

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: 19163

Luminaire Tested: **607-CF2/13**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19163
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 607-CF2/13
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS
Light Source: TWO SYLVANIA 13 WATT CPFL LAMPS

CF13DS/E/830. LUMEN RATING = 1600 LMS.

Ballast/Driver: -

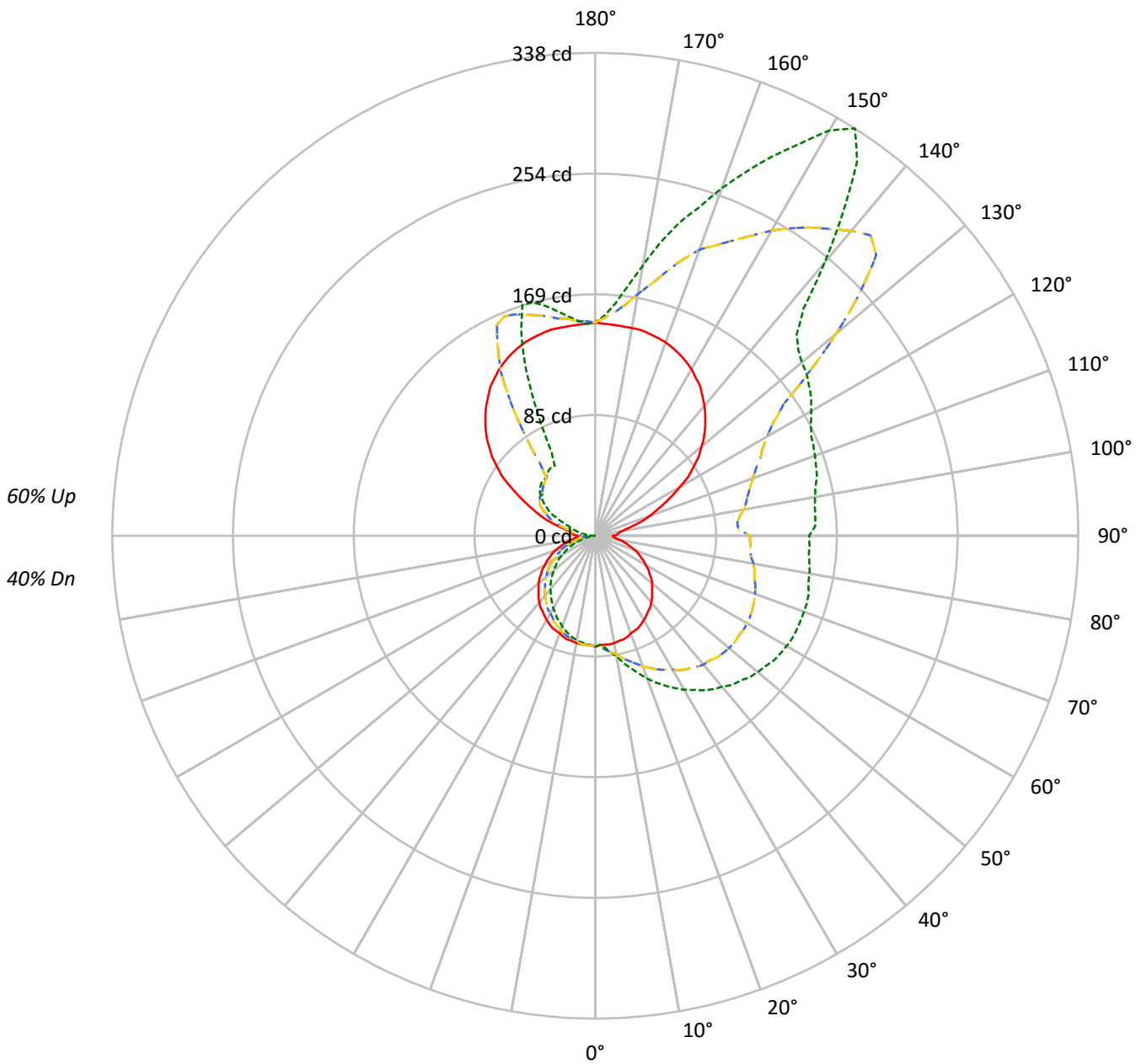
Summary

Lumens per Lamp: 1600 (1 lamp)
Luminaire Lumens: 1103.2 lumens
Efficiency: 68.9%
Efficacy: 40.9 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.79 / 1.8
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 1.27' x H: 0.42')
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



