

SMix Multivoltage



DATASHEET



Product information

Tungsräm's 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 (available in 200-253W)
- Analog 1-10V (available in 20-253W)

Structures and materials

- Housing material: die-cast aluminium body and coupler, with stainless steel screws.
- Well-designed thermal management system with aluminum heat sink
- Optic material: Optical-grade polycarbonate
- Optical cover: Tempered glass
- Colour: RAL7035 (EN12206)
- Impact Strength: IK08
- Power factor > 0.90

Installation and maintenance

Mounting options:

- Side mounting coupler for 42-60mm diameters and -15°, -10°, -5°, 0°, 5°, 10°, 15° tilt options
- Post top mounting coupler for 42-60mm diameters and -15°, -10°, -5°, 0°, 5°, 10°, 15° tilt options
- 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

484 different optic combinations are available.

Available photometric distributions:

- C: optimized for high traffic ME class roads
- E: optimized for narrow S type roads
- F: optimized for wide S class roads
- Q: optimized for narrow high traffic M class roads

Rated colour rendering index: >70

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

Rated initial chromaticity co-ordinate values (20-200W):

- 3000K: CIE(x=0.44, y=0.40) 5SDCM
- 4000K - CIE(x= 0.38, y= 0.38) 5SDCM
- 5000K: CIE(x= 0.34, y= 0.35) 5SDCM

Rated initial chromaticity co-ordinate values (200 -253W):

- 3000K: CIE(x=0.4339, y=0.4032) 5SDCM, 3SDCM on request
- 4000K: CIE(x=0.3818, y=0.3796) 5SDCM, 3SDCM on request
- 5000K: CIE(x=0.3446, y=0.3551) 5SDCM, 3SDCM on request

Performance

- From 20W up to 200W
- Luminous flux up to 28klm
- Luminaire efficacy: up to 157lm/W
- Rated median useful life and the associated rated LM factor: L80 >100.000 hours
- Photometric code: 730/559, 740/559
- Lumen maintenance code: 9
- Rated ambient temperature (tq) related to performance for a luminaire: 25° C
- From 200W up to 253W
- Luminous flux up to 38400 lm
- Luminaire efficacy: up to 157lm/W
- Rated median useful life and the associated rated LM factor: L80B50> 324.000 hours
- Rated useful life and the associated rated LM factor: L80B10 > 320.000 hours
- Rated useful life and the associated rated LM factor: L90B50 > 135.000 hours
- Rated useful life and the associated rated LM factor: L90B10 > 133.000 hours

Electrical

Input voltage and frequency: 120-277V, 50/60Hz
 (except DALI, DynaDIM: 220-240V, 50/60Hz)
 Class I: standard
 Surge protection: minimum 10kV/10kA
 Nominal Input power: 20W to 253W

Standards and regulation 200-253W (DALI and DynaDIM version)

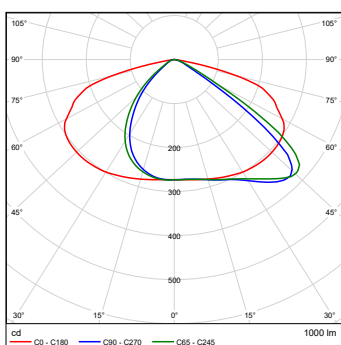
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ENEC is not available in 200-253W
 Only CE is available in 200-253W Dali and dynaDIM version
 CE is not available for Analog 1-10V version
 See 20-200W for Analog 1-10V standards and regulation (except SASO)

