

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: 19172

Luminaire Tested: **676-WP-CF1/26**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19172
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 676-WP-CF1/26
Description: EXTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS
Light Source: ONE SYLVANIA 26 WATT CPFL LAMP

CF26DD/E/841. LUMEN RATING = 1800 LMS.

Ballast/Driver: -

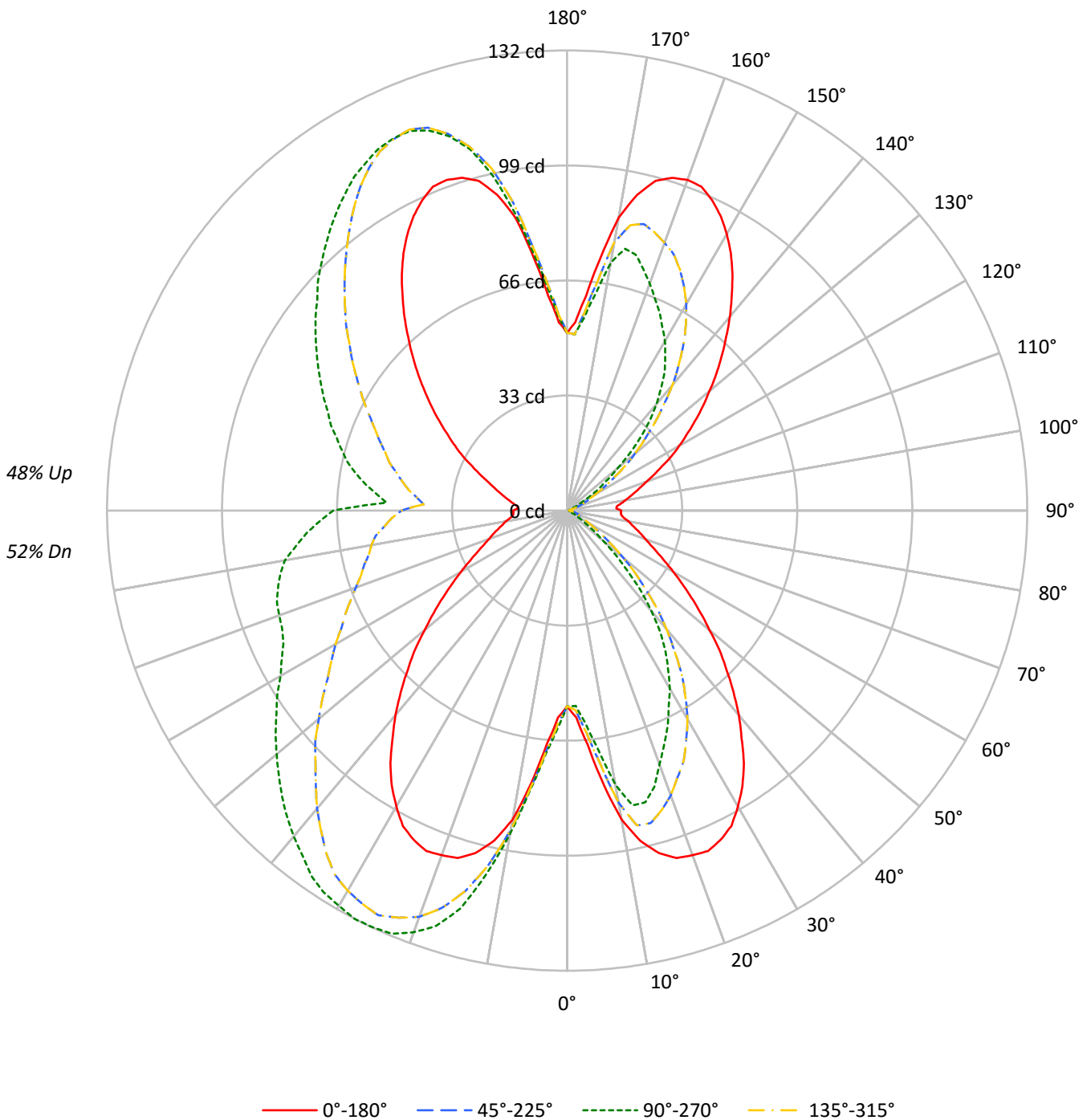
Summary

Lumens per Lamp: 1800 (1 lamp)
Luminaire Lumens: 631.5 lumens
Efficiency: 35.1%
Efficacy: 23.4 lumens/watt
Spacing Criteria (0/90/45): 1.84 / 1.89 / 1.75
Luminous Opening: Rectangular (W 0.33' x L: 0.58' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 27
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

