

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: P226266

Luminaire Tested: **LD2B15D010 EU2B15WW9050 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226266
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: LD2B15D010 EU2B15WW9050 2LBSW*
Description: 1500 Lumen, 2inch Portfolio LED Downlight
WALL WASH OPTIC
WALL WASH LENSED TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 867.4 lumens
Efficiency: N/A
Efficacy: 60.7 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

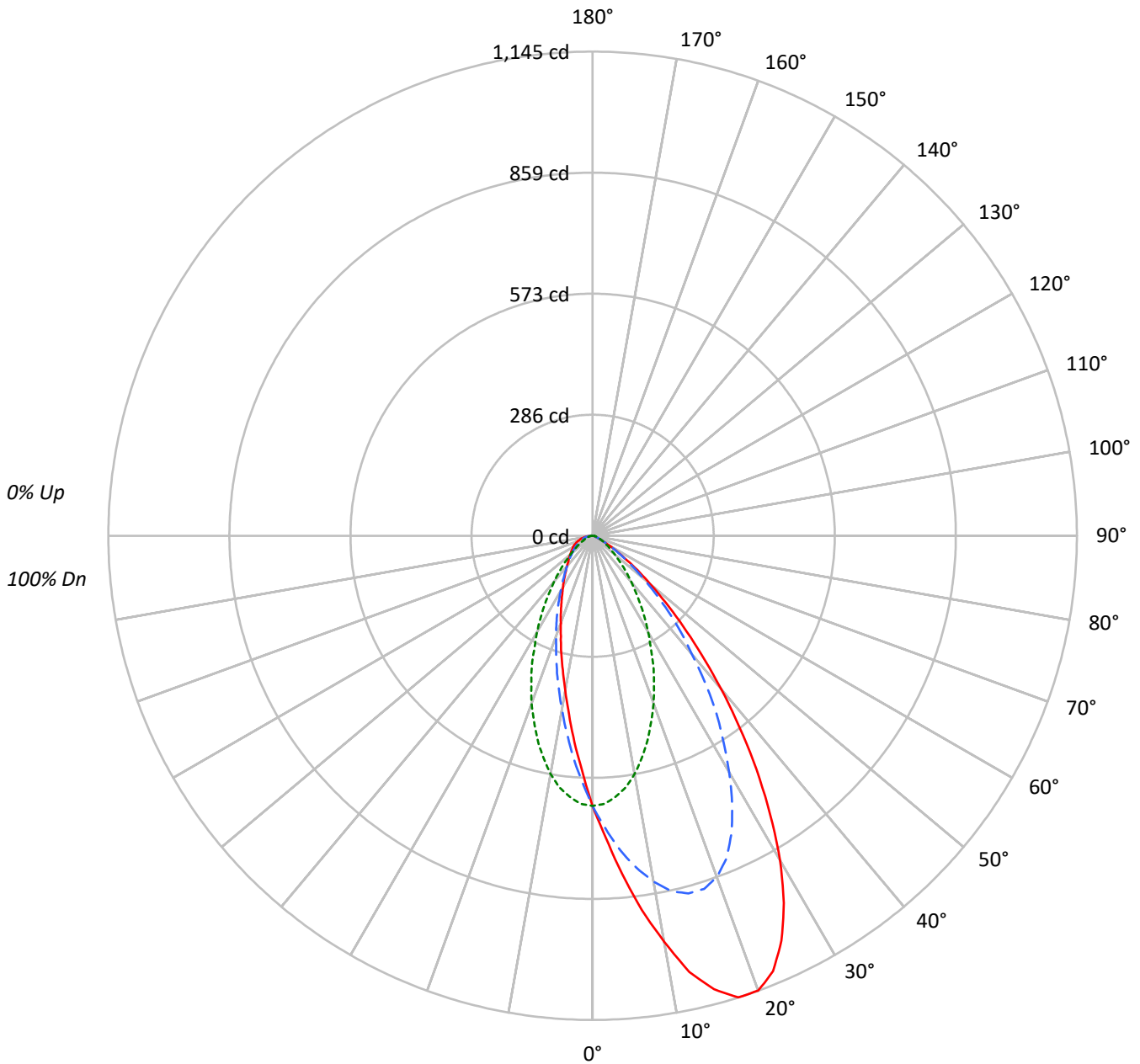
Input Watts (W): 14.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 2LBSW*

