

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: P226246

Luminaire Tested: **LD2B10D010 EU2B10WW8040 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226246
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 EU2B10WW8040 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: 771.9 lumens
Efficiency: N/A
Efficacy: 74.9 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

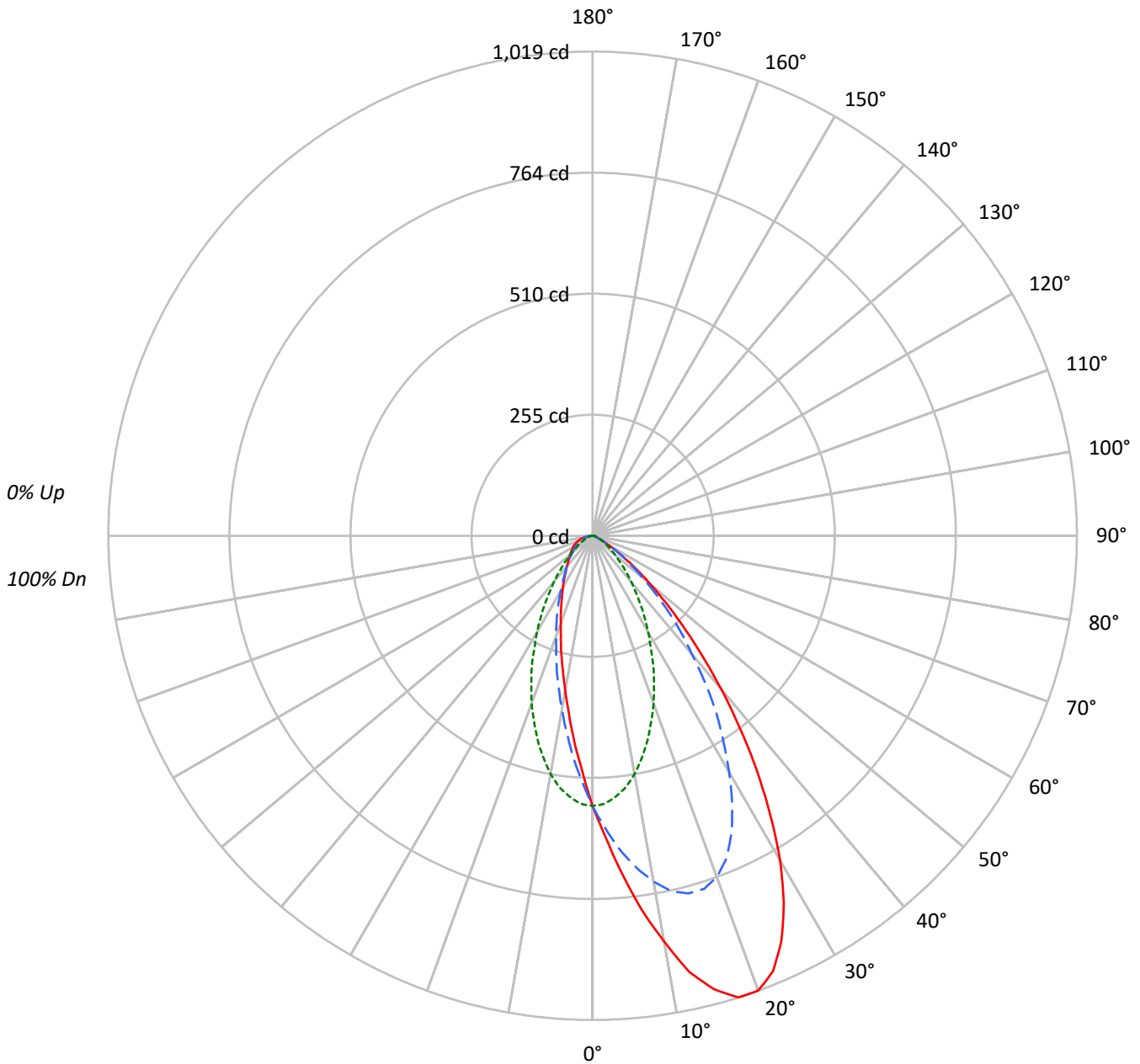
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	220284	220284	220284
5°	277699	214437	169761
10°	341167	200319	130307
15°	396198	178891	102137
20°	419913	154701	80504
25°	401831	129285	66288
30°	352850	104482	55685
35°	284285	82373	47996
40°	212017	63913	42626
45°	146862	48260	38784
50°	94609	35795	36940
55°	55579	27148	36197
60°	29671	22234	37108
65°	14023	17506	36845
70°	6455	15176	36920
75°	8531	14367	40109
80°	8476	12715	38367
85°	8444	16888	34221



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	7.0
10°-20°	150.0	19.4
20°-30°	195.7	25.3
30°-40°	169.4	21.9
40°-50°	107.2	13.9
50°-60°	53.7	7.0
60°-70°	24.7	3.2
70°-80°	13.2	1.7
80°-90°	4.3	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°	399.4	51.7
0°-40°	568.7	73.7
0°-60°	729.7	94.5
0°-90°	771.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	771.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	569	569	569	569	569	
5°	714	664	552	467	437	73
15°	988	779	446	291	255	278
25°	940	691	302	174	155	426
35°	601	452	174	105	102	374
45°	268	224	88	69	71	211
55°	82	77	40	46	54	79
65°	15	17	19	33	40	18
75°	6	6	10	19	27	5
85°	2	2	4	6	8	2
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°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	635.7	639.5	639.5	641.5	633.8	635.7	635.7	631.9	626.1	622.3	616.6
5°	714.2	714.2	712.3	714.2	708.5	704.6	706.6	698.9	683.6	675.9	664.4
7.5°	794.6	790.8	790.8	788.9	779.3	773.6	771.7	758.3	737.2	721.9	704.6
10°	867.4	867.4	863.6	859.7	846.3	838.7	832.9	811.9	788.9	764.0	739.1
12.5°	940.2	936.3	930.6	922.9	903.8	896.1	886.6	861.7	827.2	798.5	765.9
15°	988.0	990.0	980.4	970.8	949.7	938.3	926.8	896.1	855.9	819.5	779.3
