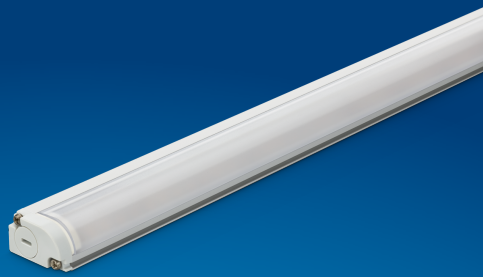


PHILIPS

InteGrade

LED

InteGrade engine vision
G4



Datasheet

Key features and benefits

- Miniaturized slim design for aesthetic integration
- Premium color consistency up to 5SDCM over lifetime
- Natural merchandise color with specially formulated LEDs up to CRI95
- State of the Art LED diode delivering up to 180 lm/W
- Modules performing up to 114 lm/w meeting SLR (Single Lighting Regulation)
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (5600K & WWR)
- True System proposition with five-year system warranty with Philips LED Power Drivers
- Reduced power consumption for energy saving
- Long lifetime: >50,000 hours
- Dimmable

January 2024



indirect



instant

Ordering data

Commercial product name	EOC	12NC	Box quantity
InteGrade engine Vi 140mm 956 G4	8718699 743505 00	9290 021 49906	24
InteGrade engine Vi 140mm WWR G4	8718699 743420 00	9290 021 49506	24
InteGrade engine Vi 575mm WWR G4	8718699 743444 00	9290 021 49606	24
InteGrade engine Vi 575mm 956 G4	8718699 743529 00	9290 021 50006	24
InteGrade engine Vi 855mm 956 G4	8718699 743543 00	9290 021 50106	24
InteGrade engine Vi 855mm WWR G4	8718699 743468 00	9290 021 49706	24
InteGrade engine Vi 1150mm 956 G4	8718699 743567 00	9290 021 50206	24
InteGrade engine Vi 1150mm WWR G4	8718699 743482 00	9290 021 49806	24

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
InteGrade engine Vi 140mm 956 G4	9290 021 49906	1.79	204	204	90
InteGrade engine Vi 140mm WWR G4	9290 021 49506	1.48	151	151	
InteGrade engine Vi 575mm WWR G4	9290 021 49606	6.57	669	669	
InteGrade engine Vi 575mm 956 G4	9290 021 50006	7.12	810	810	90
InteGrade engine Vi 855mm 956 G4	9290 021 50106	10.7	1218	1218	90
InteGrade engine Vi 855mm WWR G4	9290 021 49706	9.53	971	971	
InteGrade engine Vi 1150mm 956 G4	9290 021 50206	14.2	1619	1619	90
InteGrade engine Vi 1150mm WWR G4	9290 021 49806	13.1	1338	1338	

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _a (ambient temperature)	5	30	50	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

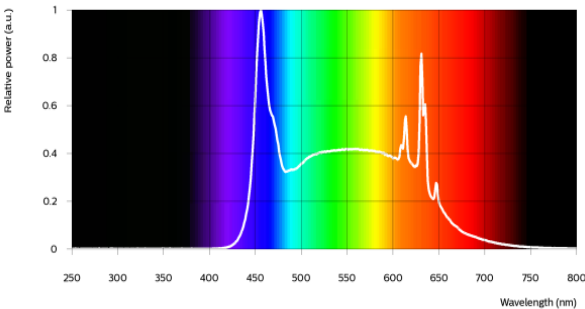
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

InteGrade engine Vi 140mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	189	204	245	lm
Efficacy		114		lm/W
Correlated color temperature (CCT)		5600		K
Color coordinates (CIEx, CIEy)		(0.333, 0.350)		-
Color consistency			5	SDCM
CRI	90	92		
R9	55			
Photometric code		956/579		
Peak intensity		92		cd
Photobiological safety			RG1 unlimited	

