

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: P274459

Luminaire Tested: **LD6B15DE010W2N2765 EU6B1020W2N902765 6LBDW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274459  
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: LD6B15DE010W2N2765 EU6B1020W2N902765 6LBDW0H  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH HAZE FINISH  
Light Source: W2N 2700K-6500K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1286.3 lumens  
Efficiency: N/A  
Efficacy: 58.5 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

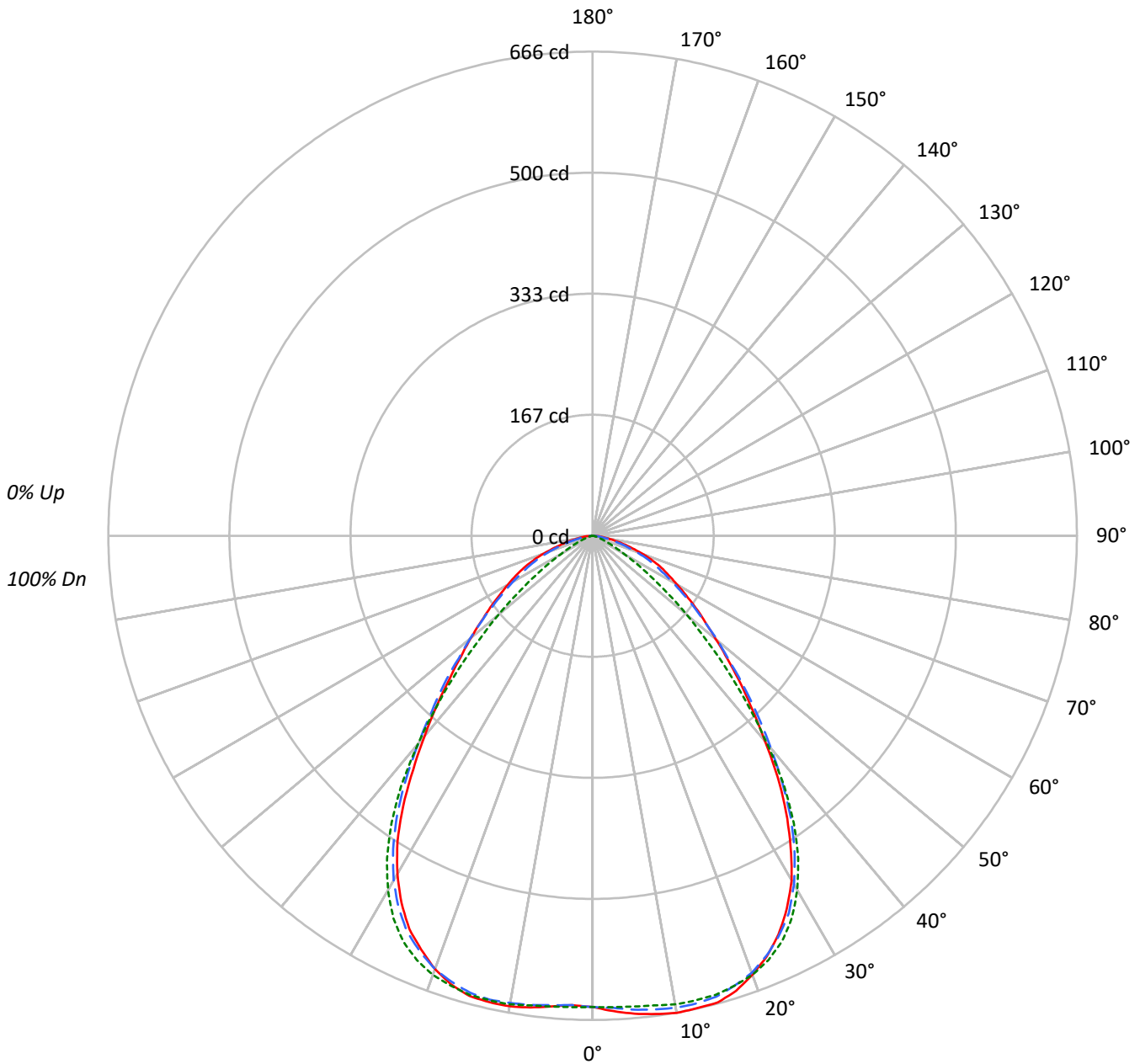
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	42282	42282	42282
5°	43223	42562	42562
10°	44147	43359	43538
15°	44888	44145	44267
20°	44614	44614	44038
25°	43551	44343	42953
30°	41222	42398	40469
35°	36939	38404	36214
40°	31384	31775	30600
45°	26554	24275	25622
50°	22421	17122	22147
55°	19700	11056	19496
60°	17458	6576	17576
65°	16132	3967	16132
70°	13982	2270	13639
75°	11091	1386	10385
80°	8266	1014	7927
85°	7560	674	6887



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.4	4.9
10°-20°	184.7	14.4
20°-30°	277.7	21.6
30°-40°	292.0	22.7
40°-50°	218.1	17.0
50°-60°	135.8	10.6
60°-70°	77.2	6.0
70°-80°	31.8	2.5
80°-90°	6.6	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°	524.8	40.8
0°-40°	816.8	63.5
0°-60°	1170.7	91.0
0°-90°	1286.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1286.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	648	648	648	648	648	
5°	660	654	650	648	650	63
15°	665	656	654	651	655	187
25°	605	607	616	602	597	277
35°	464	476	482	468	455	288
45°	288	294	263	289	278	223
55°	173	170	97	167	171	156
65°	104	94	26	94	104	103
75°	44	35	6	34	41	48
85°	10	6	1	6	9	11
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°	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1
2.5°	654.5	653.6	654.5	652.6	651.7	651.7	652.6	650.8	649.9	650.8	649.9
5°	660.0	658.1	659.1	658.1	656.3	656.3	657.2	654.5	654.5	655.4	654.5
7.5°	663.6	663.6	663.6	661.8	660.9	660.0	661.8	659.1	658.1	658.1	657.2
10°	666.4	665.5	666.4	664.6	662.7	661.8	663.6	661.8	660.0	661.8	659.1
12.5°	665.5	665.5	665.5	664.6	662.7	661.8	663.6	660.9	660.0	660.9	659.1
15°	664.6	661.8	662.7	661.8	659.1	659.1	660.0	657.2	655.4	658.1	656.3
