

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: SHAPER

Report Number: 19153A

Luminaire Tested: **604-36-F2/14**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 19153A
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 604-36-F2/14
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS
Light Source: TWO 14 WATT T5 LAMPS. LUMEN RATING = 1200 LMS.

Ballast/Driver: -

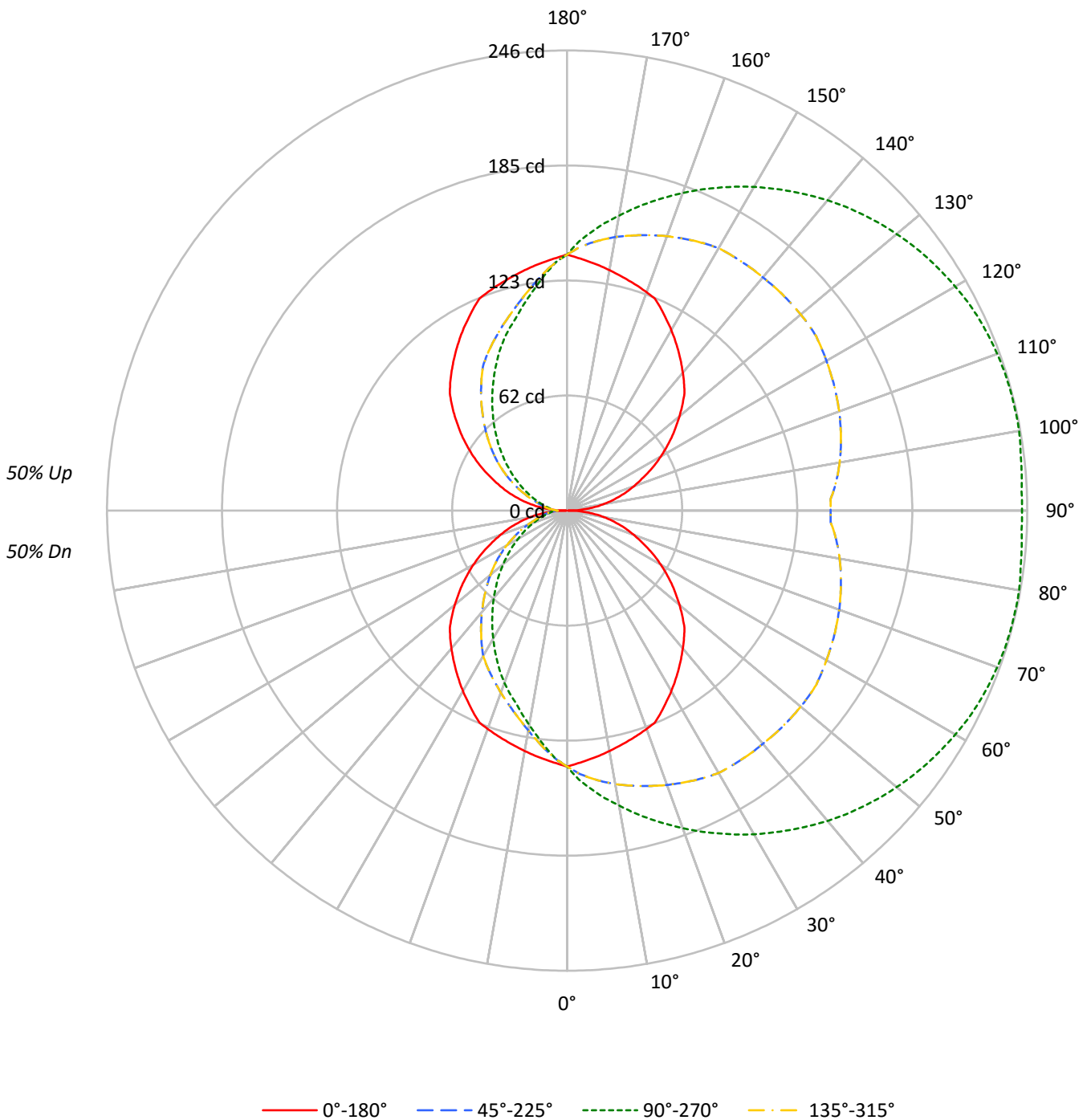
Summary

Lumens per Lamp: 1200 (2 lamps)
Luminaire Lumens: 1246.2 lumens
Efficiency: 51.9%
Efficacy: -
Spacing Criteria (0/90/45): 1.21 / 1.55 / 1.53
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 1.35' x H: 0.32')
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

