

PHILIPS

InteGrade

LED

InteGrade engine UB
Vision 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 169 lm/W
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (3000 PW, 4000 PW, 5600K, WWR & Rose)
- 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 Vi 140mm 930 PW G5	8720169 348219 00	9290 039 83706	24
InteGrade engine UB Vi 140mm 940 PW G5	8720169 348233 00	9290 039 83806	24
InteGrade engine UB Vi 140mm WWR G5	8720169 348097 00	9290 039 79806	24
InteGrade engine UB Vi 140mm Rose G5	8720169 348356 00	9290 039 90306	24
InteGrade engine UB Vi 575mm 930 PW G5	8720169 348615 00	9290 039 83906	24
InteGrade engine UB Vi 575mm 940 PW G5	8720169 348639 00	9290 039 84006	24
InteGrade engine UB Vi 575mm WWR G5	8720169 348493 00	9290 039 79906	24
InteGrade engine UB Vi 760mm 930 PW G5	8720169 348837 00	9290 039 87306	24
InteGrade engine UB Vi 760mm 940 PW G5	8720169 348851 00	9290 039 87406	24
InteGrade engine UB Vi 760mm 956 G5	8720169 348875 00	9290 039 87506	24
InteGrade engine UB Vi 760mm WWR G5	8720169 348899 00	9290 039 87606	24
InteGrade engine UB Vi 855mm 930 PW G5	8720169 350090 00	9290 039 84106	24
InteGrade engine UB Vi 855mm 940 PW G5	8720169 350113 00	9290 039 84206	24
InteGrade engine UB Vi 855mm 956 G5	8720169 349957 00	9290 039 80306	24
InteGrade engine UB Vi 855mm WWR G5	8720169 349933 00	9290 039 80006	24
InteGrade engine UB Vi 855mm Rose G5	8720169 350236 00	9290 039 90406	24
InteGrade engine UB Vi 1150mm 930 PW G5	8720169 349339 00	9290 039 84306	24
InteGrade engine UB Vi 1150mm 940 PW G5	8720169 349353 00	9290 039 84406	24
InteGrade engine UB Vi 1150mm 956 G5	8720169 349179 00	9290 039 80206	24
InteGrade engine UB Vi 1150mm WWR G5	8720169 349155 00	9290 039 80106	24
InteGrade engine UB Vi 1150mm Rose G5	8720169 349551 00	9290 039 90506	24

EPREL Registration Number

Name	12NC	Light Source 1	Light Source 2	Light Source 3	Light Source 4	Light Source 5
InteGrade engine UB Vi 140mm 930 PW G5	9290 039 83706	2461917				
InteGrade engine UB Vi 140mm 940 PW G5	9290 039 83806	2461923				
InteGrade engine UB Vi 140mm WWR G5	9290 039 79806	2461939				
InteGrade engine UB Vi 140mm Rose G5	9290 039 90306	2461931				
InteGrade engine UB Vi 575mm 930 PW G5	9290 039 83906	2461972				
InteGrade engine UB Vi 575mm 940 PW G5	9290 039 84006	2461984				
InteGrade engine UB Vi 575mm WWR G5	9290 039 79906	2461998				
InteGrade engine UB Vi 760mm 930 PW G5	9290 039 87306	2461950	2461952			
InteGrade engine UB Vi 760mm 940 PW G5	9290 039 87406	2461959	2461961			
InteGrade engine UB Vi 760mm 956 G5	9290 039 87506	2461946	2461948			
InteGrade engine UB Vi 760mm WWR G5	9290 039 87606	2461963	2461965			
InteGrade engine UB Vi 855mm 930 PW G5	9290 039 84106	2461919	2461974	2461921		
InteGrade engine UB Vi 855mm 940 PW G5	9290 039 84206	2461925	2461986	2461927		
InteGrade engine UB Vi 855mm 956 G5	9290 039 80306	2461911	2461966	2461915		
InteGrade engine UB Vi 855mm WWR G5	9290 039 80006	2461941	2462002	2461943		
InteGrade engine UB Vi 855mm Rose G5	9290 039 90406	2461935	2461992	2461937		
InteGrade engine UB Vi 1150mm 930 PW G5	9290 039 84306	2461976	2461982			
InteGrade engine UB Vi 1150mm 940 PW G5	9290 039 84406	2461988	2461990			
InteGrade engine UB Vi 1150mm 956 G5	9290 039 80206	2461968	2461970			
InteGrade engine UB Vi 1150mm WWR G5	9290 039 80106	2462006	2462008			
InteGrade engine UB Vi 1150mm Rose G5	9290 039 90506	2461994	2461996			

