

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: P226237

Luminaire Tested: **LD2B05D010 EU2B05WW9030 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226237
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 EU2B05WW9030 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: 443.4 lumens
Efficiency: N/A
Efficacy: 60.7 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

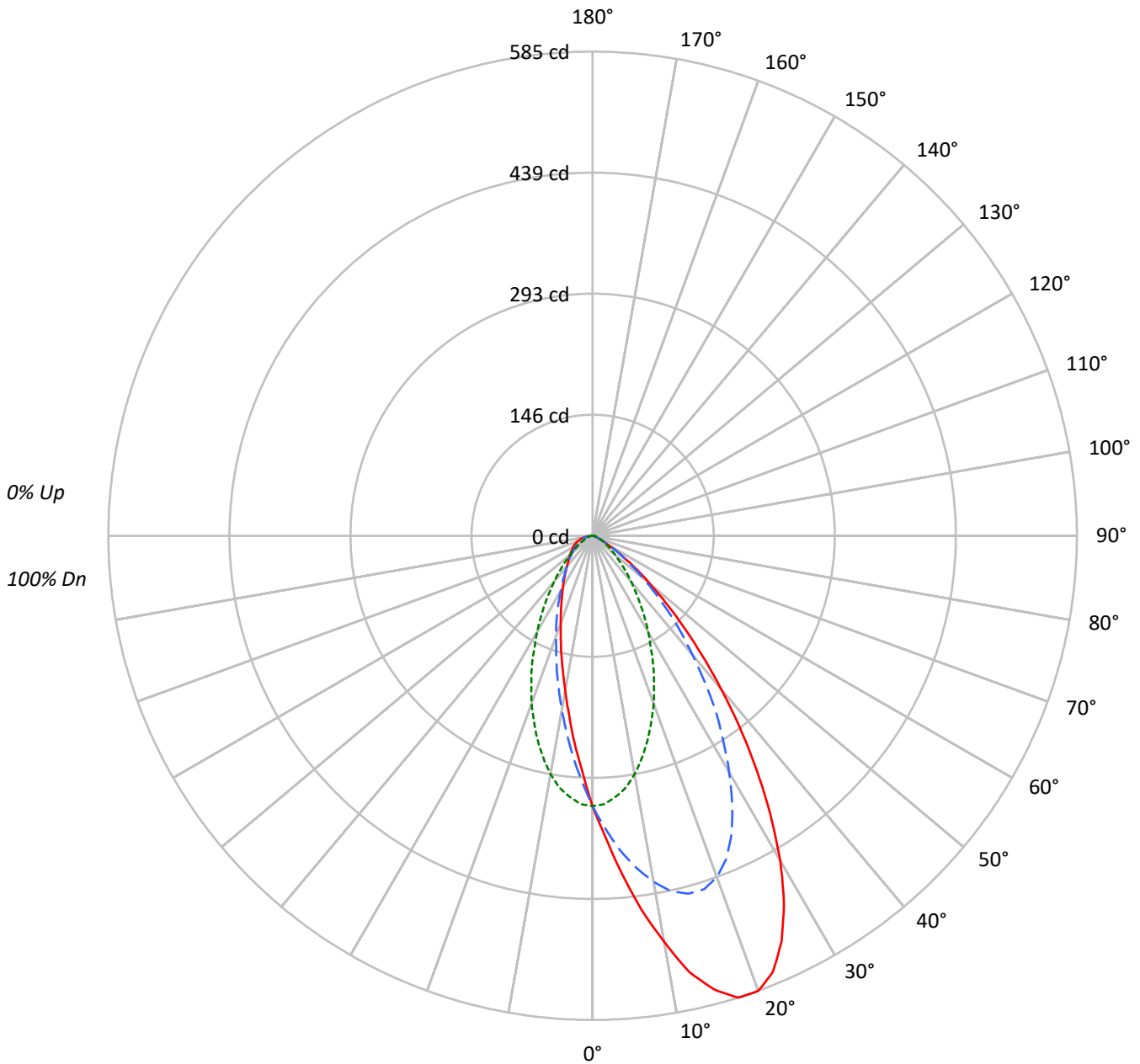
Input Watts (W): 7.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	126546	126546	126546
5°	159535	123180	97517
10°	195992	115086	74849
15°	227613	102779	58668
20°	241222	88871	46249
25°	230833	74280	38080
30°	202702	60023	31980
35°	163327	47334	27568
40°	121810	36710	24473
45°	84360	27718	22295
50°	54355	20549	21212
55°	31942	15600	20800
60°	17043	12782	21304
65°	8066	10082	21172
70°	3737	8720	21178
75°	4939	8231	23047
80°	4907	7361	22083
85°	4889	9777	19555



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	7.0
10°-20°	86.2	19.4
20°-30°	112.4	25.3
30°-40°	97.3	21.9
40°-50°	61.6	13.9
50°-60°	30.9	7.0
60°-70°	14.2	3.2
70°-80°	7.6	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°	229.4	51.7
0°-40°	326.7	73.7
0°-60°	419.2	94.5
0°-90°	443.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	443.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	327	327	327	327	327	
5°	410	382	317	268	251	42
15°	568	448	256	167	146	160
25°	540	397	174	100	89	245
35°	345	260	100	60	58	215
45°	154	129	51	40	41	121
55°	47	44	23	26	31	45
65°	9	10	11	19	23	10
75°	3	3	6	11	15	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°	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7
2.5°	365.2	367.4	367.4	368.5	364.1	365.2	365.2	363.0	359.7	357.5	354.2
5°	410.3	410.3	409.2	410.3	407.0	404.8	405.9	401.5	392.7	388.3	381.7
7.5°	456.5	454.3	454.3	453.2	447.7	444.4	443.3	435.6	423.5	414.7	404.8
10°	498.3	498.3	496.1	493.9	486.2	481.8	478.5	466.4	453.2	438.9	424.6
12.5°	540.1	537.9	534.6	530.2	519.2	514.8	509.3	495.0	475.2	458.7	440.0
