

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: P226242

Luminaire Tested: **LD2B05D010 EU2B05WW9730 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226242  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14828)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B05D010 EU2B05WW9730 2LBSW\*  
Description: 500 Lumen, 2inch Portfolio LED Downlight  
WALL WASH OPTIC  
WALL WASH LENSED TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 407.0 lumens  
Efficiency: N/A  
Efficacy: 55.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.79 / 1.02  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

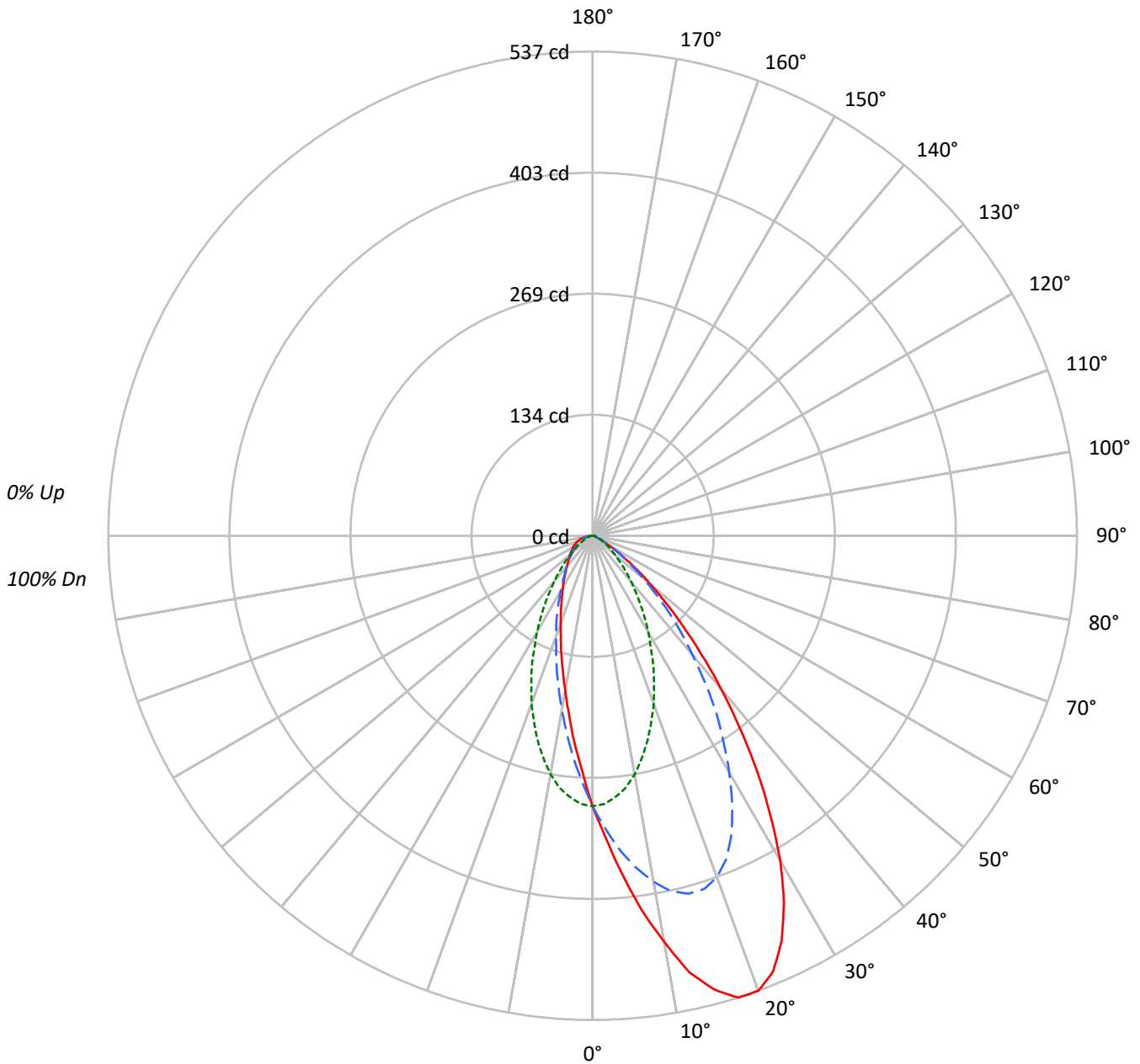
Input Watts (W): 7.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

