



“Traffic Lighting”

-

Enhancing Client Comprehension

Craig McCulloch

craig.mcculloch@sympatico.ca



E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.



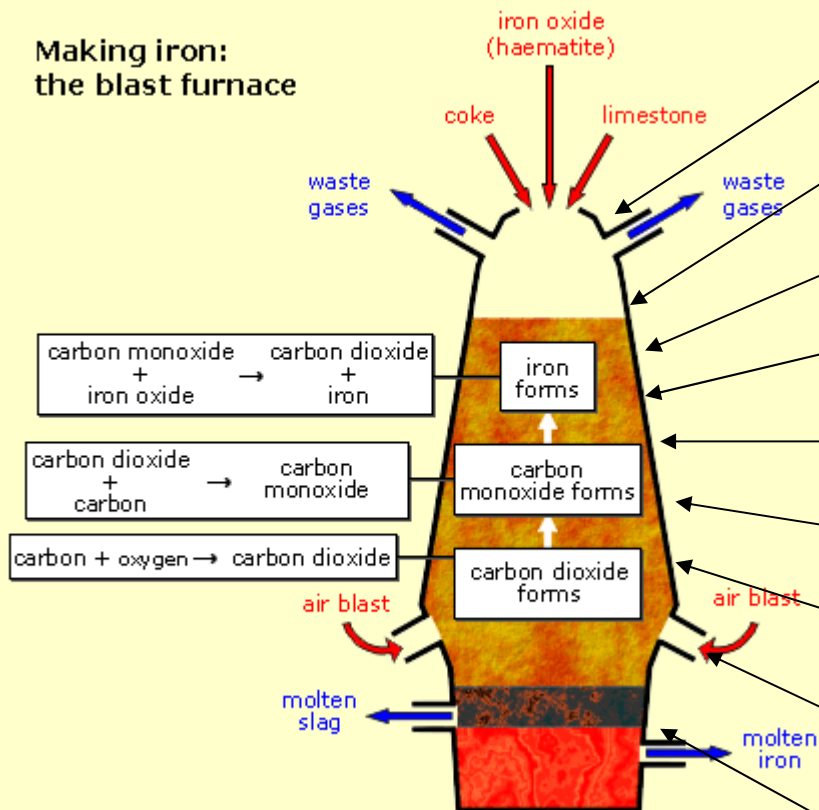
E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

