

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: P274456

Luminaire Tested: **LD6B15DE010W2N2050 EU6B1020W2N902050 6LBDW0LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274456  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B15DE010W2N2050 EU6B1020W2N902050 6LBDW0LI  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH SPECULAR FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1168.1 lumens  
Efficiency: N/A  
Efficacy: 53.1 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

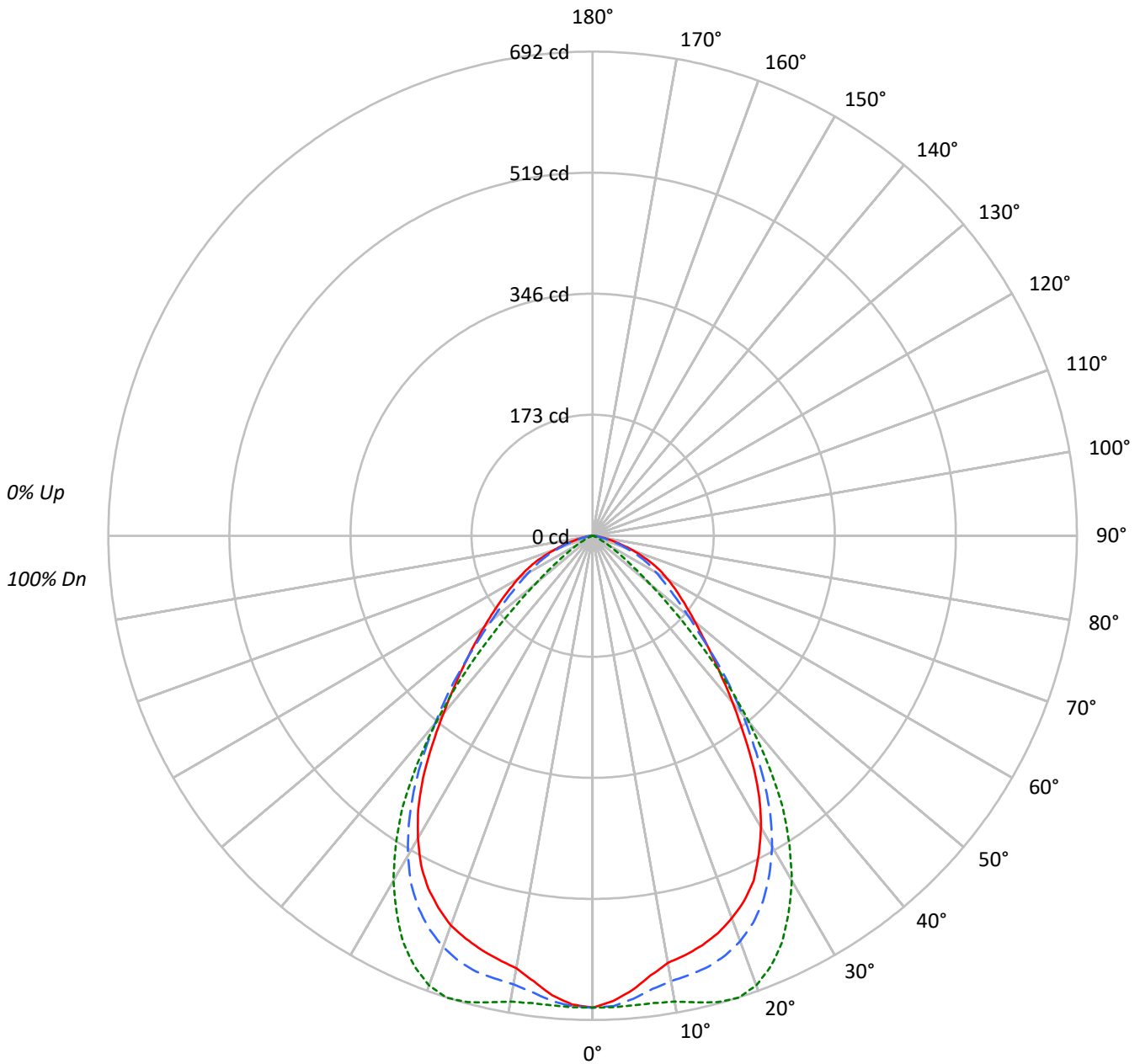
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	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			
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56					56			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50					50			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46					46			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42					42			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38					38			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35					35			

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

	0°	90°	180°
0°	43998	43998	43998
5°	42686	44114	43197
10°	41060	44783	41577
15°	40917	46604	41390
20°	40379	47475	41143
25°	39174	46135	40016
30°	36243	42880	37591
35°	31794	37696	33658
40°	26495	29552	28224
45°	22300	19495	23813
50°	19305	10688	20492
55°	17471	5676	17915
60°	16075	2949	16075
65°	14557	1559	14202
70°	11750	897	10854
75°	8066	580	7461
80°	5260	301	4696
85°	3518	599	2919



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.9	5.4
10°-20°	181.8	15.6
20°-30°	268.7	23.0
30°-40°	271.4	23.2
40°-50°	187.1	16.0
50°-60°	107.4	9.2
60°-70°	62.5	5.4
70°-80°	22.8	2.0
80°-90°	3.5	0.3
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°	513.4	44.0
0°-40°	784.8	67.2
0°-60°	1079.3	92.4
0°-90°	1168.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1168.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	674	674	674	674	674	
5°	652	664	674	667	660	61
15°	606	638	690	645	613	171
25°	544	576	641	588	556	248
35°	399	426	473	446	423	248
45°	242	245	211	260	258	188
55°	154	135	50	140	158	138
65°	94	80	10	79	92	92
75°	32	26	2	25	30	36
85°	5	2	1	3	4	6
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°	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4
