

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: P226249

Luminaire Tested: **LD2B10D010 EU2B10WW9027 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226249
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 EU2B10WW9027 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: 567.0 lumens
Efficiency: N/A
Efficacy: 55.1 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

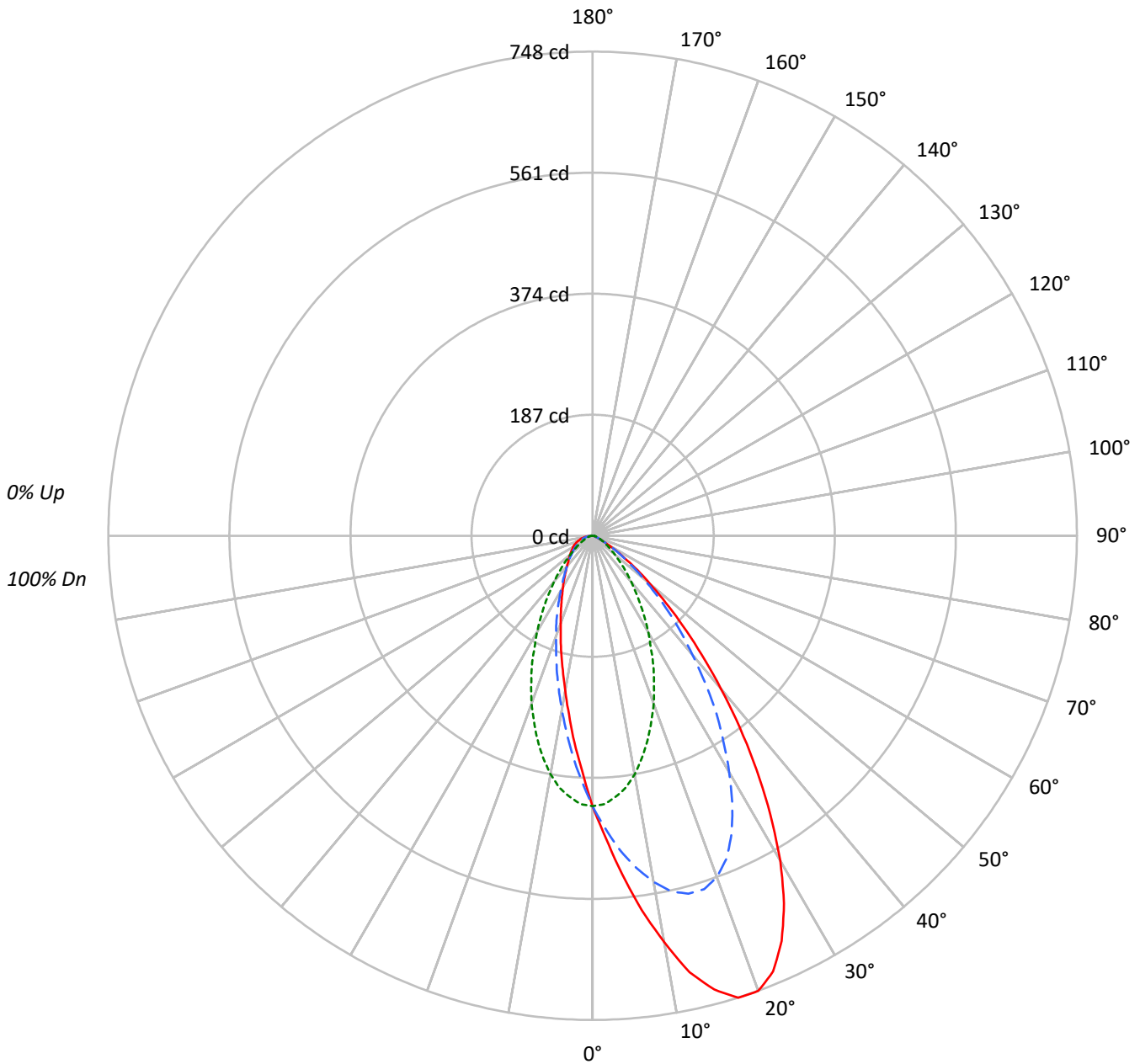
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	161833	161833	161833
5°	204017	157513	124696
10°	250624	147181	95695
15°	291053	131411	75029
20°	308453	113645	59151
25°	295198	94966	48680
30°	259192	76751	40880
35°	208863	60526	35276
40°	155789	46924	31299
45°	107860	35442	28485
50°	69480	26274	27117
55°	40857	19922	26607
60°	21769	16346	27269
65°	10357	12923	27038
70°	4757	11099	27067
75°	6286	10476	29483
80°	6246	9369	28329
85°	6222	12444	24888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.5	7.0
10°-20°	110.2	19.4
20°-30°	143.7	25.3
30°-40°	124.4	21.9
40°-50°	78.8	13.9
50°-60°	39.5	7.0
60°-70°	18.2	3.2
70°-80°	9.7	1.7
80°-90°	3.1	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°	293.4	51.7
0°-40°	417.8	73.7
0°-60°	536.0	94.5
0°-90°	567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	567.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	418	418	418	418	418	
5°	525	488	405	343	321	54
15°	726	572	328	214	187	204
25°	691	508	222	128	114	313
35°	442	332	128	77	75	274
45°	197	165	65	51	52	155
55°	60	56	30	34	39	58
65°	11	13	14	24	30	13
75°	4	4	7	14	20	4
85°	1	1	3	4	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°	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8
2.5°	467.0	469.8	469.8	471.2	465.6	467.0	467.0	464.2	460.0	457.2	452.9
5°	524.7	524.7	523.3	524.7	520.5	517.6	519.0	513.4	502.2	496.5	488.1
7.5°	583.7	580.9	580.9	579.5	572.5	568.3	566.9	557.0	541.5	530.3	517.6
10°	637.2	637.2	634.4	631.6	621.7	616.1	611.9	596.4	579.5	561.2	543.0
12.5°	690.7	687.8	683.6	678.0	663.9	658.3	651.3	633.0	607.7	586.6	562.6