15°	567.6	568.7	563.2	557.7	545.6	539.0	532.4	514.8	491.7	470.8	447.7
17.5°	585.2	584.1	578.6	572.0	558.8	551.1	543.4	522.5	498.3	473.0	447.7
20°	585.2	585.2	578.6	572.0	557.7	548.9	541.2	519.2	492.8	466.4	438.9
22.5°	569.8	567.6	563.2	556.6	542.3	534.6	525.8	503.8	476.3	451.0	422.4
25°	540.1	540.1	534.6	526.9	514.8	506.0	498.3	476.3	449.9	424.6	397.1
27.5°	500.5	499.4	493.9	488.4	475.2	468.6	460.9	440.0	416.9	393.8	365.2
30°	453.2	451.0	448.8	440.0	431.2	425.7	419.1	400.4	377.3	355.3	330.0
32.5°	399.3	402.6	397.1	391.6	383.9	378.4	372.9	358.6	337.7	317.9	293.7
35°	345.4	347.6	344.3	339.9	332.2	328.9	323.4	311.3	295.9	277.2	259.6
37.5°	291.5	291.5	291.5	288.2	283.8	280.5	277.2	266.2	253.0	238.7	222.2
40°	240.9	244.2	239.8	238.7	235.4	234.3	231.0	223.3	212.3	202.4	187.0
42.5°	194.7	194.7	195.8	193.6	192.5	190.3	188.1	183.7	176.0	167.2	157.3
45°	154.0	155.1	156.2	152.9	152.9	152.9	151.8	147.4	140.8	135.3	128.7
47.5°	119.9	119.9	121.0	119.9	119.9	119.9	117.7	117.7	113.3	107.8	102.3
50°	90.2	91.3	92.4	92.4	92.4	91.3	91.3	89.1	86.9	84.7	79.2
52.5°	68.2	68.2	67.1	68.2	68.2	68.2	68.2	67.1	66.0	63.8	60.5
55°	47.3	47.3	48.4	48.4	48.4	49.5	49.5	49.5	48.4	47.3	44.0
57.5°	33.0	33.0	33.0	34.1	35.2	35.2	35.2	35.2	34.1	33.0	31.9
60°	22.0	22.0	22.0	23.1	23.1	23.1	23.1	24.2	23.1	23.1	22.0
62.5°	14.3	14.3	14.3	14.3	14.3	15.4	15.4	15.4	15.4	15.4	14.3
65°	8.8	8.8	8.8	8.8	8.8	8.8	9.9	9.9	9.9	9.9	9.9
67.5°	5.5	5.5	5.5	5.5	5.5	6.6	6.6	6.6	6.6	6.6	6.6
70°	3.3	3.3	3.3	3.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4
72.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
75°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
77.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	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°	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7
2.5°	354.2	349.8	347.6	342.1	341.0	336.6	336.6	332.2	326.7	324.5	319.0
5°	377.3	368.5	364.1	354.2	350.9	344.3	341.0	332.2	323.4	316.8	309.1
7.5°	397.1	383.9	375.1	361.9	356.4	346.5	339.9	328.9	316.8	306.9	295.9
