

Entry /ECO

Standard /STD

Professional/PRO

ODM & OEM

Intelligent/INT

PRO
Specifications



LED Downlight

TH0001 Series

 **RL Europe**
Your partner in LED



Introduction

TH0001 is a modular downlight with multiple cover options, which can meet more complex projects demand. It adopts ADC12 aluminum heat sink to make sure a better heat dissipation and keep a long lifespan. TH0001 has four types, type A is fixed downlight while type B is tilt design, both of them have 15&20/24/36/45&50degree optic lens, type C is 20degree wall washer while type D is 5degree wall washer, all these 4 types are designed for 3-12meters height optical requirements. Users could enjoy a great lighting effect 'visible brightness, invisible light source'.

Features

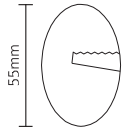
1. TH0001A is fixed design, TH0001B is tilt design(355degree horizontal, 30degree vertical), TH0001C 20degree wall washer and TH0001D 5degree wall washer.
2. Four size options for cutout: 55mm/75mm/105mm/150mm.
3. Glare cut>40degree, UGR<19 anti-glare effect.
4. CRI>90 R9>50 for a more real lighting effect.
5. No auxiliary and no stratification for light spot.
6. TH0001A and TH0001B have honeycomb louver, soft light film(Not include 150mm) optic accessories to reach the max lux.
7. Isolated flicker free driver, external design could support driver replacement.

Application Areas

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



Cutout-55mm



Module A-55 (Fixed)



ACC-TH0001-55-WT-01



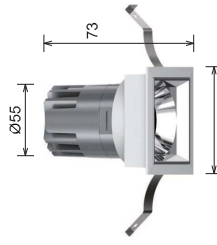
TH0001A-55
TH0001B-55



Module B-55 (Tilted)



ACC-TH0001-55-WT-02



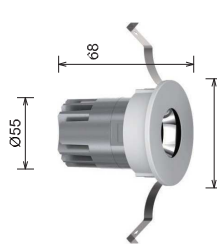
TH0001A-55
TH0001B-55



Module A-55 (Fixed)



ACC-TH0001A-55-WT-03



TH0001A-55



Module B-55 (Tilted)



ACC-TH0001B-55-WT-04



TH0001B-55

TH0001A/B-55 Optical Accessory



ACC-TH0001-55-WT-01



ACC-TH0001-55-WT-02



ACC-TH0001A-55-WT-03



ACC-TH0001B-55-WT-04



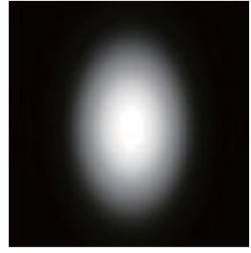
Soft filter lens

Built into the downlight as standard accessory, 8% lumen increased if lens removed



Oval spread lens

Suitable for narrow space



Honeycomb Louver

Will affect lighting angle and have 30% lumen decrease



ACC-TH0001-55-BK-18

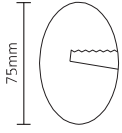


ACC-TH0001-55-CR-17



ACC-TH0001-55-CR-19

Cutout-75mm



Module A-75 (Fixed)



