

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: 18661A

Luminaire Tested: **624/4-CF1/26-BL**

Issue Date: 3/3/2020

**Test Information**

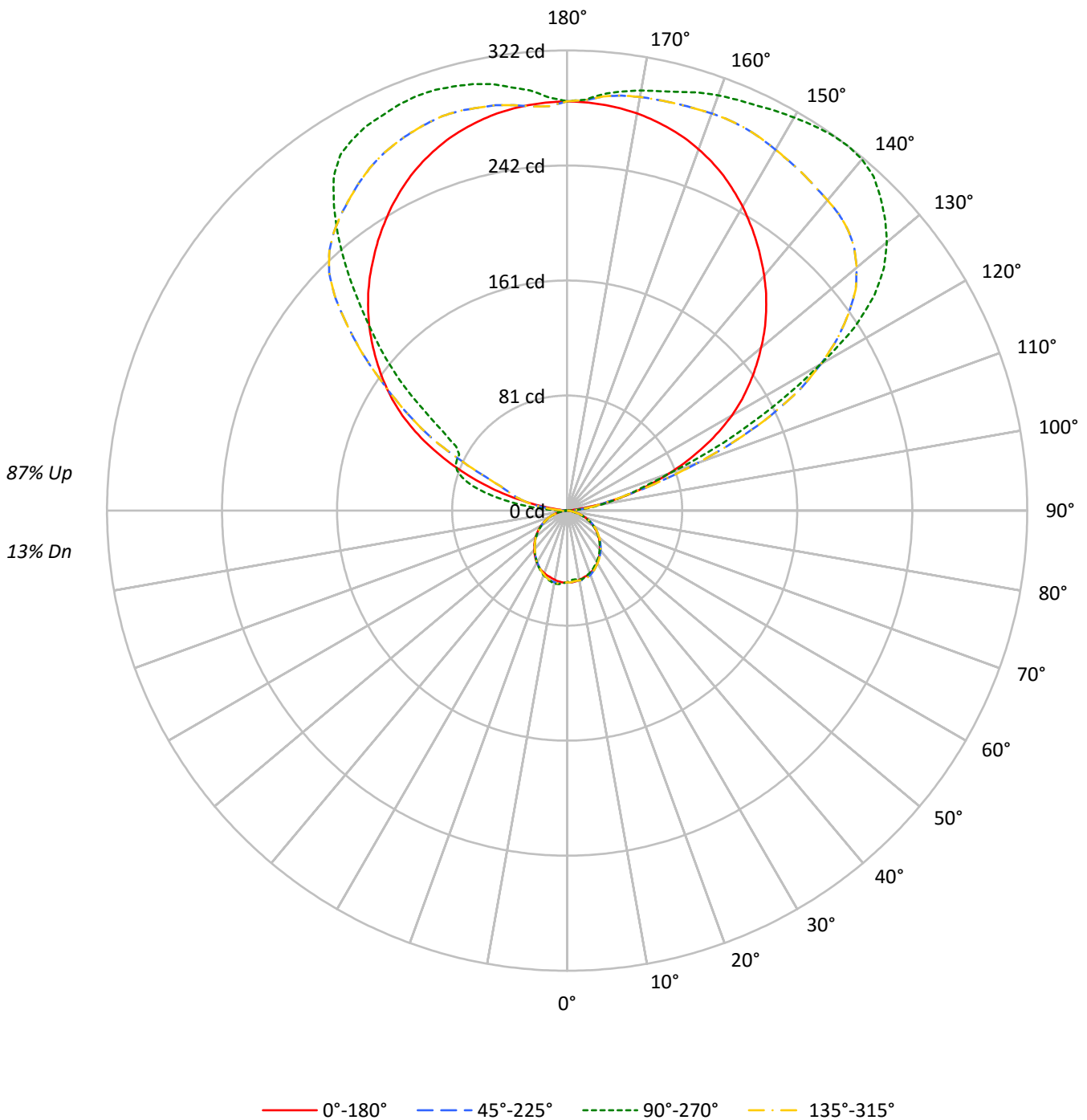
Test Method: LM-66-11  
Report Number: 18661A  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 624/4-CF1/26-BL  
Description: FLUORESCENT WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE FLAT  
PLASTIC LENS  
Light Source: ONE 26 WATT CPFL LAMP. LUMEN RATING = 1800 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1800 (1 lamp)  
Luminaire Lumens: 1086.5 lumens  
Efficiency: 60.4%  
Efficacy: -  
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35  
Luminous Opening: Rectangular (W 0.21' x L: 0.67' x H: 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: 18661A  
CATALOG NUMBER: 624/4-CF1/26-BL

