

# ARCHITECTURAL LIGHTING



QR - SHOP

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Black RAL 9005



White RAL 9016



Wood grain

LED Ceiling Light  
**AL99C-UGR Series**



## AL99C

## IP40

The AL99C-UGR ceiling light is a large-sized series with a large luminous surface. Its unique and bold exterior design enhances the decorative and artistic aspects of a space, while the high-quality texture showcases the fixture's premium quality and special allure. The design with a large luminous surface and anti-glare UGR<19 design illuminates the space while providing users with a very soft and comfortable lighting experience. Its unique design allows it to be used in various installation scenarios. With the option for 100% downward light or up and down light, and the choice of ceiling-mounted, recessed, or suspended installation, it offers both flexibility and consistency in the entire series in terms of aesthetics.

LED Ceiling Light



### FEATURES

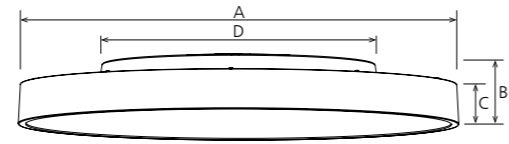
- Anti-glare UGR < 19
- Interchangeable CCT (3000K+4000K) by slide switch.
- DALI dimming.
- Lighting design options: 100% direct lighting, up and down lighting (not suitable for recessed installation).
- IK06 rating.
- Multiple functions: adjustable sensor, emergency.
- Various installation options: recessed/surface mount/pendant (with pole suspension, wire suspension, cable suspension).

### APPLICATIONS

It is designed for general lighting applications in office, supermarket, shop, school, hotel, etc.



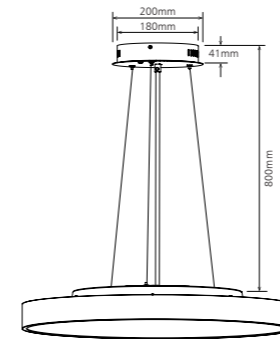
## PRODUCT DIMENSION



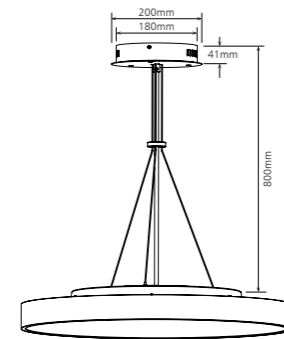
Code	Dimension(mm)			
	A	B	C	D
ART-AL99C-16-20W	400	86	55	219
ART-AL99C-24-40W	600	86	55	383
ART-AL99C-32-75W	800	86	55	383
ART-AL99C-40-100W	1000	86	55	383



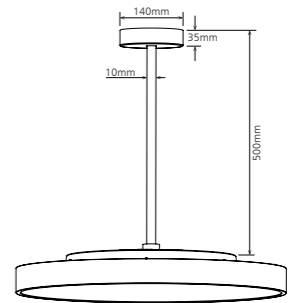
## PENDANT ACCESSORY



ACC-AL99C-16-WT/BK/WD-50  
ACC-AL99C-24/32/40-WT/BK/WD-50



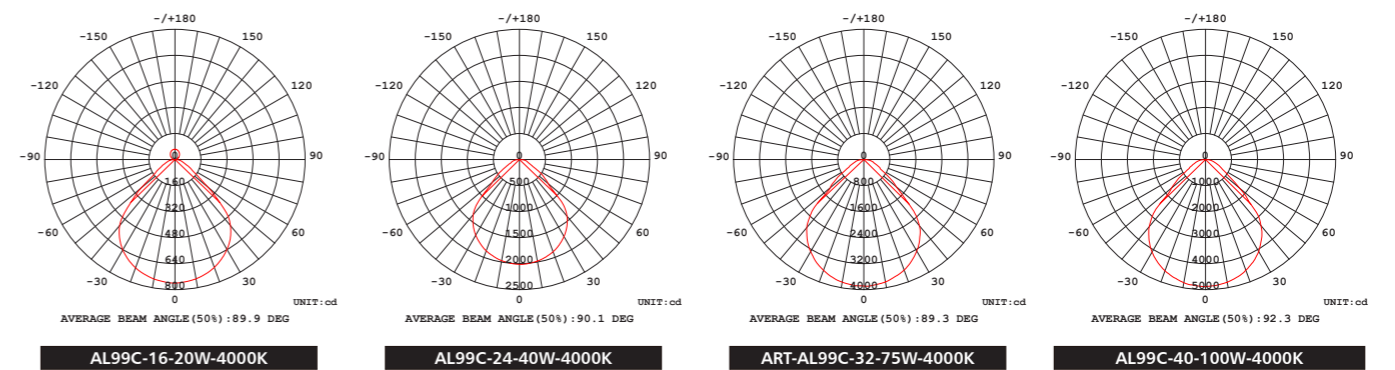
ACC-AL99C-WT/BK/WD-52



ACC-AL99C-16/24-WT/BK/WD-51

Code	Size(mm)	Product Weight (Kg)		Package weight (Kg)		Carton Size(cm)	Qty/CTN	20GP (pcs)	40HQ (pcs)
		N.W/PC	G.W/PC	N.W/CTN	G.W/CTN				
ACC-AL99C-16-WT/BK/WD-50 ACC-AL99C-24/32/40-WT/BK/WD-50	Ø200*41	0.86	0.9	5.16	6.4	26.5*23*23	4PCS	8520	18876
ACC-AL99C-WT/BK/WD-52	Ø200*41	0.86	0.9	5.16	6.4	26.5*23*23	4PCS	8520	18876
ACC-AL99C-16/24-WT/BK/WD-51	Ø140*35	0.78	0.9	4.68	6.4	55.5*41.5*44.5	18PCS	5040	11970

## OPTICS



## BASIC INFORMATION

Housing Material	Aluminium
Product Finishing	White RAL9016/ Black RAL9005/ Wood grain
Optic Material	PMMA; PET+PC
Light Source	SMD
SDCM	<6(@3000K 4000K)
CRI	≥80
Lifetime(hr)	50,000h
LED Driver	Built-in; Flicker Free
Installation	Surface mount/ Pendant/ Recessed
Electrical Class	Class I
Operating Temp.(°C)	-20°C~40°C
Storage Temp.(°C)	-20°C~65°C
Glow Wire Test (°C)	-

