

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: P274462

Luminaire Tested: **LD6B15DE010W2N2050 EU6B1020W2N902050 6LBDW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274462  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B15DE010W2N2050 EU6B1020W2N902050 6LBDW0H  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH HAZE FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1116.7 lumens  
Efficiency: N/A  
Efficacy: 50.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

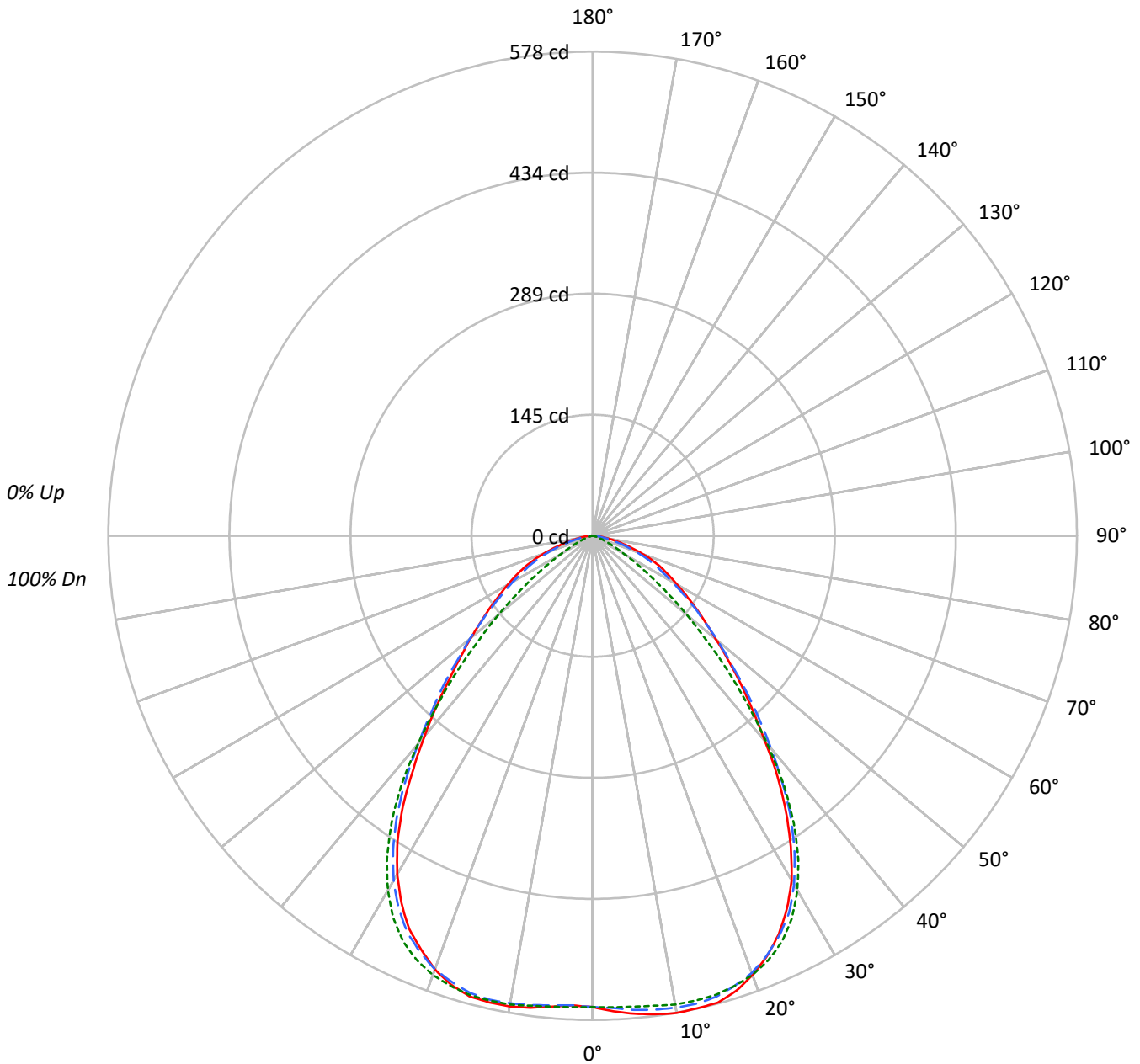
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68																			
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61																			
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54																			
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48																			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44																			
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40																			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36																			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	36704	36704	36704
5°	37519	36949	36949
10°	38324	37642	37794
15°	38965	38323	38431
20°	38727	38727	38234
25°	37807	38490	37288
30°	35791	36808	35128
35°	32065	33339	31436
40°	27244	27585	26563
45°	23057	21073	22245
50°	19467	14859	19223
55°	17107	9589	16925
60°	15162	5715	15266
65°	14002	3443	14002
70°	12151	1965	11846
75°	9629	1210	9024
80°	7176	902	6875
85°	6587	599	5988



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.2	4.9
10°-20°	160.3	14.4
20°-30°	241.1	21.6
30°-40°	253.5	22.7
40°-50°	189.4	17.0
50°-60°	117.9	10.6
60°-70°	67.0	6.0
70°-80°	27.6	2.5
80°-90°	5.7	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°	455.6	40.8
0°-40°	709.0	63.5
0°-60°	1016.3	91.0
0°-90°	1116.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1116.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	563	563	563	563	563	
5°	573	568	564	563	564	55
15°	577	570	567	565	569	162
25°	525	527	535	523	518	240
35°	403	413	419	407	395	250
45°	250	255	228	251	241	194
55°	150	147	84	145	149	135
65°	91	81	22	81	91	89
75°	38	30	5	29	36	42
85°	9	6	1	5	8	10
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°	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6