ACC-TH0001-75-WT-09
ACC-TH0001-75-CH-13



ACC-TH0001A-75-WT-09
ACC-TH0001A-75-WT-14



ACC-TH0001B-75-WT-09
ACC-TH0001B-75-WT-15

ACC-TH0001-75-WT-01



TH0001A-75
TH0001B-75

ACC-TH0001A-75-WT-05

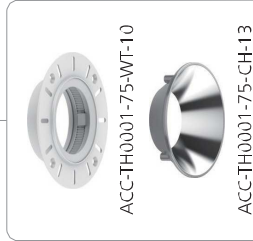


TH0001A-75

ACC-TH0001B-75-WT-06



TH0001B-75



ACC-TH0001-75-WT-10
ACC-TH0001-75-CH-13

ACC-TH0001-75-WT-02



TH0001A-75
TH0001B-75

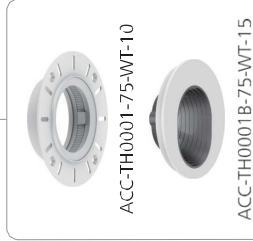


ACC-TH0001A-75-WT-10
ACC-TH0001A-75-WT-14

ACC-TH0001A-75-WT-07



TH0001A-75

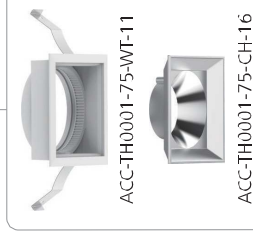


ACC-TH0001B-75-WT-10
ACC-TH0001B-75-WT-15

ACC-TH0001B-75-WT-08



TH0001B-75



ACC-TH0001-75-WT-11
ACC-TH0001-75-CH-16

ACC-TH0001-75-WT-03



TH0001A-75
TH0001B-75



ACC-TH0001-75-WT-12
ACC-TH0001-75-CH-16

ACC-TH0001-75-WT-04



TH0001A-75
TH0001B-75

TH0001A/B-75 Optical Accessory



ACC-TH0001-75-WT-09



ACC-TH0001-75-WT-10



ACC-TH0001-75-WT-11



ACC-TH0001-75-WT-12



Honeycomb Louver

Will affect lighting angle and have 30% lumen decrease



Oval spread lens

Suitable for narrow space



Soft filter lens

Built into the downlight as standard accessory, 8% lumen increased if lens removed



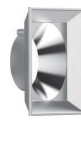
ACC-TH0001-75-BK-18



ACC-TH0001-75-CR-17



ACC-TH0001-75-CR-19



ACC-TH0001-75-CH-16

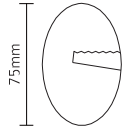


ACC-TH0001B-75-WT-15



ACC-TH0001A-75-WT-14

Cutout-75mm



ACC-TH0001C-75-WT-20



TH0001C-75



ACC-TH0001C-75-WT-21



TH0001C-75



ACC-TH0001C-75-WT-20



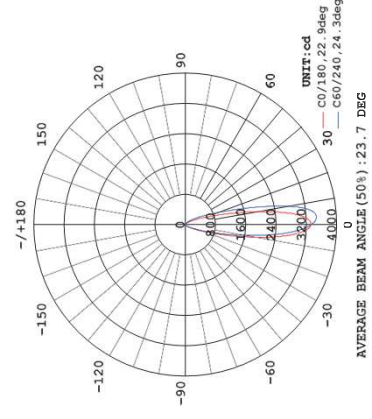
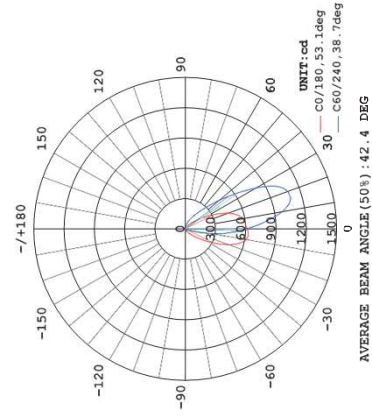
TH0001D-75



ACC-TH0001C-75-WT-21

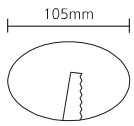


TH0001D-75



*C/D cutout 75 cannot match to optical Honeycomb Louver / Oval Spread Lens

Cutout-105mm

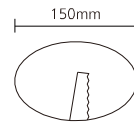


ACC-TH0001-105-WT-01



TH0001A-105
TH0001B-105

Cutout-150mm



ACC-TH0001-150-WT-01



TH0001A-150
TH0001B-150

*Optical accessories are not applicable for Module A/B-150.