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



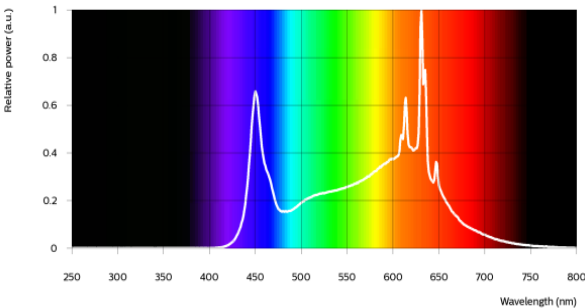
InteGrade engine Vi 140mm WWR G4

Parameter	Min	Typ	Max	Unit
Luminous flux	139	151	181	lm
Efficacy		102		lm/W
Color coordinates (CIEx, CIEy)		(0.384, 0.326)		-
Color consistency			3	SDCM
R9	-50			
Peak intensity		68		cd
Photobiological safety			RG1 unlimited	

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

Color rendering according to IES TM-30 is 90.

WWR products are special purpose products. They are not intended for in-house use.



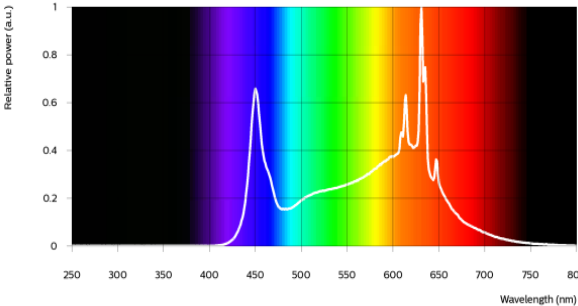
InteGrade engine Vi 575mm WWR G4

Parameter	Min	Typ	Max	Unit
Luminous flux	619	669	803	lm
Efficacy		102		lm/W
Color coordinates (CIEx, CIEy)		(0.384, 0.326)		-
Color consistency			3	SDCM
R9	-50			
Peak intensity		302		cd
Photobiological safety			RG1 unlimited	

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

Color rendering according to IES TM-30 is 90.

WWR products are special purpose products. They are not intended for in-house use.

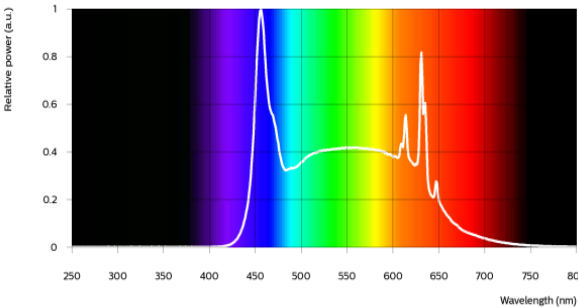


InteGrade engine Vi 575mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	749	810	972	lm
Efficacy		114		lm/W
Correlated color temperature (CCT)		5600		K
Color coordinates (CIEx, CIEy)		(0.333, 0.350)		-
Color consistency			5	SDCM
CRI	90	92		
R9	55			
Photometric code		956/579		
Peak intensity		365		cd
Photobiological safety			RG1 unlimited	



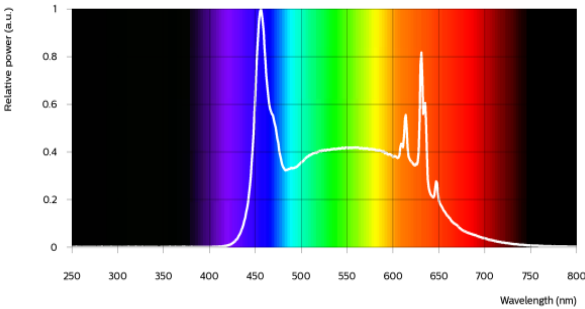
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine Vi 855mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	1126	1218	1461	lm
Efficacy		114		lm/W
Correlated color temperature (CCT)		5600		K
Color coordinates (CIEx, CIEy)		(0.333, 0.350)		-
Color consistency			5	SDCM
CRI	90	92		
R9	55			
Photometric code		956/579		
Peak intensity		549		cd
Photobiological safety			RG1 unlimited	