## FEATURES & BENEFITS

General Efficacy	100Lm/W
CCT Selection DIP Switch	1-CCT: 3000K / 4000K 2-CCT: 3000K + 4000K
Watt Selection DIP Switch	-
Dimming Option	DALI
Functions	Sensor, Emergency
UGR	<19
Ingress Protection (IP Rating)	IP40
Impact Resistance (IK Rating)	IK06
Certification	CE / SAA / RoHS

## TECHNICAL DATA SHEET

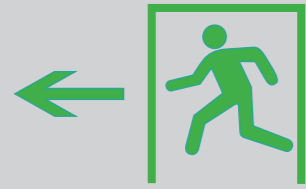
CODE	ART-AL99C-16-20W	ART-AL99C-24-40W	ART-AL99C-32-75W	ART-AL99C-40-100W		
Dimension(mm)	Ø400*86	Ø600*86	Ø800*86	Ø1000*86		
Cutout(mm)	Ø220~250	Ø385~415				
Watt(W)	20W	40W	75W	100W		
Input Voltage	AC198-264V					
LED Module Input	-					
Light Source	SMD					
CCT(K)	1-CCT: 3000K/4000K    2-CCT: 3000K + 4000K					
CCT Selection DIP Switch	YES					
Luminous Flux (lm) ±5% (White or Wood grain finish)CRI80	1-CCT	Non-DIM	1420-1780	3800-4580	6540-7860	9270-10660
		DALI	1350-1680	3690-4280	6500-7640	9080-10520
	2-CCT	Non-DIM	1400-1750	3750-4500	6540-7860	9270-10660
		DALI	1300-1680	3680-4250	6500-7640	9080-10520
Luminous Flux (lm) ±5% (Black finish) CRI80	1-CCT	Non-DIM	1280-1600	3420-4100	6260-7270	8880-10150
		DALI	1200-1500	3320-3850	6210-7210	8740-10070
	2-CCT	Non-DIM	1260-1570	3375-4050	6260-7270	8880-10150
		DALI	1170-1500	3310-3820	6210-7210	8740-10070
Beam Angle (°)	90°					
UGR	<19					
Dimming Option	DALI					
Sensor	Microwave sensor & Daylight sensor					
Emergency	YES					
Product weight(Kg)	N.W/PC	2.61	5.96	7.17	10.83	
	G.W/PC	3.07	6.79	-	-	
Package weight(Kg)	N.W/CTN	15.66	11.92	-	-	
	G.W/CTN	19.84	14.74	9.85	13.82	
Qty/CTN (PCS)	6	2	1	1		
Carton Size(cm)	64.5*46.5*47.5	68.5*23.5*68.5	85.5*14*89	111.5*14*112		
20GP(pcs)	1008	486	256	164		
40HQ(pcs)	2580	996	584	392		

## DRIVER DATASHEET(NON-DIMMABLE)

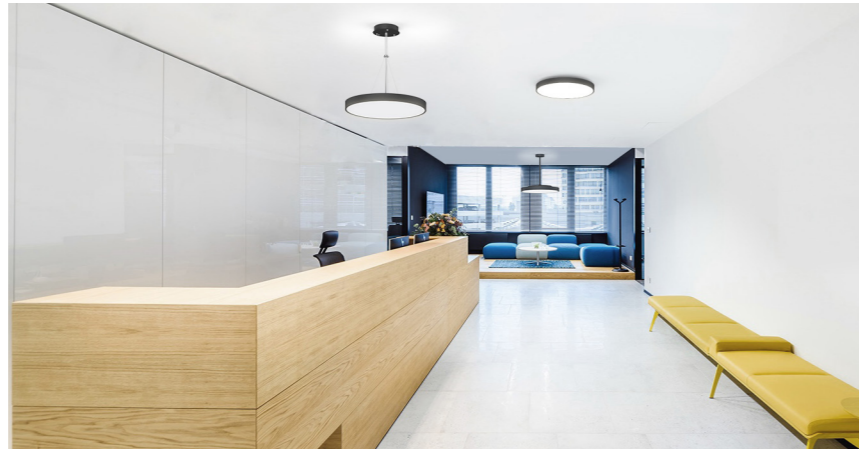
	Total load wattage	20W	40W	75W	100W	
Output	Rated output current	500mA	250mA	480 mA	650mA	
	Output Voltage range	28-42V	80-200V	110-160V	50-153V	
	Line Regulation	±5%				
	Setup Rise Time	<0.5s @230V				
	Flickering Index	<3%(NO RISK)			0.3%(NO RISK)	
	IEC-PST	≤1				
	CIE (SVM)	≤0.4				
Input	Rated Input Voltage	220-240VAC				
	Input Voltage	198-264VAC				
	Frequency	50/60Hz				
	Rated Input Current	0.23A	≤0.21A	0.47A	≤0.57A	
	Input Current	0.21A	≤0.23A	0.37A	≤0.51A	
	Power Factor	0.9				
	THD	<20% @230V				
	Efficiency	87%	≥89%	90%	≥92%	
	Inrush current	15.2A/560uS	≤45A&200uS			
	No load wattage	<0.5W @230V				
	Stand-by power consumption	-				
	Protection	Short circuit protection	PASS			
		Over voltage protection	PASS			
Over temperature protection		PASS				
Safety & EMC	Withstand voltage	I/P-FG:1.5KVac, <5mA 60S				
	Isolation Resistance	500VDC, ≥2M Ω				
	Surge	IEC/EN61000-4-5 (L-N:1KV, L/N-PE:2KV)				
	EMC Emission	EN55015, EN61000-3-2				
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547				