TH0001A/B-105 Optical Accessory



ACC-TH0001-105-BK-18



Honeycomb Louver
Will affect lighting angle and have 30% lumen decrease



Oval spread lens
Suitable for narrow space



Soft filter lens
8% lumen decreased if lens added



ACC-TH0001-105-CR-17



ACC-TH0001-105-CR-19



Package Measurement

Code	Dimension(mm)		Product Weight (Kg)		Package weight (Kg)		Carton Size(cm)	Qty/CTN	20GP (pcs)	40HQ (pcs)
	Cutout		N.W/PC	G.W/PC	N.W/CTN	G.W/CTN				
TH0001A/B-55	Ø55		0.19	0.35	4.6	10.2	44*33.5*20	24	10400	25280
TH0001A/B-75	Ø75		0.29	0.5	7	13.8	54*45.5*22	24	10400	25280
TH0001A/B-105	Ø105		0.7	0.95	8.4	13	47*31.5*28	12	7836	16976
TH0001A/B-150	Ø150		1.75	2.3	10.5	15.8	56*37.5*24.5	6	2196	5424
TH0001C/D-75	Ø75		0.37	0.6	8.9	16.2	54*45.5*24	24	10400	25280

Technical Data Sheet

Code No.	TH0001A/B-55				TH0001A/B-75				TH0001A/B-105				TH0001A/B-150				TH0001C-75		TH0001D-75	
Cutout (mm)	Ø55-Ø57				Ø75-Ø77				Ø105-Ø107				Ø150-Ø152				Ø75-Ø77			
Watt(W)	4.5W	8W	7.5W	10W	12W	15W	14W	20W	25W	30W	30W	35W	40W	45W	10W	14W	10W	14W		
Rated Input Voltage(V)	AC230V																			
Input Voltage(V)	AC200-240V																			
LED Module Input	DC33-38V																			
Light Source	COB																			
SDCM	≤3(COB)																			
CCT(K)	2700K/3000K/4000K																			
CCT Selection DIP Switch	NO																			
Luminous Flux (lm) ±5% (White color)	Non-DIM	1-CCT	250-350	400-550	450-650	650-800	750-950	900-1100	1000-1250	1450-1750	1750-2100	2100-2400	2250-3100	2500-3500	2800-3900	3000-4300	800-850	1100-1200	950-1000	1350-1450
	DIM	1-CCT	200-300	350-500	400-600	650-800	750-950	850-1050	950-1200	1350-1650	1650-2000	2000-2300	2200-3000	2500-3500	2800-3900	3000-4300	800-850	1050-1150	900-950	1300-1400
	Non-DIM	3-CCT	-																	
	DIM	3-CCT	-																	
CRI	>90																			
Beam Angle (°)	15°/24°/36°/50°				20°/24°/36°/50°				15°/24°/36°/45°				15°/24°/36°/50°				55°x36°x20°		22°x24°x5°	
UGR	<19																			
LED Driver	Built-out																			
Dimming Option	Triac / NO																			
Sensor	-																			
Emergency Kits	NO																			
Electrical Class	Class II																			
Ingress Protection (IP Rating)	IP44(without driver)														IP20					
Impact Resistance (IK Rating)	-																			
Product Finishing(Base)	RAL9007																			
Optics Material	PMMA/PC																			
Housing Material	Aluminium Die-casting																			
Lifetime (hr)	50,000h																			
Glow wire test (°C)	650°C																			
Operating Temp. (°C)	-20°C ~30°C																			
Storage Temp. (°C)	-20°C ~65°C																			
Installation	Recessed																			

Driver Datasheet (Non-dimmable)