Making iron: the blast furnace



Level 9

Level 8

Level 7

Level 6

Level 5

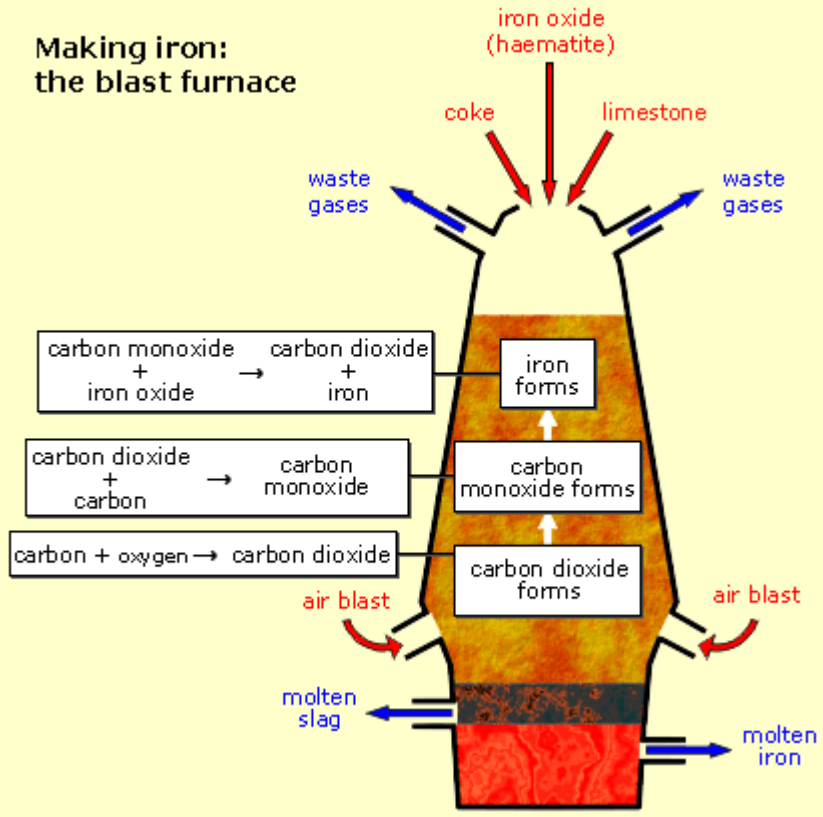
Level 4

Level 3

Level 2

Level 1

Making iron: the blast furnace



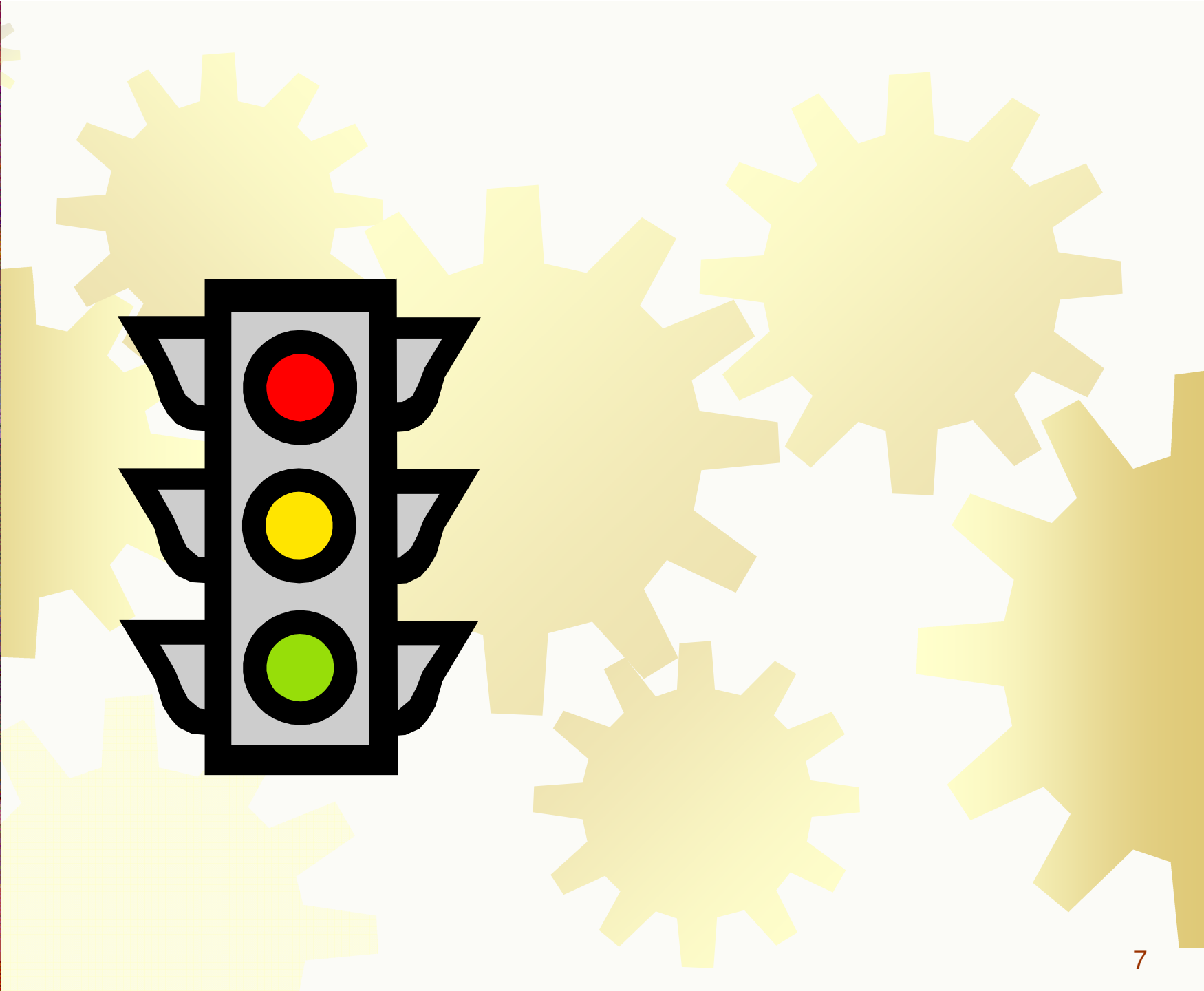
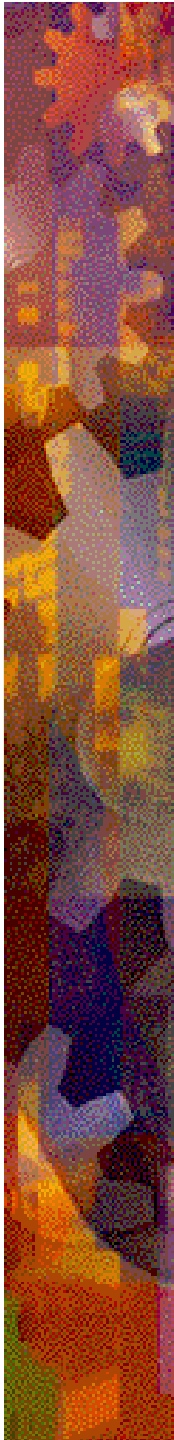


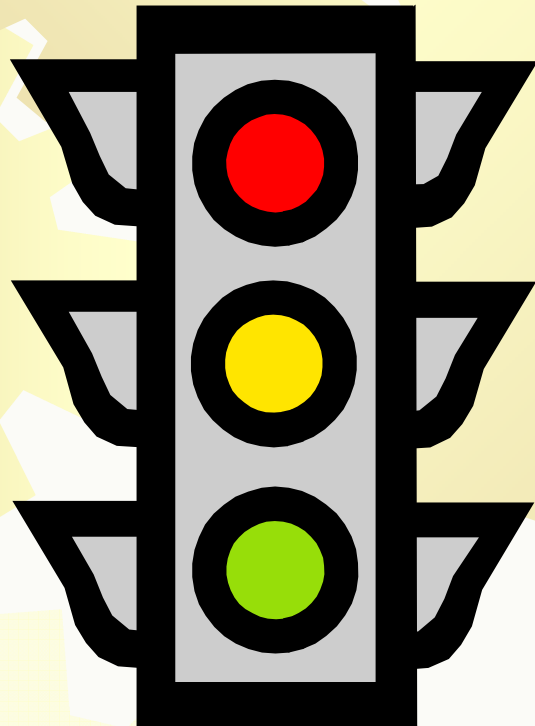
E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	125	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

