

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: P226267

Luminaire Tested: **LD2B15D010 EU2B15WW9727 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226267
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: LD2B15D010 EU2B15WW9727 2LBSW*
Description: 1500 Lumen, 2inch Portfolio LED Downlight
WALL WASH OPTIC
WALL WASH LENSED TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 686.7 lumens
Efficiency: N/A
Efficacy: 48.0 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

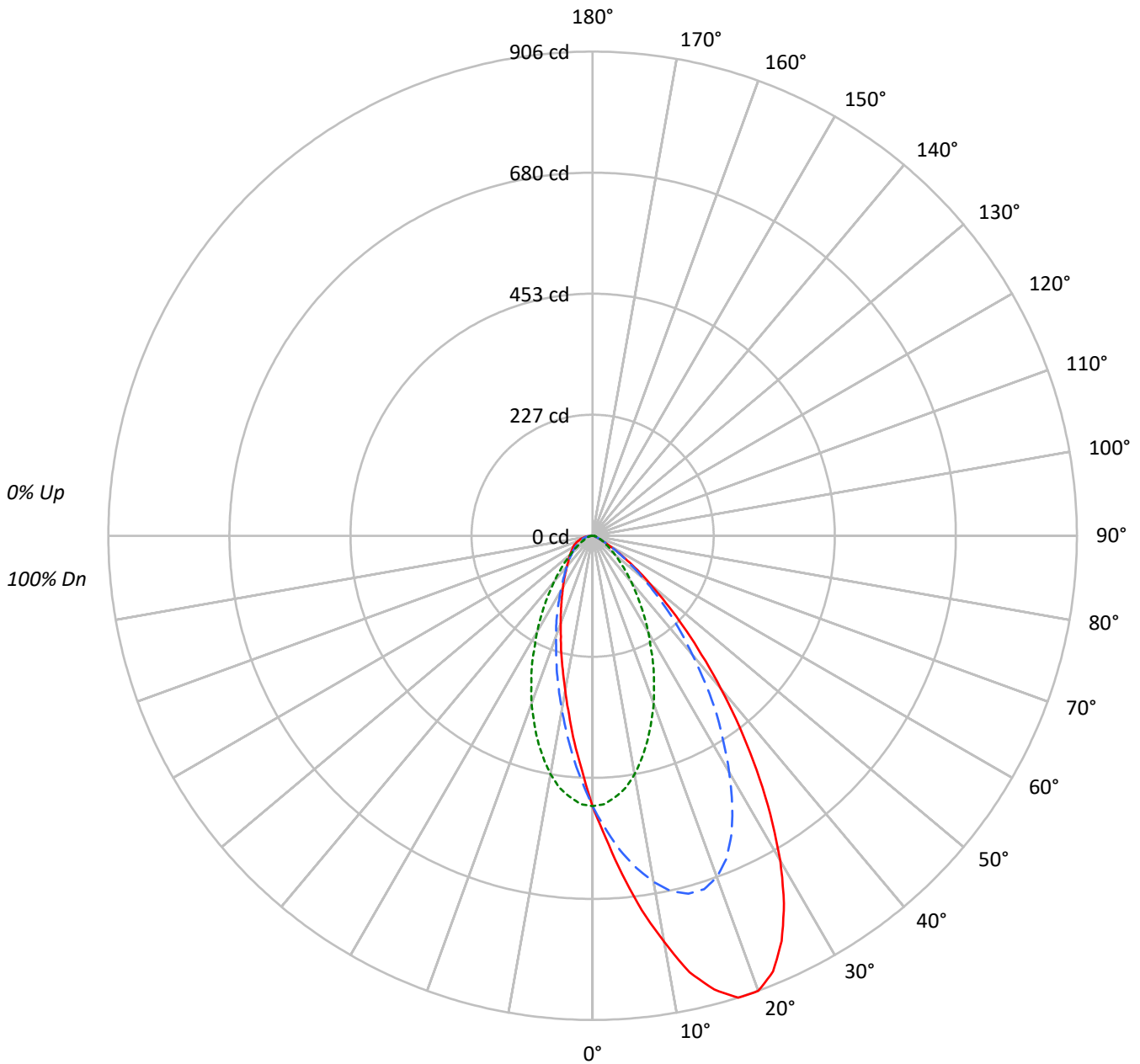
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	195997	195997	195997
5°	247060	190758	151020
10°	303526	178214	115912
15°	352488	159161	90869
20°	373581	137635	71641
25°	357511	115053	58980
30°	313938	92942	49513
35°	252934	73294	42699
40°	188656	56834	37923
45°	130648	42947	34511
50°	84184	31817	32842
55°	49501	24176	32213
60°	26417	19832	33002
65°	12465	15581	32812
70°	5776	13477	32843
75°	7633	12721	35619
80°	7584	11376	34129
85°	7555	15111	30221



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	7.0
10°-20°	133.4	19.4
20°-30°	174.1	25.3
30°-40°	150.7	21.9
40°-50°	95.4	13.9
50°-60°	47.8	7.0
60°-70°	22.0	3.2
70°-80°	11.8	1.7
80°-90°	3.8	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°	355.3	51.7
0°-40°	506.0	73.7
0°-60°	649.2	94.5
0°-90°	686.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	686.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	506	506	506	506	506	
5°	635	591	491	416	388	65
15°	879	693	397	259	227	247
25°	836	615	269	155	138	379
35°	535	402	155	94	90	332
45°	238	199	78	61	63	188
55°	73	68	36	41	48	70
65°	14	15	17	29	36	16
75°	5	5	8	17	24	5
85°	2	2	3	5	7	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°	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0
2.5°	565.6	569.0	569.0	570.7	563.9	565.6	565.6	562.2	557.1	553.7	548.5
5°	635.4	635.4	633.7	635.4	630.3	626.9	628.6	621.8	608.2	601.4	591.1
7.5°	707.0	703.6	703.6	701.9	693.4	688.2	686.5	674.6	655.9	642.2	626.9
10°	771.7	771.7	768.3	764.9	753.0	746.2	741.1	722.3	701.9	679.7	657.6
