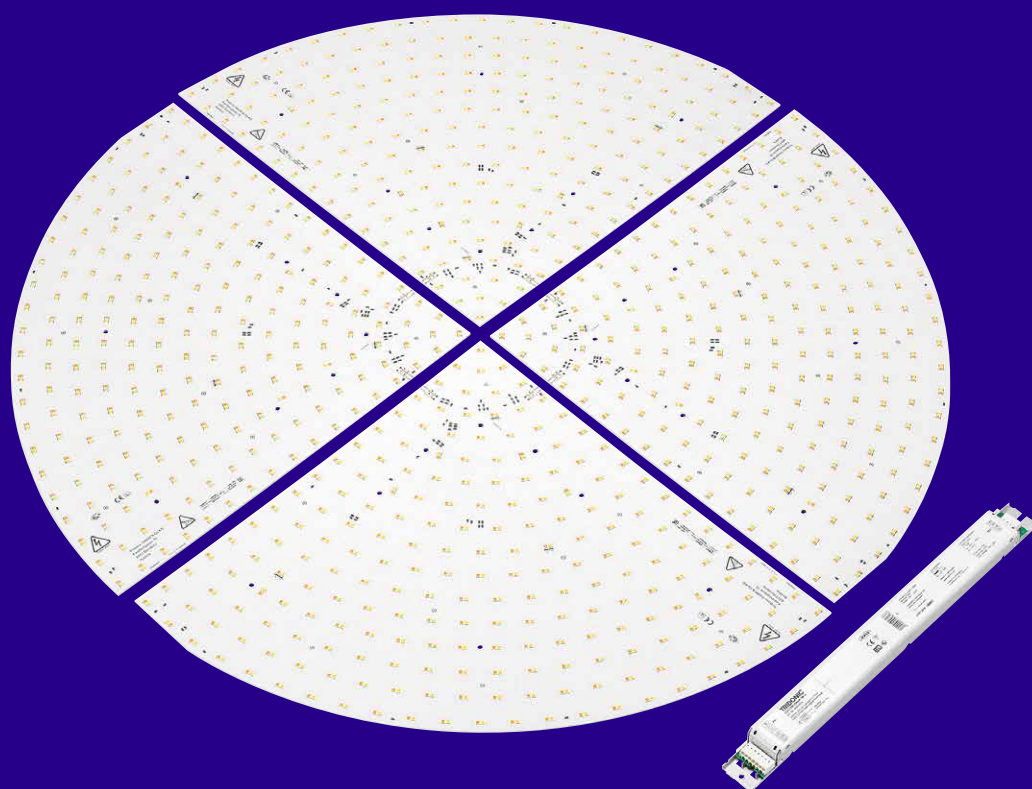


LED module and LED module integrated

Module CLE

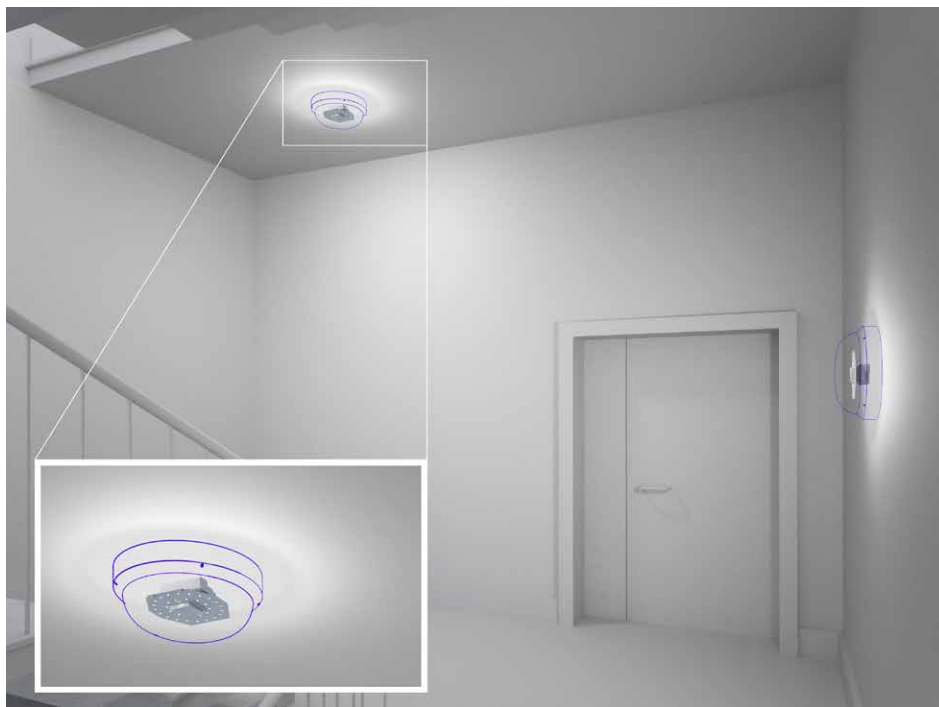
for wall and ceiling luminaires




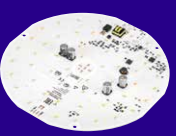



TRIDONIC

Applications and Product Portfolio

System solution for wall and ceiling luminaires



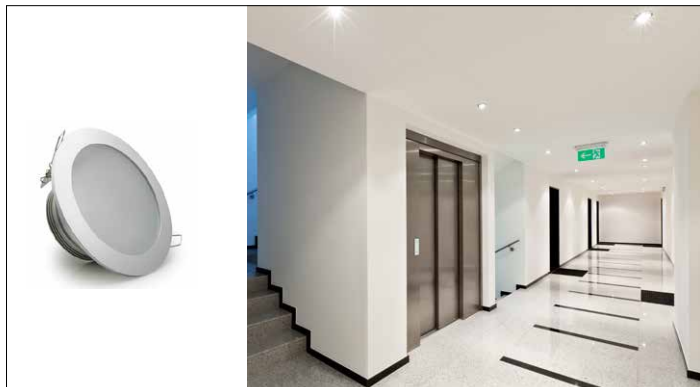
Product Portfolio – Overview

	Module CLE essence (SNC) und advanced (ADV)		Engine CLE integrated advanced (ADV)	Module CLE Quadrant advanced (ADV)	Module CLE Shallow excite (EXC)	Engine CLE premium (PRE)
						
	on page 3		on page 6	on page 8	on page 9	on page 10
CLE Type	CLE (SNC)	CLE (ADV)	CLE AC (ADV)	CLE (ADV)	CLE (EXC)	CLE (PRE)
Application	Diffuse Downlights	Decorative wall luminaires	Diffuse Downlights, Decorative wall luminaires	Pendant and surface-mounted ceiling luminaires	Extra flat pendant and surface-mounted ceiling luminaires	Decorative Pendant and surface-mounted ceiling luminaires
Mounting	>50 mm	>50 mm	>50 mm	>50 mm	30 mm	>50 mm
Variants	50, 80, 120, 160, 315 mm	160, 190, 220, 315 mm with sensor and EM-option	160 mm, 220 mm	261, 401, 541 mm	160, 370, 522, 802, 1.082 mm	261, 401, 541 mm
Lifetime	50,000 h	up to 72,000 h	50,000 h	50,000 h	50,000 h	50,000 h
Focus	Cost	Efficiency and light technology	Cost	Design/Trend	Design/Trend	Design/Trend

Module CLE provides perfectly homogeneous illumination in round and square luminaires with no shadow effects. As an efficient, high-quality and user-friendly system solution, CLE is the ideal replacement for ring-shaped and TC DD fluorescent lamps.

In combination with the EM powerLED emergency lighting system, Module CLE performs the functions of an emergency luminaire. In addition, thanks to SWITCH Sensor HF a simple corridorFUNCTION (CF) is available for stepless dimming.

