

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: 20441A

Luminaire Tested: **664-CFL/1/26**

Issue Date: 3/3/2020

**Test Information**

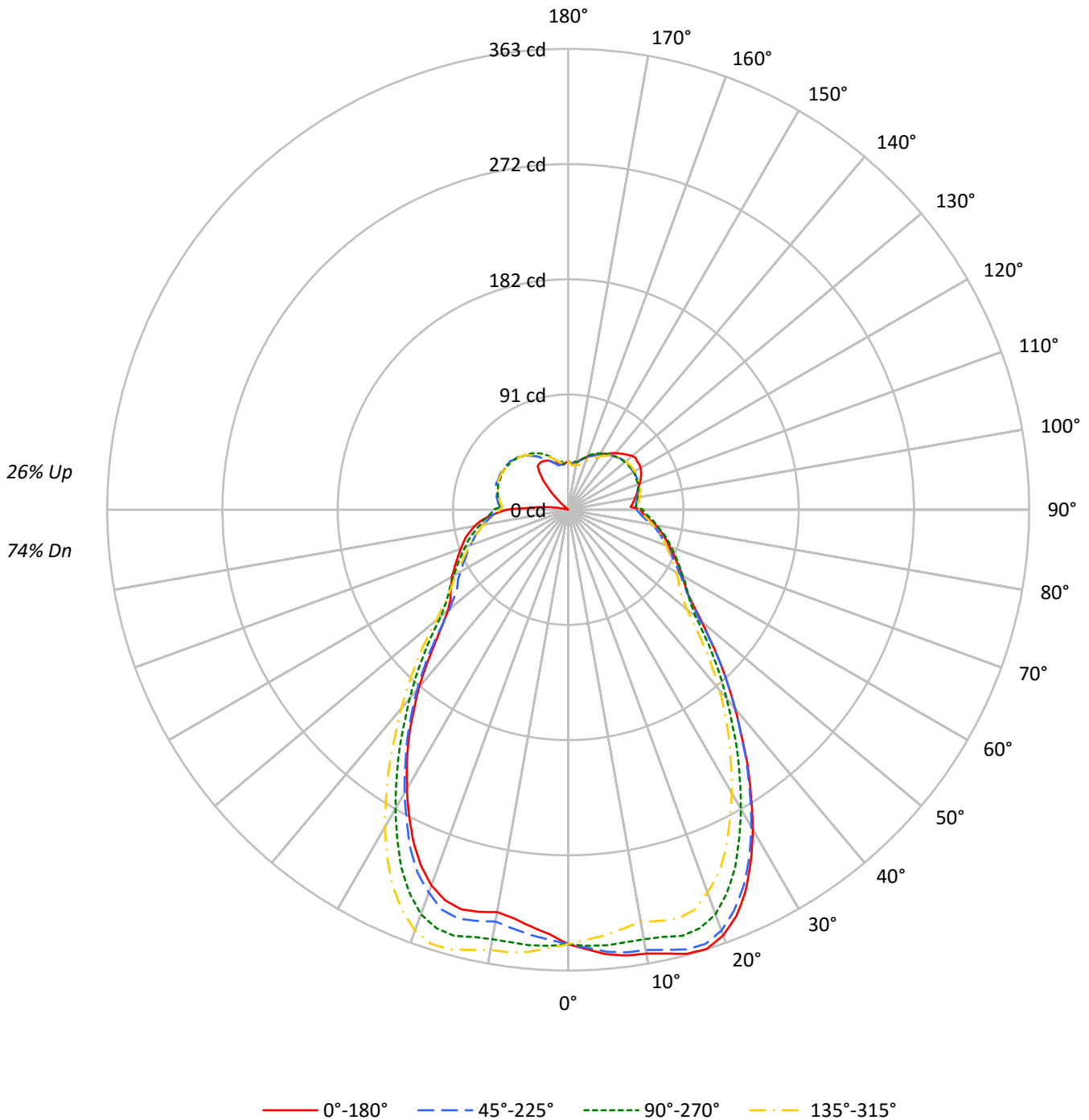
Test Method: LM-66-11  
Report Number: 20441A  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 664-CFL/1/26  
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE PLASTIC LENS AND SHADE  
  
Light Source: ONE 26 WATT CPFL LAMP. LUMEN RATING = 1800 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1800 (1 lamp)  
Luminaire Lumens: 1207.5 lumens  
Efficiency: 67.1%  
Efficacy: -  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.2  
Luminous Opening: (L: 0 ' x W: -1.17 ' x H: 0 '  
CIE Type: Semi-Direct  
  
