

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: P274461

Luminaire Tested: **LD6B10DE010W2N2050 EU6B1020W2N902050 6LBDW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274461  
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: LD6B10DE010W2N2050 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: 773.8 lumens  
Efficiency: N/A  
Efficacy: 55.3 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

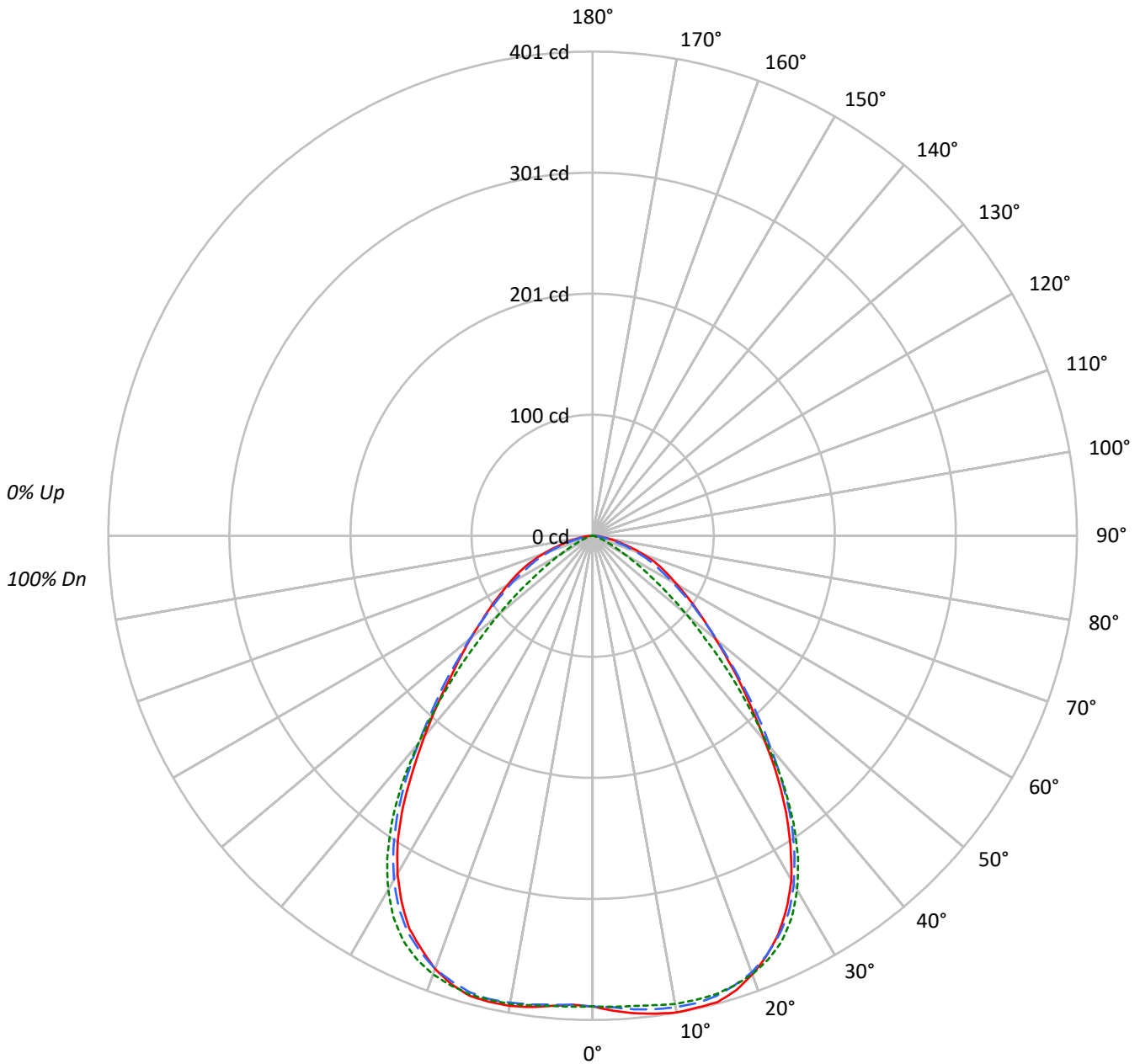
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	25431	25431	25431
5°	25999	25600	25600
10°	26558	26081	26194
15°	27003	26558	26632
20°	26834	26834	26494
25°	26195	26670	25843
30°	24800	25508	24340
35°	22221	23097	21783
40°	18881	19111	18413
45°	15971	14605	15417
50°	13489	10302	13316
55°	11852	6643	11727
60°	10504	3954	10582
65°	9710	2377	9710
70°	8412	1373	8202
75°	6680	832	6251
80°	4959	639	4771
85°	4566	449	4117



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.5	4.9
10°-20°	111.1	14.4
20°-30°	167.1	21.6
30°-40°	175.6	22.7
40°-50°	131.2	17.0
50°-60°	81.7	10.6
60°-70°	46.5	6.0
70°-80°	19.1	2.5
80°-90°	4.0	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°	315.7	40.8
0°-40°	491.3	63.5
0°-60°	704.2	91.0
0°-90°	773.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	773.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	390	390	390	390	390	
5°	397	394	391	390	391	38
15°	400	395	393	392	394	112
25°	364	365	370	362	359	167
35°	279	286	290	282	274	173
45°	173	177	158	174	167	134
55°	104	102	58	100	103	94
65°	63	56	15	56	63	62
75°	26	21	3	20	25	29
85°	6	4	1	3	6	7
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°	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8
2.5°	393.7	393.2	393.7	392.6	392.1	392.1	392.6	391.5	390.9	391.5	390.9
5°	397.0	395.9	396.5	395.9	394.8	394.8	395.4	393.7	393.7	394.3	393.7
7.5°	399.2	399.2	399.2	398.1	397.6	397.0	398.1	396.5	395.9	395.9	395.4
10°	400.9	400.3	400.9	399.8	398.7	398.1	399.2	398.1	397.0	398.1	396.5
12.5°	400.3	400.3	400.3	399.8	398.7	398.1	399.2	397.6	397.0	397.6	396.5
15°	399.8	398.1	398.7	398.1	396.5	396.5	397.0	395.4	394.3	395.9	394.8