## DRIVER DATASHEET(DALI DIMMABLE)

	Total load wattage	20W	40W	75W	100W	
Output	Rated output current	550mA	250mA	500mA	650mA	
	Output Voltage range	9-42V	54-240V			
	Line Regulation	±5%				
	Setup Rise Time	<1S @230V				
	Flickering Index	<3%(NO RISK)				
	IEC-PST	≤1				
	CIE (SVM)	≤0.4				
Input	Rated Input Voltage	220-240VAC				
	Input Voltage	198-264VAC				
	Frequency	50/60Hz				
	Rated Input Current	≤0.11A	≤0.24A	≤0.38A	≤0.51A	
	Input Current	≤0.12A	≤0.23A	≤0.43A	≤0.56A	
	Power Factor	0.9				
	THD	<20% @230V				
	Efficiency	≥85%	≥92%			
	Inrush current	≤20A&120uS	≤37A&300uS	≤60A&200uS		
	No load wattage	<0.5W @230V				
	Stand-by power consumption	<0.5W @230V				
	Protection	Short circuit protection	PASS			
		Over voltage protection	PASS			
Over temperature protection		PASS				
Safety & EMC	Withstand voltage	I/P-FG:1.5KVac, <5mA 60S				
	Isolation Resistance	500VDC, ≥2M Ω				
	Surge	IEC/EN61000-4-5 (L-N:1KV, L/N-PE:2KV)				
	EMC Emission	EN55015, EN61000-3-2				
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547				



# Emergency



## Driver Datasheet (Emergency)

Input power	3W(16")	5W(24"/32"/40")
Discharge power	2W	5W
Rated Input Voltage(V)	AC230V	
Frequency	50/60Hz	
Input Voltage	AC200-240V	
Rated Input Current	≤0.03A	≤0.04A
Battery	6.4V 1500mAh (LifepO4)	6.4V 4000mAh (LifepO4)
Lifetime	Over 2000 cycles	
Battery duration	≥3hrs	
Charge Period	≤24hrs	
Emergency switching time	≤1S	
Emergency Operating Temp. (°C)	0°C-25°C	

## Instructions for automatic test option

- Once the unit is powered up it will automatically initiate a self test and diagnostics as follows:
  - Every 4 seconds:Checks for battery disconnection,charger board fault,lamp failure and transformer failure.
  - Every month:Performs a 3 minutes duration test.
  - Every yeat:Performs a 1 Hour or 3 Hours duration test.
 All test functions are factory preset and do not need field adjustment.

### 2.Dual Colour Indicator LED Status Mesnings

- Green Solid On Ready/Normal Operation
- Red Requires Services

•	One flash, 4 seconds pause	Battery not connected
••	Two flashes, 4 seconds pause	Battery short or low battery voltage
•••	Three flashes, 4 seconds pause	Charger board fault
••••	Four flashes, 4 seconds pause	Transformer fault
•••••	Five flashes, 4 seconds pause	LED lamp fault

NOTE: After repairing a service fault,press and hold the test button for 2 seconds to reset the flashing indicator light to green.

### 3.Manual Testing

Press test button once	30 seconds duration test
Press test button twice within 2 seconds	3 minutes duration test
Press test button 3 times within 2 seconds	30 minutes duration test
Press test button 4 times within 2 seconds	1 or 3 hours duration test

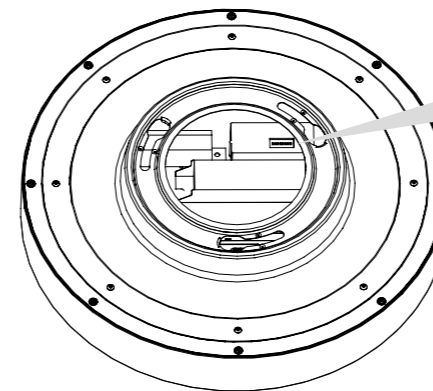
# Sensor



## Datasheet (Sensor)

Operating voltage	220-240VAC 50/60Hz
Power consumption	1.5W±0.5W
Microwave frequency	5.8GHz±75MHz, ISM wave band
Transmission power	<0.5mW
Detection angle	140°
Detection Area	4-6M 100%/75%/50%/25% are adjustable by DIP switch
Hold time	5S/30S/90S/5Min/20Min/30Min are adjustable by DIP switch
Daylight sensor	2lux/10lux/30lux/50lux/Disable are adjustable by DIP switch
Stand-by DIM Level	-
Stand-by Period	-
Dimming Range	-
Microwave ON/OFF function	-
Installation Height	Recommended Installation Height: Wall mounted height 1.8m. Ceiling mounted height 3m.
Minimum mounting distance	recommended mounting distance should be more than 3m
Operating temperature(°C)	-20°C~60°C

## Sensor Setting



Daylight Sensor			Hold Time			Detection Area	
1	2	3	4	5	6	7	8
ON	ON	ON	2Lux	ON	ON	5S	ON
ON	ON	-	10Lux	-	ON	30S	-
-	ON	-	30Lux	ON	-	90S	ON
ON	-	-	50Lux	-	ON	5min	-
-	-	-	Disable	ON	-	20min	-
-	-	-	-	-	-	30min	-

ON							
1	2	3	4	5	6	7	8
ON	ON	ON	ON	ON	ON	ON	ON

Daylight Sensor	Hold Time	Detection Area
Disable	5S	100%

Daylight Sensor			
	1	2	3
I	ON	ON	ON
II	ON	ON	-
III	-	ON	-
IV	ON	-	-
V	-	-	-

Hold Time			
	4	5	6
I	ON	ON	ON
II	-	ON	ON
III	ON	-	ON
IV	-	-	ON
V	ON	ON	-
VI	-	-	-

Detection Area		
	7	8
I	ON	ON
II	-	ON
III	ON	-
IV	-	-

### Daylight Sensor:

**Notice 1:** The light threshold can be selected through the slide switch, it may cause a large deviation in different lamps.

### Hold Time:

**Notice 1:** The hold time can be selected by the slide switch. The hold time counting should be started after the sensor is powered on and initialized.

