

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: P226238

Luminaire Tested: **LD2B05D010 EU2B05WW9035 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226238
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: LD2B05D010 EU2B05WW9035 2LBSW*
Description: 500 Lumen, 2inch Portfolio LED Downlight
WALL WASH OPTIC
WALL WASH LENSED TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 460.3 lumens
Efficiency: N/A
Efficacy: 63.1 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

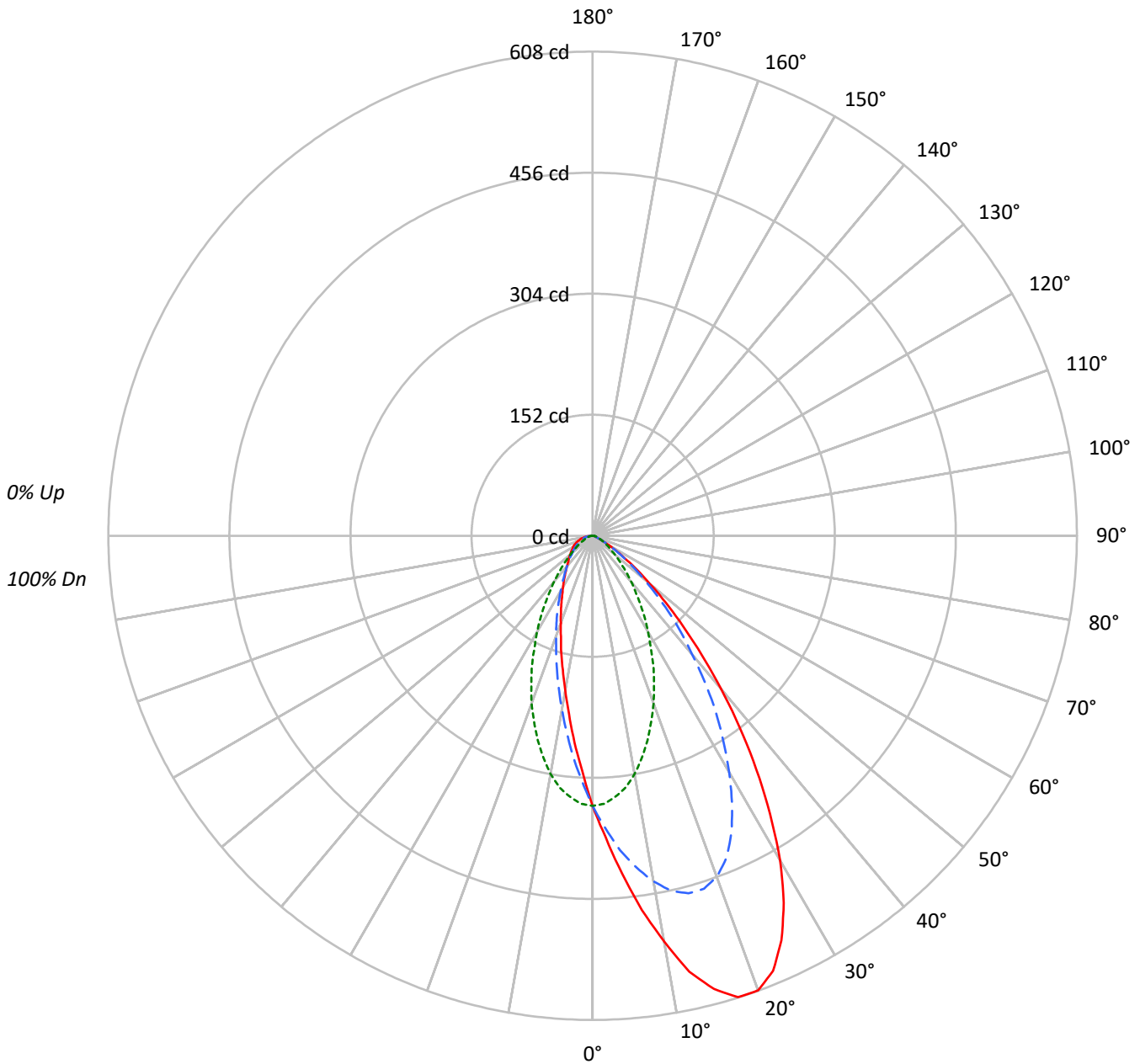
Input Watts (W): 7.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	131349	131349	131349
5°	165601	127885	101250
10°	203465	119452	77681
15°	236275	106709	60913
20°	250415	92251	48022
25°	239637	77101	39533
30°	210440	62305	33187
35°	169568	49130	28608
40°	126462	38126	25383
45°	87592	28759	23172
50°	56404	21332	21995
55°	33158	16208	21610
60°	17663	13247	22079
65°	8341	10449	21997
70°	3851	9060	21971
75°	5088	8531	23945
80°	5130	7584	22976
85°	4889	10222	20444



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.0	7.0
10°-20°	89.4	19.4
20°-30°	116.7	25.3
30°-40°	101.0	21.9
40°-50°	63.9	13.9
50°-60°	32.0	7.0
60°-70°	14.7	3.2
70°-80°	7.9	1.7
80°-90°	2.5	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°	238.2	51.7
0°-40°	339.2	73.7
0°-60°	435.1	94.5
0°-90°	460.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	460.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	339	339	339	339	339	
5°	426	396	329	279	260	43
15°	589	465	266	174	152	166
25°	561	412	180	104	92	254
35°	359	270	104	63	60	223
45°	160	134	52	41	42	126
55°	49	46	24	27	32	47
65°	9	10	11	19	24	10
75°	3	3	6	11	16	3
85°	1	1	2	3	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°	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1
2.5°	379.1	381.4	381.4	382.5	378.0	379.1	379.1	376.8	373.4	371.1	367.7
5°	425.9	425.9	424.8	425.9	422.5	420.2	421.4	416.8	407.7	403.1	396.2
7.5°	473.9	471.6	471.6	470.5	464.8	461.3	460.2	452.2	439.6	430.5	420.2
10°	517.3	517.3	515.0	512.7	504.7	500.2	496.7	484.2	470.5	455.6	440.8