Total load wattage		4.5W	7.5W/8W	10W	12W	14W/15W	20W	25W	30W	35W	40W	45W	
Output	Output Voltage range	30-40V											
	Rated output current	100mA	180mA	250mA	300mA	350mA	500mA	600mA	750mA	900mA	1000mA	1150mA	
	Line Regulation	±5%											
	Setup, Rise Time	≤500ms @230V											
	Flickering Index	0.5%(NO RISK)			0.8%(NO RISK)			0.5%(NO RISK)					
Input	Input Voltage	AC200-264V											
	Rated Input Voltage(V)	AC220-240V											
	Frequency	50/60Hz											
	Input Current	≤0.05A	≤0.05A	≤0.06A	≤0.07A	≤0.09A	≤0.12A	≤0.14A	≤0.17A	≤0.2A	≤0.23A	≤0.26A	
	Rated Input Current	≤0.05A	≤0.05A	≤0.06A	≤0.07A	≤0.08A	≤0.11A	≤0.13A	≤0.16A	≤0.19A	≤0.21A	≤0.24A	
	Power Factor	PF≥0.4	0.9										
	THD	<20% @230V											
	Efficiency	≥70%	≥86%			≥88%			≥90%				
	No load wattage	<0.5W@230V											
	Protection	Short circuit protection	Pass										
Over voltage protection		Pass											
Over temperature protection		Pass											
Safety &EMC	Withstand voltage	PASS											
	Isolation Resistance	I/P-O/P: 500VDC, ≥100M Ω											
	Surge	IEC/EN61000-4-5(P<25W;L-N:500V)					IEC/EN61000-4-5(P≥25W;L-N:1KV)						
	EMC Emission	EN55015, EN61000-3-2											
EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547												

Driver Datasheet (Triac Dimmable)

Total load wattage		7.5W/8W	10W	12W	14W/15W	20W	25W	30W	35W	40W	45W	
Output	Output Voltage range	30-40V										
	Rated output current	180mA	250mA	300mA	350mA	500mA	600mA	700mA	850mA	950mA	1050mA	
	Line Regulation	±5%										
	Setup, Rise Time	≤500ms @230V										
	Flickering Index	5%(LOW RISK)			4%(LOW RISK)			3%(LOW RISK)				
Input	Input Voltage	AC200-264V										
	Rated Input Voltage(V)	AC220-240V										
	Frequency	50Hz										
	Input Current	≤0.05A	≤0.07A	≤0.08A	≤0.09A	≤0.12A	≤0.15A	≤0.17A	≤0.21A	≤0.23A	≤0.25A	
	Rated Input Current	≤0.05A	≤0.06A	≤0.07A	≤0.08A	≤0.11A	≤0.14A	≤0.16A	≤0.19A	≤0.21A	≤0.23A	
	Power Factor	0.9										
	THD	<20% @230V										
	Efficiency	≥80%			≥83%			≥84%				
	No load wattage	<0.5W@230V										
	Protection	Short circuit protection	Pass									
Over voltage protection		Pass										
Over temperature protection		Pass										
Safety &EMC	Withstand voltage	I/P-O/P:3.75KVac,<5mA 60S										
	Isolation Resistance	I/P-O/P: 500VDC, ≥100M Ω										
	Surge	IEC/EN61000-4-5(P<25W;L-N:500V)										
	EMC Emission	IEC/EN55015, IEC/EN61000-3-2										
EMC Immunity	IEC/EN61000-4-2,3,4,5,6,8,11; IEC/ EN61547											

Driver Datasheet (DALI Dimmable)

Total load wattage		5W	8W	10W	12W	15W	20W	25W	30W	
Output	Output Voltage range	28-40V								
	Rated output current	100mA	200mA	250mA	300mA	350mA	500mA	550mA	750mA	
	Line Regulation	±5%								
	Setup, Rise Time	0.7S								
	Flickering Index	3%(NO RISK)								
Input	Input Voltage	AC180-264V								
	Rated Input Voltage(V)	AC200-240V								
	Frequency	50/60Hz								
	Input Current	0.04A	0.05A	0.07A	0.08A	0.1A	0.13A	0.14A	0.17A	
	Rated Input Current	0.03A	0.04A	0.05A	0.06A	0.08A	0.1A	0.12A	0.14A	
	Power Factor	0.8		0.85		0.9				
	THD	<20% @230V								
	Efficiency	>75%		>78%		>80%		>82%		>84%
	No load wattage	230V/0.5W								
	Protection	Short circuit protection	PASS							
Over voltage protection		PASS								
Over temperature protection		PASS								
Safety &EMC	Withstand voltage	I/P-O/P:3.75KVac,<5mA 60S								
	Isolation Resistance	I/P-O/P: 500VDC, ≥4M Ω								
	Surge	IEC/EN61000-4-5(P<25W; L-N:500V, L/N-PE:1KV)					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								