17.5°	656.3	654.5	655.4	653.6	651.7	650.8	651.7	650.8	649.0	650.8	649.0
20°	642.6	642.6	643.5	641.6	639.8	638.9	640.7	638.9	637.1	639.8	639.8
22.5°	626.1	626.1	626.1	625.1	624.2	624.2	624.2	623.3	622.4	624.2	625.1
25°	605.0	604.1	605.0	605.9	605.0	604.1	605.0	605.0	603.1	606.8	606.8
27.5°	578.4	578.4	580.2	579.3	579.3	578.4	580.2	580.2	579.3	582.1	584.8
30°	547.2	545.4	547.2	547.2	548.2	548.2	549.1	549.1	549.1	551.8	553.7
32.5°	506.9	507.8	510.6	509.7	508.7	511.5	511.5	513.3	514.2	516.1	517.0
35°	463.8	464.7	464.7	465.7	467.5	465.7	470.2	469.3	470.2	473.9	475.7
37.5°	418.0	415.2	419.8	418.0	418.9	418.9	420.7	421.7	424.4	429.0	429.0
40°	368.5	369.4	371.2	372.2	373.1	373.1	373.1	375.8	376.7	382.2	381.3
42.5°	325.4	325.4	327.2	328.2	328.2	328.2	328.2	330.9	332.7	334.6	336.4
45°	287.8	285.1	286.9	286.9	288.7	287.8	289.7	291.5	292.4	295.2	294.2
47.5°	252.1	251.2	252.1	253.0	252.1	253.0	253.9	254.8	255.7	255.7	255.7
50°	220.9	220.9	221.8	222.7	222.7	222.7	222.7	223.7	223.7	225.5	223.7
52.5°	195.2	196.2	196.2	195.2	196.2	196.2	197.1	197.1	196.2	196.2	193.4
55°	173.2	172.3	173.2	172.3	173.2	173.2	172.3	172.3	171.4	170.5	169.6
57.5°	152.2	152.2	152.2	152.2	151.2	152.2	151.2	150.3	150.3	148.5	145.7
60°	133.8	133.8	133.8	133.8	133.8	132.9	133.8	132.9	131.1	129.2	125.6
62.5°	118.2	117.3	118.2	117.3	117.3	116.4	116.4	115.5	113.7	111.8	108.2
65°	104.5	105.4	104.5	104.5	103.6	102.7	102.7	101.7	99.0	97.2	93.5
67.5°	89.8	88.9	88.9	88.9	88.0	88.0	88.0	86.2	84.3	81.6	77.9
70°	73.3	73.3	73.3	72.4	72.4	71.5	71.5	70.6	68.7	66.9	62.3
72.5°	57.7	57.7	57.7	55.9	56.8	55.9	55.9	54.1	53.2	50.4	47.7
75°	44.0	44.0	43.1	43.1	42.2	41.2	41.2	40.3	39.4	37.6	34.8
77.5°	32.1	32.1	32.1	31.2	30.2	29.3	29.3	28.4	27.5	26.6	24.7
80°	22.0	22.0	22.0	22.0	21.1	20.2	20.2	19.2	19.2	18.3	16.5
82.5°	14.7	14.7	14.7	14.7	13.7	13.7	13.7	12.8	11.9	11.9	10.1
85°	10.1	10.1	9.2	9.2	9.2	9.2	8.2	8.2	7.3	6.4	6.4
87.5°	5.5	5.5	5.5	5.5	4.6	4.6	4.6	4.6	3.7	3.7	2.7
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°	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1
2.5°	652.6	652.6	651.7	649.0	649.9	649.0	649.9	649.0	646.2	649.0	646.2
5°	656.3	657.2	655.4	651.7	652.6	651.7	651.7	650.8	648.1	649.9	648.1
