

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: P226241

Luminaire Tested: **LD2B05D010 EU2B05WW9727 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226241
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 EU2B05WW9727 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: 382.4 lumens
Efficiency: N/A
Efficacy: 52.4 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

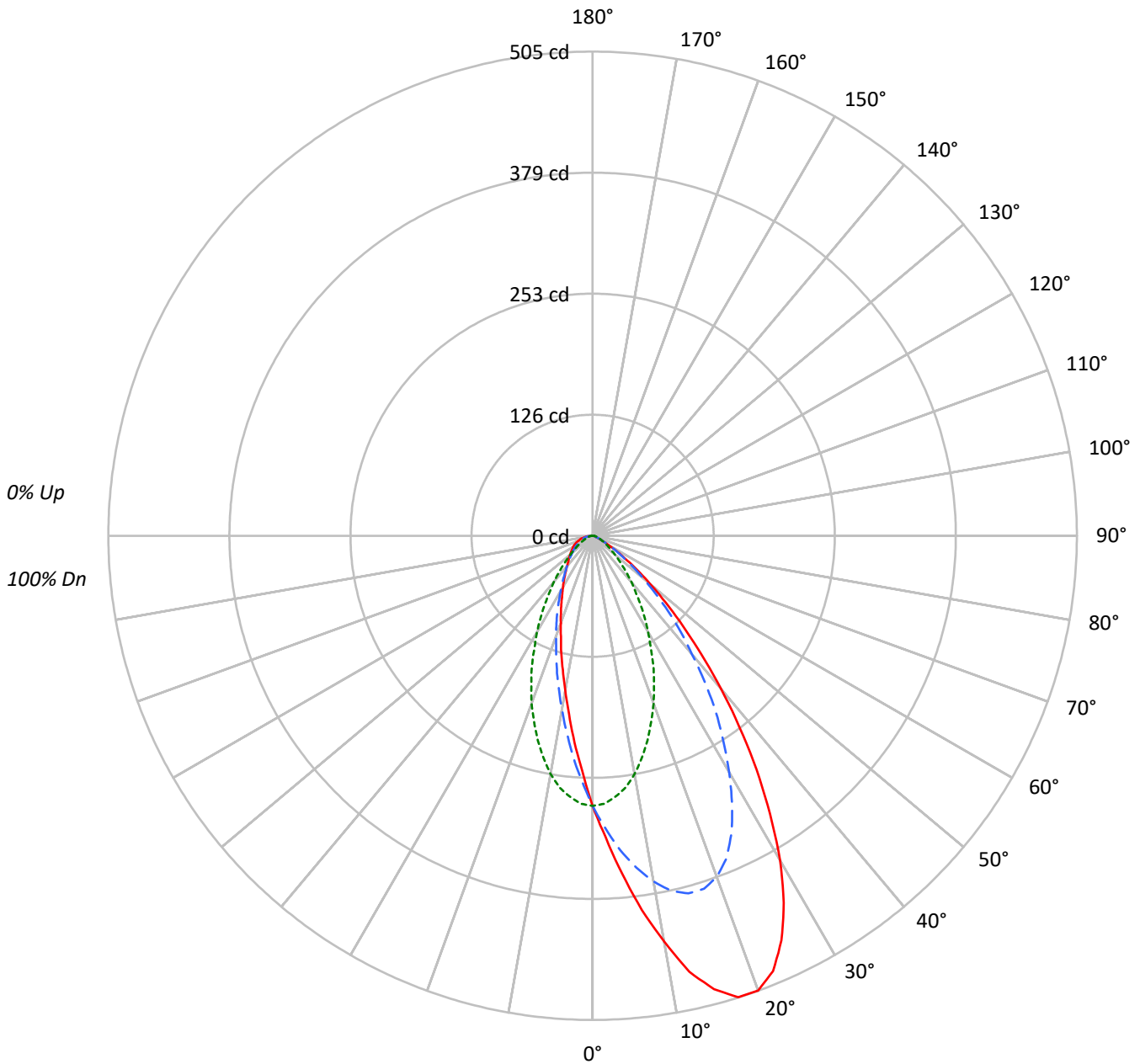
Input Watts (W): 7.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	61	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°	109115	109115	109115
5°	137566	106227	84103
10°	169010	99235	64544
15°	196294	88623	50607
20°	208040	76629	39901
25°	199078	64066	32823
30°	174793	51749	27596
35°	140866	40808	23785
40°	105022	31653	21085
45°	72747	23884	19227
50°	46883	17717	18319
55°	27553	13439	17963
60°	14719	11001	18360
65°	6966	8707	18239
70°	3171	7475	18234
75°	4190	7034	19905
80°	4238	6246	18960
85°	4000	8444	16888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	7.0
10°-20°	74.3	19.4
20°-30°	96.9	25.3
30°-40°	83.9	21.9
40°-50°	53.1	13.9
50°-60°	26.6	7.0
60°-70°	12.2	3.2
70°-80°	6.5	1.7
80°-90°	2.1	0.5
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°	197.8	51.7
0°-40°	281.8	73.7
0°-60°	361.5	94.5
0°-90°	382.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	382.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	282	282	282	282	282	
5°	354	329	273	232	216	36
15°	490	386	221	144	126	138
25°	466	342	150	86	77	211
35°	298	224	86	52	50	185
45°	133	111	44	34	35	105
55°	41	38	20	23	27	39
65°	8	8	10	16	20	9
75°	3	3	5	10	13	3
85°	1	1	2	3	4	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°	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7
2.5°	314.9	316.8	316.8	317.8	314.0	314.9	314.9	313.0	310.2	308.3	305.5
5°	353.8	353.8	352.9	353.8	351.0	349.1	350.0	346.2	338.7	334.9	329.2
7.5°	393.7	391.8	391.8	390.8	386.1	383.2	382.3	375.7	365.2	357.6	349.1
10°	429.7	429.7	427.8	425.9	419.3	415.5	412.6	402.2	390.8	378.5	366.2
12.5°	465.8	463.9	461.0	457.2	447.7	444.0	439.2	426.9	409.8	395.6	379.4
15°	489.5	490.4	485.7	480.9	470.5	464.8	459.1	444.0	424.0	406.0	386.1
17.5°	504.7	503.7	499.0	493.3	481.9	475.3	468.6	450.6	429.7	407.9	386.1
20°	504.7	504.7	499.0	493.3	480.9	473.4	466.7	447.7	425.0	402.2	378.5
22.5°	491.4	489.5	485.7	480.0	467.7	461.0	453.4	434.5	410.8	388.9	364.3
25°	465.8	465.8	461.0	454.4	444.0	436.4	429.7	410.8	388.0	366.2	342.5
27.5°	431.6	430.7	425.9	421.2	409.8	404.1	397.5	379.4	359.5	339.6	314.9