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: 20441A  
CATALOG NUMBER: 664-CFL/1/26

### 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	76	76	76	76	72	72	72	72	65	65	65		58	58	58		52	52	52	49
1	68	64	61	58	64	61	58	56	55	53	51		49	48	46		44	43	42	39
2	62	56	51	47	58	53	49	45	48	45	42		43	40	38		39	37	35	32
3	56	49	44	40	53	47	42	38	42	38	35		38	35	32		34	32	30	27
4	52	44	38	34	49	42	37	33	38	34	30		34	31	28		31	28	26	24
5	48	39	33	29	45	38	32	28	34	30	26		31	27	24		28	25	23	21
6	44	36	30	26	42	34	29	25	31	27	23		28	25	22		26	23	20	18
7	41	32	27	23	39	31	26	22	28	24	21		26	22	19		24	20	18	17
8	38	30	24	20	36	28	23	20	26	22	19		24	20	17		22	19	16	15
9	36	27	22	18	34	26	21	18	24	20	17		22	18	16		20	17	15	14
10	34	25	20	17	32	24	19	16	22	18	15		21	17	14		19	16	14	12

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

	0°	90°	180°	270°
0°	Luminous shape not found,			
5°	reference photometric report, or contact			
10°	the photometric lab for calculations.			
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°	32.6	2.7	1.8
10°-20°	97.3	8.1	5.4
20°-30°	141.9	11.8	7.9
30°-40°	145.4	12.0	8.1
40°-50°	123.6	10.2	6.9
50°-60°	102.7	8.5	5.7
60°-70°	93.5	7.7	5.2
70°-80°	83.2	6.9	4.6
80°-90°	69.3	5.7	3.9
90°-100°	55.9	4.6	3.1
100°-110°	54.2	4.5	3.0
110°-120°	51.9	4.3	2.9
120°-130°	47.1	3.9	2.6
130°-140°	40.6	3.4	2.3
140°-150°	32.0	2.7	1.8
150°-160°	21.4	1.8	1.2
160°-170°	11.4	0.9	0.6
170°-180°	3.5	0.3	0.2
0°-30°	271.9	22.5	15.1
0°-40°	417.2	34.6	23.2
0°-60°	643.5	53.3	35.8
0°-90°	889.5	73.7	49.4
90°-120°	162.1	13.4	9.0
90°-150°	281.8	23.3	15.7
90°-180°	318.0	26.3	17.7
0°-180°	1207.5	100.0	67.1

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	342	342	342	342	342	
5°	352	344	330	344	352	34
15°	362	347	326	347	362	102
25°	331	311	288	311	331	151
35°	246	232	219	232	246	154
45°	168	160	148	160	168	130
55°	115	115	113	115	115	105
65°	94	95	97	95	94	93
75°	77	79	83	79	77	82
85°	61	64	63	64	61	52
90°	57	59	48	59	57	30
95°	51	54	23	54	51	42
105°	56	57	1	57	56	60
115°	63	59	0	59	63	63
125°	66	59	0	59	66	60
135°	62	57	15	57	62	48
145°	54	53	42	53	54	34
155°	48	49	42	49	48	22
165°	41	41	38	41	41	12
175°	36	36	36	36	36	4
180°	38	38	38	38	38	