2.5°	665.8	666.6	667.4	666.6	667.4	670.5	668.2	669.7	669.7	670.5	672.9
5°	651.8	651.8	653.4	652.6	654.9	658.0	655.7	658.0	658.8	660.4	664.3
7.5°	633.9	633.9	634.7	634.7	637.8	640.9	639.3	642.5	645.6	648.7	653.4
10°	619.8	621.4	621.4	622.2	625.3	629.2	628.4	632.3	635.4	640.1	646.3
12.5°	613.6	614.4	614.4	615.9	619.1	623.0	622.2	626.1	630.8	636.2	642.5
15°	605.8	607.4	606.6	608.1	611.3	615.2	614.4	618.3	623.7	629.2	637.8
17.5°	595.7	596.4	597.2	597.2	600.3	603.5	603.5	607.4	613.6	619.8	629.2
20°	581.6	583.2	583.2	584.0	586.3	591.0	590.2	594.1	600.3	606.6	616.7
22.5°	565.3	566.0	566.0	566.8	570.7	573.1	573.8	577.0	582.4	589.4	598.8
25°	544.2	545.0	544.2	546.6	548.1	552.8	551.2	555.1	561.4	566.8	576.2
27.5°	513.8	515.4	515.4	516.1	520.0	523.9	523.9	527.8	533.3	537.2	546.6
30°	481.1	483.4	481.1	485.0	486.5	489.6	492.0	494.3	499.0	504.4	513.0
32.5°	443.6	442.9	443.6	445.2	449.9	452.2	453.8	456.1	460.8	465.5	472.5
35°	399.2	400.8	401.5	404.7	404.7	408.5	409.3	410.9	417.9	421.0	426.5
37.5°	352.4	354.0	354.8	356.3	359.4	361.0	363.3	365.7	370.3	375.8	378.9
40°	311.1	311.1	311.9	313.4	315.8	316.5	318.9	322.0	325.1	329.8	332.9
42.5°	272.1	272.9	272.1	273.7	276.0	279.1	278.3	282.2	283.0	286.1	288.5
45°	241.7	241.7	240.1	241.7	241.7	244.8	244.0	245.6	244.8	246.4	244.8
47.5°	212.9	213.6	212.9	213.6	213.6	213.6	214.4	212.9	213.6	211.3	206.6
50°	190.2	191.0	189.5	190.2	189.5	188.7	189.5	187.1	186.3	183.2	178.5
52.5°	170.7	170.0	169.2	169.2	169.2	168.4	167.6	165.3	163.0	159.8	154.4
55°	153.6	152.8	152.0	152.0	150.5	149.7	149.7	147.4	145.0	141.1	134.9
57.5°	138.0	137.2	136.4	136.4	135.7	134.1	134.1	131.8	128.6	124.0	118.5
60°	123.2	123.2	123.2	122.4	122.4	120.8	120.8	118.5	115.4	110.7	104.5
62.5°	109.9	109.2	109.2	109.2	109.2	108.4	107.6	106.0	102.9	98.2	92.8
65°	94.3	94.3	94.3	94.3	93.6	93.6	93.6	91.2	89.7	85.0	79.5
67.5°	77.2	77.2	77.2	77.2	76.4	77.2	77.2	75.6	74.1	69.4	64.7
70°	61.6	60.8	60.0	60.8	60.0	60.0	60.8	59.3	58.5	54.6	49.9
72.5°	45.2	46.0	45.2	45.2	45.2	44.4	45.2	44.4	42.9	39.8	36.6
75°	32.0	32.7	32.7	32.0	32.0	32.0	31.2	31.2	29.6	27.3	25.7
77.5°	21.8	21.8	21.8	21.8	21.1	21.1	21.1	20.3	19.5	17.9	16.4
80°	14.0	14.0	14.0	14.0	13.3	13.3	13.3	12.5	12.5	10.9	9.4
