

LED R111 - High CRI - Dimmable



Product information

Tungsrám's new LED R111 - High CRI - Dimmable range is replacement for 70W Halogen products with substantial energy savings with only 11.5W. It is available in three colour temperatures (2700,3000,4000) and two beam angles (25,40) with 95Ra Colour Rendering Index for excellent light quality. Additionally, the 40,000 hours L70 life time offers significant reduction to maintenance costs by sharply reducing replacement frequency.

Features & Benefits

- 40 000 hours solution (L70/B50)
- Three colour temperatures: 2700K, 3000K, 4000K
- "G" Energy Class
- R9>50 can reproduce strong red colors
- Two Beam Angles : 25/40°
- Warranty: 3 years with maximum 12 000 burning hours according to Tungsrám Operations Kft. Standard Warranty conditions

Application areas



Hospitality



Retail



Museum and Galleries

IEC Standards

- EN 55015: Limits and methods of measurement of radio disturbance characteristics of electrical lighting
- EN 61547: Equipment for general lighting purposed EMC immunity requirements
- EN 61000-3-3: Limitation of voltage fluctuations and flicker in low voltage supply systems (equipment rated current $\leq 16A$)
- EN 61000-3-2: Limits — Limits for harmonic current emissions (equipment input current $k 16 A$ per phase)
- IEC 62471: Photo biological safety of lamps and lamp systems
- IEC 60061: Lamp Caps and holders together with gauges for the control of interchangeability and safety
- IEC 62838:2015 LEDsi lamps for general lighting services with supply voltages not exceeding 50 V a.c. r.m.s. or 120 V ripple free d.c. – Safety specifications



Specification summary

Product Code	Product Description	Nominal/ Rated Power (W)	Nominal/ Rated Beam angle (°)	Nominal/ Rated Lumens (lm)	Rated Peak Intensity (cd)	Nominal/ Rated Life (L70/B50 hours)	CCT (k)	CRI (Ra)	Cap	Pack qty
93121002	LED R111 11.7W(86)Dim 927 25° TU	11,7	25	810	2800	40 000	2700	95	G53	10
93121003	LED R111 11.7W(86)Dim 927 40° TU	11,7	40	810	1600	40 000	2700	95	G53	10
93121004	LED R111 11.7W(86)Dim 930 25° TU	11,7	25	810	2800	40 000	3000	95	G53	10
93121005	LED R111 11.7W(86)Dim 930 40° TU	11,7	40	810	1600	40 000	3000	95	G53	10
93121036	LED R111 11.7W(86)Dim 940 25° TU	11,7	25	810	2800	40 000	4000	95	G53	10
93121037	LED R111 11.7W(86)Dim 940 40° TU	11,7	40	810	1600	40 000	4000	95	G53	10

Energy efficiency class (A-G)*



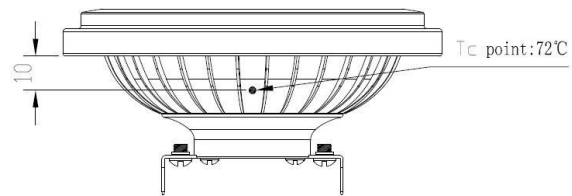
Common attributes

- Nominal/ Rated Life (L70/B50 hours): 40 000 Hrs
- Cap/Base: G53
- Nominal/Rated Beam Angle : 25/40°
- Input Voltage 12V
- R9>80
- Colour Rendering Index >95
- Start-up/Warm-up time: <0,5 s
- Switching Cycles: 30 000
- Power factor: >0.5
- Lumen Maintenance Factor: 0.9
- Colour consistency: <6 SDCM
- Dimmable on most leading and trailing edge

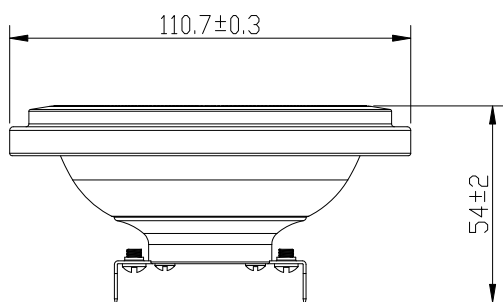
Recommended operation temperature

Desired outputs

- THs Max for L70 70C
- THs Max for B50 70C



Dimensions (mm)



