

SMix



Product information

SMix offers an optimal solution for street lighting. Taking advantage of Tungsräm's proprietary modular refractive optic system, a wide range of light distributions can be achieved. The optimized mechanical design provides simple installation, adjustability, and reliability.

Application areas



Pedestrian street



Roadways
and Highways

Driver features

- Dali, DynaDim, CLO, 1-10V (in SMIX MV product family)

Performance

- Rated luminous flux range: from 5010 to 22130 lm, but available up to 39klm in SMix MV
- Rated luminaire efficacy: from 129 to 153lm/W
- Rated median useful life and the associated rated LM factor: L80B50 > 299.000 hours
- Rated useful life and the associated rated LM factor: L80B10 > 296.000 hours
- Rated median useful life and the associated rated LM factor: L90B50 > 125.000 hours
- Rated useful life and the associated rated LM factor: L90B10 > 123.000 hours
- Rated abrupt failure value: < 10% at 100.000 hours
- Abrupt light output degradation (C) < 10 at 100.000 hours
- Photometric code: 730/559, 740/559, 750/559
- Lumen maintenance code: 9
- Rated ambient temperature (tq) related to performance for a luminaire: 25°C

*Definitions and tolerances according to IEC62722-2-1:2014

Installation and maintenance

Mounting options:

- Side mounting with coupler for 42-60 diameters and -15°, -10°, -5°, 0°, 5°, 10°, 15° tilt options
- Post top mounting with coupler for 42-60 diameters and -15°, -10°, -5°, 0°, 5°, 10°, 15° tilt options
- Side mounting with coupler for 30-48 diameters and -15°, -10°, -5°, 0° tilt options
- Post top mounting with coupler for 30-48 diameters and 0°, 5°, 10°, 15° tilt options
- U76 coupler is available on request
- Weight: 8 kg
- Recommended mounting height: 4 - 15m
- Only two hand-tools required for installing the fixture
- Storage temperature up to 85°C.
- Ambient temperature from -40°C to +50°C

Optics

Available photometric distributions:

- C: optimized for wide high traffic M class roads
- E: optimized for narrow P class roads
- F: optimized for wide P class roads
- Q: optimized for narrow high traffic M class

Rated colour rendering index > 70

Rated correlated colour temperatures*: 3000K, 4000K, 5000K
ULOR: 0

Rated initial chromaticity co-ordinate values:

- CIE(x=0.43, y=0.403) 5SDCM
- CIE(x= 0.38, y= 0.38) 5SDCM
- CIE(x= 0.34, y= 0.35) 5SDCM

Structures and materials

- Housing material: die-cast aluminium body and coupler, with stainless steel screws.
- Optic material: Optical-grade polycarbonate
- Optical cover: Tempered glass
- Colour: RAL7035
- Impact Strength: IK08 (glass) / IK09 (housing) / IK08 (Shorting Cap)

Electrical

Input voltage and frequency: 220-240V, 50-60Hz
 SMIX MV : 120-277V, 50/60Hz
 Class I, Class II (no ENEC)
 Surge protection: minimum 10kV/5kA
 35W to 160W - (Also available upto 253W in the SMIX MV product family)
 Power factor $\geq 0,9$

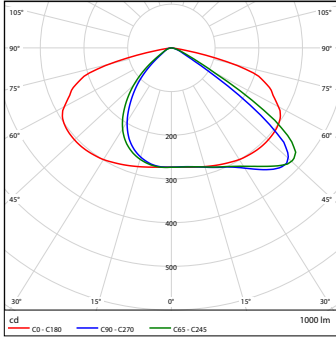
Standards and regulation

CE, ENEC, Directive 2014/30EU, 2014/35/EU, 2009/125/EC, 2019/2020/EU, 2011/65/EC, EN 60598, EN 62471, EN 55015, EN 61000 (61000-3-2 and 61000-3-3), EN 62493, EN 61547, IEC 62031