Luminous Intensity Polar Plot





TEST NUMBER: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 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			100
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			50
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			40

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	247514	247514	247514
5°	312033	240955	190758
10°	383370	225098	146394
15°	445201	201026	114769
20°	471810	173827	90479
25°	451494	145270	74494
30°	396459	117408	62573
35°	319466	92586	53906
40°	238260	71801	47885
45°	164994	54231	43604
50°	106299	40194	41519
55°	62467	30524	40654
60°	33312	25023	41678
65°	15764	19706	41428
70°	7361	17101	41450
75°	9728	16163	45047
80°	9592	14499	43274
85°	9777	19110	38221



TEST NUMBER: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 2LBSW*

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	7.0
10°-20°	168.5	19.4
20°-30°	219.8	25.3
30°-40°	190.3	21.9
40°-50°	120.5	13.9
50°-60°	60.3	7.0
60°-70°	27.8	3.2
70°-80°	14.9	1.7
80°-90°	4.8	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°	448.7	51.7
0°-40°	639.1	73.7
0°-60°	819.9	94.5
0°-90°	867.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	867.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	639	639	639	639	639	
5°	802	747	620	525	491	82
15°	1110	876	501	327	286	312
25°	1056	777	340	196	174	478
35°	676	508	196	118	114	420
45°	301	252	99	78	80	237
55°	92	86	45	52	60	89
65°	17	19	22	37	45	20
75°	6	6	11	22	30	6
85°	2	2	4	6	9	2
90°	0	0	0	0	0	



TEST NUMBER: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 2LBSW*

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
2.5°	714.3	718.6	718.6	720.8	712.2	714.3	714.3	710.0	703.6	699.3	692.8
5°	802.5	802.5	800.4	802.5	796.1	791.8	793.9	785.3	768.1	759.5	746.6
7.5°	892.9	888.6	888.6	886.4	875.7	869.2	867.1	852.0	828.4	811.1	791.8
10°	974.7	974.7	970.4	966.1	951.0	942.4	935.9	912.3	886.4	858.5	830.5
12.5°	1056.4	1052.1	1045.7	1037.1	1015.5	1006.9	996.2	968.2	929.5	897.2	860.6
15°	1110.2	1112.4	1101.6	1090.8	1067.2	1054.3	1041.4	1006.9	961.8	920.9	875.7
17.5°	1144.6	1142.5	1131.7	1118.8	1093.0	1077.9	1062.9	1022.0	974.7	925.2	875.7
20°	1144.6	1144.6	1131.7	1118.8	1090.8	1073.6	1058.6	1015.5	963.9	912.3	858.5
22.5°	1114.5	1110.2	1101.6	1088.7	1060.7	1045.7	1028.5	985.4	931.6	882.1	826.2
25°	1056.4	1056.4	1045.7	1030.6	1006.9	989.7	974.7	931.6	880.0	830.5	776.7
27.5°	979.0	976.8	966.1	955.3	929.5	916.6	901.5	860.6	815.4	770.3	714.3
30°	886.4	882.1	877.8	860.6	843.4	832.7	819.8	783.2	738.0	695.0	645.5
32.5°	781.0	787.5	776.7	766.0	750.9	740.1	729.4	701.4	660.5	621.8	574.5
35°	675.6	679.9	673.4	664.8	649.8	643.3	632.6	608.9	578.8	542.2	507.8
37.5°	570.2	570.2	570.2	563.7	555.1	548.7	542.2	520.7	494.9	466.9	434.6
40°	471.2	477.6	469.0	466.9	460.4	458.3	451.8	436.8	415.3	395.9	365.8
42.5°	380.8	380.8	383.0	378.7	376.5	372.2	367.9	359.3	344.3	327.0	307.7
45°	301.2	303.4	305.5	299.1	299.1	299.1	296.9	288.3	275.4	264.6	251.7
47.5°	234.5	234.5	236.7	234.5	234.5	234.5	230.2	230.2	221.6	210.9	200.1
50°	176.4	178.6	180.7	180.7	180.7	178.6	178.6	174.3	170.0	165.7	154.9
52.5°	133.4	133.4	131.2	133.4	133.4	133.4	133.4	131.2	129.1	124.8	118.3
55°	92.5	92.5	94.7	94.7	94.7	96.8	96.8	96.8	94.7	92.5	86.1
57.5°	64.5	64.5	64.5	66.7	68.9	68.9	68.9	68.9	66.7	64.5	62.4
60°	43.0	43.0	43.0	45.2	45.2	45.2	45.2	47.3	45.2	45.2	43.0
62.5°	28.0	28.0	28.0	28.0	28.0	30.1	30.1	30.1	30.1	30.1	28.0
65°	17.2	17.2	17.2	17.2	17.2	17.2	19.4	19.4	19.4	19.4	19.4
67.5°	10.8	10.8	10.8	10.8	10.8	12.9	12.9	12.9	12.9	12.9	12.9
70°	6.5	6.5	6.5	6.5	8.6	8.6	8.6	8.6	8.6	8.6	8.6
72.5°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
75°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
77.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	6.5	6.5	6.5
80°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.3	4.3	2.2
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 2LBSW*

