

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: P135645

Luminaire Tested: **LD6A10D010TE ERM6A10930 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135645
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A10D010TE ERM6A10930 6LM111H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1009.8 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

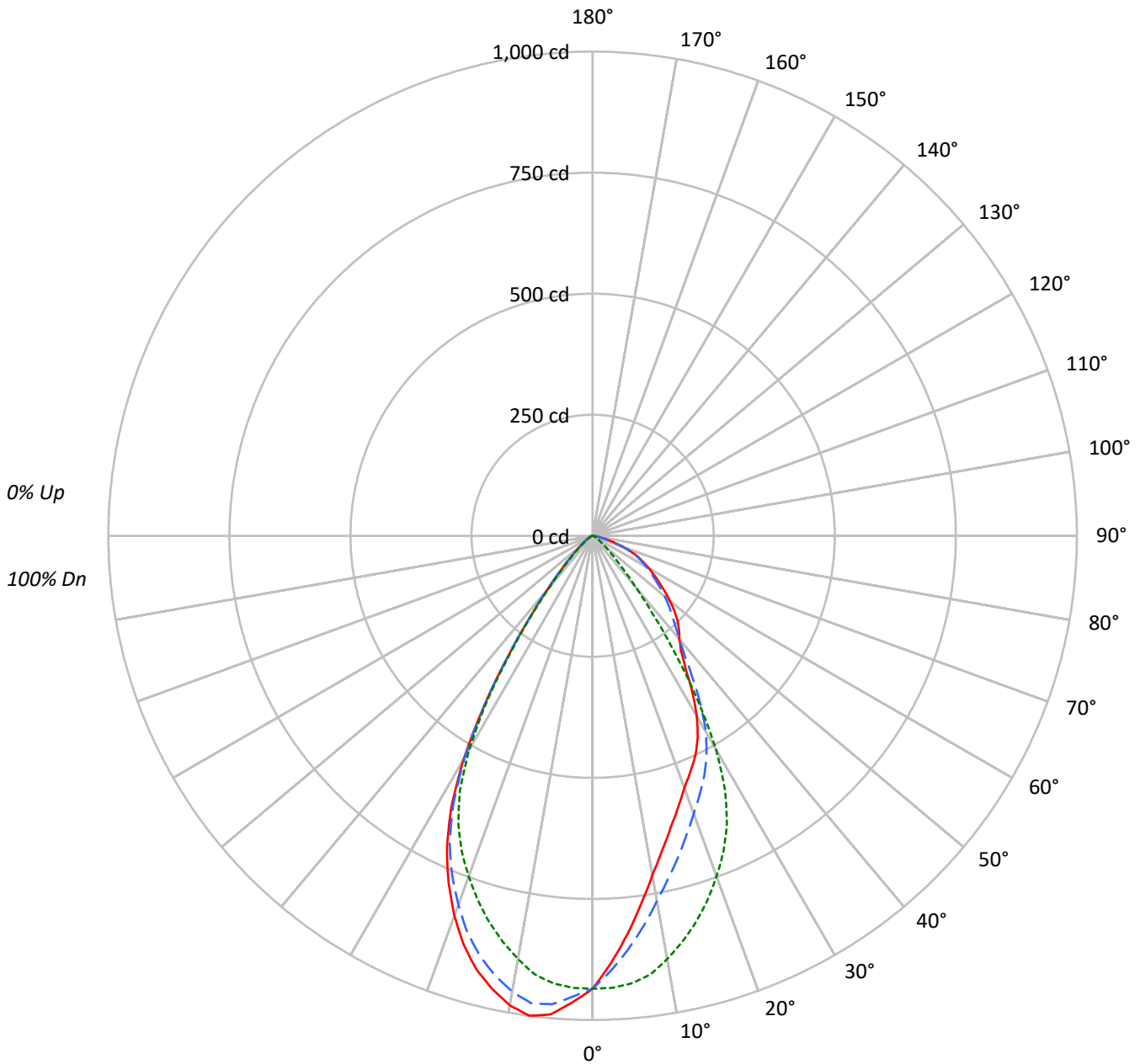
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

