

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: 20442

Luminaire Tested: **610-CFL/2/26**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 20442
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 610-CFL/2/26
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: -

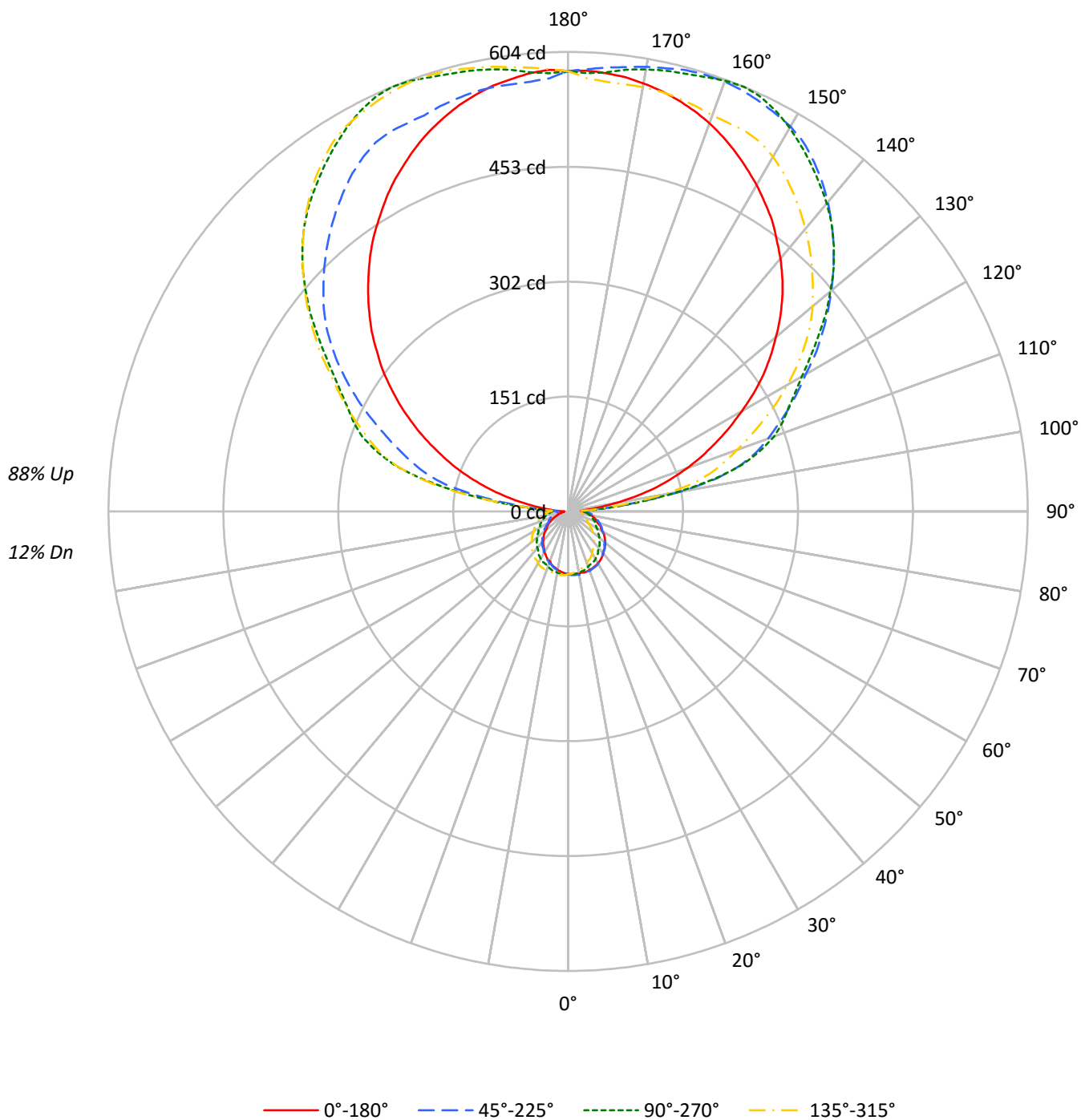
Summary

Lumens per Lamp: 3600 (1 lamp)
Luminaire Lumens: 2334.4 lumens
Efficiency: 64.8%
Efficacy: 48.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.3 / 1.41
Luminous Opening: (L: 0 ' x W: -1.08 ' x H: 0.15 '
CIE Type: Semi-Indirect

