

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: H26061

Luminaire Tested: **RDS-12-32CT**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: H26061
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: RDS-12-32CT
Description: FAIL-SAFE RDS-12 WITH DOME TRIM RING
CONTAINING STANDARD LENS
Light Source: F32PLT 32W 2400 LUMENS
HEX TUBE COMPACT FLUORESCENT
Ballast/Driver: -

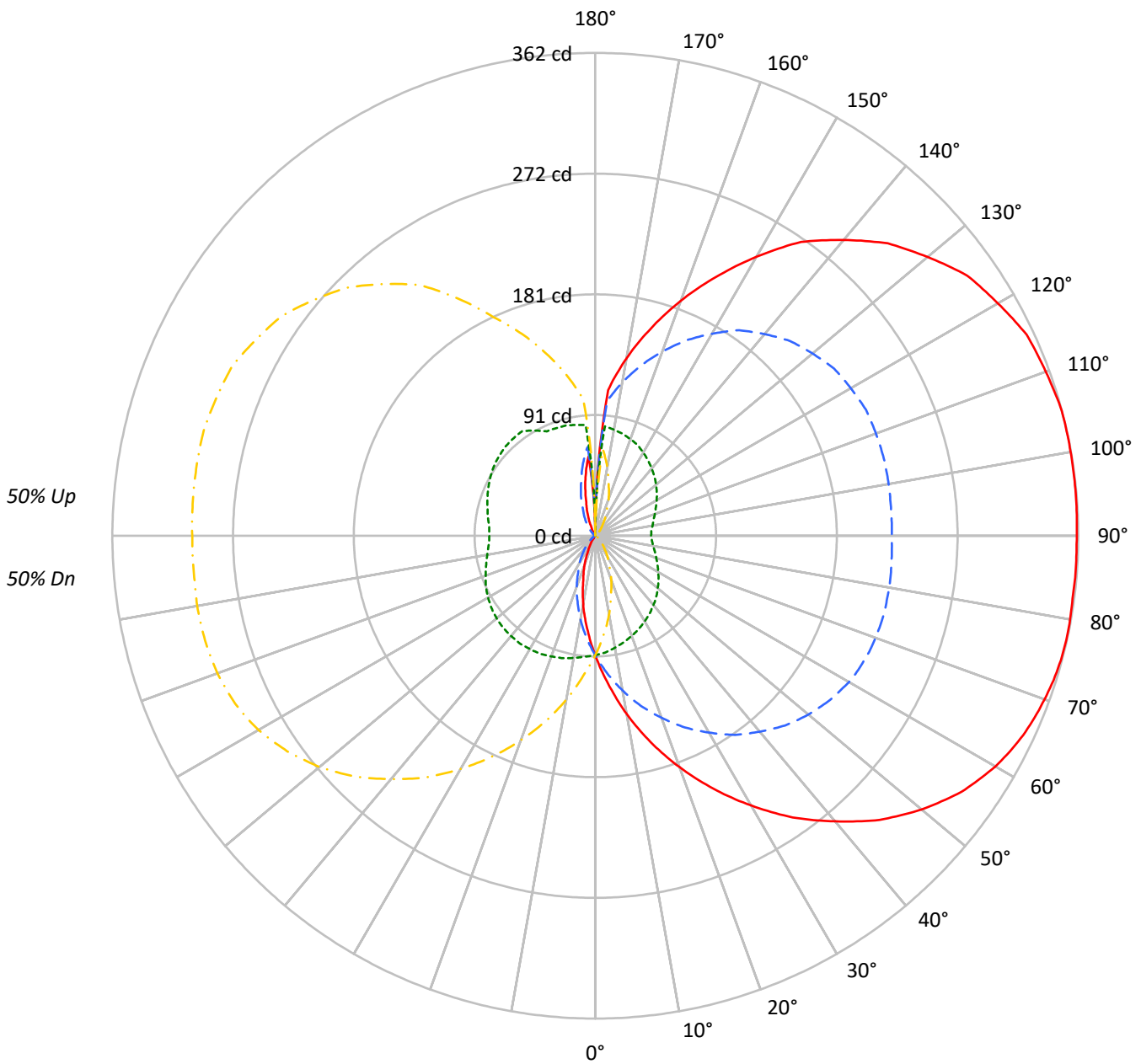
Summary

Lumens per Lamp: 2400 (1 lamp)
Luminaire Lumens: 1500.6 lumens
Efficiency: 62.5%
Efficacy: 41.7 lumens/watt
Spacing Criteria (0/90/45): 2.3 / 1.45 / 2.09
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: General Diffuse