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



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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	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	72	72	72	72	66	66	66	66	54	54	54	43	43	43	32	32	32	28																												
1	64	60	57	54	58	55	52	49	44	42	40	35	33	32	26	25	24	20																												
2	58	52	47	43	52	47	43	39	38	35	32	29	27	25	22	20	19	15																												
3	52	45	39	35	47	41	36	32	33	29	26	25	23	21	19	17	15	12																												
4	47	39	33	29	43	36	30	26	29	25	22	22	19	17	16	14	13	10																												
5	43	35	29	24	39	32	26	22	25	21	18	20	17	14	15	12	11	8																												
6	40	31	25	21	36	28	23	19	23	19	16	18	15	12	13	11	9	7																												
7	37	28	22	18	33	25	20	16	20	16	14	16	13	11	12	10	8	6																												
8	34	25	19	16	31	23	18	14	19	15	12	15	12	9	11	9	7	5																												
9	31	23	17	14	28	21	16	13	17	13	10	13	10	8	10	8	6	5																												
10	29	21	16	12	26	19	14	11	15	12	9	12	9	7	9	7	6	4																												

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	2271	2271	2271	2271
5°	2181	2054	2181	1974
10°	2137	2024	2137	1756
15°	2090	2090	2090	1556
20°	2021	2167	2021	1377
25°	1992	2227	1992	1222
30°	1927	2288	1927	1079
35°	1866	2338	1866	951
40°	1819	2377	1819	840
45°	1749	2421	1749	738
50°	1689	2477	1689	629
55°	1599	2529	1599	541
60°	1513	2574	1513	440
65°	1420	2619	1420	352
70°	1330	2667	1330	256
75°	1178	2726	1178	169
80°	1054	2782	1054	88
85°	947	2865	947	27