82.5°	8.6	8.6	8.6	8.6	8.6	8.6	7.8	7.8	7.0	6.2	5.5
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.9	3.9	3.1	2.3
87.5°	1.6	1.6	2.3	2.3	2.3	2.3	2.3	2.3	1.6	1.6	1.6
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4
2.5°	671.3	672.1	672.1	672.1	674.4	675.2	672.9	670.5	675.2	674.4	676.0
5°	663.5	665.8	667.4	668.2	670.5	672.1	669.7	669.0	672.9	673.6	674.4
7.5°	654.1	658.0	661.9	663.5	666.6	668.2	667.4	667.4	672.1	673.6	673.6
10°	647.9	653.4	658.0	661.9	665.8	668.2	668.2	669.0	674.4	676.0	677.5
12.5°	646.3	653.4	659.6	665.1	668.2	672.1	672.9	675.2	680.7	683.0	683.0
15°	642.5	651.8	659.6	666.6	671.3	676.0	677.5	682.2	688.5	690.0	691.6
17.5°	635.4	644.8	654.1	662.7	669.0	672.9	677.5	682.2	690.0	692.3	693.1
20°	623.0	633.9	643.2	651.8	658.0	663.5	668.2	673.6	680.7	683.8	684.6
22.5°	604.2	615.2	624.5	633.9	640.1	644.8	649.5	655.7	662.7	665.8	665.8
25°	581.6	591.8	601.9	608.9	615.2	620.6	623.0	630.0	637.0	640.9	640.9
27.5°	552.8	562.1	571.5	579.3	583.2	587.9	591.8	598.0	603.5	606.6	609.7
30°	516.1	525.5	534.1	541.9	546.6	551.2	555.1	559.8	565.3	569.2	569.9
32.5°	476.4	484.2	492.8	500.6	505.2	506.8	510.7	515.4	520.0	523.2	523.9
35°	432.7	438.2	443.6	450.7	455.3	455.3	459.2	462.3	466.2	473.3	471.7
37.5°	381.3	389.1	393.0	395.3	398.4	401.5	402.3	406.2	410.9	412.4	414.8
40°	332.9	335.3	337.6	337.6	340.7	340.7	340.7	341.5	346.2	347.0	350.1
42.5°	284.6	284.6	282.2	279.9	280.7	279.9	276.0	276.0	278.3	281.5	281.5
45°	239.4	233.9	226.9	221.4	217.5	216.0	211.3	211.3	210.5	211.3	214.4
47.5°	201.2	191.8	180.1	169.2	165.3	162.2	155.2	152.0	150.5	151.3	152.8
50°	169.2	159.1	145.8	132.5	125.5	121.6	113.1	107.6	106.8	105.3	108.4
52.5°	145.8	133.3	119.3	103.7	96.7	90.4	81.1	76.4	73.3	73.3	74.1
55°	125.5	112.3	96.7	81.1	74.1	69.4	60.0	53.8	50.7	49.9	52.2
57.5°	108.4	95.9	80.3	64.7	57.7	52.2	42.9	37.4	35.1	33.5	34.3
60°	95.1	82.6	67.1	52.2	46.0	39.8	32.0	25.7	22.6	22.6	23.4
62.5°	82.6	71.0	56.9	42.9	37.4	32.0	23.4	17.9	15.6	14.8	15.6
65°	70.2	59.3	47.6	35.9	30.4	25.7	18.7	14.0	10.9	10.1	10.9
67.5°	56.9	48.3	38.2	28.8	24.2	20.3	14.0	10.1	7.8	7.0	7.8
70°	44.4	36.6	28.8	21.1	17.9	14.8	10.1	7.8	5.5	4.7	5.5
72.5°	32.0	26.5	20.3	14.8	12.5	10.1	7.0	5.5	3.9	3.1	3.9
75°	21.8	17.9	13.3	9.4	7.8	7.0	4.7	3.1	2.3	2.3	2.3
77.5°	14.0	10.9	8.6	6.2	4.7	3.9	2.3	1.6	1.6	1.6	1.6
