

www.osram.com

VIALOX[®] NAV[®]-T SUPER 6Y[®]

Technical Information

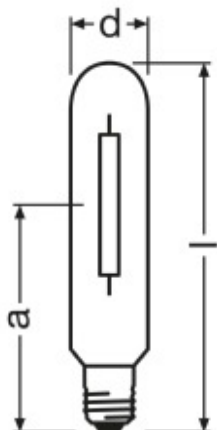


VIALOX[®] NAV-T[®] SUPER 6Y[®]

General product description

- High-pressure sodium vapor lamps
- ErP compliant (EU Regulation 245/2009)
- For open and closed luminaires

Basic technical description



| Product reference | Nominal lamp wattage [W] | Cap | Correlated colour temperature [K] | Length max. (l) [mm] | Diameter (d) [mm] | Weight per piece [g] | Light centre length (a) [mm] | Typical lamp voltage ¹ [V] | Typical lamp current ¹ [A] |
|---------------------|-----------------------------|-----|--------------------------------------|-------------------------|----------------------|-------------------------|---------------------------------|------------------------------------------|------------------------------------------|
| NAV-T 70W SUPER 6Y | 70 | E27 | 2000 | 156 | 39 | 55.7 | 104 | 87 | 0.97 |
| NAV-T 100W SUPER 6Y | 100 | E40 | 2000 | 210 | 47 | 130.0 | 132 | 100 | 1.20 |
| NAV-T 150W SUPER 6Y | 150 | E40 | 2000 | 210 | 47 | 103.0 | 132 | 100 | 1.80 |
| NAV-T 250W SUPER 6Y | 250 | E40 | 2000 | 257 | 47 | 148.0 | 158 | 100 | 2.95 |
| NAV-T 400W SUPER 6Y | 400 | E40 | 2000 | 285 | 47 | 174.0 | 175 | 100 | 4.52 |
| NAV-T 600W SUPER 6Y | 600 | E40 | 2000 | 285 | 47 | 187.0 | 173 | 110 | 6.06 |

