



# Product Description

## SON-T

High Pressure Sodium lamp with clear tubular outer bulb

### Benefits

- SON-T is a cost-efficient and reliable solution in High Pressure Sodium

### Features

- Clear tubular outer bulb
- High luminous efficacy
- Robust construction is vibration- and shock-resistant leading to a reliable life
- Dimming possible with dedicated gear

### Application

- Road and residential lighting
- Decorative floodlighting
- Commercial and industrial applications
- Recreational sports facilities indoor and outdoor

### Warnings and Safety

- Control gear must include end-of-life protection (IEC60662, IEC 62035)
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

**Controls and Dimming**

|          |     |
|----------|-----|
| Dimmable | Yes |
|----------|-----|

**General Information**

|                    |                         |
|--------------------|-------------------------|
| Operating Position | UNIVERSAL               |
| System Description | External Ignitor<br>(E) |

**Light Technical**

|                                     |        |
|-------------------------------------|--------|
| Colour Code                         | 220    |
| Correlated Colour Temperature (Nom) | 2000 K |
| Colour Rendering Index (Max)        | 25     |
| Colour Rendering Index (Nom)        | -      |

**Mechanical and Housing**

|             |       |
|-------------|-------|
| Bulb Finish | Clear |
|-------------|-------|

**Approval and Application**

| Order Code | Full Product Name        | Energy Consumption kWh/1000 h | Mercury (Hg) Content (Nom) |
|------------|--------------------------|-------------------------------|----------------------------|
| 19267715   | SON-T 70W/220 E27 1CT/12 | 77 kWh                        | 16.3 mg                    |
| 18412245   | SON-T 1000W E40 1SL/4    | 1056 kWh                      | 23 mg                      |
| 21264500   | SON-T 100W E E40 SL/12   | 110 kWh                       | 20.4 mg                    |
| 21270600   | SON-T 150W E E40 SL/12   | 162 kWh                       | 20.4 mg                    |
| 21288100   | SON-T 250W E E40 SL/12   | 275 kWh                       | 20.4 mg                    |
| 21292800   | SON-T 400W E E40 1SL/12  | 431 kWh                       | 24.5 mg                    |
| 21060945   | SON-T 1000W E E40 1SL/4  | 1056 kWh                      | 22.65 mg                   |

**Operating and Electrical (1/2)**

| Order Code | Full Product Name        | Lamp               |               |               |               |
|------------|--------------------------|--------------------|---------------|---------------|---------------|
|            |                          | Current (EM) (Nom) | Voltage (Max) | Voltage (Min) | Voltage (Nom) |
| 19267715   | SON-T 70W/220 E27 1CT/12 | 0.98 A             | 105 V         | 75 V          | 90 V          |
| 18412245   | SON-T 1000W E40 1SL/4    | 10.6 A             | 115 V         | 85 V          | 100 V         |
| 21264500   | SON-T 100W E E40 SL/12   | 1.2 A              | 115 V         | 85 V          | 100 V         |
| 21270600   | SON-T 150W E E40 SL/12   | 1.8 A              | 115 V         | 85 V          | 100 V         |

| Order Code | Full Product Name       | Lamp               |               |               |               |
|------------|-------------------------|--------------------|---------------|---------------|---------------|
|            |                         | Current (EM) (Nom) | Voltage (Max) | Voltage (Min) | Voltage (Nom) |
| 21288100   | SON-T 250W E E40 SL/12  | 3 A                | 115 V         | 85 V          | 100 V         |
| 21292800   | SON-T 400W E E40 1SL/12 | 4.6 A              | 115 V         | 85 V          | 100 V         |
| 21060945   | SON-T 1000W E E40 1SL/4 | 10.6 A             | 115 V         | 85 V          | 100 V         |

**Operating and Electrical (2/2)**

| Order Code | Full Product Name        | Power (Nom) | Re-Ignition Time (Min) (Max) |
|------------|--------------------------|-------------|------------------------------|
| 19267715   | SON-T 70W/220 E27 1CT/12 | 70.0 W      | 180 s                        |
| 18412245   | SON-T 1000W E40 1SL/4    | 960.0 W     | 240 s                        |
| 21264500   | SON-T 100W E E40 SL/12   | 100.0 W     | 120 s                        |
| 21270600   | SON-T 150W E E40 SL/12   | 147.0 W     | 180 s                        |

| Order Code | Full Product Name       | Power (Nom) | Re-Ignition Time (Min) (Max) |
|------------|-------------------------|-------------|------------------------------|
| 21288100   | SON-T 250W E E40 SL/12  | 250.0 W     | 120 s                        |
| 21292800   | SON-T 400W E E40 1SL/12 | 392.0 W     | 120 s                        |
| 21060945   | SON-T 1000W E E40 1SL/4 | 960.0 W     | 240 s                        |

