



SON(-H)(Comfort) Pro



SON-T Pro



SON-T Comfort Pro



SON-T Pro 1000W

High-pressure sodium vapour lamps with a sintered aluminium oxide discharge tube enclosed in an evacuated clear soda-lime or hard-glass outer bulb, equipped with a standard screw base. The discharge tube is filled with a sodium mercury amalgam and xenon as a starting gas. SON Pro lamps have a white coated ovoid and SON-T Pro lamps a clear tubular outer bulb. The lamps employ a ballast and ignitor except for the SON Pro 50 W/70 W I (clear) E27 lamps which are equipped with an internal ignitor:

### SON Pro

With a luminous efficacy up to 120 lm/W, SON Pro lamps are cost efficient and best suited on high ways and in large urban and industrial areas, which need continuous lighting for extended periods of time.

### SON-H Pro: HPL retrofit

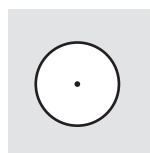
SON-H Pro lamps have been specifically created to be directly interchangeable with mercury vapour lamps without any change of gear. SON-H Pro offers an immediate improvement by using less energy and producing more light.

### Applications

- Public and urban areas.
- Decorative outdoor floodlighting.
- Industrial, shop and commercial lighting.
- Indoor and outdoor sports facilities.

### SON Comfort Pro

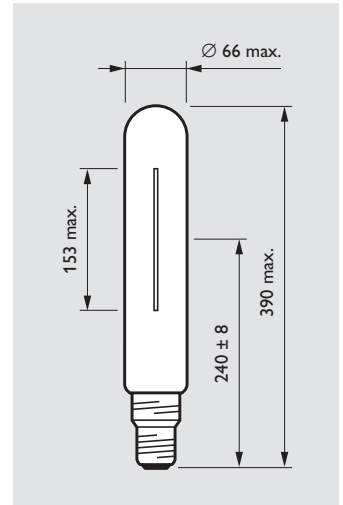
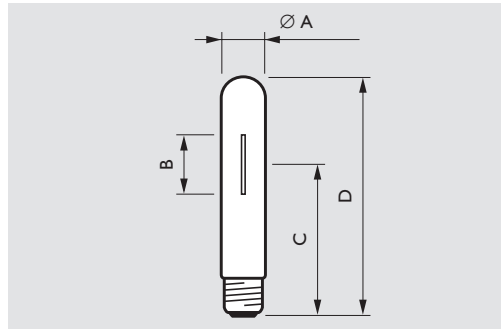
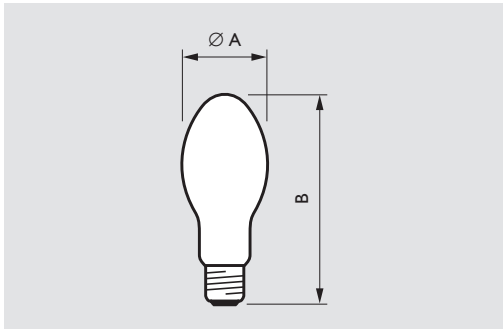
SON Comfort Pro is the balance between colour and efficacy requirements. With its colour temperature of 2200 K and Ra > 60 it creates a friendly ambience in residential, industrial and retail areas, but still has an efficacy up to 95 lm/W.