Luminous Intensity Polar Plot





TEST NUMBER: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83					83			
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75					75			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68					68			
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63					63			
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58					58			
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53					53			
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50					50			
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46					46			
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	61033	61033	61033
5°	54068	60768	64979
10°	47128	58808	65227
15°	42099	55763	62605
20°	38442	51960	57930
25°	36101	47222	51210
30°	32371	38352	40077
35°	26601	23742	24347
40°	23719	11676	12323
45°	22882	5822	6228
50°	21081	3096	3319
55°	19052	1854	1979
60°	17458	1279	1279
65°	15962	1003	834
70°	12876	820	629
75°	7965	555	277
80°	4471	413	0
85°	2470	0	0



TEST NUMBER: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	8.5
10°-20°	222.8	22.1
20°-30°	283.5	28.1
30°-40°	203.2	20.1
40°-50°	101.3	10.0
50°-60°	61.3	6.1
60°-70°	37.5	3.7
70°-80°	12.9	1.3
80°-90°	1.4	0.1
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°	592.1	58.6
0°-40°	795.3	78.8
0°-60°	958.0	94.9
0°-90°	1009.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1009.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	936	936	936	936	936	
5°	826	856	928	971	992	75
15°	623	685	826	898	927	175
25°	502	546	656	698	711	229
35°	334	360	298	306	306	213
45°	248	232	63	70	68	190
55°	168	158	16	17	17	151
65°	103	100	6	5	5	101
75°	32	28	2	1	1	36
85°	3	2	0	0	0	5
90°	0	0	0	0	0	



