

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: P226261

Luminaire Tested: **LD2B15D010 EU2B15WW9024 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226261
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 EU2B15WW9024 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: 708.4 lumens
Efficiency: N/A
Efficacy: 49.5 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

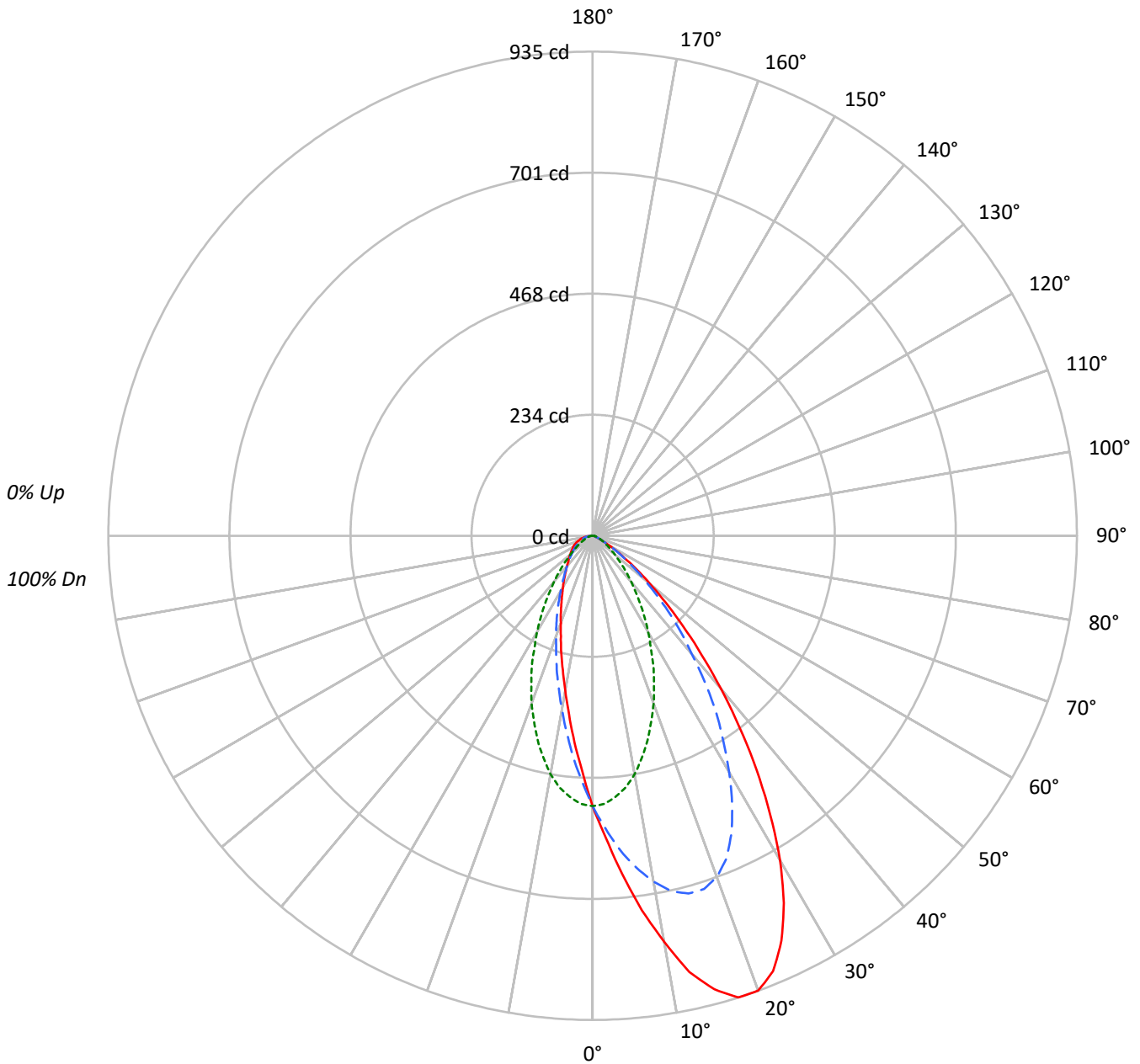
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	202156	202156	202156
5°	254836	196785	155764
10°	313084	183838	119570
15°	363596	164174	93716
20°	385329	141963	73867
25°	368751	118643	60817
30°	323778	95894	51078
35°	260878	75611	44023
40°	194572	58655	39086
45°	134756	44261	35606
50°	86835	32842	33866
55°	51054	24919	33226
60°	27192	20452	34009
65°	12923	16131	33820
70°	6002	13930	33862
75°	7932	13170	36816
80°	7807	11822	35244
85°	8000	15555	31110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	7.0
10°-20°	137.6	19.4
20°-30°	179.5	25.3
30°-40°	155.4	21.9
40°-50°	98.4	13.9
50°-60°	49.3	7.0
60°-70°	22.7	3.2
70°-80°	12.2	1.7
80°-90°	3.9	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°	366.5	51.7
0°-40°	521.9	73.7
0°-60°	669.6	94.5
0°-90°	708.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	708.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	522	522	522	522	522	
5°	655	610	506	429	401	67
15°	907	715	409	267	234	255
25°	863	634	278	160	142	391
35°	552	415	160	97	93	343
45°	246	206	81	63	65	194
55°	76	70	37	42	49	72
65°	14	16	18	30	37	16
75°	5	5	9	18	25	5
85°	2	2	4	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°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	583.4	586.9	586.9	588.6	581.6	583.4	583.4	579.9	574.6	571.1	565.8
5°	655.4	655.4	653.7	655.4	650.1	646.6	648.4	641.4	627.3	620.3	609.7
7.5°	729.2	725.7	725.7	723.9	715.2	709.9	708.1	695.8	676.5	662.4	646.6
10°	796.0	796.0	792.5	789.0	776.7	769.6	764.4	745.0	723.9	701.1	678.3
12.5°	862.8	859.2	854.0	846.9	829.4	822.3	813.6	790.7	759.1	732.7	702.9
15°	906.7	908.4	899.7	890.9	871.5	861.0	850.5	822.3	785.4	752.1	715.2
