

Scaled data based on original data using
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact
Fluorescent Lamps

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: 19155A

Luminaire Tested: **693-S-CF2/13**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19155A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 693-S-CF2/13
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS
Light Source: TWO 13 WATT CPFL LAMPS. LUMEN RATING = 1800 LMS.

Ballast/Driver: -

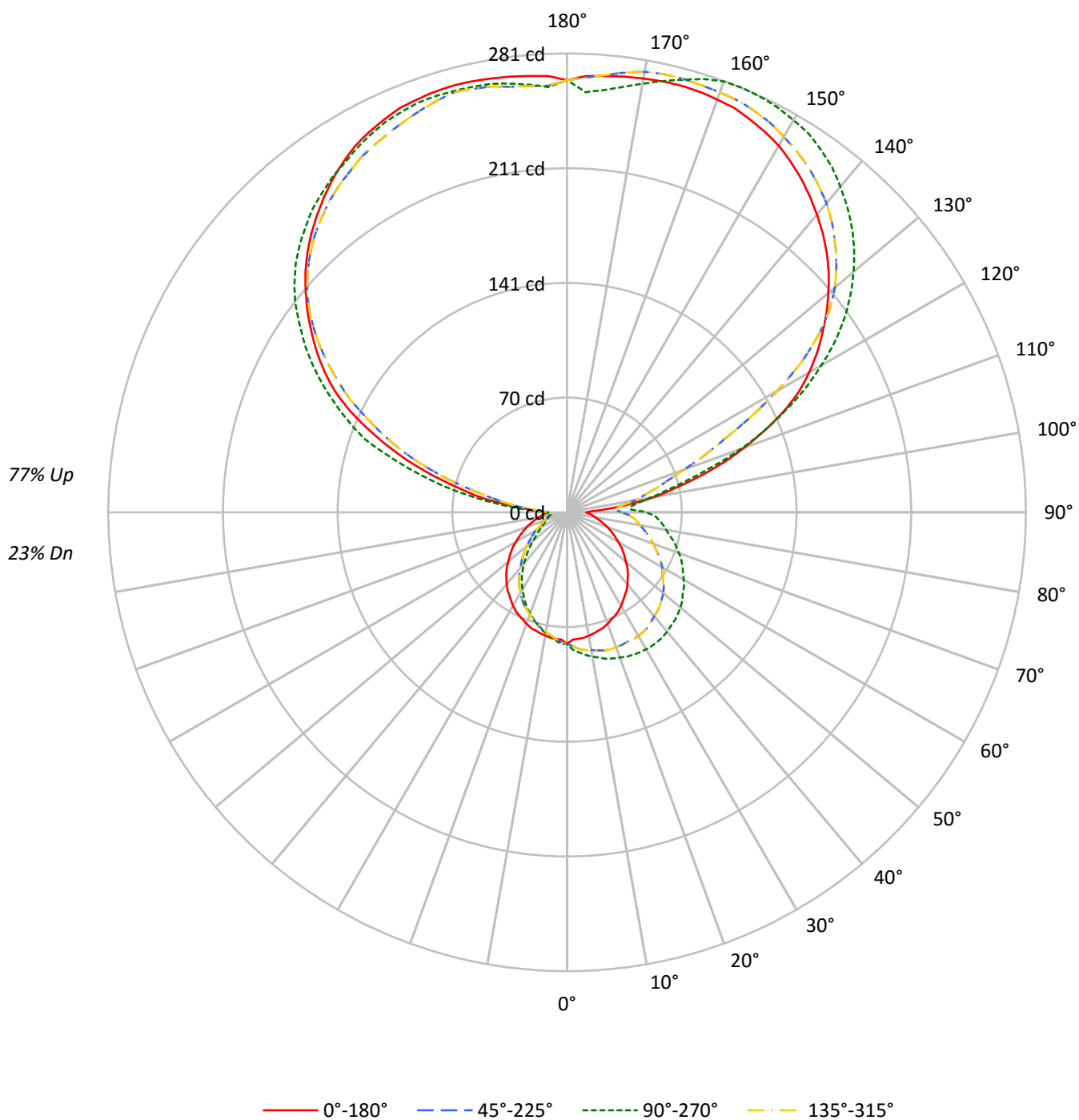
Summary

Lumens per Lamp: 1800 (1 lamp)
Luminaire Lumens: 1279.3 lumens
Efficiency: 71.1%
Efficacy: -
Spacing Criteria (0/90/45): 1.22 / 1.39 / 1.44
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Semi-Indirect

