

en:gate®



TECHNICAL DATA SHEET

LED TUBE CENTUM® D CLEAR

LED TUBE CENTUM® D FROST

# LED TUBE CENTUM® D CLEAR

# LED TUBE CENTUM® D FROST

**The LED TUBE CENTUM® D-Series is an acclaimed and innovatively manufactured lamp. The CENTUM® D-Series is suitable for applications in industrial and commercial applications, offices as well as retail.**

The high power saving potential of up to 60% and the low heating effect of the LED TUBE CENTUM® D-Series lowers the costs of ownership and the CO<sub>2</sub>-Emissions permanently.

## HIGHLIGHTS

- Up to 60% reduction in power consumption
- Average rated lifespan of 50,000 hours
- 20,000 times of switching cycle
- Energy efficiency class: A+
- Low maintenance costs by reducing re-lamp frequency
- Environmental friendly – free of mercury and hazardous materials
- Starting time < 0.5 seconds
- Instant start < 1 second

## FEATURES

- Superior color rendering with 80 CRI
- Will not fade colors, avoids inventory spoilage
- Operating temperature: -30°C - +45°C
- Lumen maintenance factor: L70
- Non dimmable
- Low heat generation, short amortization period
- VDE, CE and RoHS certified
- 5 years of warranty<sup>1</sup>

## APPLICATION<sup>2</sup>

- Commercial, industry

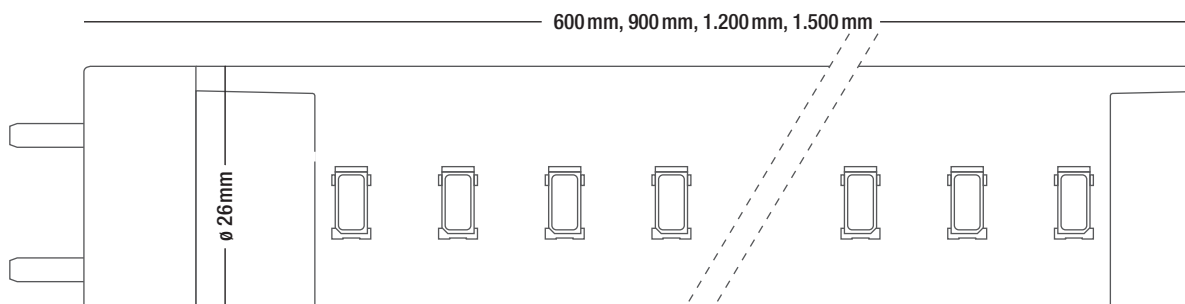


For further information scan the QR Code or visit  
[www.en-gate.com/CENTUM\\_D\\_CLEAR](http://www.en-gate.com/CENTUM_D_CLEAR)  
or [www.en-gate.com/CENTUM\\_D\\_FROST](http://www.en-gate.com/CENTUM_D_FROST)

# TECHNICAL DETAILS

## LED TUBE CENTUM<sup>®</sup> D CLEAR

Length	Power max.	Rated Power	CCT	Light Output Min.	Ra	Beam Angle	Voltage	Size	Base	Power factor	Art.-No.
600 mm	8 W	8.0 W	3.000 K	710 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-CU-24C31M
600 mm	8 W	8.0 W	4.000 K	835 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-CU-24C51M
600 mm	8 W	8.0 W	6.000 K	880 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-CU-24C91M
900 mm	12 W	13.0 W	3.000 K	1.060 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-GU-24C31M
900 mm	12 W	13.0 W	4.000 K	1.250 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-GU-24C51M
900 mm	12 W	13.0 W	6.000 K	1.320 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-GU-24C91M
1.200 mm	15 W	16.0 W	3.000 K	1.330 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-JU-24C31M
1.200 mm	15 W	16.0 W	4.000 K	1.570 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-JU-24C51M
1.200 mm	15 W	16.0 W	6.000 K	1.650 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-JU-24C91M
1.200 mm	22 W	24.0 W	3.000 K	1.950 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-NU-24C31M
1.200 mm	22 W	24.0 W	4.000 K	2.300 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-NU-24C51M
1.200 mm	22 W	24.0 W	6.000 K	2.420 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-NU-24C91M
1.500 mm	22 W	24.0 W	3.000 K	1.950 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-RU-24C31M
1.500 mm	22 W	24.0 W	4.000 K	2.300 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-RU-24C51M
1.500 mm	22 W	24.0 W	6.000 K	2.420 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-RU-24C91M
1.500 mm	30 W	33.0 W	3.000 K	2.655 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-TU-24C31M
1.500 mm	30 W	33.0 W	4.000 K	3.140 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-TU-24C51M
1.500 mm	30 W	33.0 W	6.000 K	3.300 lm	80	120°	100 - 240 V	T8	G13	0.95	T1-CE4-TU-24C91M