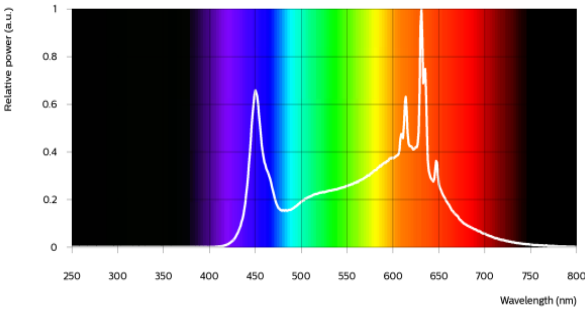
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine Vi 855mm WWR G4

Parameter	Min	Typ	Max	Unit
Luminous flux	898	971	1165	lm
Efficacy		102		lm/W
Color coordinates (CIEx, CIEy)		(0.384, 0.326)		-
Color consistency			3	SDCM
R9	-50			
Peak intensity		438		cd
Photobiological safety			RG1 unlimited	

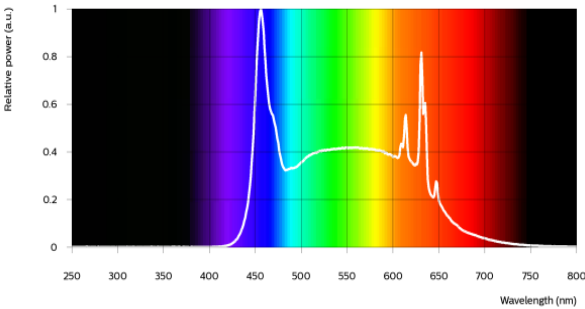
Measurement precision for flux +/- 5%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5.
Color rendering according to IES TM-30 is 90.
WWR products are special purpose products. They are not intended for in-house use.



InteGrade engine Vi 1150mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	1498	1619	1943	lm
Efficacy		114		lm/W
Correlated color temperature (CCT)		5600		K
Color coordinates (CIEx, CIEy)		(0.333, 0.350)		-
Color consistency			5	SDCM
CRI	90	92		
R9	55			
Photometric code		956/579		
Peak intensity		730		cd
Photobiological safety			RG1 unlimited	

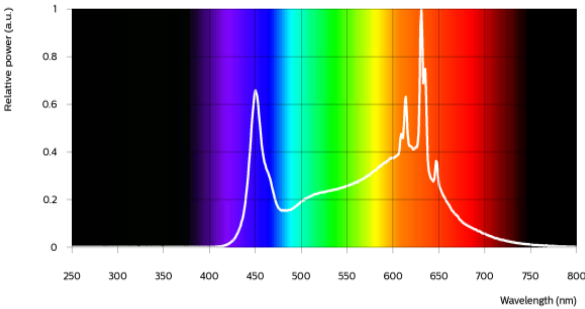
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine Vi 1150mm WWR G4

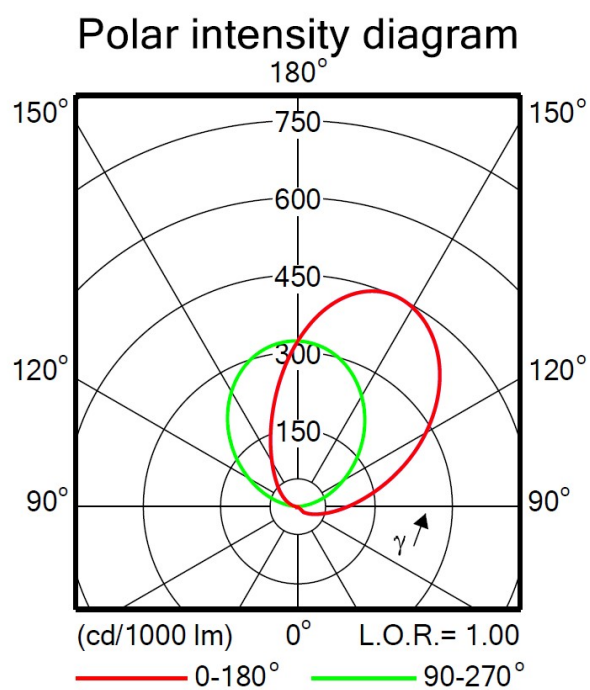
Parameter	Min	Typ	Max	Unit
Luminous flux	1238	1338	1606	lm
Efficacy		102		lm/W
Color coordinates (CIEx, CIEy)		(0.384, 0.326)		-
Color consistency			3	SDCM
R9	-50			
Peak intensity		603		cd
Photobiological safety			RG1 unlimited	