Input Watts (W): 0
Input Voltage (V): NR
Input Current (Ain): 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: 19155A
CATALOG NUMBER: 693-S-CF2/13

Luminous Intensity Polar Plot



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CATALOG NUMBER: 693-S-CF2/13

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	72	72	72	72	64	64	64	64	49	49	49	35	35	35	22	22	22
1	65	61	58	56	57	54	52	50	42	40	38	30	29	28	19	18	18
2	59	53	49	45	52	47	44	40	36	33	31	26	24	23	16	15	14
3	53	47	41	37	47	41	37	33	32	28	26	22	20	19	14	13	12
4	49	41	35	31	43	36	32	28	28	25	22	20	18	16	12	11	10
5	44	36	31	26	39	32	27	24	25	21	19	18	15	14	11	10	9
6	41	32	27	23	36	29	24	20	22	19	16	16	14	12	10	9	8
7	38	29	24	20	33	26	21	18	20	16	14	14	12	10	9	8	7
8	35	26	21	17	31	23	19	16	18	15	12	13	11	9	8	7	6
9	32	24	19	15	28	21	17	14	16	13	11	12	10	8	8	6	5
10	30	22	17	13	27	19	15	12	15	12	10	11	9	7	7	6	5

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	Luminaire represents a point source (luminous area is zero).			
5°	No luminance values can be calculated.			
10°				
15°				
20°				
25°				
30°				
35°				
40°				
45°				
50°				
55°				
60°				
65°				
70°				
75°				
80°				
85°				

TEST NUMBER: 19155A
CATALOG NUMBER: 693-S-CF2/13

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	7.7	0.6	0.4
10°-20°	22.3	1.7	1.2
20°-30°	34.4	2.7	1.9
30°-40°	42.6	3.3	2.4
40°-50°	45.5	3.6	2.5
50°-60°	43.8	3.4	2.4
60°-70°	39.1	3.1	2.2
70°-80°	33.0	2.6	1.8
80°-90°	26.8	2.1	1.5
90°-100°	33.4	2.6	1.9
100°-110°	78.9	6.2	4.4
110°-120°	133.8	10.5	7.4
120°-130°	172.6	13.5	9.6
130°-140°	178.9	14.0	9.9
140°-150°	159.8	12.5	8.9
150°-160°	123.9	9.7	6.9
160°-170°	77.1	6.0	4.3
170°-180°	25.6	2.0	1.4
0°-30°	64.4	5.0	3.6
0°-40°	106.9	8.4	5.9
0°-60°	196.2	15.3	10.9
0°-90°	295.1	23.1	16.4
90°-120°	246.2	19.2	13.7
90°-150°	757.5	59.2	42.1
90°-180°	984.0	76.9	54.7
0°-180°	1279.3	100.0	71.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	81	81	81	81	81	
5°	78	86	78	79	78	7
15°	75	93	75	71	75	21
25°	70	96	70	61	70	32
35°	62	97	62	48	62	39
45°	53	93	53	34	53	41
55°	42	86	42	22	42	37
65°	31	78	31	15	31	31
75°	22	68	22	12	22	23
85°	15	57	15	10	15	12
90°	12	48	12	14	12	7
95°	26	39	26	31	26	27
105°	83	77	83	97	83	88
115°	146	148	146	156	146	144
125°	191	207	191	200	191	171
135°	225	247	225	232	225	173
145°	250	271	250	251	250	156
155°	265	281	265	264	265	123
165°	270	274	270	267	270	77
175°	268	260	268	263	268	26
180°	265	265	265	265	265	

