

T5 Miniature Standard, Triphosphor and Specfill™

Linear Fluorescent Lamps

4W, 6W, 8W and 13W

Product information

T5 Miniature fluorescent lamps are designed for confined spaces of household and industrial applications. These lamps are widely used in different applications such as furniture cabinets, mobile homes as well as sign illumination.

T5 Miniature lamps are well suited for use in maintained and non-maintained emergency modules and escape signs.

Features

T5 Miniature Standard lamps have halophosphate coating providing good colour rendering, life and luminous efficacy. With this range, GE offers you an economic solution for general application areas.

T5 Miniature Triphosphor lamps offer excellent colour quality and energy efficiency. These lamps give 15% higher lumen output than the halophosphate coated range. T5 Miniature Triphosphor lamps are suitable for all types of application areas where quality of light is an important factor.

GE's T5 Miniature Specfill™ lamps are specially designed for high-frequency emergency operation, and are also a perfect fit and a premium solution in any other T5 Miniature application. The robust cathode design of these lamps ensure very good reliability at low operating power in emergency mode as well as extending the lifetime in normal operation to 8,000 hours.



Application areas

- Domestic
- Industrial sites
- Emergency modules
- Signage

Product range

T5 Miniature lamps are available in 4 wattages: 4, 6, 8 and 13W. The available colour temperatures are:

- Halophosphate coating: 3000K, 3500K, 4000K
- Triphosphor coating: 2700K, 4000K, 6500K

Compliance

The T5 Miniature linear fluorescent lamps comply with IEC/EN 60061, IEC/EN 60081 and IEC/EN 61195.



Basic data – T5 Miniature Standard

Lamp type	4W	6W	8W	13W	6W Specfill™	8W Specfill™
General						
Nominal Wattage [W]	4	6	8	13	6	8
Weighted Energy Consumption (kWh/1000h)	4	6	8	14	6	8
Cap	G5	G5	G5	G5	G5	G5
Operation	EM 50Hz / HF	EM 50Hz / HF	EM 50Hz / HF	EM 50Hz / HF	EM 50Hz / HF	EM 50Hz / HF
Cathode	preheated	preheated	preheated	preheated	preheated	preheated
Design Temperature [°C]	25	25	25	25	25	25
Recommended Burning Position	horizontal	horizontal	horizontal	horizontal	horizontal	horizontal
Energy Efficiency Class	B	A	A	A	A	A
Average Mercury Content [mg]	<3	<3	<3	<3	<3	<3
Ordering Information (25-way sleeve pack)						
29 - CCT 3000K - Warm White	-	-	37754	39437	-	-
35 - CCT 3500K - White	39446	39442	37756	39439	-	27027
33 - CCT 4000K - Cool White	39441	39445	37755	39440	-	27011
Ordering Information (industrial pack, 100 pcs)						
35 - CCT 3500K - White	-	-	-	-	-	91451
33 - CCT 4000K - Cool White	-	-	-	-	40307	91450
Electrical and Photometric Characteristics at 25°C						
Rated Wattage [W]	4.5	6.0	7.1	13.0	6.0	7.1
Rated Lamp Voltage [V]	103.5	103.5	103.5	198	103.5	103.5
Rated Lamp Current [A]	0.170	0.160	0.145	0.165	0.160	0.145
Operating Frequency [Hz]	50	50	50	50	50	50
Rated Luminous Flux [lm]	130	260	395	850	260	400
Rated Efficacy [lm/W]	29	43	56	65	43	56
Colour rendering index - F29 [Ra]	-	-	52	52	-	-
Colour rendering index - F35 [Ra]	54	54	54	54	-	54
Colour rendering index - F33 [Ra]	60	60	60	60	-	60
Optical Radiation Safety Class	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
Lifetime performance						
Rated Median Life – Preheat, 3 Hours Cycle [h]	5,000	5,000	5,000	5,000	8,000	8,000
Operating Mode for LSF and LLMF Data	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle
Lamp Survival Factor						
LSF 1,000 hours	99%	99%	99%	99%	99%	99%
LSF 2,000 hours	99%	99%	99%	99%	99%	99%
LSF 3,000 hours	95%	95%	95%	95%	99%	99%
LSF 4,000 hours	81%	81%	81%	81%	98%	98%
LSF 5,000 hours	50%	50%	50%	50%	95%	95%
LSF 6,000 hours	-	-	-	-	86%	86%
LSF 7,000 hours	-	-	-	-	71%	71%
LSF 8,000 hours	-	-	-	-	50%	50%
Lamp Lumen Maintenance						
LLMF 1,000 hours	87%	87%	87%	87%	92%	92%
LLMF 2,000 hours	80%	80%	80%	80%	87%	87%
LLMF 3,000 hours	76%	76%	76%	76%	83%	83%
LLMF 4,000 hours	73%	73%	73%	73%	80%	80%
LLMF 5,000 hours	70%	70%	70%	70%	77%	77%
LLMF 6,000 hours	-	-	-	-	75%	75%
LLMF 7,000 hours	-	-	-	-	72%	72%
LLMF 8,000 hours	-	-	-	-	70%	70%
Service Life – EM Preheat, 3 Hours Cycle [h]	2,000	2,000	2,000	2,000	3,500	3,500

