

PHILIPS

InteGrade

LED

InteGrade engine NB
vision G4



Datasheet

Key features and benefits

- State-of-art Efficacy up to 121 lm/W / Meeting single lighting regulation
- Higher lux levels to draw attention to the merchandise
- Uniform light distribution due to its breakthrough optical design
- Natural merchandise colour with specially formulated CRI90 LEDs
- Premium color consistency with 5SDCM
- Food version featuring a single-color line of light
- Miniaturized slim design for aesthetic integration
- Continuous line of light to eliminate undesirable hot spots, glare, reflections
- Long lifetime: >50,000 hours
- Maximum design flexibility with extensive range of engine lengths, colour temperatures and accessories
- True System proposition with Xitanium Constant Voltage LED power drivers
- Five-year system warranty
- Dimmable

September 2021



direct



instant

Ordering data

Commercial product name	EOC	12NC	Box quantity
InteGrade engine NB Vi 760mm 956 G4	8719514 356313 00	9290 028 75906	24
InteGrade engine NB Vi 855mm 956 G4	8719514 356337 00	9290 028 76006	24
InteGrade engine NB Vi 1150mm 956 G4	8719514 356351 00	9290 028 76106	24
InteGrade engine NB Vi 1430mm 956 G4	8719514 356375 00	9290 028 76206	24
InteGrade engine NB Vi 1570mm 956 G4	8719514 356399 00	9290 028 76306	12

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
InteGrade engine NB Vi 760mm 956 G4	9290 028 75906	10.8	1291	1188	92
InteGrade engine NB Vi 855mm 956 G4	9290 028 76006	13.0	1553	1429	92
InteGrade engine NB Vi 1150mm 956 G4	9290 028 76106	17.6	2111	1942	92
InteGrade engine NB Vi 1430mm 956 G4	9290 028 76206	21.8	2609	2400	92
InteGrade engine NB Vi 1570mm 956 G4	9290 028 76306	23.8	2858	2629	92

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

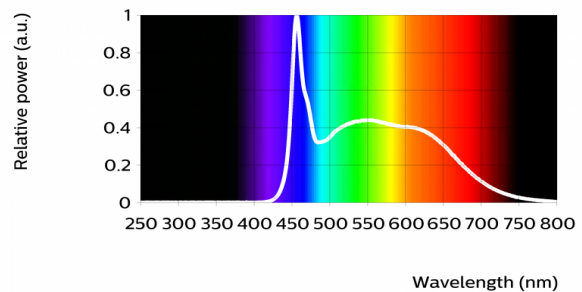
*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

InteGrade engine NB Vi 760mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	1194	1291	1549	lm
Flux within 120° cone		1188		lm
Module efficacy		120		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		
Radiation angle		26		deg
Peak intensity		1390		cd
Photobiological safety			RG1 unlimited	

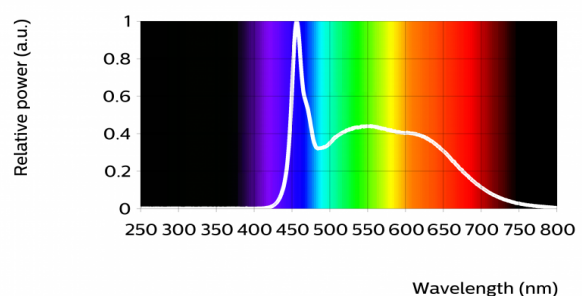
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine NB Vi 855mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	1437	1553	1864	lm
Flux within 120° cone		1429		lm
Module efficacy		120		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		
Radiation angle		26		deg
Peak intensity		1673		cd
Photobiological safety			RG1 unlimited	