For diffuse LED downlights and decorative wall-mounted luminaires



For diffuse LED downlights

The CLE essence (SNC) modules were specially designed for luminaires in additional areas such as stairwells and corridors. Thanks to the range of different sizes, the modules are ideal for designing luminaires with different diameters.

- Various sizes in 50 mm, 80 mm, 120 mm, 160 mm and 315 mm
- In part, the luminaire body can act as a cooling element
- Ideal replacement for compact fluorescent lamps

CLE 50



CLE 80



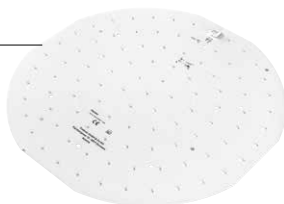
CLE 120



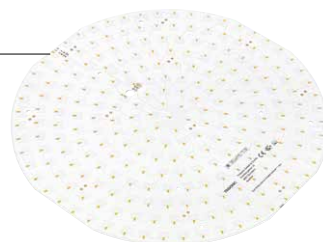
CLE 160



CLE 315



CLE Shallow



For decorative wall and ceiling luminaires

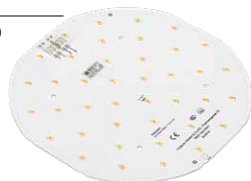
The fourth module generation in the advanced (ADV4) category features a chip upgrade that significantly improves system efficiency. The new operating mode (HE) for sizes 190 and 220 mm also enables a considerably higher lumen output. The modules are available both with integrated PCB and with a recess for sensors or small driver connections..

- Various sizes in 160 mm, 190 mm, 220 mm and 315 mm
- Perfectly homogeneous illumination without shadow effects
- Very good efficiency up to 185 lm/W
- Optimised life time up to 72,000 hours

CLE 160



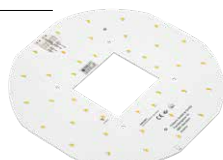
CLE 190 + 220



CLE 315



CLE 190 + 220 EM-SO



CLE 315 EM-SO



LED system solution comprising LED module, control gear with integrated emergency light function and SWITCH sensor, e.g. SWITCH sensor HF 5BP

Module CLE

essence series (SNC)

For diffused LED downlights

Module CLE SNC

Type	Colour-temperature (K)	Mac Adam	Typ. luminous flux ⁰ Operation mode tp = 65°C (lm)	Typ. power draw ⁰ Operation mode tp = 65°C (W)	Module efficacy tp = 65°C (lm/W)	Size (mm)	Order No.
CLE G1 50mm 1000lm 830 SNC	3,000	SDCM 4	1,000	7.8	up to 130	Ø 50	89602904
CLE G1 50mm 1000lm 840 SNC	4,000	SDCM 4	1,070	7.8	up to 138	Ø 50	89602905
CLE G1 80mm 2000lm 830 SNC	3,000	SDCM 4	2,000	15.5	up to 130	Ø 80	89602906
CLE G1 80mm 2000lm 840 SNC	4,000	SDCM 4	2,140	15.5	up to 138	Ø 80	89602907
CLE G1 120mm 2500lm 830 SNC	3,000	SDCM 4	2,690	20.9	up to 128	Ø 120	89602908
CLE G1 120mm 2500lm 840 SNC	4,000	SDCM 4	2,860	20.9	up to 137	Ø 120	89602909
CLE G1 160mm 3000lm 830 SNC	3,000	SDCM 4	3,150	24.3	up to 130	Ø 160	89602910
CLE G1 160mm 3000lm 840 SNC	4,000	SDCM 4	3,360	24.3	up to 138	Ø 160	89602911
CLE G1 315mm 4000lm 830 SNC	3,000	SDCM 4	4,120	30.7	up to 134	Ø 315	89602912
CLE G1 315mm 4000lm 840 SNC	4,000	SDCM 4	4,390	30.7	up to 143	Ø 315	89602913

⁰ Tolerance range for optical and electrical data ±10 %.

