

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: P274439

Luminaire Tested: **LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWWOLI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274439  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-5)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0LI  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, LENSED WALLWASH WITH SPECULAR FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1276.7 lumens  
Efficiency: N/A  
Efficacy: 45.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.02 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

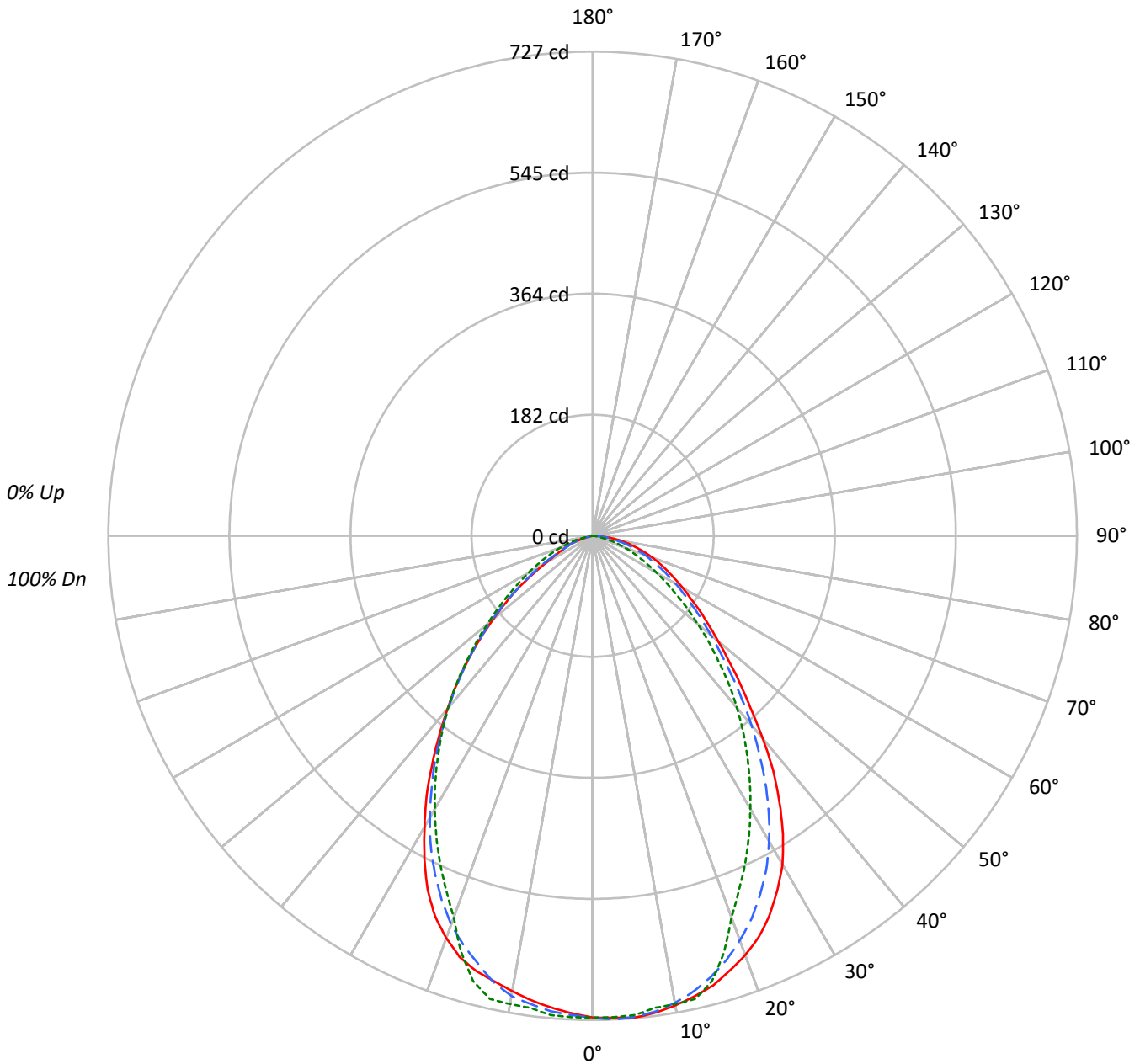
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	42	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33					33			

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

	0°	90°	180°
0°	47195	47195	47195
5°	47559	47310	46576
10°	47426	47300	45989
15°	47205	46766	45685
20°	46503	42330	44614
25°	45243	39023	42198
30°	42955	35670	38006
35°	38978	32248	33443
40°	33845	28726	28803
45°	28860	24699	24441
50°	24978	20878	19741
55°	22328	17414	15276
60°	20342	14470	10295
65°	19003	11887	7688
70°	18102	9671	6447
75°	17040	6856	2143
80°	16230	3532	714
85°	13324	2096	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.3	5.4
10°-20°	191.1	15.0
20°-30°	263.7	20.7
30°-40°	268.4	21.0
40°-50°	215.7	16.9
50°-60°	143.4	11.2
60°-70°	81.7	6.4
70°-80°	36.7	2.9
80°-90°	7.7	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°	523.1	41.0
0°-40°	791.4	62.0
0°-60°	1150.5	90.1
0°-90°	1276.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1276.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	723	723	723	723	723	
5°	726	725	722	717	711	69
15°	699	686	692	665	676	197
25°	628	595	542	560	586	288
35°	489	452	405	412	420	304
45°	313	294	268	265	265	243
55°	196	183	153	136	134	176
65°	123	110	77	50	50	123
75°	68	56	27	11	8	72
85°	18	12	3	1	0	21
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°	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4
2.5°	724.3	728.1	727.1	726.2	727.1	726.2	724.3	724.3	722.4	722.4	727.1
5°	726.2	728.1	727.1	726.2	726.2	727.1	723.4	723.4	721.5	720.5	725.2