30°	390.8	388.9	387.0	379.4	371.9	367.1	361.4	345.3	325.4	306.4	284.6
32.5°	344.3	347.2	342.5	337.7	331.1	326.3	321.6	309.2	291.2	274.2	253.3
35°	297.9	299.8	296.9	293.1	286.5	283.6	278.9	268.5	255.2	239.1	223.9
37.5°	251.4	251.4	251.4	248.5	244.7	241.9	239.1	229.6	218.2	205.9	191.6
40°	207.7	210.6	206.8	205.9	203.0	202.1	199.2	192.6	183.1	174.5	161.3
42.5°	167.9	167.9	168.9	167.0	166.0	164.1	162.2	158.4	151.8	144.2	135.7
45°	132.8	133.8	134.7	131.9	131.9	131.9	130.9	127.1	121.4	116.7	111.0
47.5°	103.4	103.4	104.3	103.4	103.4	103.4	101.5	101.5	97.7	93.0	88.2
50°	77.8	78.7	79.7	79.7	79.7	78.7	78.7	76.8	74.9	73.0	68.3
52.5°	58.8	58.8	57.9	58.8	58.8	58.8	58.8	57.9	56.9	55.0	52.2
55°	40.8	40.8	41.7	41.7	41.7	42.7	42.7	42.7	41.7	40.8	37.9
57.5°	28.5	28.5	28.5	29.4	30.4	30.4	30.4	30.4	29.4	28.5	27.5
60°	19.0	19.0	19.0	19.9	19.9	19.9	19.9	20.9	19.9	19.9	19.0
62.5°	12.3	12.3	12.3	12.3	12.3	13.3	13.3	13.3	13.3	13.3	12.3
65°	7.6	7.6	7.6	7.6	7.6	7.6	8.5	8.5	8.5	8.5	8.5
67.5°	4.7	4.7	4.7	4.7	4.7	5.7	5.7	5.7	5.7	5.7	5.7
70°	2.8	2.8	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8	2.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	0.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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°	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7
2.5°	305.5	301.7	299.8	295.0	294.1	290.3	290.3	286.5	281.7	279.8	275.1
5°	325.4	317.8	314.0	305.5	302.6	296.9	294.1	286.5	278.9	273.2	266.6
7.5°	342.5	331.1	323.5	312.1	307.4	298.8	293.1	283.6	273.2	264.7	255.2
10°	355.7	340.6	329.2	314.0	308.3	297.9	289.3	276.0	262.8	252.3	240.9
12.5°	364.3	346.2	330.1	312.1	304.5	293.1	280.8	265.6	250.4	237.2	224.8
15°	368.1	346.2	327.3	305.5	296.9	284.6	270.4	252.3	235.3	221.0	207.7
17.5°	365.2	339.6	319.7	295.0	285.5	271.3	255.2	236.2	218.2	203.0	189.7
20°	355.7	329.2	306.4	280.8	270.4	256.1	238.1	219.1	201.1	185.9	171.7
22.5°	339.6	312.1	288.4	262.8	252.3	238.1	219.1	200.2	182.1	167.0	153.7
25°	319.7	290.3	266.6	241.9	230.5	218.2	199.2	180.2	163.2	149.9	136.6
27.5°	293.1	267.5	243.8	219.1	208.7	197.3	178.3	161.3	144.2	130.9	119.5
30°	264.7	240.0	220.1	196.4	186.9	175.5	159.4	142.3	128.1	115.7	105.3
32.5°	236.2	212.5	193.5	173.6	165.1	153.7	139.4	124.3	111.0	100.6	92.0
35°	206.8	186.9	168.9	149.9	143.2	133.8	120.5	107.2	95.8	86.3	77.8
37.5°	177.4	161.3	145.1	130.0	122.4	114.8	102.5	91.1	80.6	73.0	66.4
40°	150.8	136.6	123.3	109.1	102.5	96.8	86.3	76.8	69.2	62.6	56.9
