

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: P226243

Luminaire Tested: **LD2B10D010 EU2B10WW8027 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226243
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 EU2B10WW8027 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: 719.6 lumens
Efficiency: N/A
Efficacy: 69.9 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

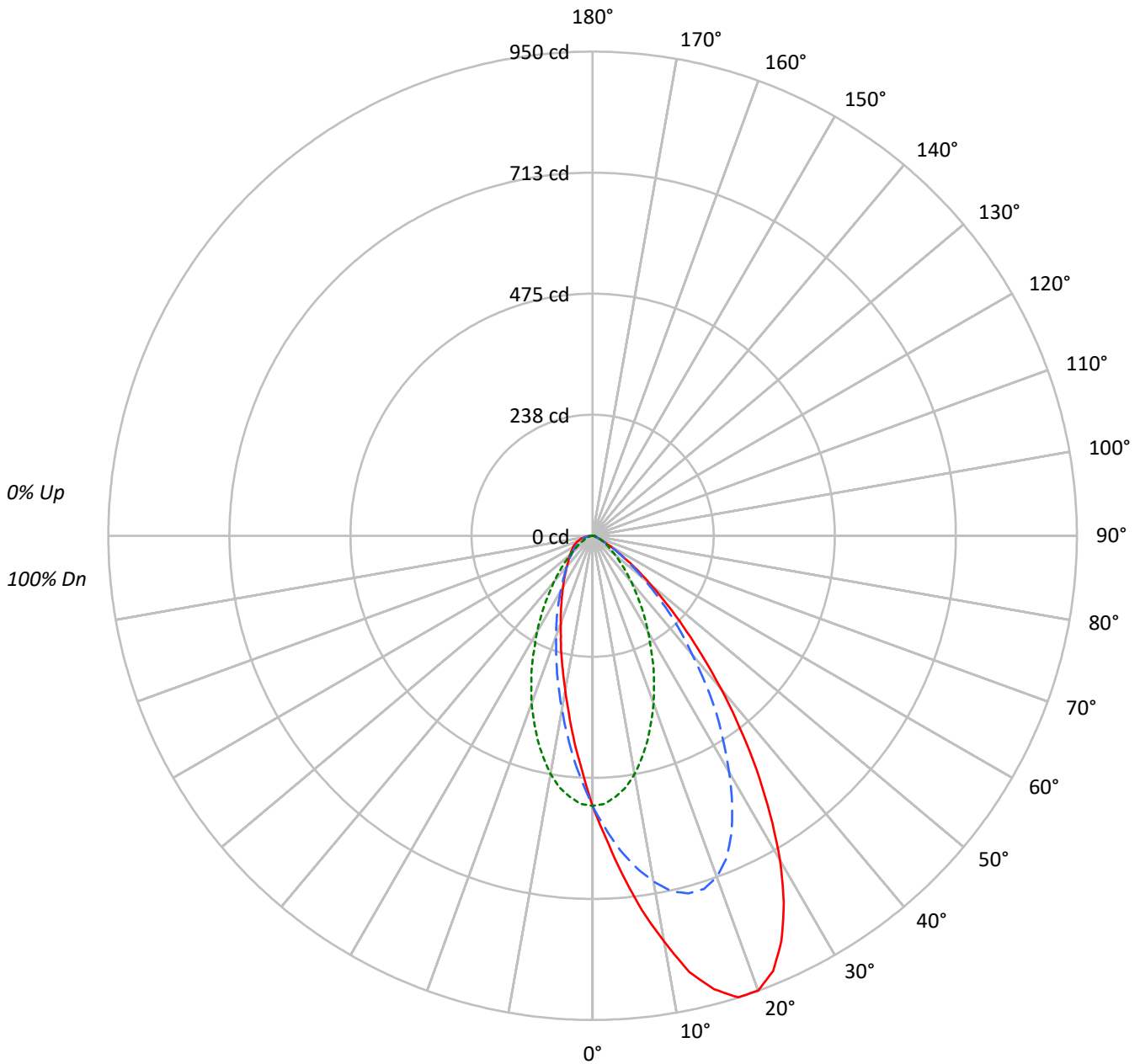
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P226243