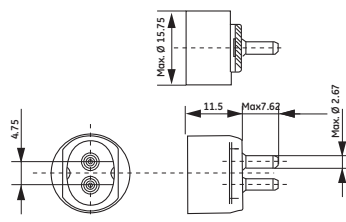
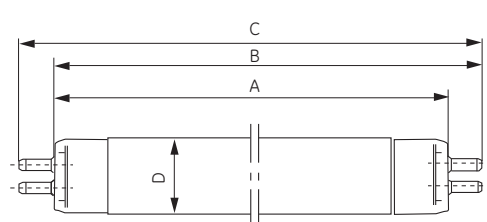
Note for lamp power and lamp luminous efficacy values: power dissipated by auxiliary equipment (such as reference or commercial ballast) is not included. Lumen maintenance may vary for lamps with colour temperature $\geq 5000\text{K}$

Basic data – T5 Miniature Triphosphor

Lamp type	8W	13W	6W Specfill™	8W Specfill™
General				
Nominal Wattage [W]	8	13	6	8
Weighted Energy Consumption (kWh/1000h)	8	14	6	8
Cap	G5	G5	G5	G5
Operation	EM 50Hz / HF	EM 50Hz / HF	EM 50Hz / HF	EM 50Hz / HF
Cathode	preheated	preheated	preheated	preheated
Design Temperature [°C]	25	25	25	25
Recommended Burning Position	horizontal	horizontal	horizontal	horizontal
Energy Efficiency Class	A	A	A	A
Average Mercury Content [mg]	<3	<3	<3	<3
Ordering Information (25-way sleeve pack)				
827 - CCT 2700K - Extra Warm White	-	39447	-	-
Ordering Information (industrial pack, 100 pcs)				
827 - CCT 2700K - Extra Warm White	37008	-	-	-
840 - CCT 4000K - Cool White	37009	-	40327	40331
865 - CCT 6500K - Daylight	-	-	-	45034
Electrical and Photometric Characteristics at 25°C				
Rated Wattage [W]	7.1	13.0	6.0	7.1
Rated Lamp Voltage [V]	103.5	198	103.5	103.5
Rated Lamp Current [A]	0.145	0.165	0.160	0.145
Operating Frequency [Hz]	50	50	50	50
Rated Luminous Flux [lm]	460	970	300	460
Rated Efficacy [lm/W]	65	75	50	65
Colour rendering index [Ra]	80	80	80	80
Optical Radiation Safety Class	Exempt	Exempt	Exempt	Exempt
Lifetime performance				
Rated Median Life – Preheat, 3 Hours Cycle [h]	5,000	5,000	8,000	8,000
Operating Mode for LSF and LLMF Data	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle	EM 50Hz, 3h cycle
Lamp Survival Factor				
LSF 1,000 hours	99%	99%	99%	99%
LSF 2,000 hours	99%	99%	99%	99%
LSF 3,000 hours	95%	95%	99%	99%
LSF 4,000 hours	81%	81%	98%	98%
LSF 5,000 hours	50%	50%	95%	95%
LSF 6,000 hours	-	-	86%	86%
LSF 7,000 hours	-	-	71%	71%
LSF 8,000 hours	-	-	50%	50%
Lamp Lumen Maintenance				
LLMF 1,000 hours	89%	89%	92%	92%
LLMF 2,000 hours	84%	84%	87%	87%
LLMF 3,000 hours	80%	80%	83%	83%
LLMF 4,000 hours	77%	77%	80%	80%
LLMF 5,000 hours	75%	75%	77%	77%
LLMF 6,000 hours	-	-	73%	75%
LLMF 7,000 hours	-	-	71%	72%
LLMF 8,000 hours	-	-	70%	70%
Service Life – EM Preheat, 3 Hours Cycle [h]	2,500	2,500	3,500	3,500

Note for lamp power and lamp luminous efficacy values: power dissipated by auxiliary equipment (such as reference or commercial ballast) is not included. Lumen maintenance may vary for lamps with colour temperature $\geq 5000\text{K}$.

