

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: P226230

Luminaire Tested: **LD2B05D010 EU2B05WW8027 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226230
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 EU2B05WW8027 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: 539.3 lumens
Efficiency: N/A
Efficacy: 73.9 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

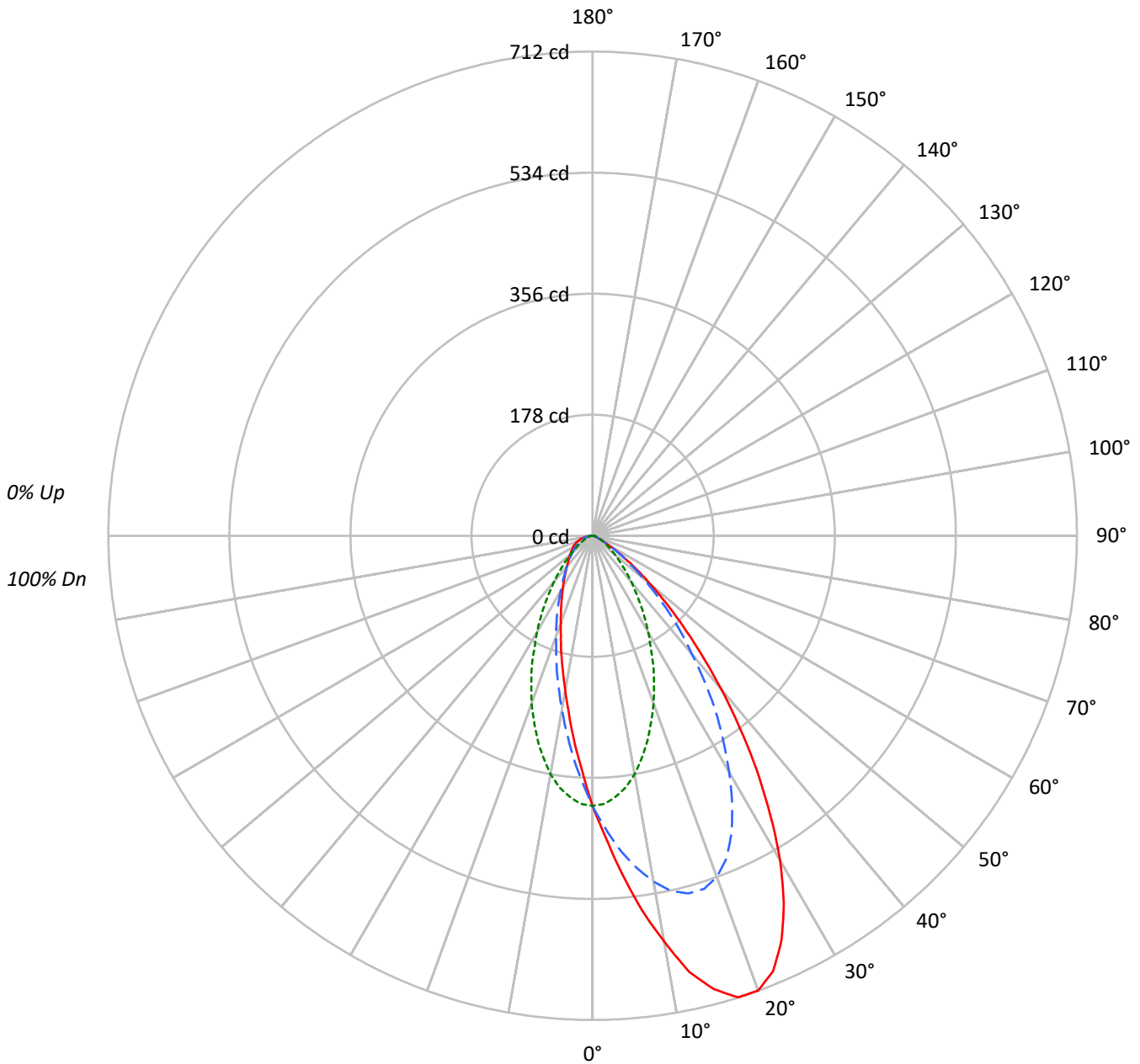
Input Watts (W): 7.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 2LBSW*

