

PHILIPS

InteGrade

LED

InteGrade engine UB
Value G5



Datasheet

Key features and benefits

- Miniaturized slim design for aesthetic integration
- Premium color consistency up to 3 SDCM over lifetime
- Natural merchandise color with specially formulated LEDs up to CRI95
- Optical design for uniform light distribution bringing light right down to the lowest shelf
- Modules performing up to 166 lm/W
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (3000 PW, 4000 PW, WWR)
- True System proposition with five-year system warranty with Philips LED Power Drivers
- Reduced power consumption for energy saving
- Long lifetime: >100,000 hours
- Dimmable

December 2025



Ordering data

| Commercial product name | EOC | 12NC | Box quantity |
|---|-------------------|----------------|--------------|
| InteGrade engine UB Va 855mm 930 PW G5 | 8720169 350052 00 | 9290 039 83306 | 24 |
| InteGrade engine UB Va 855mm 940 PW G5 | 8720169 350076 00 | 9290 039 83406 | 24 |
| InteGrade engine UB Va 855mm WWR G5 | 8720169 349919 00 | 9290 039 79606 | 24 |
| InteGrade engine UB Va 1150mm 930 PW G5 | 8720169 349292 00 | 9290 039 83506 | 24 |
| InteGrade engine UB Va 1150mm 940 PW G5 | 8720169 349315 00 | 9290 039 83606 | 24 |
| InteGrade engine UB Va 1150mm WWR G5 | 8720169 349131 00 | 9290 039 79706 | 24 |

EPREL Registration Number

| Name | 12NC | Light Source 1 | Light Source 2 | Light Source 3 | Light Source 4 | Light Source 5 |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| InteGrade engine UB Va 855mm 930 PW G5 | 9290 039 83306 | 2461945 | 2461958 | 2461947 | | |
| InteGrade engine UB Va 855mm 940 PW G5 | 9290 039 83406 | 2461949 | 2461967 | 2461951 | | |
| InteGrade engine UB Va 855mm WWR G5 | 9290 039 79606 | 2461955 | 2461981 | 2461956 | | |
| InteGrade engine UB Va 1150mm 930 PW G5 | 9290 039 83506 | 2461960 | 2461964 | | | |
| InteGrade engine UB Va 1150mm 940 PW G5 | 9290 039 83606 | 2461969 | 2461971 | | | |
| InteGrade engine UB Va 1150mm WWR G5 | 9290 039 79706 | 2461983 | 2461985 | | | |

Key Specifications at Nominal conditions

| Name | 12NC | Power (W) | Luminous Flux (lm) | Useful Flux (lm) | CRI |
|---|----------------|-----------|--------------------|------------------|-----|
| InteGrade engine UB Va 855mm 930 PW G5 | 9290 039 83306 | 7.2 | 942 | 810 | 94 |
| InteGrade engine UB Va 855mm 940 PW G5 | 9290 039 83406 | 7.2 | 1009 | 868 | 95 |
| InteGrade engine UB Va 855mm WWR G5 | 9290 039 79606 | 5.4 | 688 | 592 | 90 |
| InteGrade engine UB Va 1150mm 930 PW G5 | 9290 039 83506 | 9.6 | 1267 | 1090 | 94 |
| InteGrade engine UB Va 1150mm 940 PW G5 | 9290 039 83606 | 9.6 | 1357 | 1167 | 95 |
| InteGrade engine UB Va 1150mm WWR G5 | 9290 039 79706 | 7.2 | 926 | 796 | 90 |

Module temperatures

| Parameter | Nominal* | Life** | Max*** | Unit |
|--------------------------------------|----------|--------|--------|------|
| T _a (ambient temperature) | 25 | 30 | 30 | °C |

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

Optical and electrical characteristics

[InteGrade engine UB Va 855mm 930 PW G5](#)

[InteGrade engine UB Va 855mm 940 PW G5](#)

