

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: 19170

Luminaire Tested: **691-CF2/26**

Issue Date: 3/3/2020

**Test Information**

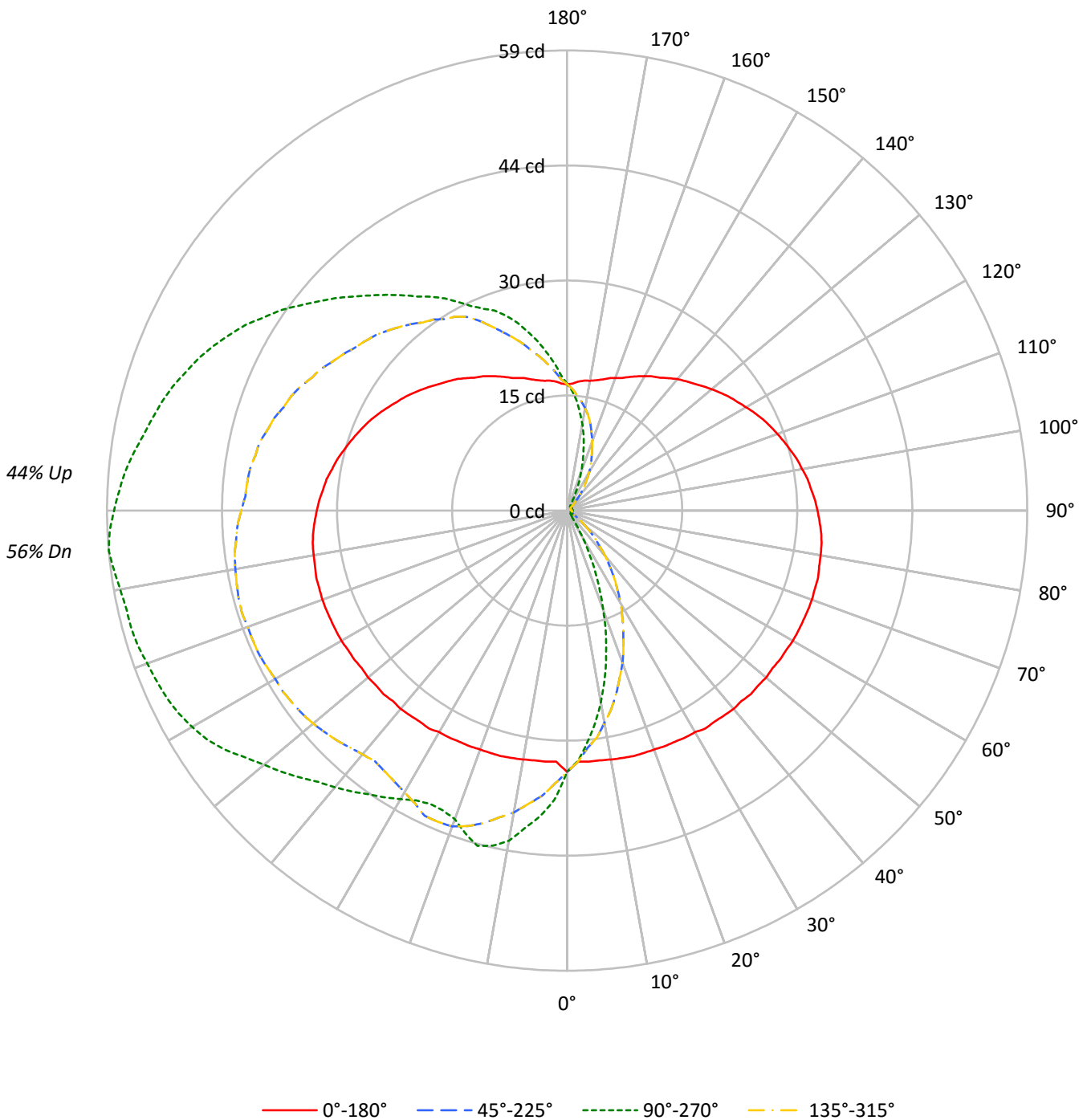
Test Method: LM-66-11  
Report Number: 19170  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 691-CF2/26  
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS  
Light Source: TWO SYLVANIA 26 WATT CPFL LAMPS  
  
CF26DD/E/841. LUMEN RATING = 3600 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3600 (1 lamp)  
Luminaire Lumens: 308.5 lumens  
Efficiency: 8.6%  
Efficacy: 6.4 lumens/watt  
Spacing Criteria (0/90/45): 1.52 / 1.04 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.08' x L: 1.17' x H: 0.29')  
CIE Type: General Diffuse  
  