Luminous Intensity Polar Plot





TEST NUMBER: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 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°	153893	153893	153893
5°	194024	149814	118592
10°	238353	139983	91015
15°	276817	124995	71340
20°	293366	108080	56266
25°	280752	90350	46329
30°	246534	72994	38912
35°	198649	57547	33526
40°	148154	44648	29782
45°	102601	33689	27116
50°	66106	25008	25791
55°	38831	18976	25324
60°	20762	15571	25875
65°	9807	12282	25755
70°	4530	10646	25708
75°	5986	10027	27986
80°	6023	8923	26768
85°	5778	12000	23999



TEST NUMBER: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 2LBSW*

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	7.0
10°-20°	104.8	19.4
20°-30°	136.7	25.3
30°-40°	118.3	21.9
40°-50°	74.9	13.9
50°-60°	37.5	7.0
60°-70°	17.3	3.2
70°-80°	9.3	1.7
80°-90°	3.0	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°	279.0	51.7
0°-40°	397.4	73.7
0°-60°	509.8	94.5
0°-90°	539.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	539.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	397	397	397	397	397	
5°	499	464	385	326	305	51
15°	690	544	312	203	178	194
25°	657	483	211	122	108	297
35°	420	316	122	74	71	261
45°	187	156	62	48	50	147
55°	58	54	28	32	38	55
65°	11	12	13	23	28	12
75°	4	4	7	13	19	4
85°	1	1	3	4	5	1
90°	0	0	0	0	0	



TEST NUMBER: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 2LBSW*

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3
2.5°	444.2	446.8	446.8	448.2	442.8	444.2	444.2	441.5	437.5	434.8	430.8
5°	499.0	499.0	497.7	499.0	495.0	492.3	493.7	488.3	477.6	472.3	464.2
7.5°	555.2	552.5	552.5	551.2	544.5	540.5	539.2	529.8	515.1	504.4	492.3
10°	606.0	606.0	603.4	600.7	591.3	586.0	582.0	567.2	551.2	533.8	516.4
12.5°	656.9	654.2	650.2	644.8	631.5	626.1	619.4	602.0	578.0	557.9	535.1
15°	690.3	691.7	685.0	678.3	663.6	655.5	647.5	626.1	598.0	572.6	544.5
17.5°	711.7	710.4	703.7	695.7	679.6	670.3	660.9	635.5	606.0	575.3	544.5
20°	711.7	711.7	703.7	695.7	678.3	667.6	658.2	631.5	599.4	567.2	533.8
22.5°	693.0	690.3	685.0	677.0	659.6	650.2	639.5	612.7	579.3	548.5	513.7
25°	656.9	656.9	650.2	640.8	626.1	615.4	606.0	579.3	547.2	516.4	483.0
27.5°	608.7	607.4	600.7	594.0	578.0	569.9	560.6	535.1	507.0	479.0	444.2
30°	551.2	548.5	545.8	535.1	524.4	517.7	509.7	487.0	458.9	432.1	401.4
32.5°	485.6	489.7	483.0	476.3	466.9	460.2	453.5	436.1	410.7	386.6	357.2
35°	420.1	422.8	418.7	413.4	404.0	400.0	393.3	378.6	359.9	337.1	315.7
37.5°	354.5	354.5	354.5	350.5	345.2	341.2	337.1	323.8	307.7	290.3	270.2
40°	293.0	297.0	291.7	290.3	286.3	285.0	280.9	271.6	258.2	246.2	227.4
42.5°	236.8	236.8	238.1	235.5	234.1	231.4	228.8	223.4	214.1	203.4	191.3
45°	187.3	188.6	190.0	186.0	186.0	186.0	184.6	179.3	171.2	164.6	156.5
47.5°	145.8	145.8	147.2	145.8	145.8	145.8	143.2	143.2	137.8	131.1	124.4
50°	109.7	111.0	112.4	112.4	112.4	111.0	111.0	108.4	105.7	103.0	96.3
52.5°	82.9	82.9	81.6	82.9	82.9	82.9	82.9	81.6	80.3	77.6	73.6
55°	57.5	57.5	58.9	58.9	58.9	60.2	60.2	60.2	58.9	57.5	53.5
57.5°	40.1	40.1	40.1	41.5	42.8	42.8	42.8	42.8	41.5	40.1	38.8
60°	26.8	26.8	26.8	28.1	28.1	28.1	28.1	29.4	28.1	28.1	26.8
62.5°	17.4	17.4	17.4	17.4	17.4	18.7	18.7	18.7	18.7	18.7	17.4
65°	10.7	10.7	10.7	10.7	10.7	10.7	12.0	12.0	12.0	12.0	12.0
67.5°	6.7	6.7	6.7	6.7	6.7	8.0	8.0	8.0	8.0	8.0	8.0
70°	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0	4.0	4.0
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.7	2.7	1.3
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 2LBSW*