[InteGrade engine UB Va 855mm WWR G5](#)

| CCT | 3000K PW | 4000K PW | WWR | Unit |
|--|---------------|---------------|----------------|------|
| Average Luminous flux (tolerance -9% + 22%) | 942 | 1009 | 688 | lm |
| Flux within 120° cone | 810 | 868 | 592 | lm |
| Average Efficacy | 131 | 140 | 127 | lm/W |
| Max. Efficacy | 160 | 165 | 152 | lm/W |
| Color consistency | 3 | 3 | 3 | SDCM |
| Color coordinates (CIEx, CIEy) | 0.424, 0.386 | 0.377, 0.365 | 0.390, 0.331 | |
| Min. CRI | 94 | 95 | 90 | |
| Min. R9 | 65 | 85 | 90 | |
| Radiation angle | 30 | 30 | 30 | ° |
| Peak intensity | 701 | 751 | 512 | cd |
| Max. Photobiological safety | RG1 unlimited | RG1 unlimited | RG1 unlimited | |
| Input voltage | 24 | 24 | 24 | V |
| Power consumption | 7.2 | 7.2 | 5.4 | W |
| Max. # of modules per chain | 4 | 4 | 4 | |
| Product contains light sources of energy class: | D,E | D | not applicable | |

[InteGrade engine UB Va 1150mm 930 PW G5](#)

[InteGrade engine UB Va 1150mm 940 PW G5](#)

[InteGrade engine UB Va 1150mm WWR G5](#)

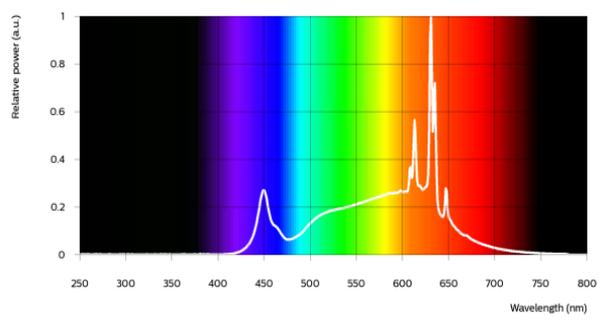
| CCT | 3000K PW | 4000K PW | WWR | Unit |
|--|---------------|---------------|----------------|------|
| Average Luminous flux (tolerance -9% + 22%) | 1267 | 1357 | 926 | lm |
| Flux within 120° cone | 1090 | 1167 | 796 | lm |
| Average Efficacy | 132 | 141 | 129 | lm/W |
| Max. Efficacy | 161 | 166 | 153 | lm/W |
| Color consistency | 3 | 3 | 3 | SDCM |
| Color coordinates (CIEx, CIEy) | 0.424, 0.386 | 0.377, 0.365 | 0.390, 0.331 | |
| Min. CRI | 94 | 95 | 90 | |
| Min. R9 | 65 | 85 | 90 | |
| Radiation angle | 30 | 30 | 30 | ° |
| Peak intensity | 943 | 1009 | 689 | cd |
| Max. Photobiological safety | RG1 unlimited | RG1 unlimited | RG1 unlimited | |
| Input voltage | 24 | 24 | 24 | V |
| Power consumption | 9.6 | 9.6 | 7.2 | W |
| Max. # of modules per chain | 3 | 3 | 3 | |
| Product contains light sources of energy class: | D | D | not applicable | |

Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5.

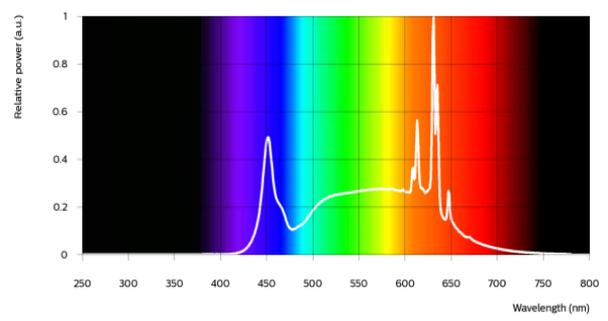
Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