12.5°	836.5	833.0	827.9	821.1	804.1	797.3	788.8	766.6	735.9	710.4	681.4
15°	879.0	880.7	872.2	863.7	845.0	834.7	824.5	797.3	761.5	729.1	693.4
17.5°	906.3	904.6	896.1	885.9	865.4	853.5	841.6	809.2	771.7	732.5	693.4
20°	906.3	906.3	896.1	885.9	863.7	850.1	838.2	804.1	763.2	722.3	679.7
22.5°	882.4	879.0	872.2	862.0	839.9	827.9	814.3	780.2	737.6	698.5	654.2
25°	836.5	836.5	827.9	816.0	797.3	783.6	771.7	737.6	696.8	657.6	615.0
27.5°	775.1	773.4	764.9	756.4	735.9	725.7	713.8	681.4	645.7	609.9	565.6
30°	701.9	698.5	695.1	681.4	667.8	659.3	649.1	620.1	584.3	550.3	511.1
32.5°	618.4	623.5	615.0	606.5	594.5	586.0	577.5	555.4	523.0	492.3	454.9
35°	534.9	538.3	533.2	526.4	514.5	509.4	500.8	482.1	458.3	429.3	402.0
37.5°	451.4	451.4	451.4	446.3	439.5	434.4	429.3	412.3	391.8	369.7	344.1
40°	373.1	378.2	371.4	369.7	364.6	362.9	357.7	345.8	328.8	313.5	289.6
42.5°	301.5	301.5	303.2	299.8	298.1	294.7	291.3	284.5	272.6	258.9	243.6
45°	238.5	240.2	241.9	236.8	236.8	236.8	235.1	228.3	218.1	209.5	199.3
47.5°	185.7	185.7	187.4	185.7	185.7	185.7	182.3	182.3	175.5	166.9	158.4
50°	139.7	141.4	143.1	143.1	143.1	141.4	141.4	138.0	134.6	131.2	122.7
52.5°	105.6	105.6	103.9	105.6	105.6	105.6	105.6	103.9	102.2	98.8	93.7
55°	73.3	73.3	75.0	75.0	75.0	76.7	76.7	76.7	75.0	73.3	68.1
57.5°	51.1	51.1	51.1	52.8	54.5	54.5	54.5	54.5	52.8	51.1	49.4
60°	34.1	34.1	34.1	35.8	35.8	35.8	35.8	37.5	35.8	35.8	34.1
62.5°	22.1	22.1	22.1	22.1	22.1	23.8	23.8	23.8	23.8	23.8	22.1
65°	13.6	13.6	13.6	13.6	13.6	13.6	15.3	15.3	15.3	15.3	15.3
67.5°	8.5	8.5	8.5	8.5	8.5	10.2	10.2	10.2	10.2	10.2	10.2
70°	5.1	5.1	5.1	5.1	6.8	6.8	6.8	6.8	6.8	6.8	6.8
72.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
75°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	5.1	5.1	5.1
80°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4	1.7
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0
2.5°	548.5	541.7	538.3	529.8	528.1	521.3	521.3	514.5	506.0	502.6	494.0
5°	584.3	570.7	563.9	548.5	543.4	533.2	528.1	514.5	500.8	490.6	478.7
7.5°	615.0	594.5	580.9	560.5	552.0	536.6	526.4	509.4	490.6	475.3	458.3