15°	725.8	727.2	720.2	713.2	697.7	689.2	680.8	658.3	628.8	602.0	572.5
17.5°	748.3	746.9	739.9	731.4	714.6	704.7	694.9	668.1	637.2	604.8	572.5
20°	748.3	748.3	739.9	731.4	713.2	701.9	692.1	663.9	630.2	596.4	561.2
22.5°	728.6	725.8	720.2	711.8	693.5	683.6	672.4	644.2	609.1	576.7	540.1
25°	690.7	690.7	683.6	673.8	658.3	647.0	637.2	609.1	575.3	543.0	507.8
27.5°	640.0	638.6	631.6	624.5	607.7	599.2	589.4	562.6	533.1	503.6	467.0
30°	579.5	576.7	573.9	562.6	551.4	544.4	535.9	512.0	482.5	454.3	422.0
32.5°	510.6	514.8	507.8	500.8	490.9	483.9	476.8	458.6	431.8	406.5	375.6
35°	441.7	444.5	440.3	434.6	424.8	420.6	413.5	398.1	378.4	354.5	332.0
37.5°	372.8	372.8	372.8	368.5	362.9	358.7	354.5	340.4	323.5	305.2	284.1
40°	308.1	312.3	306.6	305.2	301.0	299.6	295.4	285.5	271.5	258.8	239.1
42.5°	249.0	249.0	250.4	247.6	246.2	243.3	240.5	234.9	225.1	213.8	201.1
45°	196.9	198.3	199.7	195.5	195.5	195.5	194.1	188.5	180.0	173.0	164.6
47.5°	153.3	153.3	154.7	153.3	153.3	153.3	150.5	150.5	144.9	137.8	130.8
50°	115.3	116.7	118.2	118.2	118.2	116.7	116.7	113.9	111.1	108.3	101.3
52.5°	87.2	87.2	85.8	87.2	87.2	87.2	87.2	85.8	84.4	81.6	77.4
55°	60.5	60.5	61.9	61.9	61.9	63.3	63.3	63.3	61.9	60.5	56.3
57.5°	42.2	42.2	42.2	43.6	45.0	45.0	45.0	45.0	43.6	42.2	40.8
60°	28.1	28.1	28.1	29.5	29.5	29.5	29.5	30.9	29.5	29.5	28.1
62.5°	18.3	18.3	18.3	18.3	18.3	19.7	19.7	19.7	19.7	19.7	18.3
65°	11.3	11.3	11.3	11.3	11.3	11.3	12.7	12.7	12.7	12.7	12.7
67.5°	7.0	7.0	7.0	7.0	7.0	8.4	8.4	8.4	8.4	8.4	8.4
70°	4.2	4.2	4.2	4.2	5.6	5.6	5.6	5.6	5.6	5.6	5.6
72.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
75°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2	4.2
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8	1.4
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8
2.5°	452.9	447.3	444.5	437.5	436.1	430.4	430.4	424.8	417.8	415.0	407.9
5°	482.5	471.2	465.6	452.9	448.7	440.3	436.1	424.8	413.5	405.1	395.3
7.5°	507.8	490.9	479.7	462.8	455.7	443.1	434.6	420.6	405.1	392.4	378.4
10°	527.5	505.0	488.1	465.6	457.2	441.7	429.0	409.3	389.6	374.2	357.3
