

PHILIPS

InteGrade

LED

InteGrade engine Vision
G5



Datasheet

Key features and benefits

- Miniaturized slim design for aesthetic integration
- Premium color consistency up to 5 SDCM over lifetime
- Natural merchandise color with specially formulated LEDs up to CRI95
- Modules performing up to 159 lm/W
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (3000 PW, 4000 PW, 5600K, 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



indirect



instant

Ordering data

Commercial product name	EOC	12NC	Box quantity
InteGrade engine Vi 140mm 930 PW G5	8720169 348158 00	9290 039 81506	24
InteGrade engine Vi 140mm 940 PW G5	8720169 348172 00	9290 039 81606	24
InteGrade engine Vi 140mm 956 G5	8720169 348035 00	9290 039 78406	24
InteGrade engine Vi 140mm WWR G5	8720169 348011 00	9290 039 78006	24
InteGrade engine Vi 575mm 930 PW G5	8720169 348554 00	9290 039 81706	24
InteGrade engine Vi 575mm 940 PW G5	8720169 348578 00	9290 039 81806	24
InteGrade engine Vi 575mm 956 G5	8720169 348431 00	9290 039 78506	24
InteGrade engine Vi 575mm WWR G5	8720169 348417 00	9290 039 78106	24
InteGrade engine Vi 855mm 930 PW G5	8720169 350014 00	9290 039 81906	24
InteGrade engine Vi 855mm 940 PW G5	8720169 350038 00	9290 039 82006	24
InteGrade engine Vi 855mm 956 G5	8720169 349896 00	9290 039 78606	24
InteGrade engine Vi 855mm WWR G5	8720169 349872 00	9290 039 78206	24
InteGrade engine Vi 1150mm 930 PW G5	8720169 349230 00	9290 039 82106	24
InteGrade engine Vi 1150mm 940 PW G5	8720169 349254 00	9290 039 82206	24
InteGrade engine Vi 1150mm 956 G5	8720169 349094 00	9290 039 78706	24
InteGrade engine Vi 1150mm WWR G5	8720169 349070 00	9290 039 78306	24

EPREL Registration Number

Name	12NC	Light Source 1	Light Source 2	Light Source 3	Light Source 4	Light Source 5
InteGrade engine Vi 140mm 930 PW G5	9290 039 81506	2461993				
InteGrade engine Vi 140mm 940 PW G5	9290 039 81606	2462001				
InteGrade engine Vi 140mm 956 G5	9290 039 78406	2461987				
InteGrade engine Vi 140mm WWR G5	9290 039 78006	2462010				
InteGrade engine Vi 575mm 930 PW G5	9290 039 81706	2462026				
InteGrade engine Vi 575mm 940 PW G5	9290 039 81806	2462033				
InteGrade engine Vi 575mm 956 G5	9290 039 78506	2462016				
InteGrade engine Vi 575mm WWR G5	9290 039 78106	2462041				
InteGrade engine Vi 855mm 930 PW G5	9290 039 81906	2461995	2462029	2461999		
InteGrade engine Vi 855mm 940 PW G5	9290 039 82006	2462005	2462035	2462007		
InteGrade engine Vi 855mm 956 G5	9290 039 78606	2461989	2462018	2461991		
InteGrade engine Vi 855mm WWR G5	9290 039 78206	2462012	2462042	2462014		
InteGrade engine Vi 1150mm 930 PW G5	9290 039 82106	2462030	2462032			
InteGrade engine Vi 1150mm 940 PW G5	9290 039 82206	2462036	2462039			
InteGrade engine Vi 1150mm 956 G5	9290 039 78706	2462022	2462024			
InteGrade engine Vi 1150mm WWR G5	9290 039 78306	2462044	2462047			

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
InteGrade engine Vi 140mm 930 PW G5	9290 039 81506	1.5	171	171	94
InteGrade engine Vi 140mm 940 PW G5	9290 039 81606	1.5	183	183	95
InteGrade engine Vi 140mm 956 G5	9290 039 78406	1.6	204	204	90
InteGrade engine Vi 140mm WWR G5	9290 039 78006	1.3	151	151	90
InteGrade engine Vi 575mm 930 PW G5	9290 039 81706	6.1	732	732	94
InteGrade engine Vi 575mm 940 PW G5	9290 039 81806	6.1	784	784	95
InteGrade engine Vi 575mm 956 G5	9290 039 78506	6.1	810	810	90
InteGrade engine Vi 575mm WWR G5	9290 039 78106	5.7	669	669	90
InteGrade engine Vi 855mm 930 PW G5	9290 039 81906	9.1	1073	1073	94
InteGrade engine Vi 855mm 940 PW G5	9290 039 82006	9.1	1150	1150	95
InteGrade engine Vi 855mm 956 G5	9290 039 78606	9.3	1218	1218	90
InteGrade engine Vi 855mm WWR G5	9290 039 78206	8.3	971	971	90
InteGrade engine Vi 1150mm 930 PW G5	9290 039 82106	12.2	1463	1463	94
InteGrade engine Vi 1150mm 940 PW G5	9290 039 82206	12.2	1568	1568	95
InteGrade engine Vi 1150mm 956 G5	9290 039 78706	12.2	1620	1620	90
InteGrade engine Vi 1150mm WWR G5	9290 039 78306	11.4	1338	1338	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 Vi 140mm 930 PW G5](#)

