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VIALOX[®] NAV[®]-T SUPER 4Y[®]

Technical Information

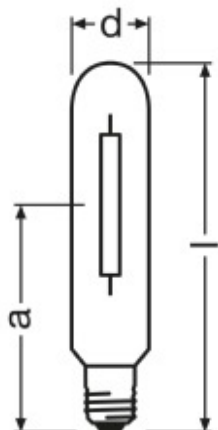


VIALOX[®] NAV-T[®] SUPER 4Y[®]

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 50W SUPER 4Y	50	E27	2000	156	39	70.0	104	86	0.75
NAV-T 70W SUPER 4Y	70	E27	2000	156	39	55.7	104	87	0.97
NAV-T 100W SUPER 4Y	100	E40	2000	210	47	130.0	132	100	1.20
NAV-T 150W SUPER 4Y	150	E40	2000	210	47	103.0	132	100	1.80
NAV-T 250W SUPER 4Y	250	E40	2000	257	47	148.0	158	100	2.95
NAV-T 400W SUPER 4Y	400	E40	2000	285	47	174.0	175	100	4.52
NAV-T 600W SUPER 4Y	600	E40	2000	285	47	187.0	173	110	6.06

Performance specification¹

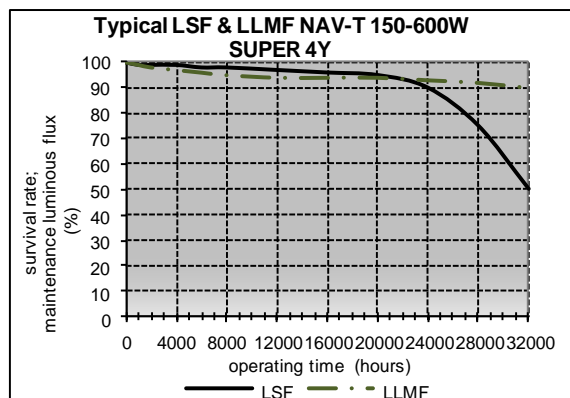
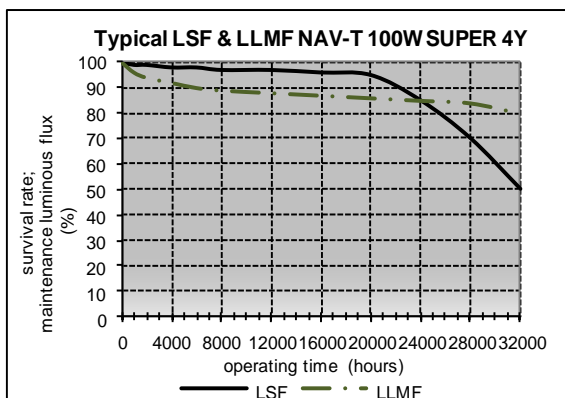
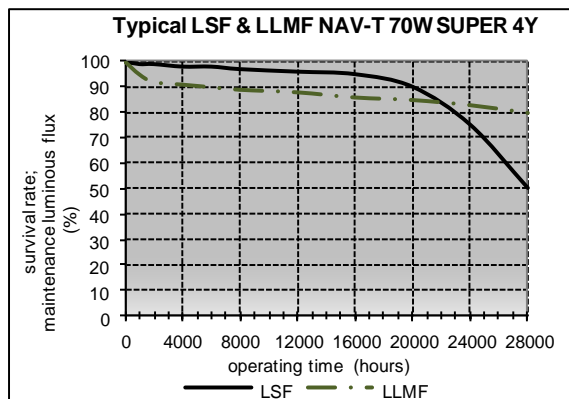
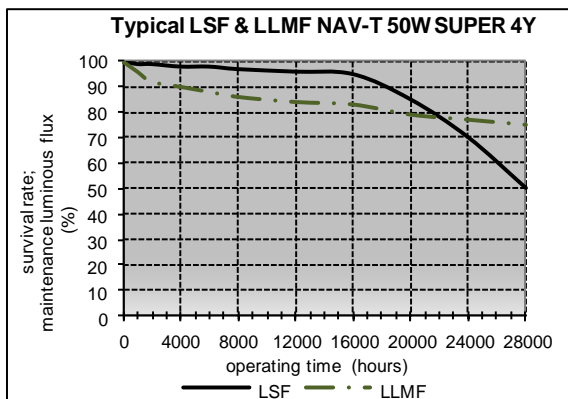
Product reference	Rated lamp wattage CCG/ECG [W]	Rated system wattage CCG/ECG ² [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Colour rendering index Ra	B5 [h]	B10 [h]	Average life (B50) [h]
NAV-T 50W SUPER 4Y	52 / 50	66 / 55	4200	81	≤ 25	16000	18000	28000
NAV-T 70W SUPER 4Y	71 / 72	84 / 80	6600	93	≤ 25	16000	20000	28000
NAV-T 100W SUPER 4Y	100 / 100	115 / 106	10700	107	≤ 25	20000	22000	32000
NAV-T 150W SUPER 4Y	152 / 150	176 / 160	17500	115	≤ 25	20000	24000	32000
NAV-T 250W SUPER 4Y	255 / -	285 / -	33200	130	≤ 25	20000	24000	32000
NAV-T 400W SUPER 4Y	400 / -	450 / -	56500	141	≤ 25	20000	24000	32000
NAV-T 600W SUPER 4Y	600 / -	650 / -	90000	150	≤ 25	20000	24000	32000