12.5°	560.7	558.4	555.0	550.4	539.0	534.4	528.7	513.9	493.3	476.2	456.8
15°	589.2	590.4	584.7	578.9	566.4	559.5	552.7	534.4	510.4	488.7	464.8
17.5°	607.5	606.4	600.6	593.8	580.1	572.1	564.1	542.4	517.3	491.0	464.8
20°	607.5	607.5	600.6	593.8	578.9	569.8	561.8	539.0	511.6	484.2	455.6
22.5°	591.5	589.2	584.7	577.8	563.0	555.0	545.8	523.0	494.4	468.2	438.5
25°	560.7	560.7	555.0	547.0	534.4	525.3	517.3	494.4	467.0	440.8	412.2
27.5°	519.6	518.4	512.7	507.0	493.3	486.5	478.5	456.8	432.8	408.8	379.1
30°	470.5	468.2	465.9	456.8	447.6	441.9	435.1	415.7	391.7	368.8	342.6
32.5°	414.5	417.9	412.2	406.5	398.5	392.8	387.1	372.3	350.6	330.0	304.9
35°	358.6	360.8	357.4	352.8	344.9	341.4	335.7	323.2	307.2	287.8	269.5
37.5°	302.6	302.6	302.6	299.2	294.6	291.2	287.8	276.3	262.6	247.8	230.7
40°	250.1	253.5	248.9	247.8	244.4	243.2	239.8	231.8	220.4	210.1	194.1
42.5°	202.1	202.1	203.3	201.0	199.8	197.5	195.3	190.7	182.7	173.6	163.3
45°	159.9	161.0	162.2	158.7	158.7	158.7	157.6	153.0	146.2	140.5	133.6
47.5°	124.5	124.5	125.6	124.5	124.5	124.5	122.2	122.2	117.6	111.9	106.2
50°	93.6	94.8	95.9	95.9	95.9	94.8	94.8	92.5	90.2	87.9	82.2
52.5°	70.8	70.8	69.7	70.8	70.8	70.8	70.8	69.7	68.5	66.2	62.8
55°	49.1	49.1	50.2	50.2	50.2	51.4	51.4	51.4	50.2	49.1	45.7
57.5°	34.3	34.3	34.3	35.4	36.5	36.5	36.5	36.5	35.4	34.3	33.1
60°	22.8	22.8	22.8	24.0	24.0	24.0	24.0	25.1	24.0	24.0	22.8
62.5°	14.8	14.8	14.8	14.8	14.8	16.0	16.0	16.0	16.0	16.0	14.8
65°	9.1	9.1	9.1	9.1	9.1	9.1	10.3	10.3	10.3	10.3	10.3
67.5°	5.7	5.7	5.7	5.7	5.7	6.9	6.9	6.9	6.9	6.9	6.9
70°	3.4	3.4	3.4	3.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6
72.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.4	3.4	3.4
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3	2.3	1.1
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1
2.5°	367.7	363.1	360.8	355.1	354.0	349.4	349.4	344.9	339.1	336.9	331.2
5°	391.7	382.5	378.0	367.7	364.3	357.4	354.0	344.9	335.7	328.9	320.9
7.5°	412.2	398.5	389.4	375.7	370.0	359.7	352.8	341.4	328.9	318.6	307.2