CATALOG NUMBER: LD2B10D010 EU2B10WW8027 2LBSW*

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	100	100	100
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90	90	90	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81	81	81	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73	73	73	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66	66	66	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60	60	60	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55	55	55	55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50	50	50	50
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46	46	46	46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43	43	43	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40	40	40	40

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	205332	205332	205332
5°	258880	199895	158252
10°	318040	186749	121458
15°	369330	166780	95200
20°	391430	144231	75063
25°	374564	120524	61800
30°	328921	97415	51883
35°	265039	76793	44733
40°	197656	59565	39693
45°	136893	44974	36154
50°	88221	33324	34409
55°	51864	25324	33766
60°	27657	20762	34551
65°	13107	16314	34370
70°	6116	14157	34315
75°	8082	13320	37415
80°	8030	12045	35913
85°	8000	15999	31555



TEST NUMBER: P226243

CATALOG NUMBER: LD2B10D010 EU2B10WW8027 2LBSW*

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	7.0
10°-20°	139.8	19.4
20°-30°	182.4	25.3
30°-40°	157.9	21.9
40°-50°	100.0	13.9
50°-60°	50.1	7.0
60°-70°	23.0	3.2
70°-80°	12.4	1.7
80°-90°	4.0	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°	372.3	51.7
0°-40°	530.2	73.7
0°-60°	680.2	94.5
0°-90°	719.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	719.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	530	530	530	530	530	
5°	666	619	514	436	407	68
15°	921	726	416	271	237	259
25°	876	644	282	162	145	397
35°	560	421	162	98	95	348
45°	250	209	82	64	66	197
55°	77	71	38	43	50	74
65°	14	16	18	30	38	16
75°	5	5	9	18	25	5
85°	2	2	4	5	7	1
90°	0	0	0	0	0	



TEST NUMBER: P226243

CATALOG NUMBER: LD2B10D010 EU2B10WW8027 2LBSW*

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1
2.5°	592.6	596.2	596.2	598.0	590.8	592.6	592.6	589.0	583.7	580.1	574.8
5°	665.8	665.8	664.0	665.8	660.4	656.9	658.7	651.5	637.2	630.1	619.4
7.5°	740.8	737.2	737.2	735.4	726.5	721.1	719.3	706.8	687.2	672.9	656.9
10°	808.6	808.6	805.0	801.4	789.0	781.8	776.5	756.8	735.4	712.2	689.0
12.5°	876.4	872.8	867.5	860.4	842.5	835.4	826.4	803.2	771.1	744.3	714.0
15°	921.0	922.8	913.9	905.0	885.3	874.6	863.9	835.4	797.9	764.0	726.5
17.5°	949.6	947.8	938.9	928.2	906.8	894.3	881.8	847.9	808.6	767.5	726.5
20°	949.6	949.6	938.9	928.2	905.0	890.7	878.2	842.5	799.7	756.8	712.2
22.5°	924.6	921.0	913.9	903.2	880.0	867.5	853.2	817.5	772.9	731.8	685.4
25°	876.4	876.4	867.5	855.0	835.4	821.1	808.6	772.9	730.0	689.0	644.4
27.5°	812.2	810.4	801.4	792.5	771.1	760.4	747.9	714.0	676.5	639.0	592.6
30°	735.4	731.8	728.3	714.0	699.7	690.8	680.1	649.7	612.2	576.5	535.5
32.5°	647.9	653.3	644.4	635.4	623.0	614.0	605.1	581.9	548.0	515.9	476.6
35°	560.5	564.0	558.7	551.6	539.1	533.7	524.8	505.1	480.2	449.8	421.3
37.5°	473.0	473.0	473.0	467.7	460.5	455.2	449.8	432.0	410.5	387.3	360.6
40°	390.9	396.3	389.1	387.3	382.0	380.2	374.8	362.3	344.5	328.4	303.4
42.5°	315.9	315.9	317.7	314.2	312.4	308.8	305.2	298.1	285.6	271.3	255.2
45°	249.9	251.7	253.5	248.1	248.1	248.1	246.3	239.2	228.5	219.6	208.8
47.5°	194.6	194.6	196.3	194.6	194.6	194.6	191.0	191.0	183.9	174.9	166.0
50°	146.4	148.2	149.9	149.9	149.9	148.2	148.2	144.6	141.0	137.4	128.5
52.5°	110.7	110.7	108.9	110.7	110.7	110.7	110.7	108.9	107.1	103.5	98.2
55°	76.8	76.8	78.5	78.5	78.5	80.3	80.3	80.3	78.5	76.8	71.4
57.5°	53.5	53.5	53.5	55.3	57.1	57.1	57.1	57.1	55.3	53.5	51.8
60°	35.7	35.7	35.7	37.5	37.5	37.5	37.5	39.3	37.5	37.5	35.7
62.5°	23.2	23.2	23.2	23.2	23.2	25.0	25.0	25.0	25.0	25.0	23.2
65°	14.3	14.3	14.3	14.3	14.3	14.3	16.1	16.1	16.1	16.1	16.1
67.5°	8.9	8.9	8.9	8.9	8.9	10.7	10.7	10.7	10.7	10.7	10.7
70°	5.4	5.4	5.4	5.4	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
75°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4	5.4	5.4
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.6	3.6	1.8
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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