Measurement precision for flux +/- 5%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5.
Color rendering according to IES TM-30 is 90.
WWR products are special purpose products. They are not intended for in-house use.



Beam shape

Light distribution, scaled to cd per 1000lm



Electrical characteristics

InteGrade engine Vi 140mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		1.8		W = kWh/1000h
Number of modules per chain			24	

InteGrade engine Vi 140mm WWR G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		1.5		W = kWh/1000h
Number of modules per chain			24	

InteGrade engine Vi 575mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		7.1		W = kWh/1000h
Number of modules per chain			6	

InteGrade engine Vi 575mm WWR G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		6.6		W = kWh/1000h
Number of modules per chain			6	

InteGrade engine Vi 855mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		10.7		W = kWh/1000h
Number of modules per chain			4	

InteGrade engine Vi 855mm WWR G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		9.5		W = kWh/1000h
Number of modules per chain			4	

InteGrade engine Vi 1150mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		14.2		W = kWh/1000h
Number of modules per chain			3	

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		13.1		W = kWh/1000h
Number of modules per chain			3	

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

Lifetime

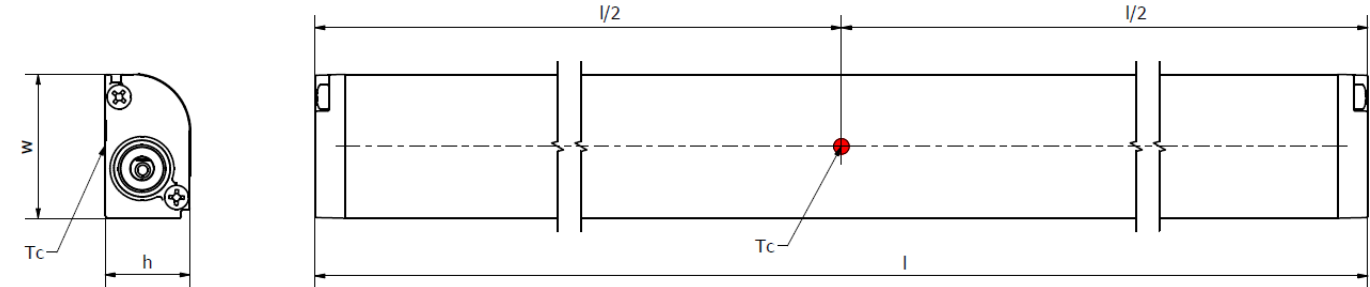
Parameter	Value	Unit
M70F50 nominal	100000	hours
M70F50 life	100000	hours

Mechanical characteristics

InteGrade engine Vi 140mm 956 G4
 InteGrade engine Vi 140mm WWR G4

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		30		gram

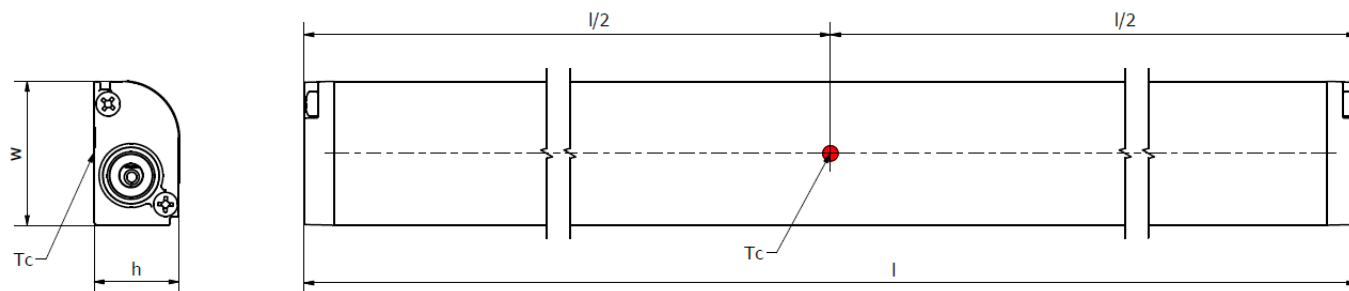
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Vi 575mm WWR G4
InteGrade engine Vi 575mm 956 G4