Input Watts (W): 48
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

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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
RCR																	
0	64	64	64	64	56	56	56	56	40	40	40		27	27	27		14
1	58	55	52	50	50	48	46	44	35	34	32		23	22	21		12
2	52	48	44	41	45	42	39	36	30	28	27		20	19	18		10
3	48	42	37	34	41	37	33	30	27	24	22		17	16	15		9
4	43	37	32	28	38	32	28	25	24	21	19		15	14	12		8
5	40	33	28	24	34	29	24	21	21	18	16		14	12	11		7
6	36	29	24	21	32	25	21	18	19	16	14		12	11	9		6
7	34	26	21	18	29	23	19	16	17	14	12		11	9	8		6
8	31	23	19	15	27	21	17	14	15	12	10		10	8	7		5
9	29	21	17	14	25	19	15	12	14	11	9		9	7	6		5
10	27	19	15	12	23	17	13	11	13	10	8		8	7	6		4

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	Luminous shape not found, reference photometric report, or contact the photometric lab for calculations.			
5°				
10°				
15°				
20°				
25°				
30°				
35°				
40°				
45°				
50°				
55°				
60°				
65°				
70°				
75°				
80°				
85°				

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	7.8	0.3	0.2
10°-20°	22.4	1.0	0.6
20°-30°	34.3	1.5	1.0
30°-40°	41.7	1.8	1.2
40°-50°	44.3	1.9	1.2
50°-60°	42.1	1.8	1.2
60°-70°	37.1	1.6	1.0
70°-80°	31.2	1.3	0.9
80°-90°	23.3	1.0	0.6
90°-100°	57.0	2.4	1.6
100°-110°	204.3	8.8	5.7
110°-120°	285.2	12.2	7.9
120°-130°	338.6	14.5	9.4
130°-140°	356.5	15.3	9.9
140°-150°	328.4	14.1	9.1
150°-160°	261.1	11.2	7.3
160°-170°	163.8	7.0	4.6
170°-180°	55.2	2.4	1.5
0°-30°	64.5	2.8	1.8
0°-40°	106.2	4.5	3.0
0°-60°	192.6	8.3	5.4
0°-90°	284.2	12.2	7.9
90°-120°	546.5	23.4	15.2
90°-150°	1570.1	67.3	43.6
90°-180°	2050.0	87.8	56.9
0°-180°	2334.4	100.0	64.8

