

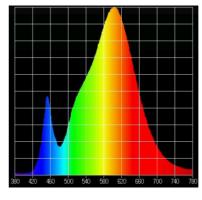


Aura UltiLED PRO Long Life

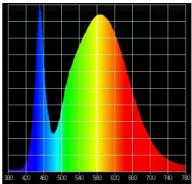
Correlated Colour Temperature CCT			Aura Uttiled PRO Long Life										
Diameter (mm)			Nominal wattage (W)		26					32			
Melight (g)			Nominal length (mm)		1149				1449				
Colour Rendering Index CR			Diameter (mm)		16				16				
SDCM STATE			Weight (g)		225				290				
			Colour Rendering Index CRI		≥80				≥80				
Correlated Colour Temperature CCT			SDCM		3			3					
Correlated Colour Temperature CCT													
Nominal and rated flux**			Light Colour			830	840	850		830	840	850	
Lamp efficacy 2.5° C (m/w) 138,5 146 152 140,0 148,4 153, 146 152 140,0 148,4 153, 146 152 140,0 148,4 153, 146 152 140,0 148,4 153, 146 152 140,0 148,4 153, 146 152 140,0 148,4 153, 146 152 140,0 148,4 153, 146 152 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 153,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,0 148,4 140,4			Correlated Colour Temperature CCT			3000	4000	5000		3000	4000	5000	
Final Property Class			Nominal and rated flux ¹⁾ @ 25 °C (lm) (+/- 8% tolerance)			3600	3800	3950		4500	4750	4900	
System power with driver, 90% eff. 28,89 28,89 28,89 35,56			Lamp efficacy ¹⁾ @ 25 °C (lm/W)			138,5	146	152		140,6	148,4	153,1	
Rated Wattage (W) 26 32 Power Factor (Pf) >0,9 (in combination with approved driver) Operating Voltage (W) 36,1 (34,5 - 39,1) 44,5 (42,8 - 48,6) Operating Current (mA) 700 700 Tool Nominal lifetime 58 000 Rated lifetime 58 000 LLMF - Lamp Lumen Maintenance Factor end of nominal life 90% LSF - Lamp Survival Factor end of nominal life 90% Installation environment 1000 and outdoor 1005 Ingress Protection 105 Warm-up time to 60% light output 105 seconds (max) will depend on driver used 75°C 105°C 1			Energy Class			Е	D	D		Е	D	D	
Power Factor (Pf)			System power with driver, 90% eff.			28,89	28,89	28,89		35,56	35,56	35,56	
Power Factor (Pf)													
Operating Voltage (V) 36,1 (34,5 - 39,1) 44,5 (42,8 - 48,6)			Rated Wattage (W)		26					32			
Nominal lifetime 58 000 Rated lifetime 58 000 LLMF - Lamp Lumen Maintenance Factor end of nominal life 80% LSF - Lamp Survival Factor end of nominal life 90% LSF - Lamp Survival Factor end of nominal life 90% Installation environment Indoor and outdoor 1P65 Warm-up time to 60% light output Instant full light Starting time 0,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) -30°C to +55°C Nominal beam angle 120° Rated beam angle 120° Suitable for accent lighting No Switching cycles 1500 000 (min) Dimmable Yes (depends on driver used) Cap G5 Tube and cap material Glass and PC Mercury Content 0 When replacing flourescent lighting, light distribution and overall energy efficiency will be			Power Factor (Pf)	>0,9 (9 (in combination with approved o				river)				
Nominal lifetime 58 000 Rated lifetime 58 000 LLMF - Lamp Lumen Maintenance Factor end of nominal life 80% LSF - Lamp Survival Factor end of nominal life 90% LSF - Lamp Survival Factor end of nominal life 90% Installation environment Indoor and outdoor 1P65 Warm-up time to 60% light output Instant full light Starting time 0,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) -30°C to +55°C Nominal beam angle 120° Rated beam angle 120° Suitable for accent lighting No Switching cycles 1500 000 (min) Dimmable Yes (depends on driver used) Cap G5 Tube and cap material Glass and PC Mercury Content 0 When replacing flourescent lighting, light distribution and overall energy efficiency will be	Data	put	Operating Voltage (V)		30	6,1 (34,	,5 - 39,1	_)	44,5 (42,8 - 48,6)				
Nominal lifetime 58 000 Rated lifetime 58 000 LLMF - Lamp Lumen Maintenance Factor end of nominal life 80% LSF - Lamp Survival Factor end of nominal life 90% LSF - Lamp Survival Factor end of nominal life 90% Installation environment Indoor and outdoor 1P65 Warm-up time to 60% light output Instant full light Starting time 0,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) -30°C to +55°C Nominal beam angle 120° Rated beam angle 120° Suitable for accent lighting No Switching cycles 1500 000 (min) Dimmable Yes (depends on driver used) Cap G5 Tube and cap material Glass and PC Mercury Content 0 When replacing flourescent lighting, light distribution and overall energy efficiency will be	rical	п	Operating Current (mA)			70	00		700				
Nominal lifetime 58 000 Rated lifetime 58 000 LLMF - Lamp Lumen Maintenance Factor end of nominal life 80% LSF - Lamp Survival Factor end of nominal life 90% LSF - Lamp Survival Factor end of nominal life 90% Installation environment Indoor and outdoor 1P65 Warm-up time to 60% light output Instant full light Starting time 0,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) -30°C to +55°C Nominal beam angle 120° Rated beam angle 120° Suitable for accent lighting No Switching cycles 1500 000 (min) Dimmable Yes (depends on driver used) Cap G5 Tube and cap material Glass and PC Mercury Content 0 When replacing flourescent lighting, light distribution and overall energy efficiency will be	Elect	Į.											
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LLMF - Lamp Lumen Maintenance Factor end of nominal life 80%		0											
LLMF - Lamp Lumen Maintenance Factor end of nominal life SSF - Lamp Survival Factor end of nominal life 90%			Nominal lifetime	58 000									
Installation environment Ingress Protection Ingress Protection Ingress Protection Warm-up time to 60% light output Starting time O,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) Rated beam angle Rated beam angle Suitable for accent lighting Switching cycles Dimmable Ves (depends on driver used) Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be			Rated lifetime	58 000									
Installation environment Ingress Protection Ingress Protection Ingress Protection Warm-up time to 60% light output Starting time O,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) Rated beam angle Rated beam angle Suitable for accent lighting Switching cycles Dimmable Ves (depends on driver used) Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be	70	בי	LLMF - Lamp Lumen Maintenance Factor end of nominal life	80%									
Ingress Protection Warm-up time to 60% light output Starting time O,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) Nominal beam angle Rated beam angle Suitable for accent lighting Switching cycles Dimmable Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be When replacing flourescent lighting, light distribution and overall energy efficiency will be	0 1441	LLIMIL	LSF - Lamp Survival Factor end of nominal life	90%									
Warm-up time to 60% light output Starting time O,5 seconds (max) will depend on driver used Max Tc 75°C Ambient temperature (Ta) Nominal beam angle 120° Rated beam angle Suitable for accent lighting Switching cycles Dimmable Yes (depends on driver used) Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be			Installation environment										
Starting time Max Tc T5°C Ambient temperature (Ta) Nominal beam angle Rated beam angle Suitable for accent lighting Switching cycles Cap Glass and PC Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be		ŀ	<u> </u>										
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Nominal beam angle Rated beam angle Suitable for accent lighting Switching cycles Dimmable Cap Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be													
Rated beam angle Suitable for accent lighting No Switching cycles 1 500 000 (min) Per (depends on driver used) Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be		ŀ											
Suitable for accent lighting Switching cycles Dimmable Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be		ŀ											
Switching cycles Dimmable Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be		ŀ											
Dimmable Cap G5 Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be		ŀ	Suitable for accent lighting										
Cap G5 Tube and cap material Glass and PC Mercury Content 0 When replacing flourescent lighting, light distribution and overall energy efficiency will be		ŀ	Switching cycles										
Tube and cap material Mercury Content When replacing flourescent lighting, light distribution and overall energy efficiency will be		ļ	Dimmable										
Mercury Content 0 When replacing flourescent lighting, light distribution and overall energy efficiency will be		ļ	Сар										
When replacing flourescent lighting, light distribution and overall energy efficiency will be			Tube and cap material	Glass and PC									
			Mercury Content	0									
			Notice	When replacing flourescent lighting, light distribution and overall energy efficiency will be determined by the design of the installation									