2.5°	568.2	567.4	568.2	566.6	565.8	565.8	566.6	565.0	564.2	565.0	564.2
5°	572.9	571.3	572.1	571.3	569.7	569.7	570.5	568.2	568.2	569.0	568.2
7.5°	576.1	576.1	576.1	574.5	573.7	572.9	574.5	572.1	571.3	571.3	570.5
10°	578.5	577.7	578.5	576.9	575.3	574.5	576.1	574.5	572.9	574.5	572.1
12.5°	577.7	577.7	577.7	576.9	575.3	574.5	576.1	573.7	572.9	573.7	572.1
15°	576.9	574.5	575.3	574.5	572.1	572.1	572.9	570.5	569.0	571.3	569.7
17.5°	569.7	568.2	569.0	567.4	565.8	565.0	565.8	565.0	563.4	565.0	563.4
20°	557.8	557.8	558.6	557.0	555.4	554.6	556.2	554.6	553.0	555.4	555.4
22.5°	543.5	543.5	543.5	542.7	541.9	541.9	541.9	541.1	540.3	541.9	542.7
25°	525.2	524.4	525.2	526.0	525.2	524.4	525.2	525.2	523.6	526.8	526.8
27.5°	502.1	502.1	503.7	502.9	502.9	502.1	503.7	503.7	502.9	505.3	507.7
30°	475.1	473.5	475.1	475.1	475.9	475.9	476.6	476.6	476.6	479.0	480.6
32.5°	440.0	440.8	443.2	442.4	441.6	444.0	444.0	445.6	446.4	448.0	448.8
35°	402.6	403.4	403.4	404.2	405.8	404.2	408.2	407.4	408.2	411.4	413.0
37.5°	362.9	360.5	364.4	362.9	363.7	363.7	365.2	366.0	368.4	372.4	372.4
40°	319.9	320.7	322.3	323.1	323.9	323.9	323.9	326.3	327.0	331.8	331.0
42.5°	282.5	282.5	284.1	284.9	284.9	284.9	284.9	287.3	288.9	290.4	292.0
45°	249.9	247.5	249.1	249.1	250.7	249.9	251.5	253.0	253.8	256.2	255.4
47.5°	218.8	218.0	218.8	219.6	218.8	219.6	220.4	221.2	222.0	222.0	222.0
50°	191.8	191.8	192.6	193.4	193.4	193.4	193.4	194.2	194.2	195.8	194.2
52.5°	169.5	170.3	170.3	169.5	170.3	170.3	171.1	171.1	170.3	170.3	167.9
55°	150.4	149.6	150.4	149.6	150.4	150.4	149.6	149.6	148.8	148.0	147.2
57.5°	132.1	132.1	132.1	132.1	131.3	132.1	131.3	130.5	130.5	128.9	126.5
60°	116.2	116.2	116.2	116.2	116.2	115.4	116.2	115.4	113.8	112.2	109.0
62.5°	102.7	101.9	102.7	101.9	101.9	101.1	101.1	100.3	98.7	97.1	93.9
65°	90.7	91.5	90.7	90.7	89.9	89.1	89.1	88.3	85.9	84.3	81.2
67.5°	78.0	77.2	77.2	77.2	76.4	76.4	76.4	74.8	73.2	70.8	67.6
70°	63.7	63.7	63.7	62.9	62.9	62.1	62.1	61.3	59.7	58.1	54.1
72.5°	50.1	50.1	50.1	48.5	49.3	48.5	48.5	46.9	46.2	43.8	41.4
75°	38.2	38.2	37.4	37.4	36.6	35.8	35.8	35.0	34.2	32.6	30.2
77.5°	27.9	27.9	27.9	27.1	26.3	25.5	25.5	24.7	23.9	23.1	21.5
80°	19.1	19.1	19.1	19.1	18.3	17.5	17.5	16.7	16.7	15.9	14.3
82.5°	12.7	12.7	12.7	12.7	11.9	11.9	11.9	11.1	10.3	10.3	8.8
