

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: 25482

Luminaire Tested: **103-CFL/2/18-120V-SWH**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 25482
Test Lab: LIGHTING SCIENCES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 103-CFL/2/18-120V-SWH
Description: WHITE FABRIC SHADE RECTILINEAR WALL SCONCE

Light Source: TWO SYLVANIA 18 WATT CFL LAMPS

FT18DL/830/RS/ECO. LUMEN RATING = 2500 LMS.

Ballast/Driver: -

Summary

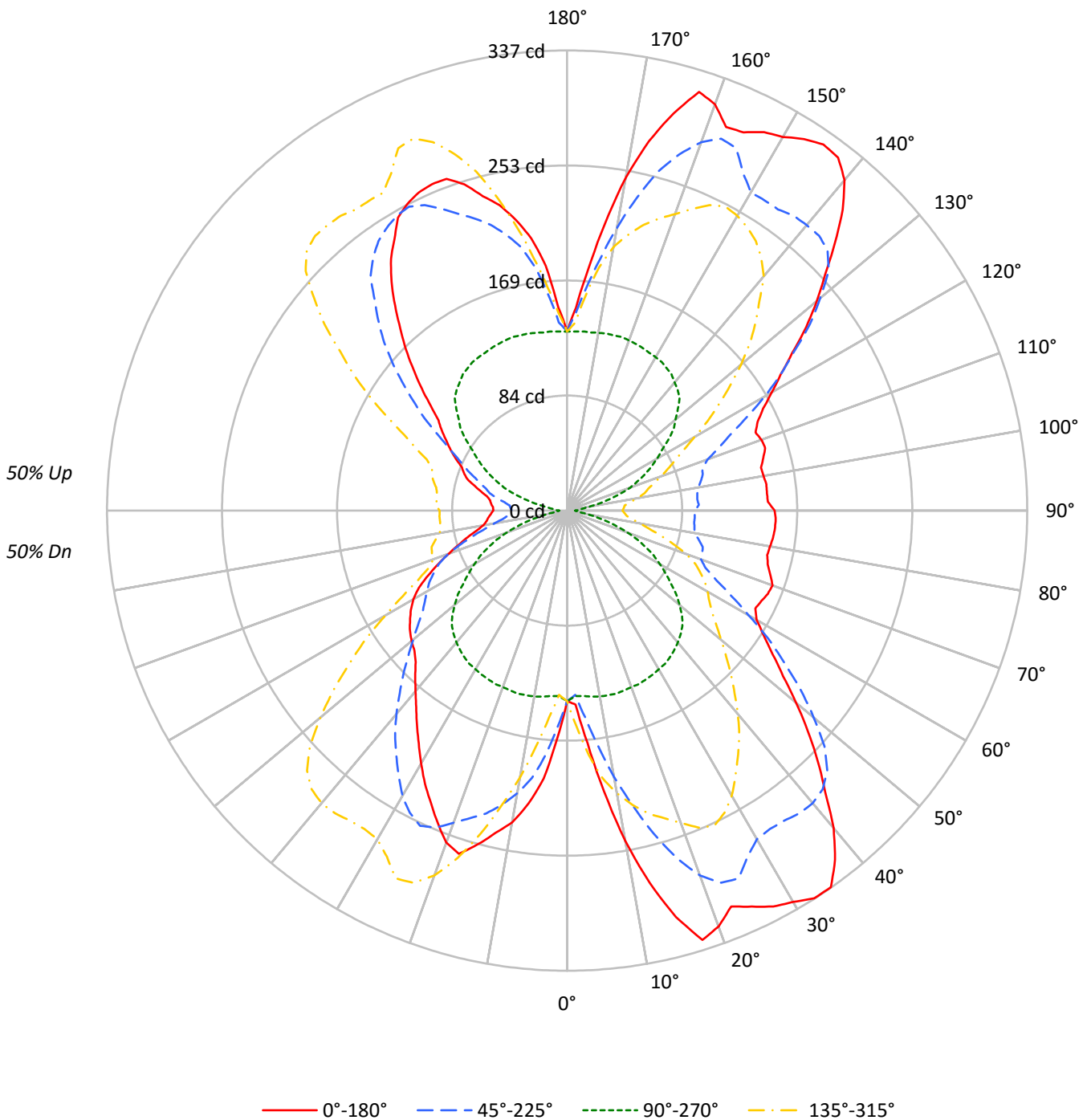
Lumens per Lamp: 2500 (1 lamp)
Luminaire Lumens: 1793.0 lumens
Efficiency: 71.7%
Efficacy: 44.8 lumens/watt
Spacing Criteria (0/90/45): 2.05 / 1.44 / 1.94
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2.17' x H: 0.71')
CIE Type: General Diffuse