12.5°	540.1	513.4	489.5	462.8	451.5	434.6	416.4	393.9	371.3	351.7	333.4
15°	545.8	513.4	485.3	452.9	440.3	422.0	400.9	374.2	348.8	327.7	308.1
17.5°	541.5	503.6	474.0	437.5	423.4	402.3	378.4	350.2	323.5	301.0	281.3
20°	527.5	488.1	454.3	416.4	400.9	379.8	353.1	324.9	298.2	275.7	254.6
22.5°	503.6	462.8	427.6	389.6	374.2	353.1	324.9	296.8	270.1	247.6	227.9
25°	474.0	430.4	395.3	358.7	341.8	323.5	295.4	267.3	241.9	222.2	202.6
27.5°	434.6	396.7	361.5	324.9	309.5	292.6	264.4	239.1	213.8	194.1	177.2
30°	392.4	355.9	326.3	291.2	277.1	260.2	236.3	211.0	189.9	171.6	156.1
32.5°	350.2	315.1	287.0	257.4	244.8	227.9	206.8	184.3	164.6	149.1	136.4
35°	306.6	277.1	250.4	222.2	212.4	198.3	178.6	158.9	142.1	128.0	115.3
37.5°	263.0	239.1	215.2	192.7	181.5	170.2	151.9	135.0	119.6	108.3	98.5
40°	223.7	202.6	182.9	161.8	151.9	143.5	128.0	113.9	102.7	92.8	84.4
42.5°	185.7	168.8	151.9	135.0	126.6	119.6	106.9	94.2	84.4	77.4	70.3
45°	151.9	139.3	125.2	109.7	105.5	97.1	87.2	78.8	70.3	64.7	59.1
47.5°	122.4	111.1	99.9	88.6	84.4	78.8	70.3	63.3	57.7	53.5	49.2
50°	95.7	87.2	80.2	70.3	67.5	61.9	56.3	50.6	46.4	43.6	40.8
52.5°	73.1	66.1	60.5	54.9	52.0	49.2	43.6	40.8	38.0	36.6	35.2
55°	53.5	49.2	45.0	40.8	39.4	36.6	33.8	30.9	29.5	29.5	29.5
57.5°	38.0	35.2	32.4	29.5	29.5	28.1	26.7	25.3	23.9	23.9	23.9
60°	26.7	25.3	23.9	22.5	21.1	21.1	19.7	21.1	19.7	21.1	21.1
62.5°	18.3	16.9	16.9	15.5	15.5	15.5	15.5	15.5	16.9	16.9	18.3
65°	11.3	11.3	11.3	11.3	11.3	11.3	12.7	12.7	12.7	14.1	14.1
67.5°	8.4	8.4	8.4	9.8	9.8	9.8	9.8	11.3	11.3	11.3	12.7
70°	5.6	7.0	7.0	7.0	7.0	7.0	8.4	8.4	8.4	9.8	9.8
72.5°	5.6	5.6	5.6	5.6	5.6	5.6	7.0	7.0	7.0	8.4	8.4
75°	4.2	5.6	5.6	5.6	5.6	5.6	5.6	7.0	7.0	7.0	8.4
77.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6	5.6	5.6	5.6
80°	2.8	2.8	2.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.6
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	4.2
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	1.4	2.8	2.8
87.5°	0.0	0.0	0.0	1.4	0.0	1.4	1.4	1.4	1.4	1.4	1.4