85°	8.8	8.8	8.0	8.0	8.0	8.0	7.2	7.2	6.4	5.6	5.6
87.5°	4.8	4.8	4.8	4.8	4.0	4.0	4.0	4.0	3.2	3.2	2.4
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°	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6
2.5°	566.6	566.6	565.8	563.4	564.2	563.4	564.2	563.4	561.0	563.4	561.0
5°	569.7	570.5	569.0	565.8	566.6	565.8	565.8	565.0	562.6	564.2	562.6
7.5°	572.9	572.1	571.3	568.2	569.0	568.2	568.2	566.6	564.2	565.8	563.4
10°	574.5	574.5	572.9	569.7	569.7	569.0	569.7	569.0	565.8	568.2	566.6
12.5°	574.5	573.7	573.7	569.7	570.5	569.7	570.5	569.0	566.6	568.2	567.4
15°	572.1	572.1	571.3	567.4	568.2	568.2	569.0	567.4	565.0	567.4	565.8
17.5°	567.4	567.4	566.6	563.4	565.0	565.0	565.8	564.2	561.8	563.4	563.4
20°	557.8	558.6	558.6	556.2	557.8	557.8	558.6	557.8	557.0	557.8	556.2
22.5°	546.7	548.3	548.3	545.9	547.5	547.5	549.9	549.1	547.5	548.3	547.5
25°	530.0	531.6	533.1	531.6	533.1	533.1	535.5	534.7	533.1	534.7	532.3
27.5°	510.9	511.7	513.3	511.7	514.0	513.3	515.6	514.8	512.5	514.8	514.0
30°	483.8	487.0	489.4	487.0	489.4	489.4	491.0	490.2	489.4	488.6	488.6
32.5°	453.6	456.8	456.8	456.0	457.5	457.5	458.3	456.8	456.0	456.8	457.5
35°	416.2	417.8	419.4	418.6	419.4	420.2	419.4	420.2	417.8	418.6	418.6
37.5°	375.6	377.2	377.2	374.8	376.4	376.4	374.8	374.8	373.2	374.8	371.6
40°	332.6	331.0	331.8	330.2	328.6	328.6	327.8	324.7	323.1	323.9	324.7
42.5°	290.4	290.4	288.1	284.1	280.1	280.1	277.7	276.1	272.9	274.5	273.7
45°	254.6	250.7	247.5	241.1	238.7	237.1	233.2	229.2	227.6	228.4	227.6
47.5°	220.4	217.2	209.3	200.5	198.1	195.8	191.0	186.2	184.6	183.0	183.0
50°	191.8	186.2	177.4	167.9	163.9	159.9	153.6	148.8	145.6	146.4	146.4
52.5°	165.5	159.1	148.8	136.9	132.1	127.3	121.7	116.2	113.8	113.0	113.0
55°	142.4	135.3	124.9	111.4	107.4	101.9	94.7	88.3	85.1	84.3	85.9
57.5°	121.7	115.4	103.4	89.9	85.1	79.6	72.4	66.8	62.9	62.1	62.9
60°	105.0	96.3	85.9	73.2	66.8	62.1	54.1	49.3	45.4	43.8	44.6
62.5°	88.3	80.4	70.0	57.3	52.5	47.7	40.6	35.0	31.8	31.0	31.8
65°	75.6	67.6	58.1	46.9	42.2	37.4	31.0	25.5	23.1	22.3	23.1
67.5°	62.9	55.7	47.7	37.4	33.4	29.4	23.1	19.1	15.9	15.1	15.9
70°	50.9	44.6	36.6	29.4	25.5	22.3	17.5	13.5	11.1	10.3	11.1
72.5°	38.2	33.4	27.9	21.5	19.1	16.7	12.7	9.5	8.0	7.2	8.0
75°	27.9	23.9	19.9	15.1	13.5	11.9	8.8	6.4	5.6	4.8	5.6
77.5°	19.1	16.7	13.5	10.3	8.8	8.0	5.6	4.8	4.0	3.2	3.2
