

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: 19150A

Luminaire Tested: **698-CF2/26**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19150A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 698-CF2/26
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS
Light Source: TWO 26 WATT CPFL LAMPS. LUMEN RATING = 3600 LMS.

Ballast/Driver: -

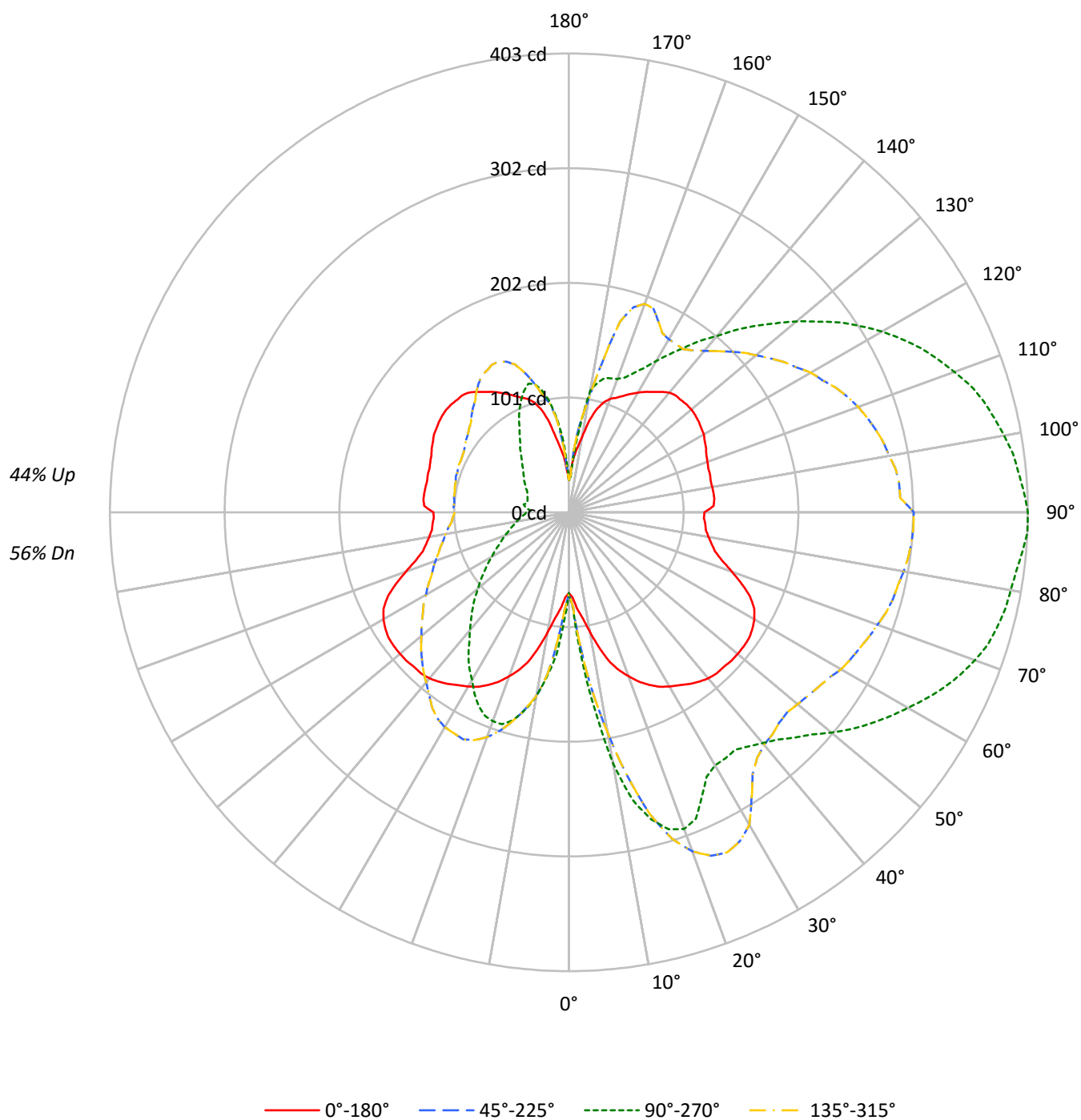
Summary

Lumens per Lamp: 3600 (1 lamp)
Luminaire Lumens: 2390.7 lumens
Efficiency: 66.4%
Efficacy: -
Spacing Criteria (0/90/45): 2.89 / 3 / 2.87
Luminous Opening: Rectangular w/ Sides (W: 0.21' x L: 0.83' x H: 0.83')
CIE Type: General Diffuse