Input Watts (W): 36
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: H26061
CATALOG NUMBER: RDS-12-32CT

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - . - 135°-315°



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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	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	67	67	67	67	62	62	62	62	52	52	52	43	43	43	35	35	35	31																												
1	58	54	51	47	53	50	47	44	41	39	37	34	32	30	26	25	24	20																												
2	52	46	41	37	47	42	37	34	35	31	28	28	25	23	22	20	18	15																												
3	47	39	34	29	42	36	31	27	30	26	23	24	21	18	18	16	14	11																												
4	42	34	28	24	38	31	26	22	26	22	18	21	17	15	16	13	11	9																												
5	38	30	24	20	35	28	22	18	23	19	15	18	15	12	14	12	10	7																												
6	35	27	21	17	32	25	19	16	20	16	13	16	13	11	13	10	8	6																												
7	32	24	18	15	30	22	17	13	18	14	11	15	11	9	11	9	7	5																												
8	30	22	16	13	27	20	15	12	16	13	10	13	10	8	10	8	6	4																												
9	28	20	14	11	25	18	13	10	15	11	9	12	9	7	9	7	5	4																												
10	26	18	13	10	24	16	12	9	14	10	8	11	8	6	9	6	5	3																												

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	Luminaire represents a point source (luminous area is zero).			
5°	No luminance values can be calculated.			
10°				
15°				
20°				
25°				
30°				
35°				
40°				
45°				
50°				
55°				
60°				
65°				
70°				
75°				
80°				
85°				



TEST NUMBER: H26061
 CATALOG NUMBER: RDS-12-32CT

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°	Flux
0°-10°	8.6	0.6	0.4	0°	90	90	90	90	90	
10°-20°	26.6	1.8	1.1	5°	111	88	70	91	111	11
20°-30°	46.2	3.1	1.9	15°	160	83	35	95	160	45
30°-40°	67.8	4.5	2.8	25°	209	77	13	98	209	97
40°-50°	90.2	6.0	3.8	35°	258	71	2	99	258	161
50°-60°	111.2	7.4	4.6	45°	301	65	1	98	301	232
60°-70°	126.7	8.4	5.3	55°	335	58	1	95	335	300
70°-80°	135.5	9.0	5.6	65°	354	51	1	90	354	351
80°-90°	138.6	9.2	5.8	75°	361	46	1	85	361	382
90°-100°	138.6	9.2	5.8	85°	361	43	1	80	361	295
100°-110°	135.2	9.0	5.6	90°	361	42	1	79	361	198
110°-120°	126.5	8.4	5.3	95°	362	42	1	80	362	295
120°-130°	111.5	7.4	4.6	105°	362	45	1	84	362	381
130°-140°	91.3	6.1	3.8	115°	357	50	1	88	357	351
140°-150°	67.9	4.5	2.8	125°	340	56	1	92	340	302
150°-160°	45.0	3.0	1.9	135°	310	63	1	95	310	238
160°-170°	25.2	1.7	1.1	145°	269	69	1	96	269	167
170°-180°	4.1	0.3	0.2	155°	214	75	7	86	214	99
0°-30°	81.5	5.4	3.4	165°	161	79	26	86	161	46
0°-40°	149.2	9.9	6.2	175°	110	82	59	83	110	6
0°-60°	350.6	23.4	14.6	180°	0	0	0	0	0	
0°-90°	751.5	50.1	31.3							
90°-120°	400.3	26.7	16.7							
90°-150°	670.9	44.7	28.0							
90°-180°	745.0	49.6	31.0							
0°-180°	1500.6	100.0	62.5							