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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	38	38	38	38	35	35	35	35	30	30	30	25	25	25	20	20	20	18
1	34	32	31	29	31	30	28	27	25	24	23	21	20	19	17	17	16	14
2	31	28	25	23	28	26	24	22	22	20	19	18	17	16	15	14	13	12
3	28	24	22	19	26	23	20	18	19	17	16	16	15	13	13	12	11	10
4	26	22	19	16	23	20	17	15	17	15	13	14	13	11	12	10	10	8
5	23	19	16	14	22	18	15	13	15	13	11	13	11	10	10	9	8	7
6	22	17	14	12	20	16	13	11	14	12	10	11	10	9	9	8	7	6
7	20	15	13	11	18	14	12	10	12	10	9	10	9	8	9	7	6	5
8	18	14	11	9	17	13	11	9	11	9	8	10	8	7	8	7	6	5
9	17	13	10	8	16	12	9	8	10	8	7	9	7	6	7	6	5	4
10	16	12	9	7	15	11	9	7	9	8	6	8	7	5	7	6	5	4

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3155	3155	3155	3155
5°	3799	3466	3799	3946
10°	5139	4557	5139	5368
15°	5921	5042	5921	6876
20°	6296	4632	6296	7702
25°	6466	4232	6466	8185
30°	6364	3825	6364	8500
35°	6069	3371	6069	8781
40°	5623	2753	5623	8956
45°	5146	1941	5146	9202
50°	4663	1190	4663	9519
55°	4265	637	4265	9981
60°	3959	315	3959	10674
65°	3806	226	3806	11950
70°	3913	197	3913	14453
75°	4454	261	4454	18665
80°	5797	324	5797	26621
85°	10066	452	10066	48459



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	7.1	1.1	0.4
10°-20°	28.7	4.5	1.6
20°-30°	47.0	7.4	2.6
30°-40°	54.8	8.7	3.0
40°-50°	51.6	8.2	2.9
50°-60°	43.1	6.8	2.4
60°-70°	36.4	5.8	2.0
70°-80°	32.6	5.2	1.8
80°-90°	28.3	4.5	1.6
90°-100°	23.5	3.7	1.3
100°-110°	27.8	4.4	1.5
110°-120°	33.5	5.3	1.9
120°-130°	41.2	6.5	2.3
130°-140°	48.4	7.7	2.7
140°-150°	50.7	8.0	2.8
150°-160°	43.7	6.9	2.4
160°-170°	26.8	4.2	1.5
170°-180°	6.5	1.0	0.4
0°-30°	82.8	13.1	4.6
0°-40°	137.6	21.8	7.6
0°-60°	232.3	36.8	12.9
0°-90°	329.5	52.2	18.3
90°-120°	84.7	13.4	4.7
90°-150°	224.9	35.6	12.5
90°-180°	302.0	47.8	16.8
0°-180°	631.5	100.0	35.1

