In beta 2011.11.25 Hans has kindly fixed most of the bugs identified in \unit and only a few problems remain.

Litre and metre are still a problem (but can be fixed using \regiterunit):

\unit argument	desired	\unit output
1 litre / second	1 l/s	1 l
1 metre / second	1 m/s	1 m
1 m/s	1 m/s	1 m/s
1m/s	1 m/s	1 m/s

Temperature symbols should be "C' and '' (Unicode 2103 and 2109; the latter for Fahrenheit does not seem to print). I note Hans has marked this as *todo* in phys-dim.lua; hopefully that will fix the examples below. (Yes, strictly the last two should be W/m·K but the Celsius unit is equivalent and valid in this context).

\unit argument	desired	\unit output
0 celsius	0 °C	0 C
32 fahrenheit	32 °F	32 F
0.123 ohm per celsius	$0.123 \ \Omega/^{\circ}C$	$0.123 \ \Omega/C$
5 watt per meter celsius	$5 \text{ W/m} \cdot ^{\circ}\text{C}$	$5 \text{ W/m} \cdot \text{C}$
5 watt per meter degree celsius	$5 \text{ W/m} \cdot ^{\circ}\text{C}$	$5 \mathrm{W/m^{\circ}C}$

I missed a number of SI units in phys-unit.lua: I will send Hans a full list, but they include radian and steradian, symbols rad and sr. (phys-unit.lua does have 'sterant' which I believe to be a typo):

\unit argument	desired	\unit output
\$2\pi\$ radian	2π rad	2π radian
\$4\pi\$ steradian	$4\pi \ sr$	4π steradian
100 lumen	100 lm	100 l·µm
23 centi stokes	23 cSt	$23 \text{ cs} \cdot \text{t}$
0.123 neper	0.123 Np	0.123 N

Note also that a leading space has crept in in the radian and steradian examples, presumably caused by my use of math mode; but radian and steradian quantities are often expressions involving π .

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