17.5°	934.8	933.0	924.3	913.7	892.6	880.3	868.0	834.6	796.0	755.6	715.2
20°	934.8	934.8	924.3	913.7	890.9	876.8	864.5	829.4	787.2	745.0	701.1
22.5°	910.2	906.7	899.7	889.1	866.3	854.0	839.9	804.8	760.8	720.4	674.7
25°	862.8	862.8	854.0	841.7	822.3	808.3	796.0	760.8	718.7	678.3	634.3
27.5°	799.5	797.7	789.0	780.2	759.1	748.5	736.2	702.9	666.0	629.1	583.4
30°	723.9	720.4	716.9	702.9	688.8	680.0	669.5	639.6	602.7	567.6	527.1
32.5°	637.8	643.1	634.3	625.5	613.2	604.5	595.7	572.8	539.4	507.8	469.2
35°	551.7	555.3	550.0	543.0	530.7	525.4	516.6	497.3	472.7	442.8	414.7
37.5°	465.6	465.6	465.6	460.4	453.3	448.1	442.8	425.2	404.1	381.3	354.9
40°	384.8	390.1	383.1	381.3	376.0	374.3	369.0	356.7	339.1	323.3	298.7
42.5°	311.0	311.0	312.8	309.3	307.5	304.0	300.5	293.4	281.1	267.1	251.3
45°	246.0	247.8	249.5	244.2	244.2	244.2	242.5	235.5	224.9	216.1	205.6
47.5°	191.5	191.5	193.3	191.5	191.5	191.5	188.0	188.0	181.0	172.2	163.4
50°	144.1	145.8	147.6	147.6	147.6	145.8	145.8	142.3	138.8	135.3	126.5
52.5°	108.9	108.9	107.2	108.9	108.9	108.9	108.9	107.2	105.4	101.9	96.6
55°	75.6	75.6	77.3	77.3	77.3	79.1	79.1	79.1	77.3	75.6	70.3
57.5°	52.7	52.7	52.7	54.5	56.2	56.2	56.2	56.2	54.5	52.7	51.0
60°	35.1	35.1	35.1	36.9	36.9	36.9	36.9	38.7	36.9	36.9	35.1
62.5°	22.8	22.8	22.8	22.8	22.8	24.6	24.6	24.6	24.6	24.6	22.8
65°	14.1	14.1	14.1	14.1	14.1	14.1	15.8	15.8	15.8	15.8	15.8
67.5°	8.8	8.8	8.8	8.8	8.8	10.5	10.5	10.5	10.5	10.5	10.5
70°	5.3	5.3	5.3	5.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0
72.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
75°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.3	5.3	5.3
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.5	3.5	1.8
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	565.8	558.8	555.3	546.5	544.7	537.7	537.7	530.7	521.9	518.4	509.6
5°	602.7	588.6	581.6	565.8	560.5	550.0	544.7	530.7	516.6	506.1	493.8
7.5°	634.3	613.2	599.2	578.1	569.3	553.5	543.0	525.4	506.1	490.2	472.7
10°	658.9	630.8	609.7	581.6	571.1	551.7	535.9	511.3	486.7	467.4	446.3