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

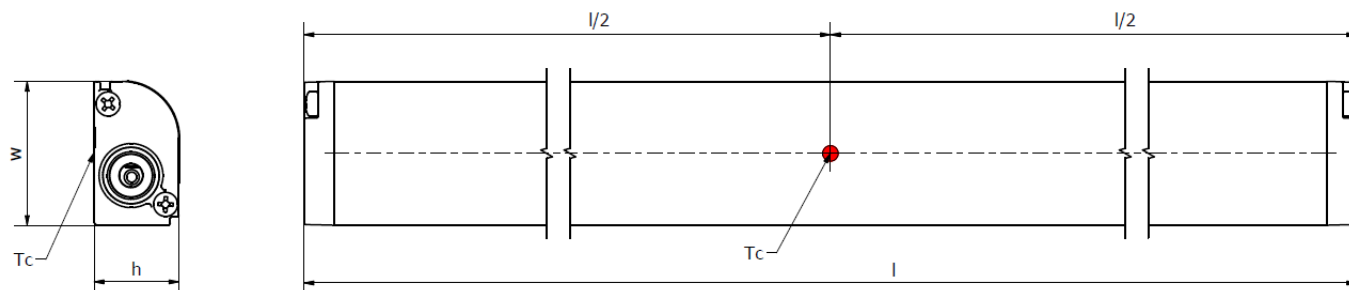
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Vi 855mm 956 G4
InteGrade engine Vi 855mm WWR G4

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

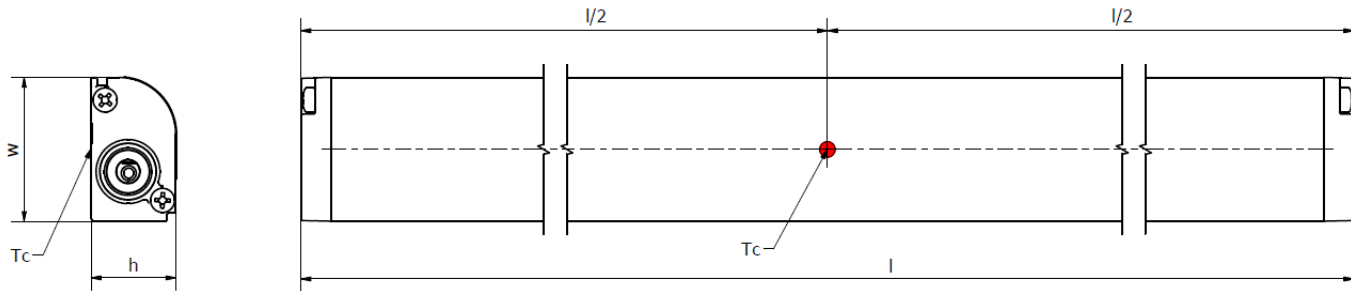
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Vi 1150mm 956 G4
InteGrade engine Vi 1150mm WWR G4

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		230		gram

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



Absolute ratings

Parameter	Min	Max	Unit
Case temperature (Tc-max)		70	°C
Ambient temperature	-30	50	°C

Application information

Certificates and Standards

IEC/EN 62031
 Relevant clauses of IEC/EN 60335-1
 Annex BB of IEC/EN 60335-2-89
 Annex CC of IEC/EN 60335-2-24
 CSA C22.2 No.250.0-08
 UL 2108
 NSF

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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30/01/2024