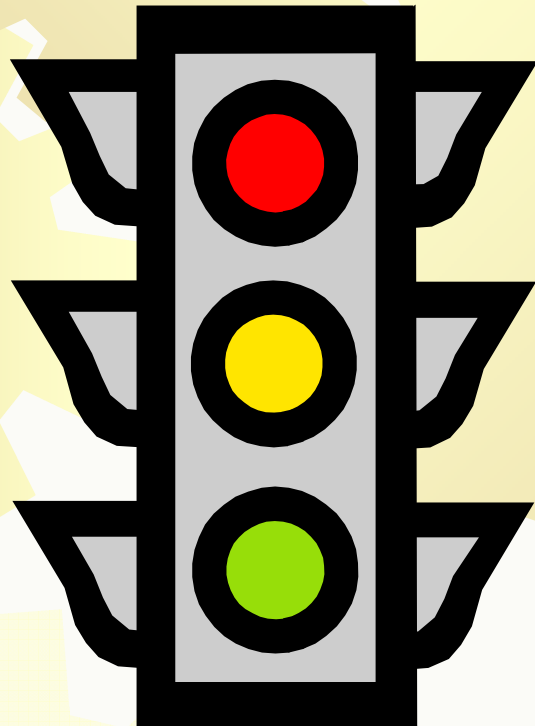
E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.



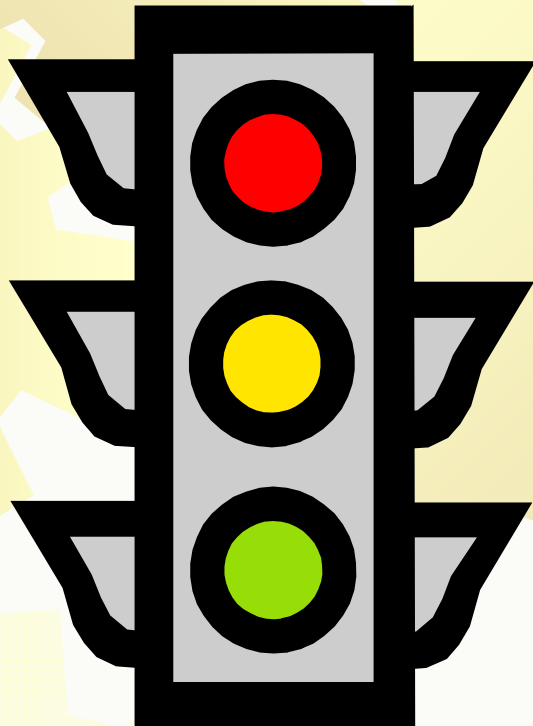


Failed Criteria – must be fixed A.S.A.P.



Failed

**Passed Criteria, but not
by much, possible future
problem.**



Failed

Just Passed

**Good, does not require
any action at this time.**

```

proc report data = present.stave_average
           contents='Summary' &_pdf_header nowd;
column ("E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on
&report_date"
       ( row)
       ("Tuyere Number - Average Stave Temperature F"
        avg_tuyere01-avg_tuyere24)
       ( avg_temp));
define row /display width=2 "Row/#" center;
define avg_tuyere01 /display width=2 "01" center;
define avg_tuyere02 /display width=2 "02" center;
           ...
define avg_tuyere24 /display width=2 "24" center;
define avg_temp /display width=3 'Row/Avg' center;

/* location for future traffic lighting code */

compute after;
length text1 text2 text3 $ 140;
text1="'Average Temperature', represents the sum of valid temperature ....";
text2="A value of '0' (zero) denotes no valid temperature readings for....";
text3="";
line text1 $140.;
line text2 $140.;
line text3 $140.;
endcomp;

run;

```

```

proc report data = present.stave average
           contents='Summary' &_pdf_header nowd;
column ("E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on
&report_date"
       ( row)
       ("Tuyere Number - Average Stave Temperature F"
        avg_tuyere01-avg_tuyere24)
       ( avg_temp));
define row /display width=2 "Row/#" center;
define avg_tuyere01 /display width=2 "01" center;
define avg_tuyere02 /display width=2 "02" center;
           ...
define avg_tuyere24 /display width=2 "24" center;
define avg_temp /display width=3 'Row/Avg' center;

/* location for future traffic lighting code */

compute after;
length text1 text2 text3 $ 140;
text1="'Average Temperature', represents the sum of valid temperature ....";
text2="A value of '0' (zero) denotes no valid temperature readings for....";
text3="";
line text1 $140.;
line text2 $140.;
line text3 $140.;
endcomp;

run;