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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	72	72	72	72	67	67	67	67	57	57	57	49	49	49	41	41	41
1	63	59	55	52	58	54	51	48	46	44	41	38	37	35	31	30	29
2	56	50	45	40	52	46	41	37	39	35	32	32	29	27	26	24	22
3	51	43	37	32	46	40	34	30	33	29	26	28	24	22	22	20	18
4	46	37	31	26	42	35	29	25	29	25	21	24	21	18	19	17	15
5	42	33	27	22	38	31	25	21	26	21	18	21	18	15	17	14	12
6	38	29	23	19	35	27	22	18	23	19	15	19	16	13	15	13	10
7	35	26	20	16	32	24	19	15	21	16	13	17	14	11	14	11	9
8	33	24	18	14	30	22	17	13	19	14	11	16	12	10	13	10	8
9	30	22	16	12	28	20	15	12	17	13	10	14	11	9	12	9	7
10	28	20	14	11	26	18	14	10	16	12	9	13	10	8	11	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4372	4372	4372	4372
5°	4851	5970	4851	5772
10°	5688	8274	5688	6049
15°	6802	8663	6802	5865
20°	7377	7974	7377	5261
25°	7774	6613	7774	4494
30°	7984	5575	7984	3694
35°	8163	5095	8163	3078
40°	8346	4942	8346	2521
45°	8389	4936	8389	2109
50°	8482	5063	8482	1750
55°	8558	5240	8558	1465
60°	8499	5409	8499	1231
65°	8160	5609	8160	1044
70°	7333	5777	7333	910
75°	6701	5897	6701	797
80°	6637	5983	6637	709
85°	6852	6133	6852	640

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	12.3	0.5	0.3
10°-20°	60.3	2.5	1.7
20°-30°	112.7	4.7	3.1
30°-40°	146.6	6.1	4.1
40°-50°	172.7	7.2	4.8
50°-60°	193.4	8.1	5.4
60°-70°	206.5	8.6	5.7
70°-80°	210.9	8.8	5.9
80°-90°	212.8	8.9	5.9
90°-100°	207.8	8.7	5.8
100°-110°	196.6	8.2	5.5
110°-120°	177.1	7.4	4.9
120°-130°	152.0	6.4	4.2
130°-140°	124.1	5.2	3.4
140°-150°	96.0	4.0	2.7
150°-160°	67.4	2.8	1.9
160°-170°	35.0	1.5	1.0
170°-180°	6.5	0.3	0.2
0°-30°	185.3	7.8	5.1
0°-40°	331.9	13.9	9.2
0°-60°	698.0	29.2	19.4
0°-90°	1328.2	55.6	36.9
90°-120°	581.5	24.3	16.2
90°-150°	953.6	39.9	26.5
90°-180°	1063.0	44.5	29.5
0°-180°	2390.7	100.0	66.4