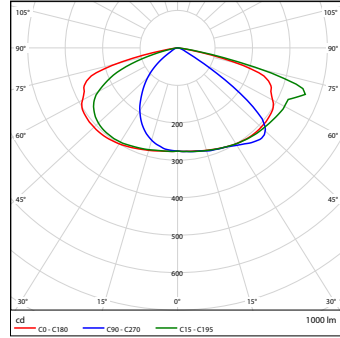
Other options available

Precabing, extra surge protection up tp 10kV/5kA, NEMA socket with shorting cap

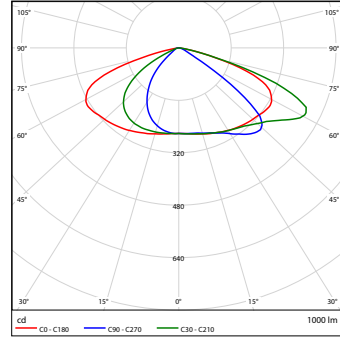
Typical photometrical features



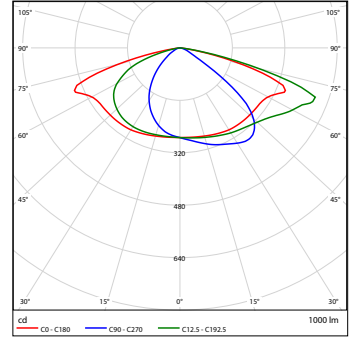
CCC



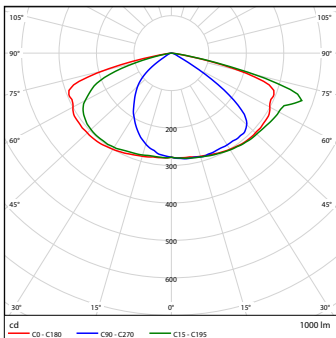
CEC



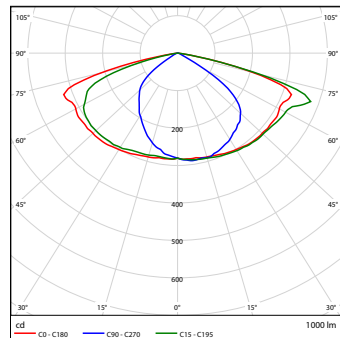
CFC



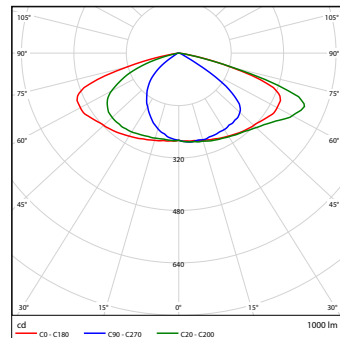
CQC



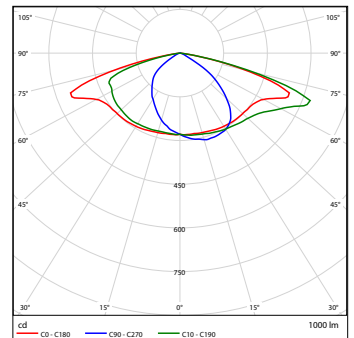
ECE



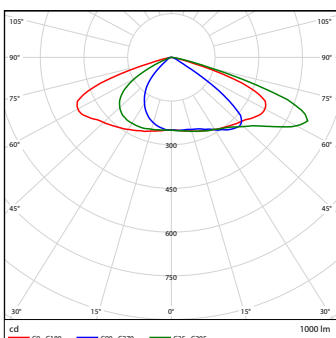
EEE



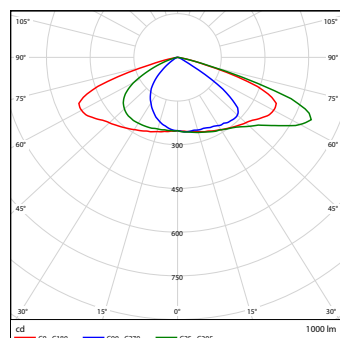
EFE



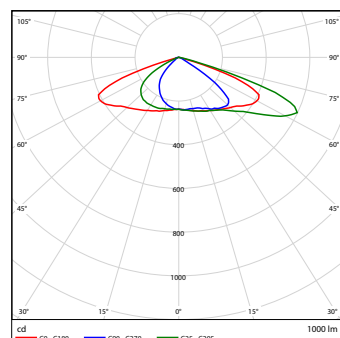
EQE



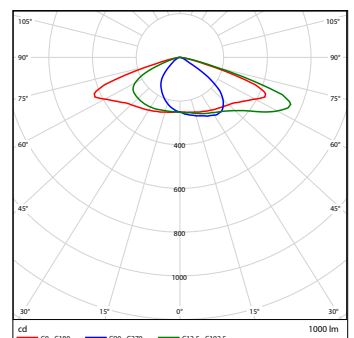
FCF



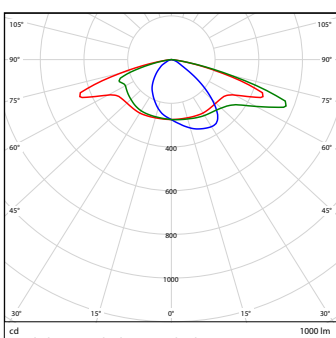
FEF



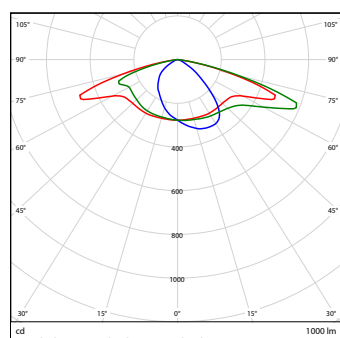
FFF



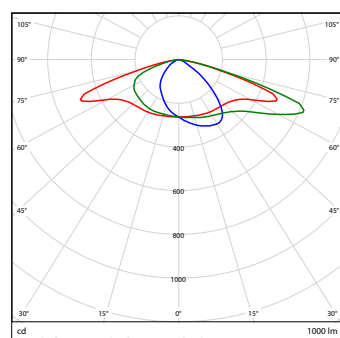
FQF



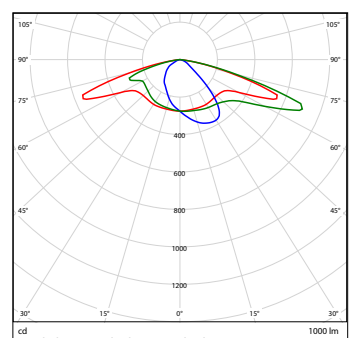
QCQ



QEQ

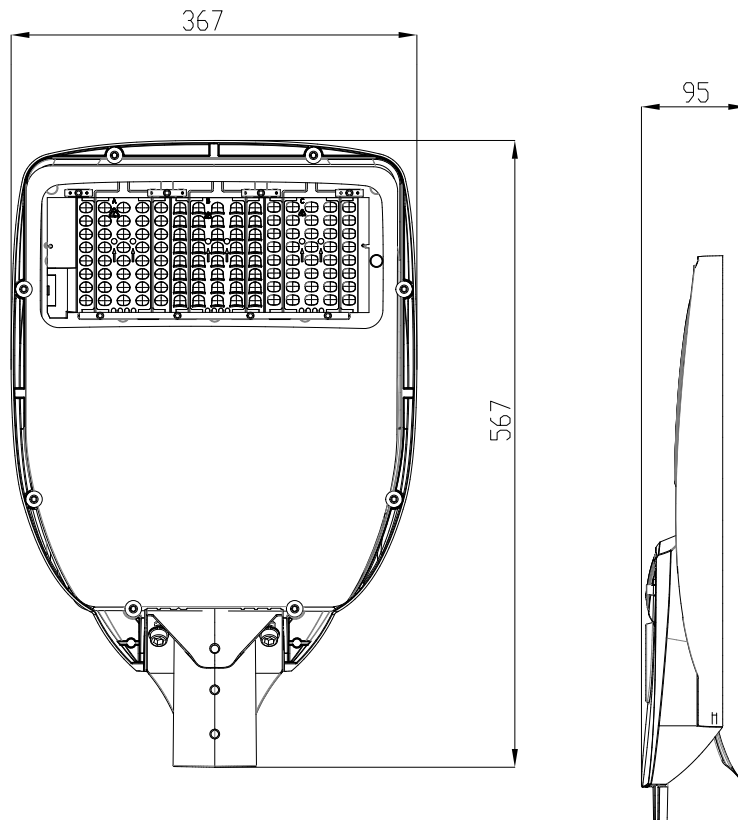


QFQ



QQQ

Dimensions (mm)



Order logic

Name	Gen.	Optics	Power Category (W) ⁽¹⁾	CCT (K)	Control	Accessories	IEC protection classes	Precabling ⁽⁵⁾	Mounting	Color