```



E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007

Tuyere Number - Average Stave Temperature F

Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007

Tuyere Number - Maximum Stave Temperature F

Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

```
proc report data = present.stave_average
           contents='Summary' &_pdf_header nowd;
column ("E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on
&report_date"
      ( row)
      ("Tuyere Number - Average Stave Temperature F"
      avg_tuyere01-avg_tuyere24)
      ( avg_temp));
define row /display width=2 "Row/#" center;
define avg_tuyere01 /display width=2 "01" center;
define avg_tuyere02 /display width=2 "02" center;
           ...
define avg_tuyere24 /display width=2 "24" center;
define avg_temp /display width=3 'Row/Avg' center;

/* location for future traffic lighting code */

compute after;
length text1 text2 text3 $ 140;
text1="'Average Temperature', represents the sum of valid temperature ....";
text2="A value of '0' (zero) denotes no valid temperature readings for....";
text3="";
line text1 $140.;
line text2 $140.;
line text3 $140.;
endcomp;

run;
```



E Furnace Stave Summary, for the 24 hours ending at 06:00:00 July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

```
proc report data = present.stave_average
              contents='Summary' &_pdf_header nowd;
  column ("E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on
&report_date"
        ( row)
        ("Tuyere Number - Average Stave Temperature F"
         avg_tuyere01-avg_tuyere24)
        ( avg_temp));
  define row /display width=2 "Row/#" center;
  define avg_tuyere01 /display width=2 "01" center;
  define avg_tuyere02 /display width=2 "02" center;
  ...
  define avg_tuyere24 /display width=2 "24" center;
  define avg_temp /display width=3 'Row/Avg' center;

  /* location for future traffic lighting code */

  compute after;
  length text1 text2 text3 $ 140;
  text1="'Average Temperature', represents the sum of valid temperature ....";
  text2="A value of '0' (zero) denotes no valid temperature readings for....";
  text3="";
  line text1 $140.;
  line text2 $140.;
  line text3 $140.;
endcomp;

run;
```




E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

```

proc report data = present.stave_average
           contents='Summary' &_pdf_header nowd;
column ("E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on
&report_date"
      ( row)
      ("Tuyere Number - Average Stave Temperature F"
      avg_tuyere01-avg tuyere24)
      ( avg_temp));
define row /display width=2 "Row/#" center;
define avg_tuyere01 /display width=2 "01" center;
define avg_tuyere02 /display width=2 "02" center;
...
define avg_tuyere24 /display width=2 "24" center;
define avg_temp /display width=3 'Row/Avg' center;

/* location for future traffic lighting code */

compute after;
length text1 text2 text3 $ 140;
text1="'Average Temperature', represents the sum of valid temperature ....";
text2="A value of '0' (zero) denotes no valid temperature readings for....";
text3="";
line text1 $140.;
line text2 $140.;
line text3 $140.;
endcomp;

run;

```

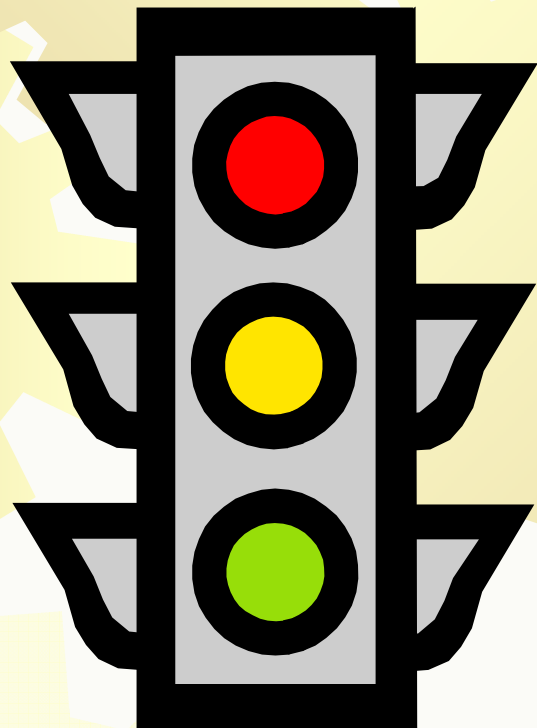
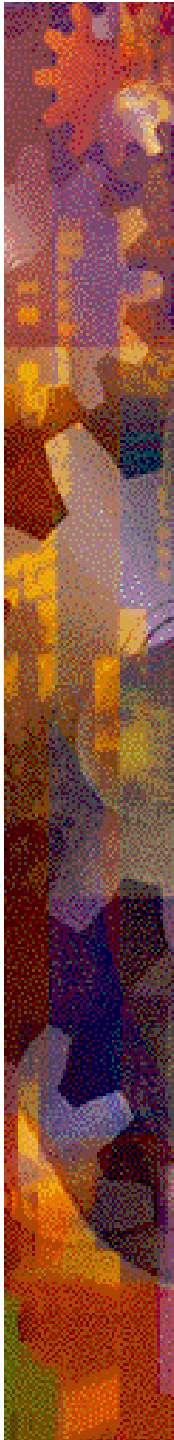