42.5°	125.2	113.8	102.5	91.1	85.4	80.6	72.1	63.6	56.9	52.2	47.4
45°	102.5	93.9	84.4	74.0	71.1	65.5	58.8	53.1	47.4	43.6	39.8
47.5°	82.5	74.9	67.4	59.8	56.9	53.1	47.4	42.7	38.9	36.0	33.2
50°	64.5	58.8	54.1	47.4	45.5	41.7	37.9	34.2	31.3	29.4	27.5
52.5°	49.3	44.6	40.8	37.0	35.1	33.2	29.4	27.5	25.6	24.7	23.7
55°	36.0	33.2	30.4	27.5	26.6	24.7	22.8	20.9	19.9	19.9	19.9
57.5°	25.6	23.7	21.8	19.9	19.9	19.0	18.0	17.1	16.1	16.1	16.1
60°	18.0	17.1	16.1	15.2	14.2	14.2	13.3	14.2	13.3	14.2	14.2
62.5°	12.3	11.4	11.4	10.4	10.4	10.4	10.4	10.4	11.4	11.4	12.3
65°	7.6	7.6	7.6	7.6	7.6	7.6	8.5	8.5	8.5	9.5	9.5
67.5°	5.7	5.7	5.7	6.6	6.6	6.6	6.6	7.6	7.6	7.6	8.5
70°	3.8	4.7	4.7	4.7	4.7	4.7	5.7	5.7	5.7	6.6	6.6
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	5.7	5.7
75°	2.8	3.8	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	5.7
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.8	3.8	3.8	3.8
80°	1.9	1.9	1.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.8
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	0.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.9
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°	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7
2.5°	273.2	270.4	271.3	265.6	266.6	262.8	260.9	258.0	256.1	253.3	254.2
5°	261.8	257.1	255.2	248.5	249.5	243.8	240.0	235.3	231.5	226.7	225.8
7.5°	247.6	240.0	237.2	230.5	229.6	222.0	217.2	211.5	206.8	202.1	200.2
10°	231.5	222.9	217.2	210.6	209.6	201.1	195.4	189.7	184.0	179.3	177.4
12.5°	214.4	204.9	198.3	190.7	188.8	181.2	174.5	168.9	163.2	158.4	155.6
15°	196.4	185.9	179.3	171.7	169.8	161.3	155.6	148.9	144.2	139.4	137.5
17.5°	178.3	167.9	160.3	153.7	151.8	143.2	136.6	131.9	126.2	123.3	120.5
20°	160.3	149.9	142.3	136.6	133.8	127.1	120.5	115.7	111.0	108.1	105.3
22.5°	142.3	132.8	126.2	120.5	118.6	111.9	106.2	101.5	98.7	94.9	93.0
25°	126.2	116.7	111.0	105.3	103.4	97.7	93.9	89.2	86.3	83.5	81.6
27.5°	111.0	102.5	96.8	92.0	91.1	86.3	81.6	78.7	75.9	74.0	73.0
30°	95.8	89.2	84.4	80.6	79.7	74.9	71.1	69.2	66.4	65.5	64.5
32.5°	84.4	77.8	74.0	70.2	69.2	65.5	63.6	60.7	58.8	57.9	57.9
35°	72.1	67.4	63.6	61.7	60.7	57.9	55.0	54.1	52.2	51.2	51.2
37.5°	61.7	57.9	55.0	52.2	52.2	50.3	48.4	47.4	46.5	46.5	45.5
40°	53.1	49.3	48.4	46.5	45.5	44.6	43.6	42.7	41.7	41.7	41.7
42.5°	44.6	42.7	40.8	39.8	39.8	38.9	37.9	37.9	37.0	37.9	37.9
45°	37.9	36.0	35.1	34.2	35.1	34.2	34.2	33.2	34.2	34.2	34.2
47.5°	32.3	31.3	30.4	30.4	30.4	30.4	30.4	30.4	30.4	31.3	31.3