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	28000h	32000h
NAV-T 50W SUPER 4Y	92%	90%	88%	86%	84%	83%	79%	77%	75%	-
NAV-T 70W SUPER 4Y	92%	91%	90%	89%	88%	86%	85%	83%	80%	-
NAV-T 100W SUPER 4Y	94%	92%	90%	89%	88%	87%	86%	85%	84%	80%
NAV-T 150W SUPER 4Y	98%	97%	96%	95%	94%	94%	94%	93%	92%	90%
NAV-T 250W SUPER 4Y	98%	97%	96%	95%	94%	94%	94%	93%	92%	90%
NAV-T 400W SUPER 4Y	98%	97%	96%	95%	94%	94%	94%	93%	92%	90%
NAV-T 600W SUPER 4Y	98%	97%	96%	95%	94%	94%	94%	93%	92%	90%

Product reference	Lamp survival factor ⁴ (LSF) vs. operation hours									
	2000h	4000h	6000h	8000h	12000h	16000h	20000h	24000h	28000h	32000h
NAV-T 50W SUPER 4Y	99%	98%	98%	97%	96%	95%	85%	70%	50%	-
NAV-T 70W SUPER 4Y	99%	98%	98%	97%	96%	95%	90%	75%	50%	-
NAV-T 100W SUPER 4Y	99%	98%	98%	97%	97%	96%	95%	85%	70%	50%
NAV-T 150W SUPER 4Y	99%	99%	98%	98%	97%	96%	95%	90%	75%	50%
NAV-T 250W SUPER 4Y	99%	99%	98%	98%	97%	96%	95%	90%	75%	50%
NAV-T 400W SUPER 4Y	99%	99%	98%	98%	97%	96%	95%	90%	75%	50%
NAV-T 600W SUPER 4Y	99%	99%	98%	98%	97%	96%	95%	90%	75%	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 November 28, 2013; replaces edition January 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 50W SUPER 4Y	universal	310	210	1.8 / 5.0	ECG, CCG	PTo	Yes
NAV-T 70W SUPER 4Y	universal	310	210	1.8 / 5.0	ECG, CCG	PTo	Yes
NAV-T 100W SUPER 4Y	universal	310	210	3.3 / 5.0	ECG, CCG	PTo	Yes
NAV-T 150W SUPER 4Y	universal	310	210	3.3 / 5.0	ECG, CCG	PTo	Yes
NAV-T 250W SUPER 4Y	universal	400	250	3.3 / 5.0	ECG, CCG	PTo	Yes
NAV-T 400W SUPER 4Y	universal	400	250	3.3 / 5.0	ECG, CCG	-	Yes
NAV-T 600W SUPER 4Y	universal	400	250	3.6 / 5.0	ECG, CCG	-	Yes