E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

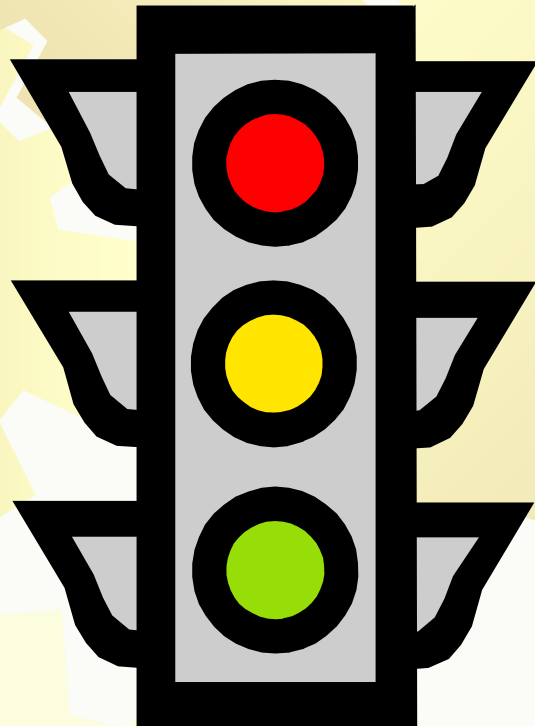
'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