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3
2.5°	430.8	425.4	422.8	416.1	414.7	409.4	409.4	404.0	397.3	394.7	388.0
5°	458.9	448.2	442.8	430.8	426.8	418.7	414.7	404.0	393.3	385.3	375.9
7.5°	483.0	466.9	456.2	440.2	433.5	421.4	413.4	400.0	385.3	373.3	359.9
10°	501.7	480.3	464.2	442.8	434.8	420.1	408.0	389.3	370.6	355.9	339.8
12.5°	513.7	488.3	465.6	440.2	429.5	413.4	396.0	374.6	353.2	334.5	317.1
15°	519.1	488.3	461.6	430.8	418.7	401.4	381.3	355.9	331.8	311.7	293.0
17.5°	515.1	479.0	450.9	416.1	402.7	382.6	359.9	333.1	307.7	286.3	267.6
20°	501.7	464.2	432.1	396.0	381.3	361.2	335.8	309.0	283.6	262.2	242.2
22.5°	479.0	440.2	406.7	370.6	355.9	335.8	309.0	282.3	256.9	235.5	216.7
25°	450.9	409.4	375.9	341.2	325.1	307.7	280.9	254.2	230.1	211.4	192.7
27.5°	413.4	377.3	343.8	309.0	294.3	278.3	251.5	227.4	203.4	184.6	168.6
30°	373.3	338.5	310.4	276.9	263.6	247.5	224.8	200.7	180.6	163.2	148.5
32.5°	333.1	299.7	272.9	244.8	232.8	216.7	196.7	175.3	156.5	141.8	129.8
35°	291.7	263.6	238.1	211.4	202.0	188.6	169.9	151.2	135.1	121.7	109.7
37.5°	250.2	227.4	204.7	183.3	172.6	161.9	144.5	128.4	113.7	103.0	93.6
40°	212.7	192.7	173.9	153.9	144.5	136.5	121.7	108.4	97.7	88.3	80.3
42.5°	176.6	160.5	144.5	128.4	120.4	113.7	101.7	89.6	80.3	73.6	66.9
45°	144.5	132.4	119.1	104.4	100.3	92.3	82.9	74.9	66.9	61.5	56.2
47.5°	116.4	105.7	95.0	84.3	80.3	74.9	66.9	60.2	54.9	50.8	46.8
50°	91.0	82.9	76.3	66.9	64.2	58.9	53.5	48.2	44.1	41.5	38.8
52.5°	69.6	62.9	57.5	52.2	49.5	46.8	41.5	38.8	36.1	34.8	33.4
55°	50.8	46.8	42.8	38.8	37.5	34.8	32.1	29.4	28.1	28.1	28.1
57.5°	36.1	33.4	30.8	28.1	28.1	26.8	25.4	24.1	22.7	22.7	22.7
60°	25.4	24.1	22.7	21.4	20.1	20.1	18.7	20.1	18.7	20.1	20.1
62.5°	17.4	16.1	16.1	14.7	14.7	14.7	14.7	14.7	16.1	16.1	17.4
65°	10.7	10.7	10.7	10.7	10.7	10.7	12.0	12.0	12.0	13.4	13.4
67.5°	8.0	8.0	8.0	9.4	9.4	9.4	9.4	10.7	10.7	10.7	12.0
70°	5.4	6.7	6.7	6.7	6.7	6.7	8.0	8.0	8.0	9.4	9.4
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	6.7	6.7	6.7	8.0	8.0
75°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	6.7	6.7	6.7	8.0
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4
80°	2.7	2.7	2.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.7	1.3	2.7	2.7
87.5°	0.0	0.0	0.0	1.3	0.0	1.3	1.3	1.3	1.3	1.3	1.3
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: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 2LBSW*