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

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### Luminous Intensity Polar Plot





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**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	50	30	10
RCR																				
0	9	9	9	9	9	9	9	9	7	7	7	6	6	6	5	5	5	5	5	5
1	8	8	7	7	7	7	7	6	6	6	5	5	5	4	4	4	4	4	4	3
2	7	6	6	5	7	6	5	5	5	5	4	4	4	3	3	3	3	3	3	2
3	7	6	5	4	6	5	4	4	4	4	3	4	3	3	3	3	2	3	3	2
4	6	5	4	3	5	4	4	3	4	3	3	3	3	2	3	2	2	3	2	2
5	5	4	3	3	5	4	3	3	3	3	2	3	2	2	2	2	2	2	2	1
6	5	4	3	2	5	4	3	2	3	2	2	2	2	2	2	2	1	2	2	1
7	5	3	3	2	4	3	2	2	3	2	2	2	2	1	2	1	1	2	1	1
8	4	3	2	2	4	3	2	2	2	2	2	2	2	1	2	1	1	2	1	1
9	4	3	2	2	4	3	2	2	2	2	1	2	1	1	2	1	1	2	1	1
10	4	3	2	1	3	2	2	1	2	2	1	2	1	1	1	1	1	1	1	1

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	3852	3852	3852	3852
5°	3650	2612	3650	3444
10°	3625	1774	3625	3063
15°	3640	1166	3640	2688
20°	3659	712	3659	2221
25°	3719	391	3719	1957
30°	3810	167	3810	1833
35°	3948	52	3948	1762
40°	4126	22	4126	1720
45°	4340	25	4340	1702
50°	4599	20	4599	1705
55°	4931	23	4931	1737
60°	5375	19	5375	1754
65°	5934	19	5934	1758
70°	6681	21	6681	1758
75°	7686	18	7686	1771
80°	9084	18	9084	1788
85°	11256	16	11256	1835



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	3.2	1.0	0.1
10°-20°	9.2	3.0	0.3
20°-30°	13.6	4.4	0.4
30°-40°	17.2	5.6	0.5
40°-50°	20.8	6.7	0.6
50°-60°	24.3	7.9	0.7
60°-70°	27.0	8.8	0.8
70°-80°	28.6	9.3	0.8
80°-90°	29.0	9.4	0.8
90°-100°	27.6	9.0	0.8
100°-110°	25.5	8.3	0.7
110°-120°	22.5	7.3	0.6
120°-130°	19.0	6.2	0.5
130°-140°	15.1	4.9	0.4
140°-150°	11.4	3.7	0.3
150°-160°	8.0	2.6	0.2
160°-170°	4.8	1.6	0.1
170°-180°	1.6	0.5	0.0
0°-30°	26.0	8.4	0.7
0°-40°	43.2	14.0	1.2
0°-60°	88.3	28.6	2.5
0°-90°	173.0	56.1	4.8
90°-120°	75.7	24.5	2.1
90°-150°	121.2	39.3	3.4
90°-180°	136.0	44.1	3.8
0°-180°	308.5	100.0	8.6

