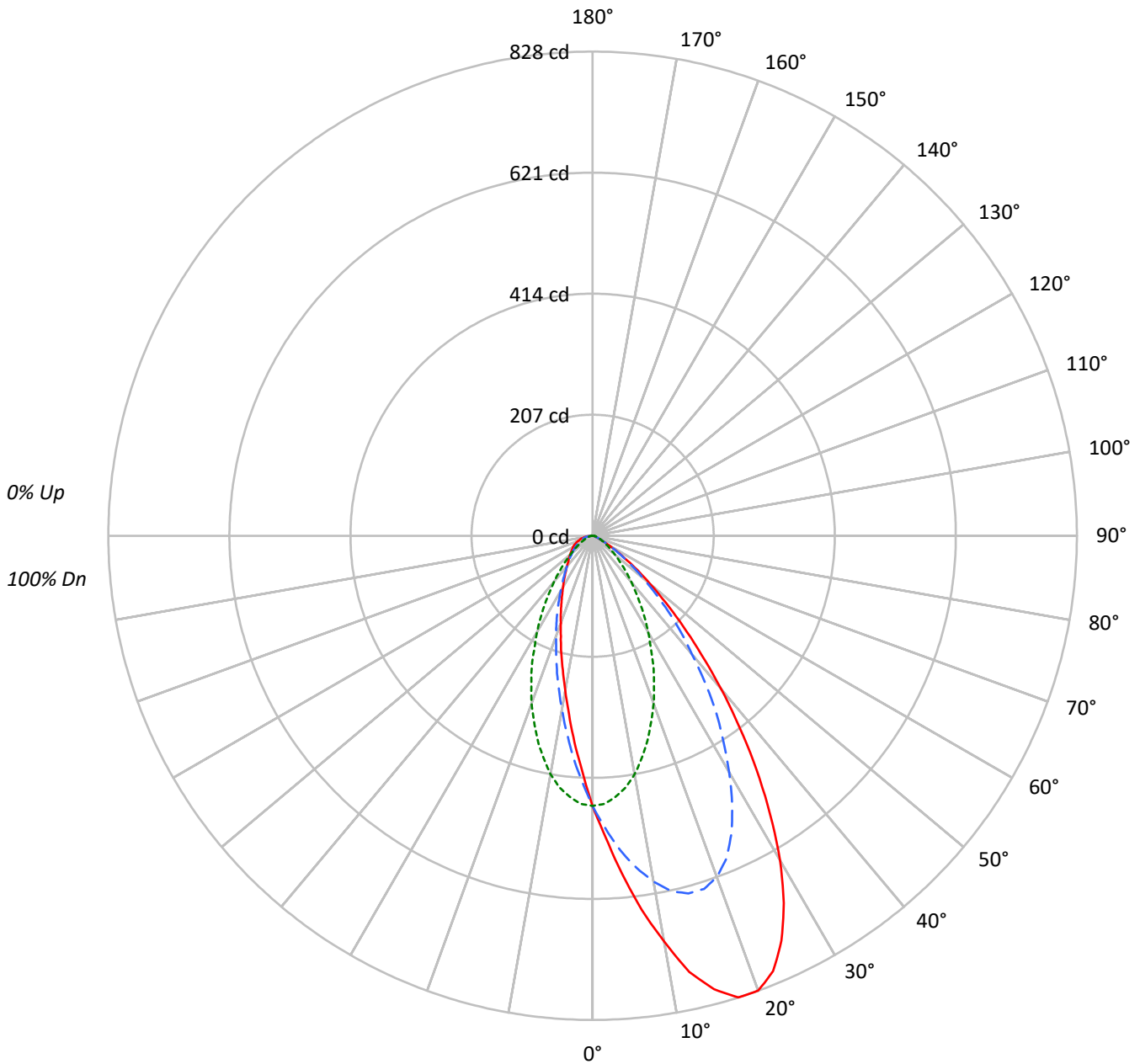
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	178993	178993	178993
5°	225674	174233	137955
10°	277213	162796	105882
15°	321971	145366	82969
20°	341223	125723	65417
25°	326525	105052	53851
30°	286699	84892	45219
35°	231040	66957	39011
40°	172273	51930	34637
45°	119309	39222	31553
50°	76892	29045	30010
55°	45179	22083	29444
60°	24093	18050	30136
65°	11365	14298	29971
70°	5323	12345	30012
75°	7034	11673	32626
80°	6915	10484	31229
85°	7111	13777	27555



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	7.0
10°-20°	121.9	19.4
20°-30°	159.0	25.3
30°-40°	137.6	21.9
40°-50°	87.1	13.9
50°-60°	43.6	7.0
60°-70°	20.1	3.2
70°-80°	10.8	1.7
80°-90°	3.5	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°	324.5	51.7
0°-40°	462.1	73.7
0°-60°	592.9	94.5
0°-90°	627.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	627.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	462	462	462	462	462	
5°	580	540	448	380	355	59
15°	803	633	362	236	207	226
25°	764	562	246	142	126	346
35°	489	367	142	86	82	304
45°	218	182	72	56	58	171
55°	67	62	33	37	44	64
65°	12	14	16	26	33	14
75°	5	5	8	16	22	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°	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1
2.5°	516.6	519.7	519.7	521.2	515.0	516.6	516.6	513.5	508.8	505.7	501.0
5°	580.4	580.4	578.8	580.4	575.7	572.6	574.1	567.9	555.5	549.2	539.9
7.5°	645.7	642.6	642.6	641.0	633.3	628.6	627.0	616.1	599.0	586.6	572.6
10°	704.8	704.8	701.7	698.6	687.7	681.5	676.8	659.7	641.0	620.8	600.6
12.5°	764.0	760.8	756.2	750.0	734.4	728.2	720.4	700.2	672.2	648.8	622.4
15°	802.9	804.4	796.6	788.9	771.7	762.4	753.1	728.2	695.5	665.9	633.3
17.5°	827.8	826.2	818.4	809.1	790.4	779.5	768.6	739.1	704.8	669.0	633.3
20°	827.8	827.8	818.4	809.1	788.9	776.4	765.5	734.4	697.1	659.7	620.8
22.5°	806.0	802.9	796.6	787.3	767.1	756.2	743.7	712.6	673.7	637.9	597.5
25°	764.0	764.0	756.2	745.3	728.2	715.7	704.8	673.7	636.4	600.6	561.7