7.5°	722.4	725.2	723.4	723.4	722.4	723.4	719.6	719.6	716.8	715.9	720.5
10°	715.9	719.6	717.7	717.7	717.7	715.9	714.0	713.0	710.2	709.3	712.1
12.5°	708.3	711.2	710.2	708.3	708.3	708.3	704.6	703.6	699.9	698.0	700.8
15°	698.9	700.8	699.9	698.9	697.1	697.1	693.3	691.4	687.7	683.9	685.8
17.5°	684.8	687.7	685.8	684.8	682.0	682.0	678.3	676.4	670.8	667.0	667.9
20°	669.8	670.8	669.8	667.9	665.1	664.2	660.4	656.7	652.0	647.3	646.3
22.5°	652.0	652.9	650.1	648.2	645.4	644.5	639.8	636.9	629.4	623.8	622.8
25°	628.5	629.4	629.4	624.7	622.8	621.0	616.3	611.6	605.0	597.5	594.7
27.5°	600.3	603.1	601.2	596.5	592.8	591.8	587.1	583.4	574.9	568.4	564.6
30°	570.2	569.3	568.4	565.5	559.9	559.0	554.3	549.6	543.0	534.5	529.8
32.5°	531.7	531.7	530.8	528.0	522.3	520.4	516.7	511.1	503.5	497.0	492.3
35°	489.4	490.4	489.4	483.8	480.1	478.2	476.3	469.7	463.1	455.6	451.9
37.5°	445.3	442.5	443.4	438.7	434.0	435.9	430.3	427.4	419.9	414.3	410.5
40°	397.4	399.3	395.5	393.6	390.8	388.0	388.0	383.3	379.5	373.0	371.1
42.5°	350.4	353.2	352.3	350.4	346.7	347.6	342.9	341.0	336.3	333.5	330.7
45°	312.8	312.8	312.8	311.0	310.0	308.1	305.3	302.5	299.7	295.9	294.0
47.5°	276.2	276.2	277.1	275.3	273.4	272.4	270.6	270.6	265.9	262.1	260.2
50°	246.1	246.1	246.1	244.3	242.4	242.4	240.5	238.6	235.8	233.0	231.1
52.5°	218.9	218.9	218.9	217.0	216.1	215.1	214.2	213.3	209.5	207.6	205.7
55°	196.3	195.4	195.4	194.5	192.6	192.6	191.6	189.8	186.9	184.1	183.2
57.5°	173.8	174.7	173.8	173.8	171.9	171.9	170.0	169.1	166.3	164.4	162.5
60°	155.9	155.9	155.9	155.0	153.1	154.1	152.2	151.2	148.4	145.6	143.7
62.5°	138.1	139.0	139.0	138.1	136.2	136.2	135.3	134.3	131.5	128.7	125.9
65°	123.1	123.1	123.1	122.1	121.2	121.2	120.2	119.3	116.5	112.7	109.9
67.5°	109.0	108.0	108.0	108.0	107.1	106.2	105.2	104.3	101.5	98.6	94.9
70°	94.9	94.9	94.9	93.9	92.1	93.0	92.1	91.1	88.3	85.5	82.7
72.5°	81.7	81.7	80.8	79.9	79.9	78.9	78.9	78.0	75.2	71.4	68.6
75°	67.6	67.6	67.6	67.6	65.8	66.7	64.8	63.9	62.0	59.2	56.4
77.5°	55.4	55.4	55.4	54.5	53.5	53.5	52.6	51.7	48.9	47.0	43.2
80°	43.2	43.2	43.2	43.2	42.3	41.3	40.4	39.5	37.6	34.8	31.9
82.5°	31.9	31.9	31.0	31.0	31.0	30.1	29.1	28.2	26.3	24.4	22.5
85°	17.8	18.8	18.8	16.9	17.8	16.9	16.9	15.0	15.0	13.2	12.2