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
InteGrade engine UB Vi 140mm 930 PW G5	9290 039 83706	2.1	263	226	94
InteGrade engine UB Vi 140mm 940 PW G5	9290 039 83806	2.1	282	243	95
InteGrade engine UB Vi 140mm WWR G5	9290 039 79806	1.4	173	149	90
InteGrade engine UB Vi 140mm Rose G5	9290 039 90306	1.4	164	141	88
InteGrade engine UB Vi 575mm 930 PW G5	9290 039 83906	8.1	1029	885	94
InteGrade engine UB Vi 575mm 940 PW G5	9290 039 84006	8.1	1102	948	95
InteGrade engine UB Vi 575mm WWR G5	9290 039 79906	5.6	701	603	90
InteGrade engine UB Vi 760mm 930 PW G5	9290 039 87306	10.6	1350	1161	94
InteGrade engine UB Vi 760mm 940 PW G5	9290 039 87406	10.6	1446	1244	95
InteGrade engine UB Vi 760mm 956 G5	9290 039 87506	10.8	1510	1299	90
InteGrade engine UB Vi 760mm WWR G5	9290 039 87606	7.4	918	789	90
InteGrade engine UB Vi 855mm 930 PW G5	9290 039 84106	12.3	1555	1337	94
InteGrade engine UB Vi 855mm 940 PW G5	9290 039 84206	12.3	1666	1433	95
InteGrade engine UB Vi 855mm 956 G5	9290 039 80306	12.1	1699	1461	90
InteGrade engine UB Vi 855mm WWR G5	9290 039 80006	8.4	1047	900	90
InteGrade engine UB Vi 855mm Rose G5	9290 039 90406	8.3	995	856	88
InteGrade engine UB Vi 1150mm 930 PW G5	9290 039 84306	16.2	2057	1769	94
InteGrade engine UB Vi 1150mm 940 PW G5	9290 039 84406	16.2	2204	1895	95
InteGrade engine UB Vi 1150mm 956 G5	9290 039 80206	16.2	2285	1965	90
InteGrade engine UB Vi 1150mm WWR G5	9290 039 80106	11.2	1402	1206	90
InteGrade engine UB Vi 1150mm Rose G5	9290 039 90506	11.0	1333	1146	88

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 Vi 140mm 930 PW G5](#)

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

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

[InteGrade engine UB Vi 140mm Rose G5](#)

CCT	3000K PW	4000K PW	WWR	2200K Rose	Unit
Average Luminous flux (tolerance -9% + 22%)	263	282	173	164	lm
Flux within 120° cone	226	243	149	141	lm
Average Efficacy	125	134	124	117	lm/W
Max. Efficacy	153	158	147	136	lm/W
Color consistency	3	3	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.390, 0.331	0.478, 0.382	
Min. CRI	94	95	90	88	
Min. R9	65	85	90	40	
Radiation angle	30	30	30	30	°
Peak intensity	196	210	129	122	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	2.1	2.1	1.4	1.4	W
Max. # of modules per chain	12	12	12	12	
Product contains light sources of energy class:	E	D	not applicable	E	