10°	428.2	409.9	396.2	378.0	371.1	358.6	348.3	332.3	316.3	303.7	290.0
12.5°	438.5	416.8	397.4	375.7	366.6	352.8	338.0	319.7	301.5	285.5	270.6
15°	443.1	416.8	394.0	367.7	357.4	342.6	325.4	303.7	283.2	266.1	250.1
17.5°	439.6	408.8	384.8	355.1	343.7	326.6	307.2	284.3	262.6	244.4	228.4
20°	428.2	396.2	368.8	338.0	325.4	308.3	286.6	263.8	242.1	223.8	206.7
22.5°	408.8	375.7	347.1	316.3	303.7	286.6	263.8	240.9	219.2	201.0	185.0
25°	384.8	349.4	320.9	291.2	277.5	262.6	239.8	217.0	196.4	180.4	164.4
27.5°	352.8	322.0	293.5	263.8	251.2	237.5	214.7	194.1	173.6	157.6	143.9
30°	318.6	288.9	264.9	236.4	225.0	211.3	191.8	171.3	154.2	139.3	126.8
32.5°	284.3	255.8	232.9	209.0	198.7	185.0	167.9	149.6	133.6	121.0	110.8
35°	248.9	225.0	203.3	180.4	172.4	161.0	145.0	129.0	115.3	103.9	93.6
37.5°	213.5	194.1	174.7	156.4	147.3	138.2	123.3	109.6	97.1	87.9	79.9
40°	181.6	164.4	148.4	131.3	123.3	116.5	103.9	92.5	83.4	75.4	68.5
42.5°	150.7	137.0	123.3	109.6	102.8	97.1	86.8	76.5	68.5	62.8	57.1
45°	123.3	113.0	101.6	89.1	85.6	78.8	70.8	63.9	57.1	52.5	48.0
47.5°	99.3	90.2	81.1	71.9	68.5	63.9	57.1	51.4	46.8	43.4	40.0
50°	77.6	70.8	65.1	57.1	54.8	50.2	45.7	41.1	37.7	35.4	33.1
52.5°	59.4	53.7	49.1	44.5	42.3	40.0	35.4	33.1	30.8	29.7	28.5
55°	43.4	40.0	36.5	33.1	32.0	29.7	27.4	25.1	24.0	24.0	24.0
57.5°	30.8	28.5	26.3	24.0	24.0	22.8	21.7	20.6	19.4	19.4	19.4
60°	21.7	20.6	19.4	18.3	17.1	17.1	16.0	17.1	16.0	17.1	17.1
62.5°	14.8	13.7	13.7	12.6	12.6	12.6	12.6	12.6	13.7	13.7	14.8
65°	9.1	9.1	9.1	9.1	9.1	9.1	10.3	10.3	10.3	11.4	11.4
67.5°	6.9	6.9	6.9	8.0	8.0	8.0	8.0	9.1	9.1	9.1	10.3
70°	4.6	5.7	5.7	5.7	5.7	5.7	6.9	6.9	6.9	8.0	8.0
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	5.7	5.7	5.7	6.9	6.9
75°	3.4	4.6	4.6	4.6	4.6	4.6	4.6	5.7	5.7	5.7	6.9
77.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	4.6	4.6	4.6	4.6
80°	2.3	2.3	2.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4	4.6
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.4
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3	1.1	2.3	2.3