10°	638.8	611.6	591.1	563.9	553.7	534.9	519.6	495.7	471.9	453.1	432.7
12.5°	654.2	621.8	592.8	560.5	546.8	526.4	504.3	477.0	449.7	425.9	403.7
15°	661.0	621.8	587.7	548.5	533.2	511.1	485.5	453.1	422.5	396.9	373.1
17.5°	655.9	609.9	574.1	529.8	512.8	487.2	458.3	424.2	391.8	364.6	340.7
20°	638.8	591.1	550.3	504.3	485.5	460.0	427.6	393.5	361.2	333.9	308.3
22.5°	609.9	560.5	517.9	471.9	453.1	427.6	393.5	359.5	327.1	299.8	276.0
25°	574.1	521.3	478.7	434.4	414.0	391.8	357.7	323.7	293.0	269.2	245.3
27.5°	526.4	480.4	437.8	393.5	374.8	354.3	320.3	289.6	258.9	235.1	214.6
30°	475.3	431.0	395.2	352.6	335.6	315.2	286.2	255.5	230.0	207.8	189.1
32.5°	424.2	381.6	347.5	311.8	296.4	276.0	250.4	223.2	199.3	180.6	165.2
35°	371.4	335.6	303.2	269.2	257.2	240.2	216.4	192.5	172.1	155.0	139.7
37.5°	318.6	289.6	260.6	233.4	219.8	206.1	184.0	163.5	144.8	131.2	119.2
40°	270.9	245.3	221.5	195.9	184.0	173.8	155.0	138.0	124.4	112.4	102.2
42.5°	224.9	204.4	184.0	163.5	153.3	144.8	129.5	114.1	102.2	93.7	85.2
45°	184.0	168.7	151.6	132.9	127.8	117.5	105.6	95.4	85.2	78.4	71.5
47.5°	148.2	134.6	121.0	107.3	102.2	95.4	85.2	76.7	69.8	64.7	59.6
50°	115.8	105.6	97.1	85.2	81.8	75.0	68.1	61.3	56.2	52.8	49.4
52.5°	88.6	80.1	73.3	66.4	63.0	59.6	52.8	49.4	46.0	44.3	42.6
55°	64.7	59.6	54.5	49.4	47.7	44.3	40.9	37.5	35.8	35.8	35.8
57.5°	46.0	42.6	39.2	35.8	35.8	34.1	32.4	30.7	29.0	29.0	29.0
60°	32.4	30.7	29.0	27.3	25.6	25.6	23.8	25.6	23.8	25.6	25.6
62.5°	22.1	20.4	20.4	18.7	18.7	18.7	18.7	18.7	20.4	20.4	22.1
65°	13.6	13.6	13.6	13.6	13.6	13.6	15.3	15.3	15.3	17.0	17.0
67.5°	10.2	10.2	10.2	11.9	11.9	11.9	11.9	13.6	13.6	13.6	15.3
70°	6.8	8.5	8.5	8.5	8.5	8.5	10.2	10.2	10.2	11.9	11.9
72.5°	6.8	6.8	6.8	6.8	6.8	6.8	8.5	8.5	8.5	10.2	10.2
75°	5.1	6.8	6.8	6.8	6.8	6.8	6.8	8.5	8.5	8.5	10.2
77.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.8	6.8	6.8	6.8
80°	3.4	3.4	3.4	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.8
82.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	5.1
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	1.7	3.4	3.4