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

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

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

CCT	3000K PW	4000K PW	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	1029	1102	701	lm
Flux within 120° cone	885	948	603	lm
Average Efficacy	127	136	125	lm/W
Max. Efficacy	155	160	149	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	765	820	521	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	V
Power consumption	8.1	8.1	5.6	W
Max. # of modules per chain	3	3	3	
Product contains light sources of energy class:	E	D	not applicable	

[InteGrade engine UB Vi 760mm 930 PW G5](#)
[InteGrade engine UB Vi 760mm 940 PW G5](#)
[InteGrade engine UB Vi 760mm 956 G5](#)
[InteGrade engine UB Vi 760mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	1350	1446	1510	918	lm
Flux within 120° cone	1161	1244	1299	789	lm
Average Efficacy	127	136	140	124	lm/W
Max. Efficacy	155	160	168	148	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	
Radiation angle	30	30	30	30	°
Peak intensity	1004	1076	1123	683	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	10.6	10.6	10.8	7.4	W
Max. # of modules per chain	3	3	3	3	
Product contains light sources of energy class:	E	D	D	not applicable	

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

CCT	3000K PW	4000K PW	5600K	WWR	2200K Rose	Unit
Average Luminous flux (tolerance -9% + 22%)	1555	1666	1699	1047	995	lm
Flux within 120° cone	1337	1433	1461	900	856	lm
Average Efficacy	126	135	140	125	120	lm/W
Max. Efficacy	154	159	169	149	139	lm/W
Color consistency	3	3	5	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	0.478, 0.382	
Min. CRI	94	95	90	90	88	
Min. R9	65	85	65	90	40	
Radiation angle	30	30	30	30	30	°
Peak intensity	1157	1239	1264	779	740	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	24	V
Power consumption	12.3	12.3	12.1	8.4	8.3	W
Max. # of modules per chain	3	3	3	3	3	
Product contains light sources of energy class:	E	D	D	not applicable	E	

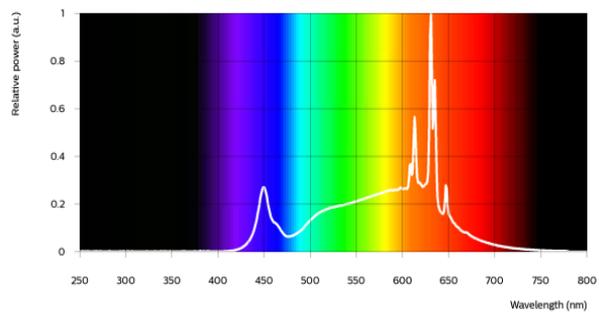
[InteGrade engine UB Vi 1150mm 930 PW G5](#)
[InteGrade engine UB Vi 1150mm 940 PW G5](#)
[InteGrade engine UB Vi 1150mm 956 G5](#)
[InteGrade engine UB Vi 1150mm WWR G5](#)
[InteGrade engine UB Vi 1150mm Rose G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	2200K Rose	Unit
Average Luminous flux (tolerance -9% + 22%)	2057	2204	2285	1402	1333	lm
Flux within 120° cone	1769	1895	1965	1206	1146	lm
Average Efficacy	127	136	141	125	121	lm/W
Max. Efficacy	155	160	169	149	141	lm/W
Color consistency	3	3	5	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	0.478, 0.382	
Min. CRI	94	95	90	90	88	
Min. R9	65	85	65	90	40	
Radiation angle	30	30	30	30	30	°
Peak intensity	1530	1640	1700	1043	992	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	24	V
Power consumption	16.2	16.2	16.2	11.2	11.0	W
Max. # of modules per chain	3	3	3	3	3	
Product contains light sources of energy class:	E	D	D	not applicable	E	