TEST NUMBER: 19153A
CATALOG NUMBER: 604-36-F2/14

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	56	56	56	56	51	51	51	51	43	43	43	36	36	36	29	29	29	26																			
1	49	46	44	41	45	43	40	38	36	34	32	29	28	27	23	22	21	19																			
2	44	40	36	33	40	36	33	30	30	28	26	25	23	21	20	18	17	14																			
3	40	34	30	26	36	32	28	25	26	23	21	21	19	17	17	15	14	12																			
4	36	30	25	22	33	28	24	20	23	20	17	19	16	14	15	13	12	10																			
5	33	27	22	19	30	24	20	17	20	17	15	17	14	12	13	11	10	8																			
6	31	24	19	16	28	22	18	15	18	15	13	15	12	11	12	10	8	7																			
7	28	21	17	14	26	20	16	13	17	13	11	14	11	9	11	9	7	6																			
8	26	19	15	12	24	18	14	11	15	12	10	12	10	8	10	8	7	5																			
9	24	18	13	11	22	16	13	10	14	11	9	11	9	7	9	7	6	5																			
10	23	16	12	9	21	15	11	9	13	10	8	10	8	6	8	7	5	4																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	4742	4742	4742	4742
5°	4555	4638	4555	3955
10°	4409	4525	4409	3287
15°	4296	4460	4296	2779
20°	4218	4425	4218	2400
25°	4095	4417	4095	2055
30°	3922	4435	3922	1756
35°	3767	4467	3767	1498
40°	3631	4522	3631	1274
45°	3515	4586	3515	1078
50°	3297	4667	3297	905
55°	3075	4761	3075	753
60°	2841	4872	2841	618
65°	2583	5002	2583	502
70°	2326	5143	2326	399
75°	2047	5310	2047	314
80°	1686	5510	1686	245
85°	1147	5739	1147	200



TEST NUMBER: 19153A
 CATALOG NUMBER: 604-36-F2/14

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	12.9	1.0	0.5
10°-20°	37.5	3.0	1.6
20°-30°	59.3	4.8	2.5
30°-40°	76.0	6.1	3.2
40°-50°	87.3	7.0	3.6
50°-60°	92.2	7.4	3.8
60°-70°	91.4	7.3	3.8
70°-80°	86.9	7.0	3.6
80°-90°	79.7	6.4	3.3
90°-100°	79.7	6.4	3.3
100°-110°	86.9	7.0	3.6
110°-120°	91.4	7.3	3.8
120°-130°	92.2	7.4	3.8
130°-140°	87.3	7.0	3.6
140°-150°	76.0	6.1	3.2
150°-160°	59.3	4.8	2.5
160°-170°	37.5	3.0	1.6
170°-180°	12.9	1.0	0.5
0°-30°	109.7	8.8	4.6
0°-40°	185.6	14.9	7.7
0°-60°	365.1	29.3	15.2
0°-90°	623.1	50.0	26.0
90°-120°	258.0	20.7	10.8
90°-150°	513.4	41.2	21.4
90°-180°	623.0	50.0	26.0
0°-180°	1246.2	100.0	51.9

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	137	137	137	137	137	
5°	134	150	134	128	134	13
15°	127	171	127	106	127	36
25°	119	190	119	89	119	55
35°	104	208	104	70	104	65
45°	89	224	89	53	89	68
55°	68	235	68	37	68	61
65°	48	243	48	24	48	47
75°	29	246	29	14	29	30
85°	11	244	11	8	11	11
90°	0	243	0	8	0	2
95°	11	244	11	8	11	11
105°	29	246	29	14	29	30
115°	48	243	48	24	48	47
125°	68	235	68	37	68	61
135°	89	224	89	53	89	68
145°	104	208	104	70	104	65
155°	119	190	119	89	119	55
165°	127	171	127	106	127	36
175°	134	150	134	128	134	13
180°	137	137	137	137	137	