Spectral characteristics

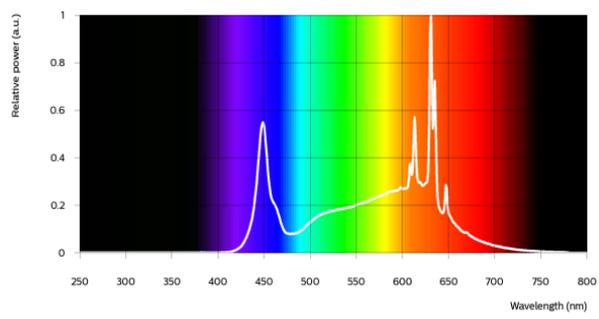
3000K PW



4000K PW

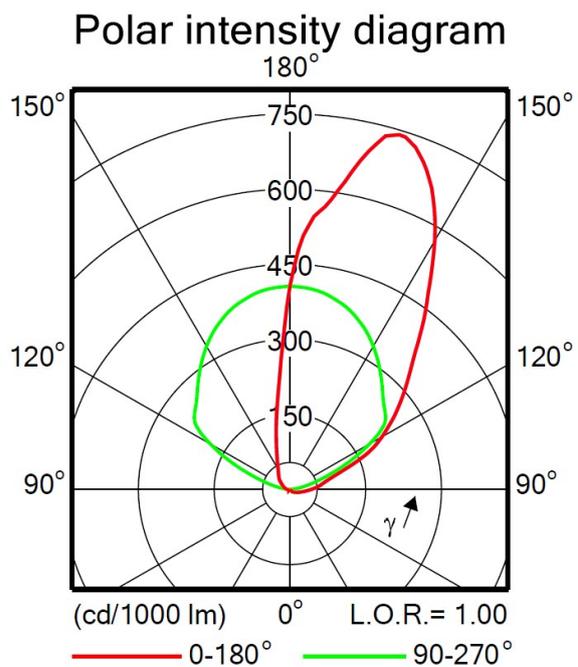


WWR



Beam shape

Light distribution, scaled to cd per 1000lm



Lumen maintenance

| Operation point | Lumen maintenance x 1000 hours | L70 | | | L80 | | |
|-----------------|-----------------------------------|------|------|------|------|------|------|
| | | B50 | B20 | B10 | B50 | B20 | B10 |
| | Ta=-20°C | >100 | >100 | >100 | >100 | >100 | >100 |
| | Ta=5°C | >100 | >100 | >100 | >100 | >100 | >100 |
| | Ta=30°C | >100 | >100 | >100 | >100 | >100 | >100 |

We use a Philips designed lifetime model, which uses LM80 data as only one of its inputs and assumes a continues operation of the module.

*B20 and B10 values are calculated by means of statistical techniques.

Lifetime

| Parameter | Value | Unit |
|----------------|--------|-------|
| M70F50 nominal | 100000 | hours |