12.5°	674.7	641.4	611.5	578.1	564.0	543.0	520.1	492.0	463.9	439.3	416.4
15°	681.8	641.4	606.2	565.8	550.0	527.1	500.8	467.4	435.8	409.4	384.8
17.5°	676.5	629.1	592.2	546.5	528.9	502.5	472.7	437.5	404.1	376.0	351.4
20°	658.9	609.7	567.6	520.1	500.8	474.4	441.0	405.9	372.5	344.4	318.0
22.5°	629.1	578.1	534.2	486.7	467.4	441.0	405.9	370.8	337.4	309.3	284.7
25°	592.2	537.7	493.8	448.1	427.0	404.1	369.0	333.9	302.2	277.6	253.0
27.5°	543.0	495.5	451.6	405.9	386.6	365.5	330.3	298.7	267.1	242.5	221.4
30°	490.2	444.6	407.7	363.7	346.2	325.1	295.2	263.6	237.2	214.4	195.0
32.5°	437.5	393.6	358.5	321.6	305.7	284.7	258.3	230.2	205.6	186.3	170.4
35°	383.1	346.2	312.8	277.6	265.3	247.8	223.2	198.6	177.5	159.9	144.1
37.5°	328.6	298.7	268.8	240.7	226.7	212.6	189.8	168.7	149.4	135.3	123.0
40°	279.4	253.0	228.4	202.1	189.8	179.2	159.9	142.3	128.3	116.0	105.4
42.5°	231.9	210.9	189.8	168.7	158.1	149.4	133.5	117.7	105.4	96.6	87.9
45°	189.8	174.0	156.4	137.1	131.8	121.2	108.9	98.4	87.9	80.8	73.8
47.5°	152.9	138.8	124.8	110.7	105.4	98.4	87.9	79.1	72.0	66.8	61.5
50°	119.5	108.9	100.2	87.9	84.3	77.3	70.3	63.3	58.0	54.5	51.0
52.5°	91.4	82.6	75.6	68.5	65.0	61.5	54.5	51.0	47.4	45.7	43.9
55°	66.8	61.5	56.2	51.0	49.2	45.7	42.2	38.7	36.9	36.9	36.9
57.5°	47.4	43.9	40.4	36.9	36.9	35.1	33.4	31.6	29.9	29.9	29.9
60°	33.4	31.6	29.9	28.1	26.4	26.4	24.6	26.4	24.6	26.4	26.4
62.5°	22.8	21.1	21.1	19.3	19.3	19.3	19.3	19.3	21.1	21.1	22.8
65°	14.1	14.1	14.1	14.1	14.1	14.1	15.8	15.8	15.8	17.6	17.6
67.5°	10.5	10.5	10.5	12.3	12.3	12.3	12.3	14.1	14.1	14.1	15.8
70°	7.0	8.8	8.8	8.8	8.8	8.8	10.5	10.5	10.5	12.3	12.3
72.5°	7.0	7.0	7.0	7.0	7.0	7.0	8.8	8.8	8.8	10.5	10.5
75°	5.3	7.0	7.0	7.0	7.0	7.0	7.0	8.8	8.8	8.8	10.5
77.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	7.0	7.0	7.0	7.0
80°	3.5	3.5	3.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3	7.0
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.3
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.5	1.8	3.5	3.5
87.5°	0.0	0.0	0.0	1.8	0.0	1.8	1.8	1.8	1.8	1.8	1.8