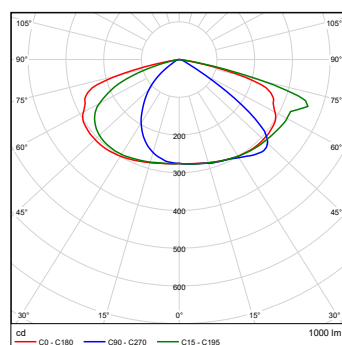
Standards and regulation 20-200W

EN 60598, EN 62471, IEC 61000-3-2, EN 62493, EN 61547, ENEC, SASO

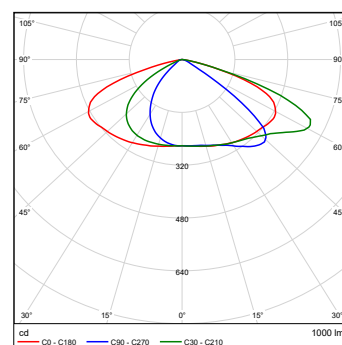
Typical photometrical features



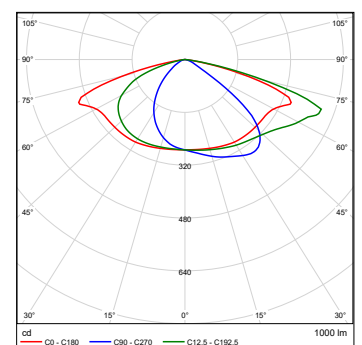
CCC



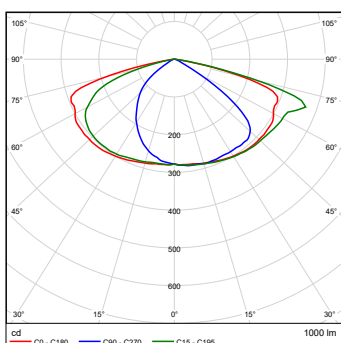
CEC



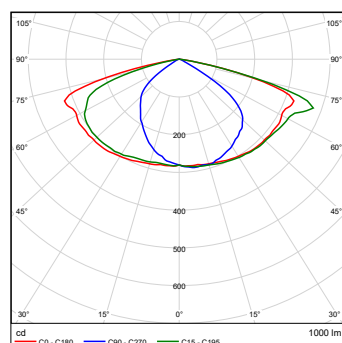
CFC



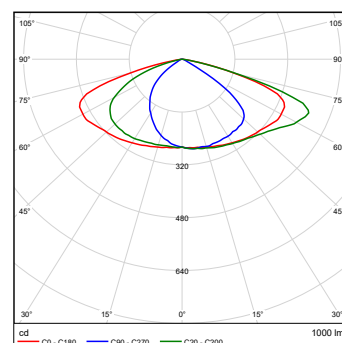
CQC



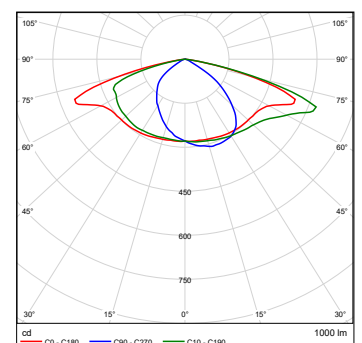
ECE



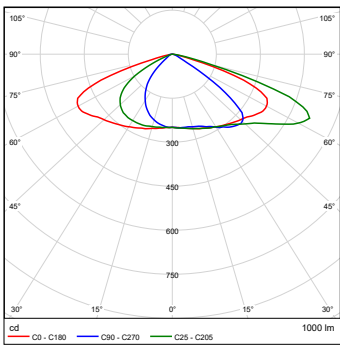
EEE



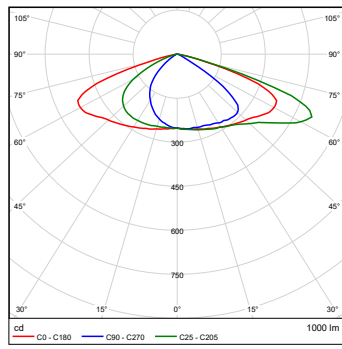
EFE



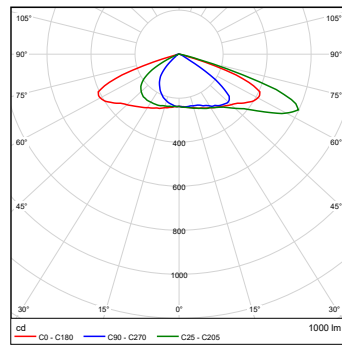
EQE



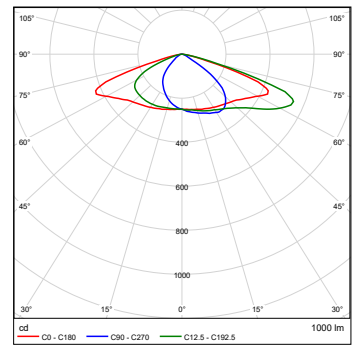
FCF



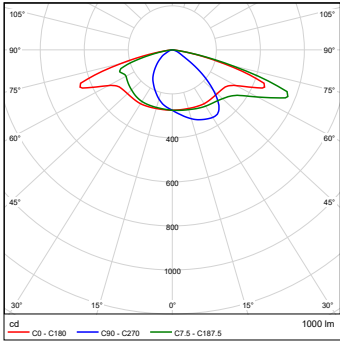
FEF



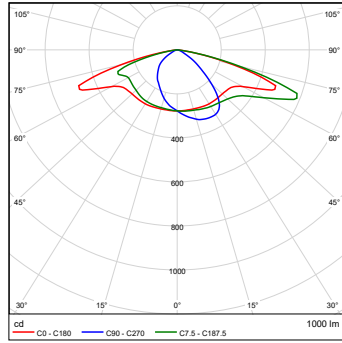
FFF



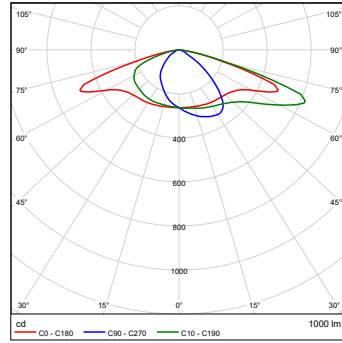
FQF



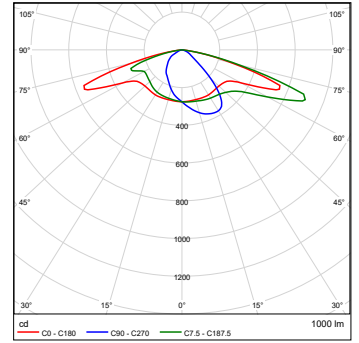
QCQ



QEQ

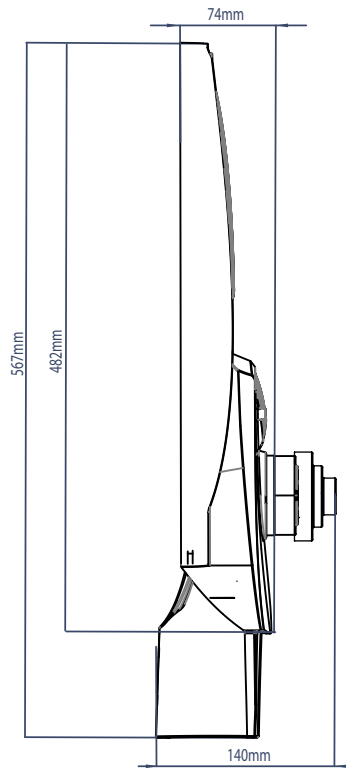
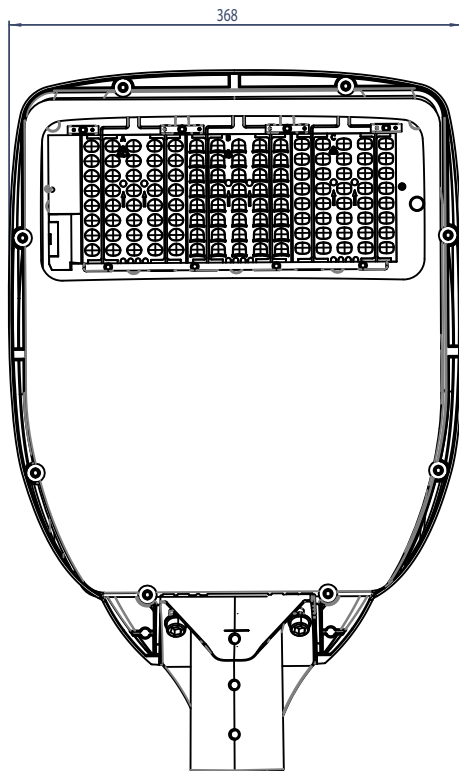


QFQ



QQQ

Dimensions (mm)



Order logic

Name	Gen.	Optics	Nominal Power (W) ^[2]	CCT (K)	Control	Accessories	Electrical protection Class	Precabling	Mounting	Customer	
SMIx	MV - Multi Voltage ^[1]	CFC	20-253	30 - 3000K	N - No control	ST - Standard type	C1 - Class I	Pxx - Supply cord with X meters ^[5] PCx - Supply cord with X meters and connector	U60 - Universal coupler 42-60 mm	XX ^[6]	
		CEC									
		CCC									
		FCF		40 - 4000K							A - 1-10V ^[3]
		FEF									
		EEE									
		ECE		50 - 5000K	Y - DynaDIM ^[4]						
		EFE									
		FFF									
		QCQ									
		QEQ									
		QFQ									
		CQC									
		EQE									
		FQF									