@Ta=30°C

Mechanical characteristics

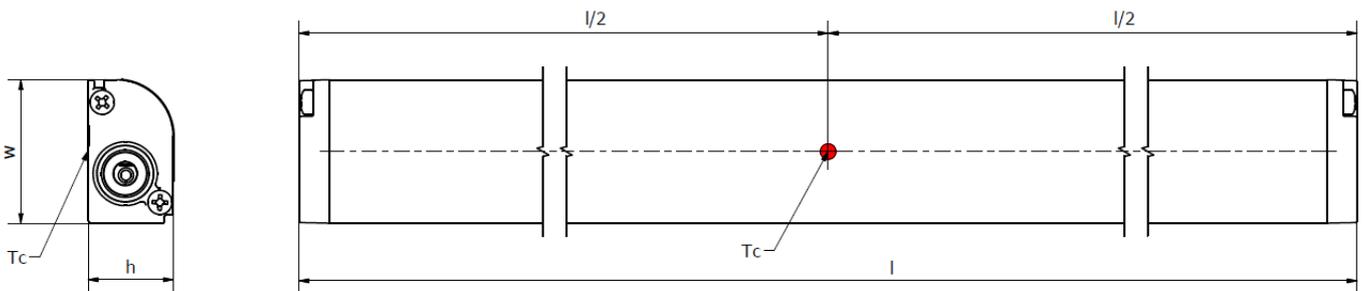
InteGrade engine UB Va 855mm 930 PW G5

InteGrade engine UB Va 855mm 940 PW G5

InteGrade engine UB Va 855mm WWR G5

| Parameter | Min | Typ | Max | Unit |
|--------------|------|------|------|------|
| Length | 851 | 855 | 859 | mm |
| Width | 19.3 | 19.7 | 20.1 | mm |
| Height total | 12.4 | 12.9 | 13.4 | mm |
| Product mass | | 200 | | gram |

Thermal expansion from -30°C to +30°C is included in the tolerances



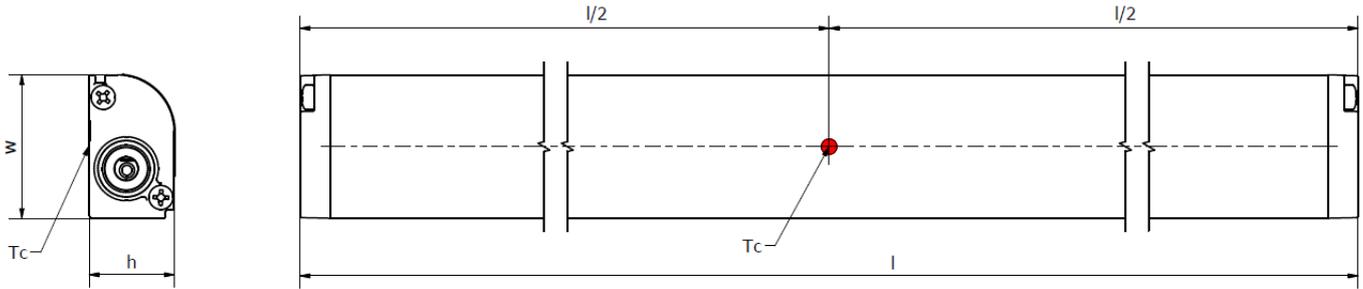
InteGrade engine UB Va 1150mm 930 PW G5

InteGrade engine UB Va 1150mm 940 PW G5

InteGrade engine UB Va 1150mm WWR G5

| Parameter | Min | Typ | Max | Unit |
|--------------|------|------|------|------|
| Length | 1146 | 1150 | 1154 | mm |
| Width | 19.3 | 19.7 | 20.1 | mm |
| Height total | 12.4 | 12.9 | 13.4 | mm |
| Product mass | | 260 | | gram |

Thermal expansion from -30°C to +30°C is included in the tolerances



Absolute ratings

| Parameter | Min | Max | Unit |
|--|-----|-----|-----------------|
| Case temperature (T _c -max) | | 50 | °C |
| Working voltage | | 24 | V _{dc} |
| Ambient temperature | -30 | 30 | °C |

Application information

Certificates and Standards

IEC/EN 62031

ENEC

Relevant clauses of IEC/EN 60335-1

Relevant clauses of IEC/EN 60335-2-89

Clause 5.3 of IEC/EN 60079-7 as required by clause 22.112 of IEC/EN 60335-2-89

Relevant clauses of IEC/EN 60335-2-24

CSA C22.2 No. 250.2

UL 2108

IK02 (IEC 62262 and IEC 60068-2-75)

Application

| | |
|------------------------|---|
| IP rating | No IP-rating, fit for use in coolers and freezers - suitable for damp locations |
| Overheating protection | No protection |
| Luminaire class | IEC Class III if connected to a SELV driver |
| Dimming | Yes |

Do not use in highly polluted areas. Surface mounting only.



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