Input Watts (W): 40
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	77	77	77	77	71	71	71	71	60	60	60	49	49	49	40	40	40	36
1	69	65	62	59	63	60	57	55	51	49	47	42	40	39	34	33	32	28
2	62	57	52	48	57	52	48	44	44	41	38	36	34	32	29	27	26	22
3	57	49	44	39	52	45	40	36	38	34	31	32	29	26	25	23	22	19
4	52	43	37	33	47	40	35	31	34	30	26	28	25	22	22	20	18	16
5	47	38	32	28	43	36	30	26	30	26	22	25	22	19	20	18	16	13
6	43	34	28	24	40	32	26	22	27	23	19	22	19	16	18	16	14	11
7	40	31	25	21	37	29	23	19	24	20	17	20	17	14	16	14	12	10
8	37	28	22	18	34	26	21	17	22	18	15	18	15	13	15	12	11	9
9	34	25	20	16	32	24	19	15	20	16	13	17	14	11	14	11	9	8
10	32	23	18	14	30	22	17	13	18	14	12	16	12	10	13	10	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	2097	2097	2097	2097
5°	2507	1731	2890	1731
10°	3546	1529	3346	1529
15°	4409	1370	3621	1370
20°	4633	1234	3698	1234
25°	4605	1129	3397	1129
30°	4831	1039	3121	1039
35°	5027	960	2863	960
40°	4674	882	2659	882
45°	4160	805	2513	805
50°	3681	705	2502	705
55°	3285	595	2509	595
60°	3076	499	2494	499
65°	3279	403	2345	403
70°	3705	300	2134	300
75°	3977	189	1974	189
80°	4574	96	1889	96
85°	5556	56	2107	56



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	16.6	0.9	0.7
10°-20°	64.0	3.6	2.6
20°-30°	111.5	6.2	4.5
30°-40°	144.0	8.0	5.8
40°-50°	152.3	8.5	6.1
50°-60°	136.9	7.6	5.5
60°-70°	111.8	6.2	4.5
70°-80°	85.9	4.8	3.4
80°-90°	70.1	3.9	2.8
90°-100°	69.9	3.9	2.8
100°-110°	83.4	4.7	3.3
110°-120°	109.0	6.1	4.4
120°-130°	140.2	7.8	5.6
130°-140°	158.8	8.9	6.4
140°-150°	147.7	8.2	5.9
150°-160°	111.6	6.2	4.5
160°-170°	63.0	3.5	2.5
170°-180°	16.2	0.9	0.6
0°-30°	192.2	10.7	7.7
0°-40°	336.2	18.7	13.4
0°-60°	625.5	34.9	25.0
0°-90°	893.2	49.8	35.7
90°-120°	262.4	14.6	10.5
90°-150°	709.0	39.5	28.4
90°-180°	900.0	50.2	36.0
0°-180°	1793.0	100.0	71.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	140	140	140	140	140	
5°	171	136	197	136	171	19
15°	308	139	253	139	308	86
25°	320	136	236	136	320	149
35°	337	131	192	131	337	206
45°	260	119	157	119	260	200
55°	184	92	140	92	184	166
65°	157	64	112	64	157	157
75°	152	29	76	29	152	162
85°	153	8	58	8	153	124
90°	152	6	54	6	152	83
95°	147	10	56	10	147	120
105°	149	32	70	32	149	157
115°	154	63	90	63	154	155
125°	201	90	115	90	201	182
135°	278	116	167	116	278	214
145°	327	127	225	127	327	203
155°	306	131	257	131	306	143
165°	301	133	238	133	301	85
175°	177	132	180	132	177	19
180°	131	131	131	131	131	