TEST NUMBER: 20441A  
 CATALOG NUMBER: 664-CFL/1/26

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	342.2	342.2	342.2	342.2	342.2	342.2	342.2	342.2	342.2	342.2	342.2
2.5°	346.8	346.8	345.5	344.5	343.8	341.1	339.0	336.3	334.7	336.3	339.0
5°	351.6	351.7	349.5	347.7	344.4	339.5	336.3	332.2	329.9	332.2	336.3
7.5°	354.1	354.5	351.7	348.3	343.7	337.0	332.8	328.0	324.8	328.0	332.8
10°	355.0	355.8	352.1	349.5	343.5	335.7	329.4	324.8	321.9	324.8	329.4
12.5°	358.1	359.0	355.2	350.6	344.7	339.0	331.8	327.3	324.4	327.3	331.8
15°	362.1	363.7	358.5	353.1	347.4	340.4	333.5	328.4	325.9	328.4	333.5
17.5°	362.7	364.6	358.7	352.4	345.6	337.2	330.5	325.3	322.6	325.3	330.5
20°	356.8	360.0	352.8	347.6	339.0	328.8	320.9	317.1	314.8	317.1	320.9
22.5°	346.3	349.1	341.6	336.3	326.7	315.2	309.8	305.1	303.3	305.1	309.8
25°	330.9	333.9	326.9	321.1	310.9	300.0	294.1	289.7	288.3	289.7	294.1
27.5°	311.6	313.8	308.7	302.5	291.5	279.9	275.5	272.5	271.3	272.5	275.5
30°	290.7	293.0	288.3	283.4	271.9	260.9	257.7	254.3	253.9	254.3	257.7
32.5°	267.9	270.0	266.5	262.7	251.5	241.8	238.7	235.3	236.2	235.3	238.7
35°	246.4	248.2	245.2	242.6	232.1	222.6	220.9	217.6	218.6	217.6	220.9
37.5°	224.0	226.3	223.6	222.8	211.8	203.9	202.7	200.8	199.7	200.8	202.7
40°	204.2	205.9	204.6	204.2	194.0	186.2	184.9	183.6	182.6	183.6	184.9
42.5°	185.8	187.4	185.8	185.4	177.0	167.5	167.6	165.4	164.4	165.4	167.6
45°	168.4	169.6	168.3	168.3	160.3	151.0	150.4	148.5	147.9	148.5	150.4
47.5°	151.5	152.7	151.4	151.8	144.9	136.4	134.5	134.5	134.1	134.5	134.5
50°	137.0	136.2	135.5	137.0	130.9	125.5	121.9	123.6	123.6	123.6	121.9
52.5°	124.5	123.8	123.4	125.7	121.6	116.9	113.0	117.2	116.9	117.2	113.0
55°	114.6	115.4	114.2	118.6	114.9	111.7	106.5	113.4	113.0	113.4	106.5
57.5°	108.6	109.4	107.7	113.2	109.8	106.1	102.9	109.2	108.9	109.2	102.9
60°	103.7	104.1	101.7	107.7	104.1	101.3	97.9	106.1	105.8	106.1	97.9
62.5°	98.5	98.6	96.2	102.3	99.2	96.2	93.5	101.6	101.2	101.6	93.5
65°	93.5	94.6	91.2	97.7	94.8	92.0	89.1	97.7	97.3	97.7	89.1
67.5°	89.1	90.3	86.6	93.1	90.4	88.3	85.5	93.3	93.5	93.3	85.5
70°	84.8	86.4	82.4	88.3	86.2	85.1	82.0	89.5	90.0	89.5	82.0
72.5°	81.2	82.0	78.2	85.2	82.8	81.5	78.2	86.6	86.6	86.6	78.2
75°	77.4	78.7	74.7	81.6	78.9	78.2	75.3	82.8	83.3	82.8	75.3
77.5°	73.9	75.3	71.1	77.4	74.7	74.3	70.9	79.7	79.0	79.7	70.9
80°	69.9	71.3	67.3	73.4	70.7	70.7	67.8	75.9	74.9	75.9	67.8
82.5°	65.5	67.4	62.2	68.2	67.6	67.0	64.0	72.0	69.8	72.0	64.0
85°	61.3	63.8	58.5	65.3	63.8	64.0	60.7	67.8	63.3	67.8	60.7
87.5°	58.6	59.8	56.0	62.1	60.6	61.1	57.4	63.3	55.7	63.3	57.4
90°	56.7	57.7	53.8	60.0	58.8	59.6	56.0	59.0	48.3	59.0	56.0
92.5°	49.2	52.9	52.0	51.2	53.0	53.3	53.7	43.7	31.0	43.7	53.7
95°	50.8	53.7	53.3	53.4	54.1	54.0	55.2	43.1	23.0	43.1	55.2
97.5°	52.1	55.2	54.6	54.4	55.1	54.2	56.1	41.2	15.5	41.2	56.1
100°	53.7	57.4	54.8	55.6	56.0	55.6	57.3	39.5	7.8	39.5	57.3
102.5°	55.2	58.6	56.0	56.5	56.8	56.1	57.4	36.2	2.5	36.2	57.4
105°	56.5	60.0	57.4	56.5	57.4	57.3	59.0	33.9	0.9	33.9	59.0
107.5°	57.8	60.9	58.2	57.4	57.8	57.1	59.6	31.6	0.0	31.6	59.6
110°	59.8	62.1	59.2	58.8	58.7	58.2	60.4	29.0	0.0	29.0	60.4