TEST NUMBER: 19155A
CATALOG NUMBER: 693-S-CF2/13

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
2.5°	78.0	80.9	82.1	83.7	84.4	83.7	82.1	80.9	78.0	78.4	79.7
5°	77.8	81.4	83.9	85.6	86.2	85.6	83.9	81.4	77.8	77.2	77.8
7.5°	77.5	82.0	85.1	87.2	88.1	87.2	85.1	82.0	77.5	76.1	76.0
10°	76.7	82.4	85.7	88.6	89.8	88.6	85.7	82.4	76.7	74.7	74.2
12.5°	75.8	82.4	86.6	89.7	91.1	89.7	86.6	82.4	75.8	73.2	72.8
15°	74.9	82.4	87.5	91.3	92.8	91.3	87.5	82.4	74.9	71.6	70.8
17.5°	74.1	82.0	88.0	92.1	93.8	92.1	88.0	82.0	74.1	69.9	68.8
20°	72.7	81.7	87.8	92.6	94.6	92.6	87.8	81.7	72.7	68.0	66.8
22.5°	70.9	81.1	87.8	93.3	95.6	93.3	87.8	81.1	70.9	66.3	64.3
25°	69.7	80.2	87.5	93.5	96.2	93.5	87.5	80.2	69.7	64.1	62.7
27.5°	68.1	79.3	87.8	94.2	96.5	94.2	87.8	79.3	68.1	62.0	59.7
30°	66.2	78.1	87.4	94.4	96.9	94.4	87.4	78.1	66.2	59.9	57.2
32.5°	63.9	77.2	86.8	94.4	96.9	94.4	86.8	77.2	63.9	57.2	54.4
35°	61.8	75.7	86.0	94.0	96.6	94.0	86.0	75.7	61.8	54.7	51.3
37.5°	59.9	73.9	84.5	93.2	96.2	93.2	84.5	73.9	59.9	52.0	48.0
40°	57.5	72.3	83.0	92.0	95.4	92.0	83.0	72.3	57.5	49.2	44.8
42.5°	55.0	70.3	82.0	91.3	94.2	91.3	82.0	70.3	55.0	46.4	41.5
45°	52.6	67.7	80.4	89.8	93.4	89.8	80.4	67.7	52.6	43.5	38.2
47.5°	50.1	65.6	78.7	88.3	92.1	88.3	78.7	65.6	50.1	40.6	34.9
50°	46.9	63.9	76.8	87.1	90.7	87.1	76.8	63.9	46.9	37.6	32.2
52.5°	44.4	61.3	74.7	85.3	88.9	85.3	74.7	61.3	44.4	34.7	29.4
55°	41.8	58.8	71.7	83.2	86.5	83.2	71.7	58.8	41.8	31.4	26.6
57.5°	39.3	56.1	69.3	80.9	84.9	80.9	69.3	56.1	39.3	29.1	24.2
60°	36.1	53.3	67.3	78.1	82.5	78.1	67.3	53.3	36.1	26.0	21.7
62.5°	33.5	50.6	64.6	75.7	80.0	75.7	64.6	50.6	33.5	24.1	19.6
65°	30.9	47.7	61.6	73.7	78.0	73.7	61.6	47.7	30.9	21.4	17.4
67.5°	28.6	45.0	58.9	71.1	75.6	71.1	58.9	45.0	28.6	19.5	16.0
70°	26.2	41.8	56.1	68.4	72.9	68.4	56.1	41.8	26.2	17.5	14.7
72.5°	23.8	39.5	53.7	65.1	70.1	65.1	53.7	39.5	23.8	15.6	13.3
75°	21.7	36.8	50.9	62.4	67.5	62.4	50.9	36.8	21.7	14.1	12.2
77.5°	19.3	33.8	47.9	59.7	64.0	59.7	47.9	33.8	19.3	12.2	11.0
80°	17.7	31.4	45.2	57.1	61.6	57.1	45.2	31.4	17.7	11.2	10.5
82.5°	15.9	29.8	43.2	54.3	59.3	54.3	43.2	29.8	15.9	9.8	9.4
85°	14.7	27.9	41.1	52.3	56.8	52.3	41.1	27.9	14.7	9.0	8.9
87.5°	12.8	25.3	37.8	49.4	54.0	49.4	37.8	25.3	12.8	8.1	8.4
90°	11.7	21.9	33.4	44.0	48.5	44.0	33.4	21.9	11.7	9.3	11.2
92.5°	14.7	21.4	30.1	38.3	39.2	38.3	30.1	21.4	14.7	13.6	14.7
95°	25.5	24.7	30.6	38.8	38.8	38.8	30.6	24.7	25.5	20.8	23.2
97.5°	39.2	31.6	34.7	43.4	43.4	43.4	34.7	31.6	39.2	29.9	32.8
100°	54.7	41.0	41.9	51.8	52.1	51.8	41.9	41.0	54.7	41.9	43.1
102.5°	67.2	49.2	48.5	61.7	62.4	61.7	48.5	49.2	67.2	59.1	55.2
105°	82.6	56.7	55.9	73.5	76.8	73.5	55.9	56.7	82.6	79.6	72.0
107.5°	99.5	66.4	64.3	85.1	93.8	85.1	64.3	66.4	99.5	99.5	88.4
110°	115.1	82.1	75.7	99.2	113.1	99.2	75.7	82.1	115.1	116.7	104.9