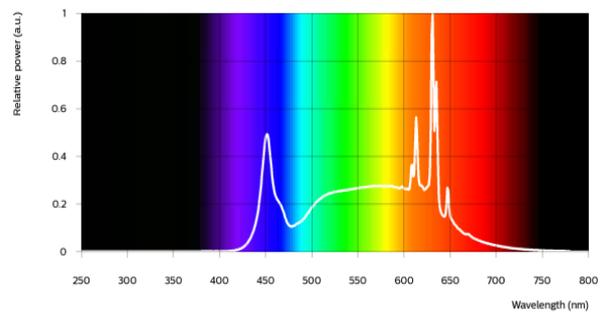
Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5.
 Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

Spectral characteristics

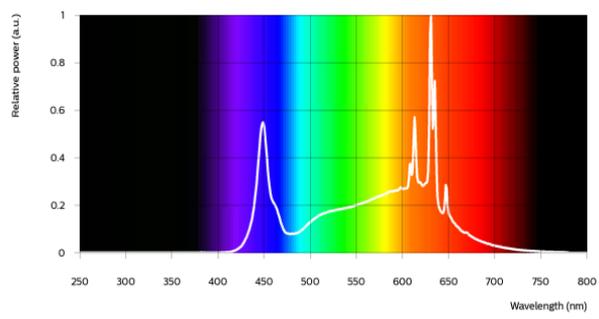
3000K PW



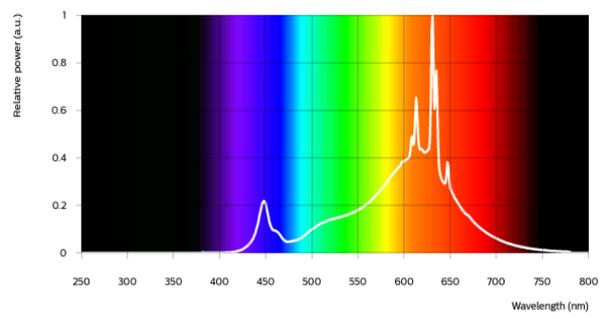
4000K PW



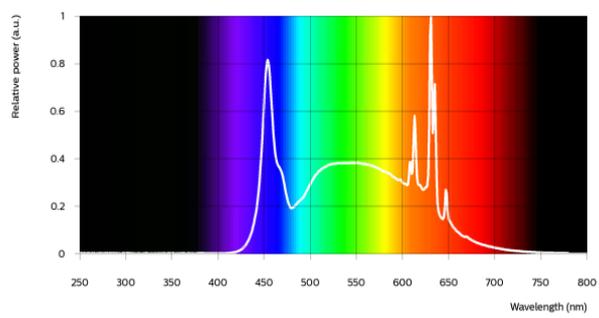
WWR



2200K Rose

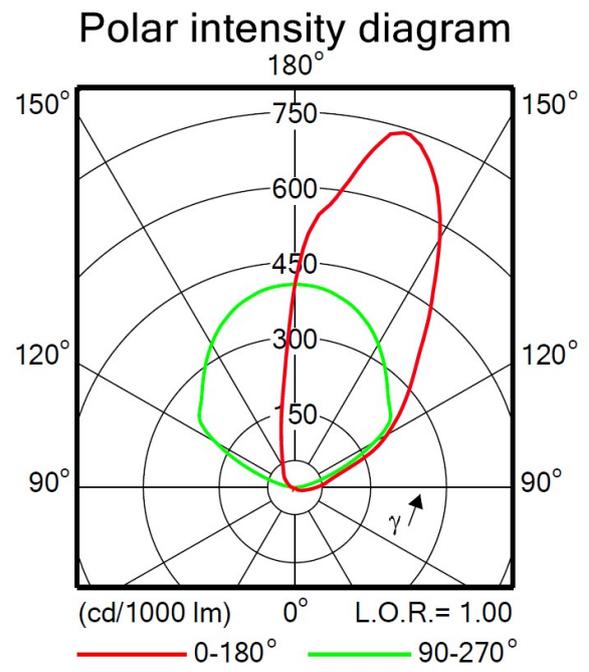


5600K



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

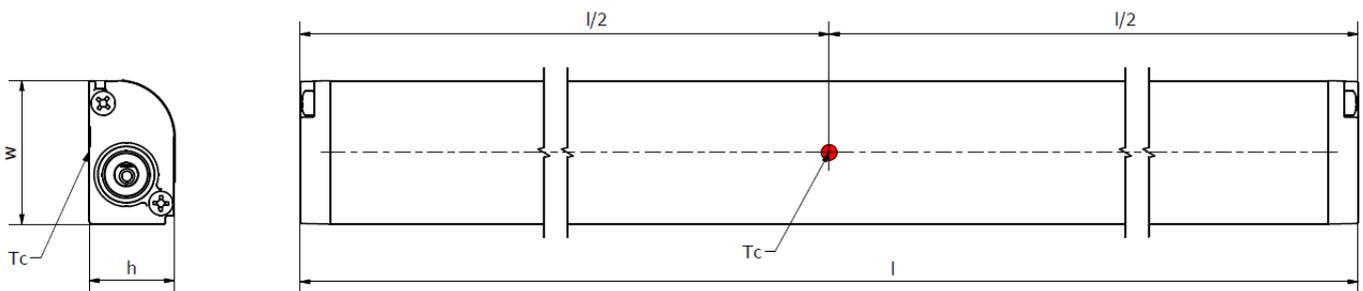
@Ta=30°C