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°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	506.1	500.8	502.5	492.0	493.8	486.7	483.2	477.9	474.4	469.2	470.9
5°	485.0	476.2	472.7	460.4	462.1	451.6	444.6	435.8	428.7	420.0	418.2
7.5°	458.6	444.6	439.3	427.0	425.2	411.2	402.4	391.8	383.1	374.3	370.8
10°	428.7	412.9	402.4	390.1	388.3	372.5	362.0	351.4	340.9	332.1	328.6
12.5°	397.1	379.5	367.2	353.2	349.7	335.6	323.3	312.8	302.2	293.4	288.2
15°	363.7	344.4	332.1	318.0	314.5	298.7	288.2	275.9	267.1	258.3	254.8
17.5°	330.3	311.0	297.0	284.7	281.1	265.3	253.0	244.2	233.7	228.4	223.2
20°	297.0	277.6	263.6	253.0	247.8	235.5	223.2	214.4	205.6	200.3	195.0
22.5°	263.6	246.0	233.7	223.2	219.6	207.3	196.8	188.0	182.7	175.7	172.2
25°	233.7	216.1	205.6	195.0	191.5	181.0	174.0	165.2	159.9	154.6	151.1
27.5°	205.6	189.8	179.2	170.4	168.7	159.9	151.1	145.8	140.6	137.1	135.3
30°	177.5	165.2	156.4	149.4	147.6	138.8	131.8	128.3	123.0	121.2	119.5
32.5°	156.4	144.1	137.1	130.0	128.3	121.2	117.7	112.5	108.9	107.2	107.2
35°	133.5	124.8	117.7	114.2	112.5	107.2	101.9	100.2	96.6	94.9	94.9
37.5°	114.2	107.2	101.9	96.6	96.6	93.1	89.6	87.9	86.1	86.1	84.3
40°	98.4	91.4	89.6	86.1	84.3	82.6	80.8	79.1	77.3	77.3	77.3
42.5°	82.6	79.1	75.6	73.8	73.8	72.0	70.3	70.3	68.5	70.3	70.3
45°	70.3	66.8	65.0	63.3	65.0	63.3	63.3	61.5	63.3	63.3	63.3
47.5°	59.7	58.0	56.2	56.2	56.2	56.2	56.2	56.2	56.2	58.0	58.0
50°	51.0	49.2	49.2	49.2	49.2	49.2	51.0	51.0	51.0	52.7	52.7
52.5°	42.2	42.2	42.2	42.2	43.9	43.9	45.7	45.7	47.4	47.4	49.2
55°	36.9	36.9	36.9	36.9	38.7	38.7	40.4	42.2	42.2	43.9	45.7
57.5°	31.6	31.6	33.4	33.4	35.1	35.1	36.9	38.7	38.7	40.4	42.2
60°	26.4	28.1	29.9	29.9	29.9	31.6	33.4	35.1	35.1	36.9	38.7
62.5°	22.8	24.6	26.4	26.4	26.4	28.1	29.9	31.6	31.6	33.4	35.1
65°	19.3	21.1	22.8	22.8	22.8	24.6	26.4	28.1	29.9	29.9	31.6
67.5°	17.6	17.6	19.3	19.3	21.1	22.8	22.8	24.6	26.4	28.1	29.9
70°	14.1	15.8	17.6	17.6	17.6	19.3	21.1	22.8	22.8	24.6	26.4
72.5°	12.3	12.3	14.1	14.1	15.8	17.6	17.6	19.3	21.1	21.1	22.8
75°	10.5	12.3	12.3	12.3	14.1	14.1	15.8	17.6	17.6	19.3	19.3