17.5°	394.8	393.7	394.3	393.2	392.1	391.5	392.1	391.5	390.4	391.5	390.4
20°	386.5	386.5	387.1	386.0	384.9	384.3	385.4	384.3	383.2	384.9	384.9
22.5°	376.6	376.6	376.6	376.1	375.5	375.5	375.5	375.0	374.4	375.5	376.1
25°	363.9	363.4	363.9	364.5	363.9	363.4	363.9	363.9	362.8	365.0	365.0
27.5°	347.9	347.9	349.0	348.5	348.5	347.9	349.0	349.0	348.5	350.1	351.8
30°	329.2	328.1	329.2	329.2	329.7	329.7	330.3	330.3	330.3	331.9	333.1
32.5°	304.9	305.5	307.1	306.6	306.0	307.7	307.7	308.8	309.3	310.4	311.0
35°	279.0	279.6	279.6	280.1	281.2	280.1	282.9	282.3	282.9	285.1	286.2
37.5°	251.4	249.8	252.5	251.4	252.0	252.0	253.1	253.6	255.3	258.1	258.1
40°	221.7	222.2	223.3	223.9	224.4	224.4	224.4	226.1	226.6	229.9	229.4
42.5°	195.7	195.7	196.9	197.4	197.4	197.4	197.4	199.1	200.2	201.3	202.4
45°	173.1	171.5	172.6	172.6	173.7	173.1	174.2	175.3	175.9	177.6	177.0
47.5°	151.6	151.1	151.6	152.2	151.6	152.2	152.7	153.3	153.8	153.8	153.8
50°	132.9	132.9	133.4	134.0	134.0	134.0	134.0	134.5	134.5	135.6	134.5
52.5°	117.4	118.0	118.0	117.4	118.0	118.0	118.6	118.6	118.0	118.0	116.3
55°	104.2	103.7	104.2	103.7	104.2	104.2	103.7	103.7	103.1	102.6	102.0
57.5°	91.5	91.5	91.5	91.5	91.0	91.5	91.0	90.4	90.4	89.3	87.7
60°	80.5	80.5	80.5	80.5	80.5	80.0	80.5	80.0	78.9	77.7	75.5
62.5°	71.1	70.6	71.1	70.6	70.6	70.0	70.0	69.5	68.4	67.3	65.1
65°	62.9	63.4	62.9	62.9	62.3	61.8	61.8	61.2	59.6	58.4	56.2
67.5°	54.0	53.5	53.5	53.5	52.9	52.9	52.9	51.8	50.7	49.1	46.9
70°	44.1	44.1	44.1	43.6	43.6	43.0	43.0	42.5	41.4	40.3	37.5
72.5°	34.7	34.7	34.7	33.6	34.2	33.6	33.6	32.5	32.0	30.3	28.7
75°	26.5	26.5	25.9	25.9	25.4	24.8	24.8	24.3	23.7	22.6	21.0
77.5°	19.3	19.3	19.3	18.7	18.2	17.6	17.6	17.1	16.5	16.0	14.9
80°	13.2	13.2	13.2	13.2	12.7	12.1	12.1	11.6	11.6	11.0	9.9
82.5°	8.8	8.8	8.8	8.8	8.3	8.3	8.3	7.7	7.2	7.2	6.1
85°	6.1	6.1	5.5	5.5	5.5	5.5	5.0	5.0	4.4	3.9	3.9
87.5°	3.3	3.3	3.3	3.3	2.8	2.8	2.8	2.8	2.2	2.2	1.7
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°	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8
2.5°	392.6	392.6	392.1	390.4	390.9	390.4	390.9	390.4	388.7	390.4	388.7
5°	394.8	395.4	394.3	392.1	392.6	392.1	392.1	391.5	389.8	390.9	389.8