TEST NUMBER: 25482

CATALOG NUMBER: 103-CFL/2/18-120V-SWH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	139.5	139.5	139.5	139.5	139.5	139.5	139.5	139.5	139.5	139.5	139.5
2.5°	142.2	140.1	135.1	134.2	135.9	147.7	158.3	164.3	166.9	164.3	158.3
5°	170.9	165.9	152.1	139.0	136.3	157.7	179.4	193.0	197.0	193.0	179.4
7.5°	207.4	196.6	173.9	147.3	137.5	166.4	197.6	212.4	216.4	212.4	197.6
10°	245.7	231.1	198.2	156.7	138.2	176.3	210.2	226.5	231.9	226.5	210.2
12.5°	279.3	264.9	220.7	166.4	138.5	185.8	220.6	238.5	241.7	238.5	220.6
15°	308.2	294.8	245.1	175.8	138.8	192.6	229.7	246.9	253.1	246.9	229.7
17.5°	329.7	314.7	266.7	186.2	138.2	197.0	236.1	258.7	263.5	258.7	236.1
20°	324.1	324.1	284.4	195.8	137.5	200.8	243.3	262.7	258.7	262.7	243.3
22.5°	313.8	311.8	295.0	203.8	137.5	203.6	251.3	255.3	247.7	255.3	251.3
25°	320.0	305.8	297.2	212.8	136.4	206.2	254.7	245.9	236.1	245.9	254.7
27.5°	326.9	310.4	285.8	219.3	135.5	207.2	249.5	235.1	225.5	235.1	249.5
30°	330.9	315.1	277.9	223.6	134.2	208.4	241.2	225.1	213.8	225.1	241.2
32.5°	336.7	320.0	276.5	224.3	133.1	208.2	229.6	212.8	202.2	212.8	229.6
35°	336.7	324.0	277.2	222.4	131.2	209.4	218.2	200.8	191.8	200.8	218.2
37.5°	322.3	321.2	279.4	217.5	128.8	209.4	207.0	189.8	181.5	189.8	207.0
40°	303.6	306.6	279.8	211.2	126.1	207.6	194.4	178.1	172.7	178.1	194.4
42.5°	279.7	286.2	276.9	203.2	123.0	202.8	181.5	168.2	164.6	168.2	181.5
45°	259.7	263.3	269.4	197.4	119.3	194.4	169.6	160.1	156.9	160.1	169.6
47.5°	239.1	243.5	255.5	191.8	114.2	184.3	157.9	152.3	151.7	152.3	157.9
50°	218.8	223.2	235.8	186.8	107.5	171.7	147.1	147.3	148.7	147.3	147.1
52.5°	199.4	203.2	215.4	181.8	100.8	157.9	137.7	143.7	145.1	143.7	137.7
55°	183.9	184.3	194.0	174.9	92.5	144.1	129.2	139.7	140.5	139.7	129.2
57.5°	170.7	169.3	174.5	166.1	85.4	130.4	123.4	134.6	135.7	134.6	123.4
60°	160.3	156.3	153.5	155.1	78.4	115.0	118.8	129.6	130.0	129.6	118.8
62.5°	155.3	146.3	135.7	142.5	71.5	102.2	113.8	123.6	122.5	123.6	113.8
65°	156.9	141.8	120.6	125.2	63.6	89.3	107.6	114.4	112.2	114.4	107.6
67.5°	159.1	144.0	109.6	106.2	55.8	79.3	101.6	104.6	102.2	104.6	101.6
70°	160.1	144.9	104.2	86.7	47.1	71.0	92.6	93.4	92.2	93.4	92.6
72.5°	155.9	143.1	103.8	69.2	38.0	64.7	81.4	83.9	83.1	83.9	81.4
75°	152.1	138.6	102.8	56.1	29.4	58.9	71.0	74.9	75.5	74.9	71.0
77.5°	150.1	134.3	98.8	49.1	21.6	50.7	61.3	66.5	67.9	66.5	61.3
80°	150.9	135.4	94.7	46.5	14.7	41.4	54.1	60.9	62.3	60.9	54.1
82.5°	152.1	136.1	94.0	43.9	9.4	31.7	47.5	56.7	59.5	56.7	47.5
85°	152.7	136.1	93.4	41.5	8.3	24.9	43.7	54.7	57.9	54.7	43.7
87.5°	152.9	136.4	93.6	41.5	7.1	21.4	42.1	52.9	55.9	52.9	42.1
90°	151.9	136.0	93.4	41.1	6.0	20.4	40.5	50.5	54.1	50.5	40.5
92.5°	147.1	133.6	96.5	46.5	8.4	21.6	41.5	50.9	54.3	50.9	41.5
95°	146.9	134.2	95.6	47.1	9.7	26.4	42.3	52.9	55.9	52.9	42.3
97.5°	147.1	133.9	96.1	47.9	11.6	31.0	46.1	53.7	56.9	53.7	46.1
100°	146.1	132.8	97.4	50.9	16.6	36.5	51.9	57.5	59.5	57.5	51.9
102.5°	145.5	134.7	100.4	53.9	23.8	42.9	57.9	63.5	64.5	63.5	57.9
105°	148.7	138.2	102.8	62.1	32.1	51.5	61.5	69.9	70.3	69.9	61.5
107.5°	152.1	140.0	103.6	76.3	40.4	61.7	66.3	74.6	76.7	74.6	66.3
110°	151.5	139.1	109.4	93.4	49.1	75.3	72.7	78.2	80.4	78.2	72.7