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

[InteGrade engine Vi 140mm 956 G5](#)

[InteGrade engine Vi 140mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	171	183	204	151	lm
Flux within 120° cone	171	183	204	151	lm
Average Efficacy	114	122	128	116	lm/W
Max. Efficacy	139	143	153	138	lm/W
Color consistency	3	3	5	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	
Min. CRI	94	95	90	90	
Min. R9	65	85	65	90	
Peak intensity	77	83	92	68	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	1.5	1.5	1.6	1.3	W
Max. # of modules per chain	24	24	24	24	
Product contains light sources of energy class:	E	E	D	not applicable	

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

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

[InteGrade engine Vi 575mm 956 G5](#)

[InteGrade engine Vi 575mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	732	784	810	669	lm
Flux within 120° cone	732	784	810	669	lm
Average Efficacy	120	129	133	117	lm/W
Max. Efficacy	146	151	159	140	lm/W
Color consistency	3	3	5	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	
Min. CRI	94	95	90	90	
Min. R9	65	85	65	90	
Peak intensity	330	354	365	302	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	6.1	6.1	6.1	5.7	W
Max. # of modules per chain	6	6	6	6	
Product contains light sources of energy class:	E	D	D	not applicable	

[InteGrade engine Vi 855mm 930 PW G5](#)
[InteGrade engine Vi 855mm 940 PW G5](#)
[InteGrade engine Vi 855mm 956 G5](#)
[InteGrade engine Vi 855mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	1073	1150	1218	971	lm
Flux within 120° cone	1073	1150	1218	971	lm
Average Efficacy	118	126	131	117	lm/W
Max. Efficacy	144	148	157	139	lm/W
Color consistency	3	3	5	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	
Min. CRI	94	95	90	90	
Min. R9	65	85	65	90	
Peak intensity	484	519	549	438	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	9.1	9.1	9.3	8.3	W
Max. # of modules per chain	4	4	4	4	
Product contains light sources of energy class:	E	D,E	D	not applicable	

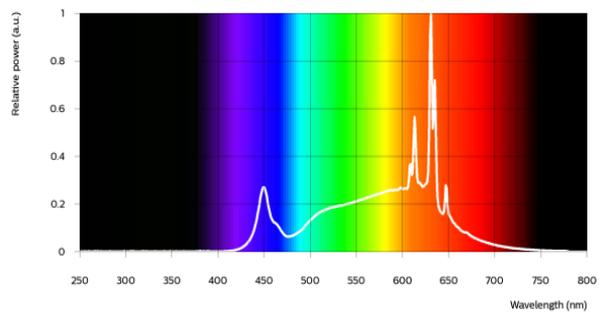
[InteGrade engine Vi 1150mm 930 PW G5](#)
[InteGrade engine Vi 1150mm 940 PW G5](#)
[InteGrade engine Vi 1150mm 956 G5](#)
[InteGrade engine Vi 1150mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	1463	1568	1620	1338	lm
Flux within 120° cone	1463	1568	1620	1338	lm
Average Efficacy	120	129	133	117	lm/W
Max. Efficacy	146	151	159	140	lm/W
Color consistency	3	3	5	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	
Min. CRI	94	95	90	90	
Min. R9	65	85	65	90	
Peak intensity	660	707	730	603	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	12.2	12.2	12.2	11.4	W
Max. # of modules per chain	3	3	3	3	
Product contains light sources of energy class:	E	D	D	not applicable	

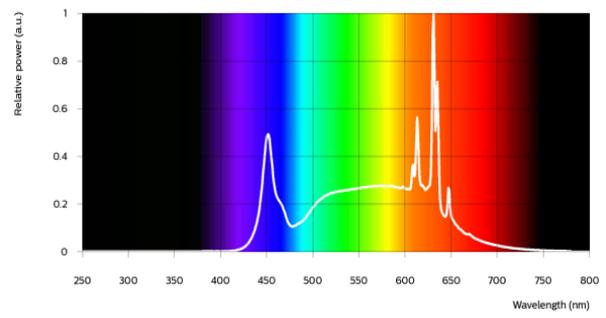
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5.
 Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