Module CLE

advanced series (ADV)

For decorative wall and ceiling luminaires

Module CLE ADV4

NEW	Type	Colour-temperature (K)	Mac Adam	Typ. luminous flux ⁹ Operation mode ⁹ tp = 65°C (lm) HO	Typ. power draw ⁹ tp = 65°C (W) HO	Module efficacy tp = 65°C (lm/W)	Size (mm)	Order No.
	CLE 160mm 3000lm 830 ADV4	3,000	SDCM 3	3,100	17.8	174	Ø 160	28002947
	CLE 160mm 3000lm 840 ADV4	4,000	SDCM 3	3,240	17.8	182	Ø 160	28002948
	CLE 190mm 2500lm 830 ADV4 EM	3,000	SDCM 3	2,120	12.5	170	Ø 190	28002949
	CLE 190mm 2500lm 840 ADV4 EM	4,000	SDCM 3	2,220	12.5	178	Ø 190	28002950
	CLE 190mm 2500lm 830 ADV4 EM SO	3,000	SDCM 3	2,120	12.5	170	Ø 190	28002951
	CLE 190mm 2500lm 840 ADV4 EM SO	4,000	SDCM 3	2,220	12.5	178	Ø 190	28002952
	CLE 220mm 2500lm 830 ADV4 EM	3,000	SDCM 3	2,120	12.5	170	Ø 220	28002953
	CLE 220mm 2500lm 840 ADV4 EM	4,000	SDCM 3	2,220	12.5	178	Ø 220	28002954
	CLE 220mm 2500lm 830 ADV4 EM SO	3,000	SDCM 3	2,120	12.5	170	Ø 220	28002955
	CLE 220mm 2500lm 840 ADV4 EM SO	4,000	SDCM 3	2,220	12.5	178	Ø 220	28002956
	CLE 315mm 4000lm 830 ADV4 EM	3,000	SDCM 3	4,280	25.0	171	Ø 315	28002957
	CLE 315mm 4000lm 840 ADV4 EM	4,000	SDCM 3	4,480	25.0	179	Ø 315	28002958
	CLE 315mm 4000lm 830 ADV4 EM SO	3,000	SDCM 3	4,280	25.0	171	Ø 315	28002959
	CLE 315mm 4000lm 840 ADV4 EM SO	4,000	SDCM 3	4,480	25.0	179	Ø 315	28002960

⁹ Tolerance range for optical and electrical data ±10%. HO=High Output at 500 mA

Module CLE AC integrated

advanced series (ADV)

CLE Integrated – Compact overall package

CLE Integrated
G2 220



CLE Integrated
160



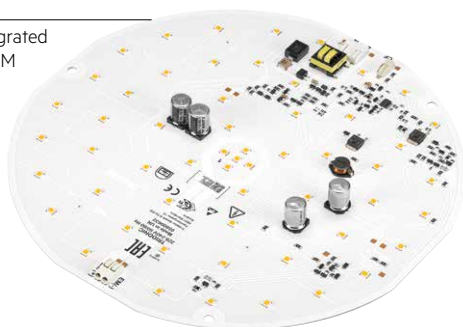
At a glance: Engine CLE Integrated

- Module with integrated electronics
- Economic single component solution
- Phase-Cut dimmable (CLE AC G2) or On/Off
- Lifetime 50,000 h and 5-year guarantee

At a glance: Engine CLE integrated EM

- Separate input for simple CORRIDOR-FUNCTION (simple CF)
- Switching between 100% and 10% light in combination with motion sensor
- Emergency lighting circuit with special emergency lighting LED, controllable with EM powerLED
- Lifetime: 50,000 h
- Lifetime 50,000 h and 5-year guarantee

CLE Integrated
G2 220 EM



As simple and extremely cost-effective single-component solutions, the integrated engine CLE LED systems offer the benefit of flat design. A separate LED Driver is superfluous. The LED engine can be connected directly to 230 V.

With the latest generation of module CLE integrated G2, Tridonic presents the first dimmable single-component solution, further increasing system efficiency. The portfolio has been expanded with the addition of the large 220 mm version. An additional heat sink is not required thanks to integrated self-cooling.