87.5°	0.0	0.0	0.0	1.1	0.0	1.1	1.1	1.1	1.1	1.1	1.1
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°	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1
2.5°	328.9	325.4	326.6	319.7	320.9	316.3	314.0	310.6	308.3	304.9	306.0
5°	315.2	309.5	307.2	299.2	300.3	293.5	288.9	283.2	278.6	272.9	271.8
7.5°	298.0	288.9	285.5	277.5	276.3	267.2	261.5	254.6	248.9	243.2	240.9
10°	278.6	268.3	261.5	253.5	252.4	242.1	235.2	228.4	221.5	215.8	213.5
12.5°	258.1	246.7	238.7	229.5	227.2	218.1	210.1	203.3	196.4	190.7	187.3
15°	236.4	223.8	215.8	206.7	204.4	194.1	187.3	179.3	173.6	167.9	165.6
17.5°	214.7	202.1	193.0	185.0	182.7	172.4	164.4	158.7	151.9	148.4	145.0
20°	193.0	180.4	171.3	164.4	161.0	153.0	145.0	139.3	133.6	130.2	126.8
22.5°	171.3	159.9	151.9	145.0	142.7	134.7	127.9	122.2	118.8	114.2	111.9
25°	151.9	140.5	133.6	126.8	124.5	117.6	113.0	107.3	103.9	100.5	98.2
27.5°	133.6	123.3	116.5	110.8	109.6	103.9	98.2	94.8	91.4	89.1	87.9
30°	115.3	107.3	101.6	97.1	95.9	90.2	85.6	83.4	79.9	78.8	77.6
32.5°	101.6	93.6	89.1	84.5	83.4	78.8	76.5	73.1	70.8	69.7	69.7
35°	86.8	81.1	76.5	74.2	73.1	69.7	66.2	65.1	62.8	61.7	61.7
37.5°	74.2	69.7	66.2	62.8	62.8	60.5	58.2	57.1	56.0	56.0	54.8
40°	63.9	59.4	58.2	56.0	54.8	53.7	52.5	51.4	50.2	50.2	50.2
42.5°	53.7	51.4	49.1	48.0	48.0	46.8	45.7	45.7	44.5	45.7	45.7
45°	45.7	43.4	42.3	41.1	42.3	41.1	41.1	40.0	41.1	41.1	41.1
47.5°	38.8	37.7	36.5	36.5	36.5	36.5	36.5	36.5	36.5	37.7	37.7
50°	33.1	32.0	32.0	32.0	32.0	32.0	33.1	33.1	33.1	34.3	34.3
52.5°	27.4	27.4	27.4	27.4	28.5	28.5	29.7	29.7	30.8	30.8	32.0
55°	24.0	24.0	24.0	24.0	25.1	25.1	26.3	27.4	27.4	28.5	29.7
57.5°	20.6	20.6	21.7	21.7	22.8	22.8	24.0	25.1	25.1	26.3	27.4
60°	17.1	18.3	19.4	19.4	19.4	20.6	21.7	22.8	22.8	24.0	25.1
62.5°	14.8	16.0	17.1	17.1	17.1	18.3	19.4	20.6	20.6	21.7	22.8
65°	12.6	13.7	14.8	14.8	14.8	16.0	17.1	18.3	19.4	19.4	20.6
67.5°	11.4	11.4	12.6	12.6	13.7	14.8	14.8	16.0	17.1	18.3	19.4
70°	9.1	10.3	11.4	11.4	11.4	12.6	13.7	14.8	14.8	16.0	17.1
72.5°	8.0	8.0	9.1	9.1	10.3	11.4	11.4	12.6	13.7	13.7	14.8