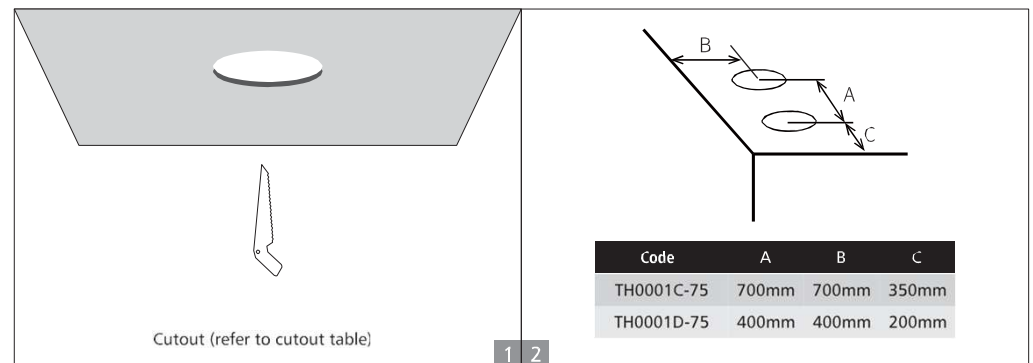
Installation Procedure

WARNING

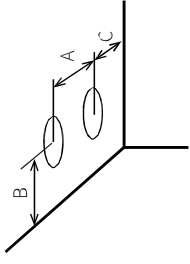
- 1.Switch off before installation.
- 2.Switch on only after complete installation and examination of the circuit.
- 3.Professional electrician for installation and maintenance only.



Standard rim version



Standard rimless version

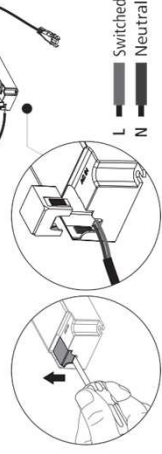
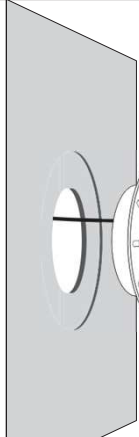


Code	A	B	C
TH0001C-75	700mm	700mm	350mm
TH0001D-75	400mm	400mm	200mm

Counterbore depth 4-5mm
counterbore diameter > 115mm,
suitable for rimless version

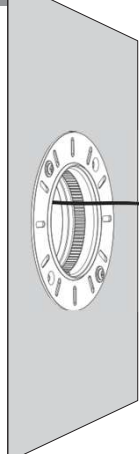
Cutout (refer to cutout table)

1 2

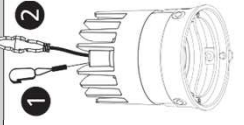
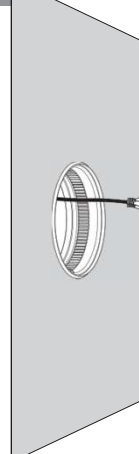