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	0														
RCR																																						
0	59	59	59	59	52	52	52	52	38	38	38	25	25	25	13	13	13	8																				
1	54	52	49	47	47	45	43	42	33	32	31	22	21	21	12	11	11	6																				
2	49	45	41	39	43	39	36	34	29	27	25	19	18	17	10	10	9	5																				
3	45	39	35	32	39	35	31	28	25	23	21	17	16	14	9	8	8	5																				
4	41	35	30	27	35	30	27	24	22	20	18	15	14	12	8	7	7	4																				
5	37	31	26	23	32	27	23	20	20	17	15	13	12	11	7	6	6	3																				
6	34	27	23	20	30	24	20	17	18	15	13	12	10	9	6	6	5	3																				
7	32	25	20	17	27	22	18	15	16	13	12	11	9	8	6	5	4	3																				
8	29	22	18	15	25	20	16	13	15	12	10	10	8	7	5	5	4	2																				
9	27	20	16	13	24	18	14	12	13	11	9	9	7	6	5	4	4	2																				
10	25	18	14	12	22	16	13	10	12	10	8	8	7	6	5	4	3	2																				

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

	0°	90°	180°	270°
0°	3840	3840	3840	3840
5°	3855	3725	3855	3955
10°	3822	3814	3822	4024
15°	3794	3818	3794	3976
20°	3794	3769	3794	3916
25°	3790	3714	3790	3824
30°	3728	3657	3728	3728
35°	3652	3596	3652	3624
40°	3565	3545	3565	3545
45°	3495	3484	3495	3451
50°	3428	3404	3428	3368
55°	3321	3334	3321	3268
60°	3213	3213	3213	3137
65°	3059	3041	3059	2987
70°	2885	2729	2885	2818
75°	2542	2158	2542	2601
80°	2027	1366	2027	2203
85°	1053	439	1053	1843



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	4.8	0.4	0.3
10°-20°	13.8	1.3	0.8
20°-30°	20.6	1.9	1.1
30°-40°	24.3	2.2	1.4
40°-50°	24.9	2.3	1.4
50°-60°	22.3	2.0	1.2
60°-70°	16.8	1.5	0.9
70°-80°	8.9	0.8	0.5
80°-90°	1.9	0.2	0.1
90°-100°	11.3	1.0	0.6
100°-110°	52.5	4.8	2.9
110°-120°	115.6	10.6	6.4
120°-130°	168.2	15.5	9.3
130°-140°	186.4	17.2	10.4
140°-150°	171.0	15.7	9.5
150°-160°	132.7	12.2	7.4
160°-170°	82.8	7.6	4.6
170°-180°	27.7	2.5	1.5
0°-30°	39.2	3.6	2.2
0°-40°	63.5	5.8	3.5
0°-60°	110.7	10.2	6.1
0°-90°	138.3	12.7	7.7
90°-120°	179.3	16.5	10.0
90°-150°	705.0	64.9	39.2
90°-180°	948.0	87.3	52.7
0°-180°	1086.5	100.0	60.4

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	50	50	50	50	50	
5°	50	48	50	52	50	5
15°	48	48	48	50	48	14
25°	45	44	45	45	45	21
35°	39	38	39	39	39	24
45°	32	32	32	32	32	25
55°	25	25	25	24	25	22
65°	17	17	17	16	17	17
75°	9	7	9	9	9	9
85°	1	0	1	2	1	2
90°	0	0	0	0	0	0
95°	3	10	3	22	3	6
105°	47	45	47	70	47	49
115°	106	138	106	85	106	104
125°	156	262	156	122	156	139
135°	197	310	197	206	197	152
145°	231	322	231	285	231	144
155°	259	313	259	305	259	119
165°	277	303	277	307	277	78
175°	285	293	285	295	285	27
180°	286	286	286	286	286	