TEST NUMBER: H26061
 CATALOG NUMBER: RDS-12-32CT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
5°	111.4	111.1	110.3	108.7	106.3	103.7	100.8	97.0	93.3	89.7	87.8
15°	160.1	158.5	155.1	148.9	141.3	132.0	122.0	110.6	99.5	88.4	82.6
25°	209.2	207.4	200.1	189.0	175.0	158.5	140.7	122.2	103.4	85.6	77.1
35°	257.8	255.1	242.9	226.5	206.0	182.3	156.9	131.0	105.6	82.1	71.0
45°	301.3	296.6	281.1	258.8	231.6	201.1	168.8	136.4	105.3	77.4	64.6
50°	319.3	314.5	297.3	272.4	242.4	208.6	173.4	138.0	104.4	74.6	61.1
55°	334.9	329.5	310.6	284.0	251.6	214.7	176.7	138.8	102.9	71.8	57.8
60°	346.2	340.2	320.7	292.4	258.4	219.4	179.0	138.9	101.2	68.8	54.4
62.5°	350.3	344.1	324.2	295.7	261.1	221.0	179.9	138.7	100.2	67.4	52.9
65°	353.8	347.6	327.3	298.0	262.9	222.1	180.2	138.5	99.1	66.1	51.4
67.5°	356.3	349.9	329.4	300.0	264.5	223.1	180.6	137.9	98.2	64.6	49.9
70°	358.4	351.9	331.4	301.6	265.8	223.5	180.5	137.3	96.9	63.1	48.6
72.5°	360.1	353.7	332.8	302.4	266.2	223.9	180.3	136.8	96.1	61.9	47.4
75°	361.2	354.8	333.7	303.5	266.7	224.1	180.1	136.0	95.0	60.6	46.2
77.5°	361.5	355.0	334.1	303.8	267.0	223.8	179.7	135.4	94.0	59.6	45.0
80°	361.4	355.0	333.8	303.8	266.6	223.7	179.2	134.7	93.3	58.6	44.2
82.5°	360.8	354.7	333.7	303.5	266.7	223.4	178.8	134.2	92.6	57.7	43.3
85°	361.0	354.4	333.3	303.0	266.2	222.8	178.3	133.7	92.1	57.0	42.6
87.5°	360.9	354.3	332.9	302.9	265.8	222.5	178.0	133.2	91.4	56.5	42.1
90°	360.8	354.4	333.1	302.9	266.0	222.2	177.5	133.0	91.2	56.3	41.8
95°	361.5	355.0	333.8	303.5	266.0	222.5	177.7	133.0	91.4	56.5	42.1
105°	362.0	355.4	334.2	304.0	267.2	223.9	179.8	135.6	94.2	59.5	45.0
115°	356.7	350.5	329.9	300.8	265.0	223.7	181.3	138.5	98.5	64.7	50.0
125°	340.2	334.3	316.0	288.9	256.4	218.5	179.0	139.7	102.7	70.6	56.2
135°	310.0	305.7	289.8	266.9	238.6	206.5	172.6	138.3	105.6	76.2	62.7
145°	268.9	265.1	253.4	235.6	213.6	188.1	160.9	133.4	106.3	81.0	68.9
155°	214.1	211.9	204.7	193.8	179.1	161.6	142.7	122.5	102.7	83.7	75.0
165°	160.9	160.4	156.3	150.3	141.5	132.1	121.0	109.0	96.8	84.7	79.1
175°	109.6	109.3	108.7	107.0	104.3	101.1	97.4	93.2	88.9	84.7	82.3
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: H26061
 CATALOG NUMBER: RDS-12-32CT

