

# COOLICS R70A DS10 Adjustable LED Downlight

Indoor architectural & general lighting



580 lm (200mA)  
700 lm (250mA)

Total Weight Only 135g

Environmental Green  
Coolics Heat Sink

Many Applications

Tilt 0 -30 deg.

Choices of Optics

## Product information:

### Features and benefits

- Advanced downlight application
- Choices of LEDiL's MINNIE and MIRA optics
- Optimized for light beams up to ~60 degrees FWHM, meaning optimal balance between UGR value and light output towards downlight area that is supposed to be illuminated
- Design allows tilt between 0...30 degrees with all luminaires attached
- Balanced assembly holds heatsink in all tilt positions
- Total weight of luminaire is only 135g
- Lifetime up to 50,000 h
- Color temperature 3000K, 4000K
- Dimmable
- Type of protection IP20

### Connector, plug and play

- Heatsink is equipped with 2 pcs through-board TE-connectors (2213189-1)
- Design allows solder-free wire connection from behind the heatsink

## Applications

- Indoor architectural
- Retail display Light
- Commercial lighting
- Hotel lighting
- Bar & Restaurant
- General lighting
- Museum & Gallery

## Structures & Materials

### Optics:

Ledil; Lens MIRA; 54°. Material PC

Ledil; Reflector MINNIE; Material PC

Heat sink : Coolics, Thermal conductive plastic

Bezel: Ledil; AINO PC+ASA blend

LED: Osram Duris S 10

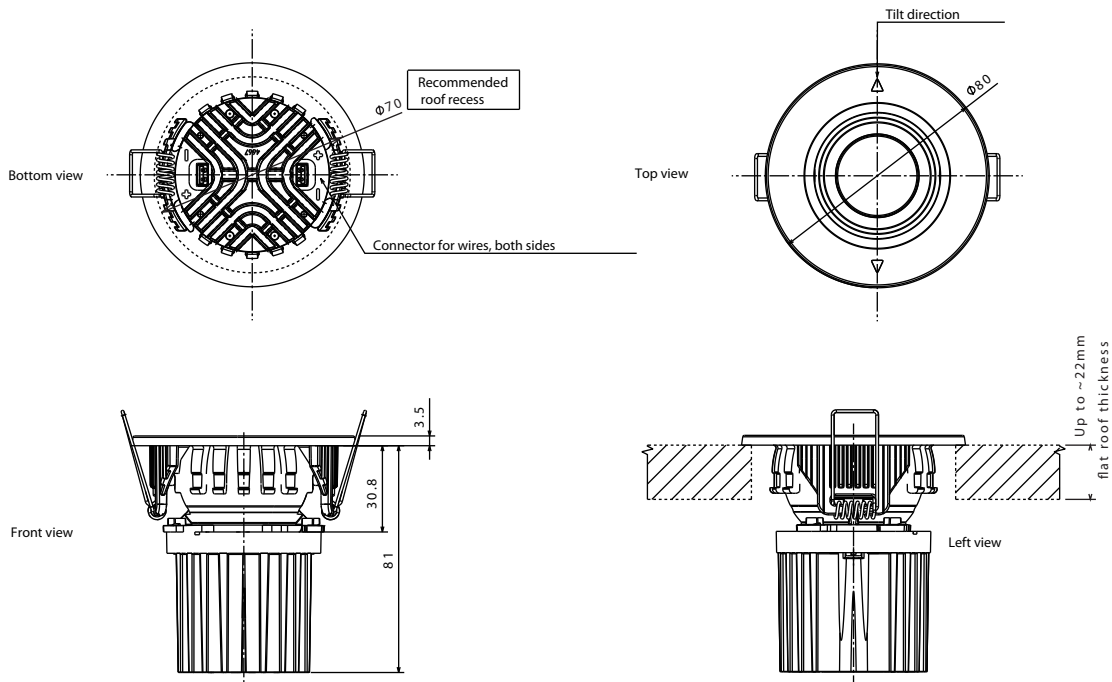
## Assembly tips on roof

1. Make a ~70 mm diameter recess on roof
  2. Connect power wire
  3. Push springs open on both sides
  4. Put the lamp in to the roof recess hole
  5. Release springs
- Please note that collar is compatible with flat roofs up to ~22mm thickness maximum.