87.5°	0.0	0.0	0.0	1.7	0.0	1.7	1.7	1.7	1.7	1.7	1.7
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°	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0
2.5°	490.6	485.5	487.2	477.0	478.7	471.9	468.5	463.4	460.0	454.9	456.6
5°	470.2	461.7	458.3	446.3	448.0	437.8	431.0	422.5	415.7	407.2	405.4
7.5°	444.6	431.0	425.9	414.0	412.3	398.6	390.1	379.9	371.4	362.9	359.5
10°	415.7	400.3	390.1	378.2	376.5	361.2	350.9	340.7	330.5	322.0	318.6
12.5°	385.0	368.0	356.0	342.4	339.0	325.4	313.5	303.2	293.0	284.5	279.4
15°	352.6	333.9	322.0	308.3	304.9	289.6	279.4	267.5	258.9	250.4	247.0
17.5°	320.3	301.5	287.9	276.0	272.6	257.2	245.3	236.8	226.6	221.5	216.4
20°	287.9	269.2	255.5	245.3	240.2	228.3	216.4	207.8	199.3	194.2	189.1
22.5°	255.5	238.5	226.6	216.4	212.9	201.0	190.8	182.3	177.2	170.4	166.9
25°	226.6	209.5	199.3	189.1	185.7	175.5	168.7	160.1	155.0	149.9	146.5
27.5°	199.3	184.0	173.8	165.2	163.5	155.0	146.5	141.4	136.3	132.9	131.2
30°	172.1	160.1	151.6	144.8	143.1	134.6	127.8	124.4	119.2	117.5	115.8
32.5°	151.6	139.7	132.9	126.1	124.4	117.5	114.1	109.0	105.6	103.9	103.9
35°	129.5	121.0	114.1	110.7	109.0	103.9	98.8	97.1	93.7	92.0	92.0
37.5°	110.7	103.9	98.8	93.7	93.7	90.3	86.9	85.2	83.5	83.5	81.8
40°	95.4	88.6	86.9	83.5	81.8	80.1	78.4	76.7	75.0	75.0	75.0
42.5°	80.1	76.7	73.3	71.5	71.5	69.8	68.1	68.1	66.4	68.1	68.1
45°	68.1	64.7	63.0	61.3	63.0	61.3	61.3	59.6	61.3	61.3	61.3
47.5°	57.9	56.2	54.5	54.5	54.5	54.5	54.5	54.5	54.5	56.2	56.2
50°	49.4	47.7	47.7	47.7	47.7	47.7	49.4	49.4	49.4	51.1	51.1
52.5°	40.9	40.9	40.9	40.9	42.6	42.6	44.3	44.3	46.0	46.0	47.7
55°	35.8	35.8	35.8	35.8	37.5	37.5	39.2	40.9	40.9	42.6	44.3
57.5°	30.7	30.7	32.4	32.4	34.1	34.1	35.8	37.5	37.5	39.2	40.9
60°	25.6	27.3	29.0	29.0	29.0	30.7	32.4	34.1	34.1	35.8	37.5
62.5°	22.1	23.8	25.6	25.6	25.6	27.3	29.0	30.7	30.7	32.4	34.1
65°	18.7	20.4	22.1	22.1	22.1	23.8	25.6	27.3	29.0	29.0	30.7
67.5°	17.0	17.0	18.7	18.7	20.4	22.1	22.1	23.8	25.6	27.3	29.0
70°	13.6	15.3	17.0	17.0	17.0	18.7	20.4	22.1	22.1	23.8	25.6
72.5°	11.9	11.9	13.6	13.6	15.3	17.0	17.0	18.7	20.4	20.4	22.1