Spectral characteristics

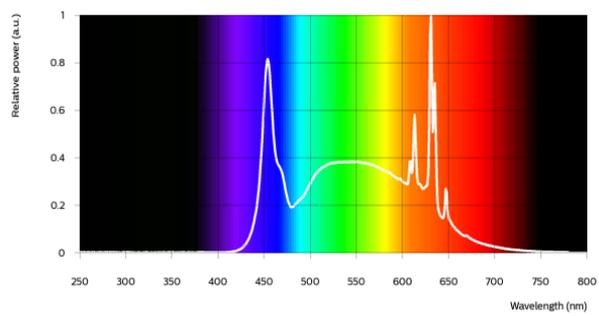
3000K PW



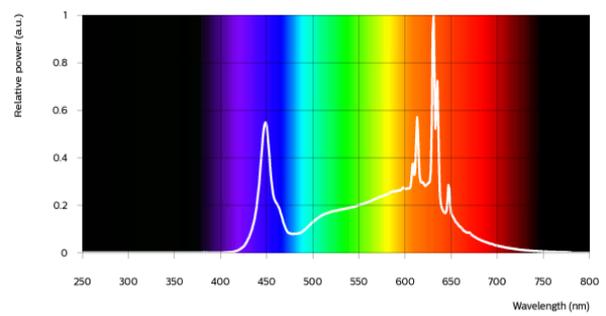
4000K PW



5600K

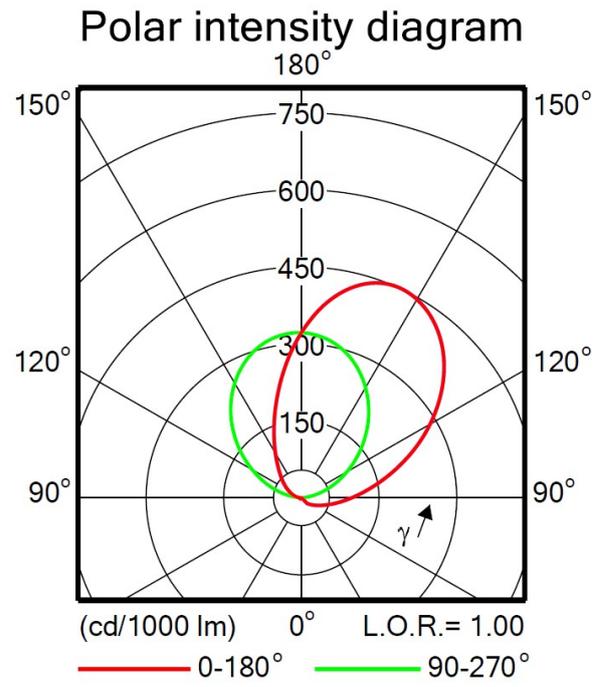


WWR



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

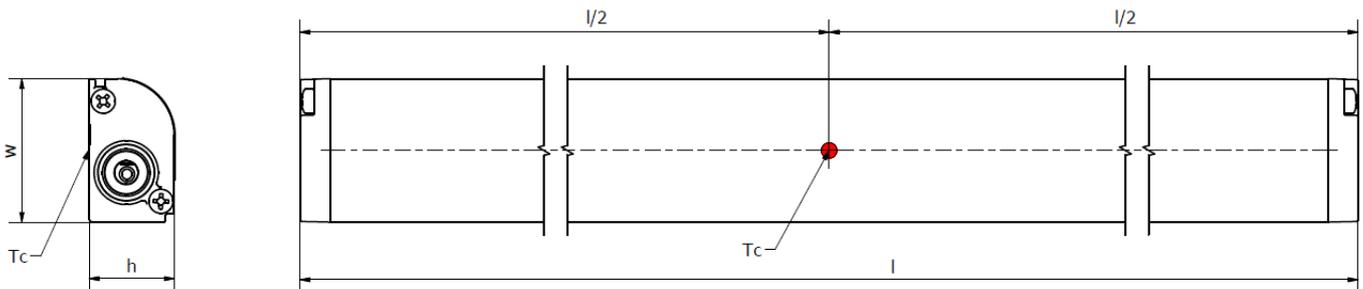
@Ta=30°C

Mechanical characteristics

InteGrade engine Vi 140mm 930 PW G5
 InteGrade engine Vi 140mm 940 PW G5
 InteGrade engine Vi 140mm 956 G5
 InteGrade engine Vi 140mm WWR G5

Parameter	Min	Typ	Max	Unit
Length	136	140	144	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		32		gram