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
5°	85.9	82.4	79.3	76.0	73.8	71.8	70.3	70.0	70.0	69.8	70.1
15°	77.2	67.5	58.8	51.2	45.2	40.6	37.0	35.1	34.6	34.6	35.4
25°	68.8	54.5	41.8	32.0	24.5	19.8	15.9	13.6	12.9	13.0	13.3
35°	60.5	43.1	29.0	19.4	12.1	7.4	4.5	2.9	2.4	2.3	2.5
45°	52.7	33.6	20.2	10.7	4.9	2.0	0.9	0.9	0.9	1.0	1.0
50°	48.9	29.7	16.5	7.9	2.9	1.1	0.9	0.9	0.9	0.9	1.0
55°	45.2	25.9	13.6	5.7	1.9	1.0	0.9	0.9	0.9	1.0	1.0
60°	42.0	23.8	11.1	4.1	1.3	1.0	1.0	0.9	0.9	1.0	1.0
62.5°	40.5	22.4	10.1	3.5	1.1	1.0	1.0	0.9	0.9	1.0	1.0
65°	39.0	21.2	9.3	3.1	1.1	1.0	1.0	0.9	1.0	1.0	1.0
67.5°	37.6	20.1	8.5	2.7	1.1	1.0	1.0	0.9	1.0	1.0	1.0
70°	36.2	19.0	7.8	2.4	1.1	1.0	1.0	0.9	1.0	1.0	1.0
72.5°	35.0	18.1	7.2	2.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0
75°	34.0	17.2	6.7	2.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	33.0	16.5	6.2	1.9	1.1	1.0	1.0	1.0	1.0	1.0	1.0
80°	32.0	15.8	5.9	1.8	1.1	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	31.3	15.3	5.6	1.7	1.1	1.0	1.0	1.0	1.0	1.0	1.0
85°	30.8	14.9	5.3	1.6	1.1	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	30.3	14.6	5.2	1.6	1.1	1.0	1.0	1.0	0.9	0.9	0.9
90°	30.1	14.4	5.1	1.5	1.1	1.0	1.0	1.0	0.9	0.9	0.9
95°	30.3	14.5	5.1	1.5	1.1	1.0	1.0	1.0	0.9	0.9	0.9
105°	32.6	16.1	5.9	1.7	1.1	1.0	0.9	0.9	0.9	0.9	0.8
115°	37.4	19.5	8.0	2.5	1.1	1.0	1.0	1.0	0.9	0.9	0.9
125°	43.3	24.6	11.6	4.4	1.3	1.0	1.0	1.0	0.9	0.9	0.9
135°	50.6	31.5	17.3	8.4	3.3	1.2	0.9	0.9	0.8	0.8	0.8
145°	58.0	40.1	25.8	15.6	8.5	4.3	2.0	1.0	0.7	0.7	0.7
155°	66.1	50.4	37.8	27.4	19.4	13.9	10.1	7.8	6.9	6.8	6.9
165°	73.2	62.3	52.6	45.1	38.7	33.1	29.7	27.1	26.5	26.2	26.7
175°	80.2	75.8	71.9	68.1	64.9	62.5	61.0	59.6	59.4	59.4	59.1
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: H26061
 CATALOG NUMBER: RDS-12-32CT

CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
5°	71.0	72.6	74.3	76.4	79.2	82.1	85.5	89.0	91.0	92.8	96.4
15°	37.2	40.5	45.0	51.2	58.9	67.3	78.0	89.0	95.0	101.1	112.9
25°	15.1	18.4	23.7	30.4	40.9	53.6	69.8	87.5	97.6	108.0	128.4
35°	3.2	5.3	9.5	16.6	26.2	41.2	61.3	84.8	98.6	113.1	142.1
45°	1.0	1.0	2.3	7.0	16.6	30.8	53.0	80.7	97.6	115.9	153.1
50°	1.0	1.0	1.1	4.0	12.6	26.3	48.9	78.2	96.5	116.4	157.2
55°	1.0	1.0	1.0	2.2	9.4	23.5	45.3	75.5	94.9	116.4	160.7
60°	1.0	1.0	0.9	1.1	6.9	20.3	41.8	72.8	92.8	115.4	162.8
62.5°	1.0	1.0	0.9	0.9	5.8	18.9	40.3	71.4	91.7	114.7	163.3
65°	1.1	1.0	0.9	0.9	5.0	17.6	38.7	69.9	90.4	113.7	163.3
67.5°	1.1	1.0	0.9	0.9	4.2	16.4	37.2	68.4	89.0	112.7	163.1
70°	1.1	1.0	0.9	0.8	3.6	15.4	35.8	67.0	87.5	111.4	162.6
72.5°	1.1	1.0	0.9	0.8	3.1	14.4	34.6	65.5	86.0	110.3	161.9
75°	1.1	1.0	0.9	0.8	2.6	13.6	33.6	64.2	84.7	108.8	160.9
77.5°	1.1	1.0	0.9	0.8	2.4	12.9	32.6	62.8	83.4	107.5	160.2
80°	1.1	1.0	0.9	0.8	2.1	12.3	31.6	61.8	82.2	106.4	159.1
82.5°	1.0	1.0	0.8	0.8	1.9	11.8	31.0	60.8	81.2	105.1	158.0
85°	1.0	1.0	0.8	0.7	1.7	11.4	30.3	60.1	80.3	104.4	157.3
87.5°	1.0	0.9	0.8	0.7	1.5	11.2	29.8	59.4	79.7	103.8	156.7
90°	1.0	0.9	0.8	0.7	1.4	11.0	29.6	59.4	79.4	103.4	156.3
95°	0.9	0.9	0.7	0.6	1.4	11.0	29.6	59.5	79.8	103.9	157.1
105°	0.9	0.8	0.7	0.6	1.8	12.2	31.6	62.7	83.7	108.2	161.1
115°	0.9	0.8	0.7	0.6	3.2	15.0	35.6	67.6	88.3	112.8	164.0
125°	0.9	0.8	0.7	0.8	6.2	19.7	41.2	72.4	92.4	115.2	161.9
135°	0.8	0.7	0.7	3.7	12.0	26.6	47.9	77.1	95.0	114.8	154.9
145°	0.9	1.9	4.9	10.9	21.2	36.0	55.9	81.1	95.7	111.7	143.5
155°	8.1	10.6	14.9	21.7	31.1	43.2	58.0	76.2	86.3	97.2	119.9
165°	28.0	31.2	35.3	41.1	48.4	57.0	67.6	79.4	85.5	92.1	105.3
175°	60.4	61.8	64.1	66.8	69.7	73.1	77.3	81.3	83.2	85.6	90.3
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: H26061
 CATALOG NUMBER: RDS-12-32CT

CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
5°	99.8	102.9	105.5	108.2	110.2	111.1	112.1	111.4
15°	124.3	134.4	143.8	150.9	157.1	159.7	160.9	160.1
25°	148.3	166.9	182.5	196.0	205.5	210.7	211.5	209.2
35°	170.7	197.7	221.1	239.3	253.0	260.4	261.2	257.8
45°	190.5	224.9	255.2	279.1	296.4	305.2	305.7	301.3
50°	198.9	236.8	269.7	296.2	314.7	324.9	324.4	319.3
55°	205.7	246.4	281.8	310.5	330.3	340.2	339.8	334.9
60°	210.9	253.9	291.4	321.8	342.5	352.6	352.1	346.2
62.5°	212.7	256.6	294.9	325.7	346.8	357.0	356.4	350.3
65°	214.0	259.2	297.8	329.0	350.2	360.5	359.8	353.8
67.5°	214.8	260.7	299.7	331.6	353.2	363.6	362.6	356.3
70°	215.1	261.5	301.4	333.6	355.5	365.8	365.0	358.4
72.5°	215.2	262.0	302.3	334.8	356.4	367.3	366.3	360.1
75°	214.8	262.4	302.8	335.8	357.6	368.5	367.3	361.2
77.5°	214.1	261.9	303.0	336.2	358.3	368.9	368.0	361.5
80°	213.6	261.5	303.0	336.2	358.2	368.6	367.9	361.4
82.5°	213.0	261.2	302.4	336.0	357.9	368.5	367.4	360.8
85°	212.4	260.7	302.1	335.7	357.7	368.2	367.4	361.0
87.5°	211.9	260.5	302.2	335.8	357.6	368.2	367.2	360.9
90°	211.9	260.5	302.1	335.7	357.7	368.0	367.1	360.8
95°	212.5	261.2	302.8	336.4	358.4	368.9	367.9	361.5
105°	215.7	263.1	303.9	336.8	358.8	369.2	368.5	362.0
115°	216.0	261.7	300.5	331.9	353.0	363.6	362.7	356.7
125°	209.3	251.3	287.1	316.0	336.0	345.6	345.7	340.2
135°	195.2	231.6	263.1	288.0	305.8	314.6	315.2	310.0
145°	175.4	204.2	229.5	250.1	263.8	271.6	272.3	268.9
155°	141.7	162.6	180.9	195.8	207.6	213.8	216.6	214.1
165°	118.6	130.4	141.1	149.7	156.1	160.2	161.5	160.9
175°	94.3	98.6	102.3	105.2	107.8	109.7	110.6	109.6
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)