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	71	71	71	71	71	
5°	85	130	85	125	85	9
15°	135	279	135	189	135	38
25°	167	276	167	188	167	77
35°	184	255	184	154	184	116
45°	192	280	192	120	192	149
55°	193	323	193	90	193	172
65°	176	364	176	68	176	172
75°	133	389	133	53	133	143
85°	120	400	120	42	120	99
90°	119	403	119	37	119	66
95°	128	396	128	37	128	105
105°	128	377	128	38	128	136
115°	133	341	133	40	133	132
125°	139	291	139	48	139	125
135°	139	232	139	58	139	108
145°	129	177	129	74	129	81
155°	113	135	113	102	113	53
165°	94	122	94	117	94	26
175°	48	52	48	66	48	5
180°	28	28	28	28	28	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
2.5°	74.8	77.9	83.1	86.2	84.5	86.2	83.1	77.9	74.8	75.7	85.3
5°	85.1	100.6	119.8	128.1	129.6	128.1	119.8	100.6	85.1	95.3	112.4
7.5°	93.9	125.3	158.4	172.1	174.7	172.1	158.4	125.3	93.9	113.7	143.2
10°	106.7	153.2	197.2	221.8	223.9	221.8	197.2	153.2	106.7	134.5	163.3
12.5°	121.1	181.9	237.0	259.9	258.9	259.9	237.0	181.9	121.1	159.9	177.0
15°	134.9	209.4	274.3	283.5	279.0	283.5	274.3	209.4	134.9	181.6	189.6
17.5°	145.2	235.8	300.4	299.5	291.9	299.5	300.4	235.8	145.2	195.4	201.0
20°	153.1	261.0	316.9	309.1	295.9	309.1	316.9	261.0	153.1	206.1	210.1
22.5°	161.0	281.8	326.5	309.4	291.4	309.4	326.5	281.8	161.0	212.5	216.6
25°	167.3	297.7	329.5	299.3	275.9	299.3	329.5	297.7	167.3	215.6	219.9
27.5°	172.7	310.8	325.5	280.8	261.8	280.8	325.5	310.8	172.7	218.9	218.7
30°	176.6	316.7	316.9	271.7	256.6	271.7	316.9	316.7	176.6	220.9	217.9
32.5°	180.0	317.8	298.6	268.6	256.0	268.6	298.6	317.8	180.0	222.4	214.8
35°	184.1	317.2	281.1	267.0	254.6	267.0	281.1	317.2	184.1	222.3	209.4
37.5°	187.5	315.8	271.6	265.2	259.1	265.2	271.6	315.8	187.5	223.9	201.5
40°	190.4	311.8	266.6	268.6	264.6	268.6	266.6	311.8	190.4	223.9	194.9
42.5°	192.0	305.4	264.5	274.4	270.7	274.4	264.5	305.4	192.0	222.6	188.9
45°	192.1	298.5	261.2	280.4	279.9	280.4	261.2	298.5	192.1	221.5	182.5
47.5°	193.2	289.7	260.0	287.6	288.7	287.6	260.0	289.7	193.2	220.2	176.1
50°	193.5	275.1	262.2	295.5	300.9	295.5	262.2	275.1	193.5	217.2	169.0
52.5°	193.5	263.0	264.6	307.1	312.7	307.1	264.6	263.0	193.5	213.8	163.2
55°	193.0	252.1	267.4	317.1	323.4	317.1	267.4	252.1	193.0	208.9	156.6
57.5°	191.0	243.8	270.6	325.6	333.7	325.6	270.6	243.8	191.0	202.5	151.3
60°	188.0	236.1	275.9	334.6	343.6	334.6	275.9	236.1	188.0	196.3	144.8
62.5°	183.6	228.3	279.0	343.5	354.0	343.5	279.0	228.3	183.6	189.9	139.5
65°	175.6	221.5	281.8	352.7	363.7	352.7	281.8	221.5	175.6	182.0	133.4
67.5°	164.4	218.1	285.4	360.2	372.2	360.2	285.4	218.1	164.4	173.7	129.0
70°	152.2	214.7	288.4	367.1	379.4	367.1	288.4	214.7	152.2	165.6	124.7
72.5°	141.0	213.5	292.1	372.2	385.8	372.2	292.1	213.5	141.0	157.2	120.2
75°	132.9	211.9	294.5	377.3	389.3	377.3	294.5	211.9	132.9	150.7	116.5
77.5°	128.3	210.1	295.9	383.7	392.5	383.7	295.9	210.1	128.3	144.8	112.7
80°	124.5	209.8	298.6	388.2	393.9	388.2	298.6	209.8	124.5	141.0	110.0
82.5°	121.4	209.7	300.6	391.3	396.1	391.3	300.6	209.7	121.4	137.3	107.0
85°	120.2	209.7	301.9	393.2	399.7	393.2	301.9	209.7	120.2	134.7	103.6
87.5°	118.7	209.8	302.8	394.9	403.0	394.9	302.8	209.8	118.7	132.4	102.1
90°	119.0	209.5	302.9	395.6	403.0	395.6	302.9	209.5	119.0	130.6	100.3
92.5°	127.1	203.9	291.2	385.2	400.0	385.2	291.2	203.9	127.1	132.4	101.4
95°	128.2	202.2	291.1	383.1	396.4	383.1	291.1	202.2	128.2	133.1	100.9
97.5°	128.1	202.4	289.4	379.7	393.4	379.7	289.4	202.4	128.1	133.9	101.8
100°	127.8	201.6	285.5	376.7	388.1	376.7	285.5	201.6	127.8	134.2	101.7
102.5°	127.5	200.4	283.0	371.7	382.6	371.7	283.0	200.4	127.5	135.8	102.7
105°	128.3	199.6	279.1	364.6	377.0	364.6	279.1	199.6	128.3	136.4	102.8
107.5°	128.3	197.9	275.0	358.4	369.9	358.4	275.0	197.9	128.3	138.1	104.2
110°	129.5	195.1	270.4	349.8	360.2	349.8	270.4	195.1	129.5	138.8	104.0

