

# PHILIPS

## InteGrade

### LED

InteGrade engine ECO  
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
- Modules performing up to 163 lm/W
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (3000 PW, 4000 PW)
- True System proposition with five-year system warranty with Philips LED Power Drivers
- With new ECO optic better power consumption reduction for energy saving compared to standard Value PW offer
- Long lifetime: >100,000 hours
- Dimmable

December 2025



## Ordering data

Commercial product name	EOC	12NC	Box quantity
InteGrade engine ECO Va 140mm 930 PW G5	8720169 375765 00	9290 039 90606	24
InteGrade engine ECO Va 140mm 940 PW G5	8720169 375864 00	9290 039 91106	24
InteGrade engine ECO Va 575mm 930 PW G5	8720169 375789 00	9290 039 90706	24
InteGrade engine ECO Va 575mm 940 PW G5	8720169 375888 00	9290 039 91206	24
InteGrade engine ECO Va 760mm 930 PW G5	8720169 375802 00	9290 039 90806	24
InteGrade engine ECO Va 760mm 940 PW G5	8720169 375901 00	9290 039 91306	24
InteGrade engine ECO Va 855mm 930 PW G5	8720169 375826 00	9290 039 90906	24
InteGrade engine ECO Va 855mm 940 PW G5	8720169 375925 00	9290 039 91406	24
InteGrade engine ECO Va 1150mm 930 PW G5	8720169 375840 00	9290 039 91006	24
InteGrade engine ECO Va 1150mm 940 PW G5	8720169 375949 00	9290 039 91506	24

## EPREL Registration Number

Name	12NC	Light Source 1	Light Source 2	Light Source 3	Light Source 4	Light Source 5
InteGrade engine ECO Va 140mm 930 PW G5	9290 039 90606	2462020				
InteGrade engine ECO Va 140mm 940 PW G5	9290 039 91106	2462074				
InteGrade engine ECO Va 575mm 930 PW G5	9290 039 90706	2461924				
InteGrade engine ECO Va 575mm 940 PW G5	9290 039 91206	2461934				
InteGrade engine ECO Va 760mm 930 PW G5	9290 039 90806	2461916	2461918			
InteGrade engine ECO Va 760mm 940 PW G5	9290 039 91306	2461920	2461922			
InteGrade engine ECO Va 855mm 930 PW G5	9290 039 90906	2462038	2461926	2462056		
InteGrade engine ECO Va 855mm 940 PW G5	9290 039 91406	2461908	2461936	2461912		
InteGrade engine ECO Va 1150mm 930 PW G5	9290 039 91006	2461928	2461932			
InteGrade engine ECO Va 1150mm 940 PW G5	9290 039 91506	2461940	2461942			

## Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
InteGrade engine ECO Va 140mm 930 PW G5	9290 039 90606	0.7	81	81	94
InteGrade engine ECO Va 140mm 940 PW G5	9290 039 91106	0.7	87	87	95
InteGrade engine ECO Va 575mm 930 PW G5	9290 039 90706	2.7	350	350	94
InteGrade engine ECO Va 575mm 940 PW G5	9290 039 91206	2.7	376	376	95
InteGrade engine ECO Va 760mm 930 PW G5	9290 039 90806	3.6	452	452	94
InteGrade engine ECO Va 760mm 940 PW G5	9290 039 91306	3.6	484	484	95
InteGrade engine ECO Va 855mm 930 PW G5	9290 039 90906	4.1	513	513	94
InteGrade engine ECO Va 855mm 940 PW G5	9290 039 91406	4.1	549	549	95
InteGrade engine ECO Va 1150mm 930 PW G5	9290 039 91006	5.4	701	701	94
InteGrade engine ECO Va 1150mm 940 PW G5	9290 039 91506	5.4	751	751	95

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T <sub>a</sub> (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 ECO Va 140mm 930 PW G5](#)

[InteGrade engine ECO Va 140mm 940 PW G5](#)

CCT	3000K PW	4000K PW	Unit
Average Luminous flux (tolerance -9% + 22%)	81	87	lm
Flux within 120° cone	81	87	lm
Average Efficacy	116	124	lm/W
Max. Efficacy	141	146	lm/W
Color consistency	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	
Min. CRI	94	95	
Min. R9	65	85	
Peak intensity	51	54	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	V
Power consumption	0.7	0.7	W
Max. # of modules per chain	50	50	
Product contains light sources of energy class:	E	E	

[InteGrade engine ECO Va 575mm 930 PW G5](#)

[InteGrade engine ECO Va 575mm 940 PW G5](#)