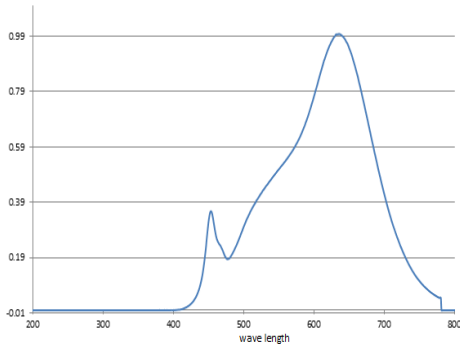
Packaging image



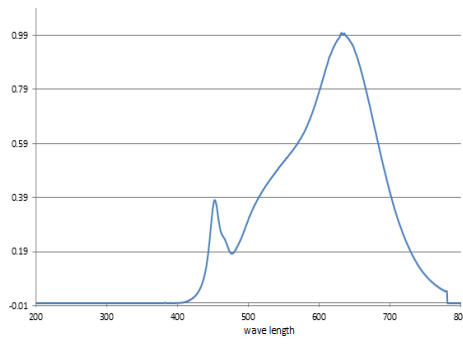
Operation and maintenance

- Store and use the lamps the same way as traditional lamps.
- Check your fixtures are properly wired and don't deliver voltage spike to lamps causing overheating/failure.
- Ambient temperature range -20° C to 40°C
- Lamps should be kept free from contamination.
- Good condition of the lamp-holder contacts is important to ensure proper operation of lamp.
- Ensure lamp is cool before removing.
- Switch off mains supply before installing/removing lamps.
- Not for use in totally enclosed recessed fixtures.
- These LED R111 - High CRI - Dimmable lamps are dimmable on most leading and trailing edge dimmers, for more information please check our website www.tungsr.com/dimming-led

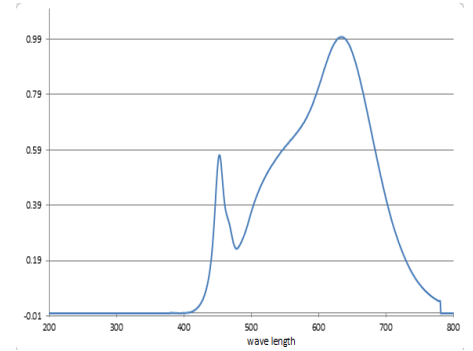
Spectral distributions



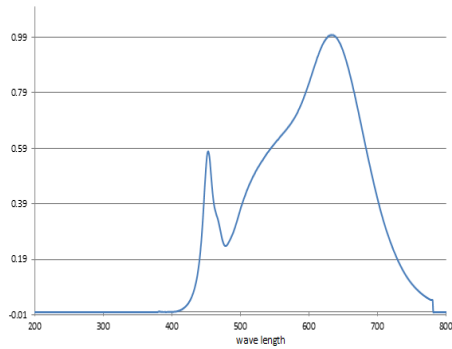
2700K 25°



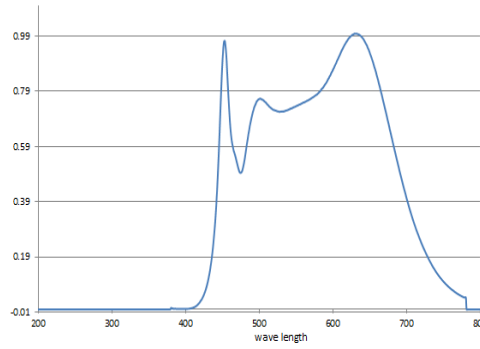
2700K 40°



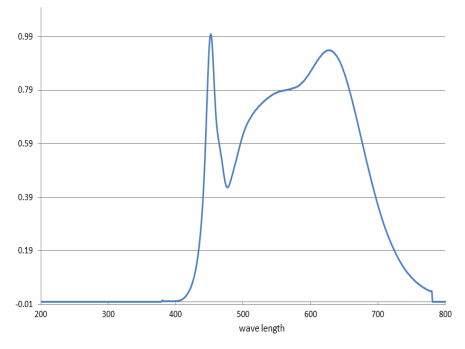
3000K 25°



3000K 40°



4000K 25°



4000K 40°

All values 180-400nm are 0