

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: P135765

Luminaire Tested: **LD6A10D010TE ERM6A10930 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135765
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23357-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A10D010TE ERM6A10930 6LM121LI
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
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: 1082.3 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 1.02 / 0.97
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

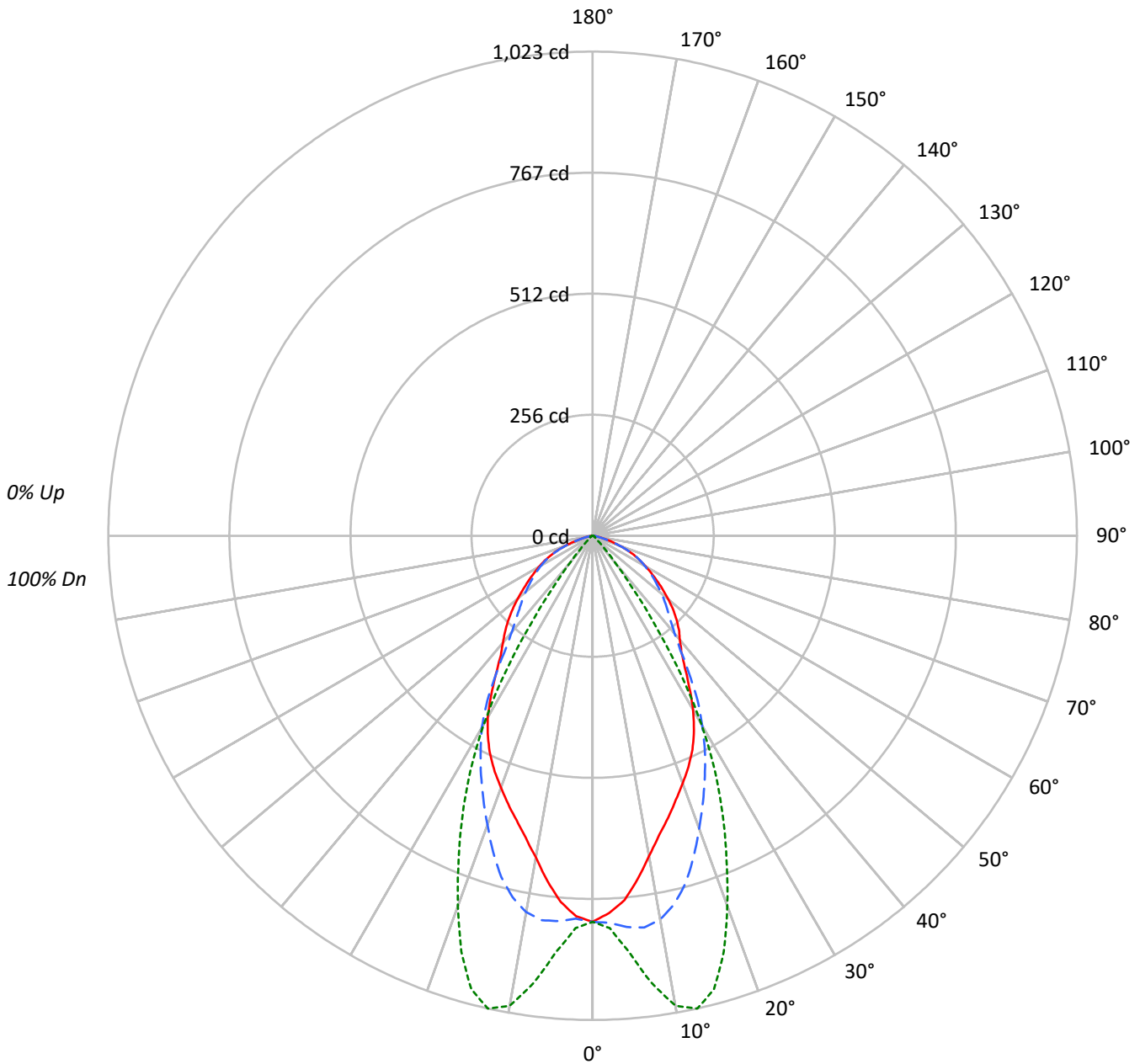
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

Luminous Intensity Polar Plot





TEST NUMBER: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	91	87	93	89	86	90	87	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				64
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53				53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				49
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45				45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	53210	53210	53210
5°	50597	57782	50840
10°	45485	66797	45724
15°	41619	66954	42011
20°	38609	57757	39282
25°	35921	46805	36828
30°	31949	34631	33350
35°	26983	18310	28290
40°	24374	6123	25064
45°	23121	2122	23186
50°	21152	903	20918
55°	18893	682	18722
60°	16832	679	17028
65°	14882	679	14990
70°	11445	553	11312
75°	7108	378	6730
80°	3607	263	3344
85°	1647	0	1647



TEST NUMBER: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	7.3
10°-20°	216.0	20.0
20°-30°	260.0	24.0
30°-40°	202.0	18.7
40°-50°	135.2	12.5
50°-60°	101.8	9.4
60°-70°	65.3	6.0
70°-80°	20.9	1.9
80°-90°	2.0	0.2
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°	555.1	51.3
0°-40°	757.2	70.0
0°-60°	994.1	91.9
0°-90°	1082.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1082.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	816	816	816	816	816	
5°	773	830	882	817	776	71
15°	616	759	991	746	622	173
25°	499	560	650	558	512	227
35°	339	354	230	354	355	215
45°	251	224	23	219	251	192