17.5°	1018.7	1016.8	1007.2	995.7	972.7	959.3	945.9	909.5	867.4	823.4	779.3
20°	1018.7	1018.7	1007.2	995.7	970.8	955.5	942.1	903.8	857.8	811.9	764.0
22.5°	991.9	988.0	980.4	968.9	944.0	930.6	915.3	877.0	829.1	785.1	735.3
25°	940.2	940.2	930.6	917.2	896.1	880.8	867.4	829.1	783.2	739.1	691.2
27.5°	871.2	869.3	859.7	850.2	827.2	815.7	802.3	765.9	725.7	685.5	635.7
30°	788.9	785.1	781.2	765.9	750.6	741.0	729.5	697.0	656.8	618.5	574.4
32.5°	695.1	700.8	691.2	681.7	668.3	658.7	649.1	624.2	587.8	553.4	511.3
35°	601.2	605.1	599.3	591.7	578.3	572.5	563.0	541.9	515.1	482.5	451.9
37.5°	507.4	507.4	507.4	501.7	494.0	488.3	482.5	463.4	440.4	415.5	386.8
40°	419.3	425.1	417.4	415.5	409.8	407.9	402.1	388.7	369.6	352.3	325.5
42.5°	338.9	338.9	340.8	337.0	335.1	331.3	327.4	319.8	306.4	291.1	273.8
45°	268.1	270.0	271.9	266.2	266.2	266.2	264.2	256.6	245.1	235.5	224.0
47.5°	208.7	208.7	210.6	208.7	208.7	208.7	204.9	204.9	197.2	187.7	178.1
50°	157.0	158.9	160.8	160.8	160.8	158.9	158.9	155.1	151.3	147.4	137.9
52.5°	118.7	118.7	116.8	118.7	118.7	118.7	118.7	116.8	114.9	111.1	105.3
55°	82.3	82.3	84.3	84.3	84.3	86.2	86.2	86.2	84.3	82.3	76.6
57.5°	57.4	57.4	57.4	59.4	61.3	61.3	61.3	61.3	59.4	57.4	55.5
60°	38.3	38.3	38.3	40.2	40.2	40.2	40.2	42.1	40.2	40.2	38.3
62.5°	24.9	24.9	24.9	24.9	24.9	26.8	26.8	26.8	26.8	26.8	24.9
65°	15.3	15.3	15.3	15.3	15.3	15.3	17.2	17.2	17.2	17.2	17.2
67.5°	9.6	9.6	9.6	9.6	9.6	11.5	11.5	11.5	11.5	11.5	11.5
70°	5.7	5.7	5.7	5.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
72.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
75°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	5.7	5.7	5.7
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	3.8	1.9
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	616.6	608.9	605.1	595.5	593.6	585.9	585.9	578.3	568.7	564.9	555.3
5°	656.8	641.5	633.8	616.6	610.8	599.3	593.6	578.3	563.0	551.5	538.1
7.5°	691.2	668.3	652.9	630.0	620.4	603.2	591.7	572.5	551.5	534.2	515.1
10°	718.1	687.4	664.4	633.8	622.3	601.2	584.0	557.2	530.4	509.3	486.4
12.5°	735.3	698.9	666.4	630.0	614.7	591.7	566.8	536.1	505.5	478.7	453.8
