

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: P226248

Luminaire Tested: **LD2B10D010 EU2B10WW9024 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226248
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 EU2B10WW9024 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: 526.2 lumens
Efficiency: N/A
Efficacy: 51.1 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

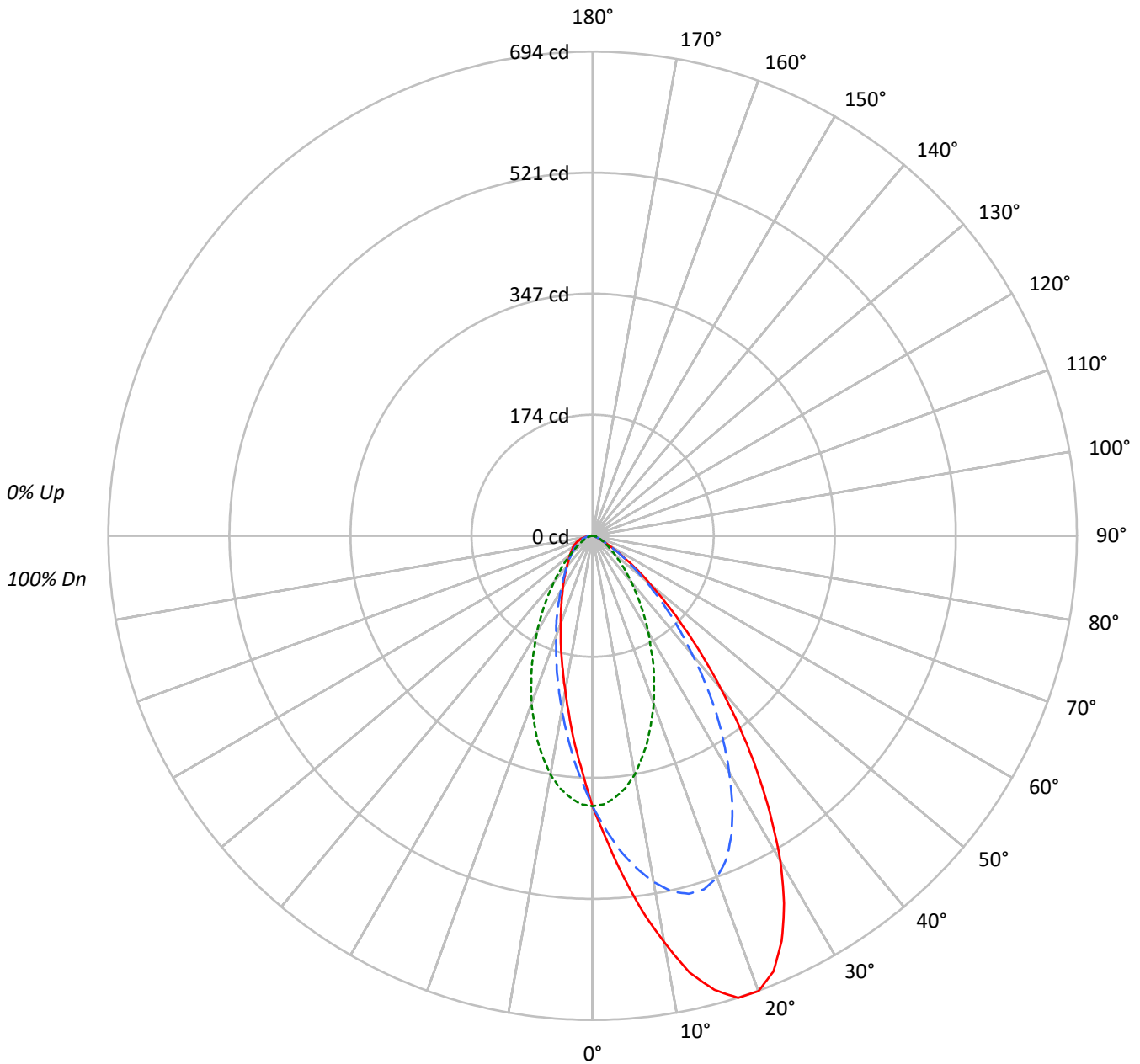
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	150174	150174	150174
5°	189319	146198	115714
10°	232610	136601	88812
15°	270120	121987	69615
20°	286276	105483	54906
25°	273956	88170	45175
30°	240541	71250	37973
35°	193826	56176	32722
40°	144564	43587	29024
45°	100136	32922	26458
50°	64479	24405	25189
55°	37885	18504	24717
60°	20219	15184	25255
65°	9532	12007	25113
70°	4417	10306	25142
75°	5837	9728	27388
80°	5800	8699	26098
85°	5778	11555	23110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.6	7.0
10°-20°	102.3	19.4
20°-30°	133.4	25.3
30°-40°	115.5	21.9
40°-50°	73.1	13.9
50°-60°	36.6	7.0
60°-70°	16.8	3.2
70°-80°	9.0	1.7
80°-90°	2.9	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°	272.3	51.7
0°-40°	387.8	73.7
0°-60°	497.5	94.5
0°-90°	526.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	526.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	388	388	388	388	388	
5°	487	453	376	318	298	50
15°	674	531	304	198	174	189
25°	641	471	206	119	106	290
35°	410	308	119	72	69	255
45°	183	153	60	47	48	144
55°	56	52	27	31	37	54
65°	10	12	13	22	27	12
75°	4	4	6	13	18	4
85°	1	1	3	4	5	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°	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7
2.5°	433.4	436.0	436.0	437.3	432.1	433.4	433.4	430.8	426.9	424.3	420.4
5°	486.9	486.9	485.6	486.9	483.0	480.4	481.7	476.5	466.0	460.8	453.0
7.5°	541.8	539.2	539.2	537.8	531.3	527.4	526.1	517.0	502.6	492.2	480.4
10°	591.4	591.4	588.8	586.2	577.0	571.8	567.9	553.5	537.8	520.9	503.9
12.5°	641.0	638.4	634.5	629.2	616.2	611.0	604.4	587.5	564.0	544.4	522.2