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	7.5	0.7	0.5
10°-20°	23.0	2.1	1.4
20°-30°	38.4	3.5	2.4
30°-40°	52.2	4.7	3.3
40°-50°	62.5	5.7	3.9
50°-60°	68.4	6.2	4.3
60°-70°	68.9	6.2	4.3
70°-80°	64.4	5.8	4.0
80°-90°	58.3	5.3	3.6
90°-100°	57.7	5.2	3.6
100°-110°	66.5	6.0	4.2
110°-120°	81.4	7.4	5.1
120°-130°	94.7	8.6	5.9
130°-140°	107.3	9.7	6.7
140°-150°	105.4	9.6	6.6
150°-160°	82.5	7.5	5.2
160°-170°	49.3	4.5	3.1
170°-180°	14.9	1.4	0.9
0°-30°	68.8	6.2	4.3
0°-40°	121.0	11.0	7.6
0°-60°	251.9	22.8	15.7
0°-90°	443.5	40.2	27.7
90°-120°	205.6	18.6	12.8
90°-150°	513.0	46.5	32.1
90°-180°	660.0	59.8	41.3
0°-180°	1103.2	100.0	68.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	78	78	78	78	78	
5°	76	79	76	76	76	7
15°	75	96	75	71	75	21
25°	71	116	71	64	71	33
35°	64	132	64	54	64	40
45°	56	143	56	44	56	44
55°	46	152	46	33	46	42
65°	35	156	35	21	35	35
75°	23	155	23	10	23	25
85°	14	150	14	1	14	12
90°	12	150	12	0	12	7
95°	16	154	16	5	16	14
105°	28	161	28	14	28	30
115°	53	167	53	31	53	53
125°	84	183	84	46	84	75
135°	109	199	109	53	109	84
145°	128	319	128	56	128	80
155°	140	293	140	97	140	65
165°	146	227	146	169	146	41
175°	148	164	148	152	148	14
180°	149	149	149	149	149	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
2.5°	76.6	78.1	77.8	78.7	76.3	78.7	77.8	78.1	76.6	76.9	76.9
5°	76.5	78.7	80.1	80.5	78.9	80.5	80.1	78.7	76.5	76.7	76.9
7.5°	76.7	79.2	82.1	83.3	82.1	83.3	82.1	79.2	76.7	75.2	76.3
10°	76.2	80.1	84.2	87.3	85.6	87.3	84.2	80.1	76.2	75.2	75.3
12.5°	75.5	80.7	87.6	91.1	91.3	91.1	87.6	80.7	75.5	74.5	74.5
15°	75.2	82.1	90.7	96.7	95.9	96.7	90.7	82.1	75.2	73.6	73.2
17.5°	74.3	83.1	93.8	101.3	101.1	101.3	93.8	83.1	74.3	72.7	72.1
20°	72.8	83.3	97.3	105.3	106.4	105.3	97.3	83.3	72.8	71.6	70.7
22.5°	71.9	84.4	100.2	110.4	111.3	110.4	100.2	84.4	71.9	69.6	68.5
25°	71.3	85.1	103.3	114.6	115.7	114.6	103.3	85.1	71.3	69.2	67.4
27.5°	69.5	86.2	105.7	118.8	120.2	118.8	105.7	86.2	69.5	67.4	64.7
30°	68.0	86.9	108.2	122.2	124.5	122.2	108.2	86.9	68.0	65.8	62.7
32.5°	66.3	87.6	111.5	126.5	127.9	126.5	111.5	87.6	66.3	63.5	61.5
35°	64.4	87.8	113.7	129.9	132.0	129.9	113.7	87.8	64.4	61.2	59.5
37.5°	63.1	87.1	115.9	132.3	135.4	132.3	115.9	87.1	63.1	59.8	56.7
40°	60.9	87.1	117.7	136.0	138.0	136.0	117.7	87.1	60.9	57.9	54.8
42.5°	58.8	87.8	118.3	138.5	141.6	138.5	118.3	87.8	58.8	54.8	52.1
45°	56.3	87.1	120.5	140.3	143.4	140.3	120.5	87.1	56.3	53.0	49.7
47.5°	53.8	86.0	121.4	143.1	146.5	143.1	121.4	86.0	53.8	50.8	47.5
50°	51.8	86.0	122.2	144.3	148.5	144.3	122.2	86.0	51.8	48.4	45.0
52.5°	49.4	84.9	122.8	145.8	150.0	145.8	122.8	84.9	49.4	46.0	42.6
55°	46.2	83.8	122.3	147.8	152.3	147.8	122.3	83.8	46.2	42.6	39.5
57.5°	44.0	82.7	122.8	148.6	153.5	148.6	122.8	82.7	44.0	40.4	37.2
60°	40.7	80.7	122.8	149.6	154.5	149.6	122.8	80.7	40.7	37.1	33.5
62.5°	38.1	78.7	122.2	150.0	155.4	150.0	122.2	78.7	38.1	34.4	31.5
65°	35.1	77.6	121.2	149.4	155.5	149.4	121.2	77.6	35.1	32.2	28.0
67.5°	32.5	75.6	120.3	149.1	155.4	149.1	120.3	75.6	32.5	28.6	25.8
70°	29.7	73.6	119.0	148.6	155.4	148.6	119.0	73.6	29.7	25.8	22.9
72.5°	26.2	70.5	117.4	148.6	155.4	148.6	117.4	70.5	26.2	22.9	19.6
75°	23.3	68.1	115.3	147.6	154.6	147.6	115.3	68.1	23.3	20.2	17.1
77.5°	20.5	66.5	114.2	146.3	152.6	146.3	114.2	66.5	20.5	17.8	14.0
80°	18.0	64.1	112.4	145.1	152.3	145.1	112.4	64.1	18.0	14.9	12.0
82.5°	14.7	61.6	109.7	143.6	151.1	143.6	109.7	61.6	14.7	12.9	9.4
85°	13.5	60.3	109.0	142.0	150.0	142.0	109.0	60.3	13.5	10.7	8.0
87.5°	12.2	59.2	108.4	142.0	150.0	142.0	108.4	59.2	12.2	10.5	6.9
90°	12.2	58.7	108.2	141.8	149.6	141.8	108.2	58.7	12.2	10.0	6.5
92.5°	15.2	47.9	100.2	136.5	154.0	136.5	100.2	47.9	15.2	13.1	9.6
95°	15.7	50.4	99.7	137.2	154.5	137.2	99.7	50.4	15.7	15.4	12.3
97.5°	17.1	52.6	101.7	138.3	154.9	138.3	101.7	52.6	17.1	17.6	14.5
100°	18.7	55.0	105.5	139.6	156.0	139.6	105.5	55.0	18.7	20.2	17.4
102.5°	22.5	57.0	108.2	141.6	157.8	141.6	108.2	57.0	22.5	24.0	19.6
105°	27.9	59.8	110.4	144.9	160.6	144.9	110.4	59.8	27.9	28.2	23.8
107.5°	34.4	64.3	113.7	147.1	162.0	147.1	113.7	64.3	34.4	30.2	28.2
110°	40.7	76.9	117.4	148.3	163.5	148.3	117.4	76.9	40.7	30.4	33.1