80°	12.7	11.1	8.8	7.2	6.4	5.6	4.0	3.2	2.4	2.4	2.4
82.5°	8.0	6.4	5.6	4.0	3.2	3.2	2.4	1.6	1.6	1.6	1.6
85°	4.8	4.0	3.2	2.4	1.6	1.6	0.8	0.8	0.8	0.8	0.8
87.5°	2.4	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.8
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°	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6
2.5°	562.6	561.0	561.0	561.8	562.6	563.4	561.8	561.0	561.0	563.4	561.8
5°	562.6	561.8	561.8	561.8	563.4	564.2	562.6	561.8	562.6	565.0	564.2
7.5°	565.0	563.4	564.2	564.2	565.0	566.6	565.0	564.2	565.0	567.4	565.8
10°	566.6	565.0	565.8	565.0	567.4	568.2	566.6	565.8	566.6	569.7	569.0
12.5°	567.4	566.6	566.6	565.8	568.2	569.0	567.4	566.6	567.4	569.7	569.0
15°	565.8	565.0	565.0	565.0	566.6	568.2	565.8	565.0	565.0	567.4	566.6
17.5°	562.6	561.0	561.0	561.0	561.8	562.6	560.2	559.4	558.6	561.0	560.2
20°	557.0	555.4	553.8	553.8	554.6	554.6	553.0	550.7	550.7	551.4	549.9
22.5°	546.7	545.9	544.3	543.5	545.1	544.3	541.1	538.7	537.9	538.7	537.1
25°	532.3	530.8	530.0	529.2	530.0	529.2	526.0	522.8	522.8	522.8	520.4
27.5°	512.5	510.9	510.1	510.1	510.9	509.3	506.1	502.9	501.3	501.3	498.9
30°	487.0	487.0	486.2	485.4	484.6	484.6	479.8	476.6	475.1	475.9	474.3
32.5°	456.0	455.2	454.4	452.0	452.8	452.0	448.0	445.6	443.2	441.6	440.8
35°	416.2	416.2	415.4	415.4	415.4	414.6	410.6	408.2	406.6	405.8	403.4
37.5°	372.4	371.6	370.8	370.8	370.8	370.8	368.4	366.0	366.0	365.2	363.7
40°	323.1	323.9	324.7	323.9	326.3	328.6	325.5	323.9	323.1	325.5	322.3
42.5°	275.3	274.5	278.5	279.3	279.3	283.3	284.1	284.9	284.1	285.7	285.7
45°	229.2	228.4	232.4	233.9	237.9	242.7	245.1	249.1	250.7	252.2	250.7
47.5°	185.4	188.6	191.8	195.8	198.9	206.9	211.7	215.6	217.2	219.6	219.6
50°	148.8	152.0	157.6	160.7	164.7	174.3	182.2	187.8	191.0	193.4	192.6
52.5°	114.6	120.2	127.3	130.5	136.1	147.2	156.0	162.3	166.3	168.7	169.5
55°	88.3	93.1	100.3	105.0	110.6	122.5	133.7	140.8	144.8	148.0	149.6
57.5°	65.3	70.8	78.8	82.8	89.1	102.7	112.2	121.0	125.7	129.7	130.5
60°	47.7	53.3	60.5	65.3	71.6	85.1	96.3	104.2	109.8	113.0	114.6
62.5°	34.2	39.8	46.9	51.7	57.3	69.2	80.4	88.3	93.9	97.9	100.3
65°	24.7	30.2	37.4	41.4	46.2	57.3	67.6	75.6	81.2	85.9	87.5
67.5°	18.3	22.3	28.6	32.6	37.4	46.2	54.9	62.1	67.6	71.6	73.2
70°	13.5	16.7	22.3	24.7	27.9	35.8	43.0	49.3	54.1	57.3	58.9
72.5°	9.5	11.9	15.9	18.3	20.7	27.1	32.6	37.4	40.6	43.8	45.4