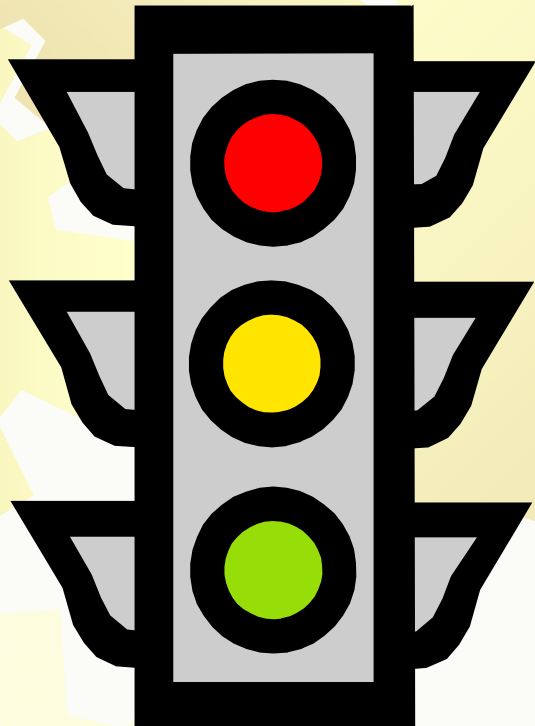


Average 500F or higher



Average \geq 500F

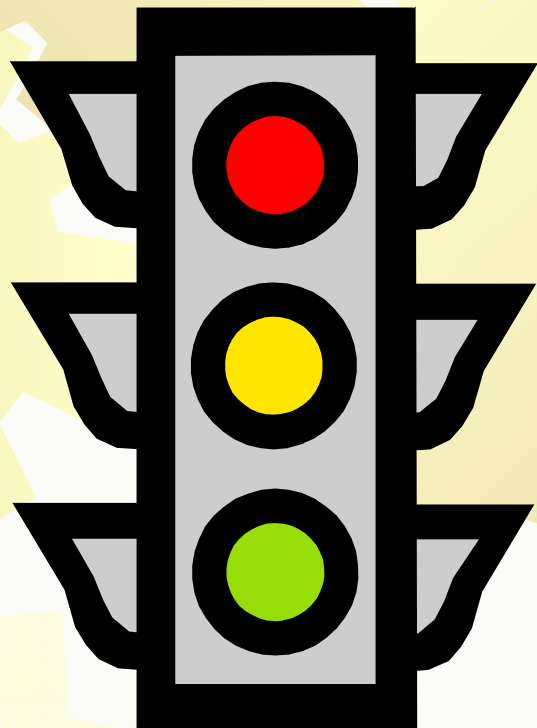
**Average from 400F up to
500F**



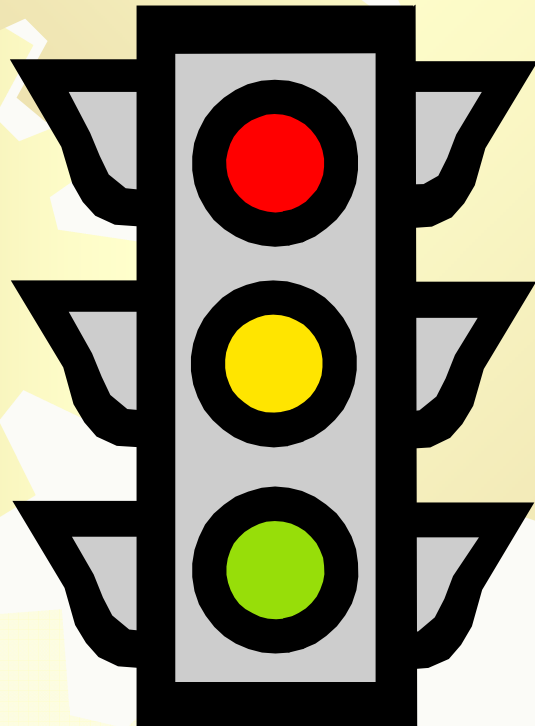
Average \Rightarrow 500F

400F \leq Average $<$ 500F

Average less than 400F

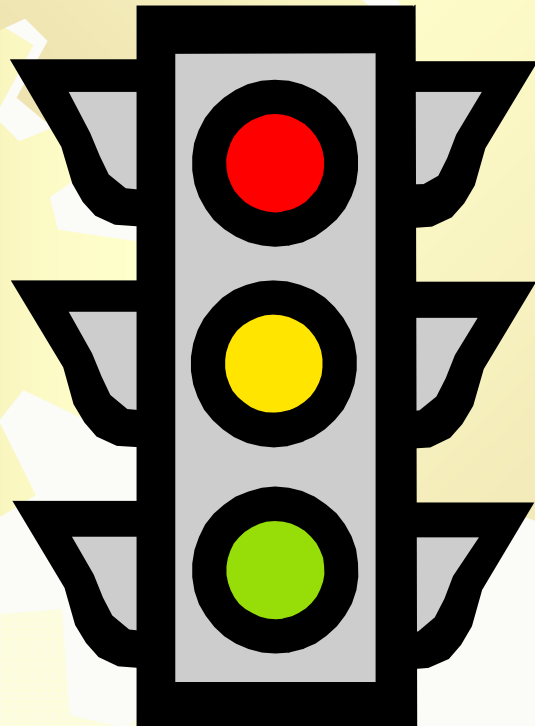


Maximum 700F or higher



Maximum => 700F

**Maximum from 550F up
to 700F**



Maximum 700F or higher

**Maximum from 550F up
to 700F**


Maximum less than 550F

```
proc report data = present.stave_average
           contents='Summary' &_pdf_header nowd;
column ("E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on
&report_date"
       ( row)
       ("Tuyere Number - Average Stave Temperature F"
        avg_tuyere01-avg_tuyere24)
       ( avg_temp));
define row /display width=2 "Row/#" center;
define avg_tuyere01 /display width=2 "01" center;
define avg_tuyere02 /display width=2 "02" center;
           ...
define avg_tuyere24 /display width=2 "24" center;
define avg_temp /display width=3 'Row/Avg' center;


/* location for future traffic lighting code */

compute after;
length text1 text2 text3 $ 140;
text1="'Average Temperature', represents the sum of valid temperature ....";
text2="A value of '0' (zero) denotes no valid temperature readings for....";
text3="";
line text1 $140.;
line text2 $140.;
line text3 $140.;
endcomp;

run;
```



```
define avg_temp /display width=3  
    'Row/Avg' center;  
  
compute avg_tuyere01;  
    call define(_col_, 'style',  
        'style={background=CX00FF00}');  
endcomp;  
  
compute after;
```




```
define avg_temp          /display width=3
                        'Row/Avg' center;

compute avg_tuyere01;
  call define(_col_, 'style',
            'style={background=CX00FF00}');

endcomp;


compute after;
```




```
define avg_temp          /display width=3
                        'Row/Avg' center;

compute avg_tuyere01;
  call define(_col_, 'style',
             'style={background=CX00FF00}');
endcomp;


compute after;
```




```
define avg_temp /display width=3  
    'Row/Avg' center;  
  
compute avg_tuyere01;  
    call define(_col_, 'style',  
        'style={background=CX00FF00}');  
endcomp;  
  
compute after;
```



```
Compute avg_tuyere01;  
  if avg_tuyere01 LT 400 then  
    do;  
      call  
      define(_col_,'style','style={background=CX0  
0FF00}');  
    end;  
Endcomp;
```



```
Compute avg_tuyere01;  
  if avg_tuyere01 LT 400 then  
    do;  
      call  
      define(_col_,'style','style={background=CX0  
0FF00}');  
    end;  
  Else if avg_tuyere01 GE 400 and  
    avg_tuyere01 LT 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXF  
FFF00}');  
    end;  
  end;  
Endcomp;
```


```
Compute avg_tuyere01;
  if avg_tuyere01 LT 400 then
    do;
      call
      define(_col_,'style','style={background=CX00FF00
      }');
    end;
  Else if avg_tuyere01 GE 400 and
    avg_tuyere01 LT 500 then
    do;
      call
      define(_col_,'style','style={background=CXFFFF00
      }');
    end;
  Else if avg_tuyere01 GE 500 then
    do;
      call
      define(_col_,'style','style={background=CXFF0000
      }');
    end;
Endcomp;
```

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113


'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

The background features a light yellow field with several large, semi-transparent gears of varying sizes. On the left side, there is a vertical strip with a colorful, abstract, and somewhat pixelated pattern in shades of brown, orange, and purple.

```
    Compute avg_tuyere01;
if avg_tuyere01 LT 400 then
  do;
    call
  define(_col_,'style','style={background=CX00FF00}');
  end;
Else if avg_tuyere01 GE 400 and
  avg_tuyere01 LT 500 then
  do;
    call
  define(_col_,'style','style={background=CXFFFF00}');
  end;
Else if avg_tuyere01 GE 500 then
  do;
    call
  define(_col_,'style','style={background=CXFF0000}');
  end;
Endcomp;
```




```
Compute avg_tuyere01;  
  if avg_tuyere01 LT 400 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFFFFFF}');  
    end;  
  Else if avg_tuyere01 GE 400 and  
    avg_tuyere01 LT 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFFFF00}');  
    end;  
  Else if avg_tuyere01 GE 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFF0000}');  
    end;  
Endcomp;
```

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Avg
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113


'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on July 24, 2007																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row max
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145


'Max Temperature', represents the maximum valid temperature reading.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under revue.