50°	27.5	26.6	26.6	26.6	26.6	26.6	27.5	27.5	27.5	28.5	28.5
52.5°	22.8	22.8	22.8	22.8	23.7	23.7	24.7	24.7	25.6	25.6	26.6
55°	19.9	19.9	19.9	19.9	20.9	20.9	21.8	22.8	22.8	23.7	24.7
57.5°	17.1	17.1	18.0	18.0	19.0	19.0	19.9	20.9	20.9	21.8	22.8
60°	14.2	15.2	16.1	16.1	16.1	17.1	18.0	19.0	19.0	19.9	20.9
62.5°	12.3	13.3	14.2	14.2	14.2	15.2	16.1	17.1	17.1	18.0	19.0
65°	10.4	11.4	12.3	12.3	12.3	13.3	14.2	15.2	16.1	16.1	17.1
67.5°	9.5	9.5	10.4	10.4	11.4	12.3	12.3	13.3	14.2	15.2	16.1
70°	7.6	8.5	9.5	9.5	9.5	10.4	11.4	12.3	12.3	13.3	14.2
72.5°	6.6	6.6	7.6	7.6	8.5	9.5	9.5	10.4	11.4	11.4	12.3
75°	5.7	6.6	6.6	6.6	7.6	7.6	8.5	9.5	9.5	10.4	10.4
77.5°	4.7	4.7	5.7	5.7	5.7	6.6	6.6	7.6	7.6	8.5	8.5
80°	3.8	3.8	4.7	4.7	4.7	4.7	5.7	5.7	6.6	6.6	6.6
82.5°	2.8	2.8	2.8	2.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7
85°	1.9	1.9	1.9	1.9	1.9	2.8	2.8	2.8	2.8	2.8	3.8
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7
2.5°	251.4	251.4	250.4	249.5	248.5	247.6	246.6	245.7
5°	222.9	223.9	220.1	219.1	219.1	217.2	218.2	216.3
7.5°	196.4	196.4	193.5	192.6	191.6	189.7	188.8	187.8
10°	172.6	171.7	169.8	168.9	167.0	166.0	166.0	164.1
12.5°	151.8	150.8	148.9	148.0	146.1	145.1	144.2	143.2
15°	133.8	132.8	130.9	130.0	129.0	127.1	127.1	126.2
17.5°	116.7	115.7	114.8	112.9	112.9	111.0	110.0	110.0
20°	103.4	102.5	100.6	99.6	99.6	98.7	98.7	96.8
22.5°	91.1	90.1	89.2	88.2	88.2	87.3	86.3	86.3
25°	80.6	79.7	78.7	78.7	77.8	76.8	76.8	76.8
27.5°	71.1	71.1	70.2	70.2	70.2	69.2	69.2	68.3
30°	63.6	63.6	62.6	62.6	62.6	61.7	62.6	61.7
32.5°	56.9	56.9	56.9	56.9	56.9	56.0	56.0	56.0
35°	51.2	51.2	51.2	51.2	51.2	50.3	51.2	50.3
37.5°	45.5	46.5	45.5	45.5	46.5	45.5	45.5	45.5
40°	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
42.5°	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9
45°	34.2	35.1	35.1	35.1	35.1	35.1	35.1	35.1
47.5°	32.3	32.3	32.3	32.3	33.2	32.3	33.2	33.2
50°	29.4	29.4	29.4	30.4	30.4	30.4	30.4	30.4
52.5°	27.5	27.5	27.5	27.5	28.5	28.5	28.5	28.5
55°	24.7	25.6	25.6	25.6	26.6	26.6	26.6	26.6
57.5°	23.7	23.7	23.7	24.7	24.7	24.7	25.6	24.7
60°	21.8	21.8	22.8	22.8	22.8	23.7	23.7	23.7
62.5°	19.9	20.9	20.9	20.9	20.9	21.8	21.8	21.8
65°	18.0	19.0	19.0	19.0	19.9	19.9	19.9	19.9
67.5°	16.1	17.1	17.1	18.0	18.0	18.0	18.0	18.0
70°	14.2	15.2	15.2	15.2	16.1	16.1	16.1	16.1
72.5°	13.3	13.3	13.3	14.2	14.2	14.2	15.2	14.2
75°	11.4	12.3	12.3	12.3	12.3	12.3	13.3	13.3
77.5°	9.5	9.5	9.5	9.5	10.4	10.4	10.4	10.4
80°	7.6	7.6	7.6	7.6	8.5	8.5	8.5	8.5
82.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)