**General Information (1/2)**

| Order Code | Full Product Name        | Cap-Base | Life To 10%    | Life To 20%    | Life To 50%    |
|------------|--------------------------|----------|----------------|----------------|----------------|
|            |                          |          | Failures (Nom) | Failures (Nom) | Failures (Nom) |
| 19267715   | SON-T 70W/220 E27 1CT/12 | E27      | 15000 h        | 19000 h        | 28000 h        |
| 18412245   | SON-T 1000W E40 1SL/4    | E40      | 10000 h        | 14000 h        | 20000 h        |
| 21264500   | SON-T 100W E E40 SL/12   | E40      | 12000 h        | -              | 28000 h        |
| 21270600   | SON-T 150W E E40 SL/12   | E40      | -              | 20000 h        | 28000 h        |

| Order Code | Full Product Name       | Cap-Base | Life To 10%    | Life To 20%    | Life To 50%    |
|------------|-------------------------|----------|----------------|----------------|----------------|
|            |                         |          | Failures (Nom) | Failures (Nom) | Failures (Nom) |
| 21288100   | SON-T 250W E E40 SL/12  | E40      | -              | 20000 h        | 28000 h        |
| 21292800   | SON-T 400W E E40 1SL/12 | E40      | -              | 20000 h        | 28000 h        |
| 21060945   | SON-T 1000W E E40 1SL/4 | E40      | -              | 14000 h        | 20000 h        |

General Information (2/2)

| Order Code | Full Product Name        | Life To 5% Failures (Nom) | LSF 12000 h Rated | LSF 16000 h Rated | LSF 2000 h Rated | LSF 20000 h Rated | LSF 4000 h Rated | LSF 6000 h Rated | LSF 8000 h Rated |
|------------|--------------------------|---------------------------|-------------------|-------------------|------------------|-------------------|------------------|------------------|------------------|
| 19267715   | SON-T 70W/220 E27 1CT/12 | 12000 h                   | 95 %              | 89 %              | 99 %             | 79 %              | 99 %             | 98 %             | 97 %             |
| 18412245   | SON-T 1000W E40 1SL/4    | 8000 h                    | 85 %              | 69 %              | 99 %             | 50 %              | 99 %             | 97 %             | 95 %             |
| 21264500   | SON-T 100W E E40 SL/12   | -                         | -                 | -                 | -                | -                 | -                | -                | -                |
| 21270600   | SON-T 150W E E40 SL/12   | 12000 h                   | -                 | -                 | -                | -                 | -                | -                | -                |
| 21288100   | SON-T 250W E E40 SL/12   | 12000 h                   | -                 | -                 | -                | -                 | -                | -                | -                |
| 21292800   | SON-T 400W E E40 1SL/12  | 12000 h                   | -                 | -                 | -                | -                 | -                | -                | -                |
| 21060945   | SON-T 1000W E E40 1SL/4  | 8000 h                    | -                 | -                 | -                | -                 | -                | -                | -                |

Luminaire Design Requirements

| Order Code | Full Product Name        | Bulb Temperature (Max) | Order Code | Full Product Name       | Bulb Temperature (Max) |
|------------|--------------------------|------------------------|------------|-------------------------|------------------------|
| 19267715   | SON-T 70W/220 E27 1CT/12 | 350 °C                 | 21288100   | SON-T 250W E E40 SL/12  | 450 °C                 |
| 18412245   | SON-T 1000W E40 1SL/4    | 450 °C                 | 21292800   | SON-T 400W E E40 1SL/12 | 450 °C                 |
| 21264500   | SON-T 100W E E40 SL/12   | 450 °C                 | 21060945   | SON-T 1000W E E40 1SL/4 | 450 °C                 |
| 21270600   | SON-T 150W E E40 SL/12   | 450 °C                 |            |                         |                        |

Light Technical (1/3)

| Order Code | Full Product Name        | Chromaticity Coordinate X (Nom) | Chromaticity Coordinate Y (Nom) | LLMF 20000 h Rated | LLMF 16000 h Rated | Order Code | Full Product Name       | Chromaticity Coordinate X (Nom) | Chromaticity Coordinate Y (Nom) | LLMF 20000 h Rated | LLMF 16000 h Rated |
|------------|--------------------------|---------------------------------|---------------------------------|--------------------|--------------------|------------|-------------------------|---------------------------------|---------------------------------|--------------------|--------------------|
| 19267715   | SON-T 70W/220 E27 1CT/12 | 0.540                           | 0.413                           | 81 %               | 81 %               | 21288100   | SON-T 250W E E40 SL/12  | -                               | -                               | -                  | -                  |
| 18412245   | SON-T 1000W E40 1SL/4    | -                               | -                               | 84 %               | 82 %               | 21292800   | SON-T 400W E E40 1SL/12 | -                               | -                               | -                  | -                  |
| 21264500   | SON-T 100W E E40 SL/12   | -                               | -                               | -                  | -                  | 21060945   | SON-T 1000W E E40 1SL/4 | -                               | -                               | -                  | -                  |
| 21270600   | SON-T 150W E E40 SL/12   | -                               | -                               | -                  | -                  |            |                         |                                 |                                 |                    |                    |