Safety, materials and environment

Product description	Typical mercury content [mg]
NAV-T 50W SUPER 4Y	17.0
NAV-T 70W SUPER 4Y	17.0
NAV-T 100W SUPER 4Y	17.0
NAV-T 150W SUPER 4Y	21.0
NAV-T 250W SUPER 4Y	21.0
NAV-T 400W SUPER 4Y	21.0
NAV-T 600W SUPER 4Y	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 50W SUPER 4Y	A	58
NAV-T 70W SUPER 4Y	A+	79
NAV-T 100W SUPER 4Y	A+	110
NAV-T 150W SUPER 4Y	A+	168
NAV-T 250W SUPER 4Y	A+	281
NAV-T 400W SUPER 4Y	A++	440
NAV-T 600W SUPER 4Y	A++	660

⁵ Maximum 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

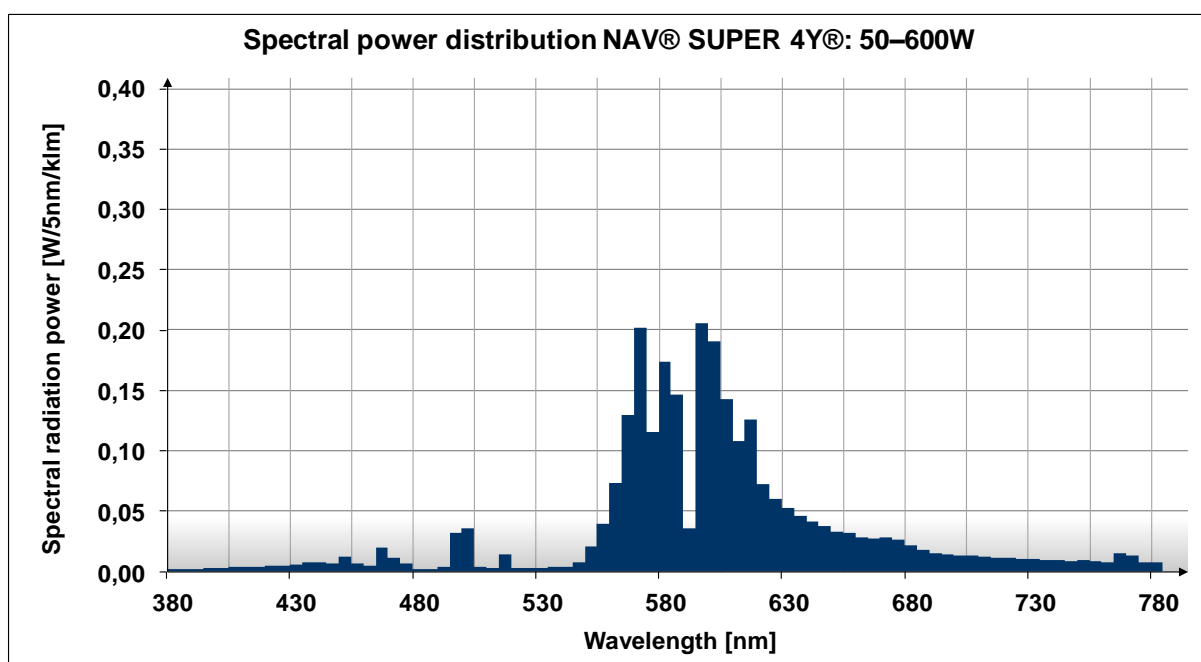
⁸ According to Regulation (EU) No 874/2012 of July 12, 2012

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Logistics data

Product description	ILCOS	EAN 10	EAN 40	Standard pack quantity
NAV-T 50W SUPER 4Y	ST-50-H/E/SL-E27-39/156	4050300024325	4050300250076	12
NAV-T 70W SUPER 4Y	ST-70-H/E/SL-E27-39/156	4050300015736	4050300228600	12
NAV-T 100W SUPER 4Y	ST-100-H/E/SL-E40-47/210	4050300015743	4050300631806	12
NAV-T 150W SUPER 4Y	ST-150-H/E/SL-E40-47/210	4050300024400	4050300631790	12
NAV-T 250W SUPER 4Y	ST-250-H/E/SL-E40-47/257	4050300024417	4050300631783	12
NAV-T 400W SUPER 4Y	ST-400-H/E/SL-E40-47/285	4050300281179	4050300199962	12
NAV-T 600W SUPER 4Y	ST-600-H/E/SL-E40-47/285	4050300275772	4050300199979	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