CCT	3000K PW	4000K PW	Unit
Average Luminous flux (tolerance -9% + 22%)	350	376	lm
Flux within 120° cone	350	376	lm
Average Efficacy	130	139	lm/W
Max. Efficacy	159	163	lm/W
Color consistency	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	
Min. CRI	94	95	
Min. R9	65	85	
Peak intensity	218	234	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	V
Power consumption	2.7	2.7	W
Max. # of modules per chain	12	12	
Product contains light sources of energy class:	D	D	

[InteGrade engine ECO Va 760mm 930 PW G5](#)

[InteGrade engine ECO Va 760mm 940 PW G5](#)

<b>CCT</b>	<b>3000K PW</b>	<b>4000K PW</b>	<b>Unit</b>
Average Luminous flux (tolerance -9% + 22%)	452	484	lm
Flux within 120° cone	452	484	lm
Average Efficacy	125	134	lm/W
Max. Efficacy	153	158	lm/W
Color consistency	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	
Min. CRI	94	95	
Min. R9	65	85	
Peak intensity	281	301	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	V
Power consumption	3.6	3.6	W
Max. # of modules per chain	9	9	
Product contains light sources of energy class:	E	D	

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

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

<b>CCT</b>	<b>3000K PW</b>	<b>4000K PW</b>	<b>Unit</b>
Average Luminous flux (tolerance -9% + 22%)	513	549	lm
Flux within 120° cone	513	549	lm
Average Efficacy	125	134	lm/W
Max. Efficacy	152	157	lm/W
Color consistency	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	
Min. CRI	94	95	
Min. R9	65	85	
Peak intensity	319	342	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	V
Power consumption	4.1	4.1	W
Max. # of modules per chain	8	8	
Product contains light sources of energy class:	D,E	D,E	

InteGrade engine ECO Va 1150mm 930 PW G5

InteGrade engine ECO Va 1150mm 940 PW G5

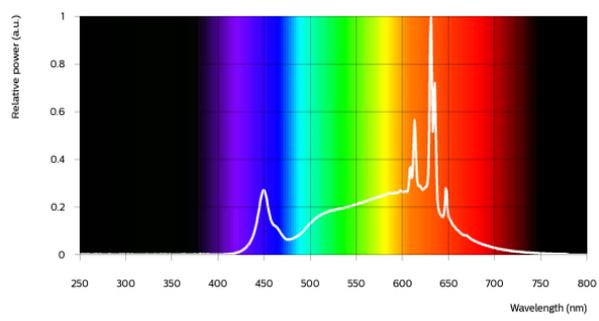
<b>CCT</b>	<b>3000K PW</b>	<b>4000K PW</b>	<b>Unit</b>
Average Luminous flux (tolerance -9% + 22%)	701	751	lm
Flux within 120° cone	701	751	lm
Average Efficacy	130	139	lm/W
Max. Efficacy	158	163	lm/W
Color consistency	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	
Min. CRI	94	95	
Min. R9	65	85	
Peak intensity	436	468	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	V
Power consumption	5.4	5.4	W
Max. # of modules per chain	6	6	
Product contains light sources of energy class:	D	D	

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

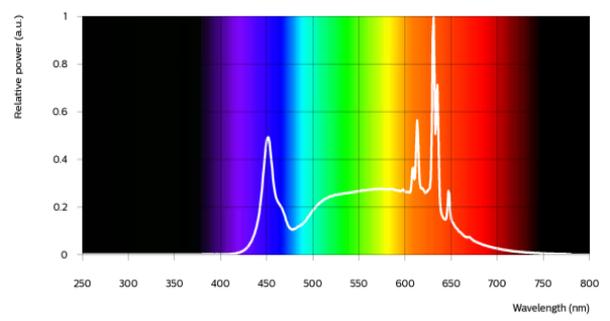
Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