Dimensions



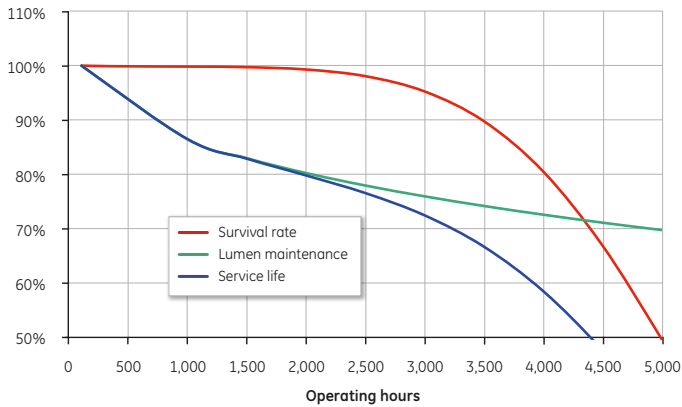
Dimensions measured on finished lamps

Lamp type	A Max. [mm]	B Min. [mm]	C Max. [mm]	D Max. [mm]
4W	135.9	143.0	150.1	16.0
6W	212.1	216.8	226.3	16.0
8W	288.3	293.0	302.5	16.0
13W	516.9	521.6	531.1	16.0

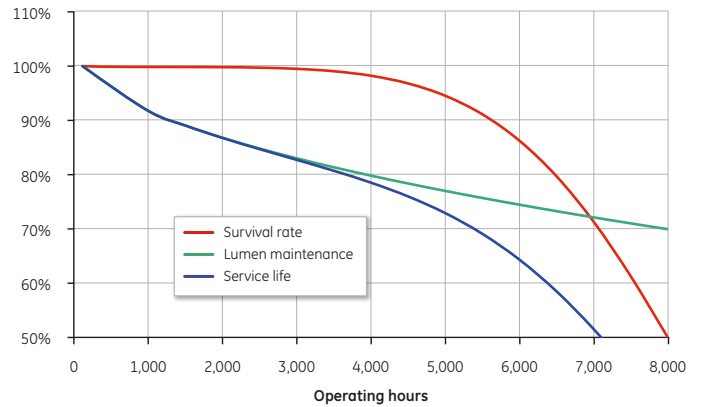
Lamp life and lumen maintenance

The quoted lamp life is the “average rated lamp life” which is the average value obtained on a three hour switching cycle (15 minute OFF period following 2 hours 45 minutes running time) operated on control gear that meet IEC specifications. This will be the point in time at which 50% of the lamps originally installed are still operating.