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	56	56	56	56	56	
5°	67	61	67	70	67	7
15°	102	87	102	118	102	29
25°	104	68	104	132	104	48
35°	88	49	88	128	88	55
45°	65	24	65	116	65	50
55°	44	6	44	102	44	39
65°	29	2	29	90	29	29
75°	20	1	20	86	20	22
85°	16	1	16	75	16	13
90°	16	0	16	67	16	8
95°	14	0	14	55	14	12
105°	20	1	20	67	20	21
115°	30	2	30	77	30	30
125°	45	11	45	88	45	40
135°	63	30	63	100	63	48
145°	83	49	83	111	83	52
155°	98	63	98	118	98	45
165°	98	76	98	107	98	27
175°	62	55	62	64	62	7
180°	51	51	51	51	51	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
2.5°	59.4	58.2	57.3	56.4	56.1	56.4	57.3	58.2	59.4	61.3	61.3
5°	67.3	65.4	64.0	62.4	61.4	62.4	64.0	65.4	67.3	70.0	69.4
7.5°	78.8	75.8	73.4	70.5	69.4	70.5	73.4	75.8	78.8	81.8	80.0
10°	90.0	87.6	85.1	81.9	79.8	81.9	85.1	87.6	90.0	93.8	92.8
12.5°	97.0	93.5	92.5	89.4	86.6	89.4	92.5	93.5	97.0	102.7	104.0
15°	101.7	95.2	92.8	90.2	86.6	90.2	92.8	95.2	101.7	109.9	113.0
17.5°	104.5	95.1	90.1	86.9	83.1	86.9	90.1	95.1	104.5	114.5	119.5
20°	105.2	94.2	86.9	81.1	77.4	81.1	86.9	94.2	105.2	117.4	124.0
22.5°	105.7	92.0	82.8	75.8	72.7	75.8	82.8	92.0	105.7	118.1	126.4
25°	104.2	88.9	79.1	70.4	68.2	70.4	79.1	88.9	104.2	118.3	128.1
27.5°	102.0	85.3	74.0	64.8	63.1	64.8	74.0	85.3	102.0	116.7	127.2
30°	98.0	80.6	69.0	60.3	58.9	60.3	69.0	80.6	98.0	113.7	125.9
32.5°	93.6	74.9	63.1	55.7	53.9	55.7	63.1	74.9	93.6	110.3	123.9
35°	88.4	69.3	57.3	49.8	49.1	49.8	57.3	69.3	88.4	105.5	120.3
37.5°	82.2	62.5	50.4	44.7	43.8	44.7	50.4	62.5	82.2	100.0	115.9
40°	76.6	56.3	44.3	38.8	37.5	38.8	44.3	56.3	76.6	94.5	111.6
42.5°	70.6	50.4	38.3	32.6	31.5	32.6	38.3	50.4	70.6	88.8	106.7
45°	64.7	43.6	31.6	26.9	24.4	26.9	31.6	43.6	64.7	83.5	102.1
47.5°	59.3	38.1	26.3	20.8	18.9	20.8	26.3	38.1	59.3	78.1	98.0
50°	53.3	32.4	20.9	16.2	13.6	16.2	20.9	32.4	53.3	72.4	93.0
52.5°	48.3	26.9	16.1	11.7	9.7	11.7	16.1	26.9	48.3	67.7	88.5
55°	43.5	22.4	12.5	7.8	6.5	7.8	12.5	22.4	43.5	62.5	83.8
57.5°	39.1	18.3	9.5	5.8	4.7	5.8	9.5	18.3	39.1	58.6	80.2
60°	35.2	14.2	7.0	3.7	2.8	3.7	7.0	14.2	35.2	54.6	76.7
62.5°	31.6	11.8	5.8	3.3	2.5	3.3	5.8	11.8	31.6	51.5	73.0
65°	28.6	10.1	4.7	2.8	1.7	2.8	4.7	10.1	28.6	48.5	70.2
67.5°	26.0	8.4	3.8	1.8	1.4	1.8	3.8	8.4	26.0	45.8	67.2
70°	23.8	7.1	3.1	1.7	1.2	1.7	3.1	7.1	23.8	43.6	64.5
72.5°	22.2	5.4	3.2	1.9	1.4	1.9	3.2	5.4	22.2	41.4	62.0
75°	20.5	4.7	2.5	1.7	1.2	1.7	2.5	4.7	20.5	39.5	60.3
77.5°	19.0	3.3	2.1	1.3	1.1	1.3	2.1	3.3	19.0	38.0	58.2
80°	17.9	2.5	1.8	1.1	1.0	1.1	1.8	2.5	17.9	36.2	57.0
82.5°	16.5	2.4	0.9	0.6	0.6	0.6	0.9	2.4	16.5	35.0	55.4
85°	15.6	1.8	0.9	0.6	0.7	0.6	0.9	1.8	15.6	33.4	52.6
87.5°	15.4	1.6	1.1	1.0	0.5	1.0	1.1	1.6	15.4	31.9	50.4
90°	15.5	1.8	0.8	0.6	0.5	0.6	0.8	1.8	15.5	30.9	47.5
92.5°	14.1	1.3	0.5	0.5	0.5	0.5	0.5	1.3	14.1	29.7	41.2
95°	14.3	1.1	0.5	0.5	0.5	0.5	0.5	1.1	14.3	30.7	43.3
97.5°	15.6	1.7	0.5	0.5	0.5	0.5	0.5	1.7	15.6	32.3	45.9
100°	16.9	3.0	1.1	0.5	0.5	0.5	1.1	3.0	16.9	33.6	48.0
102.5°	18.4	3.8	1.5	0.8	0.5	0.8	1.5	3.8	18.4	35.3	50.1
105°	20.1	4.7	1.4	0.5	0.7	0.5	1.4	4.7	20.1	37.5	52.7
107.5°	22.0	5.9	2.0	0.8	0.6	0.8	2.0	5.9	22.0	39.1	54.6
110°	24.2	7.7	3.2	1.6	1.2	1.6	3.2	7.7	24.2	41.6	57.0