55°	166	157	6	154	165	149
65°	96	97	4	95	97	94
75°	28	27	2	25	27	32
85°	2	2	0	2	2	3
90°	0	0	0	0	0	



TEST NUMBER: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6
2.5°	797.8	804.4	802.2	812.6	805.2	804.4	809.7	812.6	813.3	818.6	818.6
5°	772.6	780.0	777.8	791.1	788.2	791.1	802.2	810.4	817.8	829.7	837.1
7.5°	731.1	740.0	741.5	754.8	756.2	764.4	782.2	798.6	814.1	834.8	852.6
10°	686.6	695.5	697.7	712.6	717.0	728.1	751.1	771.9	794.1	823.0	849.7
12.5°	648.0	656.9	659.9	674.7	679.9	692.5	717.0	740.0	765.2	797.1	829.0
15°	616.2	624.3	627.3	640.6	645.8	657.7	680.6	702.9	727.3	759.3	790.4
17.5°	585.0	593.1	595.4	607.3	610.9	621.3	642.1	661.3	682.2	710.3	738.4
20°	556.1	563.5	565.0	575.4	577.6	585.8	602.8	618.4	635.4	657.7	680.6
22.5°	528.7	536.1	536.8	545.8	546.5	553.1	567.2	579.1	590.9	608.7	625.1
25°	499.0	506.4	507.2	514.5	515.3	519.8	530.9	539.8	548.0	560.5	571.6
27.5°	463.4	470.8	473.0	478.3	479.0	482.0	491.6	497.6	505.6	513.8	518.3
30°	424.1	430.8	433.8	438.2	438.9	443.4	452.3	456.7	461.9	463.4	464.9
32.5°	380.3	387.8	390.7	394.5	396.7	401.2	409.2	411.5	413.0	412.3	404.1
35°	338.8	345.5	348.5	353.0	354.4	357.4	364.1	363.3	361.0	354.4	339.6
37.5°	307.7	312.9	315.9	318.8	319.6	321.0	324.8	321.8	315.9	304.8	285.5
40°	286.2	291.4	292.1	295.1	294.3	294.3	295.1	289.9	282.5	269.2	246.9
42.5°	269.9	274.3	274.3	277.3	275.0	273.6	273.6	267.7	258.0	243.9	221.7
45°	250.6	254.3	255.0	256.6	254.3	252.8	252.8	246.9	238.0	223.9	201.7
47.5°	230.6	234.3	234.3	236.5	234.3	232.8	232.8	227.7	219.5	206.8	186.1
50°	208.4	212.1	212.8	214.3	212.8	212.1	212.8	207.7	201.0	189.8	171.3
52.5°	186.8	190.6	190.6	192.0	190.6	190.6	191.3	187.5	181.7	172.8	156.4
55°	166.1	169.1	170.6	172.0	169.8	169.8	170.6	168.3	163.9	157.2	143.1
57.5°	146.8	149.8	150.6	152.0	150.6	151.3	152.0	149.8	147.5	142.4	131.3
60°	129.0	132.0	132.7	133.5	132.7	132.7	133.5	132.7	131.3	127.5	117.9
62.5°	112.7	114.9	115.7	117.1	115.7	114.9	116.4	115.7	114.9	112.7	106.0
65°	96.4	97.9	98.6	99.3	97.9	96.4	97.9	97.9	98.6	97.1	92.0
67.5°	78.6	80.0	80.0	80.0	77.8	77.1	78.6	78.6	80.0	79.3	75.6