### Luminous Intensity Polar Plot





TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

**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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			

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

	0°	90°	180°
0°	116165	116165	116165
5°	146432	113070	89508
10°	179905	105646	68713
15°	208926	94318	53856
20°	221395	81575	42457
25°	211857	68169	34960
30°	186064	55103	29341
35°	149897	43456	25298
40°	111798	33676	22451
45°	77403	25417	20487
50°	49896	18861	19464
55°	29309	14317	19111
60°	15649	11698	19522
65°	7424	9257	19431
70°	3398	8041	19479
75°	4490	7483	21102
80°	4461	6692	20299
85°	4444	8889	17777



TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.3	7.0
10°-20°	79.1	19.4
20°-30°	103.2	25.3
30°-40°	89.3	21.9
40°-50°	56.5	13.9
50°-60°	28.3	7.0
60°-70°	13.0	3.2
70°-80°	7.0	1.7
80°-90°	2.2	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°	210.6	51.7
0°-40°	299.9	73.7
0°-60°	384.7	94.5
0°-90°	407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	407.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	300	300	300	300	300	
5°	377	350	291	246	230	38
15°	521	411	235	154	134	147
25°	496	364	160	92	82	225
35°	317	238	92	56	54	197
45°	141	118	46	36	37	111
55°	43	40	21	24	28	42
65°	8	9	10	17	21	9
75°	3	3	5	10	14	3
85°	1	1	2	3	4	1
90°	0	0	0	0	0	



TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
2.5°	335.2	337.2	337.2	338.2	334.2	335.2	335.2	333.2	330.1	328.1	325.1
5°	376.6	376.6	375.6	376.6	373.6	371.5	372.5	368.5	360.4	356.4	350.3
7.5°	419.0	417.0	417.0	416.0	410.9	407.9	406.9	399.8	388.7	380.6	371.5
10°	457.4	457.4	455.3	453.3	446.2	442.2	439.2	428.1	416.0	402.8	389.7
12.5°	495.7	493.7	490.7	486.6	476.5	472.5	467.4	454.3	436.1	421.0	403.8
15°	521.0	522.0	516.9	511.9	500.8	494.7	488.6	472.5	451.3	432.1	410.9
17.5°	537.1	536.1	531.1	525.0	512.9	505.8	498.7	479.6	457.4	434.1	410.9
20°	537.1	537.1	531.1	525.0	511.9	503.8	496.7	476.5	452.3	428.1	402.8
22.5°	523.0	521.0	516.9	510.9	497.7	490.7	482.6	462.4	437.2	413.9	387.7
25°	495.7	495.7	490.7	483.6	472.5	464.4	457.4	437.2	412.9	389.7	364.5
27.5°	459.4	458.4	453.3	448.3	436.1	430.1	423.0	403.8	382.6	361.4	335.2
30°	416.0	413.9	411.9	403.8	395.8	390.7	384.7	367.5	346.3	326.1	302.9
32.5°	366.5	369.5	364.5	359.4	352.4	347.3	342.3	329.1	309.9	291.8	269.6
35°	317.0	319.0	316.0	312.0	304.9	301.9	296.8	285.7	271.6	254.4	238.3
37.5°	267.5	267.5	267.5	264.5	260.5	257.4	254.4	244.3	232.2	219.1	203.9
40°	221.1	224.1	220.1	219.1	216.1	215.0	212.0	204.9	194.9	185.8	171.6
42.5°	178.7	178.7	179.7	177.7	176.7	174.7	172.6	168.6	161.5	153.5	144.4
45°	141.3	142.4	143.4	140.3	140.3	140.3	139.3	135.3	129.2	124.2	118.1
47.5°	110.0	110.0	111.1	110.0	110.0	110.0	108.0	108.0	104.0	98.9	93.9
50°	82.8	83.8	84.8	84.8	84.8	83.8	83.8	81.8	79.8	77.7	72.7
52.5°	62.6	62.6	61.6	62.6	62.6	62.6	62.6	61.6	60.6	58.6	55.5
55°	43.4	43.4	44.4	44.4	44.4	45.4	45.4	45.4	44.4	43.4	40.4
57.5°	30.3	30.3	30.3	31.3	32.3	32.3	32.3	32.3	31.3	30.3	29.3
60°	20.2	20.2	20.2	21.2	21.2	21.2	21.2	22.2	21.2	21.2	20.2
62.5°	13.1	13.1	13.1	13.1	13.1	14.1	14.1	14.1	14.1	14.1	13.1
65°	8.1	8.1	8.1	8.1	8.1	8.1	9.1	9.1	9.1	9.1	9.1
67.5°	5.0	5.0	5.0	5.0	5.0	6.1	6.1	6.1	6.1	6.1	6.1
70°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	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



TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
2.5°	325.1	321.1	319.0	314.0	313.0	308.9	308.9	304.9	299.9	297.8	292.8
5°	346.3	338.2	334.2	325.1	322.1	316.0	313.0	304.9	296.8	290.8	283.7
7.5°	364.5	352.4	344.3	332.2	327.1	318.0	312.0	301.9	290.8	281.7	271.6
10°	378.6	362.4	350.3	334.2	328.1	317.0	307.9	293.8	279.7	268.6	256.4
12.5°	387.7	368.5	351.3	332.2	324.1	312.0	298.8	282.7	266.5	252.4	239.3
15°	391.7	368.5	348.3	325.1	316.0	302.9	287.7	268.6	250.4	235.2	221.1
17.5°	388.7	361.4	340.2	314.0	303.9	288.7	271.6	251.4	232.2	216.1	201.9
20°	378.6	350.3	326.1	298.8	287.7	272.6	253.4	233.2	214.0	197.9	182.7
22.5°	361.4	332.2	306.9	279.7	268.6	253.4	233.2	213.0	193.8	177.7	163.6
25°	340.2	308.9	283.7	257.4	245.3	232.2	212.0	191.8	173.7	159.5	145.4
27.5°	312.0	284.7	259.5	233.2	222.1	210.0	189.8	171.6	153.5	139.3	127.2
30°	281.7	255.4	234.2	209.0	198.9	186.8	169.6	151.4	136.3	123.2	112.1
32.5°	251.4	226.2	206.0	184.8	175.7	163.6	148.4	132.3	118.1	107.0	97.9
35°	220.1	198.9	179.7	159.5	152.5	142.4	128.2	114.1	102.0	91.9	82.8
37.5°	188.8	171.6	154.5	138.3	130.2	122.2	109.0	96.9	85.8	77.7	70.7
40°	160.5	145.4	131.2	116.1	109.0	103.0	91.9	81.8	73.7	66.6	60.6
42.5°	133.3	121.2	109.0	96.9	90.9	85.8	76.7	67.6	60.6	55.5	50.5
45°	109.0	100.0	89.9	78.7	75.7	69.7	62.6	56.5	50.5	46.4	42.4
47.5°	87.8	79.8	71.7	63.6	60.6	56.5	50.5	45.4	41.4	38.4	35.3
50°	68.7	62.6	57.5	50.5	48.5	44.4	40.4	36.3	33.3	31.3	29.3
52.5°	52.5	47.5	43.4	39.4	37.4	35.3	31.3	29.3	27.3	26.2	25.2
55°	38.4	35.3	32.3	29.3	28.3	26.2	24.2	22.2	21.2	21.2	21.2
57.5°	27.3	25.2	23.2	21.2	21.2	20.2	19.2	18.2	17.2	17.2	17.2
60°	19.2	18.2	17.2	16.2	15.1	15.1	14.1	15.1	14.1	15.1	15.1
62.5°	13.1	12.1	12.1	11.1	11.1	11.1	11.1	11.1	12.1	12.1	13.1
65°	8.1	8.1	8.1	8.1	8.1	8.1	9.1	9.1	9.1	10.1	10.1
67.5°	6.1	6.1	6.1	7.1	7.1	7.1	7.1	8.1	8.1	8.1	9.1
70°	4.0	5.0	5.0	5.0	5.0	5.0	6.1	6.1	6.1	7.1	7.1
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	6.1	6.1
75°	3.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	6.1
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
80°	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	2.0
87.5°	0.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