TEST NUMBER: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5
2.5°	882.3	883.4	885.5	883.4	884.4	889.9	887.7	888.8	892.0	897.5	894.2
5°	825.6	826.8	832.3	829.0	831.2	837.7	837.7	842.0	848.5	856.1	856.1
7.5°	767.0	769.1	774.5	772.4	775.6	784.3	785.4	792.0	800.7	811.5	817.0
10°	711.4	713.7	719.1	718.0	722.4	731.0	735.4	741.9	752.8	765.9	772.4
12.5°	664.7	666.8	671.2	671.2	676.7	685.4	689.7	698.4	709.2	723.5	732.1
15°	623.3	626.6	630.9	630.9	636.4	645.1	650.6	658.1	670.1	685.4	695.1
17.5°	587.4	588.5	592.8	592.8	598.4	607.1	612.5	620.1	632.0	646.2	657.1
20°	553.7	554.8	559.2	560.3	564.6	572.2	577.7	585.3	596.1	610.3	620.1
22.5°	527.6	529.8	533.1	534.2	536.3	543.9	550.4	555.9	565.7	577.7	587.4
25°	501.5	502.6	505.8	506.9	510.2	515.6	520.0	525.5	534.2	546.1	553.7
27.5°	469.9	473.2	474.3	475.4	478.6	483.1	487.4	491.7	499.3	509.1	515.6
30°	429.7	430.8	434.0	436.2	439.5	443.9	449.3	453.7	460.2	467.8	472.1
32.5°	382.9	384.0	387.3	389.4	394.9	399.2	403.6	406.9	411.2	415.6	415.6
35°	334.0	337.3	338.3	341.6	347.0	351.4	354.6	355.7	357.9	360.0	352.5
37.5°	299.2	301.4	303.5	305.7	310.0	313.3	315.5	315.5	314.4	312.2	302.4
40°	278.5	279.6	281.7	282.8	287.2	289.4	289.4	287.2	282.8	277.4	262.2
42.5°	264.4	265.4	266.5	267.6	269.8	270.9	269.8	265.4	260.0	252.4	235.0
45°	248.0	249.1	250.2	250.2	252.4	252.4	251.3	246.9	240.4	231.7	213.3
47.5°	228.5	229.5	230.6	231.7	232.8	232.8	231.7	227.4	220.9	213.3	193.6
50°	207.7	208.8	209.9	209.9	212.1	212.1	211.0	206.7	201.2	193.6	176.3
52.5°	187.1	188.2	188.2	190.4	190.4	190.4	189.3	185.0	180.6	175.2	158.8
55°	167.5	168.6	168.6	170.8	171.8	170.8	169.7	166.4	162.1	157.7	144.7
57.5°	150.1	151.2	151.2	152.3	153.4	152.3	151.2	149.1	146.9	142.5	131.6
60°	133.8	134.9	134.9	136.0	136.0	134.9	134.9	132.7	130.5	128.3	118.6
62.5°	118.6	118.6	118.6	119.7	119.7	118.6	118.6	116.4	115.3	114.2	106.6
65°	103.4	103.4	103.4	103.4	103.4	101.2	101.2	100.1	99.0	100.1	93.5
67.5°	85.9	85.9	84.8	84.8	84.8	82.7	82.7	82.7	81.6	82.7	77.2
70°	67.5	67.5	66.4	66.4	65.3	63.1	63.1	63.1	62.0	63.1	59.9
72.5°	47.8	48.9	46.8	46.8	45.7	43.5	44.6	43.5	44.6	44.6	42.4
75°	31.6	32.7	30.5	30.5	29.4	28.3	28.3	28.3	29.4	28.3	27.2
77.5°	19.6	20.7	19.6	19.6	18.5	17.4	17.4	17.4	17.4	17.4	16.3
80°	11.9	11.9	11.9	10.9	10.9	9.8	9.8	9.8	9.8	9.8	8.7
82.5°	6.5	6.5	6.5	6.5	6.5	5.4	5.4	5.4	5.4	5.4	4.3
85°	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2	2.2	2.2
87.5°	1.1	1.1	1.1	1.1	1.1	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: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5
2.5°	904.0	908.4	905.1	918.2	916.0	925.8	924.7	934.4	933.4	934.4	936.6
5°	869.2	877.9	879.0	895.3	896.4	911.7	914.9	927.9	930.1	934.4	939.9
7.5°	831.2	844.2	848.5	867.1	873.6	889.9	896.4	913.8	918.2	925.8	932.3
10°	789.8	805.0	811.5	833.3	842.0	860.5	869.2	887.7	894.2	902.9	910.6
12.5°	750.6	767.0	775.6	798.5	810.5	829.0	838.8	858.3	864.8	875.8	883.4
15°	713.7	731.0	740.8	763.7	775.6	796.3	806.1	825.6	833.3	844.2	851.8
17.5°	675.6	693.0	703.8	725.6	740.8	758.3	769.1	788.7	796.3	806.1	813.7
20°	638.6	656.0	665.7	687.5	701.6	719.1	728.9	748.4	753.9	763.7	770.2
22.5°	603.8	620.1	628.8	651.6	663.6	678.9	688.6	706.0	712.6	720.2	724.5
25°	569.0	583.1	589.6	609.2	619.0	633.1	640.8	656.0	662.5	669.0	674.5
27.5°	529.8	537.4	539.6	554.8	562.5	575.5	578.7	592.8	598.4	602.7	607.1
30°	480.8	482.0	475.4	483.1	486.3	496.1	496.1	509.1	513.4	516.7	521.1
32.5°	418.8	412.3	397.0	394.9	392.7	398.1	396.0	406.9	411.2	413.4	416.7
35°	350.3	336.2	311.1	301.4	294.8	293.8	290.5	298.1	301.4	303.5	305.7
37.5°	290.5	269.8	238.2	220.9	209.9	205.6	201.2	205.6	207.7	209.9	212.1
40°	246.9	220.9	183.9	162.1	146.9	140.4	134.9	137.1	139.3	141.5	142.5
42.5°	215.4	186.0	145.8	119.7	104.5	96.8	91.3	92.4	93.5	94.6	96.8
45°	191.5	159.9	118.6	90.3	75.1	67.5	63.1	63.1	64.2	65.3	66.4
47.5°	171.8	138.2	96.8	69.6	55.4	47.8	43.5	43.5	44.6	44.6	45.7
50°	153.4	119.7	79.4	54.4	41.3	34.8	31.6	30.5	31.6	31.6	32.7
52.5°	138.2	105.5	66.4	43.5	31.6	26.1	22.9	22.9	22.9	22.9	22.9
55°	124.0	92.4	55.4	34.8	25.1	20.7	17.4	16.3	16.3	16.3	16.3
57.5°	113.1	82.7	47.8	29.4	20.7	16.3	14.1	13.0	13.0	13.0	13.0
60°	102.3	72.9	41.3	24.0	16.3	14.1	11.9	9.8	9.8	9.8	9.8
62.5°	91.3	63.1	34.8	20.7	14.1	10.9	9.8	7.6	7.6	7.6	7.6
65°	79.4	54.4	29.4	16.3	10.9	8.7	7.6	6.5	6.5	5.4	5.4
67.5°	65.3	43.5	24.0	14.1	9.8	7.6	6.5	5.4	4.3	4.3	4.3
70°	50.0	32.7	18.5	10.9	7.6	6.5	4.3	4.3	3.3	3.3	3.3
72.5°	35.9	22.9	13.0	8.7	5.4	4.3	4.3	3.3	3.3	3.3	2.2
75°	22.9	15.2	8.7	5.4	4.3	3.3	3.3	2.2	2.2	2.2	2.2
77.5°	14.1	9.8	6.5	4.3	3.3	2.2	2.2	2.2	1.1	1.1	1.1
80°	7.6	5.4	3.3	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	4.3	3.3	2.2	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0
85°	2.2	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5	935.5
2.5°	943.2	948.7	945.4	947.6	957.3	953.0	960.6	960.6	969.3	969.3	962.8
5°	949.7	956.2	957.3	960.6	973.6	971.4	980.1	982.4	992.2	994.3	988.9
7.5°	945.4	953.0	956.2	961.7	974.7	973.6	983.5	987.8	996.5	999.8	995.4
10°	924.7	933.4	937.7	943.2	957.3	956.2	967.1	972.5	980.1	983.5	980.1
12.5°	897.5	907.3	911.7	917.1	931.2	930.1	941.0	946.5	953.0	957.3	954.1
15°	867.1	873.6	881.2	886.6	899.6	898.5	909.5	914.9	920.3	925.8	922.5
17.5°	827.9	834.4	842.0	846.4	859.4	859.4	868.2	872.5	880.1	884.4	880.1
20°	783.2	790.9	796.3	799.6	811.5	810.5	819.1	823.5	830.1	833.3	830.1
22.5°	736.5	743.0	747.3	749.5	759.4	758.3	764.8	769.1	774.5	777.8	774.5
25°	683.2	687.5	690.8	691.9	700.6	698.4	707.1	707.1	711.4	714.8	711.4
27.5°	614.6	617.9	620.1	619.0	625.5	622.2	629.8	624.4	633.1	635.3	632.0
30°	526.6	528.7	530.9	526.6	530.9	526.6	533.1	525.5	533.1	536.3	533.1
32.5°	422.1	422.1	424.3	418.8	421.0	416.7	419.9	417.8	419.9	423.2	419.9
35°	310.0	310.0	312.2	309.0	310.0	305.7	307.9	305.7	306.8	309.0	307.9
37.5°	215.4	214.4	217.6	215.4	216.5	214.4	215.4	213.3	214.4	215.4	214.4
40°	145.8	145.8	148.0	146.9	148.0	146.9	148.0	146.9	146.9	146.9	145.8
42.5°	98.0	99.0	100.1	100.1	101.2	100.1	101.2	100.1	100.1	100.1	99.0
45°	67.5	67.5	68.6	68.6	69.6	69.6	69.6	68.6	68.6	68.6	68.6
47.5°	46.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	46.8
50°	32.7	33.7	33.7	33.7	33.7	33.7	33.7	32.7	32.7	32.7	32.7
52.5°	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.9	22.9
55°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
57.5°	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
60°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
62.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
65°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
67.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
70°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
72.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
75°	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P135645