TEST NUMBER: 20441A  
 CATALOG NUMBER: 664-CFL/1/26

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	61.7	63.3	59.6	59.2	58.6	57.8	60.0	27.9	0.0	27.9	60.0
115°	63.3	63.4	59.6	58.8	58.9	58.8	60.0	26.4	0.0	26.4	60.0
117.5°	64.7	65.0	59.6	59.6	59.3	58.2	60.5	25.7	0.0	25.7	60.5
120°	65.9	65.3	60.0	59.6	59.5	59.0	60.4	24.9	0.0	24.9	60.4
122.5°	66.3	65.1	59.0	59.0	59.5	58.8	60.2	25.3	0.0	25.3	60.2
125°	66.3	65.1	59.4	59.2	59.1	58.8	60.5	26.1	0.0	26.1	60.5
127.5°	66.9	64.0	58.5	58.2	58.7	58.1	59.4	28.2	0.4	28.2	59.4
130°	65.9	63.3	58.1	57.8	58.5	57.8	59.6	30.3	2.5	30.3	59.6
132.5°	63.8	61.7	58.1	56.9	57.9	56.5	58.2	33.4	8.2	33.4	58.2
135°	62.1	60.4	57.4	56.1	57.2	56.1	57.7	35.8	15.3	35.8	57.7
137.5°	60.0	59.0	56.3	55.6	56.4	55.6	56.9	38.5	23.0	38.5	56.9
140°	58.1	57.8	55.4	55.2	55.1	54.2	55.2	41.4	31.0	41.4	55.2
142.5°	56.1	56.1	54.2	53.4	54.7	53.8	53.8	42.9	37.2	42.9	53.8
145°	53.7	54.6	52.1	52.5	53.4	52.1	51.7	43.9	41.8	43.9	51.7
147.5°	52.5	53.1	51.2	51.2	52.7	51.7	50.2	43.1	42.7	43.1	50.2
150°	50.5	51.3	49.6	49.8	51.1	50.0	48.3	43.3	43.1	43.3	48.3
152.5°	49.2	50.0	48.9	48.5	50.1	49.0	46.1	42.1	43.1	42.1	46.1
155°	47.5	48.3	46.9	46.9	48.6	46.8	43.5	41.4	42.4	41.4	43.5
157.5°	46.0	46.5	45.6	45.6	46.9	45.0	42.1	40.4	42.0	40.4	42.1
160°	44.4	44.3	44.4	44.8	45.0	42.5	40.8	39.6	40.7	39.6	40.8
162.5°	42.5	42.5	42.7	43.1	43.2	40.8	39.1	39.1	38.9	39.1	39.1
165°	41.2	41.8	40.7	40.7	40.8	38.3	37.4	37.2	38.1	37.2	37.4
167.5°	39.5	40.0	39.2	39.6	39.0	36.2	35.6	36.2	37.0	36.2	35.6
170°	37.5	38.5	37.5	37.9	38.0	36.0	36.2	36.4	37.0	36.4	36.2
172.5°	37.4	38.3	37.5	38.7	38.3	35.8	35.6	35.1	35.8	35.1	35.6
175°	36.2	37.2	36.8	36.8	36.1	35.1	34.7	35.6	35.8	35.6	34.7
177.5°	37.2	37.0	36.8	37.0	36.8	36.6	36.6	36.6	37.4	36.6	36.6
180°	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8