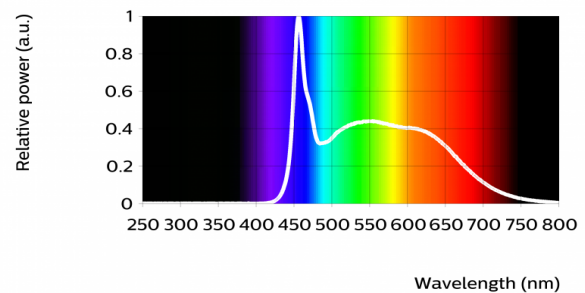
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine NB Vi 1150mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	1953	2111	2533	lm
Flux within 120° cone		1942		lm
Module efficacy		120		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		
Radiation angle		26		deg
Peak intensity		2274		cd
Photobiological safety			RG1 unlimited	

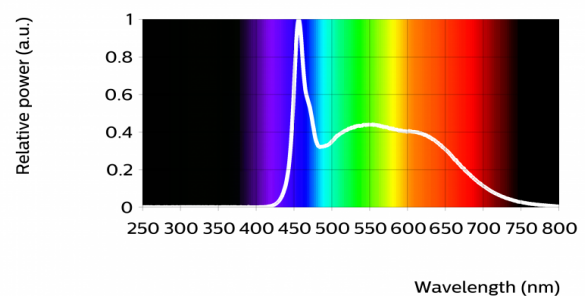
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine NB Vi 1430mm 956 G4

Parameter	Min	Typ	Max	Unit
Luminous flux	2413	2609	3131	lm
Flux within 120° cone		2400		lm
Module efficacy		120		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		
Radiation angle		26		deg
Peak intensity		2810		cd
Photobiological safety			RG1 unlimited	

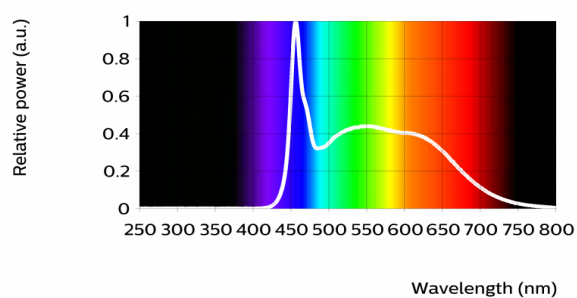
Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



InteGrade engine NB Vi 1570mm 956 G4

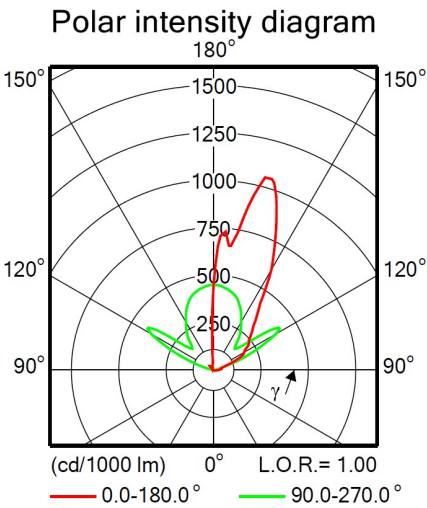
Parameter	Min	Typ	Max	Unit
Luminous flux	2644	2858	3429	lm
Flux within 120° cone		2629		lm
Module efficacy		120		lm/W
Correlated color temperature (CCT)		5600		K
Color coordinates (CIEx, CIEy)		(0.333, 0.350)		-
Color consistency			5	SDCM
CRI	90	92		
R9	55			
Photometric code		956/579		
Radiation angle		26		deg
Peak intensity		3078		cd
Photobiological safety			RG1 unlimited	

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



Beam shape

Light distribution, scaled to cd per 1000lm



Electrical characteristics

InteGrade engine NB Vi 760mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		10.8		W = kWh/1000h
Number of modules per chain			2	

InteGrade engine NB Vi 855mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		13.0		W = kWh/1000h
Number of modules per chain			2	

InteGrade engine NB Vi 1150mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		17.6		W = kWh/1000h
Number of modules per chain			1	

InteGrade engine NB Vi 1430mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		21.8		W = kWh/1000h
Number of modules per chain			1	