77.5°	8.8	8.8	10.5	10.5	10.5	12.3	12.3	14.1	14.1	15.8	15.8
80°	7.0	7.0	8.8	8.8	8.8	8.8	10.5	10.5	12.3	12.3	12.3
82.5°	5.3	5.3	5.3	5.3	7.0	7.0	7.0	7.0	8.8	8.8	8.8
85°	3.5	3.5	3.5	3.5	3.5	5.3	5.3	5.3	5.3	5.3	7.0
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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°	521.9	521.9	521.9	521.9	521.9	521.9	521.9	521.9
2.5°	465.6	465.6	463.9	462.1	460.4	458.6	456.9	455.1
5°	412.9	414.7	407.7	405.9	405.9	402.4	404.1	400.6
7.5°	363.7	363.7	358.5	356.7	354.9	351.4	349.7	347.9
10°	319.8	318.0	314.5	312.8	309.3	307.5	307.5	304.0
12.5°	281.1	279.4	275.9	274.1	270.6	268.8	267.1	265.3
15°	247.8	246.0	242.5	240.7	239.0	235.5	235.5	233.7
17.5°	216.1	214.4	212.6	209.1	209.1	205.6	203.8	203.8
20°	191.5	189.8	186.3	184.5	184.5	182.7	182.7	179.2
22.5°	168.7	166.9	165.2	163.4	163.4	161.7	159.9	159.9
25°	149.4	147.6	145.8	145.8	144.1	142.3	142.3	142.3
27.5°	131.8	131.8	130.0	130.0	130.0	128.3	128.3	126.5
30°	117.7	117.7	116.0	116.0	116.0	114.2	116.0	114.2
32.5°	105.4	105.4	105.4	105.4	105.4	103.7	103.7	103.7
35°	94.9	94.9	94.9	94.9	94.9	93.1	94.9	93.1
37.5°	84.3	86.1	84.3	84.3	86.1	84.3	84.3	84.3
40°	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
42.5°	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
45°	63.3	65.0	65.0	65.0	65.0	65.0	65.0	65.0
47.5°	59.7	59.7	59.7	59.7	61.5	59.7	61.5	61.5
50°	54.5	54.5	54.5	56.2	56.2	56.2	56.2	56.2
52.5°	51.0	51.0	51.0	51.0	52.7	52.7	52.7	52.7
55°	45.7	47.4	47.4	47.4	49.2	49.2	49.2	49.2
57.5°	43.9	43.9	43.9	45.7	45.7	45.7	47.4	45.7
60°	40.4	40.4	42.2	42.2	42.2	43.9	43.9	43.9
62.5°	36.9	38.7	38.7	38.7	38.7	40.4	40.4	40.4
65°	33.4	35.1	35.1	35.1	36.9	36.9	36.9	36.9
67.5°	29.9	31.6	31.6	33.4	33.4	33.4	33.4	33.4
70°	26.4	28.1	28.1	28.1	29.9	29.9	29.9	29.9
72.5°	24.6	24.6	24.6	26.4	26.4	26.4	28.1	26.4
75°	21.1	22.8	22.8	22.8	22.8	22.8	24.6	24.6
77.5°	17.6	17.6	17.6	17.6	19.3	19.3	19.3	19.3
80°	14.1	14.1	14.1	14.1	15.8	15.8	15.8	15.8
82.5°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
85°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)