15°	742.9	698.9	660.6	616.6	599.3	574.4	545.7	509.3	474.9	446.1	419.3
17.5°	737.2	685.5	645.3	595.5	576.4	547.6	515.1	476.8	440.4	409.8	383.0
20°	718.1	664.4	618.5	566.8	545.7	517.0	480.6	442.3	405.9	375.3	346.6
22.5°	685.5	630.0	582.1	530.4	509.3	480.6	442.3	404.0	367.6	337.0	310.2
25°	645.3	585.9	538.1	488.3	465.3	440.4	402.1	363.8	329.3	302.5	275.7
27.5°	591.7	540.0	492.1	442.3	421.3	398.3	360.0	325.5	291.1	264.2	241.3
30°	534.2	484.4	444.2	396.4	377.2	354.2	321.7	287.2	258.5	233.6	212.5
32.5°	476.8	428.9	390.6	350.4	333.2	310.2	281.5	250.8	224.0	203.0	185.7
35°	417.4	377.2	340.8	302.5	289.1	270.0	243.2	216.4	193.4	174.2	157.0
37.5°	358.1	325.5	293.0	262.3	247.0	231.7	206.8	183.8	162.8	147.4	134.0
40°	304.5	275.7	248.9	220.2	206.8	195.3	174.2	155.1	139.8	126.4	114.9
42.5°	252.8	229.8	206.8	183.8	172.3	162.8	145.5	128.3	114.9	105.3	95.7
45°	206.8	189.6	170.4	149.4	143.6	132.1	118.7	107.2	95.7	88.1	80.4
47.5°	166.6	151.3	136.0	120.6	114.9	107.2	95.7	86.2	78.5	72.8	67.0
50°	130.2	118.7	109.1	95.7	91.9	84.3	76.6	68.9	63.2	59.4	55.5
52.5°	99.6	90.0	82.3	74.7	70.8	67.0	59.4	55.5	51.7	49.8	47.9
55°	72.8	67.0	61.3	55.5	53.6	49.8	46.0	42.1	40.2	40.2	40.2
57.5°	51.7	47.9	44.0	40.2	40.2	38.3	36.4	34.5	32.6	32.6	32.6
60°	36.4	34.5	32.6	30.6	28.7	28.7	26.8	28.7	26.8	28.7	28.7
62.5°	24.9	23.0	23.0	21.1	21.1	21.1	21.1	21.1	23.0	23.0	24.9
65°	15.3	15.3	15.3	15.3	15.3	15.3	17.2	17.2	17.2	19.1	19.1
67.5°	11.5	11.5	11.5	13.4	13.4	13.4	13.4	15.3	15.3	15.3	17.2
70°	7.7	9.6	9.6	9.6	9.6	9.6	11.5	11.5	11.5	13.4	13.4
72.5°	7.7	7.7	7.7	7.7	7.7	7.7	9.6	9.6	9.6	11.5	11.5
75°	5.7	7.7	7.7	7.7	7.7	7.7	7.7	9.6	9.6	9.6	11.5
77.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	7.7	7.7	7.7	7.7
80°	3.8	3.8	3.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7	7.7
82.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	5.7
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	1.9	3.8	3.8
87.5°	0.0	0.0	0.0	1.9	0.0	1.9	1.9	1.9	1.9	1.9	1.9
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°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	551.5	545.7	547.6	536.1	538.1	530.4	526.6	520.8	517.0	511.3	513.2