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CATALOG NUMBER: 103-CFL/2/18-120V-SWH

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	149.3	139.5	120.2	110.4	55.6	90.3	80.0	82.8	83.6	82.8	80.0
115°	153.9	147.3	131.9	127.5	63.0	104.8	87.2	89.4	90.0	89.4	87.2
117.5°	161.7	156.9	148.3	144.3	69.3	121.6	96.2	96.6	96.2	96.6	96.2
120°	172.9	169.5	166.9	156.7	75.9	136.8	107.6	102.2	102.0	102.2	107.6
122.5°	185.4	183.6	185.2	167.3	82.3	152.9	122.0	109.6	108.8	109.6	122.0
125°	201.2	201.8	202.8	174.5	90.3	167.3	135.7	119.8	115.0	119.8	135.7
127.5°	220.6	221.1	224.0	180.8	98.4	178.9	150.5	132.5	125.7	132.5	150.5
130°	238.7	238.7	241.9	183.9	103.6	187.6	166.1	146.5	139.0	146.5	166.1
132.5°	256.3	257.9	259.7	188.4	110.0	196.2	181.5	160.7	152.5	160.7	181.5
135°	277.5	279.3	269.7	194.2	116.4	202.2	195.2	174.9	166.9	174.9	195.2
137.5°	298.8	298.2	273.0	199.8	119.8	206.8	208.4	189.3	180.8	189.3	208.4
140°	316.0	312.2	272.9	208.8	122.5	207.8	224.0	204.6	196.0	204.6	224.0
142.5°	325.9	317.6	272.2	218.2	125.6	207.8	233.3	217.5	211.4	217.5	233.3
145°	327.2	314.6	269.3	225.5	127.2	207.0	240.9	231.1	225.0	231.1	240.9
147.5°	322.6	309.3	269.3	230.4	128.9	206.0	245.7	244.1	235.4	244.1	245.7
150°	316.0	304.4	269.0	231.8	129.7	205.2	249.3	252.5	247.7	252.5	249.3
152.5°	312.4	300.6	278.8	229.6	130.3	204.6	250.9	257.5	253.3	257.5	250.9
155°	305.6	295.8	292.8	224.6	131.3	201.6	246.9	260.7	257.1	260.7	246.9
157.5°	304.0	303.8	294.8	215.4	131.9	196.2	239.0	261.3	258.7	261.3	239.0
160°	316.5	317.4	287.2	207.2	132.6	192.6	231.1	255.9	258.5	255.9	231.1
162.5°	321.5	312.4	273.6	196.6	133.2	187.6	224.2	244.5	250.5	244.5	224.2
165°	301.2	293.8	256.9	186.6	132.8	182.5	216.6	234.1	238.3	234.1	216.6
167.5°	277.2	270.3	234.1	175.7	132.8	172.2	207.0	224.0	229.1	224.0	207.0
170°	247.7	241.2	210.4	164.9	132.2	163.5	196.2	211.0	216.1	211.0	196.2
172.5°	211.6	207.2	186.2	154.9	131.5	152.9	179.7	196.6	201.0	196.6	179.7
175°	177.1	175.3	164.1	146.1	131.7	141.8	158.7	172.1	180.0	172.1	158.7
177.5°	148.7	148.5	144.9	136.8	131.2	132.5	137.9	143.7	148.9	143.7	137.9
180°	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2



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CATALOG NUMBER: 103-CFL/2/18-120V-SWH