SMix	2	CFC	35-160W ⁽⁸⁾	30 - 3000K	N - No control	ST - Standard, 10kV Surge immunity (built-in the driver, EN 61547) SPx ⁽³⁾ - Enhanced Surge Voltage Protection LSPx ⁽³⁾ - NEMA socket with Shorting Cap + Enhanced Surge Voltage Protection	C1 - Class I C2 - Class II ⁽⁴⁾	PX- Pre cabling with X meters PCX- Pre cabling with X meters and connector	U48 - Universal coupler 30-48 mm U60 - Universal coupler 42-60 mm	R7035 RXXX ⁽⁶⁾
		CEC			D - DALI					
		CCC			Yxx - DynaDIM ⁽²⁾					
		FCF			NLxx - No control + CLO ⁽²⁾					
		FEF			DLxx - DALI + CLO ⁽²⁾					
		EEE			YLxx - DynaDIM + CLO ⁽²⁾					
		ECE								
		EFE								
		FFF								
		FQF								
		QCQ								
		QEQ								
		QFQ								
QQQ										
EQE										
CQC										

Example: SMix/2/EEE/140/40/D/ST/C1/PC3/U60/R7035

Exceptions:

⁽¹⁾ Power consumption of luminaire can be programmed by the manufacturer in 1W steps within the marked range.

⁽²⁾ x can be up to 3 characters

⁽³⁾ Leave "x" blank if it is standard (SPD). x=1 when it is built with varistors.

⁽⁴⁾ C2 is not valid with the followings: SP, LSP

⁽⁵⁾ Maximum precabbling length is 10m.

⁽⁶⁾ Leave it blank if it is standard. Other RAL colors available on request