## Spectral characteristics

### 3000K PW

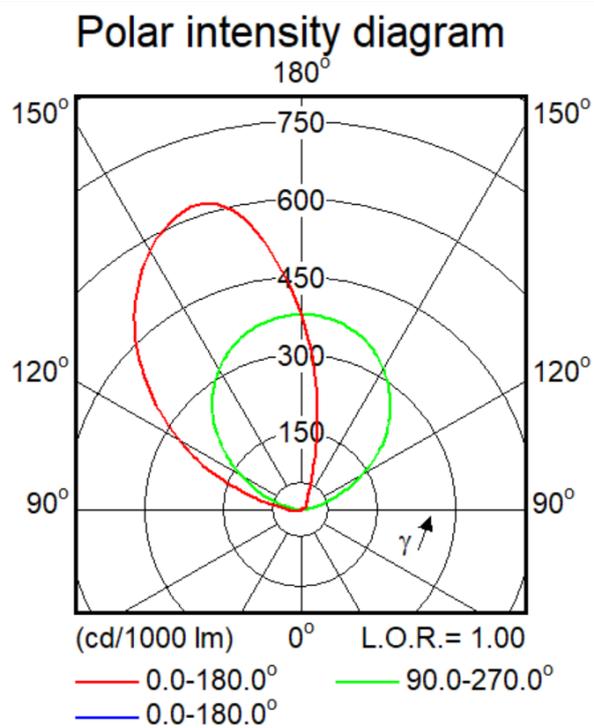


### 4000K PW



## 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

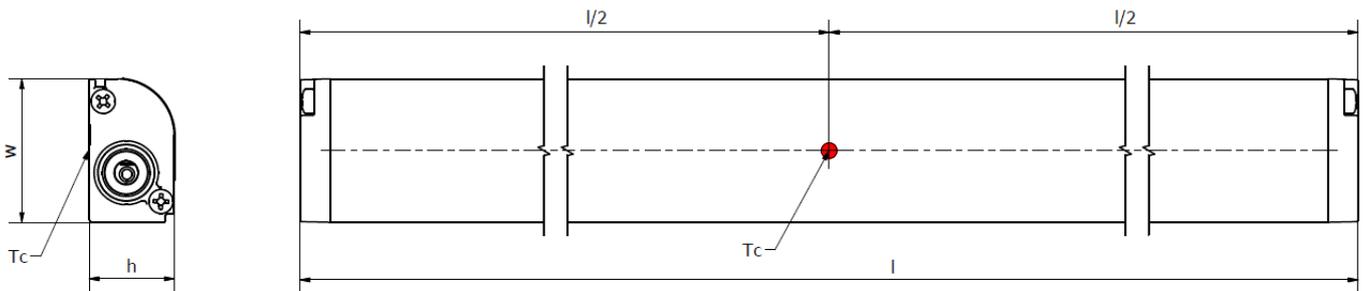
## Mechanical characteristics

InteGrade engine ECO Va 140mm 930 PW G5

InteGrade engine ECO Va 140mm 940 PW G5

Parameter	Min	Typ	Max	Unit
Length	136	140	144	mm
Width	19.3	19.7	20.1	mm
Height total	12.4	12.9	13.4	mm
Product mass		32		gram

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

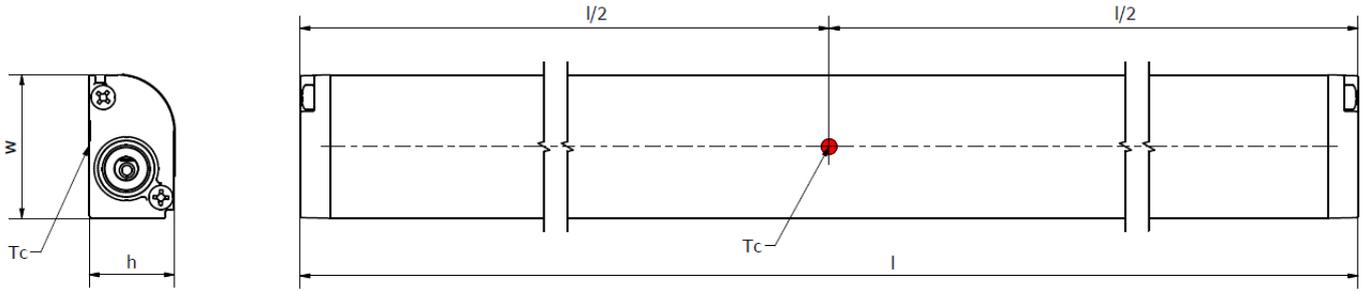


InteGrade engine ECO Va 575mm 930 PW G5

InteGrade engine ECO Va 575mm 940 PW G5

Parameter	Min	Typ	Max	Unit
Length	571	575	579	mm
Width	19.3	19.7	20.1	mm
Height total	12.4	12.9	13.4	mm
Product mass		120		gram