TEST NUMBER: P226243

CATALOG NUMBER: LD2B10D010 EU2B10WW8027 2LBSW*

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1
2.5°	574.8	567.6	564.0	555.1	553.3	546.2	546.2	539.1	530.1	526.6	517.6
5°	612.2	598.0	590.8	574.8	569.4	558.7	553.3	539.1	524.8	514.1	501.6
7.5°	644.4	623.0	608.7	587.3	578.3	562.3	551.6	533.7	514.1	498.0	480.2
10°	669.4	640.8	619.4	590.8	580.1	560.5	544.4	519.4	494.4	474.8	453.4
12.5°	685.4	651.5	621.2	587.3	573.0	551.6	528.3	499.8	471.2	446.2	423.0
15°	692.6	651.5	615.8	574.8	558.7	535.5	508.7	474.8	442.7	415.9	390.9
17.5°	687.2	639.0	601.5	555.1	537.3	510.5	480.2	444.5	410.5	382.0	357.0
20°	669.4	619.4	576.5	528.3	508.7	481.9	448.0	412.3	378.4	349.9	323.1
22.5°	639.0	587.3	542.6	494.4	474.8	448.0	412.3	376.6	342.7	314.2	289.2
25°	601.5	546.2	501.6	455.2	433.7	410.5	374.8	339.1	307.0	282.0	257.0
27.5°	551.6	503.4	458.7	412.3	392.7	371.3	335.6	303.4	271.3	246.3	224.9
30°	498.0	451.6	414.1	369.5	351.6	330.2	299.9	267.7	241.0	217.8	198.1
32.5°	444.5	399.8	364.1	326.6	310.6	289.2	262.4	233.8	208.8	189.2	173.1
35°	389.1	351.6	317.7	282.0	269.5	251.7	226.7	201.7	180.3	162.4	146.4
37.5°	333.8	303.4	273.1	244.5	230.3	216.0	192.8	171.4	151.7	137.4	124.9
40°	283.8	257.0	232.0	205.3	192.8	182.1	162.4	144.6	130.3	117.8	107.1
42.5°	235.6	214.2	192.8	171.4	160.6	151.7	135.7	119.6	107.1	98.2	89.2
45°	192.8	176.7	158.9	139.2	133.9	123.2	110.7	100.0	89.2	82.1	75.0
47.5°	155.3	141.0	126.7	112.5	107.1	100.0	89.2	80.3	73.2	67.8	62.5
50°	121.4	110.7	101.7	89.2	85.7	78.5	71.4	64.3	58.9	55.3	51.8
52.5°	92.8	83.9	76.8	69.6	66.0	62.5	55.3	51.8	48.2	46.4	44.6
55°	67.8	62.5	57.1	51.8	50.0	46.4	42.8	39.3	37.5	37.5	37.5
57.5°	48.2	44.6	41.1	37.5	37.5	35.7	33.9	32.1	30.3	30.3	30.3
60°	33.9	32.1	30.3	28.6	26.8	26.8	25.0	26.8	25.0	26.8	26.8
62.5°	23.2	21.4	21.4	19.6	19.6	19.6	19.6	19.6	21.4	21.4	23.2
65°	14.3	14.3	14.3	14.3	14.3	14.3	16.1	16.1	16.1	17.8	17.8
67.5°	10.7	10.7	10.7	12.5	12.5	12.5	12.5	14.3	14.3	14.3	16.1
70°	7.1	8.9	8.9	8.9	8.9	8.9	10.7	10.7	10.7	12.5	12.5
72.5°	7.1	7.1	7.1	7.1	7.1	7.1	8.9	8.9	8.9	10.7	10.7
75°	5.4	7.1	7.1	7.1	7.1	7.1	7.1	8.9	8.9	8.9	10.7
77.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.1	7.1	7.1	7.1
80°	3.6	3.6	3.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4	7.1
82.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	5.4
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.6	1.8	3.6	3.6
87.5°	0.0	0.0	0.0	1.8	0.0	1.8	1.8	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P226243