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3
2.5°	385.3	381.3	382.6	374.6	375.9	370.6	367.9	363.9	361.2	357.2	358.5
5°	369.2	362.6	359.9	350.5	351.9	343.8	338.5	331.8	326.4	319.7	318.4
7.5°	349.2	338.5	334.5	325.1	323.8	313.1	306.4	298.3	291.7	285.0	282.3
10°	326.4	314.4	306.4	297.0	295.7	283.6	275.6	267.6	259.5	252.9	250.2
12.5°	302.4	289.0	279.6	268.9	266.2	255.5	246.2	238.1	230.1	223.4	219.4
15°	276.9	262.2	252.9	242.2	239.5	227.4	219.4	210.0	203.4	196.7	194.0
17.5°	251.5	236.8	226.1	216.7	214.1	202.0	192.7	186.0	177.9	173.9	169.9
20°	226.1	211.4	200.7	192.7	188.6	179.3	169.9	163.2	156.5	152.5	148.5
22.5°	200.7	187.3	177.9	169.9	167.2	157.9	149.8	143.2	139.1	133.8	131.1
25°	177.9	164.6	156.5	148.5	145.8	137.8	132.4	125.8	121.7	117.7	115.1
27.5°	156.5	144.5	136.5	129.8	128.4	121.7	115.1	111.0	107.0	104.4	103.0
30°	135.1	125.8	119.1	113.7	112.4	105.7	100.3	97.7	93.6	92.3	91.0
32.5°	119.1	109.7	104.4	99.0	97.7	92.3	89.6	85.6	82.9	81.6	81.6
35°	101.7	95.0	89.6	87.0	85.6	81.6	77.6	76.3	73.6	72.2	72.2
37.5°	87.0	81.6	77.6	73.6	73.6	70.9	68.2	66.9	65.6	65.6	64.2
40°	74.9	69.6	68.2	65.6	64.2	62.9	61.5	60.2	58.9	58.9	58.9
42.5°	62.9	60.2	57.5	56.2	56.2	54.9	53.5	53.5	52.2	53.5	53.5
45°	53.5	50.8	49.5	48.2	49.5	48.2	48.2	46.8	48.2	48.2	48.2
47.5°	45.5	44.1	42.8	42.8	42.8	42.8	42.8	42.8	42.8	44.1	44.1
50°	38.8	37.5	37.5	37.5	37.5	37.5	38.8	38.8	38.8	40.1	40.1
52.5°	32.1	32.1	32.1	32.1	33.4	33.4	34.8	34.8	36.1	36.1	37.5
55°	28.1	28.1	28.1	28.1	29.4	29.4	30.8	32.1	32.1	33.4	34.8
57.5°	24.1	24.1	25.4	25.4	26.8	26.8	28.1	29.4	29.4	30.8	32.1
60°	20.1	21.4	22.7	22.7	22.7	24.1	25.4	26.8	26.8	28.1	29.4
62.5°	17.4	18.7	20.1	20.1	20.1	21.4	22.7	24.1	24.1	25.4	26.8
65°	14.7	16.1	17.4	17.4	17.4	18.7	20.1	21.4	22.7	22.7	24.1
67.5°	13.4	13.4	14.7	14.7	16.1	17.4	17.4	18.7	20.1	21.4	22.7
70°	10.7	12.0	13.4	13.4	13.4	14.7	16.1	17.4	17.4	18.7	20.1
72.5°	9.4	9.4	10.7	10.7	12.0	13.4	13.4	14.7	16.1	16.1	17.4
75°	8.0	9.4	9.4	9.4	10.7	10.7	12.0	13.4	13.4	14.7	14.7
77.5°	6.7	6.7	8.0	8.0	8.0	9.4	9.4	10.7	10.7	12.0	12.0
80°	5.4	5.4	6.7	6.7	6.7	6.7	8.0	8.0	9.4	9.4	9.4
82.5°	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4	6.7	6.7	6.7
85°	2.7	2.7	2.7	2.7	2.7	4.0	4.0	4.0	4.0	4.0	5.4
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P226230

