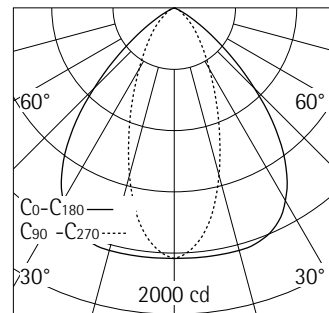


**31410.000** White (RAL9016)  
 LED 18W 2140lm 4000K neutral white  
 DALI-2  
 Version 4  
 Size 5  
 Covered mounting detail  
 Lens system, oval flood

**Product description**  
 Housing: cast aluminium, designed as heat sink, with connection cable L 500mm. Fixing springs for ceiling thicknesses of 1-40mm.  
 Includes ERCO DALI control gear. 4-pole terminal block.  
 LED module: high-power LEDs on metal-core PCB. Lens system made of optical polymer, adjustable  $\pm 10^\circ$ .  
 Anti-glare cone with covered mounting detail: polymer, white (RAL9016).  
 Optical cut-off  $30^\circ$ .  
 The luminaire is splash water-protected on the room side.  
 Dimming possible via commercially available push-buttons (Push Dim).  
 Approved for use as emergency lighting according to IEC / EN 60598-2-22.  
 Protection Class II  
 Weight 1.20kg



Beam angle  
 C<sub>0</sub> 87°  
 C<sub>90</sub> 42°  
 UGR glare evaluation  
 C<sub>0</sub> 22.5  
 C<sub>90</sub> 17.2

**Technical data**

Luminous flux of the luminaire	1888lm
Connected load	22.0W
Luminaire efficacy	86lm/W
Colour deviation	1.5 SDCM
Colour rendition index	CRI 92
Lumen maintenance (LED manufacturer specifications)	L90/B10 $\leq 50000$ h L90 $\leq 100000$ h
LED failure rate	0.1% $\leq 50000$ h
Dimming range	0.1%-100%
Dimming method	CCR
LMF	E
Energy efficiency class	EEI A+
Standby power per control gear	0.3W
Luminaires per circuit breaker B16	28

For your regional contact in the ERCO  
 Sales network click here  
[www.erco.com/contact](http://www.erco.com/contact)

Technical Region:  
 220V-240V/50Hz-60Hz  
 We reserve the right to make technical and design changes.  
 Edition: 30.01.2020  
 Current version under  
[www.erco.com/31410.000](http://www.erco.com/31410.000)

## Planning data

31410.000	LED 18W 2140lm 4000K neutral white
Connected load	P: 22 W
Connected load per 100lx	P*: 1.1 W/m <sup>2</sup>
Number of luminaires per 100lx	n*: 5.0 1/100m <sup>2</sup>

31410.000	LED 18W 2140lm 4000K neutral white
Number of luminaires per 100m <sup>2</sup> for	100lx    200lx    300lx    500lx
	5            11            16            26

31410.000	LED 18W 2140lm 4000K neutral white
Module (m)	1.2x1.8    1.8x1.8    1.8x2.4    2.4x2.4
Illuminance E <sub>n</sub> (lx) for module (m)	921        614        460        345

### Correction table

Ceiling	0.70	0.70	0.70	0.50	0
Wall	0.70	0.50	0.20	0.20	0
Floor	0.50	0.20	0.20	0.10	0

k	0.6	83	57	62	55	50
k	1.0	98	74	77	70	64
k	1.5	108	88	89	82	76
k	2.5	115	100	98	90	83
k	3.0	117	104	101	93	86

Cleaning (a)	1				2				3			
Ambient conditions	P	C	N	D	P	C	N	D	P	C	N	D
LMF	0.96	0.94	0.90	0.86	0.93	0.91	0.86	0.81	0.92	0.90	0.84	0.79
RSMF	0.97	0.95	0.91	0.86	0.97	0.94	0.90	0.86	0.97	0.94	0.90	0.86

Hours of operation (h)	1000	5000	10000	20000	30000	40000	50000
LLMF	1.00	0.99	0.98	0.96	0.94	0.92	0.90
LSF	1	1	1	1	1	1	1

MF	LMF x RSMF x LLMF x LSF
MF	Maintenance Factor
LMF	Luminaire Maintenance Factor
RSMF	Room Surface Maintenance Factor
LLMF	Lamp Lumens Maintenance Factor
LSF	Lamp Survival Factor
P	Room pure
C	Room clean
N	Room normal
D	Room dirty

### Technical data in accordance with international norms and standards

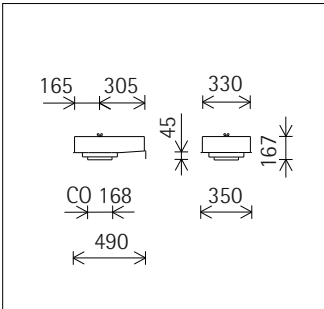
IEC 60598	Luminaires – Part 1+2: general requirements, specific requirements and tests
IEC 62031	LED modules for general lighting – safety requirements
IEC 62471	Photobiological safety of lamps and lamp systems
EN 13032-4	Light and lighting – measurement and representation of photometric data
CIE 13	Method of measuring and specifying colour rendering properties of light sources

All technical data is subject to industrially standard tolerances.  
Also see [www.erco.com/erco-led](http://www.erco.com/erco-led)

## Accessories



**83740.000**  
 Concrete housing  
 Stainless steel, galvanised/powder-coated.  
 Recommended 0-8mm aggregate for the concrete.  
 Weight 6.10kg



**88290.000**  
 Compensation set  
 For oversize ceiling cut-out.  
 Lock ring: Sheet steel, galvanised.  
 Mounting for ceiling thickness of min. 10mm.  
 Cover ring: Metal, white.  
 when ordering, please state the diameter of the existing ceiling cutout and the diameter of the luminaire.



**83980.000**  
 Cover ring  
 Metal, white. For covering the gap where ceiling cut-outs are too big. Inner and outer diameter to be specified when placing order.