

Entry /ECO

Standard /STD

Professional/PRO

ODM & OEM

Intelligent/INT



**PRO**  
Specifications



LED Ceiling Light

AL99 Plato LED



Black RAL 9005



White RAL 9016



Wood grain





## Introduction

AL99 ceiling light is a big size with up & down lighting design. It's adopted high lumen SMD LED light source, larger lighting area and low glare design make a softer and uniform light output. AL6063 aluminum housing provides an excellent thermal management. Size options: 400mm, 600mm, 800mm, 1000mm. It can do CCT adjustable and wattage adjustable, multiple installation ways available which meets more application demands.

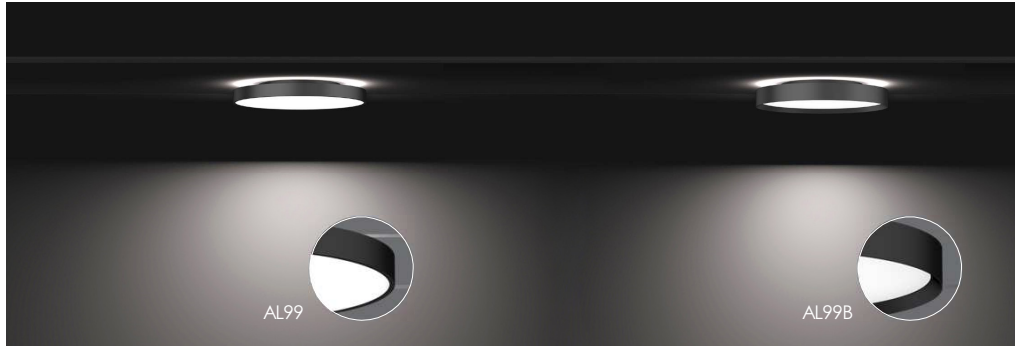
## Features

- Interchangeable CCT (3000K+4000K+5700K/3000K+4000K) with slide switch.
- Interchangeable wattage available for all size.
- DALI dimmable available.
- Osram flicker free driver.
- Multiple installation ways: Recessed/Surface mounted/Pendant (With pendant rod suspension, with steel wire suspension, with wire harness suspension.)
- Two lighting design: 100% direct lighting, up & down lighting (Not for recessed installation).
- Up & down lighting version: 20% up and 80% down for 400mm, 10% up and 90% down for 600mm/800mm/1000mm.

## Application Areas

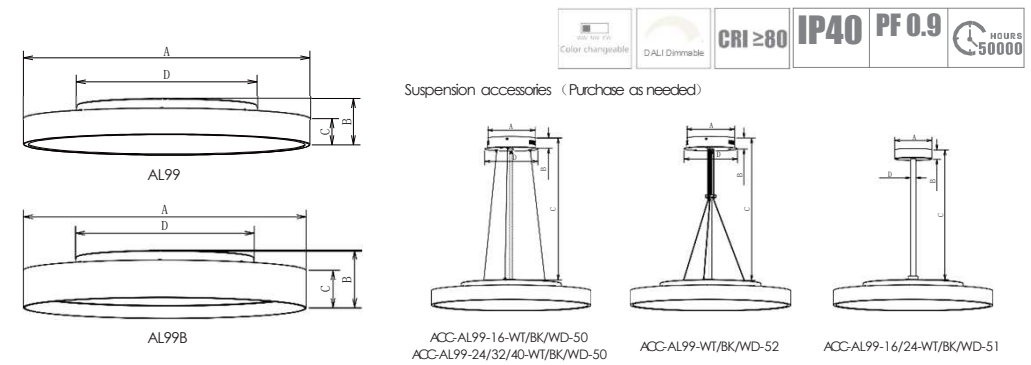
It is designed for general lighting applications in office, supermarket, shop, school, hotel, etc.





## Technical Data Sheet

Code No.	AL99-16-40W AL99B-16-40W	AL99-24-60W AL99B-24-60W	AL99-32-75W AL99B-32-75W	AL99-40-100W AL99B-40-100W		
Dimension(mm)	Ø400*86	Ø600*86	Ø800*86	Ø1000*86		
Cutout (mm)	Ø220~250					
Watt(W)	40W @max(optional:35W / 37W / 38W / 40W)	60W @max(optional:42W / 49W / 60W)	75W @max(optional:47W / 55W / 68W / 75W)	Adjustable power with resistance 100W @max(optional:40W -100W)		
Rated Input Voltage(V)	AC220-240V					
Input Voltage(V)	AC198-264V					
LED Module Input	-					
Light Source	SMD					
SDCM	<6 (@3000K 4000K 5000K)					
CCT(K)	1-CCT: 3000K/4000K/5000K/5700K    3-CCT: 3000K + 4000K + 5700K					
CCT Selection DIP Switch	YES					
Luminous Flux (lm) ±5% (Standard diffuser)	Non-DIM	1-CCT	3500-4300	5700-6660	6700-8000	8800-10700
	DIM		3500-4300	5700-6660	6700-8000	8800-10700
	Non-DIM	3-CCT	3500-4300	5700-6700	6700-8000	8800-10700
	DIM		3500-4300	5700-6660	6700-8000	8800-10700
Luminous Flux (lm) ±5% (Prismatic diffuser)	Non-DIM	1-CCT	2800-3500	4500-5350	5300-6500	7000-8600
	DIM		2800-3500	4500-5350	5300-6500	7000-8600
	Non-DIM	3-CCT	2800-3500	4500-5400	5300-6500	7000-8600
	DIM		2800-3500	4500-5350	5300-6500	7000-8600
CRI	≥80					
Beam Angle (°)	120°(Standard diffuser) / 85°(Prismatic diffuser)					
UGR	-					
LED Driver	Built-in					
Dimming Option	DALI					
Sensor	NO					
Emergency Kits	NO					
Electrical Class	Class I					
Ingress Protection (IP Rating)	IP40					
Impact Resistance (IK Rating)	-					
Product Finishing(Base)	White RAL 9016 / Black RAL 9005 / Wood grain					
Materials of Optics	PS					
Materials of Housing	Aluminum					
Lifetime (hr)	50,000h					
Glow wire test (°C)	650°C					
Operating Temp. (°C)	-20°C ~40°C					
Storage Temp. (°C)	-20°C ~65°C					
Installation	Surface mount / Pendant / Recessed					