## Technical Data

### Dimensions

- Diameter 80,0mm
- Height 84,5mm
- Weight 135g
- Roof recess 67,0 – 71,0 mm (recommended 70mm)
- Flat roof thickness up to -22mm



### Electrical data

- Operating mode Dimmable (with suitable drivers)
- Nominal wattage 200mA = 5,4 W | 250mA = 6,9 W
- Nominal voltage 28V, power supply 220...240 V

### Photometrical data

- Color temperature 3000 K | 4000 K
- Light color (designation) Warm white | White
- Luminous flux 200mA = 580 lm | 250mA = 700 lm

### Light technical data

- Beam angle Optional MIRA 54° MINNIE-XW 86° (MIRA FAMILY 22°, 34° 54° | MINNIE 21°, 86°)\*
- Light distribution tilt between 0...30 degrees

\* Optical possibilities on special demand

### Colors & materials

- Body material Black, Coolics, thermal conductive plastic
- Cover material White, Polycarbonate (PC) + ASA blend
- Reflector material White, HRPC

### Temperatures & operating conditions

- Ambient temperature range  $\leq +30^{\circ}\text{C}$

### Type of installation

Recessed

Type of connection Cable, 0,65 - 1 mm<sup>2</sup>

**Certificates & standards**

Type of protection IP20  
ROHS Compliant Yes

Order reference: Coolics R70 DS10 MA 54 (Optics 54°)  
Coolics R70 DS10 ME 86 (Optics 86°)

**OPTICAL INFORMATION**

**COOLICS R70 DS10 MA54**

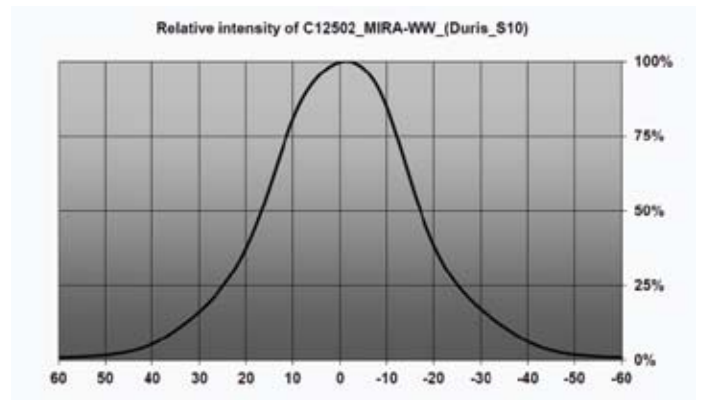
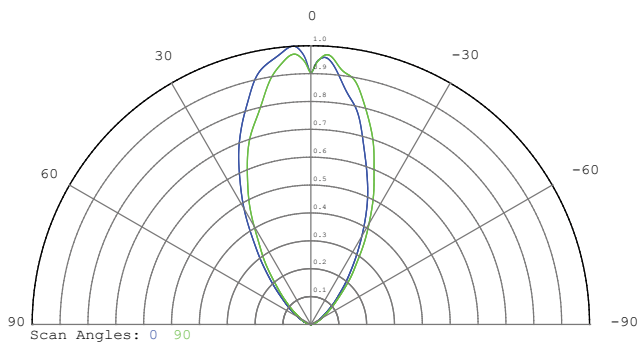


**DETAILS**

Type Lens, Ledil MIRA-WW  
Color clear  
Diameter 32,4 mm  
Height 14,7 mm  
Style round  
Optic Material PC  
ROHS Compliant Yes

**OPTICAL PROPERTIES**

LED Duris S10  
Viewing Angle 54°  
Light Beam Very Wide  
Efficiency 86%  
cd/lm 1.100



**COOLICS R70 DS10 ME86**

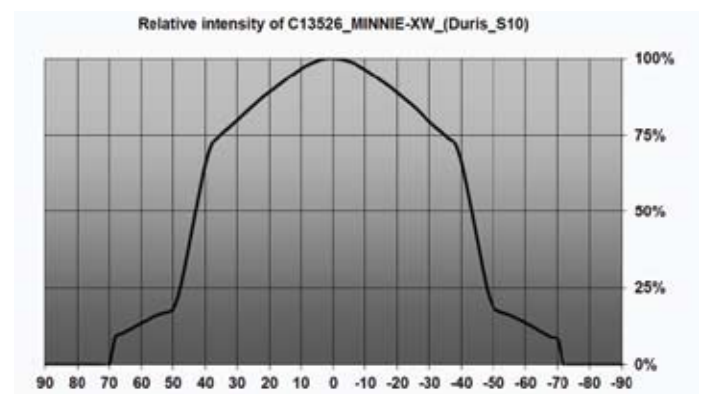
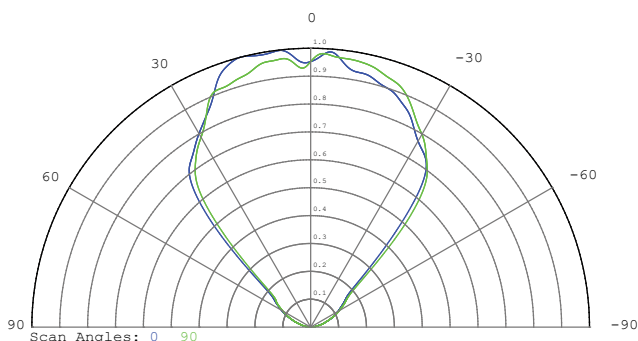