Performance specification¹

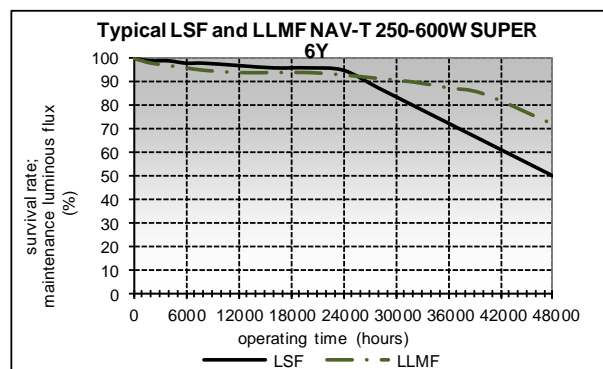
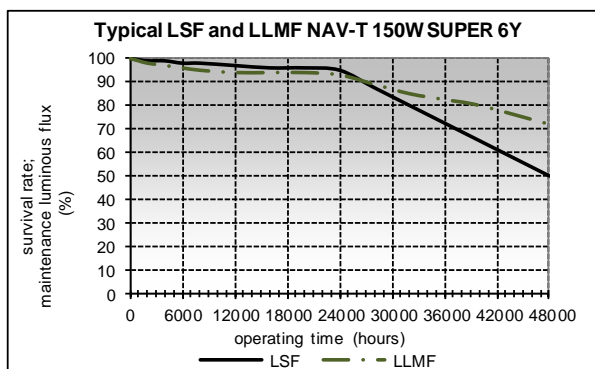
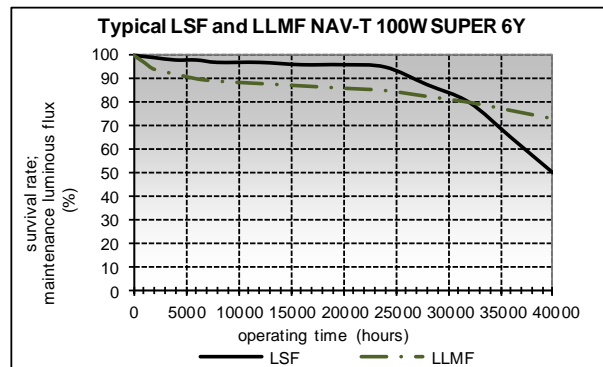
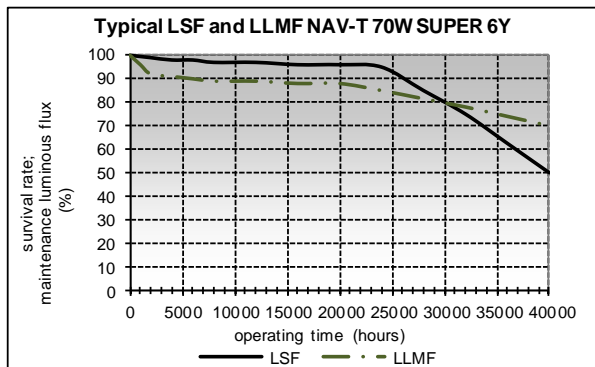
| Product reference | Rated lamp wattage CCG/ECG [W] | Rated system wattage CCG/ECG ² [W] | Luminous flux [lm] | Luminous efficacy [lm/W] | Colour rendering index Ra | B5 [h] | B10 [h] | Average life B50 [h] |
|---------------------|--------------------------------------|-----------------------------------------------------|-----------------------|-----------------------------|------------------------------|-----------|------------|----------------------------|
| NAV-T 70W SUPER 6Y | 71 / 72 | 84 / 80 | 6600 | 93 | ≤ 20 | 24000 | 26000 | 40000 |
| NAV-T 100W SUPER 6Y | 100 / 100 | 115 / 105 | 10700 | 107 | ≤ 20 | 24000 | 28000 | 40000 |
| NAV-T 150W SUPER 6Y | 152 / 150 | 176 / 160 | 17500 | 115 | ≤ 20 | 24000 | 28000 | 48000 |
| NAV-T 250W SUPER 6Y | 255 / - | 285 / - | 33200 | 130 | ≤ 20 | 24000 | 28000 | 48000 |
| NAV-T 400W SUPER 6Y | 400 / - | 450 / - | 56500 | 141 | ≤ 20 | 24000 | 28000 | 48000 |
| NAV-T 600W SUPER 6Y | 600 / - | 650 / - | 90000 | 150 | ≤ 20 | 24000 | 28000 | 48000 |

¹ Refers to operation with a reference electromagnetic ballast (IEC 60622).

² With OSRAM POWERTRONIC PTo

| Product reference | Lamp lumen maintenance factor ³ (LLMF) vs. operation hours | | | | | | | | | | |
|---------------------|-----------------------------------------------------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| | 2000h | 4000h | 6000h | 8000h | 12000h | 16000h | 20000h | 24000h | 32000h | 40000h | 48000h |
| NAV-T 70W SUPER 6Y | 92% | 91% | 90% | 89% | 89% | 88% | 88% | 85% | 78% | 70% | - |
| NAV-T 100W SUPER 6Y | 94% | 92% | 90% | 89% | 88% | 87% | 86% | 85% | 80% | 73% | - |
| NAV-T 150W SUPER 6Y | 98% | 97% | 96% | 95% | 94% | 94% | 94% | 93% | 85% | 80% | 72% |
| NAV-T 250W SUPER 6Y | 98% | 97% | 96% | 95% | 94% | 94% | 94% | 93% | 90% | 85% | 80% |
| NAV-T 400W SUPER 6Y | 98% | 97% | 96% | 95% | 94% | 94% | 94% | 93% | 90% | 85% | 80% |
| NAV-T 600W SUPER 6Y | 98% | 97% | 96% | 95% | 94% | 94% | 94% | 93% | 90% | 85% | 80% |