87.5°	6.6	5.6	5.6	5.6	5.6	5.6	5.6	4.7	4.7	4.7	3.8
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4
2.5°	723.4	722.4	726.2	726.2	720.5	723.4	724.3	722.4	722.4	723.4	720.5
5°	721.5	719.6	723.4	724.3	718.7	721.5	722.4	720.5	721.5	722.4	718.7
7.5°	714.9	714.9	717.7	718.7	713.0	715.9	715.9	714.0	714.9	714.9	712.1
10°	708.3	705.5	708.3	708.3	703.6	704.6	706.5	705.5	709.3	714.0	714.0
12.5°	696.1	693.3	698.0	698.0	695.2	698.9	703.6	706.5	710.2	712.1	706.5
15°	681.1	682.0	690.5	697.1	694.2	699.9	704.6	702.7	698.0	692.4	683.9
17.5°	661.4	658.5	666.1	669.8	666.1	667.9	671.7	667.9	660.4	655.7	644.5
20°	638.8	631.3	631.3	629.4	622.8	622.8	621.9	615.3	612.5	609.7	605.0
22.5°	613.5	605.0	602.2	596.5	590.9	590.0	587.1	580.6	576.8	574.9	569.3
25°	584.3	576.8	572.1	566.5	558.0	556.1	553.3	546.8	544.9	542.1	537.4
27.5°	554.3	544.9	538.3	532.7	525.1	524.2	518.6	513.9	510.1	508.2	504.5
30°	519.5	509.2	504.5	497.0	491.3	489.4	484.7	478.2	475.4	473.5	470.7
32.5°	481.0	472.5	467.8	461.3	453.7	454.7	449.1	443.4	441.5	439.7	436.8
35°	443.4	435.0	429.3	423.7	419.0	417.1	413.4	408.7	405.8	404.9	403.0
37.5°	402.1	395.5	390.8	385.2	381.4	379.5	377.7	373.0	371.1	371.1	367.3
40°	361.7	356.0	352.3	349.5	344.8	343.8	342.0	339.1	338.2	337.3	334.4
42.5°	325.0	317.5	314.7	312.8	310.0	308.1	307.2	305.3	304.4	303.4	300.6
45°	290.3	283.7	280.9	279.0	276.2	275.3	274.3	271.5	269.6	267.7	266.8
47.5°	256.5	251.8	250.8	246.1	244.3	242.4	240.5	238.6	237.7	236.7	233.0
50°	227.3	224.5	219.8	217.0	215.1	214.2	210.4	207.6	206.7	205.7	202.9
52.5°	201.0	197.3	194.5	189.8	188.8	186.9	185.1	181.3	179.4	178.5	175.7
55°	177.6	174.7	171.0	167.2	164.4	163.5	160.6	156.9	155.0	153.1	151.2
57.5°	157.8	153.1	149.4	145.6	143.7	140.9	138.1	136.2	133.4	130.6	127.8
60°	139.0	135.3	130.6	126.8	124.9	123.1	119.3	116.5	113.7	110.9	108.0
62.5°	121.2	117.4	112.7	109.0	107.1	105.2	101.5	98.6	95.8	93.0	89.2
65°	105.2	101.5	97.7	93.9	92.1	90.2	86.4	82.7	79.9	77.0	73.3
67.5°	92.1	87.4	83.6	79.9	78.0	76.1	72.3	69.5	65.8	62.9	59.2
70°	78.0	74.2	71.4	67.6	65.8	63.9	60.1	56.4	53.5	50.7	47.0
72.5°	65.8	61.1	58.2	54.5	52.6	51.7	47.9	45.1	42.3	38.5	35.7
75°	52.6	48.9	45.1	42.3	40.4	39.5	35.7	32.9	30.1	27.2	24.4