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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°	130.6	193.0	264.8	341.3	350.8	341.3	264.8	193.0	130.6	142.4	105.4
115°	132.9	192.5	258.8	331.0	341.1	331.0	258.8	192.5	132.9	145.2	105.1
117.5°	134.6	189.6	251.1	320.9	329.5	320.9	251.1	189.6	134.6	150.1	105.7
120°	136.7	187.6	245.3	309.3	317.5	309.3	245.3	187.6	136.7	153.3	106.5
122.5°	137.8	186.2	236.9	295.9	304.1	295.9	236.9	186.2	137.8	158.7	108.1
125°	139.1	184.4	230.3	284.4	290.8	284.4	230.3	184.4	139.1	163.0	110.3
127.5°	139.9	183.9	222.3	270.3	275.1	270.3	222.3	183.9	139.9	166.7	111.9
130°	140.4	184.1	214.5	256.8	260.9	256.8	214.5	184.1	140.4	169.8	114.5
132.5°	140.2	183.7	207.6	244.5	245.6	244.5	207.6	183.7	140.2	171.5	116.6
135°	139.3	186.5	199.6	232.1	231.5	232.1	199.6	186.5	139.3	173.5	120.8
137.5°	139.1	191.4	191.8	219.8	217.4	219.8	191.8	191.4	139.1	173.7	124.6
140°	137.2	194.9	185.1	207.1	202.1	207.1	185.1	194.9	137.2	171.2	128.0
142.5°	133.4	200.0	179.2	195.9	189.9	195.9	179.2	200.0	133.4	167.9	133.4
145°	129.1	203.1	174.9	184.2	176.7	184.2	174.9	203.1	129.1	163.7	138.1
147.5°	125.5	206.3	175.2	173.7	164.6	173.7	175.2	206.3	125.5	158.3	142.5
150°	121.3	204.9	175.5	163.7	153.5	163.7	175.5	204.9	121.3	153.6	143.8
152.5°	117.3	198.8	177.5	156.9	142.8	156.9	177.5	198.8	117.3	146.8	146.2
155°	112.8	186.1	185.5	152.6	135.0	152.6	185.5	186.1	112.8	142.4	146.1
157.5°	108.9	171.5	193.8	145.8	128.0	145.8	193.8	171.5	108.9	136.6	143.1
160°	106.1	158.4	194.8	138.7	124.6	138.7	194.8	158.4	106.1	129.9	138.1
162.5°	101.1	142.8	188.9	131.4	123.3	131.4	188.9	142.8	101.1	122.2	128.4
165°	93.5	127.2	173.4	128.8	122.3	128.8	173.4	127.2	93.5	112.8	116.9
167.5°	82.4	107.9	134.3	124.7	116.5	124.7	134.3	107.9	82.4	100.3	104.8
170°	67.1	81.0	101.1	118.2	109.1	118.2	101.1	81.0	67.1	84.3	97.4
172.5°	57.2	58.9	81.3	83.2	77.2	83.2	81.3	58.9	57.2	73.6	82.3
175°	48.4	47.6	59.6	58.6	52.0	58.6	59.6	47.6	48.4	53.4	60.8
177.5°	36.6	35.7	32.4	30.7	28.1	30.7	32.4	35.7	36.6	35.3	38.5
180°	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	70.8	70.8	70.8	70.8	70.8	70.8
2.5°	91.2	95.3	91.2	85.3	75.7	74.8
5°	123.3	125.3	123.3	112.4	95.3	85.1
7.5°	148.8	144.9	148.8	143.2	113.7	93.9
10°	166.1	163.7	166.1	163.3	134.5	106.7
12.5°	181.6	177.8	181.6	177.0	159.9	121.1
15°	194.2	188.9	194.2	189.6	181.6	134.9
17.5°	203.3	195.2	203.3	201.0	195.4	145.2
20°	207.7	195.2	207.7	210.1	206.1	153.1
22.5°	208.0	193.2	208.0	216.6	212.5	161.0
25°	205.2	187.5	205.2	219.9	215.6	167.3
27.5°	201.2	179.5	201.2	218.7	218.9	172.7
30°	194.5	170.0	194.5	217.9	220.9	176.6
32.5°	186.3	162.6	186.3	214.8	222.4	180.0
35°	179.5	153.8	179.5	209.4	222.3	184.1
37.5°	171.2	143.7	171.2	201.5	223.9	187.5
40°	163.3	135.0	163.3	194.9	223.9	190.4
42.5°	156.2	127.2	156.2	188.9	222.6	192.0
45°	148.3	119.6	148.3	182.5	221.5	192.1
47.5°	141.2	112.2	141.2	176.1	220.2	193.2
50°	135.4	104.0	135.4	169.0	217.2	193.5
52.5°	129.2	97.5	129.2	163.2	213.8	193.5
55°	123.2	90.4	123.2	156.6	208.9	193.0
57.5°	117.3	84.8	117.3	151.3	202.5	191.0
60°	112.5	78.2	112.5	144.8	196.3	188.0
62.5°	107.3	73.3	107.3	139.5	189.9	183.6
65°	102.8	67.7	102.8	133.4	182.0	175.6
67.5°	98.0	63.7	98.0	129.0	173.7	164.4
70°	93.6	59.8	93.6	124.7	165.6	152.2
72.5°	90.7	55.6	90.7	120.2	157.2	141.0
75°	86.8	52.6	86.8	116.5	150.7	132.9
77.5°	84.6	49.1	84.6	112.7	144.8	128.3
80°	80.7	46.7	80.7	110.0	141.0	124.5
82.5°	78.2	43.6	78.2	107.0	137.3	121.4
85°	75.8	41.7	75.8	103.6	134.7	120.2
87.5°	73.4	38.7	73.4	102.1	132.4	118.7
90°	71.5	37.2	71.5	100.3	130.6	119.0
92.5°	67.4	33.5	67.4	101.4	132.4	127.1
95°	66.8	37.0	66.8	100.9	133.1	128.2
97.5°	67.2	38.8	67.2	101.8	133.9	128.1
100°	67.4	40.3	67.4	101.7	134.2	127.8
102.5°	68.5	37.4	68.5	102.7	135.8	127.5
105°	68.7	37.7	68.7	102.8	136.4	128.3
107.5°	70.2	38.1	70.2	104.2	138.1	128.3
110°	70.3	38.7	70.3	104.0	138.8	129.5