7.5°	660.0	659.1	658.1	654.5	655.4	654.5	654.5	652.6	649.9	651.7	649.0
10°	661.8	661.8	660.0	656.3	656.3	655.4	656.3	655.4	651.7	654.5	652.6
12.5°	661.8	660.9	660.9	656.3	657.2	656.3	657.2	655.4	652.6	654.5	653.6
15°	659.1	659.1	658.1	653.6	654.5	654.5	655.4	653.6	650.8	653.6	651.7
17.5°	653.6	653.6	652.6	649.0	650.8	650.8	651.7	649.9	647.1	649.0	649.0
20°	642.6	643.5	643.5	640.7	642.6	642.6	643.5	642.6	641.6	642.6	640.7
22.5°	629.7	631.6	631.6	628.8	630.6	630.6	633.4	632.5	630.6	631.6	630.6
25°	610.5	612.3	614.1	612.3	614.1	614.1	616.9	616.0	614.1	616.0	613.2
27.5°	588.5	589.4	591.2	589.4	592.1	591.2	594.0	593.1	590.3	593.1	592.1
30°	557.3	561.0	563.7	561.0	563.7	563.7	565.6	564.6	563.7	562.8	562.8
32.5°	522.5	526.2	526.2	525.2	527.1	527.1	528.0	526.2	525.2	526.2	527.1
35°	479.4	481.2	483.1	482.2	483.1	484.0	483.1	484.0	481.2	482.2	482.2
37.5°	432.7	434.5	434.5	431.7	433.6	433.6	431.7	431.7	429.9	431.7	428.1
40°	383.2	381.3	382.2	380.4	378.6	378.6	377.7	374.0	372.2	373.1	374.0
42.5°	334.6	334.6	331.8	327.2	322.7	322.7	319.9	318.1	314.4	316.2	315.3
45°	293.3	288.7	285.1	277.7	275.0	273.2	268.6	264.0	262.2	263.1	262.2
47.5°	253.9	250.2	241.1	231.0	228.2	225.5	220.0	214.5	212.7	210.8	210.8
50°	220.9	214.5	204.4	193.4	188.8	184.2	176.9	171.4	167.7	168.7	168.7
52.5°	190.7	183.3	171.4	157.7	152.2	146.7	140.2	133.8	131.1	130.2	130.2
55°	164.1	155.8	143.9	128.3	123.7	117.3	109.1	101.7	98.1	97.2	99.0
57.5°	140.2	132.9	119.2	103.6	98.1	91.7	83.4	77.0	72.4	71.5	72.4
60°	121.0	110.9	99.0	84.3	77.0	71.5	62.3	56.8	52.2	50.4	51.3
62.5°	101.7	92.6	80.7	66.0	60.5	55.0	46.7	40.3	36.7	35.7	36.7
65°	87.1	77.9	66.9	54.1	48.6	43.1	35.7	29.3	26.6	25.7	26.6
67.5°	72.4	64.2	55.0	43.1	38.5	33.9	26.6	22.0	18.3	17.4	18.3
70°	58.7	51.3	42.2	33.9	29.3	25.7	20.2	15.6	12.8	11.9	12.8
72.5°	44.0	38.5	32.1	24.7	22.0	19.2	14.7	11.0	9.2	8.2	9.2
75°	32.1	27.5	22.9	17.4	15.6	13.7	10.1	7.3	6.4	5.5	6.4
77.5°	22.0	19.2	15.6	11.9	10.1	9.2	6.4	5.5	4.6	3.7	3.7
80°	14.7	12.8	10.1	8.2	7.3	6.4	4.6	3.7	2.7	2.7	2.7
82.5°	9.2	7.3	6.4	4.6	3.7	3.7	2.7	1.8	1.8	1.8	1.8
85°	5.5	4.6	3.7	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9