Your benefits

- Direct connection to the power circuit
- The basis for particular low-profile luminaire design
- Quick and simple installation by attaching the module to the gear tray
- Protected against accidental contact: Accessory: cover for contact protection
- Complete solution from a single source: Standard dimmable (CLE AC G2) or on/off, emergency lighting and simple CORRIDOR FUNCTION
- Self-Cooling (CLE AC G2)
- Simple upgrade from existing luminaires with DD compact fluorescent lamps and circular T5 lamps to LEDs

Module CLE AC integrated

advanced series (ADV)

CLE Integrated

Engine CLE Integrated ADV

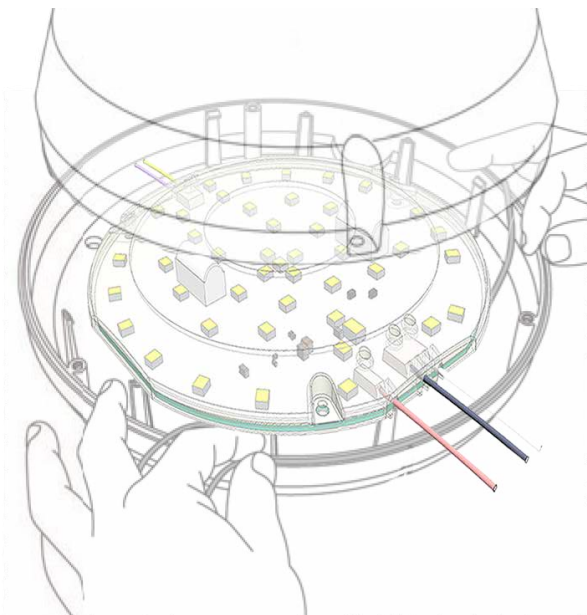
Module	Colour-temperature (K)	Mac Adam	Typ. luminous flux (lm)	CRI	Typ. power draw (W)	System-efficiency (lm/W)	Order No.
CLE-AC-160-1500-830-CLA	3,000	SDCM 3	1,450	> 80	14.5	100	89800421
CLE-AC-160-1500-840-CLA	4,000	SDCM 3	120	> 80	14.5	100	89800422
CLE-AC-160-1500-830-CLA EM-CF	3,000	SDCM 3	120	> 80	-	-	89800423
CLE-AC-160-1500-840-CLA EM-CF	4,000	SDCM 3	1,450	> 80	-	-	89800424
CLE AC G2 220mm 2500lm 830 ADV	3,000	SDCM 3	2,500	> 80	20.8	120	89800515
CLE AC G2 220mm 2500lm 840 ADV	4,000	SDCM 3	2,500	> 80	20.8	120	89800516
CLE AC G2 220mm 2500lm 830 ADV EM-CF	3,000	SDCM 3	2,500	> 80	20.8	120	89800517
CLE AC G2 220mm 2500lm 840 ADV EM-CF	4,000	SDCM 3	2,500	> 80	20.8	120	89800518



Contact protection as appropriate accessory

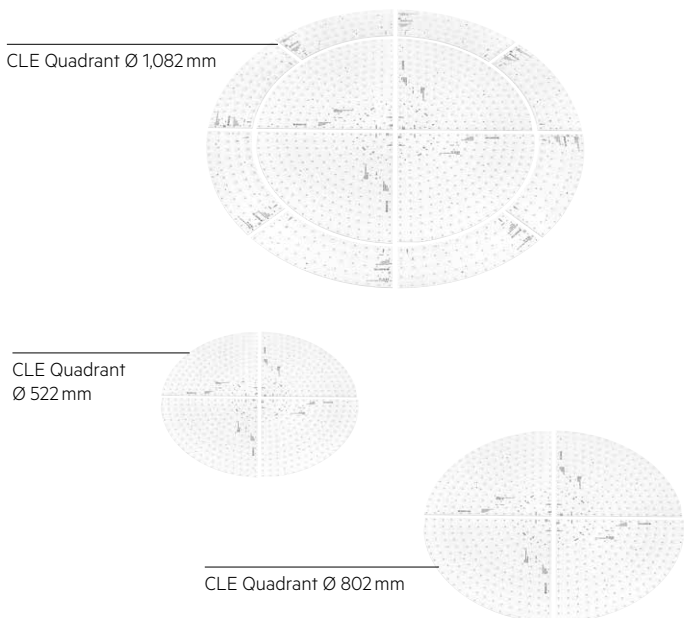
- Safety cover plate to the board that needs to protect the installer from any high voltage
- Fixing of the board and touch cover to the gear tray with non-removal fasteners to lock/unlock wires
- Access via three cut outs (wholes) to the terminals with safety cover on