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	34	34	34	34	34	
5°	32	30	32	39	32	3
15°	33	19	33	44	33	9
25°	33	8	33	42	33	15
35°	33	1	33	44	33	21
45°	33	1	33	48	33	26
55°	33	1	33	54	33	30
65°	33	1	33	57	33	33
75°	33	1	33	58	33	35
85°	33	0	33	59	33	27
90°	32	1	32	58	32	18
95°	31	1	31	57	31	26
105°	30	1	30	54	30	31
115°	28	1	28	50	28	27
125°	25	1	25	45	25	23
135°	23	1	23	39	23	18
145°	21	1	21	34	21	13
155°	19	3	19	29	19	9
165°	17	8	17	25	17	5
175°	17	14	17	19	17	2
180°	16	16	16	16	16	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
2.5°	32.2	32.1	32.2	32.1	32.1	32.1	32.2	32.1	32.2	33.5	35.0
5°	32.3	31.3	30.5	30.3	29.8	30.3	30.5	31.3	32.3	34.3	36.7
7.5°	32.3	30.7	29.3	28.0	27.5	28.0	29.3	30.7	32.3	35.0	37.9
10°	32.4	30.1	27.6	25.9	24.9	25.9	27.6	30.1	32.4	35.7	39.3
12.5°	32.5	29.4	26.1	23.5	22.2	23.5	26.1	29.4	32.5	36.4	40.3
15°	32.6	29.0	24.3	20.9	19.3	20.9	24.3	29.0	32.6	37.0	41.5
17.5°	32.6	28.4	22.4	18.3	16.5	18.3	22.4	28.4	32.6	37.5	42.4
20°	32.6	27.7	20.8	15.6	13.5	15.6	20.8	27.7	32.6	38.2	43.1
22.5°	32.7	27.0	18.8	13.1	10.8	13.1	18.8	27.0	32.7	38.7	43.2
25°	32.7	26.4	17.0	10.8	8.3	10.8	17.0	26.4	32.7	39.3	43.2
27.5°	32.8	25.5	15.3	8.4	5.9	8.4	15.3	25.5	32.8	39.8	42.3
30°	32.8	24.9	13.7	6.5	3.9	6.5	13.7	24.9	32.8	40.2	41.7
32.5°	33.1	24.1	12.0	4.5	2.3	4.5	12.0	24.1	33.1	40.8	41.2
35°	33.0	23.5	10.5	3.1	1.3	3.1	10.5	23.5	33.0	41.2	40.8
37.5°	33.1	22.7	8.9	1.7	0.8	1.7	8.9	22.7	33.1	41.4	40.5
40°	33.2	22.1	7.6	1.0	0.6	1.0	7.6	22.1	33.2	42.0	40.8
42.5°	33.1	21.3	6.1	0.7	0.8	0.7	6.1	21.3	33.1	42.3	41.2
45°	33.3	20.8	5.0	0.8	0.7	0.8	5.0	20.8	33.3	42.6	41.7
47.5°	33.2	20.2	4.0	0.7	0.7	0.7	4.0	20.2	33.2	42.9	42.1
50°	33.3	19.5	3.0	0.8	0.6	0.8	3.0	19.5	33.3	43.2	42.5
52.5°	33.2	19.0	2.3	0.8	0.7	0.8	2.3	19.0	33.2	43.2	42.8
55°	33.3	18.3	1.6	0.7	0.7	0.7	1.6	18.3	33.3	43.0	43.0
57.5°	33.3	17.9	1.2	0.8	0.8	0.8	1.2	17.9	33.3	42.9	43.2
60°	33.4	17.4	0.8	0.7	0.6	0.7	0.8	17.4	33.4	42.9	43.2
62.5°	33.4	16.8	0.8	0.8	0.7	0.8	0.8	16.8	33.4	42.5	43.4
65°	33.4	16.5	0.6	0.6	0.6	0.6	0.6	16.5	33.4	42.1	43.6
67.5°	33.4	16.1	0.5	0.7	0.6	0.7	0.5	16.1	33.4	41.8	43.6
70°	33.4	15.6	0.6	0.7	0.7	0.7	0.6	15.6	33.4	41.4	43.6
72.5°	33.3	15.1	0.7	0.8	0.5	0.8	0.7	15.1	33.3	40.8	43.7
75°	33.3	14.8	0.7	0.6	0.6	0.6	0.7	14.8	33.3	40.4	43.6
77.5°	33.1	14.3	0.6	0.8	0.7	0.8	0.6	14.3	33.1	40.1	43.4
80°	33.0	14.1	0.7	0.7	0.6	0.7	0.7	14.1	33.0	39.7	43.2
82.5°	32.9	13.9	0.6	0.7	0.7	0.7	0.6	13.9	32.9	39.6	43.0
85°	32.7	13.4	0.6	0.8	0.5	0.8	0.6	13.4	32.7	39.2	42.6
87.5°	32.4	13.4	0.6	0.6	0.7	0.6	0.6	13.4	32.4	38.8	42.3
90°	32.1	13.1	0.5	0.7	0.7	0.7	0.5	13.1	32.1	38.4	41.8
92.5°	31.8	8.2	0.5	0.5	0.6	0.5	0.5	8.2	31.8	39.9	41.3
95°	31.4	8.2	0.5	0.5	0.7	0.5	0.5	8.2	31.4	39.3	41.2
97.5°	31.1	8.2	0.5	0.5	0.5	0.5	0.5	8.2	31.1	38.8	41.0
100°	30.6	8.3	0.5	0.5	0.7	0.5	0.5	8.3	30.6	38.3	40.6
102.5°	30.2	8.4	0.5	0.5	0.7	0.5	0.5	8.4	30.2	37.9	40.4
105°	29.7	8.5	0.5	0.5	0.6	0.5	0.5	8.5	29.7	37.3	39.8
107.5°	29.2	8.7	0.5	0.5	0.7	0.5	0.5	8.7	29.2	36.9	39.4
110°	28.7	8.8	0.5	0.5	0.6	0.5	0.5	8.8	28.7	36.5	38.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	28.2	8.9	0.5	0.5	0.7	0.5	0.5	8.9	28.2	36.0	38.3
115°	27.7	9.3	0.5	0.5	0.7	0.5	0.5	9.3	27.7	35.6	37.7
117.5°	27.1	9.4	0.5	0.5	0.6	0.5	0.5	9.4	27.1	35.2	36.9
120°	26.5	9.6	0.5	0.5	0.6	0.5	0.5	9.6	26.5	34.8	36.4
122.5°	25.9	10.0	0.5	0.5	0.7	0.5	0.5	10.0	25.9	34.3	35.6
125°	25.4	10.2	0.5	0.5	0.7	0.5	0.5	10.2	25.4	33.8	35.0
127.5°	24.8	10.5	0.5	0.5	0.5	0.5	0.5	10.5	24.8	33.1	34.3
130°	24.2	10.7	0.6	0.5	0.6	0.5	0.6	10.7	24.2	32.5	33.8
132.5°	23.6	11.1	0.9	0.5	0.7	0.5	0.9	11.1	23.6	31.5	33.3
135°	23.0	11.5	1.3	0.5	0.7	0.5	1.3	11.5	23.0	30.7	32.6
137.5°	22.5	11.8	1.7	0.5	0.6	0.5	1.7	11.8	22.5	29.8	31.9
140°	22.0	12.0	2.4	0.5	0.7	0.5	2.4	12.0	22.0	28.9	31.2
142.5°	21.4	12.4	3.0	0.5	0.7	0.5	3.0	12.4	21.4	27.9	30.4
145°	20.8	12.6	3.9	0.7	0.6	0.7	3.9	12.6	20.8	27.0	29.9
147.5°	20.4	12.9	4.6	1.1	0.9	1.1	4.6	12.9	20.4	25.8	29.1
150°	19.9	13.3	5.6	1.6	1.1	1.6	5.6	13.3	19.9	25.0	28.7
152.5°	19.4	13.6	6.4	2.5	1.8	2.5	6.4	13.6	19.4	24.0	28.0
155°	18.9	14.0	7.4	3.5	2.8	3.5	7.4	14.0	18.9	22.9	26.9
157.5°	18.4	14.2	8.3	4.7	4.0	4.7	8.3	14.2	18.4	22.0	25.6
160°	18.1	14.6	9.4	6.1	5.2	6.1	9.4	14.6	18.1	21.2	24.4
162.5°	17.8	14.9	10.4	7.6	6.7	7.6	10.4	14.9	17.8	20.5	23.3
165°	17.4	15.0	11.5	8.8	8.1	8.8	11.5	15.0	17.4	19.8	22.2
167.5°	17.1	15.3	12.5	10.2	9.8	10.2	12.5	15.3	17.1	19.0	21.0
170°	16.9	15.4	13.3	11.7	11.2	11.7	13.3	15.4	16.9	18.4	20.0
172.5°	16.8	15.7	14.1	12.9	12.6	12.9	14.1	15.7	16.8	17.6	18.9
175°	16.6	15.9	14.8	14.0	14.1	14.0	14.8	15.9	16.6	17.1	17.9
177.5°	16.3	16.1	15.6	15.2	15.3	15.2	15.6	16.1	16.3	16.6	16.8
180°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2