75°	10.2	11.9	11.9	11.9	13.6	13.6	15.3	17.0	17.0	18.7	18.7
77.5°	8.5	8.5	10.2	10.2	10.2	11.9	11.9	13.6	13.6	15.3	15.3
80°	6.8	6.8	8.5	8.5	8.5	8.5	10.2	10.2	11.9	11.9	11.9
82.5°	5.1	5.1	5.1	5.1	6.8	6.8	6.8	6.8	8.5	8.5	8.5
85°	3.4	3.4	3.4	3.4	3.4	5.1	5.1	5.1	5.1	5.1	6.8
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0
2.5°	451.4	451.4	449.7	448.0	446.3	444.6	442.9	441.2
5°	400.3	402.0	395.2	393.5	393.5	390.1	391.8	388.4
7.5°	352.6	352.6	347.5	345.8	344.1	340.7	339.0	337.3
10°	310.0	308.3	304.9	303.2	299.8	298.1	298.1	294.7
12.5°	272.6	270.9	267.5	265.8	262.3	260.6	258.9	257.2
15°	240.2	238.5	235.1	233.4	231.7	228.3	228.3	226.6
17.5°	209.5	207.8	206.1	202.7	202.7	199.3	197.6	197.6
20°	185.7	184.0	180.6	178.9	178.9	177.2	177.2	173.8
22.5°	163.5	161.8	160.1	158.4	158.4	156.7	155.0	155.0
25°	144.8	143.1	141.4	141.4	139.7	138.0	138.0	138.0
27.5°	127.8	127.8	126.1	126.1	126.1	124.4	124.4	122.7
30°	114.1	114.1	112.4	112.4	112.4	110.7	112.4	110.7
32.5°	102.2	102.2	102.2	102.2	102.2	100.5	100.5	100.5
35°	92.0	92.0	92.0	92.0	92.0	90.3	92.0	90.3
37.5°	81.8	83.5	81.8	81.8	83.5	81.8	81.8	81.8
40°	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
42.5°	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
45°	61.3	63.0	63.0	63.0	63.0	63.0	63.0	63.0
47.5°	57.9	57.9	57.9	57.9	59.6	57.9	59.6	59.6
50°	52.8	52.8	52.8	54.5	54.5	54.5	54.5	54.5
52.5°	49.4	49.4	49.4	49.4	51.1	51.1	51.1	51.1
55°	44.3	46.0	46.0	46.0	47.7	47.7	47.7	47.7
57.5°	42.6	42.6	42.6	44.3	44.3	44.3	46.0	44.3
60°	39.2	39.2	40.9	40.9	40.9	42.6	42.6	42.6
62.5°	35.8	37.5	37.5	37.5	37.5	39.2	39.2	39.2
65°	32.4	34.1	34.1	34.1	35.8	35.8	35.8	35.8
67.5°	29.0	30.7	30.7	32.4	32.4	32.4	32.4	32.4
70°	25.6	27.3	27.3	27.3	29.0	29.0	29.0	29.0
72.5°	23.8	23.8	23.8	25.6	25.6	25.6	27.3	25.6
75°	20.4	22.1	22.1	22.1	22.1	22.1	23.8	23.8
77.5°	17.0	17.0	17.0	17.0	18.7	18.7	18.7	18.7
80°	13.6	13.6	13.6	13.6	15.3	15.3	15.3	15.3
82.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
85°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
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)