## Measurement

	Dimension(mm)				Product Weight (Kg) N.W/PC	G.W/PC N.W/CTN	Package weight (Kg)		Qty/ 20GP CTN (pcs)	40HQ (pcs)			
	A	B	C	D			G.W/CTN						
AL99-16-40W	400	86	55	219	Ø400*86	3.2	3.8	19.2	24.3	64.5*46.5*47.5	6PCS	1008	2580
AL99-24-60W	600	86	55	383	Ø600*86	6.9	7.6	13.8	16.24	68.5*23.5*68.5	2PCS	486	996
AL99-32-75W	800	86	55	383	Ø800*86	11	13.8	11	14.44	85.5*14*89	1PCS	256	584
AL99-40-100W	1000	86	55	383	Ø1000*86	16.2	19.6	16.2	20.87	111.5*14*112	1PCS	164	392
AL99B-16-40W	400	102	71	219	Ø400*102	3.44	4.24	13.76	19.2	49*45.5*46.5	4PCS	1120	2340
AL99B-24-60W	600	110	79	383	Ø600*110	7.45	8.73	14.9	18	66.5*27*67	2PCS	426	876
AL99B-32-80W	800	110	79	383	Ø800*110	11.74	15.8	11.74	16.8	88.5*16.5*89	1PCS	208	484
AL99B-40-100W	1000	110	79	383	Ø1000*110	17.13	21.6	17.13	22.8	111.5*16.5*112	1PCS	140	324
ACC-AL99-16-WT/BK/WD-50 ACC-AL99-24/32/40-WT/BK/WD-50	180	41	800	200	Ø200*41	0.86	0.9	5.16	6.4	26.5*23*23	4PCS	8520	18876
ACC-AL99-WT/BK/WD-52	180	41	800	200	Ø200*41	0.86	0.9	5.16	6.4	26.5*23*23	4PCS	8520	18876
ACC-AL99-16/24-WT/BK/WD-51	140	35	500	10	Ø140*35	0.78	0.9	4.68	6.4	55.5*41.5*44.5	18PCS	5040	11970

## Driver Datasheet (Non-dimmable)

Total load wattage		40W	60W	75W	100W
Output	Rated output current	900mA@ max(optional:800mA/850mA /875mA/900mA)	500mA@ Max(optional:350mA/ 400mA/500mA)	550mA@ Max(optional:350mA / 400mA/ 500mA/ 550mA)	250-700mA
	Output Voltage range	DC30-42V		DC70-217V	DC80-220V
	Line Regulation	±7.5%		±5%	
	Setup, Rise Time	-			
Input	Flickering Index	<3% IEEE1789 NO RISK		<5% IEEE1789 NO RISK	
	Rated Input Voltage(V)	220-240V			
	Input Voltage	198-264V			
	Frequency	50/60Hz			
Protection	Rated Input Current	≤0.21A	≤0.31A	≤0.41A	≤0.51A
	Input Current	≤0.23A	≤0.34A	≤0.42A	≤0.57A
	Power Factor	0.9			
	THD	<10% @230V			
Safety & EMC	Efficiency	90%	92%		95%
	No load wattage	<0.5W		-	
	Short circuit protection	Pass			
	Over voltage protection	Pass			
Safety & EMC	Over temperature protection	Pass			
	Withstand voltage	I/P-O/P:3.75KVac,<5mA 60S		I/P-FG 1.6KV <5mA 60S	
	Isolation Resistance	I/P-O/P:500VDC,≥100MΩ		-	
	Surge	IEC/EN61000-4-5 (P≥25w L-N:1KV, L/N-PE:2KV)			
Safety & EMC	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		40W	60W	75W	100W
Output	Rated output current	900mA	500mA	550mA	700mA
	Output Voltage range	DC15-54V	DC54-240V		
	Line Regulation	±3%			
	Setup, Rise Time	-			
	Flickering Index	<2% IEEE1789 NO RISK	<1% IEEE1789 NO RISK		
Input	Rated Input Voltage(V)	220-240V			
	Input Voltage	198-264V			
	Frequency	50/60Hz			
	Rated Input Current	≤0.21A	≤0.31A	≤0.41A	≤0.51A
	Input Current	≤0.23A	≤0.34A	≤0.42A	≤0.57A
	Power Factor	>0.9			
	THD	<10% @220-240V			
	Efficiency	91%	92%		
Protection	No load wattage	not permitted	<0.25W		
	Short circuit protection	Pass	-		
	Over voltage protection	Pass			
	Over temperature protection	Pass			
Safety & EMC	Withstand voltage	I/P-O/P:3.75kVac,<5mA 60S;/P-FG:1.6kVac,<5mA 60S/O/ P-FG0.5kVac,<5mA 60S	I/P-FG-1.6KV <5mA 60S		
	Isolation Resistance	I/P-O/P:500VDC,≥100MΩ	-		
	Surge	IEC/EN61000-4-5 (P≥25w 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			