27.5°	707.9	706.4	698.6	690.8	672.2	662.8	651.9	622.4	589.7	557.0	516.6
30°	641.0	637.9	634.8	622.4	609.9	602.1	592.8	566.4	533.7	502.6	466.8
32.5°	564.8	569.5	561.7	553.9	543.0	535.2	527.5	507.2	477.7	449.7	415.4
35°	488.6	491.7	487.0	480.8	469.9	465.2	457.4	440.3	418.5	392.1	367.2
37.5°	412.3	412.3	412.3	407.7	401.4	396.8	392.1	376.5	357.9	337.6	314.3
40°	340.7	345.4	339.2	337.6	333.0	331.4	326.7	315.9	300.3	286.3	264.5
42.5°	275.4	275.4	277.0	273.8	272.3	269.2	266.1	259.8	248.9	236.5	222.5
45°	217.8	219.4	220.9	216.3	216.3	216.3	214.7	208.5	199.2	191.4	182.0
47.5°	169.6	169.6	171.2	169.6	169.6	169.6	166.5	166.5	160.3	152.5	144.7
50°	127.6	129.1	130.7	130.7	130.7	129.1	129.1	126.0	122.9	119.8	112.0
52.5°	96.5	96.5	94.9	96.5	96.5	96.5	96.5	94.9	93.4	90.2	85.6
55°	66.9	66.9	68.5	68.5	68.5	70.0	70.0	70.0	68.5	66.9	62.2
57.5°	46.7	46.7	46.7	48.2	49.8	49.8	49.8	49.8	48.2	46.7	45.1
60°	31.1	31.1	31.1	32.7	32.7	32.7	32.7	34.2	32.7	32.7	31.1
62.5°	20.2	20.2	20.2	20.2	20.2	21.8	21.8	21.8	21.8	21.8	20.2
65°	12.4	12.4	12.4	12.4	12.4	12.4	14.0	14.0	14.0	14.0	14.0
67.5°	7.8	7.8	7.8	7.8	7.8	9.3	9.3	9.3	9.3	9.3	9.3
70°	4.7	4.7	4.7	4.7	6.2	6.2	6.2	6.2	6.2	6.2	6.2
72.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
75°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.7	4.7	4.7
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1	1.6
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1
2.5°	501.0	494.8	491.7	483.9	482.3	476.1	476.1	469.9	462.1	459.0	451.2
5°	533.7	521.2	515.0	501.0	496.3	487.0	482.3	469.9	457.4	448.1	437.2
7.5°	561.7	543.0	530.6	511.9	504.1	490.1	480.8	465.2	448.1	434.1	418.5
10°	583.5	558.6	539.9	515.0	505.7	488.6	474.6	452.8	431.0	413.9	395.2
12.5°	597.5	567.9	541.5	511.9	499.5	480.8	460.6	435.7	410.8	389.0	368.8
15°	603.7	567.9	536.8	501.0	487.0	466.8	443.4	413.9	385.9	362.5	340.7
17.5°	599.0	557.0	524.3	483.9	468.3	445.0	418.5	387.4	357.9	333.0	311.2