15°	673.6	674.9	668.4	661.9	647.5	639.7	631.8	611.0	583.5	558.7	531.3
17.5°	694.5	693.2	686.7	678.8	663.2	654.0	644.9	620.1	591.4	561.3	531.3
20°	694.5	694.5	686.7	678.8	661.9	651.4	642.3	616.2	584.8	553.5	520.9
22.5°	676.2	673.6	668.4	660.6	643.6	634.5	624.0	597.9	565.3	535.2	501.3
25°	641.0	641.0	634.5	625.3	611.0	600.5	591.4	565.3	533.9	503.9	471.3
27.5°	594.0	592.7	586.2	579.6	564.0	556.1	547.0	522.2	494.8	467.4	433.4
30°	537.8	535.2	532.6	522.2	511.7	505.2	497.4	475.2	447.8	421.7	391.6
32.5°	473.9	477.8	471.3	464.7	455.6	449.1	442.6	425.6	400.8	377.3	348.6
35°	409.9	412.5	408.6	403.4	394.2	390.3	383.8	369.4	351.2	329.0	308.1
37.5°	345.9	345.9	345.9	342.0	336.8	332.9	329.0	315.9	300.3	283.3	263.7
40°	285.9	289.8	284.6	283.3	279.4	278.1	274.1	265.0	252.0	240.2	221.9
42.5°	231.1	231.1	232.4	229.8	228.5	225.8	223.2	218.0	208.9	198.4	186.7
45°	182.8	184.1	185.4	181.5	181.5	181.5	180.2	174.9	167.1	160.6	152.7
47.5°	142.3	142.3	143.6	142.3	142.3	142.3	139.7	139.7	134.5	127.9	121.4
50°	107.0	108.4	109.7	109.7	109.7	108.4	108.4	105.7	103.1	100.5	94.0
52.5°	80.9	80.9	79.6	80.9	80.9	80.9	80.9	79.6	78.3	75.7	71.8
55°	56.1	56.1	57.4	57.4	57.4	58.7	58.7	58.7	57.4	56.1	52.2
57.5°	39.2	39.2	39.2	40.5	41.8	41.8	41.8	41.8	40.5	39.2	37.9
60°	26.1	26.1	26.1	27.4	27.4	27.4	27.4	28.7	27.4	27.4	26.1
62.5°	17.0	17.0	17.0	17.0	17.0	18.3	18.3	18.3	18.3	18.3	17.0
65°	10.4	10.4	10.4	10.4	10.4	10.4	11.7	11.7	11.7	11.7	11.7
67.5°	6.5	6.5	6.5	6.5	6.5	7.8	7.8	7.8	7.8	7.8	7.8
70°	3.9	3.9	3.9	3.9	5.2	5.2	5.2	5.2	5.2	5.2	5.2
72.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
75°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
77.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9	3.9	3.9
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	2.6	1.3
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7
2.5°	420.4	415.1	412.5	406.0	404.7	399.5	399.5	394.2	387.7	385.1	378.6
5°	447.8	437.3	432.1	420.4	416.4	408.6	404.7	394.2	383.8	376.0	366.8
7.5°	471.3	455.6	445.2	429.5	423.0	411.2	403.4	390.3	376.0	364.2	351.2
