

en:gate®



TECHNICAL DATA SHEET

LED TUBE CENTUM® DF CLEAR

LED TUBE CENTUM® DF FROST

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Based on our breakthrough driver-free LED technology the LED TUBE CENTUM® DF-Series represents a technological quantum leap for industrial and commercial applications. The elimination of the AC/DC converter leads to exceptional robustness and an outstanding lifespan which reduces operating costs even further.

The high power saving potential of up to 60% and the low heat emission of the LED TUBE CENTUM® DF-Series lowers the costs of ownership and the CO₂-Emissions permanently.

HIGHLIGHTS

- Up to 60% reduction in power consumption
- Average rated lifespan of up to 100,000 hours
- 20,000 times of switching cycle
- Energy efficiency class: A+/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
- Versions of up to 35 W available
- Operating temperature: -30°C - +45°C
- Lumen maintenance factor: L70
- Non dimmable
- Low heat generation, short amortization period
- VDE, CE, RoHS and TÜV certified
- 5 years of warranty¹

APPLICATION²

- Commercial, industry

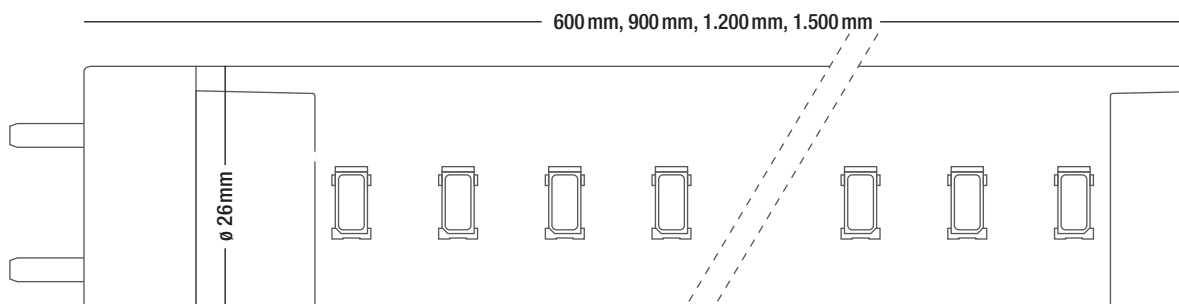


For further information scan the QR Code or visit
www.en-gate.com/CENTUM_DF_CLEAR
or www.en-gate.com/CENTUM_DF_FROST

TECHNICAL DETAILS

LED TUBE CENTUM[®] DF 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	680 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-CT-24C31M
600 mm	8 W	8.0 W	4.000 K	800 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-CT-24C51M
600 mm	8 W	8.0 W	6.000 K	800 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-CT-24C91M
900 mm	12 W	13.0 W	3.000 K	1.020 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-GT-24C31M
900 mm	12 W	13.0 W	4.000 K	1.200 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-GT-24C51M
900 mm	12 W	13.0 W	6.000 K	1.200 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-GT-24C91M
1.200 mm	14 W	15.0 W	3.000 K	1.190 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-JT-24C31M
1.200 mm	14 W	15.0 W	4.000 K	1.400 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-JT-24C51M
1.200 mm	14 W	15.0 W	6.000 K	1.400 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-JT-24C91M
1.200 mm	22 W	24.0 W	3.000 K	1.870 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-NT-24C31M
1.200 mm	22 W	24.0 W	4.000 K	2.200 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-NT-24C51M
1.200 mm	22 W	24.0 W	6.000 K	2.200 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-NT-24C91M
1.500 mm	22 W	24.0 W	3.000 K	1.870 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-RT-24C31M
1.500 mm	22 W	24.0 W	4.000 K	2.200 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-RT-24C51M
1.500 mm	22 W	24.0 W	6.000 K	2.200 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-RT-24C91M
1.500 mm	30 W	33.0 W	3.000 K	2.550 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-TT-24C31M
1.500 mm	30 W	33.0 W	4.000 K	3.000 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-TT-24C51M
1.500 mm	30 W	33.0 W	6.000 K	3.000 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-TT-24C91M
1.500 mm	35 W	38.0 W	3.000 K	2.975 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-1T-24C31M
1.500 mm	35 W	38.0 W	4.000 K	3.500 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-1T-24C51M
1.500 mm	35 W	38.0 W	6.000 K	3.500 lm	80	120°	230 V	T8	G13	0.8	T1-CE4-1T-24C91M