TEST NUMBER: 18661A  
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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
2.5°	50.5	49.9	50.4	49.2	48.9	49.2	50.4	49.9	50.5	50.2	50.7
5°	50.2	49.5	49.8	48.8	48.5	48.8	49.8	49.5	50.2	50.2	51.0
7.5°	49.8	49.1	49.5	48.8	48.6	48.8	49.5	49.1	49.8	49.9	51.3
10°	49.2	48.8	49.7	49.1	49.1	49.1	49.7	48.8	49.2	49.7	51.0
12.5°	48.6	48.5	49.8	49.2	49.1	49.2	49.8	48.5	48.6	49.2	50.5
15°	47.9	48.2	49.7	48.6	48.2	48.6	49.7	48.2	47.9	48.6	49.8
17.5°	47.4	48.1	48.8	47.8	47.3	47.8	48.8	48.1	47.4	47.9	48.8
20°	46.6	47.3	47.8	46.6	46.3	46.6	47.8	47.3	46.6	46.9	47.5
22.5°	45.8	46.5	46.6	45.5	45.2	45.5	46.6	46.5	45.8	45.8	46.3
25°	44.9	45.3	45.3	44.3	44.0	44.3	45.3	45.3	44.9	44.6	44.9
27.5°	43.5	43.9	43.9	42.9	42.7	42.9	43.9	43.9	43.5	43.2	43.4
30°	42.2	42.6	42.6	41.7	41.4	41.7	42.6	42.6	42.2	41.6	41.9
32.5°	40.7	41.1	41.1	40.3	40.0	40.3	41.1	41.1	40.7	40.0	40.3
35°	39.1	39.6	39.6	38.8	38.5	38.8	39.6	39.6	39.1	38.5	38.7
37.5°	37.5	38.0	38.0	37.1	37.0	37.1	38.0	38.0	37.5	36.8	37.0
40°	35.7	36.2	36.4	35.5	35.5	35.5	36.4	36.2	35.7	35.1	35.2
42.5°	34.0	34.5	34.7	33.9	33.8	33.9	34.7	34.5	34.0	33.4	33.5
45°	32.3	32.9	32.9	32.2	32.2	32.2	32.9	32.9	32.3	31.6	31.8
47.5°	30.6	31.2	31.2	30.6	30.5	30.6	31.2	31.2	30.6	30.0	30.2
50°	28.8	29.5	29.5	28.9	28.6	28.9	29.5	29.5	28.8	28.2	28.3
52.5°	26.9	27.6	27.4	27.0	26.9	27.0	27.4	27.6	26.9	26.3	26.4
55°	24.9	25.7	25.6	25.1	25.0	25.1	25.6	25.7	24.9	24.4	24.5
57.5°	22.9	23.7	23.7	23.1	23.1	23.1	23.7	23.7	22.9	22.5	22.6
60°	21.0	21.5	21.5	21.2	21.0	21.2	21.5	21.5	21.0	20.5	20.8
62.5°	19.0	19.6	19.6	19.2	19.2	19.2	19.6	19.6	19.0	18.6	18.9
65°	16.9	17.6	17.6	17.1	16.8	17.1	17.6	17.6	16.9	16.4	16.7
67.5°	14.9	15.5	15.2	14.7	14.5	14.7	15.2	15.5	14.9	14.5	14.8
70°	12.9	13.4	13.1	12.4	12.2	12.4	13.1	13.4	12.9	12.5	12.8
72.5°	10.8	11.2	10.6	9.9	9.6	9.9	10.6	11.2	10.8	10.5	10.8
75°	8.6	8.9	8.2	7.6	7.3	7.6	8.2	8.9	8.6	8.5	8.8
77.5°	6.6	6.6	5.9	5.3	5.0	5.3	5.9	6.6	6.6	6.4	6.7
80°	4.6	4.6	3.9	3.3	3.1	3.3	3.9	4.6	4.6	4.6	5.0
82.5°	2.8	2.6	2.0	1.5	1.5	1.5	2.0	2.6	2.8	2.8	3.4
85°	1.2	1.1	0.8	0.7	0.5	0.7	0.8	1.1	1.2	1.5	2.1
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	1.1
90°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
92.5°	0.9	2.3	2.7	2.7	2.7	2.7	2.7	2.3	0.9	2.1	4.0
95°	2.8	6.0	8.2	9.0	9.5	9.0	8.2	6.0	2.8	6.6	9.3
97.5°	7.4	10.8	13.9	15.5	16.3	15.5	13.9	10.8	7.4	10.8	16.0
100°	19.4	19.7	21.5	23.5	24.5	23.5	21.5	19.7	19.4	15.2	24.0
102.5°	32.1	37.5	29.9	32.2	33.5	32.2	29.9	37.5	32.1	24.1	30.8
105°	46.7	60.8	45.9	42.9	44.7	42.9	45.9	60.8	46.7	40.9	37.1
107.5°	61.0	84.2	68.8	57.6	57.4	57.6	68.8	84.2	61.0	57.4	42.6
110°	76.1	107.4	96.4	82.8	75.3	82.8	96.4	107.4	76.1	76.1	49.2