CATALOG NUMBER: LD2B10D010 EU2B10WW8027 2LBSW*

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1
2.5°	514.1	508.7	510.5	499.8	501.6	494.4	490.9	485.5	481.9	476.6	478.4
5°	492.6	483.7	480.2	467.7	469.4	458.7	451.6	442.7	435.5	426.6	424.8
7.5°	465.9	451.6	446.2	433.7	432.0	417.7	408.8	398.0	389.1	380.2	376.6
10°	435.5	419.5	408.8	396.3	394.5	378.4	367.7	357.0	346.3	337.4	333.8
12.5°	403.4	385.6	373.1	358.8	355.2	340.9	328.4	317.7	307.0	298.1	292.7
15°	369.5	349.9	337.4	323.1	319.5	303.4	292.7	280.2	271.3	262.4	258.8
17.5°	335.6	315.9	301.7	289.2	285.6	269.5	257.0	248.1	237.4	232.0	226.7
20°	301.7	282.0	267.7	257.0	251.7	239.2	226.7	217.8	208.8	203.5	198.1
22.5°	267.7	249.9	237.4	226.7	223.1	210.6	199.9	191.0	185.6	178.5	174.9
25°	237.4	219.6	208.8	198.1	194.6	183.9	176.7	167.8	162.4	157.1	153.5
27.5°	208.8	192.8	182.1	173.1	171.4	162.4	153.5	148.2	142.8	139.2	137.4
30°	180.3	167.8	158.9	151.7	149.9	141.0	133.9	130.3	124.9	123.2	121.4
32.5°	158.9	146.4	139.2	132.1	130.3	123.2	119.6	114.2	110.7	108.9	108.9
35°	135.7	126.7	119.6	116.0	114.2	108.9	103.5	101.7	98.2	96.4	96.4
37.5°	116.0	108.9	103.5	98.2	98.2	94.6	91.0	89.2	87.5	87.5	85.7
40°	100.0	92.8	91.0	87.5	85.7	83.9	82.1	80.3	78.5	78.5	78.5
42.5°	83.9	80.3	76.8	75.0	75.0	73.2	71.4	71.4	69.6	71.4	71.4
45°	71.4	67.8	66.0	64.3	66.0	64.3	64.3	62.5	64.3	64.3	64.3
47.5°	60.7	58.9	57.1	57.1	57.1	57.1	57.1	57.1	57.1	58.9	58.9
50°	51.8	50.0	50.0	50.0	50.0	50.0	51.8	51.8	51.8	53.5	53.5
52.5°	42.8	42.8	42.8	42.8	44.6	44.6	46.4	46.4	48.2	48.2	50.0
55°	37.5	37.5	37.5	37.5	39.3	39.3	41.1	42.8	42.8	44.6	46.4
57.5°	32.1	32.1	33.9	33.9	35.7	35.7	37.5	39.3	39.3	41.1	42.8
60°	26.8	28.6	30.3	30.3	30.3	32.1	33.9	35.7	35.7	37.5	39.3
62.5°	23.2	25.0	26.8	26.8	26.8	28.6	30.3	32.1	32.1	33.9	35.7
65°	19.6	21.4	23.2	23.2	23.2	25.0	26.8	28.6	30.3	30.3	32.1
67.5°	17.8	17.8	19.6	19.6	21.4	23.2	23.2	25.0	26.8	28.6	30.3
70°	14.3	16.1	17.8	17.8	17.8	19.6	21.4	23.2	23.2	25.0	26.8
72.5°	12.5	12.5	14.3	14.3	16.1	17.8	17.8	19.6	21.4	21.4	23.2
75°	10.7	12.5	12.5	12.5	14.3	14.3	16.1	17.8	17.8	19.6	19.6
77.5°	8.9	8.9	10.7	10.7	10.7	12.5	12.5	14.3	14.3	16.1	16.1
80°	7.1	7.1	8.9	8.9	8.9	8.9	10.7	10.7	12.5	12.5	12.5
82.5°	5.4	5.4	5.4	5.4	7.1	7.1	7.1	7.1	8.9	8.9	8.9
85°	3.6	3.6	3.6	3.6	3.6	5.4	5.4	5.4	5.4	5.4	7.1
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P226243