80°	7.8	6.2	4.7	3.1	2.3	2.3	1.6	1.6	0.8	0.8	0.8
82.5°	4.7	3.1	2.3	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8
85°	2.3	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4
2.5°	672.9	673.6	671.3	674.4	672.1	675.2	675.2	672.1	672.9	671.3	674.4
5°	671.3	671.3	669.7	672.1	669.0	672.1	671.3	665.8	667.4	664.3	667.4
7.5°	671.3	669.7	667.4	669.7	665.8	668.2	665.1	659.6	658.0	654.1	654.1
10°	673.6	671.3	668.2	669.0	665.1	665.8	661.2	653.4	651.0	646.3	644.8
12.5°	679.1	676.8	672.1	673.6	668.2	668.2	661.9	652.6	647.9	641.7	640.1
15°	686.9	683.0	677.5	678.3	672.9	669.7	661.9	651.0	644.8	636.2	633.9
17.5°	688.5	684.6	677.5	677.5	670.5	666.6	657.3	644.8	637.0	628.4	623.7
20°	679.9	676.0	668.2	667.4	661.2	655.7	645.6	633.1	625.3	615.9	612.0
22.5°	661.9	657.3	650.2	649.5	643.2	640.1	629.2	616.7	608.9	599.6	596.4
25°	635.4	633.1	626.1	625.3	619.8	615.9	606.6	594.9	587.9	578.5	575.4
27.5°	604.2	601.9	594.9	594.9	588.7	586.3	577.7	566.8	561.4	552.8	548.9
30°	566.8	563.7	559.8	559.0	553.6	551.2	543.4	533.3	527.8	520.8	519.3
32.5°	522.4	520.0	517.7	516.9	511.5	509.1	503.7	493.5	488.9	482.6	480.3
35°	470.9	469.4	467.0	466.2	463.9	461.6	456.1	448.3	446.0	441.3	439.0
37.5°	411.7	413.2	411.7	411.7	409.3	410.1	405.4	400.8	398.4	395.3	393.7
40°	347.7	350.9	353.2	353.2	352.4	355.5	354.8	350.9	350.1	348.5	347.7
42.5°	283.0	284.6	289.3	292.4	291.6	299.4	300.2	303.3	305.6	304.1	304.9
45°	215.2	219.9	226.1	229.2	233.1	243.3	248.7	255.0	260.4	263.5	262.7
47.5°	155.2	160.6	167.6	172.3	179.3	191.8	205.8	213.6	221.4	225.3	229.2
50°	112.3	117.7	126.3	133.3	138.0	155.2	170.0	180.1	188.7	194.1	198.0
52.5°	78.7	85.0	94.3	100.6	107.6	124.0	141.1	152.8	162.2	169.2	173.1
55°	54.6	61.6	70.2	76.4	84.2	101.4	117.7	130.2	140.3	146.6	151.3
57.5°	38.2	44.4	53.0	58.5	66.3	82.6	99.0	111.5	121.6	127.9	133.3
60°	25.7	32.0	40.5	46.0	52.2	68.6	83.4	96.7	106.0	112.3	117.7
62.5°	17.9	23.4	32.0	37.4	42.9	56.9	71.0	82.6	92.0	99.0	103.7
65°	14.0	18.7	25.7	30.4	35.9	47.6	59.3	69.4	78.7	85.8	88.9
67.5°	10.1	14.8	20.3	24.2	28.1	38.2	48.3	56.1	64.7	70.2	74.1
70°	7.0	10.1	14.8	17.9	21.1	28.8	36.6	43.7	49.9	53.8	56.9
72.5°	5.5	7.0	10.1	12.5	14.8	20.3	26.5	32.0	36.6	39.8	42.9
75°	3.1	4.7	7.0	8.6	10.1	14.0	17.9	21.8	24.9	27.3	28.8