Light Technical (2/3)

| Order Code | Full Product Name        | LLMF 2000 h Rated | LLMF 20000 h Rated | LLMF 4000 h Rated | LLMF 6000 h Rated | LLMF 8000 h Rated | Lumen Maintenance 2000 h (Min) | Lumen Maintenance 2000 h (Nom) | Lumen Maintenance 5000 h (Min) | Lumen Maintenance 5000 h (Nom) |
|------------|--------------------------|-------------------|--------------------|-------------------|-------------------|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 19267715   | SON-T 70W/220 E27 1CT/12 | 89 %              | 80 %               | 86 %              | 85 %              | 84 %              | -                              | -                              | -                              | -                              |
| 18412245   | SON-T 1000W E40 1SL/4    | 95 %              | 80 %               | 93 %              | 89 %              | 88 %              | 90 %                           | 95 %                           | 80 %                           | 90 %                           |
| 21264500   | SON-T 100W E E40 SL/12   | -                 | -                  | -                 | -                 | -                 | 85 %                           | 95 %                           | 80 %                           | 90 %                           |
| 21270600   | SON-T 150W E E40 SL/12   | -                 | -                  | -                 | -                 | -                 | 90 %                           | 95 %                           | 85 %                           | 90 %                           |
| 21288100   | SON-T 250W E E40 SL/12   | -                 | -                  | -                 | -                 | -                 | 95 %                           | 98 %                           | 92 %                           | 96 %                           |
| 21292800   | SON-T 400W E E40 1SL/12  | -                 | -                  | -                 | -                 | -                 | 94 %                           | 97 %                           | 88 %                           | 94 %                           |
| 21060945   | SON-T 1000W E E40 1SL/4  | -                 | -                  | -                 | -                 | -                 | 90 %                           | 95 %                           | 80 %                           | 90 %                           |

## Light Technical (3/3)

| Order Code | Full Product Name        | Luminous Efficacy (rated) (Nom) | Luminous Flux (Rated) (Min) | Luminous Flux (Rated) (Nom) | Ratio                    |
|------------|--------------------------|---------------------------------|-----------------------------|-----------------------------|--------------------------|
|            |                          |                                 |                             |                             | Scotopic/Photopic Lumens |
| 19267715   | SON-T 70W/220 E27 ICT/12 | 84 lm/W                         | -                           | 6000 lm                     | 0.50                     |
| 18412245   | SON-T 1000W E40 1SL/4    | 130 lm/W                        | 117000 lm                   | 130000 lm                   | 0.65                     |
| 21264500   | SON-T 100W E E40 SL/12   | 90 lm/W                         | 8100 lm                     | 9000 lm                     | -                        |
| 21270600   | SON-T 150W E E40 SL/12   | 98 lm/W                         | 13500 lm                    | 15000 lm                    | -                        |

| Order Code | Full Product Name       | Luminous Efficacy (rated) (Nom) | Luminous Flux (Rated) (Min) | Luminous Flux (Rated) (Nom) | Ratio                    |
|------------|-------------------------|---------------------------------|-----------------------------|-----------------------------|--------------------------|
|            |                         |                                 |                             |                             | Scotopic/Photopic Lumens |
| 21288100   | SON-T 250W E E40 SL/12  | 110 lm/W                        | 25200 lm                    | 28000 lm                    | -                        |
| 21292800   | SON-T 400W E E40 1SL/12 | 123 lm/W                        | 43200 lm                    | 48000 lm                    | -                        |
| 21060945   | SON-T 1000W E E40 1SL/4 | 130 lm/W                        | 117000 lm                   | 130000 lm                   | -                        |

## Mechanical and Housing

| Order Code | Full Product Name        | Bulb Shape |
|------------|--------------------------|------------|
| 19267715   | SON-T 70W/220 E27 ICT/12 | T35        |
| 18412245   | SON-T 1000W E40 1SL/4    | T65        |
| 21264500   | SON-T 100W E E40 SL/12   | T46        |
| 21270600   | SON-T 150W E E40 SL/12   | T46        |

| Order Code | Full Product Name       | Bulb Shape |
|------------|-------------------------|------------|
| 21288100   | SON-T 250W E E40 SL/12  | T46        |
| 21292800   | SON-T 400W E E40 1SL/12 | T46        |
| 21060945   | SON-T 1000W E E40 1SL/4 | T65        |