70°	60.0	60.8	60.8	60.8	57.8	57.8	58.6	58.6	60.0	60.0	57.8
72.5°	43.0	42.2	42.2	41.5	40.8	39.3	39.3	40.0	41.5	41.5	40.0
75°	28.2	27.4	26.7	26.7	26.0	24.5	24.5	25.2	26.0	26.7	26.0
77.5°	17.1	16.3	16.3	15.6	15.6	14.9	14.9	14.9	15.6	15.6	15.6
80°	9.6	8.9	8.9	8.9	8.2	8.2	8.2	8.2	8.2	8.9	8.2
82.5°	5.2	4.4	4.4	4.4	4.4	4.4	3.7	4.4	4.4	4.4	4.4
85°	2.2	2.2	2.2	2.2	1.5	1.5	1.5	1.5	1.5	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: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6
2.5°	816.4	823.7	818.6	834.8	823.7	829.7	837.9	829.7	831.9	837.1	826.8
5°	841.5	854.9	856.4	878.6	869.7	880.1	891.2	882.3	883.9	887.5	874.2
7.5°	867.5	891.2	902.3	933.5	931.2	948.3	961.7	952.8	952.8	953.5	933.5
10°	874.9	909.7	930.5	969.0	975.0	999.5	1014.3	1008.3	1006.9	1004.7	977.2
12.5°	858.6	901.6	928.3	971.3	983.2	1012.1	1025.4	1023.2	1021.0	1016.5	984.6
15°	820.8	865.3	893.5	935.7	950.5	980.2	991.3	991.3	989.1	984.6	950.5
17.5°	765.2	806.7	832.6	869.7	884.6	911.9	919.4	921.6	919.4	915.0	883.9
20°	702.2	737.0	757.7	788.2	800.0	823.7	828.2	831.9	830.4	826.8	799.3
22.5°	640.6	668.0	683.6	710.3	714.8	734.8	736.2	739.3	738.4	737.0	714.8
25°	584.3	602.8	611.7	631.7	633.2	648.0	647.3	650.2	649.5	649.5	632.5
27.5°	524.9	536.1	538.3	550.9	548.0	559.1	560.5	559.1	559.8	560.5	548.0
30°	465.6	467.8	461.2	462.7	454.5	461.2	454.5	459.7	459.7	461.9	454.5
32.5°	398.1	391.5	373.7	364.8	350.7	350.7	347.0	347.0	347.0	350.7	349.2
35°	326.3	309.9	282.5	263.2	243.2	238.0	237.3	229.9	231.3	236.5	240.2
37.5°	264.7	240.2	203.9	176.4	152.8	142.4	138.6	132.7	134.9	140.9	149.8
40°	221.0	191.3	149.0	117.1	93.5	81.5	75.6	71.9	74.2	81.5	92.7
42.5°	193.5	160.9	115.7	82.3	60.0	48.9	43.0	40.0	42.2	48.9	62.2
45°	173.5	139.4	93.5	60.8	40.8	30.4	25.2	23.0	24.5	30.4	41.5
47.5°	157.9	123.1	77.8	46.7	28.9	20.0	15.6	13.3	14.9	20.0	28.9
50°	143.9	109.7	66.0	37.1	22.2	14.9	10.4	8.9	10.4	14.0	21.5
52.5°	131.3	97.9	56.4	30.4	17.1	11.8	8.2	6.7	7.4	11.1	17.1
55°	120.1	89.0	49.7	26.0	14.9	10.4	7.4	6.0	7.4	9.6	14.9
57.5°	109.7	80.0	43.8	22.2	12.6	8.9	6.7	6.0	6.7	8.9	12.6