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	71.8	39.0	71.8	105.4	142.4	130.6
115°	71.7	40.2	71.7	105.1	145.2	132.9
117.5°	73.1	41.5	73.1	105.7	150.1	134.6
120°	73.1	44.1	73.1	106.5	153.3	136.7
122.5°	74.4	45.5	74.4	108.1	158.7	137.8
125°	75.8	47.9	75.8	110.3	163.0	139.1
127.5°	76.9	49.4	76.9	111.9	166.7	139.9
130°	79.1	52.0	79.1	114.5	169.8	140.4
132.5°	81.2	54.3	81.2	116.6	171.5	140.2
135°	83.4	57.6	83.4	120.8	173.5	139.3
137.5°	87.4	61.0	87.4	124.6	173.7	139.1
140°	90.7	65.1	90.7	128.0	171.2	137.2
142.5°	95.7	70.3	95.7	133.4	167.9	133.4
145°	100.6	74.5	100.6	138.1	163.7	129.1
147.5°	107.3	80.3	107.3	142.5	158.3	125.5
150°	113.1	86.8	113.1	143.8	153.6	121.3
152.5°	120.4	95.0	120.4	146.2	146.8	117.3
155°	124.9	101.7	124.9	146.1	142.4	112.8
157.5°	128.1	108.5	128.1	143.1	136.6	108.9
160°	129.3	114.3	129.3	138.1	129.9	106.1
162.5°	128.6	118.5	128.6	128.4	122.2	101.1
165°	123.8	116.6	123.8	116.9	112.8	93.5
167.5°	113.2	109.7	113.2	104.8	100.3	82.4
170°	100.2	99.0	100.2	97.4	84.3	67.1
172.5°	80.3	83.9	80.3	82.3	73.6	57.2
175°	65.0	66.5	65.0	60.8	53.4	48.4
177.5°	43.8	44.2	43.8	38.5	35.3	36.6
180°	28.4	28.4	28.4	28.4	28.4	28.4

(END OF REPORT)