5°	528.5	518.9	515.1	501.7	503.6	492.1	484.4	474.9	467.2	457.6	455.7
7.5°	499.8	484.4	478.7	465.3	463.4	448.1	438.5	427.0	417.4	407.9	404.0
10°	467.2	450.0	438.5	425.1	423.2	405.9	394.4	383.0	371.5	361.9	358.1
12.5°	432.7	413.6	400.2	384.9	381.0	365.7	352.3	340.8	329.3	319.8	314.0
15°	396.4	375.3	361.9	346.6	342.8	325.5	314.0	300.6	291.1	281.5	277.6
17.5°	360.0	338.9	323.6	310.2	306.4	289.1	275.7	266.2	254.7	248.9	243.2
20°	323.6	302.5	287.2	275.7	270.0	256.6	243.2	233.6	224.0	218.3	212.5
22.5°	287.2	268.1	254.7	243.2	239.4	225.9	214.5	204.9	199.1	191.5	187.7
25°	254.7	235.5	224.0	212.5	208.7	197.2	189.6	180.0	174.2	168.5	164.7
27.5°	224.0	206.8	195.3	185.7	183.8	174.2	164.7	158.9	153.2	149.4	147.4
30°	193.4	180.0	170.4	162.8	160.8	151.3	143.6	139.8	134.0	132.1	130.2
32.5°	170.4	157.0	149.4	141.7	139.8	132.1	128.3	122.5	118.7	116.8	116.8
35°	145.5	136.0	128.3	124.5	122.5	116.8	111.1	109.1	105.3	103.4	103.4
37.5°	124.5	116.8	111.1	105.3	105.3	101.5	97.7	95.7	93.8	93.8	91.9
40°	107.2	99.6	97.7	93.8	91.9	90.0	88.1	86.2	84.3	84.3	84.3
42.5°	90.0	86.2	82.3	80.4	80.4	78.5	76.6	76.6	74.7	76.6	76.6
45°	76.6	72.8	70.8	68.9	70.8	68.9	68.9	67.0	68.9	68.9	68.9
47.5°	65.1	63.2	61.3	61.3	61.3	61.3	61.3	61.3	61.3	63.2	63.2
50°	55.5	53.6	53.6	53.6	53.6	53.6	55.5	55.5	55.5	57.4	57.4
52.5°	46.0	46.0	46.0	46.0	47.9	47.9	49.8	49.8	51.7	51.7	53.6
55°	40.2	40.2	40.2	40.2	42.1	42.1	44.0	46.0	46.0	47.9	49.8
57.5°	34.5	34.5	36.4	36.4	38.3	38.3	40.2	42.1	42.1	44.0	46.0
60°	28.7	30.6	32.6	32.6	32.6	34.5	36.4	38.3	38.3	40.2	42.1
62.5°	24.9	26.8	28.7	28.7	28.7	30.6	32.6	34.5	34.5	36.4	38.3
65°	21.1	23.0	24.9	24.9	24.9	26.8	28.7	30.6	32.6	32.6	34.5
67.5°	19.1	19.1	21.1	21.1	23.0	24.9	24.9	26.8	28.7	30.6	32.6
70°	15.3	17.2	19.1	19.1	19.1	21.1	23.0	24.9	24.9	26.8	28.7
72.5°	13.4	13.4	15.3	15.3	17.2	19.1	19.1	21.1	23.0	23.0	24.9
75°	11.5	13.4	13.4	13.4	15.3	15.3	17.2	19.1	19.1	21.1	21.1
77.5°	9.6	9.6	11.5	11.5	11.5	13.4	13.4	15.3	15.3	17.2	17.2
80°	7.7	7.7	9.6	9.6	9.6	9.6	11.5	11.5	13.4	13.4	13.4
82.5°	5.7	5.7	5.7	5.7	7.7	7.7	7.7	7.7	9.6	9.6	9.6