TEST NUMBER: 19155A

CATALOG NUMBER: 693-S-CF2/13

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	130.9	99.5	90.7	114.7	131.0	114.7	90.7	99.5	130.9	131.9	120.1
115°	146.4	117.9	106.5	130.2	147.6	130.2	106.5	117.9	146.4	145.6	134.5
117.5°	160.2	141.4	127.1	147.2	164.6	147.2	127.1	141.4	160.2	159.0	149.9
120°	171.2	162.4	148.4	165.3	179.7	165.3	148.4	162.4	171.2	171.2	162.6
122.5°	181.5	181.6	169.3	184.6	194.5	184.6	169.3	181.6	181.5	182.2	175.6
125°	190.8	194.9	187.3	202.5	207.4	202.5	187.3	194.9	190.8	192.2	187.4
127.5°	200.3	205.4	202.1	218.0	218.9	218.0	202.1	205.4	200.3	201.3	198.2
130°	208.9	215.1	214.2	230.7	229.1	230.7	214.2	215.1	208.9	209.4	207.7
132.5°	217.3	225.1	223.7	242.0	238.5	242.0	223.7	225.1	217.3	216.2	215.6
135°	224.9	234.1	232.3	251.6	246.7	251.6	232.3	234.1	224.9	222.5	222.7
137.5°	231.8	242.2	240.3	259.9	253.9	259.9	240.3	242.2	231.8	227.7	229.1
140°	238.0	250.0	247.1	266.9	260.4	266.9	247.1	250.0	238.0	231.6	234.4
142.5°	244.1	256.1	252.7	273.0	266.5	273.0	252.7	256.1	244.1	235.5	239.6
145°	249.7	261.3	257.9	277.8	271.1	277.8	257.9	261.3	249.7	239.5	243.9
147.5°	254.7	265.6	262.0	281.2	275.1	281.2	262.0	265.6	254.7	243.1	247.6
150°	259.3	269.9	265.5	283.8	277.3	283.8	265.5	269.9	259.3	247.5	251.5
152.5°	262.6	272.4	269.1	284.9	279.4	284.9	269.1	272.4	262.6	251.8	254.2
155°	265.3	275.1	271.3	284.9	280.6	284.9	271.3	275.1	265.3	256.6	256.8
157.5°	267.9	276.8	273.0	283.3	281.2	283.3	273.0	276.8	267.9	259.6	259.5
160°	269.0	278.2	273.6	282.4	280.8	282.4	273.6	278.2	269.0	262.7	262.1
162.5°	270.0	279.0	274.2	280.8	278.2	280.8	274.2	279.0	270.0	265.2	264.4
165°	270.5	279.4	274.8	279.2	274.2	279.2	274.8	279.4	270.5	266.5	266.4
167.5°	270.3	279.2	274.8	278.1	270.5	278.1	274.8	279.2	270.3	266.1	265.7
170°	269.7	278.2	273.9	276.0	266.5	276.0	273.9	278.2	269.7	265.5	264.8
172.5°	269.1	275.4	271.6	272.5	262.8	272.5	271.6	275.4	269.1	265.2	262.8
175°	268.2	272.5	268.9	269.1	259.5	269.1	268.9	272.5	268.2	265.8	262.0
177.5°	267.4	269.9	266.4	266.4	257.6	266.4	266.4	269.9	267.4	266.5	261.5
180°	264.6	264.6	264.6	264.6	264.6	264.6	264.6	264.6	264.6	264.6	264.6