Wire diameter: 0.5-1.5mm? Wire stripping length: 8-10mm

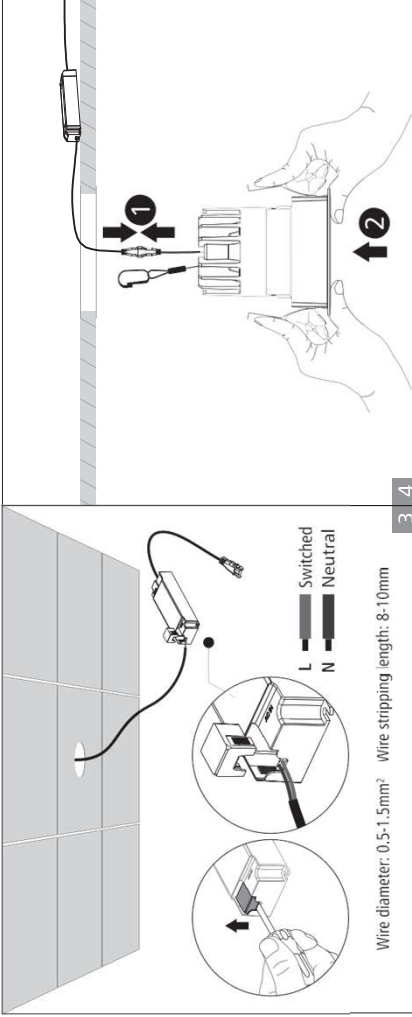
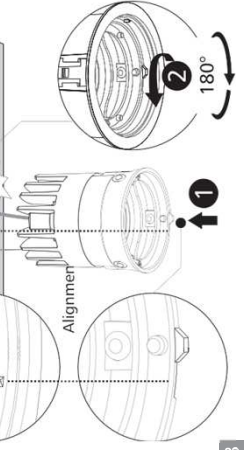
3 4