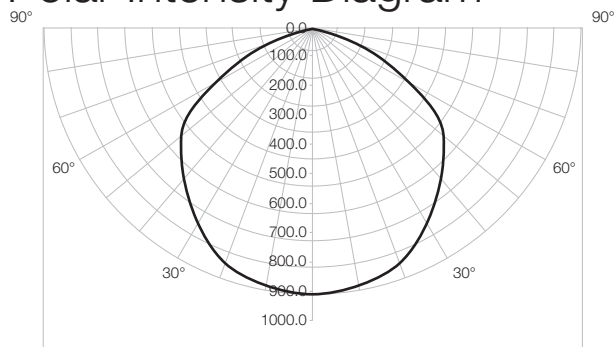
MEASUREMENT DATA

LED TUBE CENTUM[®] DF CLEAR

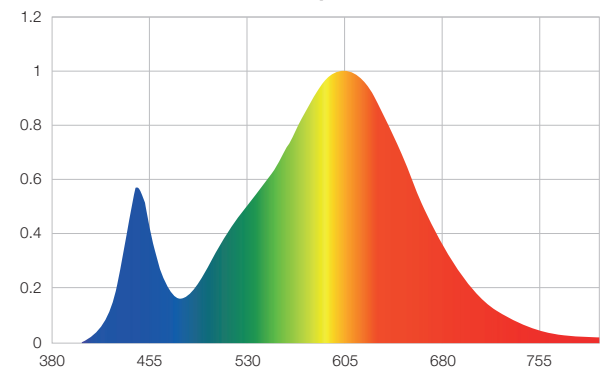
Lux-Diagram

Beam Angle 120°	Distance	Beam Width	LED TUBE CENTUM [®] DF CLEAR					
			600 mm, 8 W	900 mm, 12 W	1.200 mm, 14 W	1.200 mm, 22 W	1.500 mm, 30 W	1.500 mm, 35 W
	1 m	3 m	263 lx	395 lx	460 lx	730 lx	990 lx	1.150 lx
	2 m	6 m	66 lx	99 lx	115 lx	180 lx	250 lx	290 lx
	3 m	10 m	29 lx	44 lx	50 lx	80 lx	110 lx	130 lx
	4 m	13 m	16 lx	25 lx	30 lx	45 lx	60 lx	75 lx
	5 m	16 m	10 lx	16 lx	18 lx	30 lx	40 lx	45 lx

