




iLight Solo Solutions Guide

With the LCC-10 Lighting Connection Centre



iLight Solo Solutions Guide



iLight Solo is a cost effective control solution for simple stand alone DALI applications where fast installation and minimal commissioning is required.

At the heart of the Solo system is the LCC-10 Lighting Connection Centre, which is complimented by a range of sensors, connecting leads and plugs for a complete solution.

LCC10 can also be used alongside iLight SCMD2 and SCMD4 fully addressable DALI controllers providing a fast, 'plug & play' method of deploying luminaires, sensors and control plates within a building-wide lighting control network.

Each application within this document includes an equipment list, making the products easy to specify and order.

DALI Dimming Applications

Application 1 - Page 4-5

DALI, presence detection with adjustable on/off levels – Ideal for areas where the lights never switch off.

Application 2 - Page 6-7

DALI, absence detection and maintained illuminance – For small cellular offices and meeting rooms with natural daylight.

Application 3 - Page 8-9

DALI, absence detection across two rooms - Ideal for cellular offices & meeting rooms.

Application 4 - Page 10-11

DALI, presence detection with a set back and off level - For areas such as WCs, staircases and internal corridors where the light level dims down before switching off.

Application 5 - Page 12-13

Facilitating pluggable connection of Fully Addressable DALI.

Application 6 - Page 14-15

Facilitating pluggable connection of Fully Addressable DALI with Scene Setting.

Application 7 - Page 16-17

Switch Dim/Touch Dim – For rooms where dimming is required, with no occupancy control.

Application 8 - Page 18-19

A mixture of DALI & switch output luminaires - For projects where DALI and non-dimmable luminaires are installed in the same room.

Non-Dimmable Applications

Application 9 - Page 20-21

Presence detection non-dimmable – Ideal for WCs, lobby areas, store-rooms and internal corridors.

Application 10 - Page 22-23

Absence detection on/off – Internal small cellular offices and meeting rooms with no natural daylight, where the user would like a manual switch for control of their luminaires.

Application 11 - Page 24-25

Absence detection across two rooms - Internal small cellular offices and meeting rooms with no natural light.

Application 12 - Page 26-27

Locally switched with no controls - Suited for areas where lighting control would not be required such as disabled toilets & dark rooms but pluggable connection of luminaires is required.

Emergency Applications

Application 13 - Page 28-29

DALI emergency monitoring - Emergency monitoring system with fast installation.

Application 14 - Page 30-31

Key switch emergency test - Can be initiated at the distribution board or locally in the rooms.

Application 15 - Page 32-33

Dual supply - Required where the project has specified a UPS system, with no dimming.

Application 16 - Page 34-35

Dual supply with DALI - This application would be applied when DALI luminaire are installed, with a back up central battery or generator system, mostly used in healthcare applications DALI and non-dimmable luminaires are installed in the same room.

Quick Start Commissioning

HHIR-LCD-PROG - Page 36-39

IR LCD handset programming guide

HHIR-PROG - Page 39

IR handset programming

DALI Dimming - Application 1

DALI, presence detection with adjustable on/off levels

An occupancy sensor is programmed to switch the lighting on at full brightness when presence is detected and the space occupied. When the space is unoccupied, the lighting level will dim down, the level can be configured to suit and set with the hand-held programmer.

This is ideal for areas where the lights never need switch off and a safe environment with some level of luminance is required.

- Hotel corridors
- Care home corridors
- Nurse Stations
- General circulation spaces
- High security areas