InteGrade engine NB Vi 1570mm 956 G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		23.8		W = kWh/1000h
Number of modules per chain			1	

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

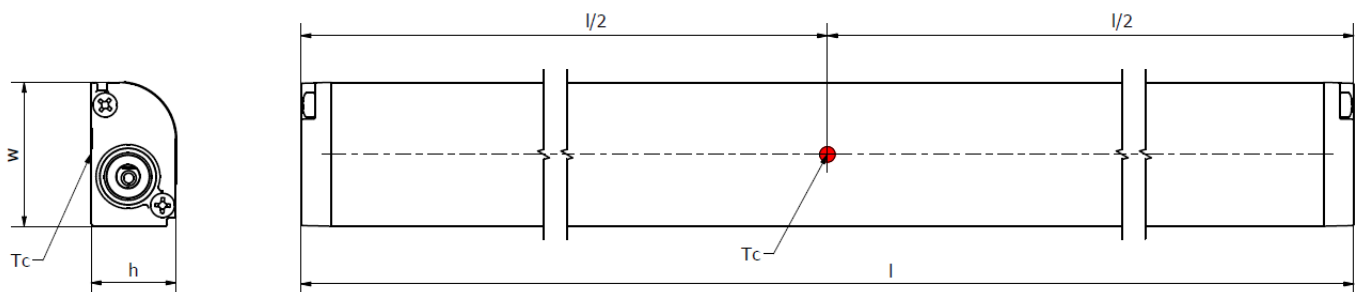
Parameter	Value	Unit
M70F50 nominal	100000	hours
M70F50 life	100000	hours

Mechanical characteristics

InteGrade engine NB Vi 760mm 956 G4

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		172		gram

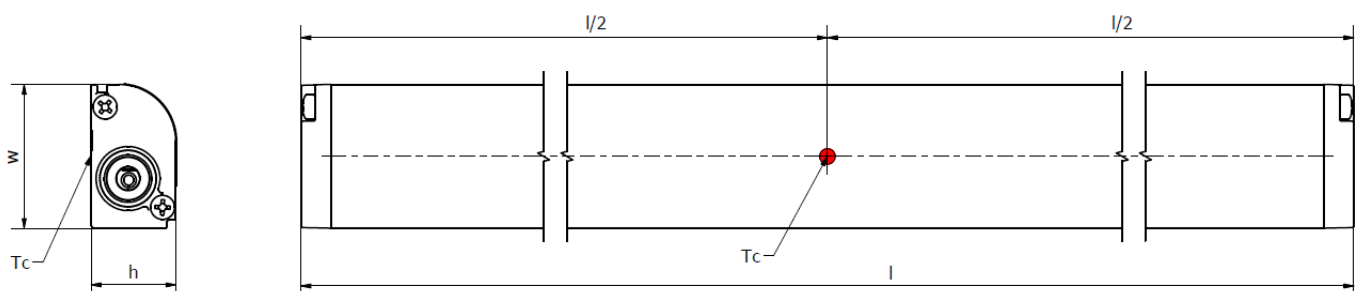
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine NB Vi 855mm 956 G4

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

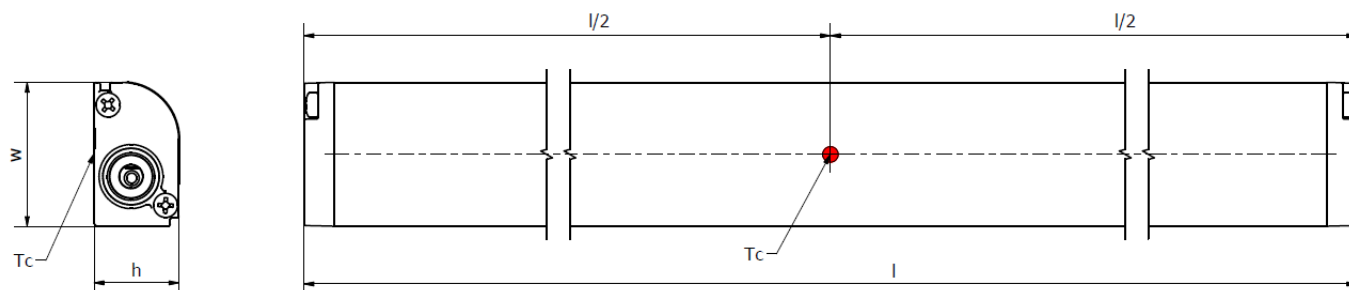
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine NB Vi 1430mm 956 G4