77.5°	40.4	37.6	33.8	31.0	29.1	28.2	24.4	21.6	18.8	16.9	14.1
80°	30.1	26.3	24.4	21.6	20.7	18.8	16.9	14.1	12.2	9.4	7.5
82.5°	20.7	17.8	16.0	14.1	13.2	12.2	10.3	8.5	6.6	5.6	4.7
85°	11.3	9.4	8.5	7.5	6.6	6.6	5.6	4.7	3.8	2.8	1.9
87.5°	3.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9	0.9	0.9	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°	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4
2.5°	722.4	722.4	722.4	721.5	721.5	721.5	720.5	724.3	720.5	719.6	722.4
5°	721.5	719.6	719.6	719.6	719.6	718.7	717.7	719.6	716.8	715.9	715.9
7.5°	715.9	714.9	714.9	714.0	713.0	712.1	711.2	712.1	709.3	708.3	708.3
10°	716.8	714.9	714.9	712.1	710.2	707.4	704.6	705.5	701.8	698.9	698.9
12.5°	705.5	700.8	698.0	695.2	693.3	692.4	688.6	690.5	686.7	685.8	685.8
15°	680.2	674.5	669.8	667.9	667.9	666.1	663.2	667.0	665.1	666.1	670.8
17.5°	640.7	637.9	635.1	634.1	635.1	636.9	638.8	644.5	644.5	647.3	652.0
20°	605.9	604.1	605.9	605.9	606.9	610.6	614.4	619.1	621.0	623.8	630.4
22.5°	572.1	572.1	574.0	576.8	575.9	582.5	583.4	591.8	591.8	597.5	603.1
25°	539.2	539.2	541.1	542.1	543.9	547.7	551.4	558.0	559.9	565.5	570.2
27.5°	507.3	506.4	506.4	507.3	509.2	513.9	515.8	523.3	526.1	529.8	534.5
30°	471.6	470.7	472.5	474.4	473.5	478.2	481.0	486.6	488.5	492.3	496.0
32.5°	437.8	437.8	437.8	439.7	439.7	443.4	443.4	450.0	450.0	452.8	456.6
35°	403.0	403.0	404.0	404.9	405.8	406.8	407.7	411.5	412.4	413.4	415.2
37.5°	370.1	369.2	370.1	370.1	368.3	372.0	372.0	375.8	373.0	375.8	376.7
40°	336.3	336.3	335.4	335.4	335.4	337.3	335.4	338.2	336.3	338.2	337.3
42.5°	301.6	301.6	299.7	301.6	300.6	300.6	300.6	302.5	299.7	301.6	302.5
45°	266.8	265.9	265.9	264.9	264.9	264.9	265.9	265.9	264.9	266.8	266.8
47.5°	233.0	232.0	232.0	232.0	232.0	233.0	230.2	232.0	230.2	230.2	230.2
50°	203.9	202.9	202.0	201.0	200.1	200.1	199.2	199.2	197.3	196.3	195.4
52.5°	175.7	174.7	172.9	172.9	171.9	171.0	168.2	168.2	165.3	164.4	164.4
55°	150.3	147.5	146.6	144.7	144.7	142.8	140.9	139.0	136.2	134.3	134.3
57.5°	126.8	124.0	122.1	121.2	120.2	118.4	114.6	113.7	109.9	109.0	108.0
60°	106.2	103.3	100.5	98.6	97.7	94.9	91.1	89.2	87.4	84.5	81.7
62.5°	86.4	83.6	79.9	78.9	77.0	74.2	71.4	68.6	66.7	63.9	62.0
65°	69.5	66.7	63.9	62.0	60.1	57.3	54.5	51.7	49.8	48.9	47.9