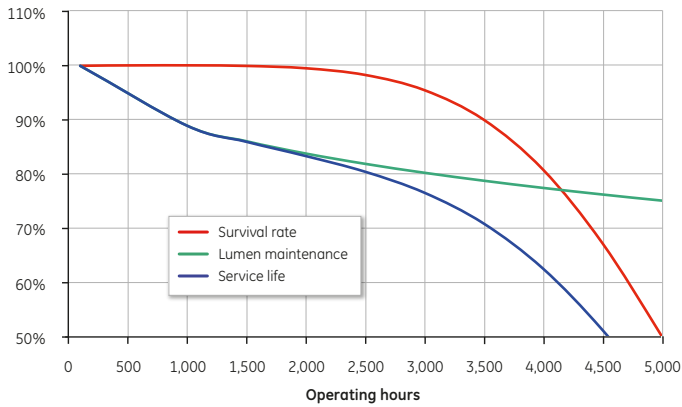
T5 Miniature Standard



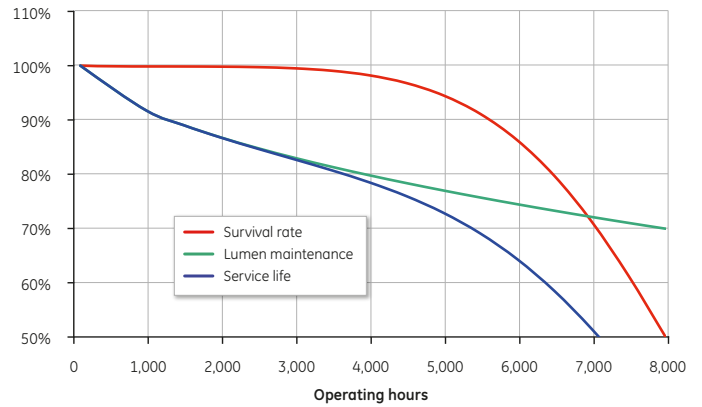
T5 Miniature-Specfill™ Standard



T5 Miniature Triphosphor

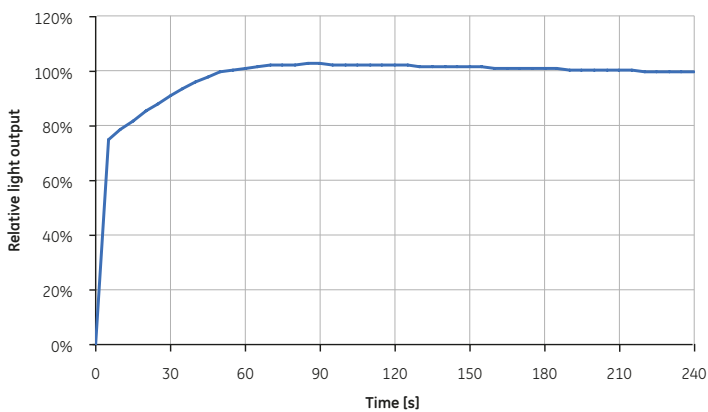


T5 Miniature-Specfill™ Triphosphor



Warm-up characteristics

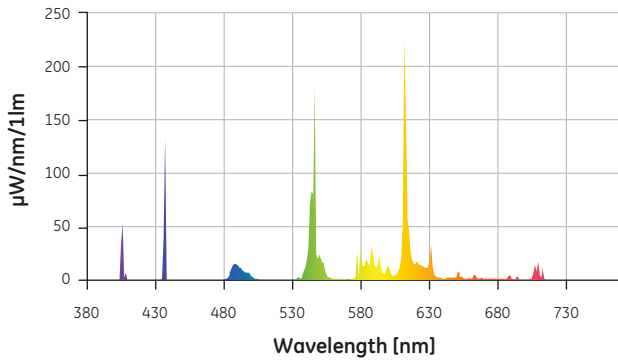
Fast warm-up technology makes the T5 Miniature lamps ideal for emergency application. Quick response time ensures light during those critical first moments of an emergency using T5 Miniature Specfill™ lamps.



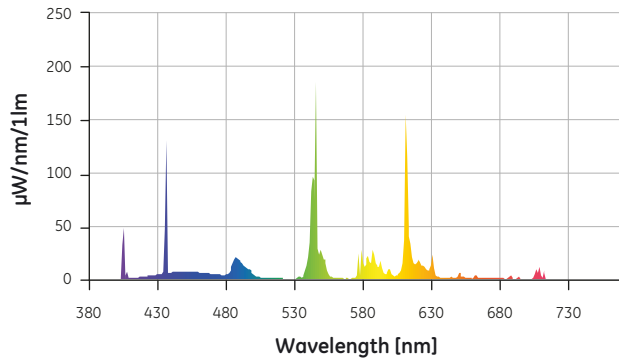
Spectral power distribution

Spectral Power Distribution curves provide the user with a visual profile of the colour characteristics of a light source. Fluorescent lamps combine a continuous spectra from their phosphor with the line spectra of the mercury discharge.

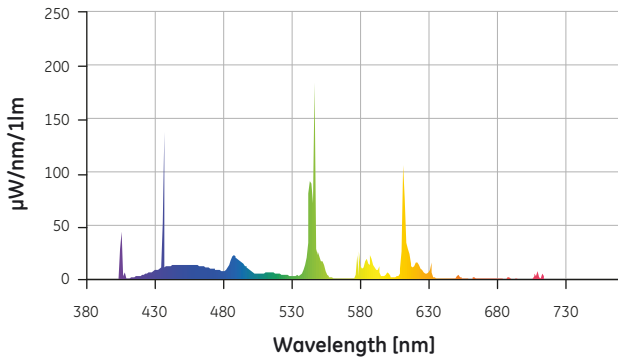
Spectral power distribution 2700K



Spectral power distribution 4000K



Spectral power distribution 6500K



Colour specification according to CIE 1931

CCT [K]		X	Y
Nominal	Rated		
2700	2720	0.463	0.420
3000	2940	0.440	0.403
3500	3450	0.409	0.394
4000	4040	0.380	0.380
6500	6400	0.313	0.337