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	139.5	139.5	139.5	139.5	139.5	139.5
2.5°	147.7	135.9	134.2	135.1	140.1	142.2
5°	157.7	136.3	139.0	152.1	165.9	170.9
7.5°	166.4	137.5	147.3	173.9	196.6	207.4
10°	176.3	138.2	156.7	198.2	231.1	245.7
12.5°	185.8	138.5	166.4	220.7	264.9	279.3
15°	192.6	138.8	175.8	245.1	294.8	308.2
17.5°	197.0	138.2	186.2	266.7	314.7	329.7
20°	200.8	137.5	195.8	284.4	324.1	324.1
22.5°	203.6	137.5	203.8	295.0	311.8	313.8
25°	206.2	136.4	212.8	297.2	305.8	320.0
27.5°	207.2	135.5	219.3	285.8	310.4	326.9
30°	208.4	134.2	223.6	277.9	315.1	330.9
32.5°	208.2	133.1	224.3	276.5	320.0	336.7
35°	209.4	131.2	222.4	277.2	324.0	336.7
37.5°	209.4	128.8	217.5	279.4	321.2	322.3
40°	207.6	126.1	211.2	279.8	306.6	303.6
42.5°	202.8	123.0	203.2	276.9	286.2	279.7
45°	194.4	119.3	197.4	269.4	263.3	259.7
47.5°	184.3	114.2	191.8	255.5	243.5	239.1
50°	171.7	107.5	186.8	235.8	223.2	218.8
52.5°	157.9	100.8	181.8	215.4	203.2	199.4
55°	144.1	92.5	174.9	194.0	184.3	183.9
57.5°	130.4	85.4	166.1	174.5	169.3	170.7
60°	115.0	78.4	155.1	153.5	156.3	160.3
62.5°	102.2	71.5	142.5	135.7	146.3	155.3
65°	89.3	63.6	125.2	120.6	141.8	156.9
67.5°	79.3	55.8	106.2	109.6	144.0	159.1
70°	71.0	47.1	86.7	104.2	144.9	160.1
72.5°	64.7	38.0	69.2	103.8	143.1	155.9
75°	58.9	29.4	56.1	102.8	138.6	152.1
77.5°	50.7	21.6	49.1	98.8	134.3	150.1
80°	41.4	14.7	46.5	94.7	135.4	150.9
82.5°	31.7	9.4	43.9	94.0	136.1	152.1
85°	24.9	8.3	41.5	93.4	136.1	152.7
87.5°	21.4	7.1	41.5	93.6	136.4	152.9
90°	20.4	6.0	41.1	93.4	136.0	151.9
92.5°	21.6	8.4	46.5	96.5	133.6	147.1
95°	26.4	9.7	47.1	95.6	134.2	146.9
97.5°	31.0	11.6	47.9	96.1	133.9	147.1
100°	36.5	16.6	50.9	97.4	132.8	146.1
102.5°	42.9	23.8	53.9	100.4	134.7	145.5
105°	51.5	32.1	62.1	102.8	138.2	148.7
107.5°	61.7	40.4	76.3	103.6	140.0	152.1
110°	75.3	49.1	93.4	109.4	139.1	151.5



TEST NUMBER: 25482

CATALOG NUMBER: 103-CFL/2/18-120V-SWH

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	90.3	55.6	110.4	120.2	139.5	149.3
115°	104.8	63.0	127.5	131.9	147.3	153.9
117.5°	121.6	69.3	144.3	148.3	156.9	161.7
120°	136.8	75.9	156.7	166.9	169.5	172.9
122.5°	152.9	82.3	167.3	185.2	183.6	185.4
125°	167.3	90.3	174.5	202.8	201.8	201.2
127.5°	178.9	98.4	180.8	224.0	221.1	220.6
130°	187.6	103.6	183.9	241.9	238.7	238.7
132.5°	196.2	110.0	188.4	259.7	257.9	256.3
135°	202.2	116.4	194.2	269.7	279.3	277.5
137.5°	206.8	119.8	199.8	273.0	298.2	298.8
140°	207.8	122.5	208.8	272.9	312.2	316.0
142.5°	207.8	125.6	218.2	272.2	317.6	325.9
145°	207.0	127.2	225.5	269.3	314.6	327.2
147.5°	206.0	128.9	230.4	269.3	309.3	322.6
150°	205.2	129.7	231.8	269.0	304.4	316.0
152.5°	204.6	130.3	229.6	278.8	300.6	312.4
155°	201.6	131.3	224.6	292.8	295.8	305.6
157.5°	196.2	131.9	215.4	294.8	303.8	304.0
160°	192.6	132.6	207.2	287.2	317.4	316.5
162.5°	187.6	133.2	196.6	273.6	312.4	321.5
165°	182.5	132.8	186.6	256.9	293.8	301.2
167.5°	172.2	132.8	175.7	234.1	270.3	277.2
170°	163.5	132.2	164.9	210.4	241.2	247.7
172.5°	152.9	131.5	154.9	186.2	207.2	211.6
175°	141.8	131.7	146.1	164.1	175.3	177.1
177.5°	132.5	131.2	136.8	144.9	148.5	148.7
180°	131.2	131.2	131.2	131.2	131.2	131.2

(END OF REPORT)