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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°	27.0	9.2	4.1	2.0	1.5	2.0	4.1	9.2	27.0	43.6	59.4
115°	30.0	12.0	5.6	2.8	2.2	2.8	5.6	12.0	30.0	46.6	62.1
117.5°	33.7	14.9	7.3	4.3	3.5	4.3	7.3	14.9	33.7	49.7	65.3
120°	37.1	18.0	9.8	6.1	5.4	6.1	9.8	18.0	37.1	53.2	68.4
122.5°	40.7	22.1	12.7	8.9	8.2	8.9	12.7	22.1	40.7	56.7	71.7
125°	44.8	25.8	16.3	12.0	11.3	12.0	16.3	25.8	44.8	60.5	75.3
127.5°	49.0	30.3	20.8	16.4	14.7	16.4	20.8	30.3	49.0	64.6	78.7
130°	53.3	34.9	25.4	20.8	19.0	20.8	25.4	34.9	53.3	68.4	82.8
132.5°	58.0	40.0	30.0	25.1	24.4	25.1	30.0	40.0	58.0	72.7	86.4
135°	62.7	45.5	35.5	30.0	29.9	30.0	35.5	45.5	62.7	77.0	90.3
137.5°	67.5	51.1	40.8	35.0	35.2	35.0	40.8	51.1	67.5	81.5	94.3
140°	72.6	56.5	47.1	40.4	39.8	40.4	47.1	56.5	72.6	85.7	98.3
142.5°	77.5	62.4	52.5	45.2	44.2	45.2	52.5	62.4	77.5	90.6	102.4
145°	82.7	67.6	58.2	50.5	48.8	50.5	58.2	67.6	82.7	95.0	106.5
147.5°	87.4	72.8	63.4	54.9	52.3	54.9	63.4	72.8	87.4	99.5	110.3
150°	91.6	78.1	68.3	59.0	56.1	59.0	68.3	78.1	91.6	103.2	113.6
152.5°	95.3	82.2	72.6	62.9	59.2	62.9	72.6	82.2	95.3	106.5	116.2
155°	98.3	86.2	76.4	66.8	62.7	66.8	76.4	86.2	98.3	108.9	117.6
157.5°	100.6	88.8	79.7	70.3	65.8	70.3	79.7	88.8	100.6	110.2	118.3
160°	100.9	90.9	81.7	73.3	69.3	73.3	81.7	90.9	100.9	110.0	116.9
162.5°	100.1	91.5	83.6	76.2	72.6	76.2	83.6	91.5	100.1	108.1	113.3
165°	97.9	90.6	85.1	78.5	76.0	78.5	85.1	90.6	97.9	104.5	108.0
167.5°	92.8	87.9	83.9	78.1	76.9	78.1	83.9	87.9	92.8	97.8	100.6
170°	85.3	81.7	78.1	73.4	72.2	73.4	78.1	81.7	85.3	88.7	89.9
172.5°	73.1	69.8	66.1	63.0	62.8	63.0	66.1	69.8	73.1	76.7	76.8
175°	61.8	59.4	57.0	54.9	55.4	54.9	57.0	59.4	61.8	64.6	65.5
177.5°	54.1	52.3	50.6	49.7	50.6	49.7	50.6	52.3	54.1	55.5	56.3
180°	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	56.1	56.1	56.1	56.1	56.1	56.1
2.5°	61.4	62.4	61.4	61.3	61.3	59.4
5°	69.1	69.9	69.1	69.4	70.0	67.3
7.5°	79.2	80.6	79.2	80.0	81.8	78.8
10°	91.8	94.0	91.8	92.8	93.8	90.0
12.5°	104.4	106.7	104.4	104.0	102.7	97.0
15°	115.1	118.1	115.1	113.0	109.9	101.7
17.5°	123.5	124.9	123.5	119.5	114.5	104.5
20°	128.4	128.7	128.4	124.0	117.4	105.2
22.5°	130.6	131.4	130.6	126.4	118.1	105.7
25°	132.1	131.9	132.1	128.1	118.3	104.2
27.5°	131.5	132.0	131.5	127.2	116.7	102.0
30°	130.0	130.9	130.0	125.9	113.7	98.0
32.5°	128.1	129.9	128.1	123.9	110.3	93.6
35°	125.5	127.9	125.5	120.3	105.5	88.4
37.5°	122.3	124.7	122.3	115.9	100.0	82.2
40°	118.8	122.0	118.8	111.6	94.5	76.6
42.5°	114.9	119.0	114.9	106.7	88.8	70.6
45°	111.2	115.7	111.2	102.1	83.5	64.7
47.5°	107.5	112.2	107.5	98.0	78.1	59.3
50°	103.0	108.8	103.0	93.0	72.4	53.3
52.5°	99.1	105.4	99.1	88.5	67.7	48.3
55°	94.7	101.8	94.7	83.8	62.5	43.5
57.5°	91.4	98.6	91.4	80.2	58.6	39.1
60°	87.9	94.9	87.9	76.7	54.6	35.2
62.5°	84.5	92.3	84.5	73.0	51.5	31.6
65°	81.5	89.8	81.5	70.2	48.5	28.6
67.5°	78.6	88.5	78.6	67.2	45.8	26.0
70°	76.8	87.9	76.8	64.5	43.6	23.8
72.5°	75.4	87.3	75.4	62.0	41.4	22.2
75°	73.9	85.9	73.9	60.3	39.5	20.5
77.5°	72.0	84.3	72.0	58.2	38.0	19.0
80°	70.3	82.2	70.3	57.0	36.2	17.9
82.5°	67.0	78.5	67.0	55.4	35.0	16.5
85°	63.8	75.1	63.8	52.6	33.4	15.6
87.5°	60.3	71.1	60.3	50.4	31.9	15.4
90°	56.4	67.1	56.4	47.5	30.9	15.5
92.5°	45.0	51.8	45.0	41.2	29.7	14.1
95°	47.6	54.9	47.6	43.3	30.7	14.3
97.5°	50.6	58.4	50.6	45.9	32.3	15.6
100°	53.6	61.6	53.6	48.0	33.6	16.9
102.5°	56.4	64.6	56.4	50.1	35.3	18.4
105°	58.9	66.9	58.9	52.7	37.5	20.1
107.5°	61.3	69.3	61.3	54.6	39.1	22.0
110°	63.9	72.2	63.9	57.0	41.6	24.2