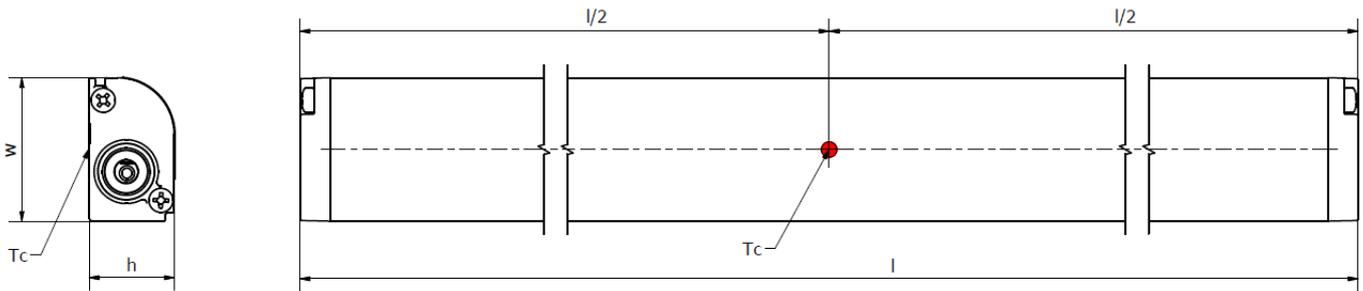
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Vi 575mm 930 PW G5
 InteGrade engine Vi 575mm 940 PW G5
 InteGrade engine Vi 575mm 956 G5
 InteGrade engine Vi 575mm WWR G5

Parameter	Min	Typ	Max	Unit
Length	571	575	579	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		120		gram

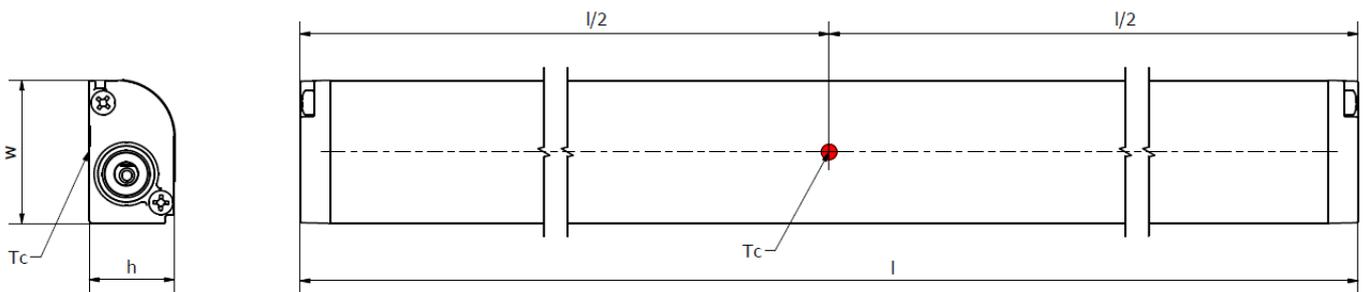
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Vi 855mm 930 PW G5
 InteGrade engine Vi 855mm 940 PW G5
 InteGrade engine Vi 855mm 956 G5
 InteGrade engine Vi 855mm WWR G5

Parameter	Min	Typ	Max	Unit
Length	851	855	859	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		180		gram

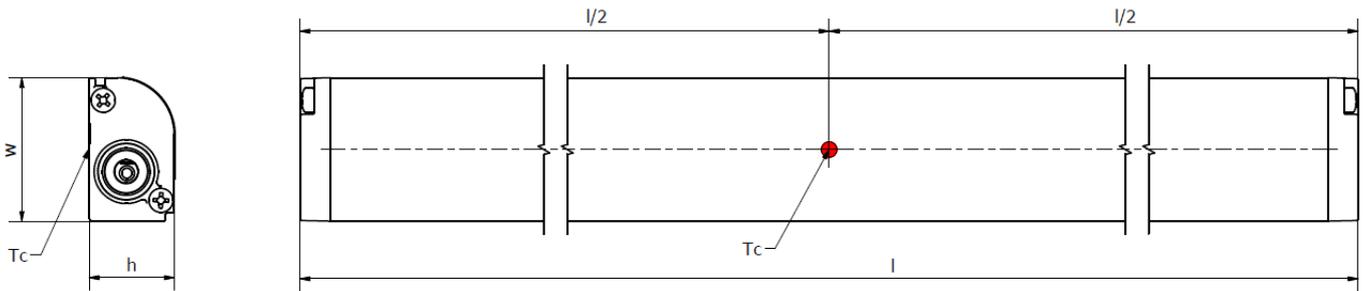
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Vi 1150mm 930 PW G5
 InteGrade engine Vi 1150mm 940 PW G5
 InteGrade engine Vi 1150mm 956 G5
 InteGrade engine Vi 1150mm WWR G5

Parameter	Min	Typ	Max	Unit
Length	1146	1150	1154	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	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 _{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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