## Installation Instruction

### 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.

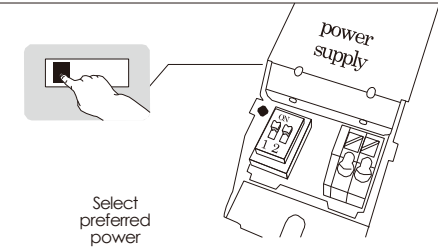


## Guidance For Wattage(Current) Selection (For OSRAM & TRIDONIC driver only)

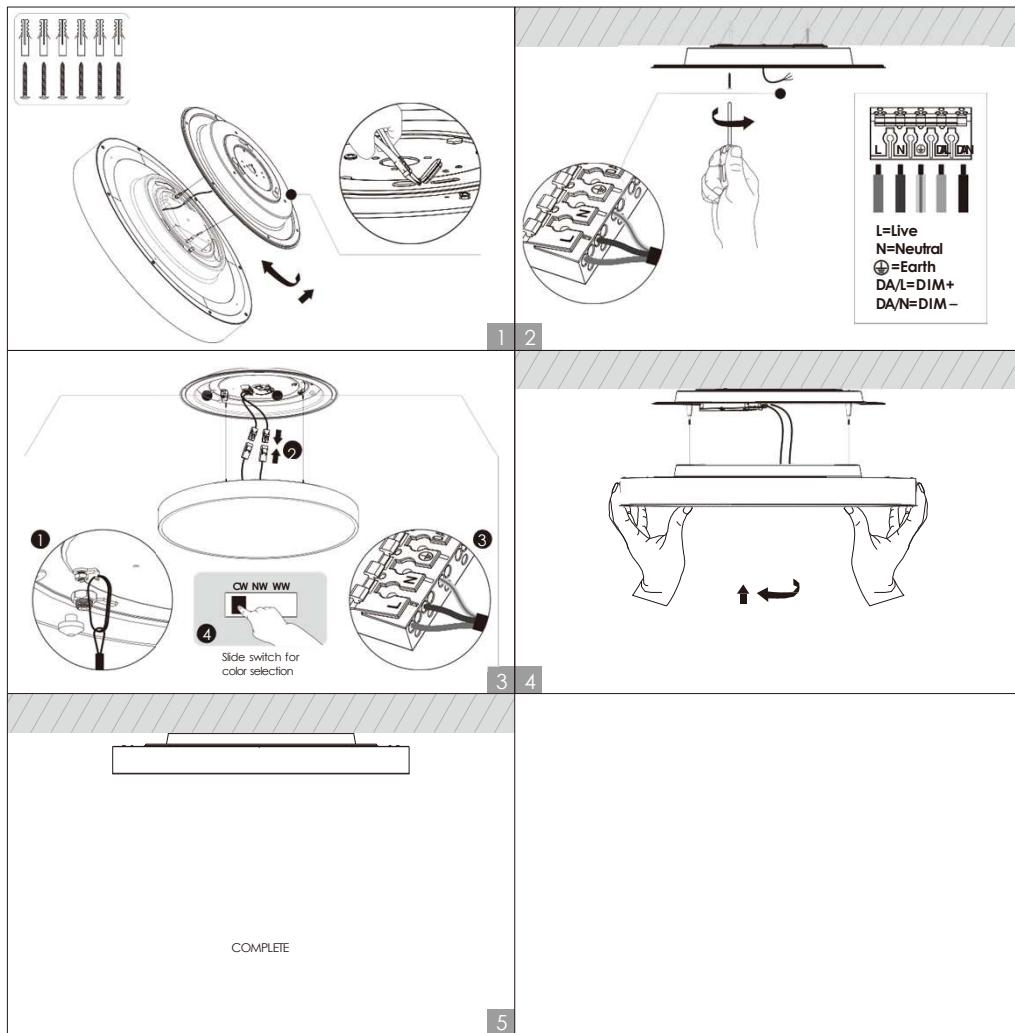
Diameter	Watt	Rated Current	LED Driver Current Selection by DIP-switch																																																					
			Pin 1	Pin 2	Current																																																			
Ø400	35W	800mA	<table border="1"> <caption>Table 1- Rated output power and current sets</caption> <tr> <td>I out(mA)</td> <td>800</td> <td>850</td> <td>875</td> <td>900</td> </tr> <tr> <td>U min [V]</td> <td>30</td> <td>30</td> <td>30</td> <td>30</td> </tr> <tr> <td>U max [V]</td> <td>42</td> <td>42</td> <td>42</td> <td>42</td> </tr> <tr> <td>P min [W]</td> <td>24</td> <td>25.5</td> <td>26.3</td> <td>27</td> </tr> <tr> <td>P max [W]</td> <td>33.6</td> <td>35.7</td> <td>36.8</td> <td>37.8</td> </tr> <tr> <td>Ta [°C]</td> <td>60</td> <td>55</td> <td>55</td> <td>55</td> </tr> <tr> <td>Ta [°C]</td> <td>95</td> <td>95</td> <td>95</td> <td>95</td> </tr> <tr> <td>Line Current,nominal@230VmA</td> <td>170</td> <td>180</td> <td>182</td> <td>184</td> </tr> <tr> <td>Max Power Loss@230V [W]</td> <td>3.8</td> <td>4</td> <td>4</td> <td>4.2</td> </tr> <tr> <td>Input Power@230V [W]</td> <td>37.4</td> <td>39.7</td> <td>40.8</td> <td>42.0</td> </tr> </table>				I out(mA)	800	850	875	900	U min [V]	30	30	30	30	U max [V]	42	42	42	42	P min [W]	24	25.5	26.3	27	P max [W]	33.6	35.7	36.8	37.8	Ta [°C]	60	55	55	55	Ta [°C]	95	95	95	95	Line Current,nominal@230VmA	170	180	182	184	Max Power Loss@230V [W]	3.8	4	4	4.2	Input Power@230V [W]	37.4	39.7	40.8	42.0
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37W	850mA	ON	ON	900																																																				
38W	875mA	ON	OFF	875																																																				
40W	900mA	OFF	ON	850																																																				
Ø600	42W	350mA	<table border="1"> <caption>Table 1- Rated output power and current sets</caption> <tr> <td>I out(mA)</td> <td>350</td> <td>400</td> <td>500</td> <td>550</td> </tr> <tr> <td>U min [V]</td> <td>70</td> <td>70</td> <td>70</td> <td>70</td> </tr> <tr> <td>U max [V]</td> <td>217</td> <td>187</td> <td>150</td> <td>136</td> </tr> <tr> <td>P min [W]</td> <td>24.5</td> <td>28</td> <td>35</td> <td>38.5</td> </tr> <tr> <td>P