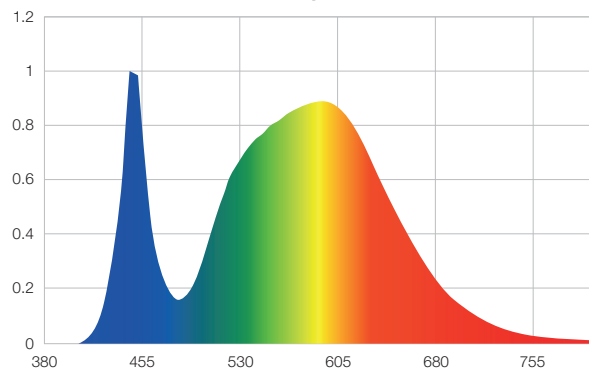
Polar Intensity Diagram



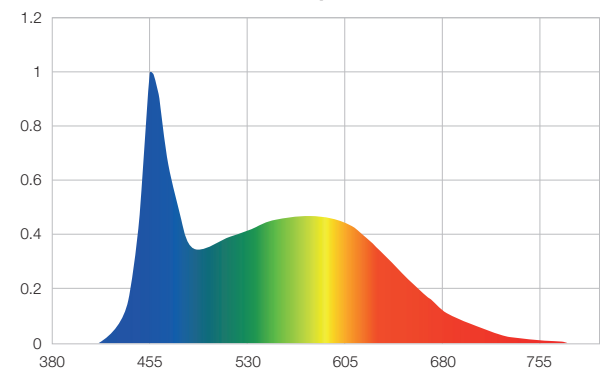
CCT 3.000K Spectrum



CCT 4.000K Spectrum



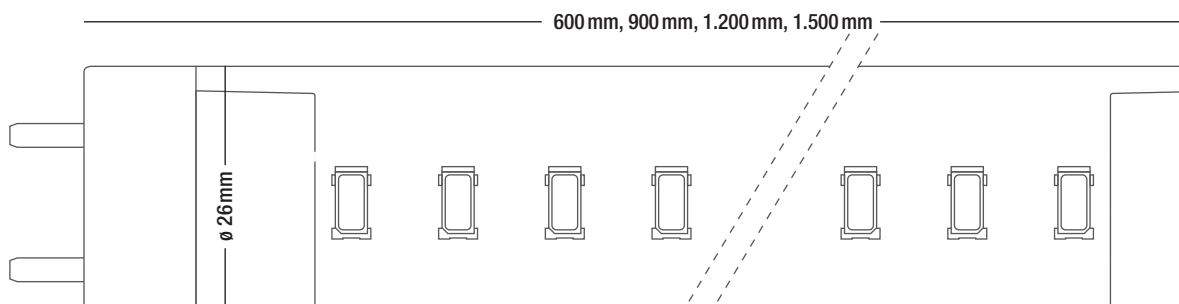
CCT 6.000K Spectrum



TECHNICAL DETAILS

LED TUBE CENTUM[®] DF 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	640 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-CT-24F31M
600 mm	8 W	8.0 W	4.000 K	704 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-CT-24F51M
600 mm	8 W	8.0 W	6.000 K	704 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-CT-24F91M
900 mm	12 W	13.0 W	3.000 K	960 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-GT-24F31M
900 mm	12 W	13.0 W	4.000 K	1.056 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-GT-24F51M
900 mm	12 W	13.0 W	6.000 K	1.056 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-GT-24F91M
1.200 mm	14 W	15.0 W	3.000 K	1.120 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-JT-24F31M
1.200 mm	14 W	15.0 W	4.000 K	1.232 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-JT-24F51M
1.200 mm	14 W	15.0 W	6.000 K	1.232 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-JT-24F91M
1.200 mm	22 W	24.0 W	3.000 K	1.760 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-NT-24F31M
1.200 mm	22 W	24.0 W	4.000 K	1.936 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-NT-24F51M
1.200 mm	22 W	24.0 W	6.000 K	1.936 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-NT-24F91M
1.500 mm	22 W	24.0 W	3.000 K	1.760 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-RT-24F31M
1.500 mm	22 W	24.0 W	4.000 K	1.936 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-RT-24F51M
1.500 mm	22 W	24.0 W	6.000 K	1.936 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-RT-24F91M
1.500 mm	30 W	33.0 W	3.000 K	2.400 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-TT-24F31M
1.500 mm	30 W	33.0 W	4.000 K	2.640 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-TT-24F51M
1.500 mm	30 W	33.0 W	6.000 K	2.640 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-TT-24F91M
1.500 mm	35 W	38.0 W	3.000 K	2.800 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-1T-24F31M
1.500 mm	35 W	38.0 W	4.000 K	3.080 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-1T-24F51M
1.500 mm	35 W	38.0 W	6.000 K	3.080 lm	80	130°	230 V	T8	G13	0.8	T1-CE4-1T-24F91M



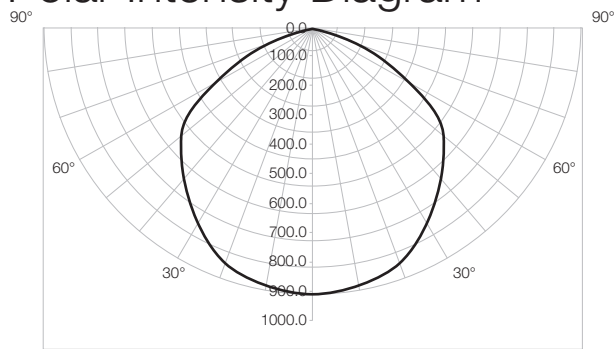
MEASUREMENT DATA

LED TUBE CENTUM[®] DF FROST

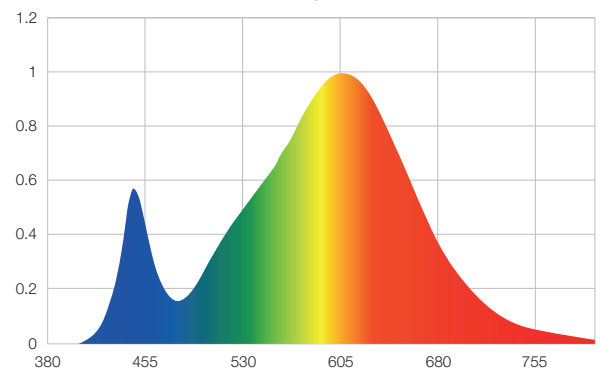
Lux-Diagram

Beam Angle 130°	Distance	Beam Width	LED TUBE CENTUM [®] DF FROST					
			600 mm, 8 W	900 mm, 12 W	1.200 mm, 14 W	1.200 mm, 22 W	1.500 mm, 30 W	1.500 mm, 35 W
	1 m	3 m	170 lx	255 lx	300 lx	470 lx	640 lx	750 lx
	2 m	6 m	40 lx	65 lx	75 lx	120 lx	160 lx	190 lx
	3 m	8 m	20 lx	30 lx	35 lx	50 lx	70 lx	85 lx
	4 m	11 m	10 lx	16 lx	20 lx	30 lx	40 lx	50 lx
	5 m	14 m	6 lx	10 lx	12 lx	20 lx	25 lx	30 lx

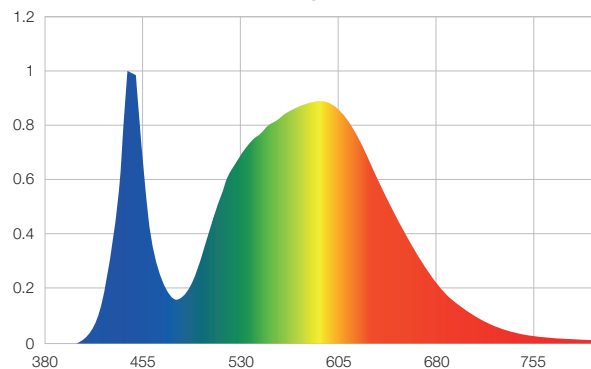
Polar Intensity Diagram



CCT 3.000K Spectrum



CCT 4.000K Spectrum



CCT 6.000K Spectrum