20°	583.5	539.9	502.6	460.6	443.4	420.1	390.5	359.4	329.9	305.0	281.6
22.5°	557.0	511.9	473.0	431.0	413.9	390.5	359.4	328.3	298.7	273.8	252.1
25°	524.3	476.1	437.2	396.8	378.1	357.9	326.7	295.6	267.6	245.8	224.1
27.5°	480.8	438.8	399.9	359.4	342.3	323.6	292.5	264.5	236.5	214.7	196.0
30°	434.1	393.6	361.0	322.1	306.5	287.8	261.4	233.4	210.0	189.8	172.7
32.5°	387.4	348.5	317.4	284.7	270.7	252.1	228.7	203.8	182.0	164.9	150.9
35°	339.2	306.5	277.0	245.8	234.9	219.4	197.6	175.8	157.1	141.6	127.6
37.5°	291.0	264.5	238.1	213.2	200.7	188.3	168.0	149.4	132.3	119.8	108.9
40°	247.4	224.1	202.3	178.9	168.0	158.7	141.6	126.0	113.6	102.7	93.4
42.5°	205.4	186.7	168.0	149.4	140.0	132.3	118.3	104.2	93.4	85.6	77.8
45°	168.0	154.0	138.5	121.4	116.7	107.4	96.5	87.1	77.8	71.6	65.3
47.5°	135.4	122.9	110.5	98.0	93.4	87.1	77.8	70.0	63.8	59.1	54.5
50°	105.8	96.5	88.7	77.8	74.7	68.5	62.2	56.0	51.3	48.2	45.1
52.5°	80.9	73.1	66.9	60.7	57.6	54.5	48.2	45.1	42.0	40.5	38.9
55°	59.1	54.5	49.8	45.1	43.6	40.5	37.3	34.2	32.7	32.7	32.7
57.5°	42.0	38.9	35.8	32.7	32.7	31.1	29.6	28.0	26.5	26.5	26.5
60°	29.6	28.0	26.5	24.9	23.3	23.3	21.8	23.3	21.8	23.3	23.3
62.5°	20.2	18.7	18.7	17.1	17.1	17.1	17.1	17.1	18.7	18.7	20.2
65°	12.4	12.4	12.4	12.4	12.4	12.4	14.0	14.0	14.0	15.6	15.6
67.5°	9.3	9.3	9.3	10.9	10.9	10.9	10.9	12.4	12.4	12.4	14.0
70°	6.2	7.8	7.8	7.8	7.8	7.8	9.3	9.3	9.3	10.9	10.9
72.5°	6.2	6.2	6.2	6.2	6.2	6.2	7.8	7.8	7.8	9.3	9.3
75°	4.7	6.2	6.2	6.2	6.2	6.2	6.2	7.8	7.8	7.8	9.3
77.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	6.2	6.2	6.2	6.2
80°	3.1	3.1	3.1	4.7	4.7	4.7	4.7	4.7	4.7	4.7	6.2
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.7
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	1.6	3.1	3.1
87.5°	0.0	0.0	0.0	1.6	0.0	1.6	1.6	1.6	1.6	1.6	1.6
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°	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1
2.5°	448.1	443.4	445.0	435.7	437.2	431.0	427.9	423.2	420.1	415.4	417.0