10°	412.5	394.9	381.7	364.1	357.5	345.4	335.5	320.1	304.7	292.6	279.4
12.5°	422.4	401.5	382.8	361.9	353.1	339.9	325.6	308.0	290.4	275.0	260.7
15°	426.8	401.5	379.5	354.2	344.3	330.0	313.5	292.6	272.8	256.3	240.9
17.5°	423.5	393.8	370.7	342.1	331.1	314.6	295.9	273.9	253.0	235.4	220.0
20°	412.5	381.7	355.3	325.6	313.5	297.0	276.1	254.1	233.2	215.6	199.1
22.5°	393.8	361.9	334.4	304.7	292.6	276.1	254.1	232.1	211.2	193.6	178.2
25°	370.7	336.6	309.1	280.5	267.3	253.0	231.0	209.0	189.2	173.8	158.4
27.5°	339.9	310.2	282.7	254.1	242.0	228.8	206.8	187.0	167.2	151.8	138.6
30°	306.9	278.3	255.2	227.7	216.7	203.5	184.8	165.0	148.5	134.2	122.1
32.5°	273.9	246.4	224.4	201.3	191.4	178.2	161.7	144.1	128.7	116.6	106.7
35°	239.8	216.7	195.8	173.8	166.1	155.1	139.7	124.3	111.1	100.1	90.2
37.5°	205.7	187.0	168.3	150.7	141.9	133.1	118.8	105.6	93.5	84.7	77.0
40°	174.9	158.4	143.0	126.5	118.8	112.2	100.1	89.1	80.3	72.6	66.0
42.5°	145.2	132.0	118.8	105.6	99.0	93.5	83.6	73.7	66.0	60.5	55.0
45°	118.8	108.9	97.9	85.8	82.5	75.9	68.2	61.6	55.0	50.6	46.2
47.5°	95.7	86.9	78.1	69.3	66.0	61.6	55.0	49.5	45.1	41.8	38.5
50°	74.8	68.2	62.7	55.0	52.8	48.4	44.0	39.6	36.3	34.1	31.9
52.5°	57.2	51.7	47.3	42.9	40.7	38.5	34.1	31.9	29.7	28.6	27.5
55°	41.8	38.5	35.2	31.9	30.8	28.6	26.4	24.2	23.1	23.1	23.1
57.5°	29.7	27.5	25.3	23.1	23.1	22.0	20.9	19.8	18.7	18.7	18.7
60°	20.9	19.8	18.7	17.6	16.5	16.5	15.4	16.5	15.4	16.5	16.5
62.5°	14.3	13.2	13.2	12.1	12.1	12.1	12.1	12.1	13.2	13.2	14.3
65°	8.8	8.8	8.8	8.8	8.8	8.8	9.9	9.9	9.9	11.0	11.0
67.5°	6.6	6.6	6.6	7.7	7.7	7.7	7.7	8.8	8.8	8.8	9.9
70°	4.4	5.5	5.5	5.5	5.5	5.5	6.6	6.6	6.6	7.7	7.7
72.5°	4.4	4.4	4.4	4.4	4.4	4.4	5.5	5.5	5.5	6.6	6.6
75°	3.3	4.4	4.4	4.4	4.4	4.4	4.4	5.5	5.5	5.5	6.6
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4	4.4	4.4	4.4
80°	2.2	2.2	2.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.4
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	1.1	2.2	2.2