CATALOG NUMBER: LD2B10D010 EU2B10WW8027 2LBSW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	530.1	530.1	530.1	530.1	530.1	530.1	530.1	530.1
2.5°	473.0	473.0	471.2	469.4	467.7	465.9	464.1	462.3
5°	419.5	421.3	414.1	412.3	412.3	408.8	410.5	407.0
7.5°	369.5	369.5	364.1	362.3	360.6	357.0	355.2	353.4
10°	324.9	323.1	319.5	317.7	314.2	312.4	312.4	308.8
12.5°	285.6	283.8	280.2	278.5	274.9	273.1	271.3	269.5
15°	251.7	249.9	246.3	244.5	242.8	239.2	239.2	237.4
17.5°	219.6	217.8	216.0	212.4	212.4	208.8	207.1	207.1
20°	194.6	192.8	189.2	187.4	187.4	185.6	185.6	182.1
22.5°	171.4	169.6	167.8	166.0	166.0	164.2	162.4	162.4
25°	151.7	149.9	148.2	148.2	146.4	144.6	144.6	144.6
27.5°	133.9	133.9	132.1	132.1	132.1	130.3	130.3	128.5
30°	119.6	119.6	117.8	117.8	117.8	116.0	117.8	116.0
32.5°	107.1	107.1	107.1	107.1	107.1	105.3	105.3	105.3
35°	96.4	96.4	96.4	96.4	96.4	94.6	96.4	94.6
37.5°	85.7	87.5	85.7	85.7	87.5	85.7	85.7	85.7
40°	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
42.5°	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
45°	64.3	66.0	66.0	66.0	66.0	66.0	66.0	66.0
47.5°	60.7	60.7	60.7	60.7	62.5	60.7	62.5	62.5
50°	55.3	55.3	55.3	57.1	57.1	57.1	57.1	57.1
52.5°	51.8	51.8	51.8	51.8	53.5	53.5	53.5	53.5
55°	46.4	48.2	48.2	48.2	50.0	50.0	50.0	50.0
57.5°	44.6	44.6	44.6	46.4	46.4	46.4	48.2	46.4
60°	41.1	41.1	42.8	42.8	42.8	44.6	44.6	44.6
62.5°	37.5	39.3	39.3	39.3	39.3	41.1	41.1	41.1
65°	33.9	35.7	35.7	35.7	37.5	37.5	37.5	37.5
67.5°	30.3	32.1	32.1	33.9	33.9	33.9	33.9	33.9
70°	26.8	28.6	28.6	28.6	30.3	30.3	30.3	30.3
72.5°	25.0	25.0	25.0	26.8	26.8	26.8	28.6	26.8
75°	21.4	23.2	23.2	23.2	23.2	23.2	25.0	25.0
77.5°	17.8	17.8	17.8	17.8	19.6	19.6	19.6	19.6
80°	14.3	14.3	14.3	14.3	16.1	16.1	16.1	16.1
82.5°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
85°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
87.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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)