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	82	82	82	82	82	
5°	82	82	80	82	82	8
15°	83	80	75	80	83	23
25°	80	75	67	75	80	37
35°	76	68	56	68	76	47
45°	68	58	45	58	68	52
55°	58	48	34	48	58	52
65°	47	41	22	41	47	46
75°	36	33	12	33	36	39
85°	26	25	6	25	26	22
90°	20	20	5	20	20	11
95°	23	51	20	51	23	28
105°	116	237	98	237	116	122
115°	214	319	191	319	214	212
125°	313	401	285	401	313	279
135°	398	494	370	494	398	307
145°	467	557	444	557	467	292
155°	521	601	506	601	521	240
165°	560	596	553	596	560	158
175°	578	579	578	579	578	55
180°	579	579	579	579	579	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
2.5°	82.3	83.9	83.6	81.8	82.5	82.1	82.3	81.2	81.5	81.2	82.3
5°	82.5	83.9	83.9	83.1	82.4	81.0	81.0	80.7	80.5	80.7	81.0
7.5°	83.1	83.9	84.1	82.5	82.4	80.5	79.7	78.1	79.4	78.1	79.7
10°	83.4	83.6	84.7	82.8	81.5	79.4	78.3	77.8	78.1	77.8	78.3
12.5°	82.3	84.1	84.1	82.8	80.8	78.1	77.3	75.5	76.2	75.5	77.3
15°	83.1	84.7	82.8	81.0	80.2	77.0	75.7	73.5	74.9	73.5	75.7
17.5°	82.8	84.1	82.3	81.8	78.9	75.1	73.3	73.3	73.1	73.3	73.3
20°	81.8	83.6	83.1	81.0	77.1	73.8	72.2	70.1	69.6	70.1	72.2
22.5°	81.5	83.1	82.1	80.1	75.5	71.6	69.6	69.3	68.8	69.3	69.6
25°	80.5	82.3	81.2	78.8	74.6	69.8	68.5	66.6	66.6	66.6	68.5
27.5°	79.7	80.1	80.5	77.8	73.8	68.0	65.9	63.2	64.0	63.2	65.9
30°	78.6	78.6	79.1	76.2	72.0	65.9	63.7	61.9	62.1	61.9	63.7
32.5°	77.3	78.3	76.2	73.3	70.0	63.2	60.0	58.9	58.7	58.9	60.0
35°	75.7	76.4	75.7	71.4	68.1	61.1	57.6	55.8	56.0	55.8	57.6
37.5°	73.8	75.5	73.5	70.9	64.6	58.9	56.3	54.7	54.1	54.7	56.3
40°	72.2	73.5	70.9	68.5	62.7	56.3	53.9	50.7	51.2	50.7	53.9
42.5°	69.0	69.8	70.1	66.6	61.1	53.9	49.9	48.8	47.8	48.8	49.9
45°	68.3	69.3	67.7	64.3	58.5	51.5	47.8	44.6	45.1	44.6	47.8
47.5°	65.9	66.6	64.3	61.6	55.6	48.8	44.4	42.0	42.2	42.0	44.4
50°	63.7	64.5	62.9	59.8	53.5	45.4	42.5	40.1	37.9	40.1	42.5
52.5°	61.1	62.1	59.5	57.4	51.0	43.1	39.8	37.2	35.0	37.2	39.8
55°	58.4	59.3	57.8	53.6	47.8	40.7	35.9	33.2	33.5	33.2	35.9
57.5°	55.8	56.9	55.4	52.3	46.0	38.3	33.7	31.3	30.8	31.3	33.7
60°	51.5	52.6	52.1	49.7	43.2	35.3	30.6	28.4	27.4	28.4	30.6
62.5°	48.8	49.9	50.2	47.5	41.3	34.6	28.7	25.2	25.0	25.2	28.7
65°	47.3	48.4	48.4	46.0	40.6	32.6	27.9	23.6	21.7	23.6	27.9
67.5°	43.3	45.7	46.0	44.0	38.3	31.1	26.0	21.0	18.4	21.0	26.0
70°	40.7	43.3	43.6	42.2	37.1	29.5	25.2	18.0	15.7	18.0	25.2
72.5°	39.4	39.6	41.4	39.6	34.4	28.9	23.4	17.0	14.4	17.0	23.4
75°	36.4	38.3	39.4	37.2	32.6	27.1	22.8	15.7	12.5	15.7	22.8
77.5°	34.0	35.3	35.6	35.9	31.0	25.5	21.0	13.0	9.3	13.0	21.0
80°	31.3	32.9	33.2	33.7	28.9	23.9	19.4	13.0	9.0	13.0	19.4
82.5°	28.7	30.3	31.9	30.3	27.1	20.8	16.7	10.9	7.2	10.9	16.7
85°	25.8	27.9	28.7	27.6	24.8	19.7	14.6	10.1	6.4	10.1	14.6
87.5°	21.7	23.9	26.9	26.9	23.0	17.8	14.1	9.3	6.1	9.3	14.1
90°	20.4	21.2	24.5	23.9	20.2	15.4	12.5	7.5	5.3	7.5	12.5
92.5°	16.7	18.9	21.2	24.7	25.8	23.9	19.1	14.1	9.6	14.1	19.1
95°	23.2	33.7	44.0	48.6	51.3	49.7	42.5	33.5	20.4	33.5	42.5
97.5°	39.6	66.9	92.1	102.2	93.3	87.6	78.8	64.3	34.6	64.3	78.8
100°	63.5	121.9	149.7	160.9	144.7	137.5	123.7	100.3	52.8	100.3	123.7
102.5°	89.2	164.3	199.6	206.0	195.9	191.3	165.7	129.8	74.9	129.8	165.7
105°	116.5	195.4	234.6	237.0	236.7	233.1	193.7	153.9	98.3	153.9	193.7
107.5°	142.0	220.4	259.8	260.7	264.0	255.1	215.0	179.5	121.3	179.5	215.0
110°	165.9	244.2	279.3	284.5	288.0	273.4	236.0	205.5	145.8	205.5	236.0