TEST NUMBER: 19153A
 CATALOG NUMBER: 604-36-F2/14

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8
2.5°	135.2	138.0	140.6	142.7	144.0	142.7	140.6	138.0	135.2	133.9	133.1
5°	133.6	139.0	143.6	147.3	149.5	147.3	143.6	139.0	133.6	131.1	128.7
7.5°	132.1	139.7	146.1	151.5	155.1	151.5	146.1	139.7	132.1	128.0	124.0
10°	130.5	140.0	148.5	155.4	160.1	155.4	148.5	140.0	130.5	124.8	119.4
12.5°	128.9	140.2	150.5	159.3	165.5	159.3	150.5	140.2	128.9	121.7	115.0
15°	127.3	140.4	152.4	163.2	170.6	163.2	152.4	140.4	127.3	118.7	111.0
17.5°	125.8	140.4	154.3	166.8	175.6	166.8	154.3	140.4	125.8	115.8	107.2
20°	124.2	140.2	156.1	170.4	180.7	170.4	156.1	140.2	124.2	113.0	103.6
22.5°	122.7	140.0	157.7	173.9	185.7	173.9	157.7	140.0	122.7	110.4	100.0
25°	118.9	139.3	159.3	177.2	190.4	177.2	159.3	139.3	118.9	107.1	96.6
27.5°	115.1	137.6	160.7	180.3	195.2	180.3	160.7	137.6	115.1	102.6	93.2
30°	111.4	135.8	162.0	183.3	199.8	183.3	162.0	135.8	111.4	98.1	89.7
32.5°	107.6	134.0	162.3	186.2	204.1	186.2	162.3	134.0	107.6	93.6	85.0
35°	103.8	132.3	162.5	189.0	208.4	189.0	162.5	132.3	103.8	89.2	80.2
37.5°	100.0	130.4	162.7	191.7	212.5	191.7	162.7	130.4	100.0	84.8	75.5
40°	96.2	128.5	162.8	194.3	216.6	194.3	162.8	128.5	96.2	80.4	70.8
42.5°	92.5	126.5	163.0	196.8	220.3	196.8	163.0	126.5	92.5	76.2	66.4
45°	88.7	124.6	163.1	199.1	223.7	199.1	163.1	124.6	88.7	71.9	61.9
47.5°	83.5	122.4	163.1	201.3	227.0	201.3	163.1	122.4	83.5	67.7	57.6
50°	78.4	119.3	163.0	202.4	230.0	202.4	163.0	119.3	78.4	62.8	53.5
52.5°	73.2	116.2	162.9	203.4	232.8	203.4	162.9	116.2	73.2	57.9	49.5
55°	68.1	113.1	162.5	204.3	235.3	204.3	162.5	113.1	68.1	53.1	45.6
57.5°	62.9	109.8	161.3	205.2	237.5	205.2	161.3	109.8	62.9	48.4	41.3
60°	57.8	106.5	160.1	206.0	239.6	206.0	160.1	106.5	57.8	43.7	37.3
62.5°	52.7	103.1	158.8	206.7	241.5	206.7	158.8	103.1	52.7	39.1	33.4
65°	47.5	99.7	157.6	207.5	242.9	207.5	157.6	99.7	47.5	34.6	29.6
67.5°	42.4	96.1	156.2	208.2	243.9	208.2	156.2	96.1	42.4	30.1	26.0
70°	37.9	92.9	154.8	208.4	244.7	208.4	154.8	92.9	37.9	26.2	22.6
72.5°	33.4	90.2	153.2	207.7	245.3	207.7	153.2	90.2	33.4	23.2	19.3
75°	28.8	87.3	151.5	207.0	245.5	207.0	151.5	87.3	28.8	20.2	16.6
77.5°	24.3	84.4	149.8	206.5	245.5	206.5	149.8	84.4	24.3	17.2	14.6
80°	19.8	81.3	147.9	205.7	245.4	205.7	147.9	81.3	19.8	14.3	12.6
82.5°	15.3	78.1	145.9	204.2	244.5	204.2	145.9	78.1	15.3	11.4	10.7
85°	10.7	74.8	143.6	202.3	243.9	202.3	143.6	74.8	10.7	8.5	8.8
87.5°	6.3	71.3	141.0	200.0	243.2	200.0	141.0	71.3	6.3	5.7	7.0
90°	0.5	71.3	140.8	199.8	243.2	199.8	140.8	71.3	0.5	2.8	5.2
92.5°	6.3	71.3	141.0	200.0	243.2	200.0	141.0	71.3	6.3	5.7	7.0
95°	10.7	74.8	143.6	202.3	243.9	202.3	143.6	74.8	10.7	8.5	8.8
97.5°	15.3	78.1	145.9	204.2	244.5	204.2	145.9	78.1	15.3	11.4	10.7
100°	19.8	81.3	147.9	205.7	245.4	205.7	147.9	81.3	19.8	14.3	12.6
102.5°	24.3	84.4	149.8	206.5	245.5	206.5	149.8	84.4	24.3	17.2	14.6
105°	28.8	87.3	151.5	207.0	245.5	207.0	151.5	87.3	28.8	20.2	16.6
107.5°	33.4	90.2	153.2	207.7	245.3	207.7	153.2	90.2	33.4	23.2	19.3
110°	37.9	92.9	154.8	208.4	244.7	208.4	154.8	92.9	37.9	26.2	22.6