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°	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7
2.5°	316.8	313.5	314.6	308.0	309.1	304.7	302.5	299.2	297.0	293.7	294.8
5°	303.6	298.1	295.9	288.2	289.3	282.7	278.3	272.8	268.4	262.9	261.8
7.5°	287.1	278.3	275.0	267.3	266.2	257.4	251.9	245.3	239.8	234.3	232.1
10°	268.4	258.5	251.9	244.2	243.1	233.2	226.6	220.0	213.4	207.9	205.7
12.5°	248.6	237.6	229.9	221.1	218.9	210.1	202.4	195.8	189.2	183.7	180.4
15°	227.7	215.6	207.9	199.1	196.9	187.0	180.4	172.7	167.2	161.7	159.5
17.5°	206.8	194.7	185.9	178.2	176.0	166.1	158.4	152.9	146.3	143.0	139.7
20°	185.9	173.8	165.0	158.4	155.1	147.4	139.7	134.2	128.7	125.4	122.1
22.5°	165.0	154.0	146.3	139.7	137.5	129.8	123.2	117.7	114.4	110.0	107.8
25°	146.3	135.3	128.7	122.1	119.9	113.3	108.9	103.4	100.1	96.8	94.6
27.5°	128.7	118.8	112.2	106.7	105.6	100.1	94.6	91.3	88.0	85.8	84.7
30°	111.1	103.4	97.9	93.5	92.4	86.9	82.5	80.3	77.0	75.9	74.8
32.5°	97.9	90.2	85.8	81.4	80.3	75.9	73.7	70.4	68.2	67.1	67.1
35°	83.6	78.1	73.7	71.5	70.4	67.1	63.8	62.7	60.5	59.4	59.4
37.5°	71.5	67.1	63.8	60.5	60.5	58.3	56.1	55.0	53.9	53.9	52.8
40°	61.6	57.2	56.1	53.9	52.8	51.7	50.6	49.5	48.4	48.4	48.4
42.5°	51.7	49.5	47.3	46.2	46.2	45.1	44.0	44.0	42.9	44.0	44.0
45°	44.0	41.8	40.7	39.6	40.7	39.6	39.6	38.5	39.6	39.6	39.6
47.5°	37.4	36.3	35.2	35.2	35.2	35.2	35.2	35.2	35.2	36.3	36.3
50°	31.9	30.8	30.8	30.8	30.8	30.8	31.9	31.9	31.9	33.0	33.0
52.5°	26.4	26.4	26.4	26.4	27.5	27.5	28.6	28.6	29.7	29.7	30.8
55°	23.1	23.1	23.1	23.1	24.2	24.2	25.3	26.4	26.4	27.5	28.6
57.5°	19.8	19.8	20.9	20.9	22.0	22.0	23.1	24.2	24.2	25.3	26.4
60°	16.5	17.6	18.7	18.7	18.7	19.8	20.9	22.0	22.0	23.1	24.2
62.5°	14.3	15.4	16.5	16.5	16.5	17.6	18.7	19.8	19.8	20.9	22.0
65°	12.1	13.2	14.3	14.3	14.3	15.4	16.5	17.6	18.7	18.7	19.8
67.5°	11.0	11.0	12.1	12.1	13.2	14.3	14.3	15.4	16.5	17.6	18.7
70°	8.8	9.9	11.0	11.0	11.0	12.1	13.2	14.3	14.3	15.4	16.5
72.5°	7.7	7.7	8.8	8.8	9.9	11.0	11.0	12.1	13.2	13.2	14.3
75°	6.6	7.7	7.7	7.7	8.8	8.8	9.9	11.0	11.0	12.1	12.1
77.5°	5.5	5.5	6.6	6.6	6.6	7.7	7.7	8.8	8.8	9.9	9.9