### Detection Area:

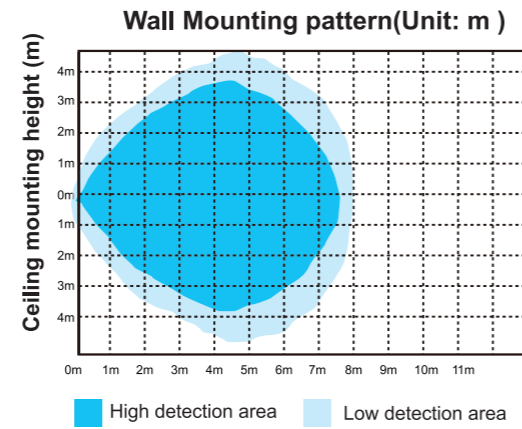
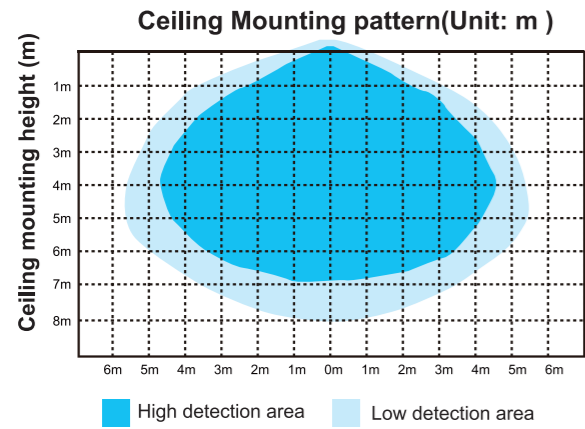
**Sensor test condition:** The test is based on 3m height, the detect distance radius is based on ground, the detect distance can be adjusted through the slide switch.

**Sensor test environment and reference:** The detective range is measured by human body whose stature is around 1.6-1.7M with medium size and traveling speed is around 1.0-1.5M per second. If the stature, bodily form and traveling speed are changed,then the detective range will be changed accordingly.

**Sensor lamp's reaction under open/narrow environment:** Test result will be highly influenced by test environment, the more open environment, the closer detect distance; the narrower environment, the longer detect distance. The detector may do self-excitation in a narrow environment.

**Sensor Setting based on environmental disturbance:** Some environmental disturbances will cause abnormal induction, such as the lamp can not automatically turn off for a long time or the sensor function is invalid, then users can adjust sensor distance to reach the ideal effect. It is recommended to adjust the sensing distance to 50% for the environment where near the heavy equipment, metal sheets and metal pipes, concretewall(<30cm thickness)etc.Recommend to keep 100%sensor distance in open environment. For environment where near the routers, telecommunications base stations, electrical machinery etc, it is recommended to keep the installation distance of more than 5 meters and adjust to 50% sensor distance.

## Induction Range



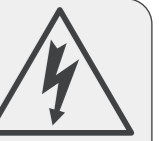
## Function Table

Function Table	AL99C-16-20W	AL99C-24-40W	AL99C-32-75W	AL99C-40-100W
Non-dim	√	√	√	√
Non-dim + CCT Switchable	√	√	√	√
Emergency	√	√	√	√
Emergency + Non-Dim + CCT Switchable	√	√	√	√
Sensor	√	√	√	√
Sensor + CCT Switchable	√	√	√	√
Sensor + Emergency	√	√	√	√
Sensor + Emergency + CCT Switchable	√	√	√	√
DALI Dim	√	√	√	√
DALI + CCT Switchable	√	√	√	√

## Installation Procedure

### WARNING

1. Switch off before installation.
2. Switch on only after complete installation and examination of the circuit.
3. Professional electrician for installation and maintenance only.



## Surface Mount installation

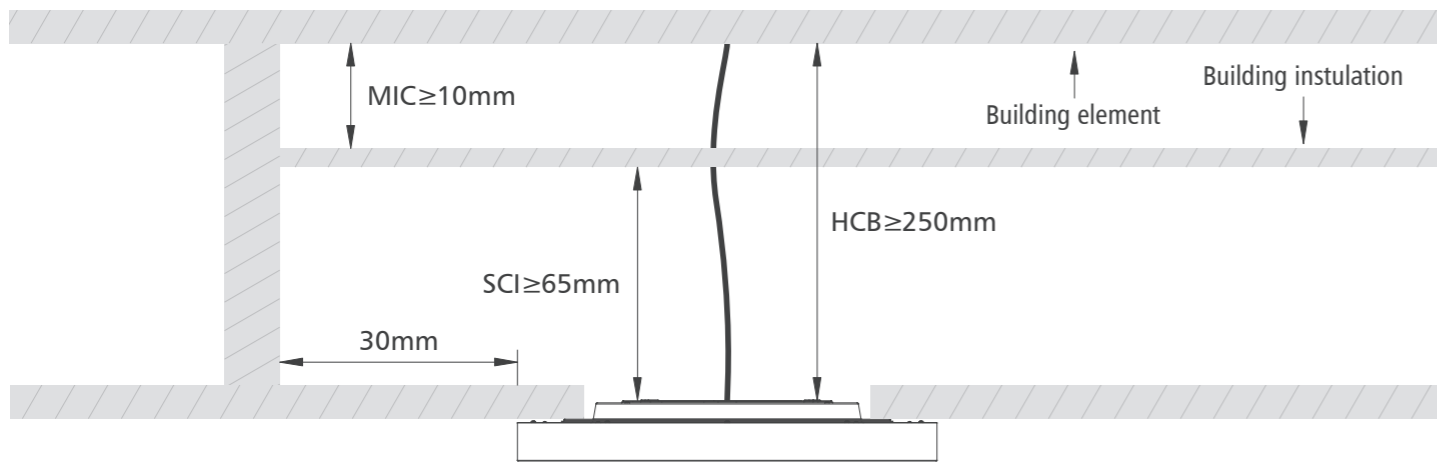
**Emergency**  
 L= Switched  
 L= Unswitched  
 ⊕= Earth  
 N= Neutral