TEST NUMBER: 19153A
 CATALOG NUMBER: 604-36-F2/14

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	42.4	96.1	156.2	208.2	243.9	208.2	156.2	96.1	42.4	30.1	26.0
115°	47.5	99.7	157.6	207.5	242.9	207.5	157.6	99.7	47.5	34.6	29.6
117.5°	52.7	103.1	158.8	206.7	241.5	206.7	158.8	103.1	52.7	39.1	33.4
120°	57.8	106.5	160.1	206.0	239.6	206.0	160.1	106.5	57.8	43.7	37.3
122.5°	62.9	109.8	161.3	205.2	237.5	205.2	161.3	109.8	62.9	48.4	41.3
125°	68.1	113.1	162.5	204.3	235.3	204.3	162.5	113.1	68.1	53.1	45.6
127.5°	73.2	116.2	162.9	203.4	232.8	203.4	162.9	116.2	73.2	57.9	49.5
130°	78.4	119.3	163.0	202.4	230.0	202.4	163.0	119.3	78.4	62.8	53.5
132.5°	83.5	122.4	163.1	201.3	227.0	201.3	163.1	122.4	83.5	67.7	57.6
135°	88.7	124.6	163.1	199.1	223.7	199.1	163.1	124.6	88.7	71.9	61.9
137.5°	92.5	126.5	163.0	196.8	220.3	196.8	163.0	126.5	92.5	76.2	66.4
140°	96.2	128.5	162.8	194.3	216.6	194.3	162.8	128.5	96.2	80.4	70.8
142.5°	100.0	130.4	162.7	191.7	212.5	191.7	162.7	130.4	100.0	84.8	75.5
145°	103.8	132.3	162.5	189.0	208.4	189.0	162.5	132.3	103.8	89.2	80.2
147.5°	107.6	134.0	162.3	186.2	204.1	186.2	162.3	134.0	107.6	93.6	85.0
150°	111.4	135.8	162.0	183.3	199.8	183.3	162.0	135.8	111.4	98.1	89.7
152.5°	115.1	137.6	160.7	180.3	195.2	180.3	160.7	137.6	115.1	102.6	93.2
155°	118.9	139.3	159.3	177.2	190.4	177.2	159.3	139.3	118.9	107.1	96.6
157.5°	122.7	140.0	157.7	173.9	185.7	173.9	157.7	140.0	122.7	110.4	100.0
160°	124.2	140.2	156.1	170.4	180.7	170.4	156.1	140.2	124.2	113.0	103.6
162.5°	125.8	140.4	154.3	166.8	175.6	166.8	154.3	140.4	125.8	115.8	107.2
165°	127.3	140.4	152.4	163.2	170.6	163.2	152.4	140.4	127.3	118.7	111.0
167.5°	128.9	140.2	150.5	159.3	165.5	159.3	150.5	140.2	128.9	121.7	115.0
170°	130.5	140.0	148.5	155.4	160.1	155.4	148.5	140.0	130.5	124.8	119.4
172.5°	132.1	139.7	146.1	151.5	155.1	151.5	146.1	139.7	132.1	128.0	124.0
175°	133.6	139.0	143.6	147.3	149.5	147.3	143.6	139.0	133.6	131.1	128.7
177.5°	135.2	138.0	140.6	142.7	144.0	142.7	140.6	138.0	135.2	133.9	133.1
180°	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8	136.8