CATALOG NUMBER: LD2B05D010 EU2B05WW8027 2LBSW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	397.3	397.3	397.3	397.3	397.3	397.3	397.3	397.3
2.5°	354.5	354.5	353.2	351.9	350.5	349.2	347.8	346.5
5°	314.4	315.7	310.4	309.0	309.0	306.4	307.7	305.0
7.5°	276.9	276.9	272.9	271.6	270.2	267.6	266.2	264.9
10°	243.5	242.2	239.5	238.1	235.5	234.1	234.1	231.4
12.5°	214.1	212.7	210.0	208.7	206.0	204.7	203.4	202.0
15°	188.6	187.3	184.6	183.3	181.9	179.3	179.3	177.9
17.5°	164.6	163.2	161.9	159.2	159.2	156.5	155.2	155.2
20°	145.8	144.5	141.8	140.5	140.5	139.1	139.1	136.5
22.5°	128.4	127.1	125.8	124.4	124.4	123.1	121.7	121.7
25°	113.7	112.4	111.0	111.0	109.7	108.4	108.4	108.4
27.5°	100.3	100.3	99.0	99.0	99.0	97.7	97.7	96.3
30°	89.6	89.6	88.3	88.3	88.3	87.0	88.3	87.0
32.5°	80.3	80.3	80.3	80.3	80.3	78.9	78.9	78.9
35°	72.2	72.2	72.2	72.2	72.2	70.9	72.2	70.9
37.5°	64.2	65.6	64.2	64.2	65.6	64.2	64.2	64.2
40°	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9
42.5°	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
45°	48.2	49.5	49.5	49.5	49.5	49.5	49.5	49.5
47.5°	45.5	45.5	45.5	45.5	46.8	45.5	46.8	46.8
50°	41.5	41.5	41.5	42.8	42.8	42.8	42.8	42.8
52.5°	38.8	38.8	38.8	38.8	40.1	40.1	40.1	40.1
55°	34.8	36.1	36.1	36.1	37.5	37.5	37.5	37.5
57.5°	33.4	33.4	33.4	34.8	34.8	34.8	36.1	34.8
60°	30.8	30.8	32.1	32.1	32.1	33.4	33.4	33.4
62.5°	28.1	29.4	29.4	29.4	29.4	30.8	30.8	30.8
65°	25.4	26.8	26.8	26.8	28.1	28.1	28.1	28.1
67.5°	22.7	24.1	24.1	25.4	25.4	25.4	25.4	25.4
70°	20.1	21.4	21.4	21.4	22.7	22.7	22.7	22.7
72.5°	18.7	18.7	18.7	20.1	20.1	20.1	21.4	20.1
75°	16.1	17.4	17.4	17.4	17.4	17.4	18.7	18.7
77.5°	13.4	13.4	13.4	13.4	14.7	14.7	14.7	14.7
80°	10.7	10.7	10.7	10.7	12.0	12.0	12.0	12.0
82.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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)