77.5°	1.6	2.3	3.9	4.7	6.2	8.6	11.7	14.0	16.4	17.9	19.5
80°	1.6	1.6	2.3	2.3	3.1	4.7	6.2	7.8	9.4	10.9	11.7
82.5°	0.8	0.8	1.6	1.6	1.6	2.3	3.1	4.7	5.5	6.2	7.0
85°	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.3	3.1	3.9	3.9
87.5°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	1.6	1.6	1.6	2.3
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°	674.4	674.4	674.4	674.4	674.4	674.4	674.4	674.4
2.5°	672.1	673.6	672.9	674.4	672.1	671.3	672.9	670.5
5°	663.5	664.3	663.5	663.5	661.9	660.4	661.9	659.6
7.5°	650.2	650.2	647.9	647.9	644.8	643.2	643.2	642.5
10°	639.3	637.0	634.7	635.4	630.8	629.2	628.4	627.6
12.5°	633.9	632.3	628.4	628.4	623.7	622.2	621.4	620.6
15°	627.6	624.5	621.4	620.6	616.7	615.2	614.4	612.8
17.5°	616.7	614.4	610.5	610.5	606.6	605.8	604.2	603.5
20°	605.0	601.9	598.8	598.8	594.1	594.1	591.8	592.6
22.5°	588.7	586.3	583.2	583.2	579.3	578.5	576.2	575.4
25°	569.2	566.0	563.7	562.9	559.8	558.2	557.5	555.9
27.5°	543.4	541.1	538.8	537.2	533.3	532.5	530.2	531.0
30°	511.5	509.9	509.1	507.6	502.9	501.3	501.3	499.0
32.5°	476.4	474.0	472.5	470.1	466.2	465.5	463.1	463.9
35°	433.5	430.4	428.0	428.8	424.1	423.4	421.8	422.6
37.5°	389.1	385.9	382.8	382.0	378.1	378.1	375.8	375.8
40°	343.1	339.9	338.4	338.4	333.7	334.5	332.1	331.4
42.5°	301.7	298.6	297.8	297.1	294.7	293.9	291.6	292.4
45°	262.7	262.0	262.0	260.4	258.1	257.3	258.1	258.1
47.5°	228.4	229.2	228.4	228.4	226.9	228.4	226.9	227.7
50°	199.6	201.2	201.2	201.2	200.4	201.2	201.2	201.9
52.5°	175.4	177.8	177.0	177.8	177.0	178.5	177.8	178.5
55°	154.4	155.9	156.7	157.5	157.5	157.5	157.5	157.5
57.5°	134.9	137.2	138.0	138.8	138.8	140.3	138.8	138.8
60°	119.3	121.6	122.4	123.2	123.2	124.0	122.4	123.2
62.5°	105.3	107.6	107.6	108.4	108.4	108.4	106.8	107.6
65°	91.2	92.0	92.8	92.8	92.0	92.0	91.2	92.0
67.5°	75.6	76.4	75.6	75.6	74.8	74.8	73.3	74.1
70°	58.5	58.5	59.3	58.5	57.7	58.5	57.7	56.9
72.5°	43.7	43.7	43.7	42.9	42.9	42.1	42.9	42.9
75°	29.6	29.6	30.4	30.4	30.4	30.4	29.6	29.6
77.5°	19.5	19.5	19.5	19.5	20.3	19.5	19.5	19.5
80°	12.5	12.5	13.3	13.3	12.5	12.5	12.5	12.5
82.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
85°	4.7	4.7	4.7	4.7	3.9	3.9	3.9	3.9
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	1.6	1.6
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)