87.5°	2.7	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.0	0.0	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°	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1
2.5°	648.1	646.2	646.2	647.1	648.1	649.0	647.1	646.2	646.2	649.0	647.1
5°	648.1	647.1	647.1	647.1	649.0	649.9	648.1	647.1	648.1	650.8	649.9
7.5°	650.8	649.0	649.9	649.9	650.8	652.6	650.8	649.9	650.8	653.6	651.7
10°	652.6	650.8	651.7	650.8	653.6	654.5	652.6	651.7	652.6	656.3	655.4
12.5°	653.6	652.6	652.6	651.7	654.5	655.4	653.6	652.6	653.6	656.3	655.4
15°	651.7	650.8	650.8	650.8	652.6	654.5	651.7	650.8	650.8	653.6	652.6
17.5°	648.1	646.2	646.2	646.2	647.1	648.1	645.3	644.4	643.5	646.2	645.3
20°	641.6	639.8	638.0	638.0	638.9	638.9	637.1	634.3	634.3	635.2	633.4
22.5°	629.7	628.8	627.0	626.1	627.9	627.0	623.3	620.6	619.6	620.6	618.7
25°	613.2	611.4	610.5	609.6	610.5	609.6	605.9	602.2	602.2	602.2	599.5
27.5°	590.3	588.5	587.6	587.6	588.5	586.6	583.0	579.3	577.5	577.5	574.7
30°	561.0	561.0	560.1	559.1	558.2	558.2	552.7	549.1	547.2	548.2	546.3
32.5°	525.2	524.3	523.4	520.7	521.6	520.7	516.1	513.3	510.6	508.7	507.8
35°	479.4	479.4	478.5	478.5	478.5	477.6	473.0	470.2	468.4	467.5	464.7
37.5°	429.0	428.1	427.2	427.2	427.2	427.2	424.4	421.7	421.7	420.7	418.9
40°	372.2	373.1	374.0	373.1	375.8	378.6	374.9	373.1	372.2	374.9	371.2
42.5°	317.2	316.2	320.8	321.7	321.7	326.3	327.2	328.2	327.2	329.1	329.1
45°	264.0	263.1	267.7	269.5	274.1	279.6	282.3	286.9	288.7	290.6	288.7
47.5°	213.6	217.2	220.9	225.5	229.2	238.3	243.8	248.4	250.2	253.0	253.0
50°	171.4	175.1	181.5	185.2	189.7	200.7	209.9	216.3	220.0	222.7	221.8
52.5°	132.0	138.4	146.7	150.3	156.7	169.6	179.7	187.0	191.6	194.3	195.2
55°	101.7	107.2	115.5	121.0	127.4	141.2	154.0	162.2	166.8	170.5	172.3
57.5°	75.2	81.6	90.7	95.3	102.7	118.2	129.2	139.3	144.8	149.4	150.3
60°	55.0	61.4	69.7	75.2	82.5	98.1	110.9	120.1	126.5	130.2	132.0
62.5°	39.4	45.8	54.1	59.6	66.0	79.7	92.6	101.7	108.2	112.7	115.5
65°	28.4	34.8	43.1	47.7	53.2	66.0	77.9	87.1	93.5	99.0	100.8
67.5°	21.1	25.7	33.0	37.6	43.1	53.2	63.2	71.5	77.9	82.5	84.3
70°	15.6	19.2	25.7	28.4	32.1	41.2	49.5	56.8	62.3	66.0	67.8
72.5°	11.0	13.7	18.3	21.1	23.8	31.2	37.6	43.1	46.7	50.4	52.2
75°	7.3	9.2	12.8	14.7	16.5	22.0	26.6	31.2	33.9	36.7	37.6
77.5°	4.6	6.4	9.2	10.1	11.9	14.7	18.3	21.1	22.9	24.7	26.6