7.5°	397.0	396.5	395.9	393.7	394.3	393.7	393.7	392.6	390.9	392.1	390.4
10°	398.1	398.1	397.0	394.8	394.8	394.3	394.8	394.3	392.1	393.7	392.6
12.5°	398.1	397.6	397.6	394.8	395.4	394.8	395.4	394.3	392.6	393.7	393.2
15°	396.5	396.5	395.9	393.2	393.7	393.7	394.3	393.2	391.5	393.2	392.1
17.5°	393.2	393.2	392.6	390.4	391.5	391.5	392.1	390.9	389.3	390.4	390.4
20°	386.5	387.1	387.1	385.4	386.5	386.5	387.1	386.5	386.0	386.5	385.4
22.5°	378.8	379.9	379.9	378.3	379.4	379.4	381.0	380.5	379.4	379.9	379.4
25°	367.2	368.3	369.4	368.3	369.4	369.4	371.1	370.5	369.4	370.5	368.9
27.5°	354.0	354.6	355.7	354.6	356.2	355.7	357.3	356.8	355.1	356.8	356.2
30°	335.3	337.5	339.1	337.5	339.1	339.1	340.2	339.7	339.1	338.6	338.6
32.5°	314.3	316.5	316.5	316.0	317.1	317.1	317.6	316.5	316.0	316.5	317.1
35°	288.4	289.5	290.6	290.0	290.6	291.1	290.6	291.1	289.5	290.0	290.0
37.5°	260.3	261.4	261.4	259.7	260.8	260.8	259.7	259.7	258.6	259.7	257.5
40°	230.5	229.4	229.9	228.8	227.7	227.7	227.2	225.0	223.9	224.4	225.0
42.5°	201.3	201.3	199.6	196.9	194.1	194.1	192.4	191.3	189.1	190.2	189.7
45°	176.5	173.7	171.5	167.1	165.4	164.3	161.6	158.8	157.7	158.3	157.7
47.5°	152.7	150.5	145.0	139.0	137.3	135.6	132.3	129.0	127.9	126.8	126.8
50°	132.9	129.0	123.0	116.3	113.6	110.8	106.4	103.1	100.9	101.5	101.5
52.5°	114.7	110.3	103.1	94.8	91.5	88.2	84.4	80.5	78.9	78.3	78.3
55°	98.7	93.7	86.6	77.2	74.4	70.6	65.6	61.2	59.0	58.4	59.6
57.5°	84.4	80.0	71.7	62.3	59.0	55.1	50.2	46.3	43.6	43.0	43.6
60°	72.8	66.7	59.6	50.7	46.3	43.0	37.5	34.2	31.4	30.3	30.9
62.5°	61.2	55.7	48.5	39.7	36.4	33.1	28.1	24.3	22.1	21.5	22.1
65°	52.4	46.9	40.3	32.5	29.2	25.9	21.5	17.6	16.0	15.4	16.0
67.5°	43.6	38.6	33.1	25.9	23.2	20.4	16.0	13.2	11.0	10.5	11.0
70°	35.3	30.9	25.4	20.4	17.6	15.4	12.1	9.4	7.7	7.2	7.7
72.5°	26.5	23.2	19.3	14.9	13.2	11.6	8.8	6.6	5.5	5.0	5.5
75°	19.3	16.5	13.8	10.5	9.4	8.3	6.1	4.4	3.9	3.3	3.9
77.5°	13.2	11.6	9.4	7.2	6.1	5.5	3.9	3.3	2.8	2.2	2.2
80°	8.8	7.7	6.1	5.0	4.4	3.9	2.8	2.2	1.7	1.7	1.7
82.5°	5.5	4.4	3.9	2.8	2.2	2.2	1.7	1.1	1.1	1.1	1.1
85°	3.3	2.8	2.2	1.7	1.1	1.1	0.6	0.6	0.6	0.6	0.6
87.5°	1.7	1.1	1.1	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.6