**DALI/0-10V**  
 L= Switched  
 N= Neutral  
 ⊕= Earth  
 DAV+ = DALI/0-10V+  
 DAV- = DALI/0-10V-

Slide switch for color selection  
 CW NW WW

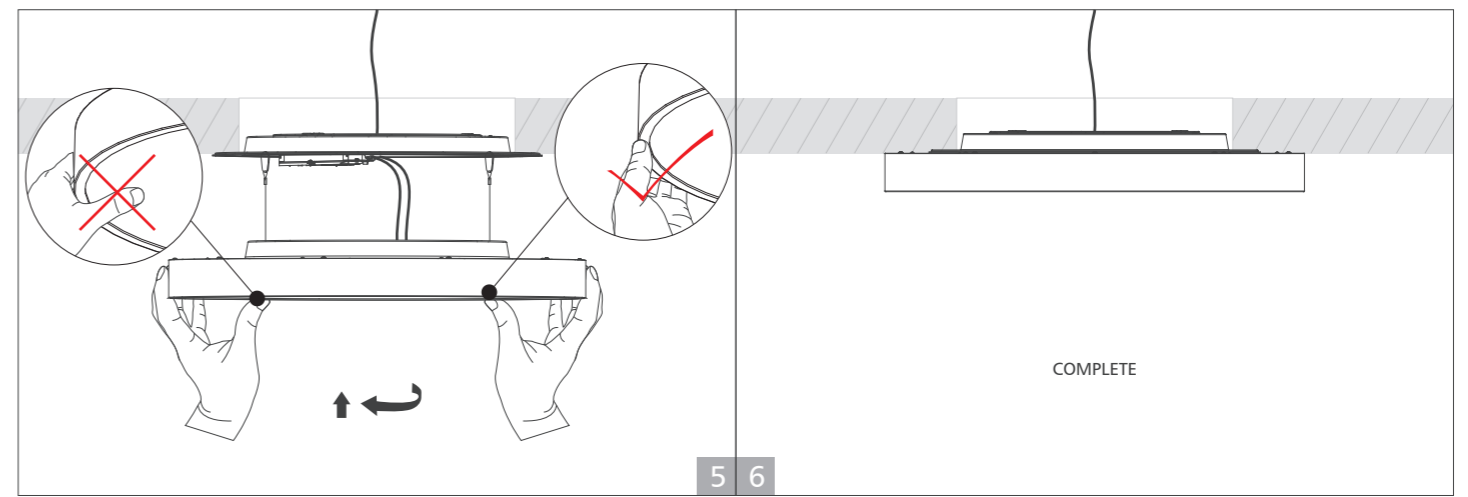
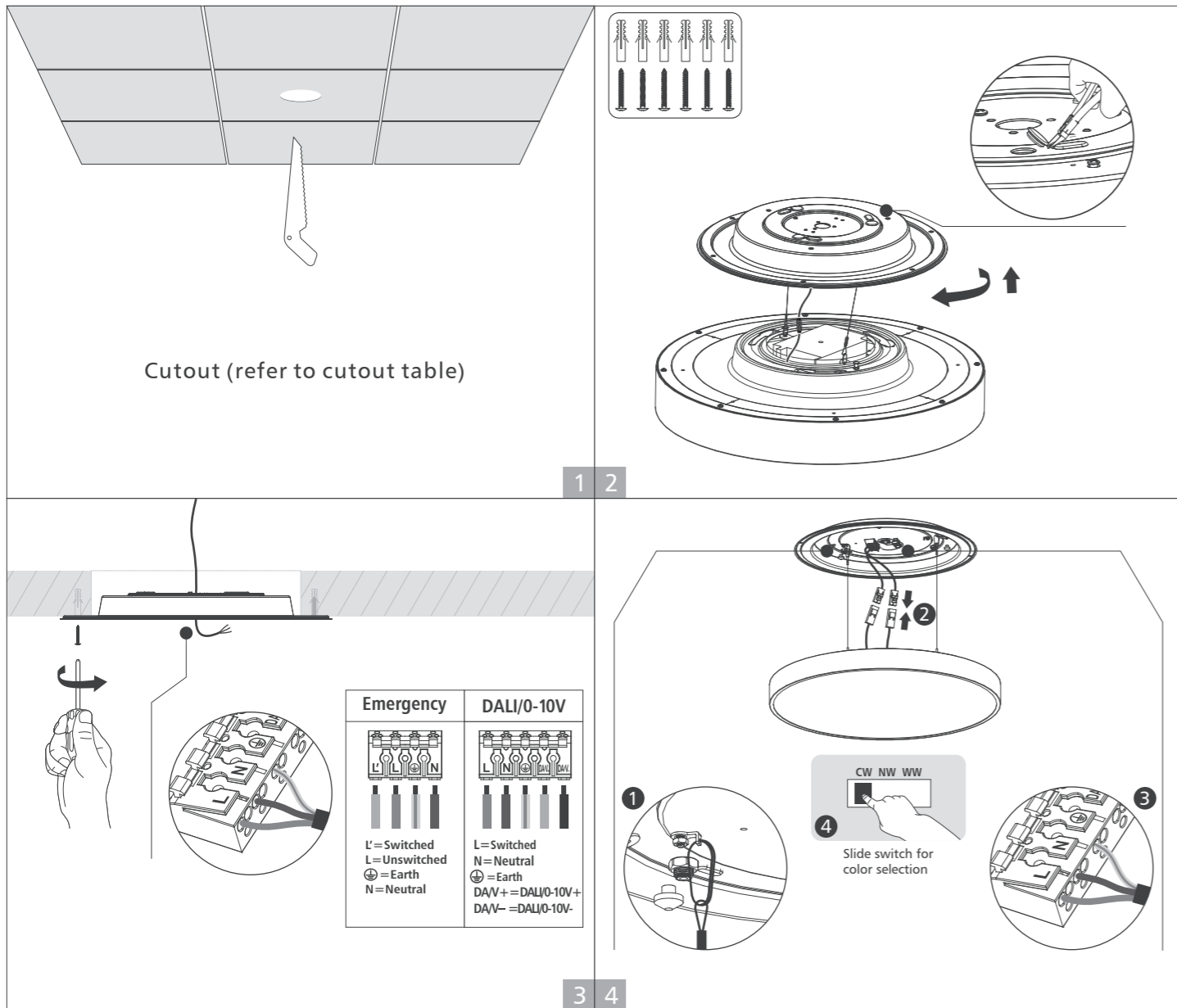
COMPLETE