| Product reference | Lamp survival factor ⁴ (LSF) vs. operation hours | | | | | | | | | | |
|---------------------|-------------------------------------------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| | 2000h | 4000h | 6000h | 8000h | 12000h | 16000h | 20000h | 24000h | 32000h | 40000h | 48000h |
| NAV-T 70W SUPER 6Y | 99% | 98% | 98% | 97% | 97% | 96% | 96% | 95% | 75% | 50% | - |
| NAV-T 100W SUPER 6Y | 99% | 98% | 98% | 97% | 97% | 96% | 96% | 95% | 80% | 50% | - |
| NAV-T 150W SUPER 6Y | 99% | 99% | 98% | 98% | 97% | 96% | 96% | 95% | 80% | 65% | 50% |
| NAV-T 250W SUPER 6Y | 99% | 99% | 98% | 98% | 97% | 96% | 96% | 95% | 80% | 65% | 50% |
| NAV-T 400W SUPER 6Y | 99% | 99% | 98% | 98% | 97% | 96% | 96% | 95% | 80% | 65% | 50% |
| NAV-T 600W SUPER 6Y | 99% | 99% | 98% | 98% | 97% | 96% | 96% | 95% | 80% | 65% | 50% |



³ Indicates the percentage of luminous flux after a given period of operation time relative to the 100h values

⁴ Indicates the percentage of operational lamps after a given period of operation time.

Edition August 28, 2013; replaces edition July 29, 2013. Subject to change without notice. Errors and omissions excepted. Make sure to use the most recent edition.

Operation conditions

| Product reference | Burning position | Max. permitted outer bulb temperature [°C] | Max. permitted base temperature [°C] | Ignition voltage min. ⁵ /max. ⁶ [kV] | Required control gear ⁷ | Suitable OSRAM electronic control gear | Dimming |
|---------------------|------------------|--------------------------------------------|--------------------------------------|------------------------------------------------------------|------------------------------------|----------------------------------------|---------|
| NAV-T 70W SUPER 6Y | universal | 310 | 210 | 1.8 / 5.0 | ECG, CCG | PTo | Yes |
| NAV-T 100W SUPER 6Y | universal | 310 | 210 | 3.3 / 5.0 | ECG, CCG | PTo | Yes |
| NAV-T 150W SUPER 6Y | universal | 310 | 210 | 3.3 / 5.0 | ECG, CCG | PTo | Yes |
| NAV-T 250W SUPER 6Y | universal | 400 | 250 | 3.3 / 5.0 | ECG, CCG | - | Yes |
| NAV-T 400W SUPER 6Y | universal | 400 | 250 | 3.3 / 5.0 | ECG, CCG | - | Yes |
| NAV-T 600W SUPER 6Y | universal | 400 | 250 | 3.6 / 5.0 | ECG, CCG | - | Yes |

Safety, materials and environment

| Product description | Typical mercury content [mg] |
|---------------------|------------------------------|
| NAV-T 70W SUPER 6Y | 17.0 |
| NAV-T 100W SUPER 6Y | 17.0 |
| NAV-T 150W SUPER 6Y | 21.0 |
| NAV-T 250W SUPER 6Y | 21.0 |
| NAV-T 400W SUPER 6Y | 21.0 |
| NAV-T 600W SUPER 6Y | 21.0 |

- Compliant with safety specifications according to EN 62035
- Compliant with RoHS.

Energy labelling⁸

| Product description | Energy efficiency class | Weighted energy consumption E _c [kWh/1000h] |
|---------------------|-------------------------|--------------------------------------------------------|
| NAV-T 70W SUPER 6Y | A+ | 79 |
| NAV-T 100W SUPER 6Y | A+ | 110 |
| NAV-T 150W SUPER 6Y | A+ | 168 |
| NAV-T 250W SUPER 6Y | A+ | 281 |
| NAV-T 400W SUPER 6Y | A++ | 440 |
| NAV-T 600W SUPER 6Y | A++ | 660 |

⁵ Minimum Ignition voltage according to IEC 60662

⁶ Maximum ignition voltage

⁷ ECG stands for low frequency square wave electronic ballast, CCG stands for electromagnetic ballast according to IEC 61347