2.5°	290.8	287.7	288.7	282.7	283.7	279.7	277.6	274.6	272.6	269.6	270.6
5°	278.7	273.6	271.6	264.5	265.5	259.5	255.4	250.4	246.3	241.3	240.3
7.5°	263.5	255.4	252.4	245.3	244.3	236.2	231.2	225.1	220.1	215.0	213.0
10°	246.3	237.3	231.2	224.1	223.1	214.0	208.0	201.9	195.9	190.8	188.8
12.5°	228.2	218.1	211.0	202.9	200.9	192.8	185.8	179.7	173.7	168.6	165.6
15°	209.0	197.9	190.8	182.7	180.7	171.6	165.6	158.5	153.5	148.4	146.4
17.5°	189.8	178.7	170.6	163.6	161.5	152.5	145.4	140.3	134.3	131.2	128.2
20°	170.6	159.5	151.4	145.4	142.4	135.3	128.2	123.2	118.1	115.1	112.1
22.5°	151.4	141.3	134.3	128.2	126.2	119.1	113.1	108.0	105.0	101.0	98.9
25°	134.3	124.2	118.1	112.1	110.0	104.0	100.0	94.9	91.9	88.8	86.8
27.5°	118.1	109.0	103.0	97.9	96.9	91.9	86.8	83.8	80.8	78.7	77.7
30°	102.0	94.9	89.9	85.8	84.8	79.8	75.7	73.7	70.7	69.7	68.7
32.5°	89.9	82.8	78.7	74.7	73.7	69.7	67.6	64.6	62.6	61.6	61.6
35°	76.7	71.7	67.6	65.6	64.6	61.6	58.6	57.5	55.5	54.5	54.5
37.5°	65.6	61.6	58.6	55.5	55.5	53.5	51.5	50.5	49.5	49.5	48.5
40°	56.5	52.5	51.5	49.5	48.5	47.5	46.4	45.4	44.4	44.4	44.4
42.5°	47.5	45.4	43.4	42.4	42.4	41.4	40.4	40.4	39.4	40.4	40.4
45°	40.4	38.4	37.4	36.3	37.4	36.3	36.3	35.3	36.3	36.3	36.3
47.5°	34.3	33.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	33.3	33.3
50°	29.3	28.3	28.3	28.3	28.3	28.3	29.3	29.3	29.3	30.3	30.3
52.5°	24.2	24.2	24.2	24.2	25.2	25.2	26.2	26.2	27.3	27.3	28.3
55°	21.2	21.2	21.2	21.2	22.2	22.2	23.2	24.2	24.2	25.2	26.2
57.5°	18.2	18.2	19.2	19.2	20.2	20.2	21.2	22.2	22.2	23.2	24.2
60°	15.1	16.2	17.2	17.2	17.2	18.2	19.2	20.2	20.2	21.2	22.2
62.5°	13.1	14.1	15.1	15.1	15.1	16.2	17.2	18.2	18.2	19.2	20.2
65°	11.1	12.1	13.1	13.1	13.1	14.1	15.1	16.2	17.2	17.2	18.2
67.5°	10.1	10.1	11.1	11.1	12.1	13.1	13.1	14.1	15.1	16.2	17.2
70°	8.1	9.1	10.1	10.1	10.1	11.1	12.1	13.1	13.1	14.1	15.1
72.5°	7.1	7.1	8.1	8.1	9.1	10.1	10.1	11.1	12.1	12.1	13.1
75°	6.1	7.1	7.1	7.1	8.1	8.1	9.1	10.1	10.1	11.1	11.1
77.5°	5.0	5.0	6.1	6.1	6.1	7.1	7.1	8.1	8.1	9.1	9.1
80°	4.0	4.0	5.0	5.0	5.0	5.0	6.1	6.1	7.1	7.1	7.1
82.5°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
85°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	4.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P226242