max [W]</td> <td>77</td> <td>75</td> <td>75</td> <td>76</td> </tr> <tr> <td>Ta [°C]</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> <tr> <td>Ta [°C]</td> <td>75</td> <td>75</td> <td>75</td> <td>75</td> </tr> <tr> <td>Line Current,nominal@230VmA</td> <td>370</td> <td>370</td> <td>370</td> <td>370</td> </tr> <tr> <td>Max Power Loss@230V [W]</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> </tr> <tr> <td>Input Power@230V [W]</td> <td>47.3</td> <td>59.1</td> <td>83</td> <td>83</td> </tr> </table>				I out(mA)	350	400	500	550	U min [V]	70	70	70	70	U max [V]	217	187	150	136	P min [W]	24.5	28	35	38.5	P max [W]	77	75	75	76	Ta [°C]	50	50	50	50	Ta [°C]	75	75	75	75	Line Current,nominal@230VmA	370	370	370	370	Max Power Loss@230V [W]	6	6	6	6	Input Power@230V [W]	47.3	59.1	83	83
	I out(mA)	350	400	500	550																																																			
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U max [V]	217	187	150	136																																																				
P min [W]	24.5	28	35	38.5																																																				
P max [W]	77	75	75	76																																																				
Ta [°C]	50	50	50	50																																																				
Ta [°C]	75	75	75	75																																																				
Line Current,nominal@230VmA	370	370	370	370																																																				
Max Power Loss@230V [W]	6	6	6	6																																																				
Input Power@230V [W]	47.3	59.1	83	83																																																				
49W	400mA	OFF	OFF	350																																																				
60W	500mA(Max)	OFF	ON	400																																																				
Ø800	47W	350mA	OFF	ON	400																																																			
	55W	400mA	ON	OFF	500																																																			
	68W	500mA	ON	ON	550																																																			
75W	550mA	ON	ON	550																																																				
Ø1000	100W	250-700mA	Ready-for use resistor between 300-700mA to set output current value (Please refer to Tridonic I-SELECT 2 PLUG PRE / EXC for details)																																																					



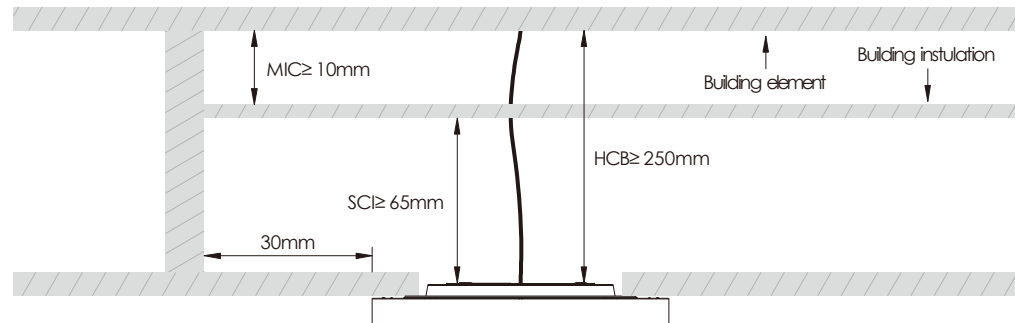
Warning: DIP switch selection must comply with guidance, otherwise product will be overloaded!