75°	6.9	8.0	8.0	8.0	9.1	9.1	10.3	11.4	11.4	12.6	12.6
77.5°	5.7	5.7	6.9	6.9	6.9	8.0	8.0	9.1	9.1	10.3	10.3
80°	4.6	4.6	5.7	5.7	5.7	5.7	6.9	6.9	8.0	8.0	8.0
82.5°	3.4	3.4	3.4	3.4	4.6	4.6	4.6	4.6	5.7	5.7	5.7
85°	2.3	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4	3.4	4.6
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	339.1	339.1	339.1	339.1	339.1	339.1	339.1	339.1
2.5°	302.6	302.6	301.5	300.3	299.2	298.0	296.9	295.8
5°	268.3	269.5	264.9	263.8	263.8	261.5	262.6	260.4
7.5°	236.4	236.4	232.9	231.8	230.7	228.4	227.2	226.1
10°	207.8	206.7	204.4	203.3	201.0	199.8	199.8	197.5
12.5°	182.7	181.6	179.3	178.1	175.9	174.7	173.6	172.4
15°	161.0	159.9	157.6	156.4	155.3	153.0	153.0	151.9
17.5°	140.5	139.3	138.2	135.9	135.9	133.6	132.5	132.5
20°	124.5	123.3	121.0	119.9	119.9	118.8	118.8	116.5
22.5°	109.6	108.5	107.3	106.2	106.2	105.1	103.9	103.9
25°	97.1	95.9	94.8	94.8	93.6	92.5	92.5	92.5
27.5°	85.6	85.6	84.5	84.5	84.5	83.4	83.4	82.2
30°	76.5	76.5	75.4	75.4	75.4	74.2	75.4	74.2
32.5°	68.5	68.5	68.5	68.5	68.5	67.4	67.4	67.4
35°	61.7	61.7	61.7	61.7	61.7	60.5	61.7	60.5
37.5°	54.8	56.0	54.8	54.8	56.0	54.8	54.8	54.8
40°	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
42.5°	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7
45°	41.1	42.3	42.3	42.3	42.3	42.3	42.3	42.3
47.5°	38.8	38.8	38.8	38.8	40.0	38.8	40.0	40.0
50°	35.4	35.4	35.4	36.5	36.5	36.5	36.5	36.5
52.5°	33.1	33.1	33.1	33.1	34.3	34.3	34.3	34.3
55°	29.7	30.8	30.8	30.8	32.0	32.0	32.0	32.0
57.5°	28.5	28.5	28.5	29.7	29.7	29.7	30.8	29.7
60°	26.3	26.3	27.4	27.4	27.4	28.5	28.5	28.5
62.5°	24.0	25.1	25.1	25.1	25.1	26.3	26.3	26.3
65°	21.7	22.8	22.8	22.8	24.0	24.0	24.0	24.0
67.5°	19.4	20.6	20.6	21.7	21.7	21.7	21.7	21.7
70°	17.1	18.3	18.3	18.3	19.4	19.4	19.4	19.4
72.5°	16.0	16.0	16.0	17.1	17.1	17.1	18.3	17.1
75°	13.7	14.8	14.8	14.8	14.8	14.8	16.0	16.0
77.5°	11.4	11.4	11.4	11.4	12.6	12.6	12.6	12.6
80°	9.1	9.1	9.1	9.1	10.3	10.3	10.3	10.3
82.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
85°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)