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°	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8
2.5°	389.8	388.7	388.7	389.3	389.8	390.4	389.3	388.7	388.7	390.4	389.3
5°	389.8	389.3	389.3	389.3	390.4	390.9	389.8	389.3	389.8	391.5	390.9
7.5°	391.5	390.4	390.9	390.9	391.5	392.6	391.5	390.9	391.5	393.2	392.1
10°	392.6	391.5	392.1	391.5	393.2	393.7	392.6	392.1	392.6	394.8	394.3
12.5°	393.2	392.6	392.6	392.1	393.7	394.3	393.2	392.6	393.2	394.8	394.3
15°	392.1	391.5	391.5	391.5	392.6	393.7	392.1	391.5	391.5	393.2	392.6
17.5°	389.8	388.7	388.7	388.7	389.3	389.8	388.2	387.6	387.1	388.7	388.2
20°	386.0	384.9	383.8	383.8	384.3	384.3	383.2	381.6	381.6	382.1	381.0
22.5°	378.8	378.3	377.2	376.6	377.7	377.2	375.0	373.3	372.8	373.3	372.2
25°	368.9	367.8	367.2	366.7	367.2	366.7	364.5	362.3	362.3	362.3	360.6
27.5°	355.1	354.0	353.5	353.5	354.0	352.9	350.7	348.5	347.4	347.4	345.7
30°	337.5	337.5	336.9	336.4	335.8	335.8	332.5	330.3	329.2	329.7	328.6
32.5°	316.0	315.4	314.9	313.2	313.8	313.2	310.4	308.8	307.1	306.0	305.5
35°	288.4	288.4	287.8	287.8	287.8	287.3	284.5	282.9	281.8	281.2	279.6
37.5°	258.1	257.5	257.0	257.0	257.0	257.0	255.3	253.6	253.6	253.1	252.0
40°	223.9	224.4	225.0	224.4	226.1	227.7	225.5	224.4	223.9	225.5	223.3
42.5°	190.8	190.2	193.0	193.5	193.5	196.3	196.9	197.4	196.9	198.0	198.0
45°	158.8	158.3	161.0	162.1	164.9	168.2	169.8	172.6	173.7	174.8	173.7
47.5°	128.5	130.7	132.9	135.6	137.9	143.4	146.7	149.4	150.5	152.2	152.2
50°	103.1	105.3	109.2	111.4	114.1	120.8	126.3	130.1	132.3	134.0	133.4
52.5°	79.4	83.3	88.2	90.4	94.3	102.0	108.1	112.5	115.2	116.9	117.4
55°	61.2	64.5	69.5	72.8	76.6	84.9	92.6	97.6	100.4	102.6	103.7
57.5°	45.2	49.1	54.6	57.3	61.8	71.1	77.7	83.8	87.1	89.9	90.4
60°	33.1	36.9	41.9	45.2	49.6	59.0	66.7	72.2	76.1	78.3	79.4
62.5°	23.7	27.6	32.5	35.8	39.7	48.0	55.7	61.2	65.1	67.8	69.5
65°	17.1	21.0	25.9	28.7	32.0	39.7	46.9	52.4	56.2	59.6	60.7
67.5°	12.7	15.4	19.9	22.6	25.9	32.0	38.0	43.0	46.9	49.6	50.7
70°	9.4	11.6	15.4	17.1	19.3	24.8	29.8	34.2	37.5	39.7	40.8
72.5°	6.6	8.3	11.0	12.7	14.3	18.7	22.6	25.9	28.1	30.3	31.4
75°	4.4	5.5	7.7	8.8	9.9	13.2	16.0	18.7	20.4	22.1	22.6