60°	99.3	71.1	38.6	19.3	11.1	8.2	6.0	5.2	6.0	7.4	11.1
62.5°	89.0	63.1	33.3	16.3	9.6	6.7	5.2	4.4	5.2	6.7	9.6
65°	77.1	53.4	28.2	14.0	8.2	6.0	4.4	4.4	4.4	6.0	8.2
67.5°	63.8	43.8	22.2	11.1	6.7	5.2	3.7	3.7	3.7	5.2	6.7
70°	48.9	32.6	17.1	8.9	5.2	3.7	2.9	2.9	2.9	3.7	5.2
72.5°	34.1	23.0	11.8	6.7	3.7	2.9	2.2	2.2	2.2	2.9	3.7
75°	21.5	14.9	8.2	4.4	2.9	2.2	1.5	1.5	1.5	2.2	2.9
77.5°	12.6	8.9	5.2	2.9	1.5	1.5	0.7	0.7	0.7	1.5	1.5
80°	6.7	5.2	2.9	1.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	3.7	2.2	1.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	1.5	0.7	0.7	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: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6	815.6
2.5°	823.7	826.8	826.0	810.4	808.9	809.7	799.3	803.0	806.7	803.0	803.7
5°	863.7	863.0	854.1	831.9	823.0	817.1	800.0	797.1	794.8	786.6	783.7
7.5°	916.4	906.1	887.5	854.1	835.7	819.3	794.1	781.5	772.6	758.5	750.4
10°	952.8	932.0	904.6	860.8	832.6	807.5	774.8	755.5	740.7	722.2	710.3
12.5°	957.9	929.0	897.2	846.0	813.3	782.2	746.6	725.1	708.1	688.0	676.9
15°	924.6	895.0	861.5	810.4	777.8	745.9	711.8	690.2	673.3	654.0	644.3
17.5°	861.5	834.1	804.4	757.0	728.8	699.9	669.5	651.0	636.2	621.3	611.7
20°	781.5	760.0	735.5	695.5	673.3	649.5	625.8	610.9	599.8	587.2	579.8
22.5°	702.2	685.8	668.0	636.2	619.8	602.8	584.3	573.8	565.8	556.1	550.9
25°	625.8	614.7	603.6	579.1	569.4	557.6	544.2	536.8	531.6	524.9	521.2
27.5°	546.5	542.7	539.8	524.2	520.5	512.3	503.4	499.0	495.3	490.9	487.9
30°	460.5	462.7	474.5	466.3	470.1	467.8	464.1	461.2	459.7	456.0	452.3
32.5°	363.3	378.9	395.9	398.1	409.2	414.5	413.7	414.5	415.2	412.3	409.2
35°	260.3	285.5	312.1	324.1	342.5	354.4	358.8	363.3	366.3	365.5	363.3
37.5°	173.5	207.7	239.5	260.3	284.7	301.0	310.7	318.1	322.5	324.1	324.1
40°	115.7	148.3	190.6	217.2	244.6	264.7	275.9	285.5	292.1	295.1	296.6
42.5°	81.5	116.4	159.5	189.8	218.0	239.5	252.1	262.5	269.2	272.8	274.3
45°	60.0	93.5	137.9	169.1	198.0	218.8	231.3	241.0	247.7	251.3	253.6
47.5°	46.0	78.6	121.6	153.5	182.4	201.7	213.5	222.4	228.4	231.3	232.8