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
2.5°	692.8	684.2	679.9	669.1	667.0	658.4	658.4	649.8	639.0	634.7	624.0
5°	738.0	720.8	712.2	692.8	686.4	673.4	667.0	649.8	632.6	619.7	604.6
7.5°	776.7	750.9	733.7	707.9	697.1	677.7	664.8	643.3	619.7	600.3	578.8
10°	806.8	772.4	746.6	712.2	699.3	675.6	656.2	626.1	596.0	572.3	546.5
12.5°	826.2	785.3	748.7	707.9	690.7	664.8	636.9	602.4	568.0	537.9	509.9
15°	834.8	785.3	742.3	692.8	673.4	645.5	613.2	572.3	533.6	501.3	471.2
17.5°	828.4	770.3	725.1	669.1	647.6	615.4	578.8	535.7	494.9	460.4	430.3
20°	806.8	746.6	695.0	636.9	613.2	580.9	540.0	497.0	456.1	421.7	389.4
22.5°	770.3	707.9	654.1	596.0	572.3	540.0	497.0	454.0	413.1	378.7	348.6
25°	725.1	658.4	604.6	548.7	522.8	494.9	451.8	408.8	370.1	339.9	309.8
27.5°	664.8	606.7	553.0	497.0	473.3	447.5	404.5	365.8	327.0	296.9	271.1
30°	600.3	544.3	499.2	445.4	423.9	398.0	361.5	322.7	290.5	262.5	238.8
32.5°	535.7	482.0	438.9	393.7	374.4	348.6	316.3	281.9	251.7	228.1	208.7
35°	469.0	423.9	383.0	339.9	324.9	303.4	273.3	243.1	217.3	195.8	176.4
37.5°	402.3	365.8	329.2	294.8	277.6	260.3	232.4	206.6	182.9	165.7	150.6
40°	342.1	309.8	279.7	247.4	232.4	219.5	195.8	174.3	157.1	142.0	129.1
42.5°	284.0	258.2	232.4	206.6	193.6	182.9	163.5	144.2	129.1	118.3	107.6
45°	232.4	213.0	191.5	167.8	161.4	148.5	133.4	120.5	107.6	99.0	90.4
47.5°	187.2	170.0	152.8	135.5	129.1	120.5	107.6	96.8	88.2	81.8	75.3
50°	146.3	133.4	122.6	107.6	103.3	94.7	86.1	77.5	71.0	66.7	62.4
52.5°	111.9	101.1	92.5	83.9	79.6	75.3	66.7	62.4	58.1	55.9	53.8
55°	81.8	75.3	68.9	62.4	60.2	55.9	51.6	47.3	45.2	45.2	45.2
57.5°	58.1	53.8	49.5	45.2	45.2	43.0	40.9	38.7	36.6	36.6	36.6
60°	40.9	38.7	36.6	34.4	32.3	32.3	30.1	32.3	30.1	32.3	32.3
62.5°	28.0	25.8	25.8	23.7	23.7	23.7	23.7	23.7	25.8	25.8	28.0
65°	17.2	17.2	17.2	17.2	17.2	17.2	19.4	19.4	19.4	21.5	21.5
67.5°	12.9	12.9	12.9	15.1	15.1	15.1	15.1	17.2	17.2	17.2	19.4
70°	8.6	10.8	10.8	10.8	10.8	10.8	12.9	12.9	12.9	15.1	15.1
72.5°	8.6	8.6	8.6	8.6	8.6	8.6	10.8	10.8	10.8	12.9	12.9
75°	6.5	8.6	8.6	8.6	8.6	8.6	8.6	10.8	10.8	10.8	12.9
77.5°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8.6	8.6	8.6	8.6
80°	4.3	4.3	4.3	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8.6
82.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	6.5
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.3	2.2	4.3	4.3
87.5°	0.0	0.0	0.0	2.2	0.0	2.2	2.2	2.2	2.2	2.2	2.2
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: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 2LBSW*