## Surface Mount installation

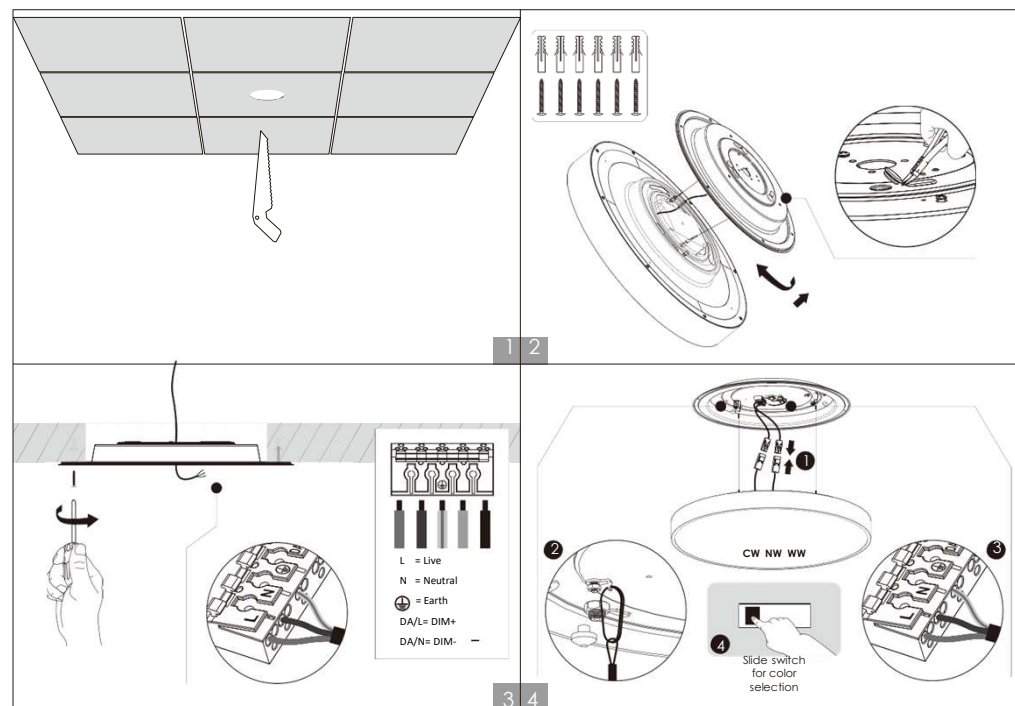


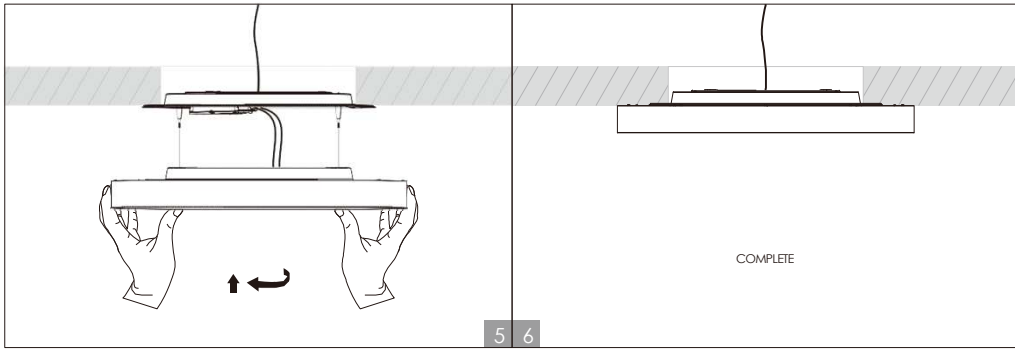
## Recessed installation





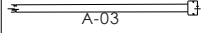

### Ceiling cutout table

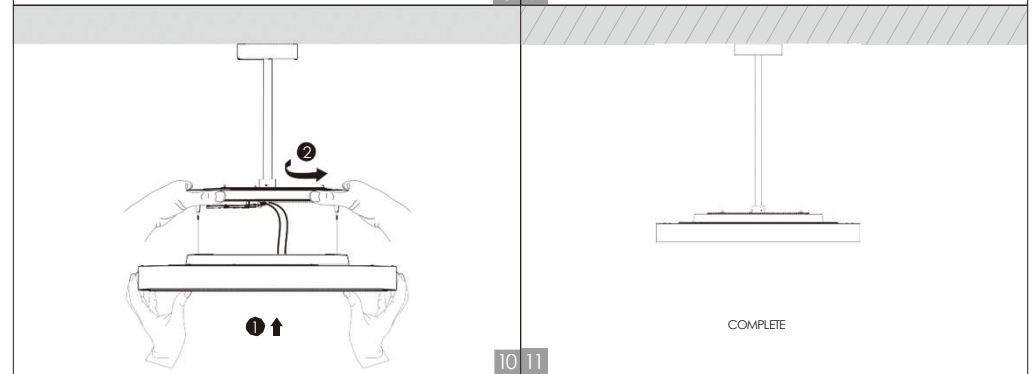