TEST NUMBER: 20441A  
 CATALOG NUMBER: 664-CFL/1/26

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	342.2	342.2	342.2	342.2	342.2	342.2
2.5°	341.1	343.8	344.5	345.5	346.8	346.8
5°	339.5	344.4	347.7	349.5	351.7	351.6
7.5°	337.0	343.7	348.3	351.7	354.5	354.1
10°	335.7	343.5	349.5	352.1	355.8	355.0
12.5°	339.0	344.7	350.6	355.2	359.0	358.1
15°	340.4	347.4	353.1	358.5	363.7	362.1
17.5°	337.2	345.6	352.4	358.7	364.6	362.7
20°	328.8	339.0	347.6	352.8	360.0	356.8
22.5°	315.2	326.7	336.3	341.6	349.1	346.3
25°	300.0	310.9	321.1	326.9	333.9	330.9
27.5°	279.9	291.5	302.5	308.7	313.8	311.6
30°	260.9	271.9	283.4	288.3	293.0	290.7
32.5°	241.8	251.5	262.7	266.5	270.0	267.9
35°	222.6	232.1	242.6	245.2	248.2	246.4
37.5°	203.9	211.8	222.8	223.6	226.3	224.0
40°	186.2	194.0	204.2	204.6	205.9	204.2
42.5°	167.5	177.0	185.4	185.8	187.4	185.8
45°	151.0	160.3	168.3	168.3	169.6	168.4
47.5°	136.4	144.9	151.8	151.4	152.7	151.5
50°	125.5	130.9	137.0	135.5	136.2	137.0
52.5°	116.9	121.6	125.7	123.4	123.8	124.5
55°	111.7	114.9	118.6	114.2	115.4	114.6
57.5°	106.1	109.8	113.2	107.7	109.4	108.6
60°	101.3	104.1	107.7	101.7	104.1	103.7
62.5°	96.2	99.2	102.3	96.2	98.6	98.5
65°	92.0	94.8	97.7	91.2	94.6	93.5
67.5°	88.3	90.4	93.1	86.6	90.3	89.1
70°	85.1	86.2	88.3	82.4	86.4	84.8
72.5°	81.5	82.8	85.2	78.2	82.0	81.2
75°	78.2	78.9	81.6	74.7	78.7	77.4
77.5°	74.3	74.7	77.4	71.1	75.3	73.9
80°	70.7	70.7	73.4	67.3	71.3	69.9
82.5°	67.0	67.6	68.2	62.2	67.4	65.5
85°	64.0	63.8	65.3	58.5	63.8	61.3
87.5°	61.1	60.6	62.1	56.0	59.8	58.6
90°	59.6	58.8	60.0	53.8	57.7	56.7
92.5°	53.3	53.0	51.2	52.0	52.9	49.2
95°	54.0	54.1	53.4	53.3	53.7	50.8
97.5°	54.2	55.1	54.4	54.6	55.2	52.1
100°	55.6	56.0	55.6	54.8	57.4	53.7
102.5°	56.1	56.8	56.5	56.0	58.6	55.2
105°	57.3	57.4	56.5	57.4	60.0	56.5
107.5°	57.1	57.8	57.4	58.2	60.9	57.8
110°	58.2	58.7	58.8	59.2	62.1	59.8





TEST NUMBER: 20441A  
 CATALOG NUMBER: 664-CFL/1/26

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	57.8	58.6	59.2	59.6	63.3	61.7
115°	58.8	58.9	58.8	59.6	63.4	63.3
117.5°	58.2	59.3	59.6	59.6	65.0	64.7
120°	59.0	59.5	59.6	60.0	65.3	65.9
122.5°	58.8	59.5	59.0	59.0	65.1	66.3
125°	58.8	59.1	59.2	59.4	65.1	66.3
127.5°	58.1	58.7	58.2	58.5	64.0	66.9
130°	57.8	58.5	57.8	58.1	63.3	65.9
132.5°	56.5	57.9	56.9	58.1	61.7	63.8
135°	56.1	57.2	56.1	57.4	60.4	62.1
137.5°	55.6	56.4	55.6	56.3	59.0	60.0
140°	54.2	55.1	55.2	55.4	57.8	58.1
142.5°	53.8	54.7	53.4	54.2	56.1	56.1
145°	52.1	53.4	52.5	52.1	54.6	53.7
147.5°	51.7	52.7	51.2	51.2	53.1	52.5
150°	50.0	51.1	49.8	49.6	51.3	50.5
152.5°	49.0	50.1	48.5	48.9	50.0	49.2
155°	46.8	48.6	46.9	46.9	48.3	47.5
157.5°	45.0	46.9	45.6	45.6	46.5	46.0
160°	42.5	45.0	44.8	44.4	44.3	44.4
162.5°	40.8	43.2	43.1	42.7	42.5	42.5
165°	38.3	40.8	40.7	40.7	41.8	41.2
167.5°	36.2	39.0	39.6	39.2	40.0	39.5
170°	36.0	38.0	37.9	37.5	38.5	37.5
172.5°	35.8	38.3	38.7	37.5	38.3	37.4
175°	35.1	36.1	36.8	36.8	37.2	36.2
177.5°	36.6	36.8	37.0	36.8	37.0	37.2
180°	37.8	37.8	37.8	37.8	37.8	37.8

(END OF REPORT)