CATALOG NUMBER: LD2B05D010 EU2B05WW9730 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	299.9	299.9	299.9	299.9	299.9	299.9	299.9	299.9
2.5°	267.5	267.5	266.5	265.5	264.5	263.5	262.5	261.5
5°	237.3	238.3	234.2	233.2	233.2	231.2	232.2	230.2
7.5°	209.0	209.0	206.0	204.9	203.9	201.9	200.9	199.9
10°	183.7	182.7	180.7	179.7	177.7	176.7	176.7	174.7
12.5°	161.5	160.5	158.5	157.5	155.5	154.5	153.5	152.5
15°	142.4	141.3	139.3	138.3	137.3	135.3	135.3	134.3
17.5°	124.2	123.2	122.2	120.1	120.1	118.1	117.1	117.1
20°	110.0	109.0	107.0	106.0	106.0	105.0	105.0	103.0
22.5°	96.9	95.9	94.9	93.9	93.9	92.9	91.9	91.9
25°	85.8	84.8	83.8	83.8	82.8	81.8	81.8	81.8
27.5°	75.7	75.7	74.7	74.7	74.7	73.7	73.7	72.7
30°	67.6	67.6	66.6	66.6	66.6	65.6	66.6	65.6
32.5°	60.6	60.6	60.6	60.6	60.6	59.6	59.6	59.6
35°	54.5	54.5	54.5	54.5	54.5	53.5	54.5	53.5
37.5°	48.5	49.5	48.5	48.5	49.5	48.5	48.5	48.5
40°	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
42.5°	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4
45°	36.3	37.4	37.4	37.4	37.4	37.4	37.4	37.4
47.5°	34.3	34.3	34.3	34.3	35.3	34.3	35.3	35.3
50°	31.3	31.3	31.3	32.3	32.3	32.3	32.3	32.3
52.5°	29.3	29.3	29.3	29.3	30.3	30.3	30.3	30.3
55°	26.2	27.3	27.3	27.3	28.3	28.3	28.3	28.3
57.5°	25.2	25.2	25.2	26.2	26.2	26.2	27.3	26.2
60°	23.2	23.2	24.2	24.2	24.2	25.2	25.2	25.2
62.5°	21.2	22.2	22.2	22.2	22.2	23.2	23.2	23.2
65°	19.2	20.2	20.2	20.2	21.2	21.2	21.2	21.2
67.5°	17.2	18.2	18.2	19.2	19.2	19.2	19.2	19.2
70°	15.1	16.2	16.2	16.2	17.2	17.2	17.2	17.2
72.5°	14.1	14.1	14.1	15.1	15.1	15.1	16.2	15.1
75°	12.1	13.1	13.1	13.1	13.1	13.1	14.1	14.1
77.5°	10.1	10.1	10.1	10.1	11.1	11.1	11.1	11.1
80°	8.1	8.1	8.1	8.1	9.1	9.1	9.1	9.1
82.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
85°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)