Burning position

**Pro** indicates products which offer very significant immediate benefits in terms of quality of light.

**Pro** products represent excellent value in the short term.

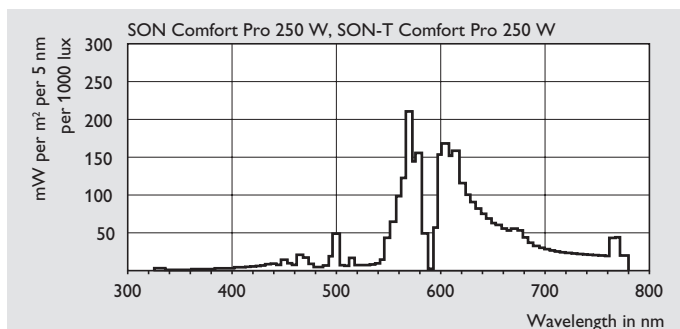
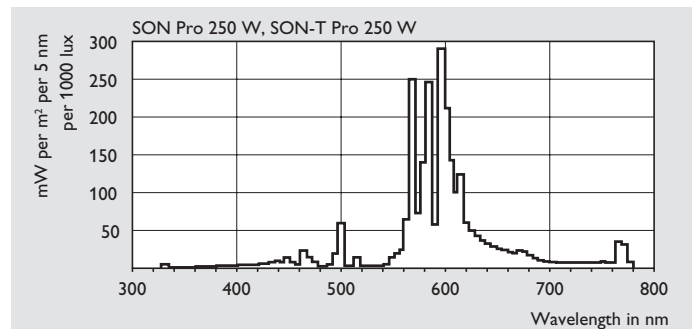
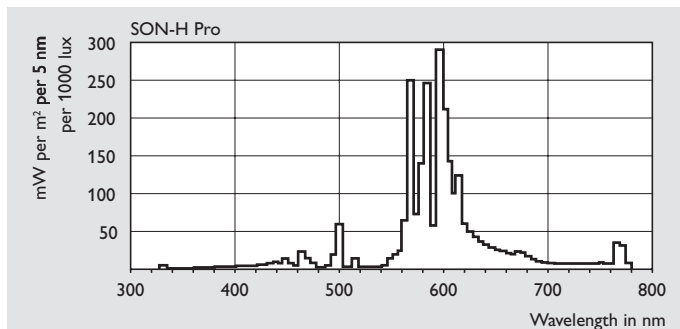


Dimensions in mm

| Type                        | A max. | B max. |
|-----------------------------|--------|--------|
| <b>Cap/base E27</b>         |        |        |
| SON Pro 50W/70W             | 71.0   | 156.0  |
| <b>Cap/base E40</b>         |        |        |
| SON (Comfort) Pro 150W,250W | 91.0   | 226.0  |
| SON-H Pro 220W              | 91.0   | 226.0  |
| SON (Comfort) Pro 400W      | 122.0  | 290.0  |
| SON-H Pro 350W              | 122.0  | 290.0  |
| SON Pro 1000W               | 166.5  | 400.0  |

| Type                   | A max. | B max. | C     | D max. |
|------------------------|--------|--------|-------|--------|
| <b>Cap/base E27</b>    |        |        |       |        |
| SON-T Pro 70W          | 32.0   | 42.0   | 102.0 | 156.0  |
| <b>Cap/base E40</b>    |        |        |       |        |
| SON-T Comfort Pro 150W | 47.0   | 43.0   | 132.0 | 211.0  |
| SON-T Pro 150W         | 47.0   | 61.0   | 132.0 | 211.0  |
| SON-T Pro 250W         | 47.0   | 70.0   | 158.0 | 257.0  |
| SON-T Comfort Pro 250W | 47.0   | 53.0   | 158.0 | 257.0  |
| SON-T Pro 400W         | 47.0   | 87.0   | 175.0 | 283.0  |
| SON-T Comfort Pro 400W | 47.0   | 59.0   | 175.0 | 283.0  |