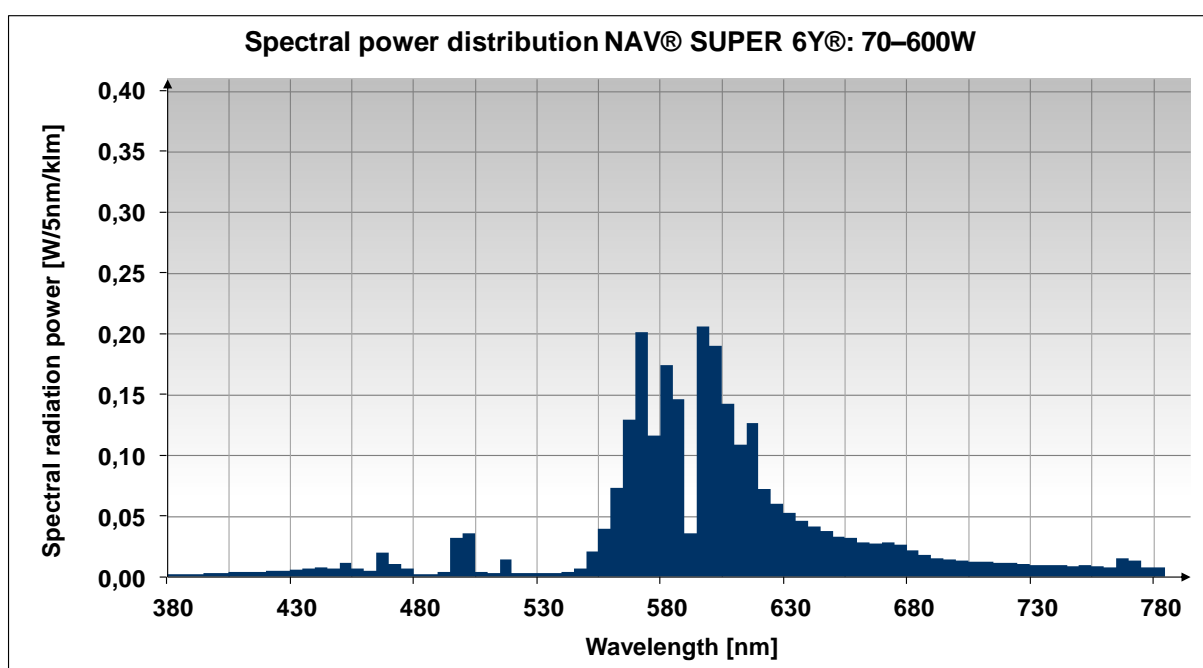
⁸ According to Regulation (EU) No 874/2012 of July 12, 2012

Edition August 28, 2013; replaces edition July 29, 2013. Subject to change without notice. Errors and omissions excepted. Make sure to use the most recent edition.

Logistics data

| Product description | ILCOS | EAN 10 | EAN 40 | Standard pack quantity |
|---------------------|-----------------------------|---------------|---------------|------------------------|
| NAV-T 70W SUPER 6Y | ST-70/20/4-H/SL-E27-38/156 | 4008321843067 | 4008321843074 | 12 |
| NAV-T 100W SUPER 6Y | ST-100/20/4-H/SL-E40-47/210 | 4008321843081 | 4008321843098 | 12 |
| NAV-T 150W SUPER 6Y | ST-150/20/4-H/SL-E40-47/210 | 4008321843104 | 4008321843111 | 12 |
| NAV-T 250W SUPER 6Y | ST-250/20/4-H/SL-E40-47/257 | 4052899047129 | 4052899047136 | 12 |
| NAV-T 400W SUPER 6Y | ST-400/20/4-H/SL-E40-47/285 | 4052899047143 | 4052899047150 | 12 |
| NAV-T 600W SUPER 6Y | ST-400/20/4-H/SL-E40-47/285 | 4052899095878 | 4052899095885 | 12 |

Typical spectral power distribution



References

| Reference | Location |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Brochure "High Intensity Discharge lamps. Technical information on reducing the wattage" | www.osram.com |
| Ray data (e.g. ASAP, SPEOS, LightTools) | available on request |
| 3D data (e.g. Parasolid, STEP) | available on request |
| System ⁺ guarantee | level 3C, see www.osram.com |