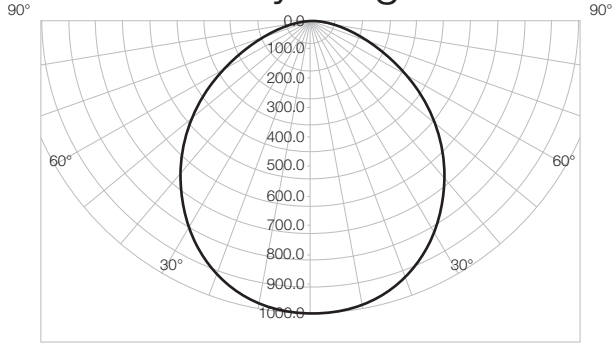
# MEASUREMENT DATA

## LED TUBE CENTUM<sup>®</sup> D CLEAR

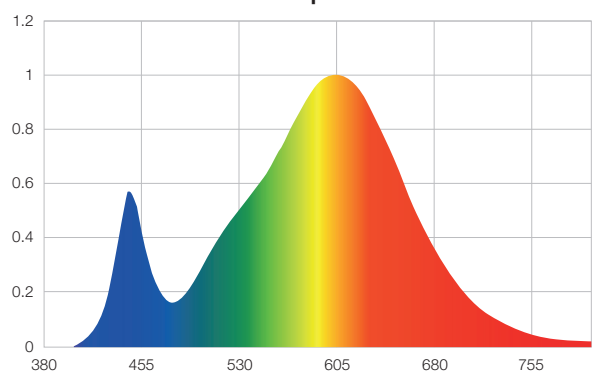
### Lux-Diagram

Beam Angle 120°	Distance	Beam Width	LED TUBE CENTUM <sup>®</sup> D CLEAR				
			600 mm, 8 W	900 mm, 12 W	1.200 mm, 14 W	1.200 mm, 22 W	1.500 mm, 30 W
	1 m	3 m	263 lx	395 lx	460 lx	730 lx	990 lx
	2 m	6 m	66 lx	99 lx	115 lx	180 lx	250 lx
	3 m	10 m	29 lx	44 lx	50 lx	80 lx	110 lx
	4 m	13 m	16 lx	25 lx	30 lx	45 lx	60 lx
	5 m	16 m	10 lx	16 lx	18 lx	30 lx	40 lx

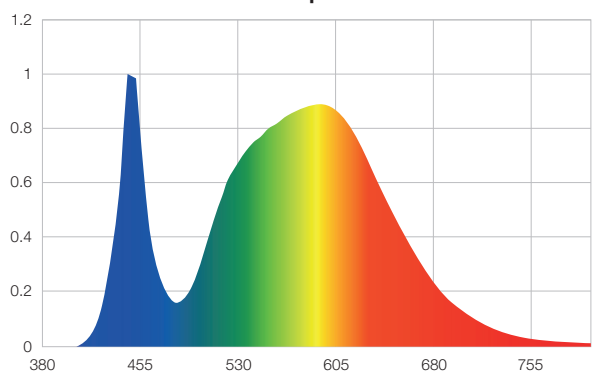
### Polar Intensity Diagram



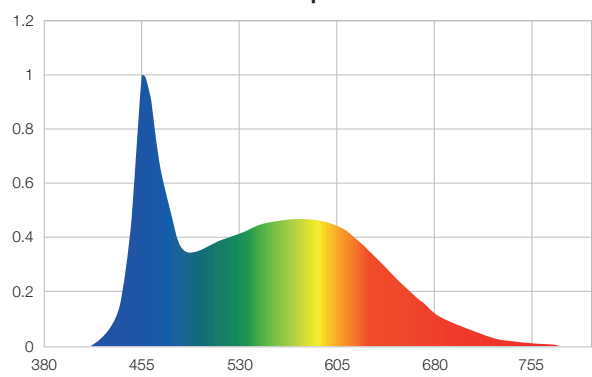
### CCT 3.000K Spectrum



### CCT 4.000K Spectrum



### CCT 6.000K Spectrum

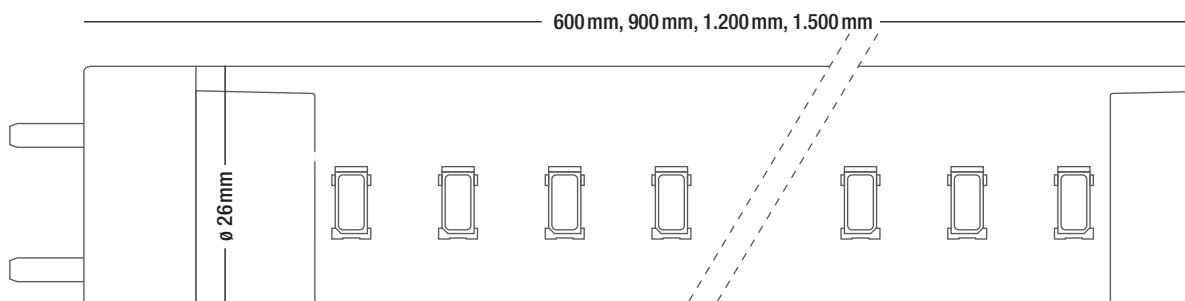


All technical parameters apply to the entire lamp. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values. Modifications and errors reserved. © 4/2015, en:gate GmbH. All rights reserved.