SON-T Pro 1000W E40



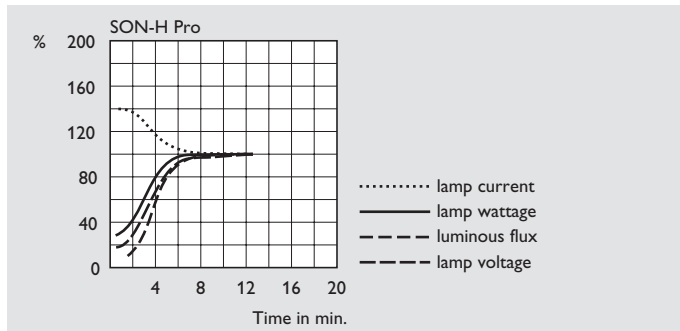
Spectral power distributions



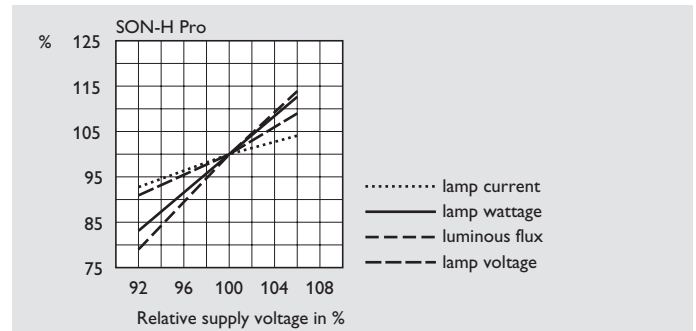
| Type                     | W     | Cap/<br>base | Internal<br>External<br>Starter | Finish | Lamp<br>wattage | Lamp<br>voltage | Lamp<br>current | Lumen<br>output | Efficacy<br>source | Correlated<br>colour<br>temp.<br>K |
|--------------------------|-------|--------------|---------------------------------|--------|-----------------|-----------------|-----------------|-----------------|--------------------|------------------------------------|
|                          |       |              |                                 |        | W               | V               | A               | lm              | lm/W               |                                    |
| <b>SON Pro</b>           |       |              |                                 |        |                 |                 |                 |                 |                    |                                    |
| SON Pro                  | 50W   | E27          | E                               | COATED | 50              | 90              | 0.76            | 3500            | 70                 | 2000                               |
| SON Pro                  | 50W   | E27          | I                               | COATED | 50              | 90              | 0.76            | 3400            | 68                 | 2000                               |
| SON Pro                  | 70W   | E27          | E                               | COATED | 70              | 90              | 0.98            | 5600            | 80                 | 2000                               |
| SON Pro                  | 70W   | E27          | I CLEAR                         | CLEAR  | 70              | 90              | 0.98            | 6000            | 85                 | 2000                               |
| SON Pro                  | 70W   | E27          | I                               | COATED | 70              | 90              | 0.98            | 5600            | 80                 | 2000                               |
| SON Pro                  | 150W  | E40          | E                               | COATED | 147             | 100             | 1.80            | 14500           | 97                 | 2000                               |
| SON Pro                  | 250W  | E40          | E                               | COATED | 250             | 100             | 3.00            | 27000           | 108                | 2000                               |
| SON Pro                  | 400W  | E40          | E                               | COATED | 400             | 105             | 4.45            | 48000           | 120                | 2000                               |
| SON Pro                  | 1000W | E40          | E                               | COATED | 1000            | 110             | 10.30           | 130000          | 130                | 2000                               |
| <b>SON COMFORT Pro</b>   |       |              |                                 |        |                 |                 |                 |                 |                    |                                    |
| SON COMFORT Pro          | 150W  | E40          | E                               | COATED | 150             | 105             | 1.82            | 12500           | 83                 | 2150                               |
| SON COMFORT Pro          | 250W  | E40          | E                               | COATED | 250             | 105             | 3.00            | 22000           | 88                 | 2150                               |
| SON COMFORT Pro          | 400W  | E40          | E                               | COATED | 400             | 105             | 4.45            | 37000           | 93                 | 2150                               |
| <b>SON-H Pro</b>         |       |              |                                 |        |                 |                 |                 |                 |                    |                                    |
| SON-H Pro                | 220W  | E40          |                                 | COATED | 220             | 120             | 2.20            | 20000           | 91                 | 2000                               |
| SON-H Pro                | 350W  | E40          |                                 | COATED | 350             | 117             | 3.60            | 34000           | 97                 | 2000                               |
| <b>SON-T Pro</b>         |       |              |                                 |        |                 |                 |                 |                 |                    |                                    |
| SON-T Pro                | 70W   | E27          | E                               | CLEAR  | 70              | 90              | 0.98            | 6000            | 86                 | 2000                               |
| SON-T Pro                | 150W  | E40          | E                               | CLEAR  | 150             | 100             | 1.80            | 15000           | 100                | 2000                               |
| SON-T Pro                | 250W  | E40          | E                               | CLEAR  | 250             | 100             | 3.00            | 28000           | 112                | 2000                               |
| SON-T Pro                | 400W  | E40          | E                               | CLEAR  | 392             | 100             | 4.60            | 48000           | 120                | 2000                               |
| SON-T Pro                | 1000W | E40          | E                               | CLEAR  | 1000            | 105             | 10.60           | 130000          | 130                | 2000                               |
| <b>SON-T COMFORT Pro</b> |       |              |                                 |        |                 |                 |                 |                 |                    |                                    |
| SON-T COMFORT Pro        | 150W  | E40          | E                               | CLEAR  | 150             | 105             | 1.82            | 13000           | 87                 | 2150                               |
| SON-T COMFORT Pro        | 250W  | E40          | E                               | CLEAR  | 250             | 105             | 3.05            | 23000           | 92                 | 2150                               |
| SON-T COMFORT Pro        | 400W  | E40          | E                               | CLEAR  | 400             | 100             | 4.50            | 38000           | 95                 | 2150                               |