80°	4.4	4.4	5.5	5.5	5.5	5.5	6.6	6.6	7.7	7.7	7.7
82.5°	3.3	3.3	3.3	3.3	4.4	4.4	4.4	4.4	5.5	5.5	5.5
85°	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3	3.3	3.3	4.4
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°	326.7	326.7	326.7	326.7	326.7	326.7	326.7	326.7
2.5°	291.5	291.5	290.4	289.3	288.2	287.1	286.0	284.9
5°	258.5	259.6	255.2	254.1	254.1	251.9	253.0	250.8
7.5°	227.7	227.7	224.4	223.3	222.2	220.0	218.9	217.8
10°	200.2	199.1	196.9	195.8	193.6	192.5	192.5	190.3
12.5°	176.0	174.9	172.7	171.6	169.4	168.3	167.2	166.1
15°	155.1	154.0	151.8	150.7	149.6	147.4	147.4	146.3
17.5°	135.3	134.2	133.1	130.9	130.9	128.7	127.6	127.6
20°	119.9	118.8	116.6	115.5	115.5	114.4	114.4	112.2
22.5°	105.6	104.5	103.4	102.3	102.3	101.2	100.1	100.1
25°	93.5	92.4	91.3	91.3	90.2	89.1	89.1	89.1
27.5°	82.5	82.5	81.4	81.4	81.4	80.3	80.3	79.2
30°	73.7	73.7	72.6	72.6	72.6	71.5	72.6	71.5
32.5°	66.0	66.0	66.0	66.0	66.0	64.9	64.9	64.9
35°	59.4	59.4	59.4	59.4	59.4	58.3	59.4	58.3
37.5°	52.8	53.9	52.8	52.8	53.9	52.8	52.8	52.8
40°	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4
42.5°	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0
45°	39.6	40.7	40.7	40.7	40.7	40.7	40.7	40.7
47.5°	37.4	37.4	37.4	37.4	38.5	37.4	38.5	38.5
50°	34.1	34.1	34.1	35.2	35.2	35.2	35.2	35.2
52.5°	31.9	31.9	31.9	31.9	33.0	33.0	33.0	33.0
55°	28.6	29.7	29.7	29.7	30.8	30.8	30.8	30.8
57.5°	27.5	27.5	27.5	28.6	28.6	28.6	29.7	28.6
60°	25.3	25.3	26.4	26.4	26.4	27.5	27.5	27.5
62.5°	23.1	24.2	24.2	24.2	24.2	25.3	25.3	25.3
65°	20.9	22.0	22.0	22.0	23.1	23.1	23.1	23.1
67.5°	18.7	19.8	19.8	20.9	20.9	20.9	20.9	20.9
70°	16.5	17.6	17.6	17.6	18.7	18.7	18.7	18.7
72.5°	15.4	15.4	15.4	16.5	16.5	16.5	17.6	16.5
75°	13.2	14.3	14.3	14.3	14.3	14.3	15.4	15.4
77.5°	11.0	11.0	11.0	11.0	12.1	12.1	12.1	12.1
80°	8.8	8.8	8.8	8.8	9.9	9.9	9.9	9.9
82.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
85°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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)