## Recessed installation



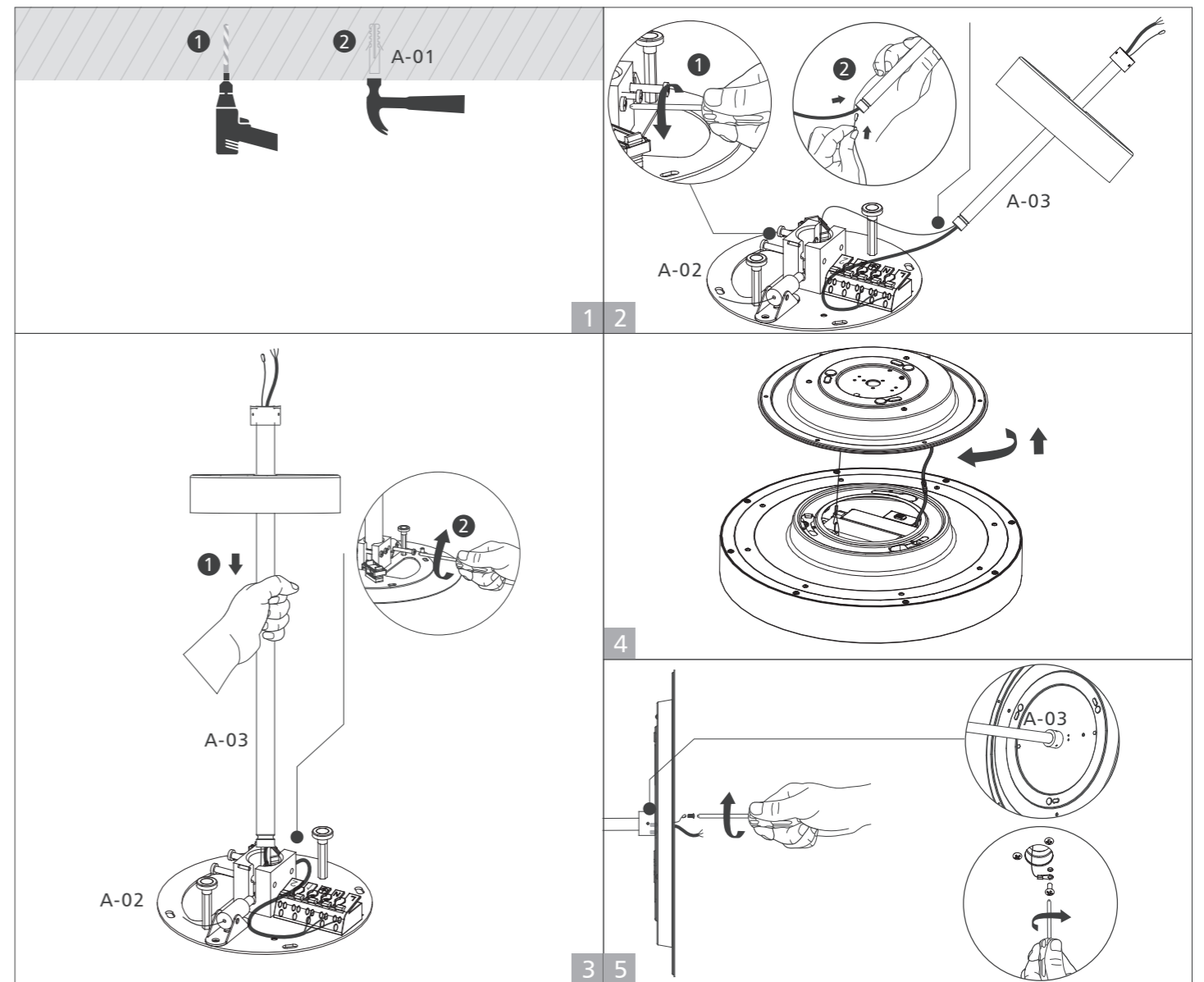
## Ceiling cutout table

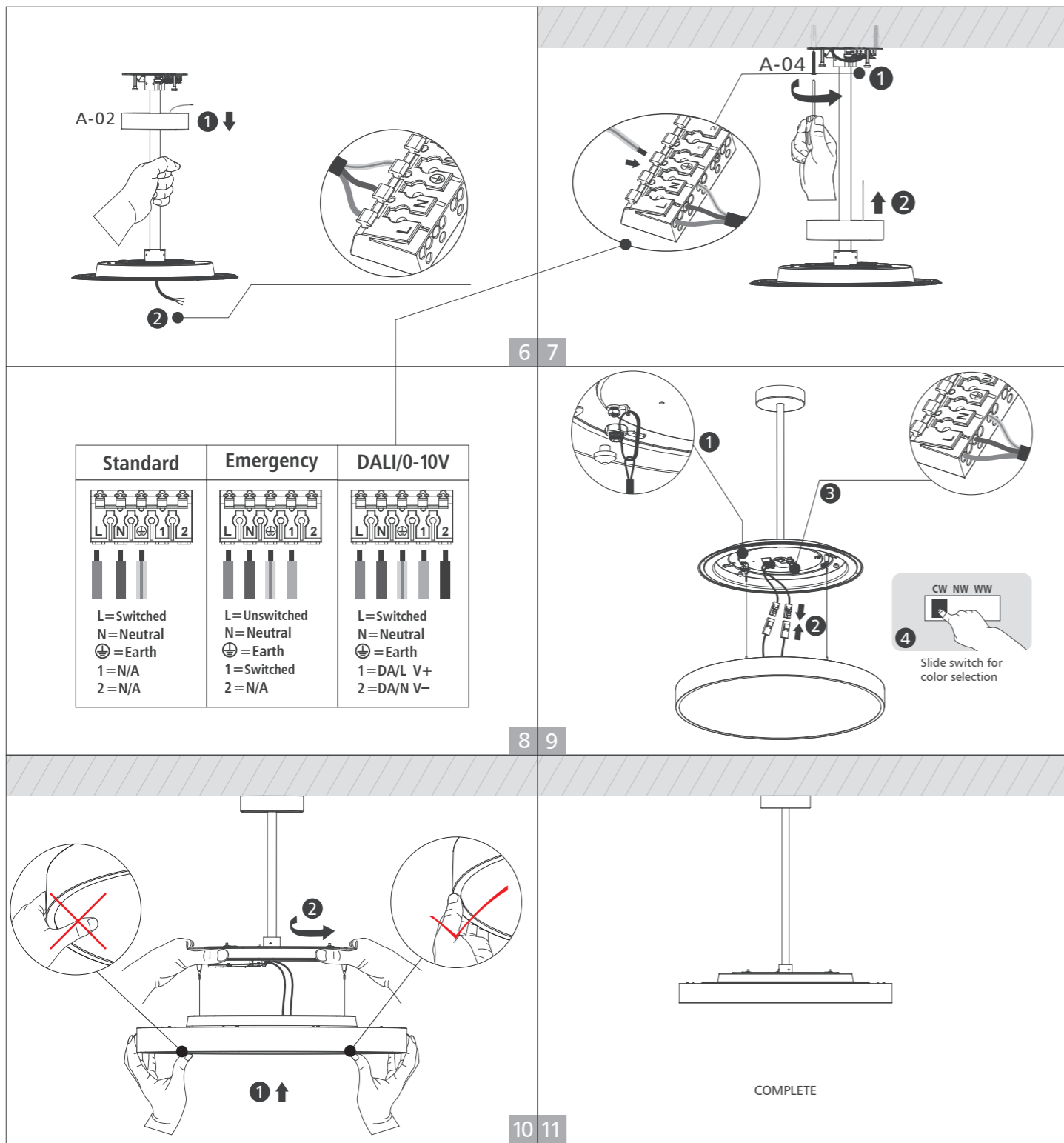
Downlight Dia (inch)	16	24	32	40
Ceiling Cutout (mm)	Ø220-250		Ø385-415	