Product name	Order No.
ACC COVER 160mm TRANSP	28001033
ACC COVER 220mm TRANSP	28001048



advanced series (ADV)

CLE Quadrant G3 – Efficiency and performance combined



At a glance: Module CLE Quadrant ADV

- Ideal for round shaped and flat ceiling and pendant luminaires
- The solution to realise XXL luminaires Ø 1,082 mm
- High module efficacy up to 201lm/W
- High Output and High Efficiency Mode enables more flexibility on luminaire design
- Narrow diffuser distances possible
- Small colour tolerance MacAdam 3
- Lifetime 50,000 h and 5-year guarantee

Type	Colour-temperature (K)	Mac Adam	Typ. luminous flux ¹⁾ tp = 45°C (lm)		CRI	Typ. power draw ¹⁾ tp = 45°C (W)	Module efficacy tp = 45°C (lm/W)	Order No.
			HE	HO				
CLE Quadrant G3 261mm 1200lm 830 ADV	3,000	SDCM 3	1,250	1,890	> 80	6.7	188	89603016
CLE Quadrant G3 261mm 1200lm 840 ADV	4,000	SDCM 3	1,320	1,990	> 80	6.7	198	89603017
CLE Quadrant G3 401mm 2500lm 830 ADV	3,000	SDCM 3	2,520	3,930	> 80	13.2	190	89603018
CLE Quadrant G3 401mm 2500lm 840 ADV	4,000	SDCM 3	2,660	4,150	> 80	13.2	201	89603019
CLE Quadrant G3 541mm 1000lm 830 ADV	3,000	SDCM 3	1,010	1,480	> 80	5.4	188	89603020
CLE Quadrant G3 541mm 1000lm 840 ADV	4,000	SDCM 3	1,070	1,560	> 80	5.4	199	89603021

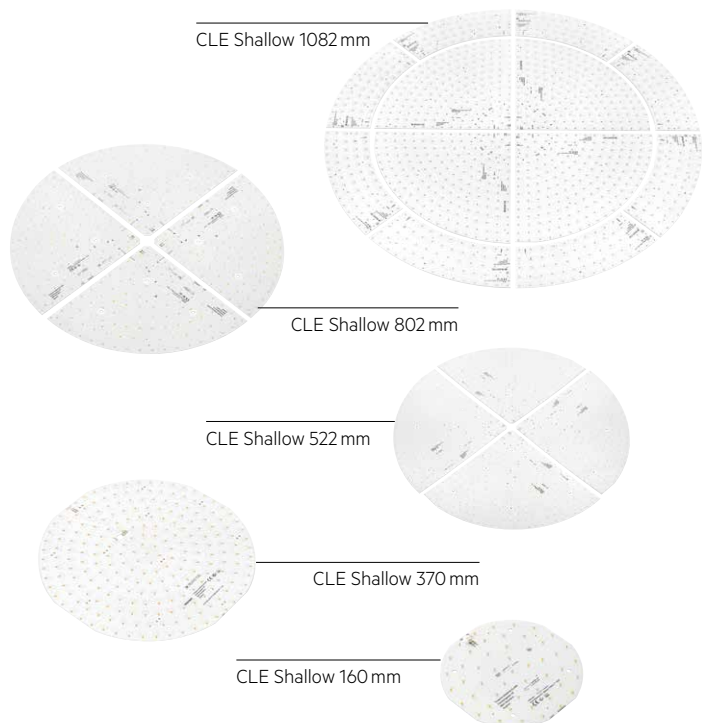
¹⁾Tolerance range for optical and electrical data: ±10 %. Data applies for four quadrants. HE=High Efficiency, HO=High Output

Module CLE Quadrant stands for maximum flexibility in lighting technology. Extremely efficient and at the same time high luminous fluxes can be generated in a single module.