Parameter	Min	Typ	Max	Unit
Length	1426	1430	1434	mm
Width	19.3	19.7	20.1	mm
Height total	12.4	12.9	13.4	mm
Product mass		310		gram

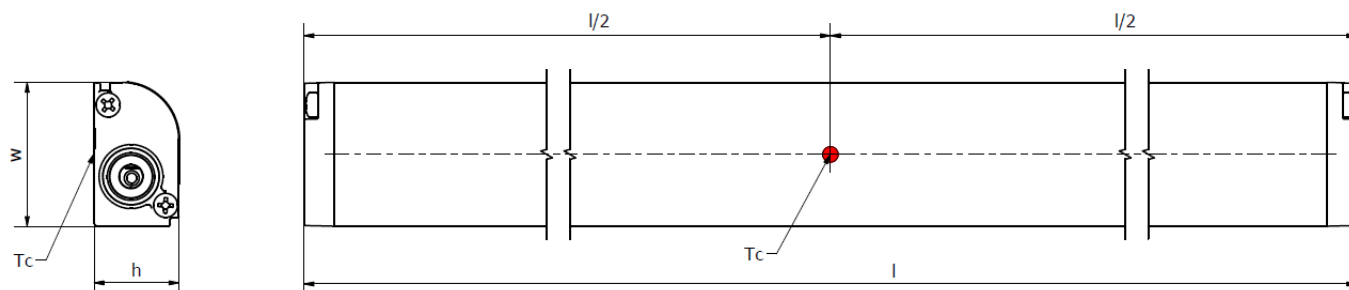
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine NB Vi 1570mm 956 G4

Parameter	Min	Typ	Max	Unit
Length	1566	1570	1574	mm
Width	19.3	19.7	20.1	mm
Height total	12.4	12.9	13.4	mm
Product mass		340		gram

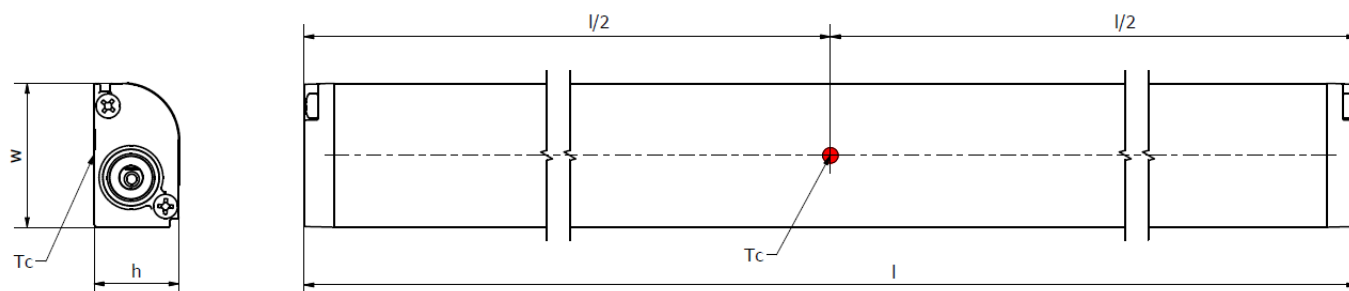
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine NB Vi 1150mm 956 G4

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		230		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)		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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