77.5°	2.8	3.9	5.5	6.1	7.2	8.8	11.0	12.7	13.8	14.9	16.0
80°	1.7	2.2	3.3	3.9	4.4	6.1	7.2	8.3	9.4	10.5	11.0
82.5°	1.1	1.7	2.2	2.2	2.8	3.3	4.4	5.5	6.1	6.6	7.2
85°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	3.3	3.9	4.4
87.5°	0.6	0.6	0.6	0.6	1.1	1.1	1.7	1.7	1.7	2.2	2.2
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°	389.8	389.8	389.8	389.8	389.8	389.8	389.8	389.8
2.5°	388.2	389.8	388.2	389.3	388.7	388.7	388.2	388.7
5°	389.8	392.1	389.8	391.5	390.4	390.4	390.4	390.9
7.5°	391.5	393.7	392.1	393.7	393.2	392.6	392.6	393.7
10°	393.2	394.8	393.7	395.4	394.8	394.3	394.3	395.4
12.5°	393.2	395.4	394.3	395.9	395.4	394.8	394.8	395.4
15°	391.5	394.3	392.6	394.3	393.7	393.2	393.2	394.3
17.5°	386.5	388.7	387.6	388.7	388.7	388.2	388.7	389.3
20°	379.9	381.6	380.5	381.6	381.6	380.5	381.0	381.6
22.5°	370.5	372.2	371.1	372.2	371.6	371.1	371.1	370.5
25°	359.0	361.2	359.5	360.6	359.5	358.4	358.4	359.0
27.5°	344.6	346.3	344.1	345.2	344.1	343.0	343.0	342.4
30°	325.9	326.4	324.8	325.9	324.8	324.2	323.1	323.1
32.5°	303.3	303.8	302.2	302.2	301.1	301.1	298.9	300.5
35°	276.8	277.4	276.8	276.3	274.6	274.0	273.5	273.5
37.5°	249.2	249.2	247.6	247.0	245.9	244.8	245.4	243.7
40°	221.1	220.6	218.9	219.5	218.9	217.3	216.7	216.2
42.5°	194.6	194.6	193.0	193.5	192.4	191.9	190.2	190.8
45°	171.5	171.5	169.8	169.8	169.3	167.6	168.2	167.1
47.5°	150.5	150.5	150.0	150.0	148.3	147.8	147.8	147.8
50°	132.3	132.3	132.3	132.3	131.8	131.2	130.7	131.2
52.5°	116.9	118.0	117.4	117.4	116.9	116.3	115.8	115.8
55°	103.1	103.7	103.7	104.2	103.7	103.1	103.7	103.1
57.5°	91.0	92.1	92.1	92.1	92.1	92.1	91.5	91.0
60°	80.5	81.1	81.1	81.6	81.6	81.6	81.1	81.1
62.5°	70.0	71.1	71.7	71.7	72.2	71.7	71.7	71.7
65°	61.8	62.9	63.4	62.9	63.4	63.4	62.9	62.9
67.5°	51.8	52.9	52.9	52.9	52.9	53.5	52.9	52.9
70°	41.9	43.0	42.5	43.0	43.0	43.0	43.0	43.0
72.5°	32.0	32.5	33.1	33.1	33.6	33.1	33.1	33.1
75°	23.2	24.3	24.3	24.3	24.3	24.8	24.8	24.8
77.5°	16.5	17.1	17.1	17.6	17.6	17.6	17.6	18.2
80°	11.6	11.6	12.1	12.1	12.7	12.7	12.7	12.7
82.5°	7.7	8.3	8.3	8.3	8.3	8.3	8.3	8.3
85°	4.4	5.0	5.0	5.0	5.0	5.5	5.5	5.5
87.5°	2.8	2.8	2.8	2.8	2.8	2.8	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)