5 6

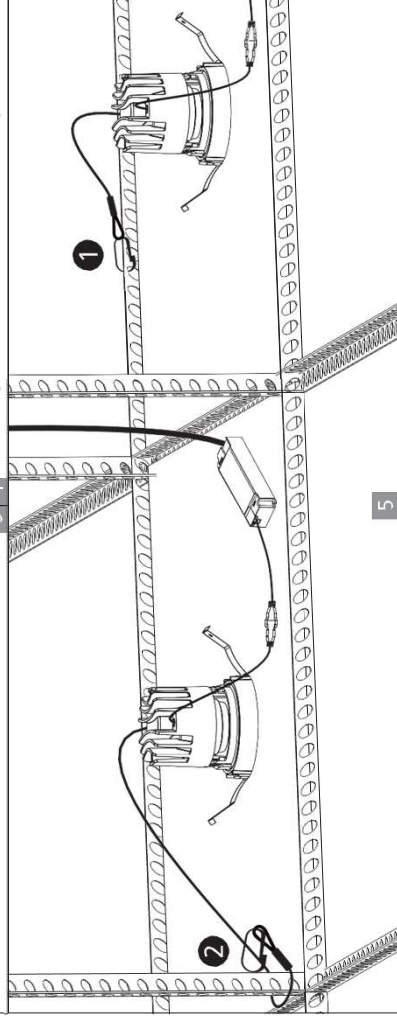


7 8

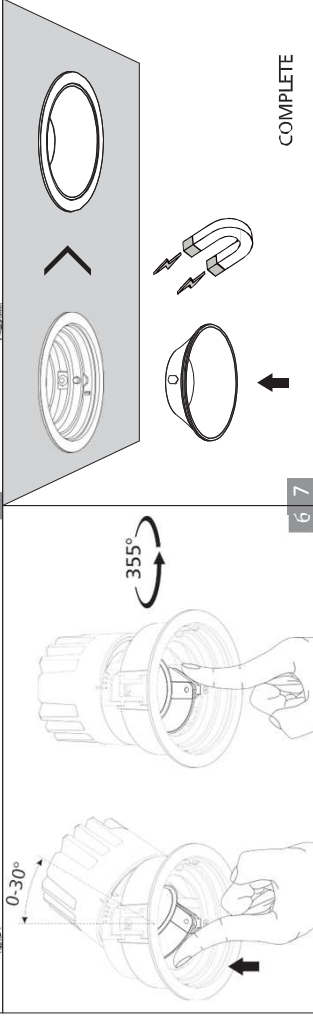


Wire diameter: 0.5-1.5mm? Wire stripping length: 8-10mm

3 4

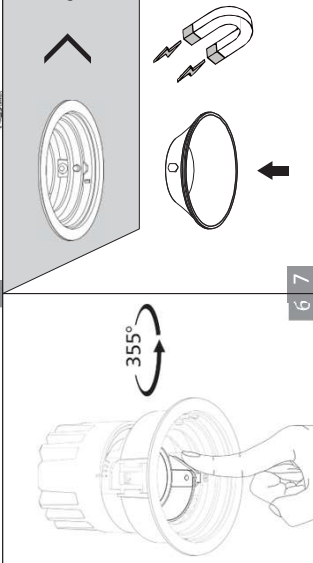


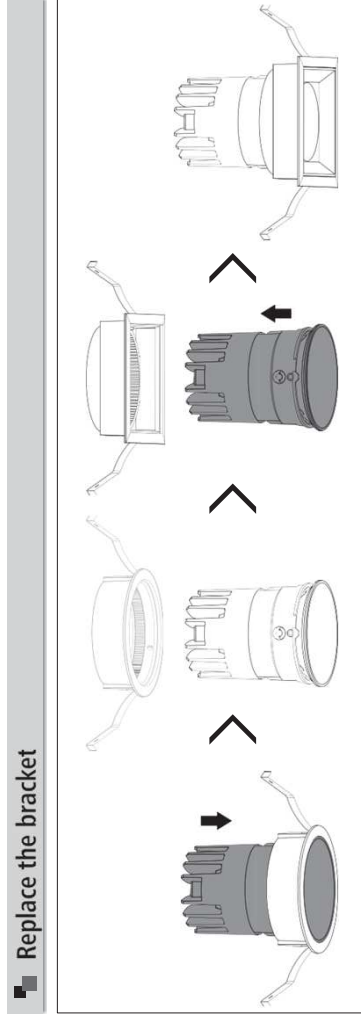
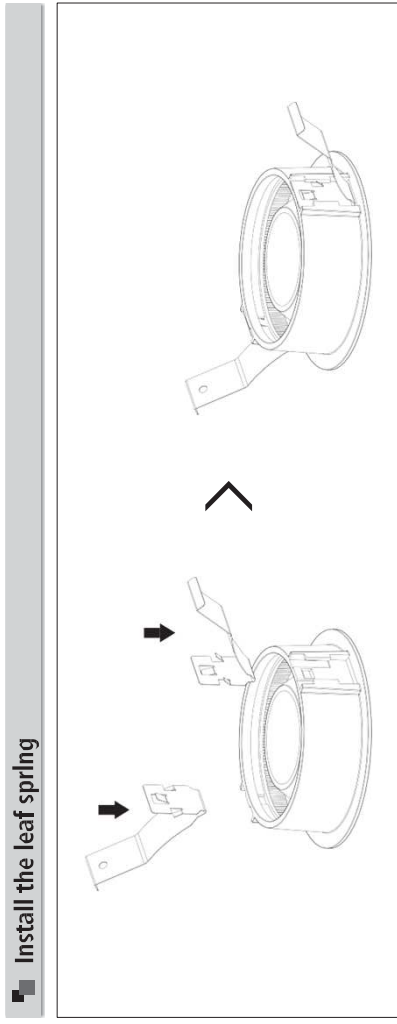