The background features a light yellow field with several large, semi-transparent gears of varying sizes. On the left side, there is a vertical strip with a colorful, abstract, and somewhat pixelated pattern in shades of orange, red, and purple.

```
Compute avg_tuyere01;
  if avg_tuyere01 LT 400 then
    do;
      call
      define(_col_,'style','style={background=CXFFFFFF}');
    end;
  Else if avg_tuyere01 GE 400 and
    avg_tuyere01 LT 500 then
    do;
      call
      define(_col_,'style','style={background=CXFFFF00}');
    end;
  Else if avg_tuyere01 GE 500 then
    do;
      call
      define(_col_,'style','style={background=CXFF0000}');
    end;
Endcomp;
```



```
Compute avg_tuyere01;  
  if avg_tuyere01 LT 400 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFFFFFF}');  
    end;  
  Else if avg_tuyere01 GE 400 and  
    avg_tuyere01 LT 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFFCC99}');  
    end;  
  Else if avg_tuyere01 GE 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFF0000}');  
    end;  
Endcomp;
```



```
Compute avg_tuyere01;  
  if avg_tuyere01 LT 400 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFFFFFF}');  
    end;  
  Else if avg_tuyere01 GE 400 and  
    avg_tuyere01 LT 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFFCC99}');  
    end;  
  Else if avg_tuyere01 GE 500 then  
    do;  
      call  
      define(_col_,'style','style={background=CXFF6666}');  
    end;  
Endcomp;
```


E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on &report_date																									
Tuyere Number - Average Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row &statistic.
9	147	0	134	0	136	0	135	0	135	0	111	0	127	0	122	0	125	0	123	0	128	0	126	0	129
8	0	148	0	155	0	142	0	148	0	127	0	127	0	125	0	131	0	135	0	135	0	135	0	151	138
7	208	0	163	0	205	0	194	0	179	0	136	0	149	0	147	0	174	0	136	0	170	0	196	0	171
6	132	268	253	287	256	301	322	248	332	272	250	288	317	211	228	238	247	264	259	259	290	320	278	175	262
5	148	302	265	311	437	413	449	366	514	320	381	349	340	323	191	322	338	391	321	390	214	329	131	137	320
4	145	216	286	358	143	198	172	146	154	0	171	178	132	114	118	117	142	176	241	221	130	125	158	0	175
3	135	150	108	131	143	143	114	154	136	157	124	142	122	113	129	123	122	117	136	260	181	107	213	151	142
2	155	111	144	109	164	159	0	147	154	160	0	121	127	130	153	138	132	143	170	285	294	224	0	126	159
1	117	112	116	121	108	108	100	101	111	111	110	137	136	107	140	105	107	106	107	115	114	112	107	103	113

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under review.

E Furnace Stave Summary, for the 24 hours ending at 06:00:00 on &report_date																									
Tuyere Number - Maximum Stave Temperature F																									
Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row &statistic.
9	159	0	144	0	146	0	147	0	148	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	159
8	0	164	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	145	0	147	0	143	0	161	170
7	239	0	185	0	253	0	231	0	229	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	253
6	139	320	318	353	299	366	394	319	397	362	313	343	380	252	264	276	298	311	301	312	337	374	322	192	397
5	156	356	351	400	611	606	670	544	680	504	748	706	536	501	516	550	540	505	376	468	269	431	141	144	748
4	181	313	551	445	152	214	208	213	212	0	275	307	179	134	140	131	192	196	300	446	162	192	225	0	551
3	142	221	139	140	148	147	118	167	148	241	137	152	127	117	134	131	126	123	142	392	256	111	391	159	392
2	175	141	163	140	175	168	0	181	164	187	0	144	131	138	170	144	143	152	181	526	460	472	0	141	526
1	120	117	120	126	112	111	103	104	120	118	118	143	139	110	145	109	118	111	120	121	121	125	112	106	145

'Average Temperature', represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under review.