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
2.5°	619.7	613.2	615.4	602.4	604.6	596.0	591.7	585.2	580.9	574.5	576.6
5°	593.8	583.1	578.8	563.7	565.9	553.0	544.3	533.6	525.0	514.2	512.1
7.5°	561.6	544.3	537.9	522.8	520.7	503.5	492.7	479.8	469.0	458.3	454.0
10°	525.0	505.6	492.7	477.6	475.5	456.1	443.2	430.3	417.4	406.6	402.3
12.5°	486.3	464.7	449.7	432.5	428.2	411.0	395.9	383.0	370.1	359.3	352.9
15°	445.4	421.7	406.6	389.4	385.1	365.8	352.9	337.8	327.0	316.3	312.0
17.5°	404.5	380.8	363.6	348.6	344.3	324.9	309.8	299.1	286.2	279.7	273.3
20°	363.6	339.9	322.7	309.8	303.4	288.3	273.3	262.5	251.7	245.3	238.8
22.5°	322.7	301.2	286.2	273.3	268.9	253.9	241.0	230.2	223.8	215.2	210.9
25°	286.2	264.6	251.7	238.8	234.5	221.6	213.0	202.2	195.8	189.3	185.0
27.5°	251.7	232.4	219.5	208.7	206.6	195.8	185.0	178.6	172.1	167.8	165.7
30°	217.3	202.2	191.5	182.9	180.7	170.0	161.4	157.1	150.6	148.5	146.3
32.5°	191.5	176.4	167.8	159.2	157.1	148.5	144.2	137.7	133.4	131.2	131.2
35°	163.5	152.8	144.2	139.9	137.7	131.2	124.8	122.6	118.3	116.2	116.2
37.5°	139.9	131.2	124.8	118.3	118.3	114.0	109.7	107.6	105.4	105.4	103.3
40°	120.5	111.9	109.7	105.4	103.3	101.1	99.0	96.8	94.7	94.7	94.7
42.5°	101.1	96.8	92.5	90.4	90.4	88.2	86.1	86.1	83.9	86.1	86.1
45°	86.1	81.8	79.6	77.5	79.6	77.5	77.5	75.3	77.5	77.5	77.5
47.5°	73.2	71.0	68.9	68.9	68.9	68.9	68.9	68.9	68.9	71.0	71.0
50°	62.4	60.2	60.2	60.2	60.2	60.2	62.4	62.4	62.4	64.5	64.5
52.5°	51.6	51.6	51.6	51.6	53.8	53.8	55.9	55.9	58.1	58.1	60.2
55°	45.2	45.2	45.2	45.2	47.3	47.3	49.5	51.6	51.6	53.8	55.9
57.5°	38.7	38.7	40.9	40.9	43.0	43.0	45.2	47.3	47.3	49.5	51.6
60°	32.3	34.4	36.6	36.6	36.6	38.7	40.9	43.0	43.0	45.2	47.3
62.5°	28.0	30.1	32.3	32.3	32.3	34.4	36.6	38.7	38.7	40.9	43.0
65°	23.7	25.8	28.0	28.0	28.0	30.1	32.3	34.4	36.6	36.6	38.7
67.5°	21.5	21.5	23.7	23.7	25.8	28.0	28.0	30.1	32.3	34.4	36.6
70°	17.2	19.4	21.5	21.5	21.5	23.7	25.8	28.0	28.0	30.1	32.3
72.5°	15.1	15.1	17.2	17.2	19.4	21.5	21.5	23.7	25.8	25.8	28.0
75°	12.9	15.1	15.1	15.1	17.2	17.2	19.4	21.5	21.5	23.7	23.7
77.5°	10.8	10.8	12.9	12.9	12.9	15.1	15.1	17.2	17.2	19.4	19.4
80°	8.6	8.6	10.8	10.8	10.8	10.8	12.9	12.9	15.1	15.1	15.1
82.5°	6.5	6.5	6.5	6.5	8.6	8.6	8.6	8.6	10.8	10.8	10.8
85°	4.3	4.3	4.3	4.3	4.3	6.5	6.5	6.5	6.5	6.5	8.6
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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: P226266