TEST NUMBER: 19155A

CATALOG NUMBER: 693-S-CF2/13

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	80.6	80.6	80.6	80.6	80.6	80.6
2.5°	80.5	80.6	80.5	79.7	78.4	78.0
5°	78.9	78.8	78.9	77.8	77.2	77.8
7.5°	77.1	76.5	77.1	76.0	76.1	77.5
10°	74.8	75.1	74.8	74.2	74.7	76.7
12.5°	73.0	73.2	73.0	72.8	73.2	75.8
15°	70.6	70.9	70.6	70.8	71.6	74.9
17.5°	68.5	68.5	68.5	68.8	69.9	74.1
20°	66.0	66.0	66.0	66.8	68.0	72.7
22.5°	63.6	63.6	63.6	64.3	66.3	70.9
25°	61.1	60.7	61.1	62.7	64.1	69.7
27.5°	57.8	57.6	57.8	59.7	62.0	68.1
30°	55.1	54.5	55.1	57.2	59.9	66.2
32.5°	51.9	51.5	51.9	54.4	57.2	63.9
35°	48.3	48.3	48.3	51.3	54.7	61.8
37.5°	45.2	44.7	45.2	48.0	52.0	59.9
40°	41.8	41.1	41.8	44.8	49.2	57.5
42.5°	38.2	37.4	38.2	41.5	46.4	55.0
45°	35.0	33.9	35.0	38.2	43.5	52.6
47.5°	31.5	30.6	31.5	34.9	40.6	50.1
50°	28.0	27.1	28.0	32.2	37.6	46.9
52.5°	25.3	24.3	25.3	29.4	34.7	44.4
55°	23.1	21.9	23.1	26.6	31.4	41.8
57.5°	20.6	19.6	20.6	24.2	29.1	39.3
60°	18.9	18.2	18.9	21.7	26.0	36.1
62.5°	17.0	16.5	17.0	19.6	24.1	33.5
65°	15.9	15.4	15.9	17.4	21.4	30.9
67.5°	14.6	14.2	14.6	16.0	19.5	28.6
70°	13.5	13.2	13.5	14.7	17.5	26.2
72.5°	12.7	12.7	12.7	13.3	15.6	23.8
75°	12.1	12.0	12.1	12.2	14.1	21.7
77.5°	11.2	11.8	11.2	11.0	12.2	19.3
80°	10.9	11.0	10.9	10.5	11.2	17.7
82.5°	10.3	11.0	10.3	9.4	9.8	15.9
85°	9.8	10.5	9.8	8.9	9.0	14.7
87.5°	9.4	10.6	9.4	8.4	8.1	12.8
90°	12.4	14.1	12.4	11.2	9.3	11.7
92.5°	16.5	17.8	16.5	14.7	13.6	14.7
95°	27.8	31.3	27.8	23.2	20.8	25.5
97.5°	40.0	46.3	40.0	32.8	29.9	39.2
100°	55.5	62.9	55.5	43.1	41.9	54.7
102.5°	70.3	80.8	70.3	55.2	59.1	67.2
105°	84.5	97.0	84.5	72.0	79.6	82.6
107.5°	101.8	114.6	101.8	88.4	99.5	99.5
110°	117.1	132.4	117.1	104.9	116.7	115.1

TEST NUMBER: 19155A

CATALOG NUMBER: 693-S-CF2/13

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	130.9	144.5	130.9	120.1	131.9	130.9
115°	144.8	156.4	144.8	134.5	145.6	146.4
117.5°	158.3	168.4	158.3	149.9	159.0	160.2
120°	170.7	179.6	170.7	162.6	171.2	171.2
122.5°	182.4	190.4	182.4	175.6	182.2	181.5
125°	193.3	199.8	193.3	187.4	192.2	190.8
127.5°	204.1	209.8	204.1	198.2	201.3	200.3
130°	213.4	218.0	213.4	207.7	209.4	208.9
132.5°	221.9	225.4	221.9	215.6	216.2	217.3
135°	229.1	231.6	229.1	222.7	222.5	224.9
137.5°	235.8	237.1	235.8	229.1	227.7	231.8
140°	241.9	242.5	241.9	234.4	231.6	238.0
142.5°	246.4	246.5	246.4	239.6	235.5	244.1
145°	250.9	250.6	250.9	243.9	239.5	249.7
147.5°	255.4	253.7	255.4	247.6	243.1	254.7
150°	258.8	257.5	258.8	251.5	247.5	259.3
152.5°	262.3	260.7	262.3	254.2	251.8	262.6
155°	265.1	263.6	265.1	256.8	256.6	265.3
157.5°	267.9	265.3	267.9	259.5	259.6	267.9
160°	270.0	266.9	270.0	262.1	262.7	269.0
162.5°	272.5	267.3	272.5	264.4	265.2	270.0
165°	274.7	267.2	274.7	266.4	266.5	270.5
167.5°	274.4	266.9	274.4	265.7	266.1	270.3
170°	273.2	266.5	273.2	264.8	265.5	269.7
172.5°	270.4	264.8	270.4	262.8	265.2	269.1
175°	268.4	262.8	268.4	262.0	265.8	268.2
177.5°	267.0	260.7	267.0	261.5	266.5	267.4
180°	264.6	264.6	264.6	264.6	264.6	264.6

(END OF REPORT)