10-23 Wednesday, August 6, 2008

F Furnace Stress Summary, for the 24 hours ending at 06:00:00 on drivport_date

Towers Number - Average Stress Temperature F

Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Statistic	
0	147	0	134	0	138	0	119	0	133	0	118	0	127	0	122	0	125	0	123	0	128	0	128	0	129	
1	0	148	0	123	0	142	0	148	0	127	0	123	0	123	0	132	0	135	0	133	0	137	0	134	138	
2	208	0	163	0	207	0	184	0	179	0	158	0	149	0	147	0	174	0	158	0	170	0	188	0	171	
3	132	268	251	267	124	303	122	248	133	272	250	288	317	211	228	238	247	264	239	239	288	120	278	179	262	
4	148	302	287	321	407	433	448	344	316	320	383	349	340	323	393	322	318	391	331	396	254	329	331	327	320	
5	147	218	286	274	143	190	172	146	174	0	170	178	132	134	118	113	142	176	241	223	130	125	138	0	170	
6	135	130	108	131	143	149	114	154	136	137	124	142	132	133	129	123	117	134	246	181	107	113	151	142		
7	137	111	144	109	164	159	0	147	134	140	0	121	117	130	133	118	132	140	170	287	294	224	0	126	139	
8	117	112	118	121	108	108	100	101	121	113	110	117	116	107	140	101	107	106	107	117	118	112	107	107	113	

Average Temperature: represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under review.

F Furnace Stress Summary, for the 24 hours ending at 06:00:00 on drivport_date

Towers Number - Maximum Stress Temperature F

Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Statistic	
0	139	0	144	0	148	0	147	0	143	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	139	
1	0	144	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	147	0	143	0	161	0	161	170	
2	239	0	183	0	203	0	211	0	228	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	210	
3	139	320	318	313	289	348	324	319	297	362	313	340	380	252	284	274	298	311	301	312	337	174	322	192	307	
4	136	316	311	402	402	400	470	344	400	354	398	396	336	361	318	336	340	307	376	488	249	431	311	344		
5	181	313	332	447	152	214	208	213	212	0	271	307	179	134	140	113	192	196	300	444	182	192				
6	142	223	139	140	148	147	118	167	146	243	137	152	137	117	134	133	126	127	142	392	238	111				
7	175	142	165	140	170	140	0	181	164	187	0	144	131	136	170	144	140	152	131	528	488	472				
8	128	117	126	128	112	113	100	104	128	110	118	142	139	119	121	108	118	111	120	123	123	123				

Average Temperature: represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under review.

07-13 Tuesday, July 29, 2007

F Furnace Stress Summary, for the 24 hours ending at 06:00:00 on drivport_date

Towers Number - Average Stress Temperature F

Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Statistic	
0	147	0	134	0	138	0	119	0	133	0	118	0	127	0	122	0	125	0	123	0	128	0	128	0	129	
1	0	148	0	123	0	142	0	148	0	127	0	123	0	123	0	132	0	135	0	133	0	137	0	134	138	
2	208	0	163	0	207	0	184	0	179	0	158	0	149	0	147	0	174	0	158	0	170	0	188	0	171	
3	132	268	251	267	124	303	122	248	133	272	250	288	317	211	228	238	247	264	239	239	288	120	278	179	262	
4	148	302	287	321	407	433	448	344	316	320	383	349	340	323	393	322	318	391	331	396	254	329	331	327	320	
5	147	218	286	274	143	190	172	146	174	0	170	178	132	134	118	113	142	176	241	223	130	125	138	0	170	
6	135	130	108	131	143	149	114	154	136	137	124	142	132	133	129	123	117	134	246	181	107	113	151	142		
7	137	111	144	109	164	159	0	147	134	140	0	121	117	130	133	118	132	140	170	287	294	224	0	126	139	
8	117	112	118	121	108	108	100	101	121	113	110	117	116	107	140	101	107	106	107	117	118	112	107	107	113	

Average Temperature: represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under review.

F Furnace Stress Summary, for the 24 hours ending at 06:00:00 on drivport_date

Towers Number - Maximum Stress Temperature F

Row #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Row Statistic	
0	139	0	144	0	148	0	147	0	143	0	124	0	141	0	130	0	133	0	129	0	135	0	132	0	139	
1	0	144	0	170	0	157	0	167	0	146	0	142	0	144	0	147	0	147	0	143	0	161	0	161	170	
2	239	0	183	0	203	0	211	0	228	0	157	0	175	0	159	0	219	0	154	0	194	0	224	0	210	
3	139	320	318	313	289	348	324	319	297	362	313	340	380	252	284	274	298	311	301	312	337	174	322	192	307	
4	136	316	311	402	402	400	470	344	400	354	398	396	336	361	318	336	340	307	376	488	249	431	311	344		
5	181	313	332	447	152	214	208	213	212	0	271	307	179	134	140	113	192	196	300	444	182	192				
6	142	223	139	140	148	147	118	167	146	243	137	152	137	117	134	133	126	127	142	392	238	111				
7	175	142	165	140	170	140	0	181	164	187	0	144	131	136	170	144	140	152	131	528	488	472				
8	128	117	126	128	112	113	100	104	128	110	118	142	139	119	121	108	118	111	120	123	123	123				

Average Temperature: represents the sum of valid temperature readings, divided by the total number of valid readings.
A value of '0' (zero) denotes no valid temperature readings for that sensor, in the time period under review.

References

- ★ <http://support.sas.com/faq/032/FAQ03257.html>
- ★ **Base SAS 9.1.3 Procedures Guide, Proc Report (SAS online documentation)**
- ★ **Communication-Effective use of Color for Web pages, Graphs, Tables, Maps, Text, and Print by LeRoy Bessler, SUGI 29 paper 176**