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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°	190.6	268.1	298.7	302.6	304.6	290.2	258.9	230.4	168.8	230.4	258.9
115°	214.2	293.5	319.9	318.5	318.7	308.4	283.0	254.5	191.3	254.5	283.0
117.5°	238.9	318.2	339.8	336.3	335.4	328.1	308.4	277.7	215.8	277.7	308.4
120°	263.3	342.7	360.5	356.7	354.5	350.1	332.6	299.4	238.9	299.4	332.6
122.5°	288.8	369.2	385.2	382.5	377.0	374.8	357.0	322.5	262.8	322.5	357.0
125°	313.0	392.4	407.5	405.9	401.1	400.5	379.5	344.3	285.1	344.3	379.5
127.5°	335.3	414.9	430.0	431.1	426.8	424.4	400.9	366.1	307.9	366.1	400.9
130°	356.5	435.9	451.7	454.7	449.9	445.1	419.4	385.2	328.3	385.2	419.4
132.5°	378.0	455.8	472.7	479.1	473.3	463.7	436.1	404.5	350.1	404.5	436.1
135°	398.1	473.3	493.5	501.2	493.7	480.2	453.1	421.3	369.5	421.3	453.1
137.5°	416.7	487.6	512.8	520.0	512.6	495.3	469.6	437.2	389.1	437.2	469.6
140°	434.0	502.5	531.1	538.3	528.7	509.7	485.0	451.7	407.7	451.7	485.0
142.5°	450.2	515.8	547.6	554.5	542.8	522.9	499.8	463.7	426.8	463.7	499.8
145°	467.2	527.7	562.2	570.1	556.8	536.2	513.9	474.6	444.3	474.6	513.9
147.5°	481.2	538.3	575.5	585.2	569.9	547.6	527.2	485.5	460.3	485.5	527.2
150°	495.5	546.3	584.3	598.3	582.2	559.3	538.3	496.4	477.0	496.4	538.3
152.5°	508.3	553.9	589.8	609.5	592.7	568.3	547.1	508.0	492.4	508.0	547.1
155°	520.8	560.6	594.6	616.7	600.6	576.2	551.3	518.9	506.2	518.9	551.3
157.5°	532.5	566.2	598.8	618.5	604.2	579.2	552.4	529.6	519.7	529.6	552.4
160°	543.1	571.5	601.4	616.9	602.7	577.8	553.9	538.3	532.2	538.3	553.9
162.5°	551.9	574.7	601.4	616.1	598.7	574.4	558.5	545.2	542.8	545.2	558.5
165°	559.6	578.4	600.5	614.7	595.6	571.5	562.0	550.6	552.9	550.6	562.0
167.5°	566.2	581.0	596.7	609.2	593.5	573.6	565.1	555.8	561.1	555.8	565.1
170°	571.2	582.4	593.5	603.6	590.0	574.9	566.4	560.3	568.3	560.3	566.4
172.5°	575.8	582.4	589.0	594.8	585.7	572.0	566.2	565.9	573.1	565.9	566.2
175°	578.2	582.6	585.6	588.5	579.4	571.0	567.0	570.7	578.2	570.7	567.0
177.5°	580.0	580.6	581.9	582.6	576.4	571.0	569.9	574.7	581.0	574.7	569.9
180°	578.8	578.8	578.8	578.8	578.8	578.8	578.8	578.8	578.8	578.8	578.8