⁽⁷⁾ Optional customer/project specific product identifier. It has no impact on technical features except in case of the SWE (Sweden specific tail and shorting cap are part of the product) and A (valid only with 80W and driver current is less than 525mA). A not valid with SP1 and LSP1. Leave it blank if it is standard.

⁽⁸⁾ SMIX MV is available from 20 - 253W. Please refer the datasheet link - <https://lighting.tungsr.com/en/documents/Tungsr-SMIX-MultiVoltage-Datasheet-EN.pdf>

Rated lumens table

3000K			4000K			5000K		
Nominal Power	Lumen	LPW	Nominal Power	Lumen	LPW	Nominal Power	Lumen	LPW
35	5020	143	35	5320	152	35	5350	153
50	6970	139	50	7380	148	50	7430	149
65	8860	136	65	9380	144	65	9440	145
80	10330	129	80	10930	137	80	11000	138
100	14210	142	100	15040	150	100	15140	151
120	16590	138	120	17750	148	120	17670	147
140	19000	136	140	20110	144	140	20240	145
160	20700	129	160	21900	137	160	22050	138

Rated lumens table for SMIX MV (20W - 253W) is available on the SMIX MV product datasheet.
<https://lighting.tungsr.com/en/documents/Tungsr-SMIX-MultiVoltage-Datasheet-EN.pdf>