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	935.5	935.5	935.5	935.5
2.5°	959.5	968.2	964.9	964.9
5°	985.6	995.4	993.2	992.2
7.5°	993.2	1001.9	999.8	999.8
10°	977.9	986.7	984.6	984.6
12.5°	953.0	960.6	959.5	958.4
15°	921.4	929.0	927.9	926.9
17.5°	879.0	887.7	886.6	885.5
20°	827.9	835.5	835.5	834.4
22.5°	772.4	777.8	778.9	776.7
25°	709.2	713.7	713.7	711.4
27.5°	629.8	633.1	633.1	632.0
30°	532.0	533.1	534.2	532.0
32.5°	417.8	417.8	419.9	417.8
35°	304.6	304.6	306.8	305.7
37.5°	212.1	212.1	213.3	212.1
40°	144.7	144.7	145.8	144.7
42.5°	99.0	98.0	99.0	99.0
45°	67.5	67.5	68.6	67.5
47.5°	46.8	46.8	46.8	46.8
50°	32.7	32.7	32.7	32.7
52.5°	22.9	22.9	22.9	22.9
55°	16.3	17.4	17.4	17.4
57.5°	11.9	13.0	13.0	13.0
60°	9.8	9.8	9.8	9.8
62.5°	7.6	7.6	7.6	7.6
65°	5.4	5.4	5.4	5.4
67.5°	4.3	4.3	4.3	4.3
70°	3.3	3.3	3.3	3.3
72.5°	2.2	2.2	2.2	2.2
75°	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)