CATALOG NUMBER: LD2B15D010 EU2B15WW9050 2LBSW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
2.5°	570.2	570.2	568.0	565.9	563.7	561.6	559.4	557.3
5°	505.6	507.8	499.2	497.0	497.0	492.7	494.9	490.6
7.5°	445.4	445.4	438.9	436.8	434.6	430.3	428.2	426.0
10°	391.6	389.4	385.1	383.0	378.7	376.5	376.5	372.2
12.5°	344.3	342.1	337.8	335.6	331.3	329.2	327.0	324.9
15°	303.4	301.2	296.9	294.8	292.6	288.3	288.3	286.2
17.5°	264.6	262.5	260.3	256.0	256.0	251.7	249.6	249.6
20°	234.5	232.4	228.1	225.9	225.9	223.8	223.8	219.5
22.5°	206.6	204.4	202.2	200.1	200.1	197.9	195.8	195.8
25°	182.9	180.7	178.6	178.6	176.4	174.3	174.3	174.3
27.5°	161.4	161.4	159.2	159.2	159.2	157.1	157.1	154.9
30°	144.2	144.2	142.0	142.0	142.0	139.9	142.0	139.9
32.5°	129.1	129.1	129.1	129.1	129.1	126.9	126.9	126.9
35°	116.2	116.2	116.2	116.2	116.2	114.0	116.2	114.0
37.5°	103.3	105.4	103.3	103.3	105.4	103.3	103.3	103.3
40°	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
42.5°	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
45°	77.5	79.6	79.6	79.6	79.6	79.6	79.6	79.6
47.5°	73.2	73.2	73.2	73.2	75.3	73.2	75.3	75.3
50°	66.7	66.7	66.7	68.9	68.9	68.9	68.9	68.9
52.5°	62.4	62.4	62.4	62.4	64.5	64.5	64.5	64.5
55°	55.9	58.1	58.1	58.1	60.2	60.2	60.2	60.2
57.5°	53.8	53.8	53.8	55.9	55.9	55.9	58.1	55.9
60°	49.5	49.5	51.6	51.6	51.6	53.8	53.8	53.8
62.5°	45.2	47.3	47.3	47.3	47.3	49.5	49.5	49.5
65°	40.9	43.0	43.0	43.0	45.2	45.2	45.2	45.2
67.5°	36.6	38.7	38.7	40.9	40.9	40.9	40.9	40.9
70°	32.3	34.4	34.4	34.4	36.6	36.6	36.6	36.6
72.5°	30.1	30.1	30.1	32.3	32.3	32.3	34.4	32.3
75°	25.8	28.0	28.0	28.0	28.0	28.0	30.1	30.1
77.5°	21.5	21.5	21.5	21.5	23.7	23.7	23.7	23.7
80°	17.2	17.2	17.2	17.2	19.4	19.4	19.4	19.4
82.5°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
85°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
87.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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)