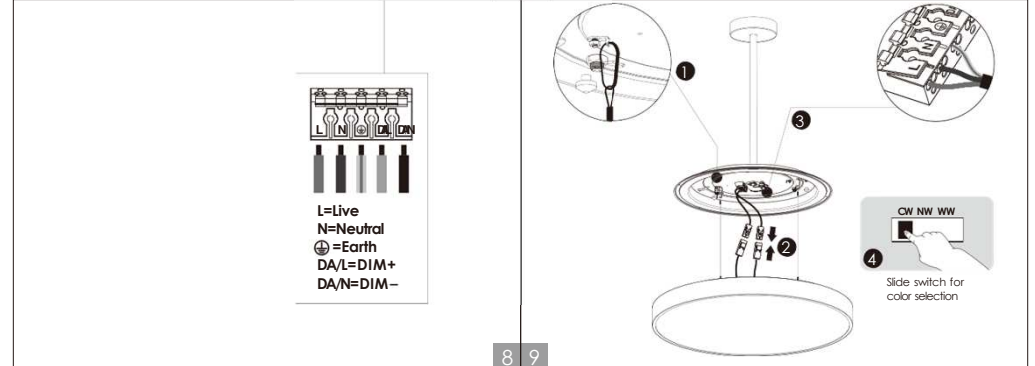
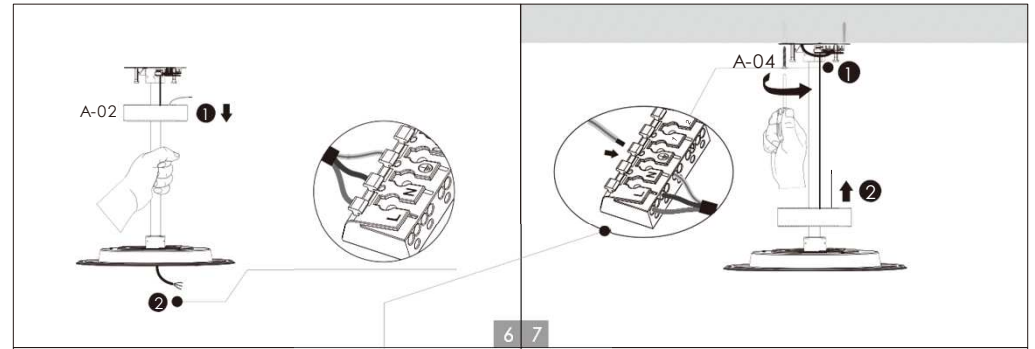
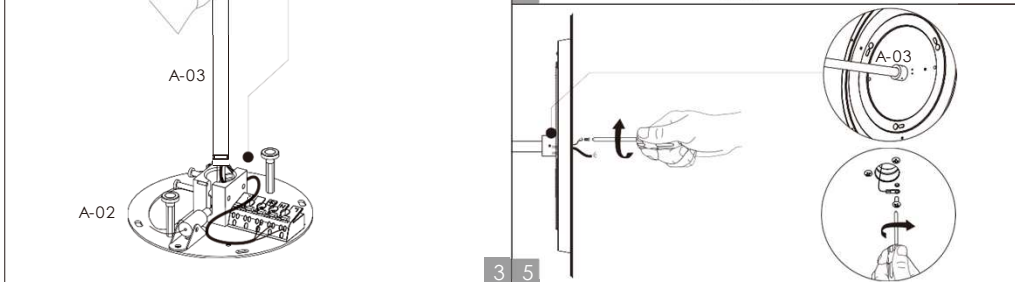
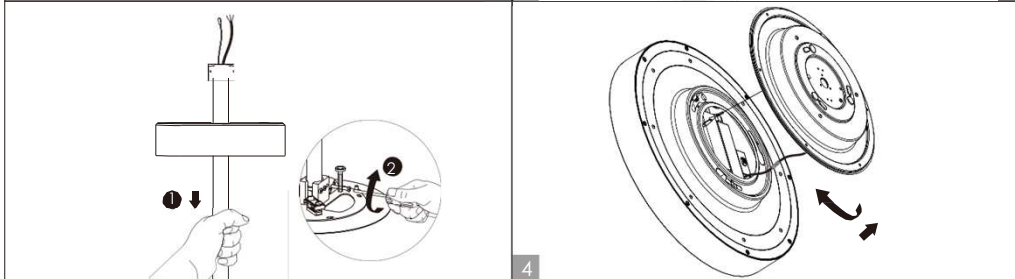
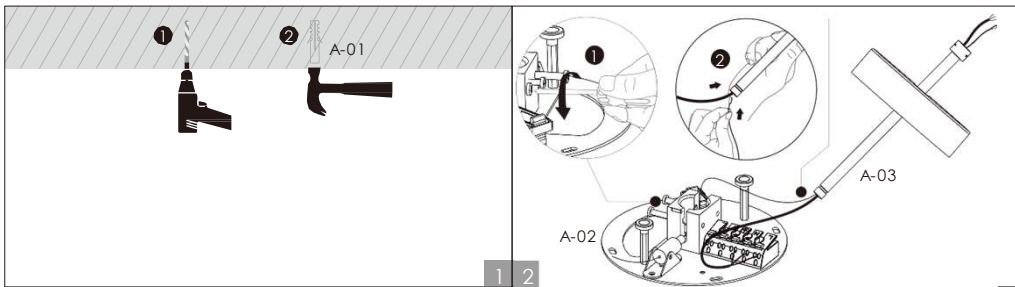
Downlight Dia (inch)	16	24	32	40
Ceiling Cutout (mm)	Ø220-250		Ø385-415	