| Type                     | W     | Cap/<br>base | Internal<br>External<br>Starter | Chromaticity<br>coordinate<br>x | Chromaticity<br>coordinate<br>y | Colour<br>rendering<br>index | Maximum<br>permissible<br>base/pinch temp.<br>degr.C | Maximum<br>permissible<br>bulb temp.<br>degr.C | Nett<br>weight<br>g | Ordering<br>number | EOC    |
|--------------------------|-------|--------------|---------------------------------|---------------------------------|---------------------------------|------------------------------|--|--|---------------------|--------------------|--------|
| <b>SON Pro</b>           |       |              |                                 |                                 |                                 |                              |  |  |                     |                    |        |
| SON Pro                  | 50W   | E27          | E                               | 540                             | 415                             | 25                           | 200  | 350  | 60                  | 9281 529 08800     | 181954 |
| SON Pro                  | 50W   | E27          | I                               | 540                             | 415                             | 25                           | 200  | 350  | 61                  | 9281 508 08800     | 181893 |
| SON Pro                  | 70W   | E27          | E                               | 540                             | 415                             | 25                           | 200  | 350  | 60                  | 9281 518 08800     | 181923 |
| SON Pro                  | 70W   | E27          | I CLEAR                         | 540                             | 415                             | 25                           | 200  | 350  | 58                  | 9281 501 00000     | -      |
| SON Pro                  | 70W   | E27          | I                               | 540                             | 415                             | 25                           | 200  | 350  | 60                  | 9281 501 08800     | 181862 |
| SON Pro                  | 150W  | E40          | E                               | 535                             | 415                             | 25                           | 250  | 350  | 185                 | 9281 503 09800     | 182012 |
| SON Pro                  | 250W  | E40          | E                               | 530                             | 410                             | 25                           | 250  | 350  | 185                 | 9281 510 09800     | 182043 |
| SON Pro                  | 400W  | E40          | E                               | 525                             | 415                             | 25                           | 250  | 350  | 240                 | 9281 520 09800     | 181985 |
| SON Pro                  | 1000W | E40          | E                               | 515                             | 420                             | 25                           | 250  | 350  | 437                 | 9281 540 09800     | 184153 |
| <b>SON COMFORT Pro</b>   |       |              |                                 |                                 |                                 |                              |  |  |                     |                    |        |
| SON COMFORT Pro          | 150W  | E40          | E                               | 513                             | 419                             | 65                           | 250  | 350  | 174                 | 9281 502 09800     | 182166 |
| SON COMFORT Pro          | 250W  | E40          | E                               | 513                             | 419                             | 65                           | 250  | 350  | 185                 | 9281 551 09800     | 182197 |
| SON COMFORT Pro          | 400W  | E40          | E                               | 513                             | 419                             | 65                           | 250  | 350  | 240                 | 9281 552 09800     | 182227 |
| <b>SON-H Pro</b>         |       |              |                                 |                                 |                                 |                              |  |  |                     |                    |        |
| SON-H Pro                | 220W  | E40          |                                 | 530                             | 410                             | 25                           | 250  | 350  | 180                 | 9281 524 09800     | 182074 |
| SON-H Pro                | 350W  | E40          |                                 | 525                             | 415                             | 25                           | 250  | 350  | 250                 | 9281 535 09800     | 182135 |
| <b>SON-T Pro</b>         |       |              |                                 |                                 |                                 |                              |  |  |                     |                    |        |
| SON-T Pro                | 70W   | E27          | E                               | 540                             | 413                             | 25                           | 200  | 350  | 52                  | 9281 528 00000     | 192677 |
| SON-T Pro                | 150W  | E40          | E                               | 535                             | 415                             | 25                           | 250  | 350  | 155                 | 9281 504 09200     | 192271 |
| SON-T Pro                | 250W  | E40          | E                               | 530                             | 410                             | 25                           | 250  | 450  | 175                 | 9281 515 09200     | 179838 |
| SON-T Pro                | 400W  | E40          | E                               | 525                             | 415                             | 25                           | 250  | 450  | 190                 | 9281 445 09200     | 179845 |
| SON-T Pro                | 1000W | E40          | E                               | 515                             | 420                             | 25                           | 250  | 450  | 404                 | 9281 545 09200     | 184122 |
| <b>SON-T COMFORT Pro</b> |       |              |                                 |                                 |                                 |                              |  |  |                     |                    |        |
| SON-T COMFORT Pro        | 150W  | E40          | E                               | 513                             | 419                             | 65                           | 250  | 450  | 156                 | 9281 546 09200     | 192288 |
| SON-T COMFORT Pro        | 250W  | E40          | E                               | 514                             | 420                             | 65                           | 250  | 450  | 175                 | 9281 560 09200     | 179852 |
| SON-T COMFORT Pro        | 400W  | E40          | E                               | 510                             | 415                             | 65                           | 250  | 450  | 190                 | 9281 562 09200     | 179869 |