10°	489.5	468.7	453.0	432.1	424.3	409.9	398.2	379.9	361.6	347.3	331.6
12.5°	501.3	476.5	454.3	429.5	419.1	403.4	386.4	365.5	344.6	326.4	309.4
15°	506.5	476.5	450.4	420.4	408.6	391.6	372.1	347.3	323.8	304.2	285.9
17.5°	502.6	467.4	439.9	406.0	392.9	373.4	351.2	325.1	300.3	279.4	261.1
20°	489.5	453.0	421.7	386.4	372.1	352.5	327.7	301.6	276.8	255.9	236.3
22.5°	467.4	429.5	396.9	361.6	347.3	327.7	301.6	275.5	250.6	229.8	211.5
25°	439.9	399.5	366.8	332.9	317.2	300.3	274.1	248.0	224.5	206.3	188.0
27.5°	403.4	368.1	335.5	301.6	287.2	271.5	245.4	221.9	198.4	180.2	164.5
30°	364.2	330.3	302.9	270.2	257.2	241.5	219.3	195.8	176.2	159.3	144.9
32.5°	325.1	292.4	266.3	238.9	227.1	211.5	191.9	171.0	152.7	138.4	126.6
35°	284.6	257.2	232.4	206.3	197.1	184.1	165.8	147.5	131.9	118.8	107.0
37.5°	244.1	221.9	199.7	178.8	168.4	158.0	141.0	125.3	111.0	100.5	91.4
40°	207.6	188.0	169.7	150.1	141.0	133.2	118.8	105.7	95.3	86.2	78.3
42.5°	172.3	156.7	141.0	125.3	117.5	111.0	99.2	87.5	78.3	71.8	65.3
45°	141.0	129.2	116.2	101.8	97.9	90.1	80.9	73.1	65.3	60.1	54.8
47.5°	113.6	103.1	92.7	82.2	78.3	73.1	65.3	58.7	53.5	49.6	45.7
50°	88.8	80.9	74.4	65.3	62.7	57.4	52.2	47.0	43.1	40.5	37.9
52.5°	67.9	61.4	56.1	50.9	48.3	45.7	40.5	37.9	35.2	33.9	32.6
55°	49.6	45.7	41.8	37.9	36.6	33.9	31.3	28.7	27.4	27.4	27.4
57.5°	35.2	32.6	30.0	27.4	27.4	26.1	24.8	23.5	22.2	22.2	22.2
60°	24.8	23.5	22.2	20.9	19.6	19.6	18.3	19.6	18.3	19.6	19.6
62.5°	17.0	15.7	15.7	14.4	14.4	14.4	14.4	14.4	15.7	15.7	17.0
65°	10.4	10.4	10.4	10.4	10.4	10.4	11.7	11.7	11.7	13.1	13.1
67.5°	7.8	7.8	7.8	9.1	9.1	9.1	9.1	10.4	10.4	10.4	11.7
70°	5.2	6.5	6.5	6.5	6.5	6.5	7.8	7.8	7.8	9.1	9.1
72.5°	5.2	5.2	5.2	5.2	5.2	5.2	6.5	6.5	6.5	7.8	7.8
75°	3.9	5.2	5.2	5.2	5.2	5.2	5.2	6.5	6.5	6.5	7.8
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.2	5.2	5.2	5.2
80°	2.6	2.6	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.2
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.9
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	1.3	2.6	2.6
87.5°	0.0	0.0	0.0	1.3	0.0	1.3	1.3	1.3	1.3	1.3	1.3