Mechanical characteristics

InteGrade engine UB Vi 140mm 930 PW G5
 InteGrade engine UB Vi 140mm 940 PW G5
 InteGrade engine UB Vi 140mm WWR G5
 InteGrade engine UB Vi 140mm Rose 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		34		gram

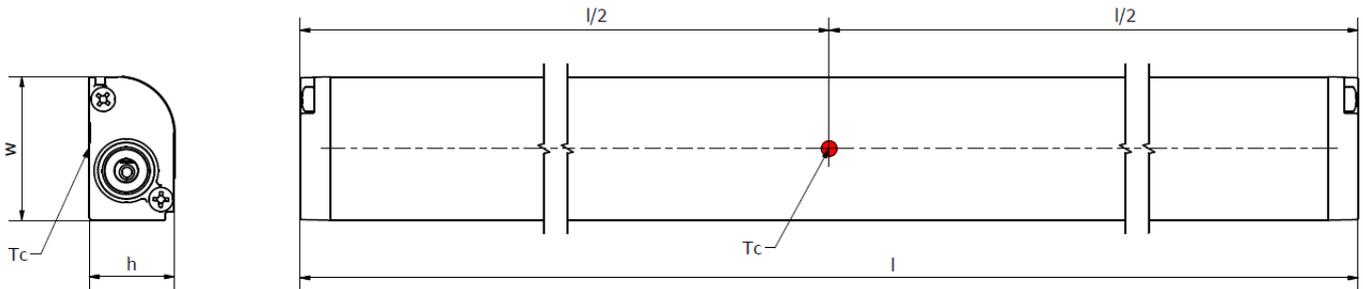
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine UB Vi 575mm 930 PW G5
 InteGrade engine UB Vi 575mm 940 PW G5
 InteGrade engine UB Vi 575mm WWR 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		130		gram