TEST NUMBER: 19170  
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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	33.5	33.5	33.5	33.5	33.5	33.5
2.5°	36.5	37.1	36.5	35.0	33.5	32.2
5°	38.5	39.3	38.5	36.7	34.3	32.3
7.5°	40.4	41.0	40.4	37.9	35.0	32.3
10°	42.0	43.0	42.0	39.3	35.7	32.4
12.5°	43.2	44.0	43.2	40.3	36.4	32.5
15°	44.3	44.5	44.3	41.5	37.0	32.6
17.5°	44.2	43.4	44.2	42.4	37.5	32.6
20°	43.0	42.1	43.0	43.1	38.2	32.6
22.5°	42.2	41.6	42.2	43.2	38.7	32.7
25°	41.8	41.5	41.8	43.2	39.3	32.7
27.5°	41.8	41.9	41.8	42.3	39.8	32.8
30°	42.1	42.7	42.1	41.7	40.2	32.8
32.5°	42.9	43.6	42.9	41.2	40.8	33.1
35°	43.4	44.4	43.4	40.8	41.2	33.0
37.5°	44.1	45.4	44.1	40.5	41.4	33.1
40°	44.8	46.3	44.8	40.8	42.0	33.2
42.5°	45.6	47.2	45.6	41.2	42.3	33.1
45°	46.4	48.4	46.4	41.7	42.6	33.3
47.5°	47.2	49.6	47.2	42.1	42.9	33.2
50°	47.8	50.7	47.8	42.5	43.2	33.3
52.5°	48.6	52.0	48.6	42.8	43.2	33.2
55°	49.6	53.5	49.6	43.0	43.0	33.3
57.5°	50.3	54.7	50.3	43.2	42.9	33.3
60°	51.0	55.5	51.0	43.2	42.9	33.4
62.5°	51.6	56.2	51.6	43.4	42.5	33.4
65°	52.5	56.7	52.5	43.6	42.1	33.4
67.5°	53.1	57.0	53.1	43.6	41.8	33.4
70°	53.5	57.3	53.5	43.6	41.4	33.4
72.5°	53.7	57.7	53.7	43.7	40.8	33.3
75°	54.0	57.9	54.0	43.6	40.4	33.3
77.5°	54.1	57.9	54.1	43.4	40.1	33.1
80°	54.2	58.2	54.2	43.2	39.7	33.0
82.5°	54.3	58.6	54.3	43.0	39.6	32.9
85°	54.2	59.0	54.2	42.6	39.2	32.7
87.5°	53.9	58.7	53.9	42.3	38.8	32.4
90°	53.7	58.1	53.7	41.8	38.4	32.1
92.5°	53.1	57.5	53.1	41.3	39.9	31.8
95°	52.8	56.9	52.8	41.2	39.3	31.4
97.5°	51.6	56.1	51.6	41.0	38.8	31.1
100°	50.9	55.2	50.9	40.6	38.3	30.6
102.5°	49.7	54.5	49.7	40.4	37.9	30.2
105°	48.9	53.8	48.9	39.8	37.3	29.7
107.5°	48.2	53.0	48.2	39.4	36.9	29.2
110°	47.3	52.0	47.3	38.7	36.5	28.7