## With pendant rod suspension installation

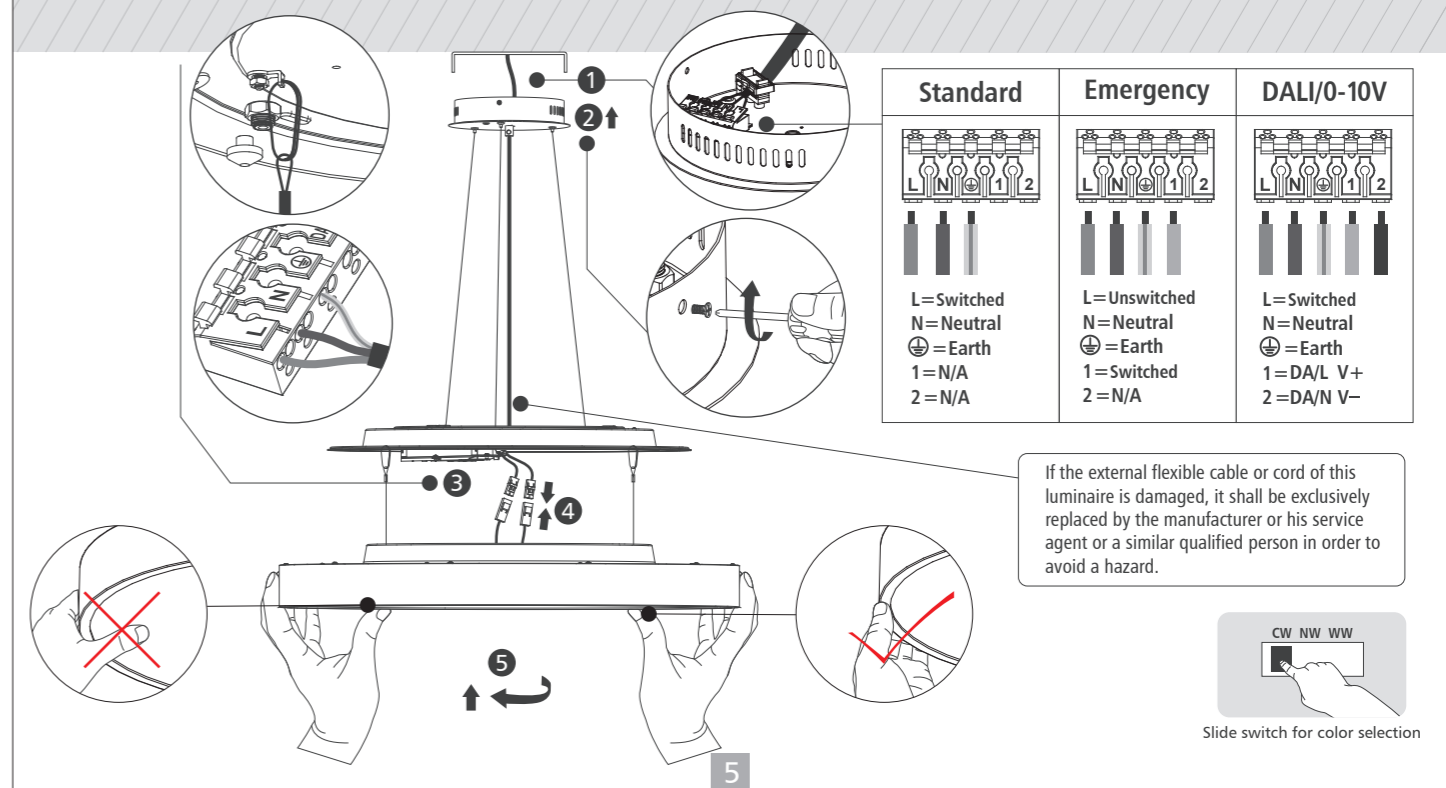
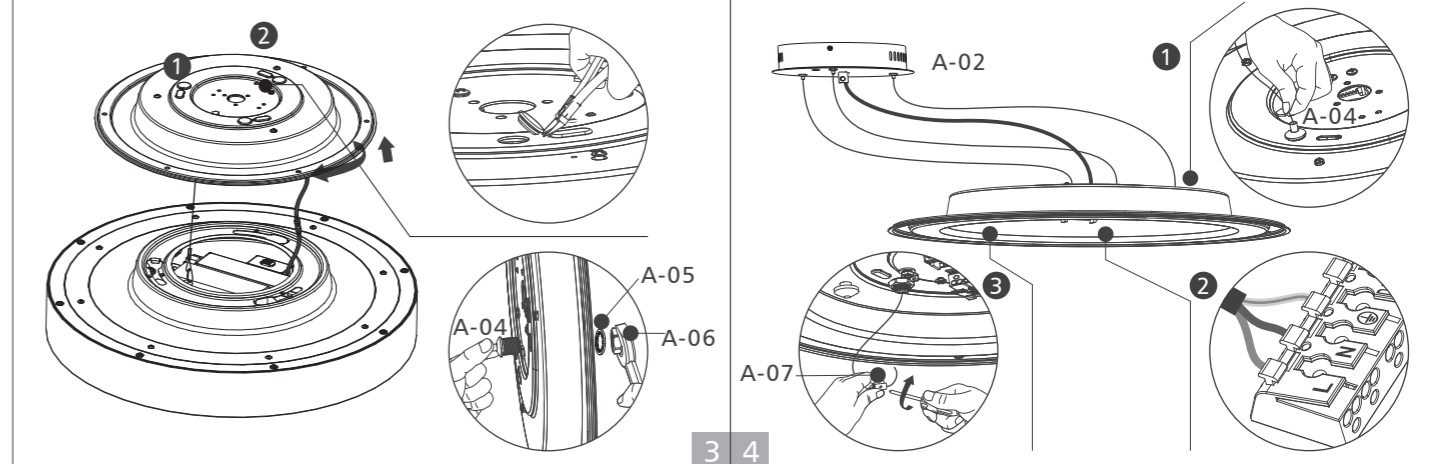
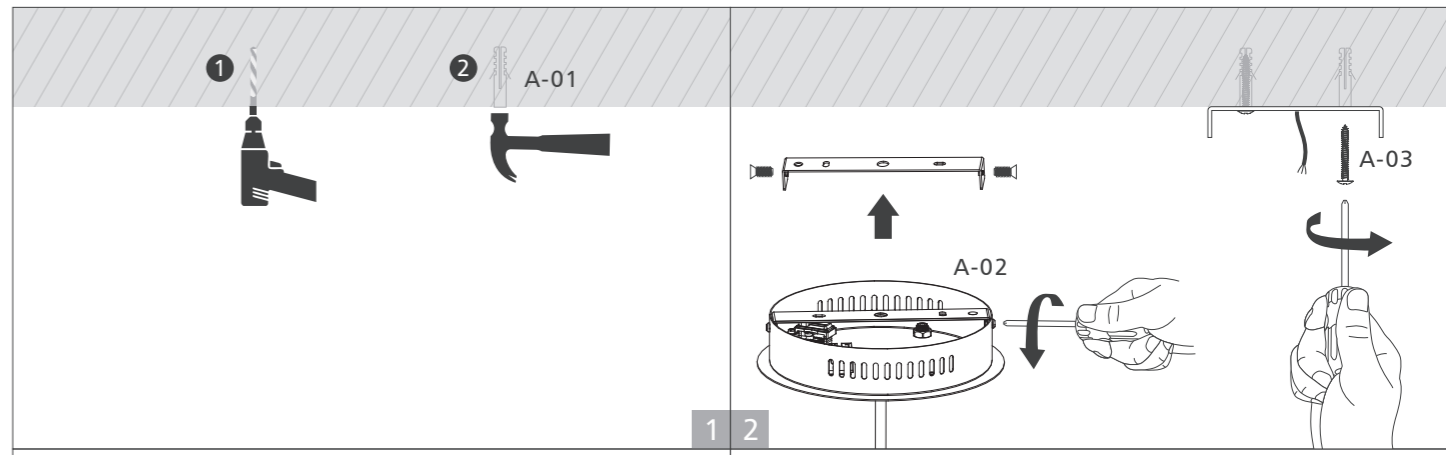
Code	A-01	A-02	A-03	A-04
	x4	x1	x1	x4





### With steel wire suspension installation

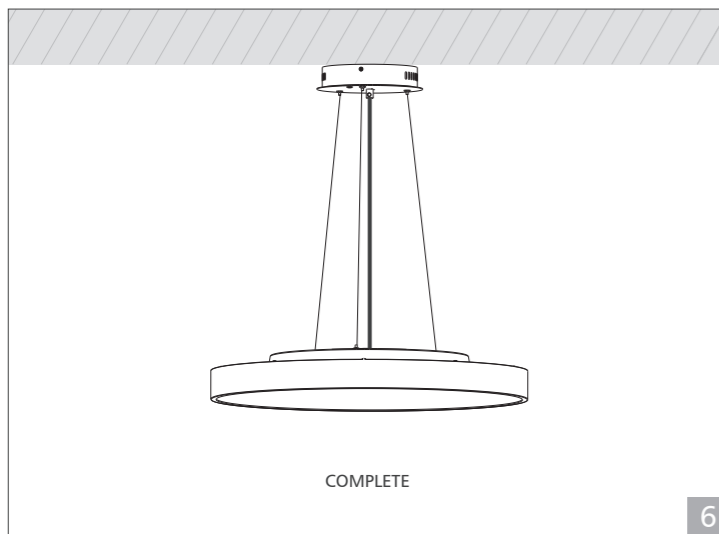
Code	A-01	A-02	A-03	A-04	A-05	A-06	A-07
	x2	x1	x2	x3	x3	x3	x3



If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.



Slide switch for color selection



With wire harness suspension installation

Code	A-01	A-02	A-03	A-04	A-05	A-06	A-07
	x2	x1	x2	x3	x3	x3	x3