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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°	46.3	97.8	121.4	150.3	165.1	150.3	121.4	97.8	46.3	30.6	36.0
115°	53.0	119.3	127.4	154.3	166.6	154.3	127.4	119.3	53.0	32.0	39.2
117.5°	60.6	137.4	131.9	159.8	170.1	159.8	131.9	137.4	60.6	34.0	42.4
120°	68.5	145.4	138.5	165.1	174.4	165.1	138.5	145.4	68.5	35.1	45.2
122.5°	77.0	152.3	147.8	169.5	179.2	169.5	147.8	152.3	77.0	40.4	46.0
125°	83.7	157.1	160.9	173.2	182.6	173.2	160.9	157.1	83.7	51.9	47.5
127.5°	91.2	163.1	189.0	176.0	186.4	176.0	189.0	163.1	91.2	68.3	46.8
130°	97.0	167.3	220.2	181.9	188.6	181.9	220.2	167.3	97.0	85.6	48.4
132.5°	103.4	170.6	250.8	190.7	192.7	190.7	250.8	170.6	103.4	101.1	49.7
135°	108.7	173.7	278.0	210.7	199.2	210.7	278.0	173.7	108.7	114.4	51.0
137.5°	113.9	175.7	285.1	243.4	215.6	243.4	285.1	175.7	113.9	127.9	51.9
140°	118.8	178.4	278.5	277.1	249.7	277.1	278.5	178.4	118.8	134.9	53.0
142.5°	123.1	179.2	270.5	307.7	284.0	307.7	270.5	179.2	123.1	138.9	63.0
145°	127.8	179.5	263.4	324.4	319.2	324.4	263.4	179.5	127.8	142.5	84.9
147.5°	131.0	177.7	255.2	313.9	338.1	313.9	255.2	177.7	131.0	144.5	109.3
150°	134.6	176.1	246.6	298.9	327.5	298.9	246.6	176.1	134.6	146.5	131.9
152.5°	137.4	173.7	236.8	284.5	309.2	284.5	236.8	173.7	137.4	146.7	147.4
155°	140.0	171.3	228.0	270.3	292.9	270.3	228.0	171.3	140.0	147.6	162.9
157.5°	142.1	169.1	220.0	255.7	275.8	255.7	220.0	169.1	142.1	149.1	166.2
160°	144.0	167.3	213.1	241.1	258.8	241.1	213.1	167.3	144.0	149.6	164.9
162.5°	145.2	164.6	202.5	227.8	240.8	227.8	202.5	164.6	145.2	150.5	162.2
165°	146.4	161.1	191.0	214.5	226.7	214.5	191.0	161.1	146.4	150.0	159.8
167.5°	147.5	159.4	180.4	199.0	210.1	199.0	180.4	159.4	147.5	150.6	157.4
170°	147.6	156.6	171.7	184.6	192.1	184.6	171.7	156.6	147.6	149.8	154.5
172.5°	147.8	155.4	163.3	171.1	176.6	171.1	163.3	155.4	147.8	150.9	153.4
175°	148.2	153.4	157.1	160.6	163.5	160.6	157.1	153.4	148.2	150.6	150.6
177.5°	148.5	151.5	152.9	152.6	154.5	152.6	152.9	151.5	148.5	150.0	150.3
180°	149.3	149.3	149.3	149.3	149.3	149.3	149.3	149.3	149.3	149.3	149.3