50°	36.4	66.0	108.2	140.2	166.8	184.6	195.0	202.4	207.7	209.9	211.3
52.5°	29.7	57.1	97.1	127.5	152.8	168.3	176.4	182.4	186.8	188.4	189.8
55°	25.2	49.7	87.5	117.1	140.2	153.5	159.5	164.6	166.8	168.3	169.1
57.5°	22.2	43.8	79.3	107.5	128.2	139.4	143.9	147.5	148.3	149.8	150.6
60°	19.3	37.8	70.4	97.1	115.7	125.3	127.5	130.5	130.5	131.3	132.0
62.5°	16.3	32.6	61.5	86.8	103.1	111.3	112.7	113.5	113.5	113.5	114.2
65°	13.3	27.4	51.9	74.9	89.7	94.9	95.7	96.4	94.9	94.9	95.7
67.5°	11.1	21.5	41.5	61.5	73.4	77.8	77.1	77.1	74.9	74.9	75.6
70°	8.2	16.3	31.1	46.7	55.6	58.6	57.1	57.1	54.9	54.9	55.6
72.5°	6.0	11.8	21.5	31.9	38.6	40.0	38.6	38.6	37.1	37.1	37.8
75°	4.4	7.4	14.0	20.7	24.5	25.2	24.5	23.7	23.0	23.0	23.7
77.5°	2.9	5.2	8.2	11.8	14.0	14.9	14.0	14.0	13.3	14.0	14.0
80°	1.5	2.9	4.4	6.7	7.4	8.2	8.2	8.2	7.4	7.4	8.2
82.5°	0.7	1.5	2.2	2.9	3.7	4.4	3.7	3.7	3.7	3.7	3.7
85°	0.0	0.7	0.7	1.5	1.5	2.2	1.5	1.5	1.5	1.5	1.5
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: P135765

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	815.6	815.6	815.6	815.6
2.5°	802.2	798.6	793.3	804.4
5°	779.3	771.9	765.9	776.3
7.5°	742.9	732.6	724.4	734.8
10°	701.4	689.5	680.6	690.2
12.5°	665.1	653.2	645.8	653.2
15°	633.2	622.0	615.4	622.0
17.5°	602.0	592.4	586.5	593.9
20°	572.4	564.2	559.1	565.8
22.5°	544.9	537.6	533.1	539.8
25°	516.0	510.9	505.6	511.6
27.5°	484.2	478.3	475.2	479.0
30°	447.8	441.9	439.7	442.7
32.5°	404.8	398.9	396.7	398.9
35°	360.3	355.2	352.1	355.2
37.5°	322.5	318.1	315.9	318.1
40°	295.9	293.6	291.4	294.3
42.5°	275.0	272.8	271.4	273.6
45°	253.6	250.6	249.1	251.3
47.5°	232.1	229.1	227.7	229.1
50°	209.9	206.1	205.4	206.1
52.5°	187.5	184.6	183.1	183.9
55°	167.5	165.3	163.9	164.6
57.5°	149.8	146.8	146.1	146.8
60°	132.0	130.5	129.7	130.5
62.5°	114.2	113.5	114.2	114.2
65°	96.4	96.4	97.1	97.1
67.5°	77.1	78.6	79.3	79.3
70°	57.1	58.6	59.3	59.3
72.5°	38.6	40.0	40.8	41.5
75°	24.5	26.0	26.7	26.7
77.5°	14.9	15.6	15.6	16.3
80°	8.2	8.9	8.9	8.9
82.5°	4.4	4.4	4.4	5.2
85°	2.2	2.2	2.2	2.2
87.5°	0.0	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)