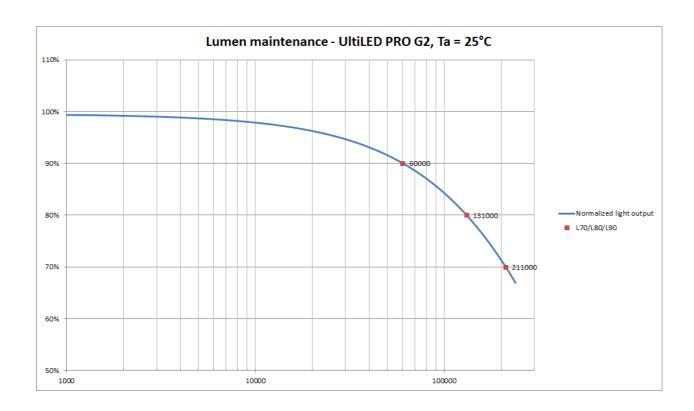
Spectral distribution 3000K



Spectral distribution 4000K



Calculated LED Lifetime h (TM-21)	L70	L80	L90
	211 000	131 000	60 000





Installation guide - UltiLED PRO

This guide explains the steps necessary to install UltiLED PRO inside a luminaire and ensure optimal performance. The guide is only for reference and is intended for qualified electricians or lighting technicians.

Installation 6 steps:

1) Make sure that the right type of driver is within the luminaire. (A SELV driver is recommended. Should a non-SELV driver be used that still meets the requirements of the tube, power to the luminaire should be disconnected prior to installing or changing the UltiLED tube if the UoutMax (no load voltage) is equal to or greater than 400V.)

- 2) Unpack the UltiLED PRO tube.
- a) Carefully examine the product
- b) Do not use the product if it's damaged
- 3) Make sure that the active side (metal pin side) is connected to the active side within the luminaire. See picture below.
 - a)The UltiLED PRO tube is bipolar so the LED+ and LED- side doesn't matter.

UltiLED PRO is not a retrofit LED lamp for T8 or T5 replacement application. An external LED driver complying for European safety & performance norms should be used. All light fitting manufacturers should conform to the international standards IEC 60598-luminaires

LED +

L LED

Driver

Circuit diagram

UltiLED

- 4) Make sure that the UltiLED PRO is turned into the luminaire so that the light output is directed the desired way.
- 5) Reconnect power to the luminaire and turn it on.

Additional information

- because of external power supply, tubes can only be used in therefore suitable luminaires.
- installation instructions and warnings are provided with the products
- to avoid dangerous situation for end user, the tube is double/re-inforced insulated from live parts.
- LED tube is recommended to be used with certified SELV LED driver

Limitation of use

Due to dimension of the and cap, the LED tubes can only be used with lampholders which are provided with rotor in the middle.