TEST NUMBER: 18661A  
 CATALOG NUMBER: 624/4-CF1/26-BL

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	90.9	128.4	127.2	110.4	106.9	110.4	127.2	128.4	90.9	95.4	61.6
115°	105.5	146.2	157.0	141.2	137.7	141.2	157.0	146.2	105.5	114.4	80.2
117.5°	119.9	162.3	183.5	176.7	171.0	176.7	183.5	162.3	119.9	133.4	102.0
120°	133.1	175.9	205.1	209.7	204.4	209.7	205.1	175.9	133.1	148.4	121.2
122.5°	145.2	187.9	224.4	236.5	238.3	236.5	224.4	187.9	145.2	160.7	139.9
125°	156.2	198.5	240.5	256.2	262.4	256.2	240.5	198.5	156.2	171.1	159.4
127.5°	166.9	209.1	254.6	272.6	279.5	272.6	254.6	209.1	166.9	181.7	180.4
130°	177.2	218.4	264.4	286.4	292.0	286.4	264.4	218.4	177.2	192.1	200.3
132.5°	187.5	226.5	272.5	298.5	301.8	298.5	272.5	226.5	187.5	202.2	219.9
135°	196.9	234.0	277.9	307.6	310.0	307.6	277.9	234.0	196.9	211.7	235.6
137.5°	206.0	241.4	281.4	312.1	317.3	312.1	281.4	241.4	206.0	220.7	246.4
140°	214.6	248.2	283.5	314.5	320.9	314.5	283.5	248.2	214.6	228.8	254.0
142.5°	222.6	254.0	285.3	315.0	322.1	315.0	285.3	254.0	222.6	236.3	260.4
145°	230.7	259.3	287.7	314.4	321.5	314.4	287.7	259.3	230.7	243.8	265.8
147.5°	238.2	263.8	289.6	313.1	319.8	313.1	289.6	263.8	238.2	250.9	271.5
150°	245.6	268.0	291.6	311.8	317.6	311.8	291.6	268.0	245.6	257.6	276.5
152.5°	252.3	271.6	293.6	310.9	315.4	310.9	293.6	271.6	252.3	262.8	280.6
155°	258.7	275.3	295.2	310.3	312.8	310.3	295.2	275.3	258.7	267.7	283.7
157.5°	264.2	279.4	295.8	309.6	311.1	309.6	295.8	279.4	264.2	271.0	286.1
160°	269.0	282.7	295.8	308.6	309.2	308.6	295.8	282.7	269.0	273.8	288.0
162.5°	273.4	285.6	295.2	306.7	306.7	306.7	295.2	285.6	273.4	276.1	289.6
165°	276.8	288.0	294.8	304.4	303.3	304.4	294.8	288.0	276.8	277.8	289.6
167.5°	279.8	289.6	294.3	302.1	300.5	302.1	294.3	289.6	279.8	279.0	288.7
170°	282.2	290.4	293.9	300.4	298.5	300.4	293.9	290.4	282.2	279.5	288.0
172.5°	284.0	290.1	292.9	298.4	295.8	298.4	292.9	290.1	284.0	280.7	286.2
175°	285.2	289.3	290.9	295.6	292.6	295.6	290.9	289.3	285.2	281.9	283.7
177.5°	286.0	287.5	287.4	291.2	287.8	291.2	287.4	287.5	286.0	283.0	283.2
180°	286.3	286.3	286.3	286.3	286.3	286.3	286.3	286.3	286.3	286.3	286.3