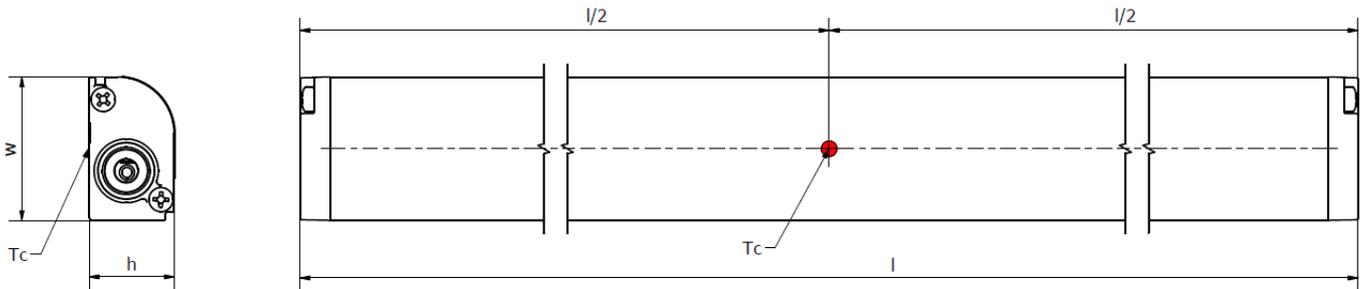
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine ECO Va 760mm 930 PW G5  
 InteGrade engine ECO Va 760mm 940 PW G5

Parameter	Min	Typ	Max	Unit
Length	756	760	764	mm
Width	19.3	19.7	20.1	mm
Height total	12.4	12.9	13.4	mm
Product mass		150		gram

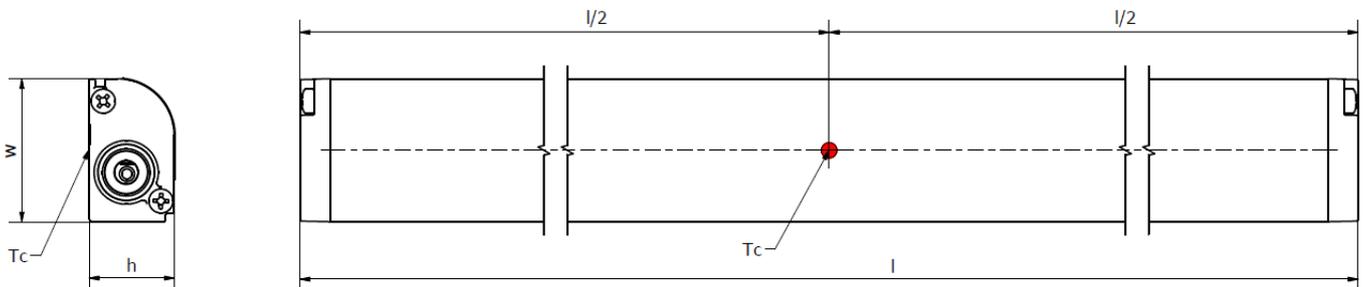
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine ECO Va 855mm 930 PW G5  
 InteGrade engine ECO Va 855mm 940 PW 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		180		gram

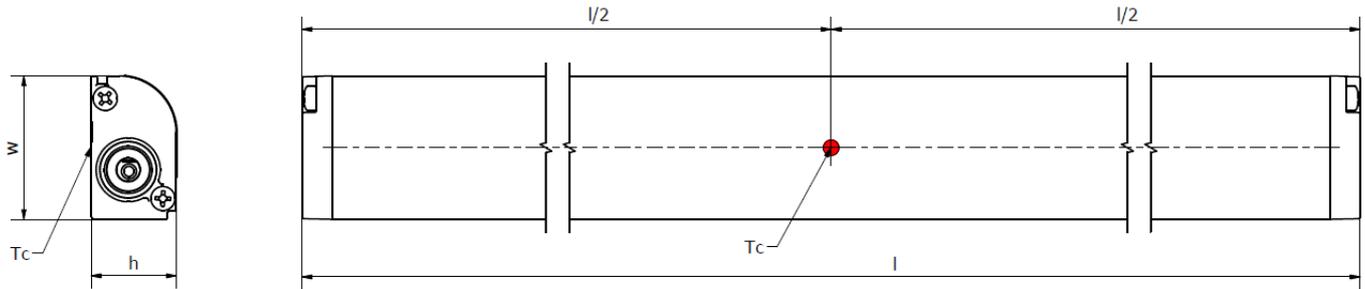
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine ECO Va 1150mm 930 PW G5  
 InteGrade engine ECO Va 1150mm 940 PW 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		240		gram

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



### Absolute ratings

Parameter	Min	Max	Unit
Case temperature (Tc-max)		50	°C
Working voltage		24	V <sub>dc</sub>
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.



© 2025 Signify Holding, IBRS 10461, 5600VB, NL. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

<https://www.lighting.philips.com/prof/led-electronics>

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.  
UK importer address: Signify Commercial UK Limited, 2 Guildford Business Park, GU2 8XG, UK

05/12/2025