80°	2.7	3.7	5.5	6.4	7.3	10.1	11.9	13.7	15.6	17.4	18.3
82.5°	1.8	2.7	3.7	3.7	4.6	5.5	7.3	9.2	10.1	11.0	11.9
85°	0.9	0.9	1.8	1.8	2.7	2.7	3.7	4.6	5.5	6.4	7.3
87.5°	0.9	0.9	0.9	0.9	1.8	1.8	2.7	2.7	2.7	3.7	3.7
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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	648.1	648.1	648.1	648.1	648.1	648.1	648.1	648.1
2.5°	645.3	648.1	645.3	647.1	646.2	646.2	645.3	646.2
5°	648.1	651.7	648.1	650.8	649.0	649.0	649.0	649.9
7.5°	650.8	654.5	651.7	654.5	653.6	652.6	652.6	654.5
10°	653.6	656.3	654.5	657.2	656.3	655.4	655.4	657.2
12.5°	653.6	657.2	655.4	658.1	657.2	656.3	656.3	657.2
15°	650.8	655.4	652.6	655.4	654.5	653.6	653.6	655.4
17.5°	642.6	646.2	644.4	646.2	646.2	645.3	646.2	647.1
20°	631.6	634.3	632.5	634.3	634.3	632.5	633.4	634.3
22.5°	616.0	618.7	616.9	618.7	617.8	616.9	616.9	616.0
25°	596.7	600.4	597.6	599.5	597.6	595.8	595.8	596.7
27.5°	572.9	575.6	572.0	573.8	572.0	570.1	570.1	569.2
30°	541.7	542.7	539.9	541.7	539.9	539.0	537.2	537.2
32.5°	504.2	505.1	502.3	502.3	500.5	500.5	496.8	499.6
35°	460.2	461.1	460.2	459.2	456.5	455.6	454.7	454.7
37.5°	414.3	414.3	411.6	410.7	408.8	407.0	407.9	405.2
40°	367.6	366.7	363.9	364.8	363.9	361.2	360.2	359.3
42.5°	323.6	323.6	320.8	321.7	319.9	319.0	316.2	317.2
45°	285.1	285.1	282.3	282.3	281.4	278.7	279.6	277.7
47.5°	250.2	250.2	249.3	249.3	246.6	245.7	245.7	245.7
50°	220.0	220.0	220.0	220.0	219.1	218.2	217.2	218.2
52.5°	194.3	196.2	195.2	195.2	194.3	193.4	192.5	192.5
55°	171.4	172.3	172.3	173.2	172.3	171.4	172.3	171.4
57.5°	151.2	153.1	153.1	153.1	153.1	153.1	152.2	151.2
60°	133.8	134.7	134.7	135.7	135.7	135.7	134.7	134.7
62.5°	116.4	118.2	119.2	119.2	120.1	119.2	119.2	119.2
65°	102.7	104.5	105.4	104.5	105.4	105.4	104.5	104.5
67.5°	86.2	88.0	88.0	88.0	88.0	88.9	88.0	88.0
70°	69.7	71.5	70.6	71.5	71.5	71.5	71.5	71.5
72.5°	53.2	54.1	55.0	55.0	55.9	55.0	55.0	55.0
75°	38.5	40.3	40.3	40.3	40.3	41.2	41.2	41.2
77.5°	27.5	28.4	28.4	29.3	29.3	29.3	29.3	30.2
80°	19.2	19.2	20.2	20.2	21.1	21.1	21.1	21.1
82.5°	12.8	13.7	13.7	13.7	13.7	13.7	13.7	13.7
85°	7.3	8.2	8.2	8.2	8.2	9.2	9.2	9.2
87.5°	4.6	4.6	4.6	4.6	4.6	4.6	3.7	3.7
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)