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	82.3	82.3	82.3	82.3	82.3	82.3
2.5°	82.1	82.5	81.8	83.6	83.9	82.3
5°	81.0	82.4	83.1	83.9	83.9	82.5
7.5°	80.5	82.4	82.5	84.1	83.9	83.1
10°	79.4	81.5	82.8	84.7	83.6	83.4
12.5°	78.1	80.8	82.8	84.1	84.1	82.3
15°	77.0	80.2	81.0	82.8	84.7	83.1
17.5°	75.1	78.9	81.8	82.3	84.1	82.8
20°	73.8	77.1	81.0	83.1	83.6	81.8
22.5°	71.6	75.5	80.1	82.1	83.1	81.5
25°	69.8	74.6	78.8	81.2	82.3	80.5
27.5°	68.0	73.8	77.8	80.5	80.1	79.7
30°	65.9	72.0	76.2	79.1	78.6	78.6
32.5°	63.2	70.0	73.3	76.2	78.3	77.3
35°	61.1	68.1	71.4	75.7	76.4	75.7
37.5°	58.9	64.6	70.9	73.5	75.5	73.8
40°	56.3	62.7	68.5	70.9	73.5	72.2
42.5°	53.9	61.1	66.6	70.1	69.8	69.0
45°	51.5	58.5	64.3	67.7	69.3	68.3
47.5°	48.8	55.6	61.6	64.3	66.6	65.9
50°	45.4	53.5	59.8	62.9	64.5	63.7
52.5°	43.1	51.0	57.4	59.5	62.1	61.1
55°	40.7	47.8	53.6	57.8	59.3	58.4
57.5°	38.3	46.0	52.3	55.4	56.9	55.8
60°	35.3	43.2	49.7	52.1	52.6	51.5
62.5°	34.6	41.3	47.5	50.2	49.9	48.8
65°	32.6	40.6	46.0	48.4	48.4	47.3
67.5°	31.1	38.3	44.0	46.0	45.7	43.3
70°	29.5	37.1	42.2	43.6	43.3	40.7
72.5°	28.9	34.4	39.6	41.4	39.6	39.4
75°	27.1	32.6	37.2	39.4	38.3	36.4
77.5°	25.5	31.0	35.9	35.6	35.3	34.0
80°	23.9	28.9	33.7	33.2	32.9	31.3
82.5°	20.8	27.1	30.3	31.9	30.3	28.7
85°	19.7	24.8	27.6	28.7	27.9	25.8
87.5°	17.8	23.0	26.9	26.9	23.9	21.7
90°	15.4	20.2	23.9	24.5	21.2	20.4
92.5°	23.9	25.8	24.7	21.2	18.9	16.7
95°	49.7	51.3	48.6	44.0	33.7	23.2
97.5°	87.6	93.3	102.2	92.1	66.9	39.6
100°	137.5	144.7	160.9	149.7	121.9	63.5
102.5°	191.3	195.9	206.0	199.6	164.3	89.2
105°	233.1	236.7	237.0	234.6	195.4	116.5
107.5°	255.1	264.0	260.7	259.8	220.4	142.0
110°	273.4	288.0	284.5	279.3	244.2	165.9

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	290.2	304.6	302.6	298.7	268.1	190.6
115°	308.4	318.7	318.5	319.9	293.5	214.2
117.5°	328.1	335.4	336.3	339.8	318.2	238.9
120°	350.1	354.5	356.7	360.5	342.7	263.3
122.5°	374.8	377.0	382.5	385.2	369.2	288.8
125°	400.5	401.1	405.9	407.5	392.4	313.0
127.5°	424.4	426.8	431.1	430.0	414.9	335.3
130°	445.1	449.9	454.7	451.7	435.9	356.5
132.5°	463.7	473.3	479.1	472.7	455.8	378.0
135°	480.2	493.7	501.2	493.5	473.3	398.1
137.5°	495.3	512.6	520.0	512.8	487.6	416.7
140°	509.7	528.7	538.3	531.1	502.5	434.0
142.5°	522.9	542.8	554.5	547.6	515.8	450.2
145°	536.2	556.8	570.1	562.2	527.7	467.2
147.5°	547.6	569.9	585.2	575.5	538.3	481.2
150°	559.3	582.2	598.3	584.3	546.3	495.5
152.5°	568.3	592.7	609.5	589.8	553.9	508.3
155°	576.2	600.6	616.7	594.6	560.6	520.8
157.5°	579.2	604.2	618.5	598.8	566.2	532.5
160°	577.8	602.7	616.9	601.4	571.5	543.1
162.5°	574.4	598.7	616.1	601.4	574.7	551.9
165°	571.5	595.6	614.7	600.5	578.4	559.6
167.5°	573.6	593.5	609.2	596.7	581.0	566.2
170°	574.9	590.0	603.6	593.5	582.4	571.2
172.5°	572.0	585.7	594.8	589.0	582.4	575.8
175°	571.0	579.4	588.5	585.6	582.6	578.2
177.5°	571.0	576.4	582.6	581.9	580.6	580.0
180°	578.8	578.8	578.8	578.8	578.8	578.8

(END OF REPORT)