In its third generation, the CLE Quadrant ADVANCED for round wall and ceiling luminaires offers an impressive increase in efficiency of up to 198 lumens per watt. The choice between High Output and High Efficiency mode allows for efficient operation or maximum luminous fluxes, depending on requirements. Thanks to the various module sizes, luminaires can largely be designed without restriction.

excite series (EXC)

CLE Shallow – More design variety thanks to small mounting depths



At a glance: Engine CLE Shallow EXC

- Ideal for round and extra low-profile ceiling and pendant luminaires thanks to its small mounting depth of 30 mm
- Robust module, high homogeneity and durability
- CCT 3,000K/4,000K and CRI>90
- Compatible with ADV, EXC and PRE drivers in different modes (HE, NM, HO) enables more flexibility in luminaire design
- Lifetime 50,000 h and 5-year guarantee

Type	Colour-temperature (K)	Mac Adam	Typ. luminous flux ⁰ tp = 65°C (lm) NM ²	CRI	Typ. power draw ⁰ (W)	Module efficacy tp = 65°C (lm/W)	Order No.
CLE Shallow G2 160mm 750lm 930 EXC	3,000	SDCM 3	1,630	> 90	10.3	158	89603353
CLE Shallow G2 160mm 750lm 940 EXC	4,000	SDCM 3	1,700	> 90	10.3	165	89603354
CLE Shallow G2 370mm 2900lm 930 EXC	3,000	SDCM 3	3,880	> 90	24.0	161	89603355
CLE Shallow G2 370mm 2900lm 940 EXC	4,000	SDCM 3	4,050	> 90	24.0	168	89603356
CLE Shallow G2 522mm 1750lm 930 EXC	3,000	SDCM 3	2,210	> 90	13.8	160	89603357
CLE Shallow G2 522mm 1750lm 940 EXC	4,000	SDCM 3	2,310	> 90	13.8	167	89603358
CLE Shallow G2 802mm 3800lm 930 EXC	3,000	SDCM 3	4,980	> 90	31.0	161	89603359
CLE Shallow G2 802mm 3800lm 940 EXC	4,000	SDCM 3	5,200	> 90	31.0	168	89603360
CLE Shallow G2 1082mm 1500lm 930 EXC	3,000	SDCM 3	2,120	> 90	13.3	160	89603361
CLE Shallow G2 1082mm 1500lm 940 EXC	4,000	SDCM 3	2,210	> 90	13.3	167	89603362

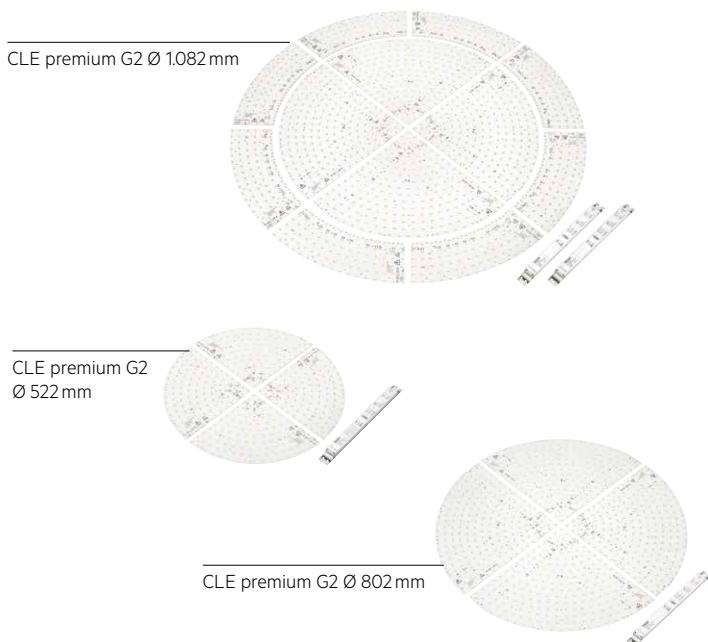
⁰Tolerance range for optical and electrical data: ±10 %, NM=Nominal