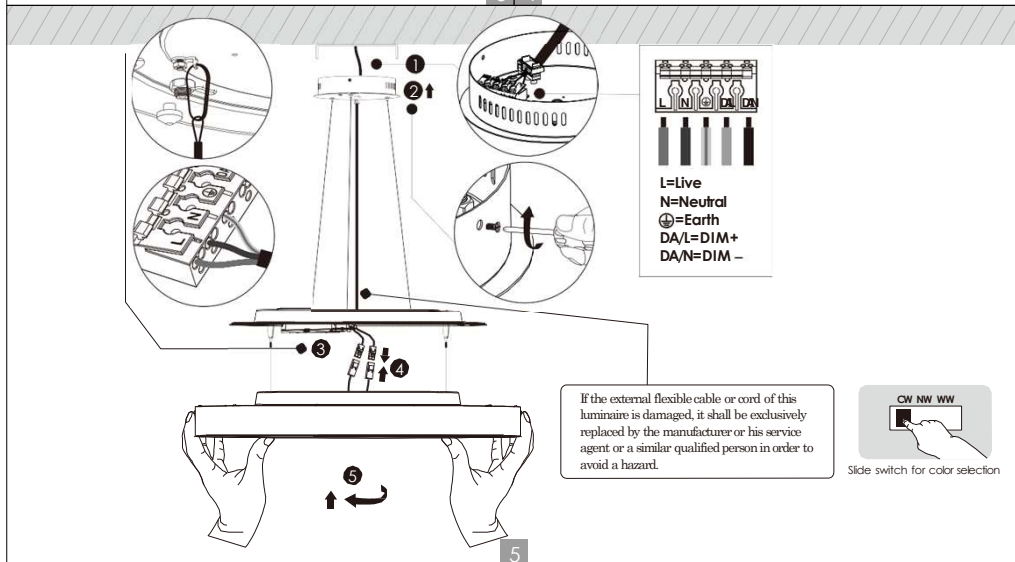
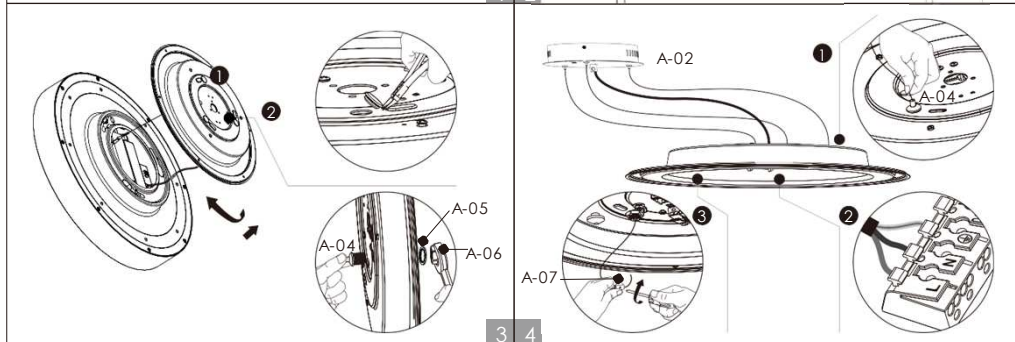
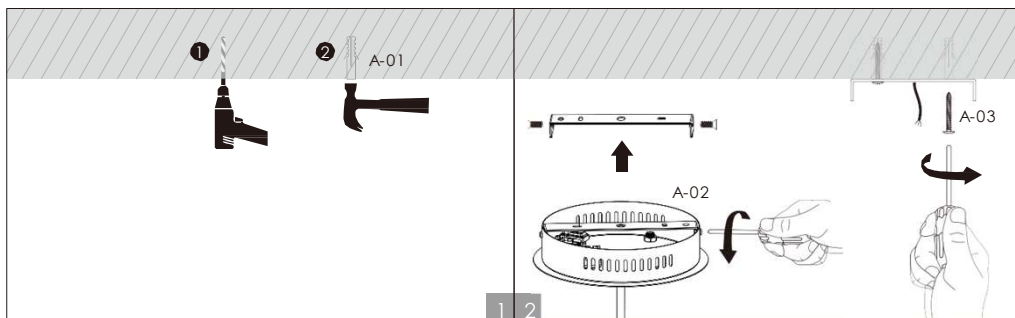
**With pendant rod suspension installation**