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°	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7
2.5°	376.0	372.1	373.4	365.5	366.8	361.6	359.0	355.1	352.5	348.6	349.9
5°	360.3	353.8	351.2	342.0	343.3	335.5	330.3	323.8	318.5	312.0	310.7
7.5°	340.7	330.3	326.4	317.2	315.9	305.5	299.0	291.1	284.6	278.1	275.5
10°	318.5	306.8	299.0	289.8	288.5	276.8	268.9	261.1	253.3	246.7	244.1
12.5°	295.0	282.0	272.8	262.4	259.8	249.3	240.2	232.4	224.5	218.0	214.1
15°	270.2	255.9	246.7	236.3	233.7	221.9	214.1	205.0	198.4	191.9	189.3
17.5°	245.4	231.1	220.6	211.5	208.9	197.1	188.0	181.5	173.6	169.7	165.8
20°	220.6	206.3	195.8	188.0	184.1	174.9	165.8	159.3	152.7	148.8	144.9
22.5°	195.8	182.8	173.6	165.8	163.2	154.0	146.2	139.7	135.8	130.5	127.9
25°	173.6	160.6	152.7	144.9	142.3	134.5	129.2	122.7	118.8	114.9	112.3
27.5°	152.7	141.0	133.2	126.6	125.3	118.8	112.3	108.4	104.4	101.8	100.5
30°	131.9	122.7	116.2	111.0	109.7	103.1	97.9	95.3	91.4	90.1	88.8
32.5°	116.2	107.0	101.8	96.6	95.3	90.1	87.5	83.5	80.9	79.6	79.6
35°	99.2	92.7	87.5	84.9	83.5	79.6	75.7	74.4	71.8	70.5	70.5
37.5°	84.9	79.6	75.7	71.8	71.8	69.2	66.6	65.3	64.0	64.0	62.7
40°	73.1	67.9	66.6	64.0	62.7	61.4	60.1	58.7	57.4	57.4	57.4
42.5°	61.4	58.7	56.1	54.8	54.8	53.5	52.2	52.2	50.9	52.2	52.2
45°	52.2	49.6	48.3	47.0	48.3	47.0	47.0	45.7	47.0	47.0	47.0
47.5°	44.4	43.1	41.8	41.8	41.8	41.8	41.8	41.8	41.8	43.1	43.1
50°	37.9	36.6	36.6	36.6	36.6	36.6	37.9	37.9	37.9	39.2	39.2
52.5°	31.3	31.3	31.3	31.3	32.6	32.6	33.9	33.9	35.2	35.2	36.6
55°	27.4	27.4	27.4	27.4	28.7	28.7	30.0	31.3	31.3	32.6	33.9
57.5°	23.5	23.5	24.8	24.8	26.1	26.1	27.4	28.7	28.7	30.0	31.3
60°	19.6	20.9	22.2	22.2	22.2	23.5	24.8	26.1	26.1	27.4	28.7
62.5°	17.0	18.3	19.6	19.6	19.6	20.9	22.2	23.5	23.5	24.8	26.1
65°	14.4	15.7	17.0	17.0	17.0	18.3	19.6	20.9	22.2	22.2	23.5
67.5°	13.1	13.1	14.4	14.4	15.7	17.0	17.0	18.3	19.6	20.9	22.2
70°	10.4	11.7	13.1	13.1	13.1	14.4	15.7	17.0	17.0	18.3	19.6
72.5°	9.1	9.1	10.4	10.4	11.7	13.1	13.1	14.4	15.7	15.7	17.0
75°	7.8	9.1	9.1	9.1	10.4	10.4	11.7	13.1	13.1	14.4	14.4