		QQQ									
xxx ^[2]											

Example: SMIx/MV/CFC/65/40/A/LS/C1/P1/U60

- ^[1] Multi Voltage range is able to operate at supply voltage from 120 VAC up to 277 VAC, except DALI and DynaDIM: from 220 VAC up to 240 VAC
- ^[2] :xxx is an alphanumeric number which can contain letters A-Z and number 0-9. Examples: Z01...Z99 or 101-999
- ^[3] Power consumption of luminaire can be programmed by the manufacturer in 1W steps within the marked range. It can differ from the rated power marked on the data label.
- ^[4] 1-10V (A), DALI and DynaDIM dimming option are only available through NEMA socket, DALI and Y control only available from 200W up to 253W
- ^[5] Maximum supply cord length is 15m
- ^[6] Optional customer/project specific product identifier. It has no impact on technical features (leave it blank if it is standard).

Rated Lumens Table

3000K			4000K			5000K		
Nominal Power	Lumen	LPW	Nominal Power	Lumen	LPW	Nominal Power	Lumen	LPW
28	3940	141	28	4170	149	28	4200	150
35	4930	141	35	5210	149	35	5250	150
43	5890	137	43	6230	145	43	6280	146
50	6840	137	50	7230	145	50	7280	146
65	8730	134	65	9230	142	65	9300	143
80	10180	127	80	10770	135	80	10840	136
85	10810	127	85	11440	135	85	11520	136
100	12710	127	100	13450	135	100	13550	136
120	16330	136	120	17280	144	120	17400	145
144	20070	139	144	21240	148	144	21390	149
160	20380	127	160	21570	135	160	21720	136
200	25960	130	200	27470	137	200	27660	138
205	27460	134	205	30120	147	205	30110	147
223	29340	132	223	32180	144	223	32180	144
228	32020	140	228	35120	154	228	35120	154
253	34250	135	253	37670	149	253	37670	149