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°	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8
2.5°	405.1	400.9	402.3	393.9	395.3	389.6	386.8	382.6	379.8	375.6	377.0
5°	388.2	381.2	378.4	368.5	369.9	361.5	355.9	348.8	343.2	336.2	334.8
7.5°	367.1	355.9	351.7	341.8	340.4	329.1	322.1	313.7	306.6	299.6	296.8
10°	343.2	330.6	322.1	312.3	310.9	298.2	289.8	281.3	272.9	265.9	263.0
12.5°	317.9	303.8	294.0	282.7	279.9	268.7	258.8	250.4	241.9	234.9	230.7
15°	291.2	275.7	265.9	254.6	251.8	239.1	230.7	220.8	213.8	206.8	204.0
17.5°	264.4	249.0	237.7	227.9	225.1	212.4	202.6	195.5	187.1	182.9	178.6
20°	237.7	222.2	211.0	202.6	198.3	188.5	178.6	171.6	164.6	160.4	156.1
22.5°	211.0	196.9	187.1	178.6	175.8	166.0	157.5	150.5	146.3	140.7	137.8
25°	187.1	173.0	164.6	156.1	153.3	144.9	139.3	132.2	128.0	123.8	121.0
27.5°	164.6	151.9	143.5	136.4	135.0	128.0	121.0	116.7	112.5	109.7	108.3
30°	142.1	132.2	125.2	119.6	118.2	111.1	105.5	102.7	98.5	97.1	95.7
32.5°	125.2	115.3	109.7	104.1	102.7	97.1	94.2	90.0	87.2	85.8	85.8
35°	106.9	99.9	94.2	91.4	90.0	85.8	81.6	80.2	77.4	76.0	76.0
37.5°	91.4	85.8	81.6	77.4	77.4	74.6	71.7	70.3	68.9	68.9	67.5
40°	78.8	73.1	71.7	68.9	67.5	66.1	64.7	63.3	61.9	61.9	61.9
42.5°	66.1	63.3	60.5	59.1	59.1	57.7	56.3	56.3	54.9	56.3	56.3
45°	56.3	53.5	52.0	50.6	52.0	50.6	50.6	49.2	50.6	50.6	50.6
47.5°	47.8	46.4	45.0	45.0	45.0	45.0	45.0	45.0	45.0	46.4	46.4
50°	40.8	39.4	39.4	39.4	39.4	39.4	40.8	40.8	40.8	42.2	42.2
52.5°	33.8	33.8	33.8	33.8	35.2	35.2	36.6	36.6	38.0	38.0	39.4
55°	29.5	29.5	29.5	29.5	30.9	30.9	32.4	33.8	33.8	35.2	36.6
57.5°	25.3	25.3	26.7	26.7	28.1	28.1	29.5	30.9	30.9	32.4	33.8
60°	21.1	22.5	23.9	23.9	23.9	25.3	26.7	28.1	28.1	29.5	30.9
62.5°	18.3	19.7	21.1	21.1	21.1	22.5	23.9	25.3	25.3	26.7	28.1
65°	15.5	16.9	18.3	18.3	18.3	19.7	21.1	22.5	23.9	23.9	25.3
67.5°	14.1	14.1	15.5	15.5	16.9	18.3	18.3	19.7	21.1	22.5	23.9
70°	11.3	12.7	14.1	14.1	14.1	15.5	16.9	18.3	18.3	19.7	21.1
72.5°	9.8	9.8	11.3	11.3	12.7	14.1	14.1	15.5	16.9	16.9	18.3
75°	8.4	9.8	9.8	9.8	11.3	11.3	12.7	14.1	14.1	15.5	15.5