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CATALOG NUMBER: 676-WP-CF1/26

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	66.9	74.3	66.9	59.4	43.6	27.0
115°	69.6	77.1	69.6	62.1	46.6	30.0
117.5°	72.3	79.7	72.3	65.3	49.7	33.7
120°	75.5	82.5	75.5	68.4	53.2	37.1
122.5°	78.5	85.2	78.5	71.7	56.7	40.7
125°	81.9	88.1	81.9	75.3	60.5	44.8
127.5°	85.1	91.0	85.1	78.7	64.6	49.0
130°	88.6	93.6	88.6	82.8	68.4	53.3
132.5°	91.8	97.0	91.8	86.4	72.7	58.0
135°	95.4	99.8	95.4	90.3	77.0	62.7
137.5°	98.9	102.7	98.9	94.3	81.5	67.5
140°	102.4	105.6	102.4	98.3	85.7	72.6
142.5°	106.0	108.4	106.0	102.4	90.6	77.5
145°	109.2	111.0	109.2	106.5	95.0	82.7
147.5°	112.4	113.6	112.4	110.3	99.5	87.4
150°	115.3	115.3	115.3	113.6	103.2	91.6
152.5°	117.2	117.1	117.2	116.2	106.5	95.3
155°	118.9	117.8	118.9	117.6	108.9	98.3
157.5°	118.9	117.9	118.9	118.3	110.2	100.6
160°	117.4	116.0	117.4	116.9	110.0	100.9
162.5°	114.3	112.6	114.3	113.3	108.1	100.1
165°	108.5	107.2	108.5	108.0	104.5	97.9
167.5°	100.0	98.3	100.0	100.6	97.8	92.8
170°	89.3	86.8	89.3	89.9	88.7	85.3
172.5°	75.5	74.6	75.5	76.8	76.7	73.1
175°	64.9	64.1	64.9	65.5	64.6	61.8
177.5°	55.9	55.4	55.9	56.3	55.5	54.1
180°	51.0	51.0	51.0	51.0	51.0	51.0

(END OF REPORT)