85°	3.8	3.8	3.8	3.8	3.8	5.7	5.7	5.7	5.7	5.7	7.7
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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 EU2B10WW8040 2LBSW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	568.7	568.7	568.7	568.7	568.7	568.7	568.7	568.7
2.5°	507.4	507.4	505.5	503.6	501.7	499.8	497.8	495.9
5°	450.0	451.9	444.2	442.3	442.3	438.5	440.4	436.6
7.5°	396.4	396.4	390.6	388.7	386.8	383.0	381.0	379.1
10°	348.5	346.6	342.8	340.8	337.0	335.1	335.1	331.3
12.5°	306.4	304.5	300.6	298.7	294.9	293.0	291.1	289.1
15°	270.0	268.1	264.2	262.3	260.4	256.6	256.6	254.7
17.5°	235.5	233.6	231.7	227.9	227.9	224.0	222.1	222.1
20°	208.7	206.8	203.0	201.1	201.1	199.1	199.1	195.3
22.5°	183.8	181.9	180.0	178.1	178.1	176.2	174.2	174.2
25°	162.8	160.8	158.9	158.9	157.0	155.1	155.1	155.1
27.5°	143.6	143.6	141.7	141.7	141.7	139.8	139.8	137.9
30°	128.3	128.3	126.4	126.4	126.4	124.5	126.4	124.5
32.5°	114.9	114.9	114.9	114.9	114.9	113.0	113.0	113.0
35°	103.4	103.4	103.4	103.4	103.4	101.5	103.4	101.5
37.5°	91.9	93.8	91.9	91.9	93.8	91.9	91.9	91.9
40°	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
42.5°	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
45°	68.9	70.8	70.8	70.8	70.8	70.8	70.8	70.8
47.5°	65.1	65.1	65.1	65.1	67.0	65.1	67.0	67.0
50°	59.4	59.4	59.4	61.3	61.3	61.3	61.3	61.3
52.5°	55.5	55.5	55.5	55.5	57.4	57.4	57.4	57.4
55°	49.8	51.7	51.7	51.7	53.6	53.6	53.6	53.6
57.5°	47.9	47.9	47.9	49.8	49.8	49.8	51.7	49.8
60°	44.0	44.0	46.0	46.0	46.0	47.9	47.9	47.9
62.5°	40.2	42.1	42.1	42.1	42.1	44.0	44.0	44.0
65°	36.4	38.3	38.3	38.3	40.2	40.2	40.2	40.2
67.5°	32.6	34.5	34.5	36.4	36.4	36.4	36.4	36.4
70°	28.7	30.6	30.6	30.6	32.6	32.6	32.6	32.6
72.5°	26.8	26.8	26.8	28.7	28.7	28.7	30.6	28.7
75°	23.0	24.9	24.9	24.9	24.9	24.9	26.8	26.8
77.5°	19.1	19.1	19.1	19.1	21.1	21.1	21.1	21.1
80°	15.3	15.3	15.3	15.3	17.2	17.2	17.2	17.2
82.5°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
85°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
87.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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)