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










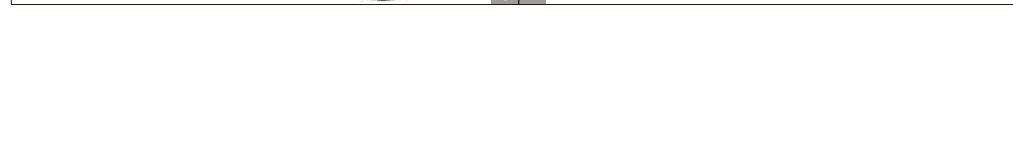
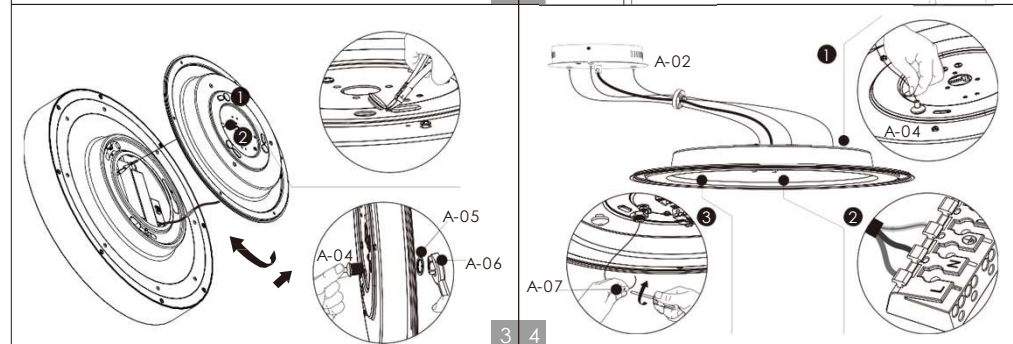
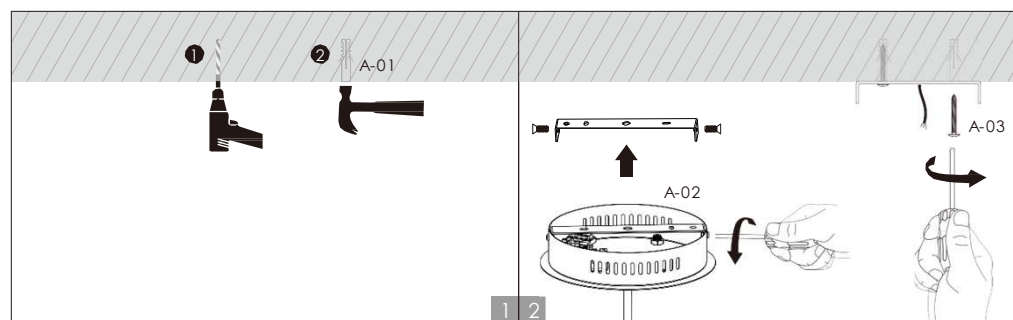
## With steel wire suspension installation

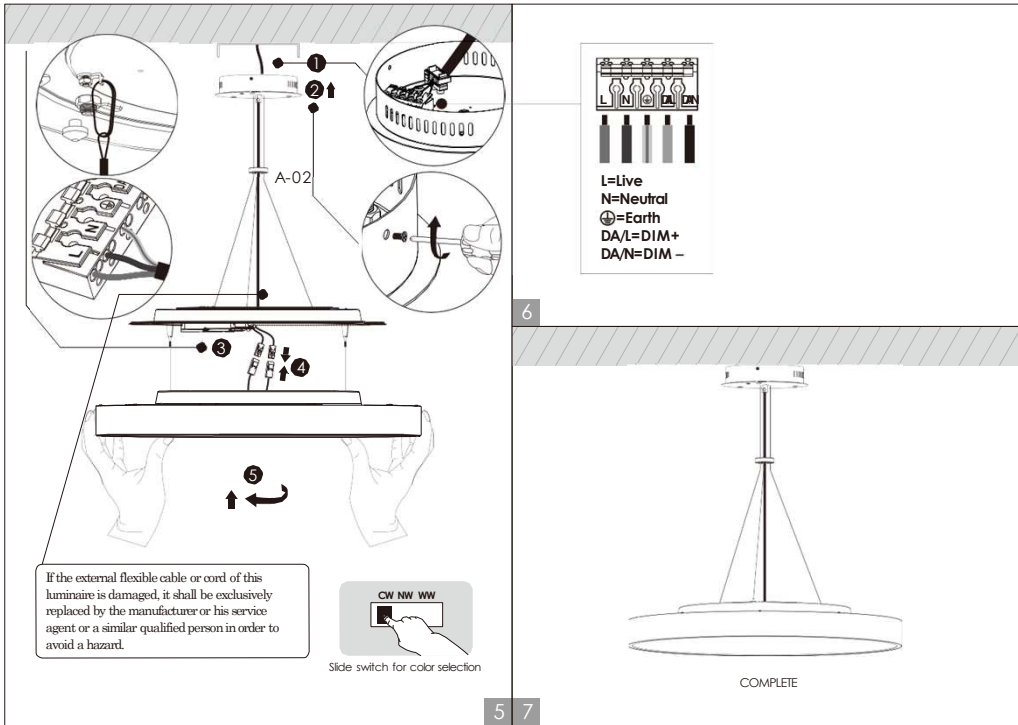
Code	A-01 	A-02 	A-03 	A-04 	A-05 	A-06 	A-07 
	x2	x1	x2	x3	x3	x3	x3



## 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









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[www.rleurope.ch](http://www.rleurope.ch)

[info@rleurope.ch](mailto:info@rleurope.ch)

TEL: +41 (0)91 6832255

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