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	77.7	77.7	77.7	77.7	77.7	77.7
2.5°	77.8	76.7	77.8	76.9	76.9	76.6
5°	76.5	75.8	76.5	76.9	76.7	76.5
7.5°	76.1	75.2	76.1	76.3	75.2	76.7
10°	75.8	74.3	75.8	75.3	75.2	76.2
12.5°	73.8	73.0	73.8	74.5	74.5	75.5
15°	73.2	71.4	73.2	73.2	73.6	75.2
17.5°	71.4	69.6	71.4	72.1	72.7	74.3
20°	69.0	67.6	69.0	70.7	71.6	72.8
22.5°	67.6	65.0	67.6	68.5	69.6	71.9
25°	65.2	63.5	65.2	67.4	69.2	71.3
27.5°	62.7	60.7	62.7	64.7	67.4	69.5
30°	60.3	58.7	60.3	62.7	65.8	68.0
32.5°	58.7	56.1	58.7	61.5	63.5	66.3
35°	56.6	53.7	56.6	59.5	61.2	64.4
37.5°	53.5	51.2	53.5	56.7	59.8	63.1
40°	51.0	48.8	51.0	54.8	57.9	60.9
42.5°	49.0	46.4	49.0	52.1	54.8	58.8
45°	46.6	43.7	46.6	49.7	53.0	56.3
47.5°	44.0	40.9	44.0	47.5	50.8	53.8
50°	40.4	37.7	40.4	45.0	48.4	51.8
52.5°	38.0	35.2	38.0	42.6	46.0	49.4
55°	35.5	32.6	35.5	39.5	42.6	46.2
57.5°	32.6	30.0	32.6	37.2	40.4	44.0
60°	30.4	26.4	30.4	33.5	37.1	40.7
62.5°	27.4	23.8	27.4	31.5	34.4	38.1
65°	24.6	20.9	24.6	28.0	32.2	35.1
67.5°	21.8	17.8	21.8	25.8	28.6	32.5
70°	18.9	14.9	18.9	22.9	25.8	29.7
72.5°	15.4	12.5	15.4	19.6	22.9	26.2
75°	12.9	9.6	12.9	17.1	20.2	23.3
77.5°	9.8	7.4	9.8	14.0	17.8	20.5
80°	7.4	4.8	7.4	12.0	14.9	18.0
82.5°	5.9	2.9	5.9	9.4	12.9	14.7
85°	3.6	1.4	3.6	8.0	10.7	13.5
87.5°	3.4	0.5	3.4	6.9	10.5	12.2
90°	2.8	0.5	2.8	6.5	10.0	12.2
92.5°	5.6	2.8	5.6	9.6	13.1	15.2
95°	7.8	4.9	7.8	12.3	15.4	15.7
97.5°	10.0	7.4	10.0	14.5	17.6	17.1
100°	13.1	9.8	13.1	17.4	20.2	18.7
102.5°	15.4	12.3	15.4	19.6	24.0	22.5
105°	18.5	14.5	18.5	23.8	28.2	27.9
107.5°	21.4	17.6	21.4	28.2	30.2	34.4
110°	25.5	20.2	25.5	33.1	30.4	40.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	30.4	25.5	30.4	36.0	30.6	46.3
115°	35.1	30.6	35.1	39.2	32.0	53.0
117.5°	39.1	36.0	39.1	42.4	34.0	60.6
120°	41.7	39.2	41.7	45.2	35.1	68.5
122.5°	45.5	42.8	45.5	46.0	40.4	77.0
125°	47.9	45.7	47.9	47.5	51.9	83.7
127.5°	50.4	48.8	50.4	46.8	68.3	91.2
130°	51.2	50.8	51.2	48.4	85.6	97.0
132.5°	52.3	51.9	52.3	49.7	101.1	103.4
135°	52.3	53.0	52.3	51.0	114.4	108.7
137.5°	52.6	53.0	52.6	51.9	127.9	113.9
140°	54.3	53.0	54.3	53.0	134.9	118.8
142.5°	55.7	55.2	55.7	63.0	138.9	123.1
145°	55.9	56.3	55.9	84.9	142.5	127.8
147.5°	56.6	57.0	56.6	109.3	144.5	131.0
150°	65.5	56.7	65.5	131.9	146.5	134.6
152.5°	90.9	66.7	90.9	147.4	146.7	137.4
155°	121.4	97.3	121.4	162.9	147.6	140.0
157.5°	145.1	127.4	145.1	166.2	149.1	142.1
160°	164.0	151.4	164.0	164.9	149.6	144.0
162.5°	170.0	169.5	170.0	162.2	150.5	145.2
165°	166.2	169.1	166.2	159.8	150.0	146.4
167.5°	162.2	165.1	162.2	157.4	150.6	147.5
170°	158.2	160.2	158.2	154.5	149.8	147.6
172.5°	154.6	155.4	154.6	153.4	150.9	147.8
175°	150.5	151.5	150.5	150.6	150.6	148.2
177.5°	148.3	148.5	148.3	150.3	150.0	148.5
180°	149.3	149.3	149.3	149.3	149.3	149.3

(END OF REPORT)