TEST NUMBER: 18661A  
 CATALOG NUMBER: 624/4-CF1/26-BL

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	50.2	50.2	50.2	50.2	50.2	50.2
2.5°	50.4	50.7	50.4	50.7	50.2	50.5
5°	51.0	51.5	51.0	51.0	50.2	50.2
7.5°	51.3	51.8	51.3	51.3	49.9	49.8
10°	51.0	51.8	51.0	51.0	49.7	49.2
12.5°	50.5	51.1	50.5	50.5	49.2	48.6
15°	49.7	50.2	49.7	49.8	48.6	47.9
17.5°	48.6	49.1	48.6	48.8	47.9	47.4
20°	47.5	48.1	47.5	47.5	46.9	46.6
22.5°	46.2	46.6	46.2	46.3	45.8	45.8
25°	44.7	45.3	44.7	44.9	44.6	44.9
27.5°	43.3	43.7	43.3	43.4	43.2	43.5
30°	41.7	42.2	41.7	41.9	41.6	42.2
32.5°	40.0	40.4	40.0	40.3	40.0	40.7
35°	38.4	38.8	38.4	38.7	38.5	39.1
37.5°	36.8	37.1	36.8	37.0	36.8	37.5
40°	35.1	35.5	35.1	35.2	35.1	35.7
42.5°	33.5	33.6	33.5	33.5	33.4	34.0
45°	31.8	31.9	31.8	31.8	31.6	32.3
47.5°	30.0	30.2	30.0	30.2	30.0	30.6
50°	28.3	28.3	28.3	28.3	28.2	28.8
52.5°	26.4	26.4	26.4	26.4	26.3	26.9
55°	24.4	24.5	24.4	24.5	24.4	24.9
57.5°	22.5	22.5	22.5	22.6	22.5	22.9
60°	20.5	20.5	20.5	20.8	20.5	21.0
62.5°	18.6	18.6	18.6	18.9	18.6	19.0
65°	16.5	16.5	16.5	16.7	16.4	16.9
67.5°	14.7	14.7	14.7	14.8	14.5	14.9
70°	12.6	12.6	12.6	12.8	12.5	12.9
72.5°	10.6	10.6	10.6	10.8	10.5	10.8
75°	8.8	8.8	8.8	8.8	8.5	8.6
77.5°	6.7	6.7	6.7	6.7	6.4	6.6
80°	5.0	5.0	5.0	5.0	4.6	4.6
82.5°	3.4	3.4	3.4	3.4	2.8	2.8
85°	2.1	2.1	2.1	2.1	1.5	1.2
87.5°	1.0	1.0	1.0	1.1	0.7	0.5
90°	0.5	0.5	0.5	0.5	0.5	0.5
92.5°	7.9	9.9	7.9	4.0	2.1	0.9
95°	17.3	21.8	17.3	9.3	6.6	2.8
97.5°	27.6	34.7	27.6	16.0	10.8	7.4
100°	38.4	47.1	38.4	24.0	15.2	19.4
102.5°	49.5	59.2	49.5	30.8	24.1	32.1
105°	58.5	69.8	58.5	37.1	40.9	46.7
107.5°	65.0	77.0	65.0	42.6	57.4	61.0
110°	70.2	81.9	70.2	49.2	76.1	76.1





TEST NUMBER: 18661A  
 CATALOG NUMBER: 624/4-CF1/26-BL

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	73.5	84.4	73.5	61.6	95.4	90.9
115°	76.3	84.9	76.3	80.2	114.4	105.5
117.5°	82.6	85.2	82.6	102.0	133.4	119.9
120°	96.8	89.7	96.8	121.2	148.4	133.1
122.5°	116.5	103.0	116.5	139.9	160.7	145.2
125°	137.6	122.1	137.6	159.4	171.1	156.2
127.5°	157.8	144.9	157.8	180.4	181.7	166.9
130°	176.0	165.5	176.0	200.3	192.1	177.2
132.5°	197.3	185.3	197.3	219.9	202.2	187.5
135°	218.5	205.8	218.5	235.6	211.7	196.9
137.5°	238.9	227.7	238.9	246.4	220.7	206.0
140°	258.0	248.9	258.0	254.0	228.8	214.6
142.5°	273.6	267.9	273.6	260.4	236.3	222.6
145°	283.7	284.9	283.7	265.8	243.8	230.7
147.5°	289.3	295.3	289.3	271.5	250.9	238.2
150°	293.8	300.1	293.8	276.5	257.6	245.6
152.5°	296.3	303.6	296.3	280.6	262.8	252.3
155°	299.8	305.3	299.8	283.7	267.7	258.7
157.5°	302.0	307.4	302.0	286.1	271.0	264.2
160°	303.0	308.6	303.0	288.0	273.8	269.0
162.5°	302.8	308.5	302.8	289.6	276.1	273.4
165°	302.3	307.2	302.3	289.6	277.8	276.8
167.5°	301.5	305.6	301.5	288.7	279.0	279.8
170°	299.4	303.0	299.4	288.0	279.5	282.2
172.5°	296.5	298.7	296.5	286.2	280.7	284.0
175°	293.0	295.1	293.0	283.7	281.9	285.2
177.5°	289.1	289.3	289.1	283.2	283.0	286.0
180°	286.3	286.3	286.3	286.3	286.3	286.3

(END OF REPORT)