67.5°	56.4	52.6	49.8	48.9	47.0	45.1	42.3	41.3	39.5	39.5	39.5
70°	44.2	41.3	38.5	37.6	36.6	34.8	32.9	32.9	32.9	32.9	32.9
72.5°	32.9	31.0	28.2	27.2	26.3	25.4	23.5	24.4	23.5	23.5	23.5
75°	20.7	18.8	16.9	16.0	15.0	14.1	13.2	12.2	11.3	10.3	10.3
77.5°	11.3	9.4	8.5	7.5	7.5	6.6	5.6	5.6	4.7	4.7	4.7
80°	6.6	5.6	4.7	3.8	3.8	2.8	2.8	2.8	2.8	1.9	1.9
82.5°	3.8	2.8	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9	0.9
85°	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	723.4	723.4	723.4	723.4	723.4	723.4	723.4	723.4
2.5°	717.7	720.5	717.7	720.5	720.5	720.5	720.5	717.7
5°	713.0	714.9	712.1	714.0	714.9	714.0	714.0	711.2
7.5°	704.6	706.5	703.6	706.5	707.4	706.5	705.5	703.6
10°	696.1	697.1	694.2	696.1	698.0	698.0	697.1	694.2
12.5°	683.0	685.8	683.0	684.8	686.7	687.7	687.7	684.8
15°	667.9	672.6	670.8	673.6	676.4	677.3	677.3	676.4
17.5°	652.9	657.6	654.8	659.5	662.3	664.2	665.1	663.2
20°	631.3	636.9	635.1	638.8	642.6	645.4	645.4	642.6
22.5°	603.1	610.6	609.7	612.5	617.2	618.1	620.0	618.1
25°	572.1	577.8	576.8	579.6	585.3	585.3	586.2	586.2
27.5°	536.4	542.1	541.1	543.0	546.8	547.7	548.6	546.8
30°	497.9	500.7	500.7	503.5	506.4	507.3	507.3	504.5
32.5°	455.6	459.4	461.3	460.3	463.1	465.0	464.1	464.1
35°	417.1	418.0	419.0	419.9	420.9	422.7	420.9	419.9
37.5°	375.8	378.6	376.7	378.6	380.5	379.5	378.6	378.6
40°	338.2	339.1	337.3	339.1	340.1	340.1	340.1	338.2
42.5°	300.6	302.5	300.6	302.5	302.5	302.5	302.5	301.6
45°	263.0	264.9	264.9	265.9	265.9	264.9	264.9	264.9
47.5°	228.3	230.2	228.3	230.2	231.1	229.2	229.2	229.2
50°	195.4	194.5	194.5	195.4	195.4	195.4	195.4	194.5
52.5°	161.6	162.5	162.5	162.5	163.5	162.5	163.5	163.5
55°	132.5	132.5	132.5	133.4	132.5	132.5	133.4	134.3
57.5°	106.2	105.2	104.3	104.3	105.2	104.3	104.3	104.3
60°	81.7	80.8	79.9	79.9	79.9	79.9	79.9	78.9
62.5°	61.1	61.1	61.1	62.0	62.0	62.0	62.0	62.9
65°	48.9	48.9	48.9	48.9	48.9	48.9	48.9	49.8
67.5°	39.5	39.5	39.5	40.4	40.4	40.4	40.4	40.4
70°	32.9	32.9	33.8	32.9	33.8	33.8	33.8	33.8
72.5°	22.5	22.5	22.5	22.5	22.5	21.6	22.5	21.6
75°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	8.5
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0
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)