75°	6.4	8.0	11.1	12.7	14.3	19.1	23.1	27.1	29.4	31.8	32.6
77.5°	4.0	5.6	8.0	8.8	10.3	12.7	15.9	18.3	19.9	21.5	23.1
80°	2.4	3.2	4.8	5.6	6.4	8.8	10.3	11.9	13.5	15.1	15.9
82.5°	1.6	2.4	3.2	3.2	4.0	4.8	6.4	8.0	8.8	9.5	10.3
85°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.8	5.6	6.4
87.5°	0.8	0.8	0.8	0.8	1.6	1.6	2.4	2.4	2.4	3.2	3.2
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°	562.6	562.6	562.6	562.6	562.6	562.6	562.6	562.6
2.5°	560.2	562.6	560.2	561.8	561.0	561.0	560.2	561.0
5°	562.6	565.8	562.6	565.0	563.4	563.4	563.4	564.2
7.5°	565.0	568.2	565.8	568.2	567.4	566.6	566.6	568.2
10°	567.4	569.7	568.2	570.5	569.7	569.0	569.0	570.5
12.5°	567.4	570.5	569.0	571.3	570.5	569.7	569.7	570.5
15°	565.0	569.0	566.6	569.0	568.2	567.4	567.4	569.0
17.5°	557.8	561.0	559.4	561.0	561.0	560.2	561.0	561.8
20°	548.3	550.7	549.1	550.7	550.7	549.1	549.9	550.7
22.5°	534.7	537.1	535.5	537.1	536.3	535.5	535.5	534.7
25°	518.0	521.2	518.8	520.4	518.8	517.2	517.2	518.0
27.5°	497.3	499.7	496.5	498.1	496.5	494.9	494.9	494.2
30°	470.3	471.1	468.7	470.3	468.7	467.9	466.3	466.3
32.5°	437.7	438.5	436.1	436.1	434.5	434.5	431.3	433.7
35°	399.5	400.3	399.5	398.7	396.3	395.5	394.7	394.7
37.5°	359.7	359.7	357.3	356.5	354.9	353.3	354.1	351.7
40°	319.1	318.3	315.9	316.7	315.9	313.5	312.7	311.9
42.5°	280.9	280.9	278.5	279.3	277.7	276.9	274.5	275.3
45°	247.5	247.5	245.1	245.1	244.3	241.9	242.7	241.1
47.5°	217.2	217.2	216.4	216.4	214.1	213.3	213.3	213.3
50°	191.0	191.0	191.0	191.0	190.2	189.4	188.6	189.4
52.5°	168.7	170.3	169.5	169.5	168.7	167.9	167.1	167.1
55°	148.8	149.6	149.6	150.4	149.6	148.8	149.6	148.8
57.5°	131.3	132.9	132.9	132.9	132.9	132.9	132.1	131.3
60°	116.2	117.0	117.0	117.8	117.8	117.8	117.0	117.0
62.5°	101.1	102.7	103.4	103.4	104.2	103.4	103.4	103.4
65°	89.1	90.7	91.5	90.7	91.5	91.5	90.7	90.7
67.5°	74.8	76.4	76.4	76.4	76.4	77.2	76.4	76.4
70°	60.5	62.1	61.3	62.1	62.1	62.1	62.1	62.1
72.5°	46.2	46.9	47.7	47.7	48.5	47.7	47.7	47.7
75°	33.4	35.0	35.0	35.0	35.0	35.8	35.8	35.8
77.5°	23.9	24.7	24.7	25.5	25.5	25.5	25.5	26.3
80°	16.7	16.7	17.5	17.5	18.3	18.3	18.3	18.3
82.5°	11.1	11.9	11.9	11.9	11.9	11.9	11.9	11.9
85°	6.4	7.2	7.2	7.2	7.2	8.0	8.0	8.0
87.5°	4.0	4.0	4.0	4.0	4.0	4.0	3.2	3.2
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)