The second generation of CLE shallow EXC modules – now also available with CRI 90 – allows round luminaires to feature a simple and extremely flat design.

With a mounting depth of only 30 mm the CLE Shallow will enhance any slim luminaire design and become established as the ideal module for round extra low-profile pendant and ceiling mounted luminaires. In order to achieve excellent homogeneity, even with simple covers, Tridonic has optimised both the arrangement of LED chips and the light technology they use. In order to maintain this homogeneity even for very large sizes, additional drill holes have been integrated for mounting alongside ZHAGA-compliant drill holes.

premium series (PRE) generation 2

Dynamic Light with Tunable White



At a glance: Engine CLE PRE generation 2

- Circular Tunable White system with adjustable colour temperature from 2,700 bis 6,500 K at constant luminous flux
- Sets calibrated at the factory to ensure high quality of light and colour consistency (SDCM 3) across the entire adjustable range
- Dimming range 3–100% without change of colour temperature
- Low-profile LED Driver with digital interface (DALI Device Type 8, DSI, switchDIM, colourTEMPERATURE)
- Self cooling (no additional heat sink required)
- Long life-time of 50,000 h and 5-year system guarantee

Type	Colour-temperature (K)	Typ. luminous flux ¹⁾ (lm) tp=45° C	CRI	Mac Adam	Typ. power draw ¹⁾ (W) tp=45° C	System efficacy (lm/W)	Size per module (mm)	Order No.
TW CLE 261/4600 927-965 SELV PRE2 KIT (1 LED-Driver + 4 LED-Module)	2.700–6.500 Tunable White	4,650	> 80	SDCM 3	28.4	up to 160	261 x 261	89603436
TW CLE 401/9800 927-965 SELV PRE2 KIT (LED-Driver + 4 LED-Module)	2.700–6.500 Tunable White	9,610	> 80	SDCM 3	58	up to 162	401 x 401	89603437
TW CLE 541/7200 927-965 SELV PRE2 KIT (1 LED-Driver + 8 LED-Module)	2.700–6.500 Tunable White	7,410	> 80	SDCM 3	43.5	up to 166	541 x 35	89603438

¹⁾Tolerance range for electrical data: ±5%. Tolerance range for optical data: ±15%

Tunable White systems of Tridonic gives you the option of setting the colour temperature of white light to any value between 2,700K and 6,500 K. This function is essential for contemporary biologically effective lighting solutions which aim to simulate natural light indoors. The light in daylight quality promotes a feeling of well-being and productivity for people who have to spend many hours a day in artificial light. This explains the high importance attached to lighting concepts involving Tunable White and optimum light quality in offices, education establishments and health care facilities.

The Tunable White Kit for round shaped ceiling and pendant luminaires is precalibrated at the factory and offered in sets comprising a converter and 3 to 5 LED modules. Constant luminous flux over the entire adjustable colour temperature range is particularly important for professional room planning. Engine Tunable White opens up a really interesting area of application, not least thanks to its reproducible and consistent colour rendering.

Support and advice

From a single source



Engine DLE



Engine CLE



Engine CLE Integrated



Engine DLE Integrated



Engine LLE Integrated



Engine LLE



Engine LLE FLEX



Engine QLE



Engine SLE



Engine EM ready2apply



basicDIM Wireless Module



basicDIM Wireless Driver

We will help you to create lighting solutions that are unbeatable in terms of economy and functionality, according to the slogan: We devote all our energy to your light.

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Light you want to follow.