77.5°	7.0	7.0	8.4	8.4	8.4	9.8	9.8	11.3	11.3	12.7	12.7
80°	5.6	5.6	7.0	7.0	7.0	7.0	8.4	8.4	9.8	9.8	9.8
82.5°	4.2	4.2	4.2	4.2	5.6	5.6	5.6	5.6	7.0	7.0	7.0
85°	2.8	2.8	2.8	2.8	2.8	4.2	4.2	4.2	4.2	4.2	5.6
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	417.8	417.8	417.8	417.8	417.8	417.8	417.8	417.8
2.5°	372.8	372.8	371.3	369.9	368.5	367.1	365.7	364.3
5°	330.6	332.0	326.3	324.9	324.9	322.1	323.5	320.7
7.5°	291.2	291.2	287.0	285.5	284.1	281.3	279.9	278.5
10°	256.0	254.6	251.8	250.4	247.6	246.2	246.2	243.3
12.5°	225.1	223.7	220.8	219.4	216.6	215.2	213.8	212.4
15°	198.3	196.9	194.1	192.7	191.3	188.5	188.5	187.1
17.5°	173.0	171.6	170.2	167.4	167.4	164.6	163.2	163.2
20°	153.3	151.9	149.1	147.7	147.7	146.3	146.3	143.5
22.5°	135.0	133.6	132.2	130.8	130.8	129.4	128.0	128.0
25°	119.6	118.2	116.7	116.7	115.3	113.9	113.9	113.9
27.5°	105.5	105.5	104.1	104.1	104.1	102.7	102.7	101.3
30°	94.2	94.2	92.8	92.8	92.8	91.4	92.8	91.4
32.5°	84.4	84.4	84.4	84.4	84.4	83.0	83.0	83.0
35°	76.0	76.0	76.0	76.0	76.0	74.6	76.0	74.6
37.5°	67.5	68.9	67.5	67.5	68.9	67.5	67.5	67.5
40°	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
42.5°	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3
45°	50.6	52.0	52.0	52.0	52.0	52.0	52.0	52.0
47.5°	47.8	47.8	47.8	47.8	49.2	47.8	49.2	49.2
50°	43.6	43.6	43.6	45.0	45.0	45.0	45.0	45.0
52.5°	40.8	40.8	40.8	40.8	42.2	42.2	42.2	42.2
55°	36.6	38.0	38.0	38.0	39.4	39.4	39.4	39.4
57.5°	35.2	35.2	35.2	36.6	36.6	36.6	38.0	36.6
60°	32.4	32.4	33.8	33.8	33.8	35.2	35.2	35.2
62.5°	29.5	30.9	30.9	30.9	30.9	32.4	32.4	32.4
65°	26.7	28.1	28.1	28.1	29.5	29.5	29.5	29.5
67.5°	23.9	25.3	25.3	26.7	26.7	26.7	26.7	26.7
70°	21.1	22.5	22.5	22.5	23.9	23.9	23.9	23.9
72.5°	19.7	19.7	19.7	21.1	21.1	21.1	22.5	21.1
75°	16.9	18.3	18.3	18.3	18.3	18.3	19.7	19.7
77.5°	14.1	14.1	14.1	14.1	15.5	15.5	15.5	15.5
80°	11.3	11.3	11.3	11.3	12.7	12.7	12.7	12.7
82.5°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
85°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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)