5°	429.4	421.7	418.5	407.7	409.2	399.9	393.6	385.9	379.6	371.9	370.3
7.5°	406.1	393.6	389.0	378.1	376.5	364.1	356.3	347.0	339.2	331.4	328.3
10°	379.6	365.6	356.3	345.4	343.9	329.9	320.5	311.2	301.8	294.1	291.0
12.5°	351.6	336.1	325.2	312.7	309.6	297.2	286.3	277.0	267.6	259.8	255.2
15°	322.1	305.0	294.1	281.6	278.5	264.5	255.2	244.3	236.5	228.7	225.6
17.5°	292.5	275.4	263.0	252.1	248.9	234.9	224.1	216.3	206.9	202.3	197.6
20°	263.0	245.8	233.4	224.1	219.4	208.5	197.6	189.8	182.0	177.4	172.7
22.5°	233.4	217.8	206.9	197.6	194.5	183.6	174.3	166.5	161.8	155.6	152.5
25°	206.9	191.4	182.0	172.7	169.6	160.3	154.0	146.3	141.6	136.9	133.8
27.5°	182.0	168.0	158.7	150.9	149.4	141.6	133.8	129.1	124.5	121.4	119.8
30°	157.1	146.3	138.5	132.3	130.7	122.9	116.7	113.6	108.9	107.4	105.8
32.5°	138.5	127.6	121.4	115.1	113.6	107.4	104.2	99.6	96.5	94.9	94.9
35°	118.3	110.5	104.2	101.1	99.6	94.9	90.2	88.7	85.6	84.0	84.0
37.5°	101.1	94.9	90.2	85.6	85.6	82.5	79.4	77.8	76.2	76.2	74.7
40°	87.1	80.9	79.4	76.2	74.7	73.1	71.6	70.0	68.5	68.5	68.5
42.5°	73.1	70.0	66.9	65.3	65.3	63.8	62.2	62.2	60.7	62.2	62.2
45°	62.2	59.1	57.6	56.0	57.6	56.0	56.0	54.5	56.0	56.0	56.0
47.5°	52.9	51.3	49.8	49.8	49.8	49.8	49.8	49.8	49.8	51.3	51.3
50°	45.1	43.6	43.6	43.6	43.6	43.6	45.1	45.1	45.1	46.7	46.7
52.5°	37.3	37.3	37.3	37.3	38.9	38.9	40.5	40.5	42.0	42.0	43.6
55°	32.7	32.7	32.7	32.7	34.2	34.2	35.8	37.3	37.3	38.9	40.5
57.5°	28.0	28.0	29.6	29.6	31.1	31.1	32.7	34.2	34.2	35.8	37.3
60°	23.3	24.9	26.5	26.5	26.5	28.0	29.6	31.1	31.1	32.7	34.2
62.5°	20.2	21.8	23.3	23.3	23.3	24.9	26.5	28.0	28.0	29.6	31.1
65°	17.1	18.7	20.2	20.2	20.2	21.8	23.3	24.9	26.5	26.5	28.0
67.5°	15.6	15.6	17.1	17.1	18.7	20.2	20.2	21.8	23.3	24.9	26.5
70°	12.4	14.0	15.6	15.6	15.6	17.1	18.7	20.2	20.2	21.8	23.3
72.5°	10.9	10.9	12.4	12.4	14.0	15.6	15.6	17.1	18.7	18.7	20.2
75°	9.3	10.9	10.9	10.9	12.4	12.4	14.0	15.6	15.6	17.1	17.1
77.5°	7.8	7.8	9.3	9.3	9.3	10.9	10.9	12.4	12.4	14.0	14.0
80°	6.2	6.2	7.8	7.8	7.8	7.8	9.3	9.3	10.9	10.9	10.9