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	46.3	51.1	46.3	38.3	36.0	28.2
115°	45.3	50.0	45.3	37.7	35.6	27.7
117.5°	44.2	48.8	44.2	36.9	35.2	27.1
120°	43.3	47.6	43.3	36.4	34.8	26.5
122.5°	42.3	46.1	42.3	35.6	34.3	25.9
125°	41.3	44.8	41.3	35.0	33.8	25.4
127.5°	40.3	43.2	40.3	34.3	33.1	24.8
130°	39.1	41.7	39.1	33.8	32.5	24.2
132.5°	38.1	40.3	38.1	33.3	31.5	23.6
135°	36.9	38.8	36.9	32.6	30.7	23.0
137.5°	35.7	37.4	35.7	31.9	29.8	22.5
140°	34.6	36.1	34.6	31.2	28.9	22.0
142.5°	33.6	34.8	33.6	30.4	27.9	21.4
145°	32.6	33.5	32.6	29.9	27.0	20.8
147.5°	31.6	32.5	31.6	29.1	25.8	20.4
150°	30.3	31.4	30.3	28.7	25.0	19.9
152.5°	29.0	30.1	29.0	28.0	24.0	19.4
155°	28.2	28.9	28.2	26.9	22.9	18.9
157.5°	27.5	28.0	27.5	25.6	22.0	18.4
160°	26.6	27.3	26.6	24.4	21.2	18.1
162.5°	25.4	26.2	25.4	23.3	20.5	17.8
165°	24.0	25.0	24.0	22.2	19.8	17.4
167.5°	22.5	23.5	22.5	21.0	19.0	17.1
170°	21.3	22.1	21.3	20.0	18.4	16.9
172.5°	20.0	20.5	20.0	18.9	17.6	16.8
175°	18.5	19.0	18.5	17.9	17.1	16.6
177.5°	17.1	17.3	17.1	16.8	16.6	16.3
180°	16.2	16.2	16.2	16.2	16.2	16.2

(END OF REPORT)