TEST NUMBER: 19153A
 CATALOG NUMBER: 604-36-F2/14

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	136.8	136.8	136.8	136.8	136.8	136.8
2.5°	132.8	133.1	132.8	133.1	133.9	135.2
5°	127.3	127.5	127.3	128.7	131.1	133.6
7.5°	121.7	121.8	121.7	124.0	128.0	132.1
10°	116.3	116.3	116.3	119.4	124.8	130.5
12.5°	111.4	111.4	111.4	115.0	121.7	128.9
15°	106.7	106.3	106.7	111.0	118.7	127.3
17.5°	102.3	102.3	102.3	107.2	115.8	125.8
20°	98.2	98.0	98.2	103.6	113.0	124.2
22.5°	93.9	93.4	93.9	100.0	110.4	122.7
25°	89.5	88.6	89.5	96.6	107.1	118.9
27.5°	85.2	83.8	85.2	93.2	102.6	115.1
30°	80.9	79.1	80.9	89.7	98.1	111.4
32.5°	76.7	74.4	76.7	85.0	93.6	107.6
35°	72.5	69.9	72.5	80.2	89.2	103.8
37.5°	68.4	65.3	68.4	75.5	84.8	100.0
40°	64.4	61.0	64.4	70.8	80.4	96.2
42.5°	60.4	56.7	60.4	66.4	76.2	92.5
45°	56.6	52.6	56.6	61.9	71.9	88.7
47.5°	52.8	48.6	52.8	57.6	67.7	83.5
50°	48.4	44.6	48.4	53.5	62.8	78.4
52.5°	44.3	40.9	44.3	49.5	57.9	73.2
55°	40.3	37.2	40.3	45.6	53.1	68.1
57.5°	36.5	33.7	36.5	41.3	48.4	62.9
60°	33.0	30.4	33.0	37.3	43.7	57.8
62.5°	29.6	27.3	29.6	33.4	39.1	52.7
65°	26.5	24.4	26.5	29.6	34.6	47.5
67.5°	23.7	21.6	23.7	26.0	30.1	42.4
70°	20.9	19.0	20.9	22.6	26.2	37.9
72.5°	18.2	16.6	18.2	19.3	23.2	33.4
75°	15.7	14.5	15.7	16.6	20.2	28.8
77.5°	13.5	12.6	13.5	14.6	17.2	24.3
80°	11.4	10.9	11.4	12.6	14.3	19.8
82.5°	10.0	9.5	10.0	10.7	11.4	15.3
85°	9.0	8.5	9.0	8.8	8.5	10.7
87.5°	8.0	8.0	8.0	7.0	5.7	6.3
90°	7.1	7.6	7.1	5.2	2.8	0.5
92.5°	8.0	8.0	8.0	7.0	5.7	6.3
95°	9.0	8.5	9.0	8.8	8.5	10.7
97.5°	10.0	9.5	10.0	10.7	11.4	15.3
100°	11.4	10.9	11.4	12.6	14.3	19.8
102.5°	13.5	12.6	13.5	14.6	17.2	24.3
105°	15.7	14.5	15.7	16.6	20.2	28.8
107.5°	18.2	16.6	18.2	19.3	23.2	33.4
110°	20.9	19.0	20.9	22.6	26.2	37.9



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	23.7	21.6	23.7	26.0	30.1	42.4
115°	26.5	24.4	26.5	29.6	34.6	47.5
117.5°	29.6	27.3	29.6	33.4	39.1	52.7
120°	33.0	30.4	33.0	37.3	43.7	57.8
122.5°	36.5	33.7	36.5	41.3	48.4	62.9
125°	40.3	37.2	40.3	45.6	53.1	68.1
127.5°	44.3	40.9	44.3	49.5	57.9	73.2
130°	48.4	44.6	48.4	53.5	62.8	78.4
132.5°	52.8	48.6	52.8	57.6	67.7	83.5
135°	56.6	52.6	56.6	61.9	71.9	88.7
137.5°	60.4	56.7	60.4	66.4	76.2	92.5
140°	64.4	61.0	64.4	70.8	80.4	96.2
142.5°	68.4	65.3	68.4	75.5	84.8	100.0
145°	72.5	69.9	72.5	80.2	89.2	103.8
147.5°	76.7	74.4	76.7	85.0	93.6	107.6
150°	80.9	79.1	80.9	89.7	98.1	111.4
152.5°	85.2	83.8	85.2	93.2	102.6	115.1
155°	89.5	88.6	89.5	96.6	107.1	118.9
157.5°	93.9	93.4	93.9	100.0	110.4	122.7
160°	98.2	98.0	98.2	103.6	113.0	124.2
162.5°	102.3	102.3	102.3	107.2	115.8	125.8
165°	106.7	106.3	106.7	111.0	118.7	127.3
167.5°	111.4	111.4	111.4	115.0	121.7	128.9
170°	116.3	116.3	116.3	119.4	124.8	130.5
172.5°	121.7	121.8	121.7	124.0	128.0	132.1
175°	127.3	127.5	127.3	128.7	131.1	133.6
177.5°	132.8	133.1	132.8	133.1	133.9	135.2
180°	136.8	136.8	136.8	136.8	136.8	136.8

(END OF REPORT)