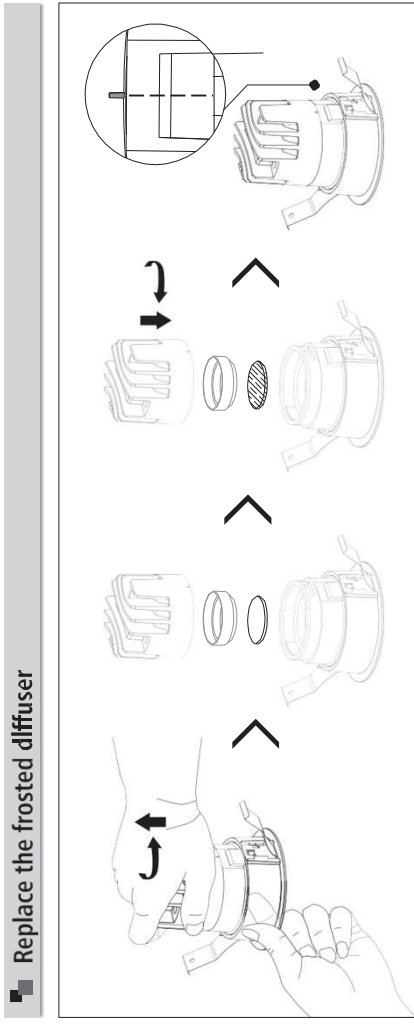
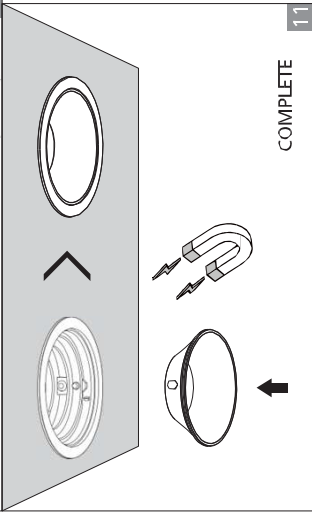
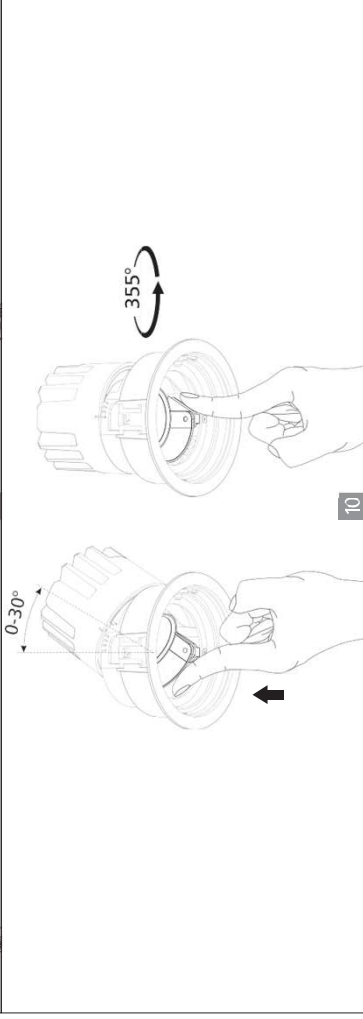
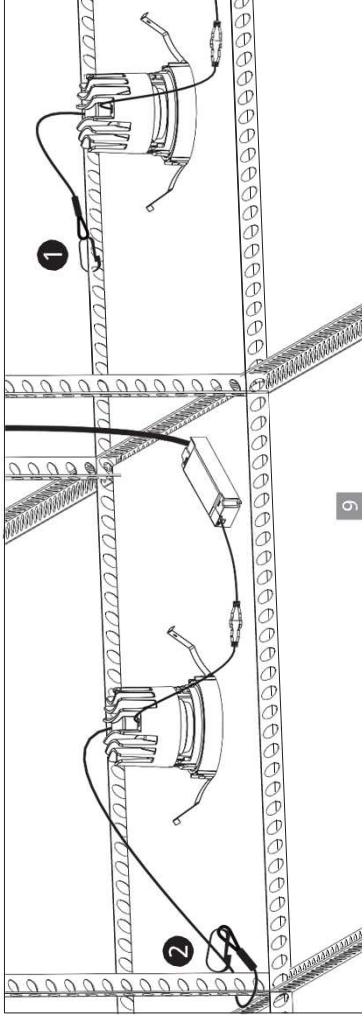
5



COMPLETE

6 7







RL Europe
Your partner in LED

www.rleurope.ch

info@rleurope.ch

TEL: +41 (0)91 6832255

Add: via E. Bossi 12/B, CH-6830 Chiasso (TI)