**DETAILS**

Type Reflector, Ledil MINNIE-XW  
Color white  
Diameter 32,4 mm  
Height 14,75 mm  
Style round  
Optic Material HRPC  
ROHS Compliant Yes

**OPTICAL PROPERTIES**

LED Duris S10  
Viewing Angle 86°  
Light Beam WWW-class  
Efficiency 92%  
cd/lm 0,500



## COOLICS R70A simulated Cone diagram

Cone diameter BA-50% CO-180/ C90-270 (m)

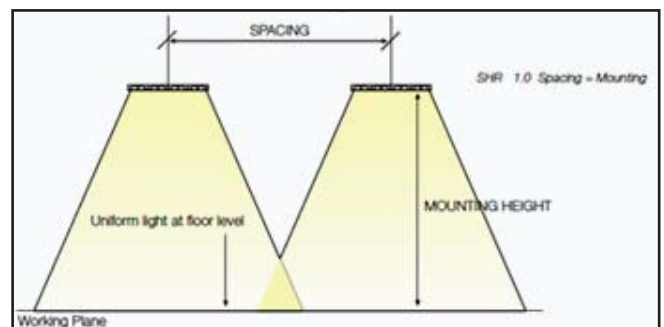
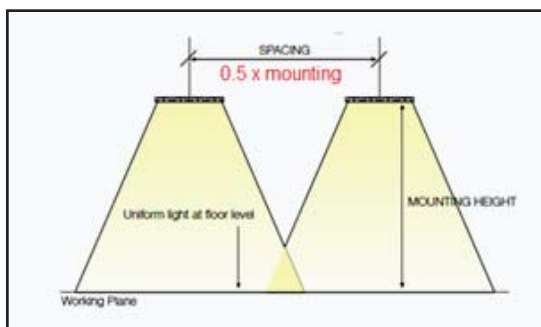
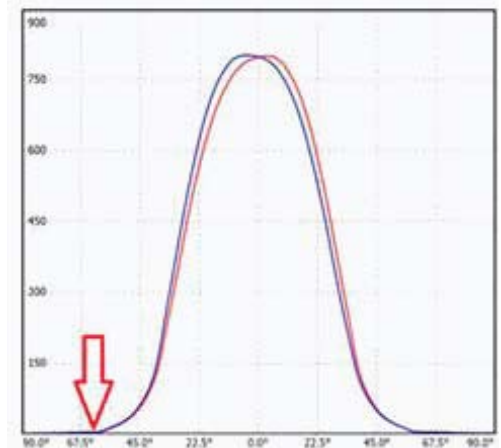


Distance (m)	Beam angle BA, FWHM 50%	Illuminance in the Cone center (lx)			
		200mA	200mA	250mA	250mA
		Optics 54°	Optics 86°	Optics 54°	Optics 86°
0.5		3388	1374	4089	1659
1.0		847	343	1022	414
1.5		376	152	454	184
2.0		212	86	255	104
2.5		136	55	163	66
3.0		94	38	113	46

### Application example

- C12502\_MIRA-WW as 1000 lm led light output.
- What AINO brings to an already good LEDiL single optic performance is a glare shield to support room atmosphere where high flux downlights are needed but direct light has to be avoided.
- When lamp spacing = mounting height / 1000LM led drive UGR < 6
- When lamp spacing 0.5 from mounting height / 1000LM led drive UGR < 16
- When lamp spacing 0.3 from mounting height / 1000LM led drive UGR < 19

Luminaire: LEDiL Oy C12502 MIRA-WW\_Luminaire\_Mi\_Aim  
Lamp: 1 x Koumulettivalon\_Reston\_Luminaire\_Mi\_33548lm@250mA\_P=2 77338W\_H0 2495A



### Coolics Oy provides Future Heat sink Technology today

Coolics Oy is a flexible and innovative company offering highest quality injection moulded LED Heat sink Modules and Components that are made of Thermally Conductive Polymers (TCP's). This Future Heat sink Technology will guarantee several benefits to our Customers including Lower carbon footprint, reduced weight, inherent corrosion resistance and total customization of the final product, including also design of the custom made solutions where lighting element itself works as a thermal transfer component.

### Coolics Oy

Vehnämyllynkatu 8 J  
FI-33560 Tampere, Finland  
+358 10 423 7111  
www.coolics.fi

Coolics is a patented technology where heat generating LED PCB is inserted to thermally conducting raw material by injection moulding. Products made of Coolics are made of proprietary combination of Thermally Conductive Polymers (TCP's) developed by world's leading material manufacturers materials that are designed and tested to fulfill the high performance demands for the LED cooling applications.