

# Special fluorescent lamps

# CLEO Compact



The tubular CLEO compact lamps, the so called spaghetti lamps, emit highly concentrated radiation between 300 and 400 nm. The lamps are produced in two different UV-B/UV-A ratios, namely 1 % and 2 % (UV-B: 280-315 nm). For a UV-B region of 280-320 nm the ratios are 2.1% and 3.5% respectively. The higher UV-B/UV-A ratio is indicated by adding an -S (Super) to the lamp type. The -R (Reflector) types are equipped with an internal reflector of 200 degrees increasing the radiant intensity in front of the window by 70%.

The UV-B/UV-A ratio of the PL-L lamp is 1.2% (UV-B: 280-315 nm) or 2.1% (UV-B: 280-320 nm).

### Warning

UV radiation, like solar radiation, can cause eye and skin injury if the appropriate safety measures are not observed. Always follow the manufacturer's instructions carefully when using any tanning product or system. When replacing tanning lamps in existing equipment, always adjust the tanning times according to the equipment manufacturer's instructions for the new lamp type.

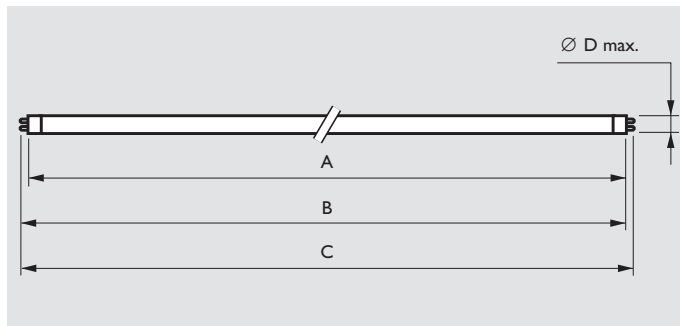
### Applications

- Suntanning/pigmentation of the skin
- Insect traps
- Photochemical processes



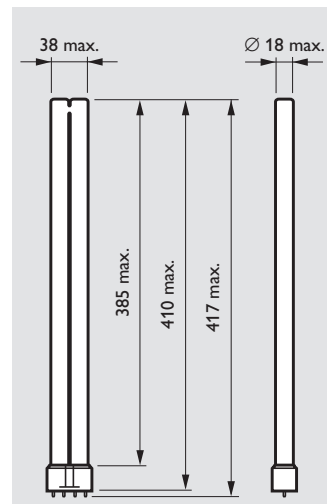
The compact single-ended PL-L lamp, which emits UV radiation between 300-400 nm, has two tubes melted together with a four-pin lamp base (2G11). The lamp should be operated with a normal 36W/40W fluorescent lamp ballast combined with an CLEO starter.

PL-L 36W



Dimensions in mm

Type	A max.	B min.	B max.	C max.	D max.
CLEO Compact 15W (-S-R)	288.3	293.0	295.4	302.5	16
CLEO Compact 20W	437.4	442.1	444.5	451.6	28
CLEO Compact 25W (-S)(-S-R)	516.9	521.6	524.0	531.1	16



PL-L 36W



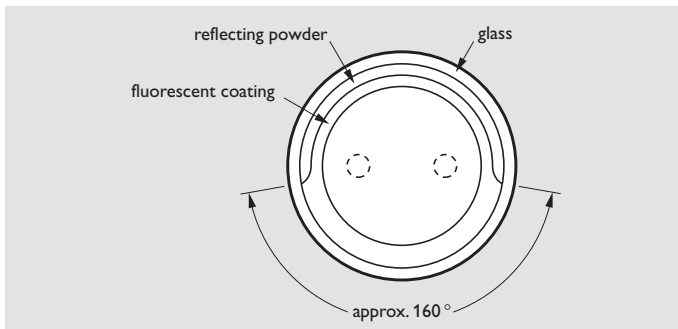
Type	Cap/ base	Lamp	Lamp	UV-A	UV-B/UV-A	Erythemat	Erythemat	Useful life	Nett weight	Ordering number	EOC
		voltage	current	radiation <sup>1)</sup>	ratio	radiation <sup>1)</sup>	radiation <sup>1)</sup>				
		V	A	W	%	≤ 320 nm mW	> 320 nm mW	h	g		
CLEO Compact 15W	G5	46	0.35	2.3	1.0	1.8	1.8	300	29	9280 012 00900	716460
CLEO Compact 15W-S-R	G5	46	0.35	2.3	2.0	3.6	1.8	300	29	9280 023 00900	559852
CLEO Compact 20W <sup>2)</sup>	G13	49	0.49	3.8	1.0	2.6	2.8	300	76	9279 460 00900	612052
CLEO Compact 25W	G5	82	0.35	4.7	1.0	3.8	3.8	300	45	9280 017 00900	619112
CLEO Compact 25W-S	G5	82	0.35	4.7	2.0	7.6	3.8	300	45	9280 016 00900	629791
CLEO Compact 25W-S-R	G5	82	0.35	4.7	2.0	7.6	3.8	300	45	9280 021 00900	633699
CLEO Compact PL-L 36W	2G11	105	0.44	9.4	1.2	9.0	7.5	500	114	9279 034 00900	614100
CLEO Compact PL-L 36W-P <sup>3)</sup>	2G11	105	0.44	8.9	1.2	8.5	7.1	500	114	9279 046 00900	642646

<sup>1)</sup> Average value at 100 hrs

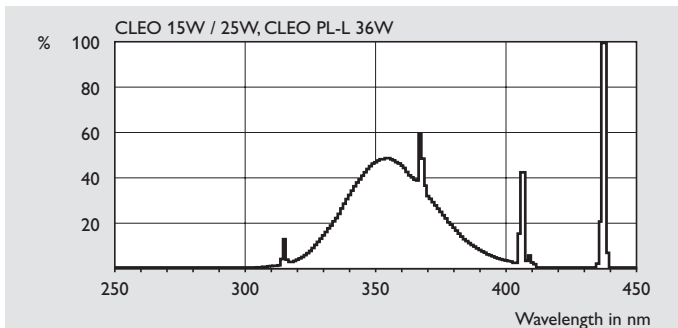
<sup>2)</sup> Diam. 26 mm

<sup>3)</sup> P = pink version

All CLEO products are measured at 5 hours according to IEC 61228.



Cross-section -S-R version



Spectral power distributions