82.5°	4.7	4.7	4.7	4.7	6.2	6.2	6.2	6.2	7.8	7.8	7.8
85°	3.1	3.1	3.1	3.1	3.1	4.7	4.7	4.7	4.7	4.7	6.2
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	462.1	462.1	462.1	462.1	462.1	462.1	462.1	462.1
2.5°	412.3	412.3	410.8	409.2	407.7	406.1	404.5	403.0
5°	365.6	367.2	361.0	359.4	359.4	356.3	357.9	354.8
7.5°	322.1	322.1	317.4	315.9	314.3	311.2	309.6	308.1
10°	283.2	281.6	278.5	277.0	273.8	272.3	272.3	269.2
12.5°	248.9	247.4	244.3	242.7	239.6	238.1	236.5	234.9
15°	219.4	217.8	214.7	213.2	211.6	208.5	208.5	206.9
17.5°	191.4	189.8	188.3	185.2	185.2	182.0	180.5	180.5
20°	169.6	168.0	164.9	163.4	163.4	161.8	161.8	158.7
22.5°	149.4	147.8	146.3	144.7	144.7	143.1	141.6	141.6
25°	132.3	130.7	129.1	129.1	127.6	126.0	126.0	126.0
27.5°	116.7	116.7	115.1	115.1	115.1	113.6	113.6	112.0
30°	104.2	104.2	102.7	102.7	102.7	101.1	102.7	101.1
32.5°	93.4	93.4	93.4	93.4	93.4	91.8	91.8	91.8
35°	84.0	84.0	84.0	84.0	84.0	82.5	84.0	82.5
37.5°	74.7	76.2	74.7	74.7	76.2	74.7	74.7	74.7
40°	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
42.5°	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
45°	56.0	57.6	57.6	57.6	57.6	57.6	57.6	57.6
47.5°	52.9	52.9	52.9	52.9	54.5	52.9	54.5	54.5
50°	48.2	48.2	48.2	49.8	49.8	49.8	49.8	49.8
52.5°	45.1	45.1	45.1	45.1	46.7	46.7	46.7	46.7
55°	40.5	42.0	42.0	42.0	43.6	43.6	43.6	43.6
57.5°	38.9	38.9	38.9	40.5	40.5	40.5	42.0	40.5
60°	35.8	35.8	37.3	37.3	37.3	38.9	38.9	38.9
62.5°	32.7	34.2	34.2	34.2	34.2	35.8	35.8	35.8
65°	29.6	31.1	31.1	31.1	32.7	32.7	32.7	32.7
67.5°	26.5	28.0	28.0	29.6	29.6	29.6	29.6	29.6
70°	23.3	24.9	24.9	24.9	26.5	26.5	26.5	26.5
72.5°	21.8	21.8	21.8	23.3	23.3	23.3	24.9	23.3
75°	18.7	20.2	20.2	20.2	20.2	20.2	21.8	21.8
77.5°	15.6	15.6	15.6	15.6	17.1	17.1	17.1	17.1
80°	12.4	12.4	12.4	12.4	14.0	14.0	14.0	14.0
82.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
85°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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)