77.5°	6.5	6.5	7.8	7.8	7.8	9.1	9.1	10.4	10.4	11.7	11.7
80°	5.2	5.2	6.5	6.5	6.5	6.5	7.8	7.8	9.1	9.1	9.1
82.5°	3.9	3.9	3.9	3.9	5.2	5.2	5.2	5.2	6.5	6.5	6.5
85°	2.6	2.6	2.6	2.6	2.6	3.9	3.9	3.9	3.9	3.9	5.2
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: LD2B10D010 EU2B10WW9024 2LBSW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	387.7	387.7	387.7	387.7	387.7	387.7	387.7	387.7
2.5°	345.9	345.9	344.6	343.3	342.0	340.7	339.4	338.1
5°	306.8	308.1	302.9	301.6	301.6	299.0	300.3	297.6
7.5°	270.2	270.2	266.3	265.0	263.7	261.1	259.8	258.5
10°	237.6	236.3	233.7	232.4	229.8	228.5	228.5	225.8
12.5°	208.9	207.6	205.0	203.7	201.0	199.7	198.4	197.1
15°	184.1	182.8	180.2	178.8	177.5	174.9	174.9	173.6
17.5°	160.6	159.3	158.0	155.3	155.3	152.7	151.4	151.4
20°	142.3	141.0	138.4	137.1	137.1	135.8	135.8	133.2
22.5°	125.3	124.0	122.7	121.4	121.4	120.1	118.8	118.8
25°	111.0	109.7	108.4	108.4	107.0	105.7	105.7	105.7
27.5°	97.9	97.9	96.6	96.6	96.6	95.3	95.3	94.0
30°	87.5	87.5	86.2	86.2	86.2	84.9	86.2	84.9
32.5°	78.3	78.3	78.3	78.3	78.3	77.0	77.0	77.0
35°	70.5	70.5	70.5	70.5	70.5	69.2	70.5	69.2
37.5°	62.7	64.0	62.7	62.7	64.0	62.7	62.7	62.7
40°	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
42.5°	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2
45°	47.0	48.3	48.3	48.3	48.3	48.3	48.3	48.3
47.5°	44.4	44.4	44.4	44.4	45.7	44.4	45.7	45.7
50°	40.5	40.5	40.5	41.8	41.8	41.8	41.8	41.8
52.5°	37.9	37.9	37.9	37.9	39.2	39.2	39.2	39.2
55°	33.9	35.2	35.2	35.2	36.6	36.6	36.6	36.6
57.5°	32.6	32.6	32.6	33.9	33.9	33.9	35.2	33.9
60°	30.0	30.0	31.3	31.3	31.3	32.6	32.6	32.6
62.5°	27.4	28.7	28.7	28.7	28.7	30.0	30.0	30.0
65°	24.8	26.1	26.1	26.1	27.4	27.4	27.4	27.4
67.5°	22.2	23.5	23.5	24.8	24.8	24.8	24.8	24.8
70°	19.6	20.9	20.9	20.9	22.2	22.2	22.2	22.2
72.5°	18.3	18.3	18.3	19.6	19.6	19.6	20.9	19.6
75°	15.7	17.0	17.0	17.0	17.0	17.0	18.3	18.3
77.5°	13.1	13.1	13.1	13.1	14.4	14.4	14.4	14.4
80°	10.4	10.4	10.4	10.4	11.7	11.7	11.7	11.7
82.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
85°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)