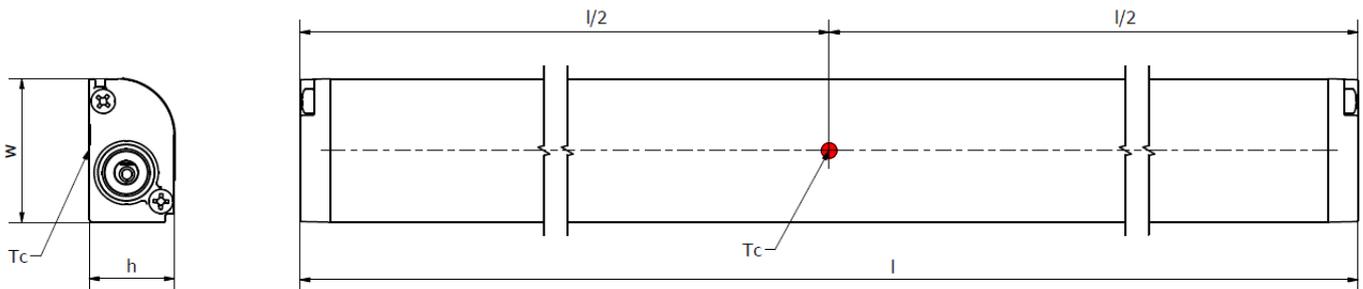
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine UB Vi 760mm 930 PW G5
 InteGrade engine UB Vi 760mm 940 PW G5
 InteGrade engine UB Vi 760mm 956 G5
 InteGrade engine UB Vi 760mm WWR 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		170		gram

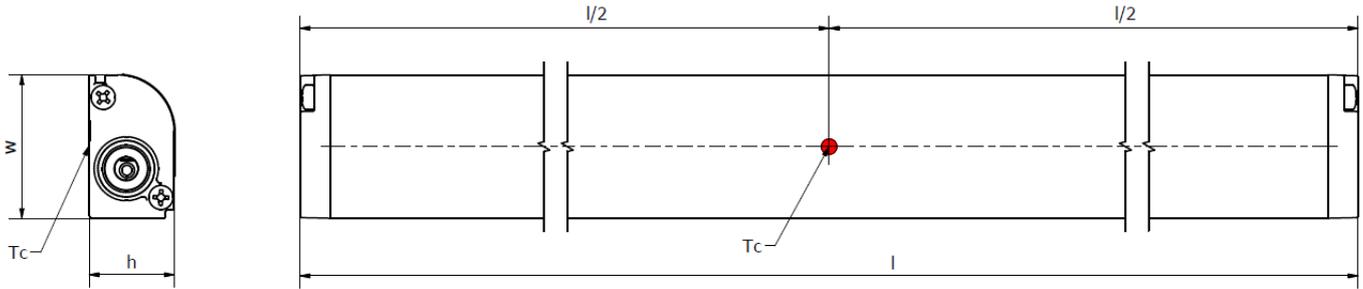
Thermal expansion from -30°C to +30°C is included in the tolerances



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

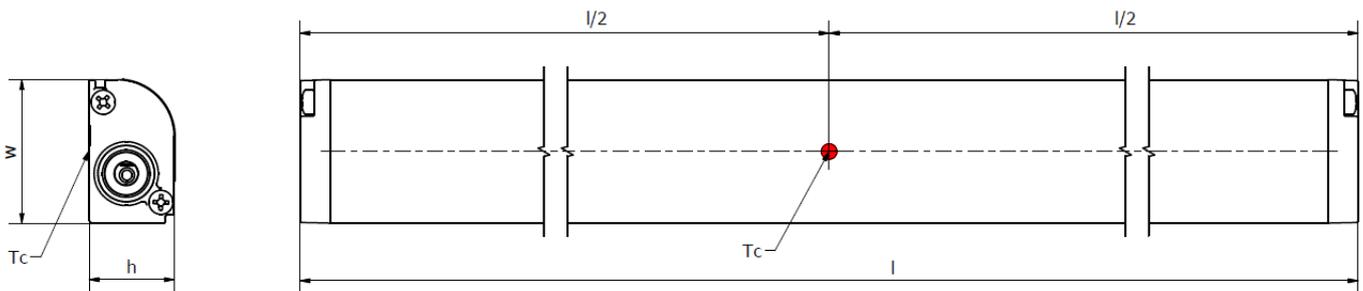
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine UB Vi 1150mm 930 PW G5
 InteGrade engine UB Vi 1150mm 940 PW G5
 InteGrade engine UB Vi 1150mm 956 G5
 InteGrade engine UB Vi 1150mm WWR G5
 InteGrade engine UB Vi 1150mm Rose 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 (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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