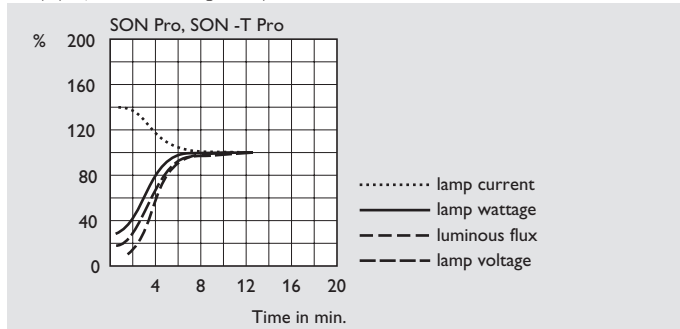




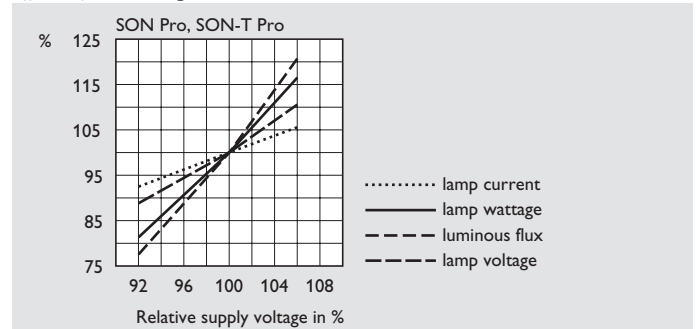
Lamp performance during run-up



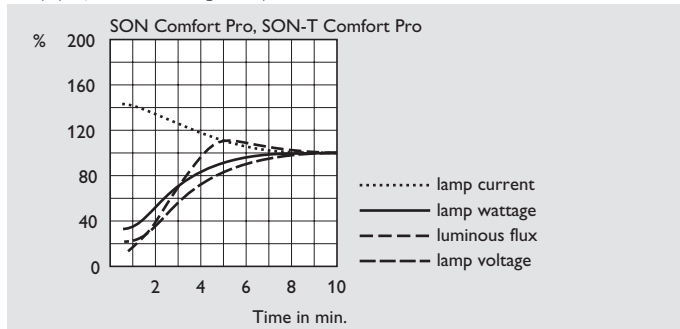
Effects of main voltage variations



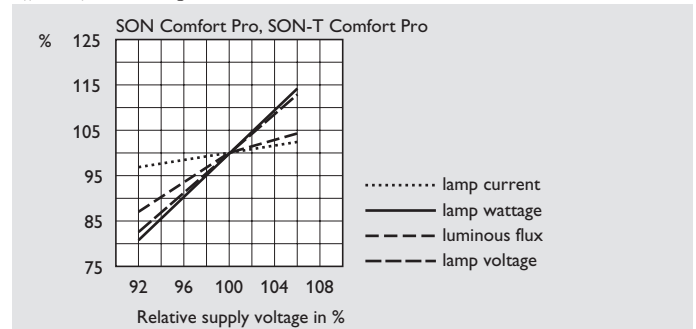
Lamp performance during run-up



Effects of main voltage variations



Lamp performance during run-up



Effects of main voltage variations