# TECHNICAL DETAILS

## LED TUBE CENTUM<sup>®</sup> D FROST

Length	Power Max.	Rated Power	CCT	Light Output Min.	Ra	Beam Angle	Voltage	Size	Base	Power factor	Art.-No.
600 mm	8 W	8.0 W	3.000 K	650 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-CU-24F31M
600 mm	8 W	8.0 W	4.000 K	760 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-CU-24F51M
600 mm	8 W	8.0 W	6.000 K	800 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-CU-24F91M
900 mm	12 W	13.0 W	3.000 K	970 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-GU-24F31M
900 mm	12 W	13.0 W	4.000 K	1.140 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-GU-24F51M
900 mm	12 W	13.0 W	6.000 K	1.200 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-GU-24F91M
1.200 mm	15 W	16.0 W	3.000 K	1.210 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-JU-24F31M
1.200 mm	15 W	16.0 W	4.000 K	1.425 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-JU-24F51M
1.200 mm	15 W	16.0 W	6.000 K	1.500 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-JU-24F91M
1.200 mm	22 W	24.0 W	3.000 K	1.775 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-NU-24F31M
1.200 mm	22 W	24.0 W	4.000 K	2.090 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-NU-24F51M
1.200 mm	22 W	24.0 W	6.000 K	2.200 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-NU-24F91M
1.500 mm	22 W	24.0 W	3.000 K	1.775 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-RU-24F31M
1.500 mm	22 W	24.0 W	4.000 K	2.090 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-RU-24F51M
1.500 mm	22 W	24.0 W	6.000 K	2.200 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-RU-24F91M
1.500 mm	30 W	33.0 W	3.000 K	2.425 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-TU-24F31M
1.500 mm	30 W	33.0 W	4.000 K	2.850 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-TU-24F51M
1.500 mm	30 W	33.0 W	6.000 K	3.000 lm	80	130 °	100 - 240 V	T8	G13	0.95	T1-CE4-TU-24F91M



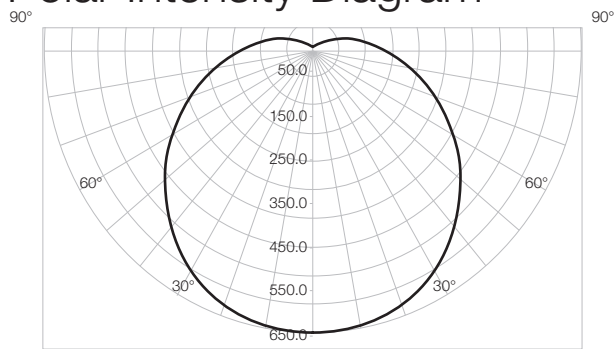
# MEASUREMENT DATA

## LED TUBE CENTUM<sup>®</sup> D FROST

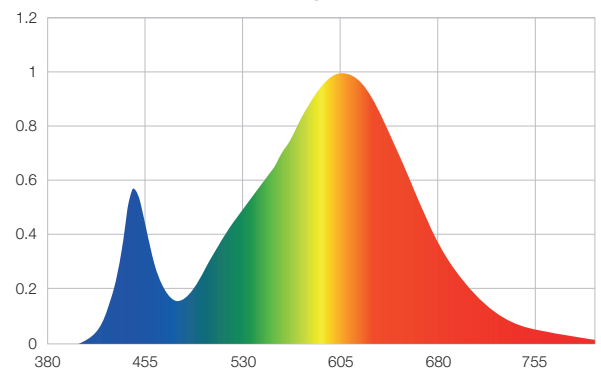
### Lux-Diagram

Beam Angle 130°	Distance	Beam Width	LED TUBE CENTUM <sup>®</sup> D FROST				
			600 mm, 8 W	900 mm, 12 W	1.200 mm, 14 W	1.200 mm, 22 W	1.500 mm, 30 W
	1 m	3 m	170 lx	255 lx	300 lx	470 lx	640 lx
	2 m	6 m	40 lx	65 lx	75 lx	120 lx	160 lx
	3 m	8 m	20 lx	30 lx	35 lx	50 lx	70 lx
	4 m	11 m	10 lx	16 lx	20 lx	30 lx	40 lx
	5 m	14 m	6 lx	10 lx	12 lx	20 lx	25 lx

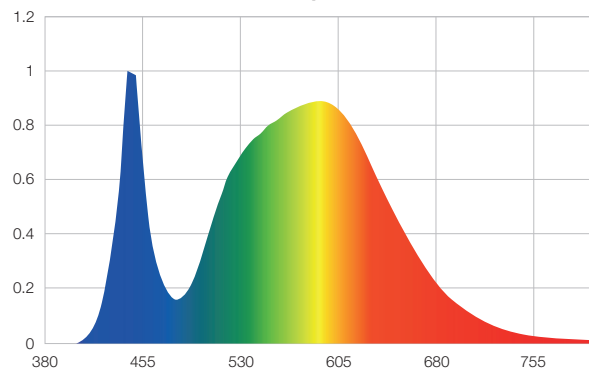
### Polar Intensity Diagram



### CCT 3.000K Spectrum



### CCT 4.000K Spectrum



### CCT 6.000K Spectrum