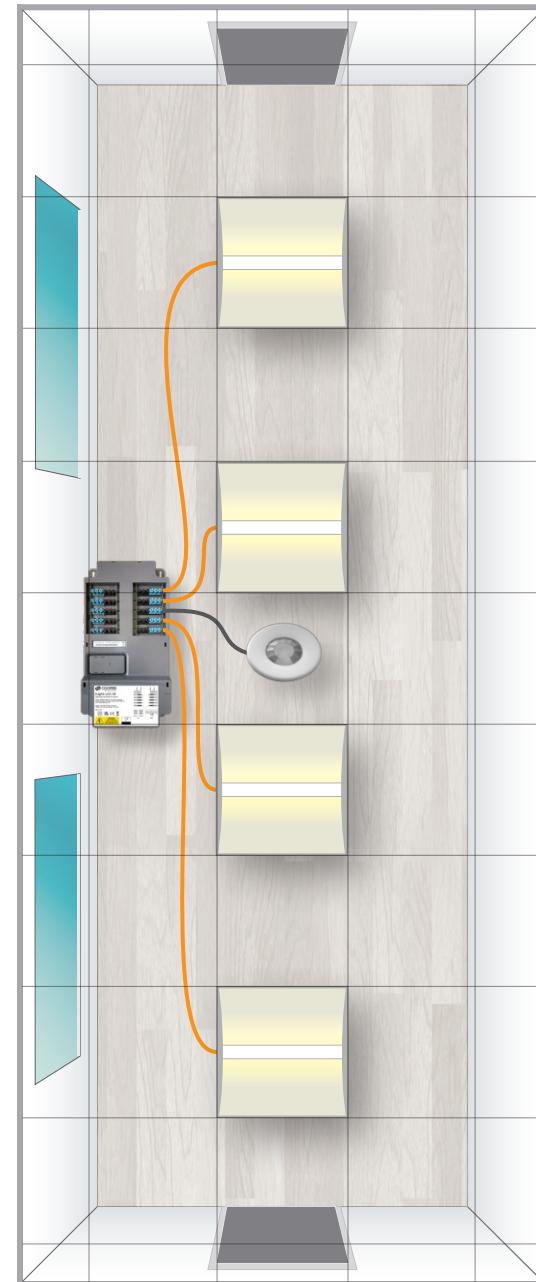
Hotels



Care Homes

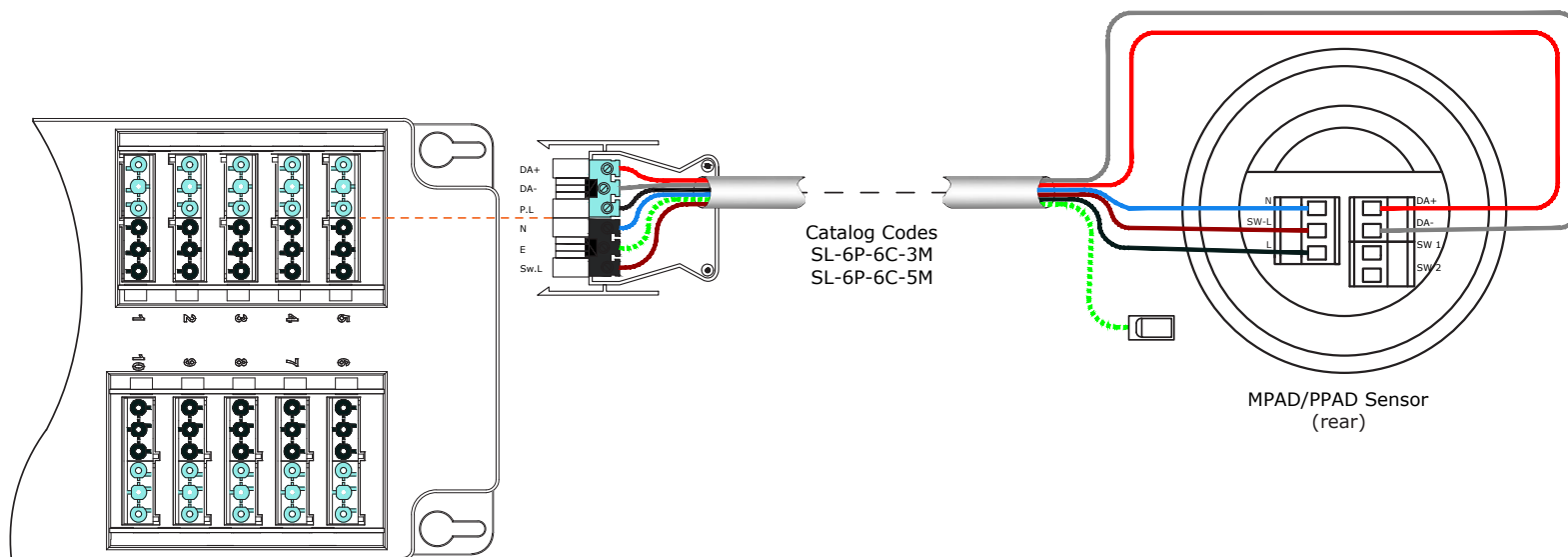


Healthcare

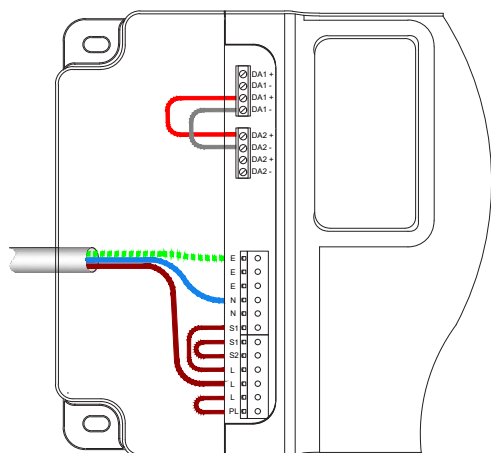


DALI Dimming - Application 1

Connection Wiring Diagram



Output 1-10 - Dimmed



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-DALI-230V	PIR - Presence/Absence DALI Dim & 230V Switching
MPAD-C-A-DALI-230V	Microwave - Presence/Absence DALI Dim & 230V Switching - Adjustable
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-5C-3M	Sensor Lead - 5-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
SL-6P-5C-5M	Sensor Lead - 5-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
HHR-LCD-PROG	Infrared Programming Handset with LCD display
HHR-PROG	Infrared Programming Handset

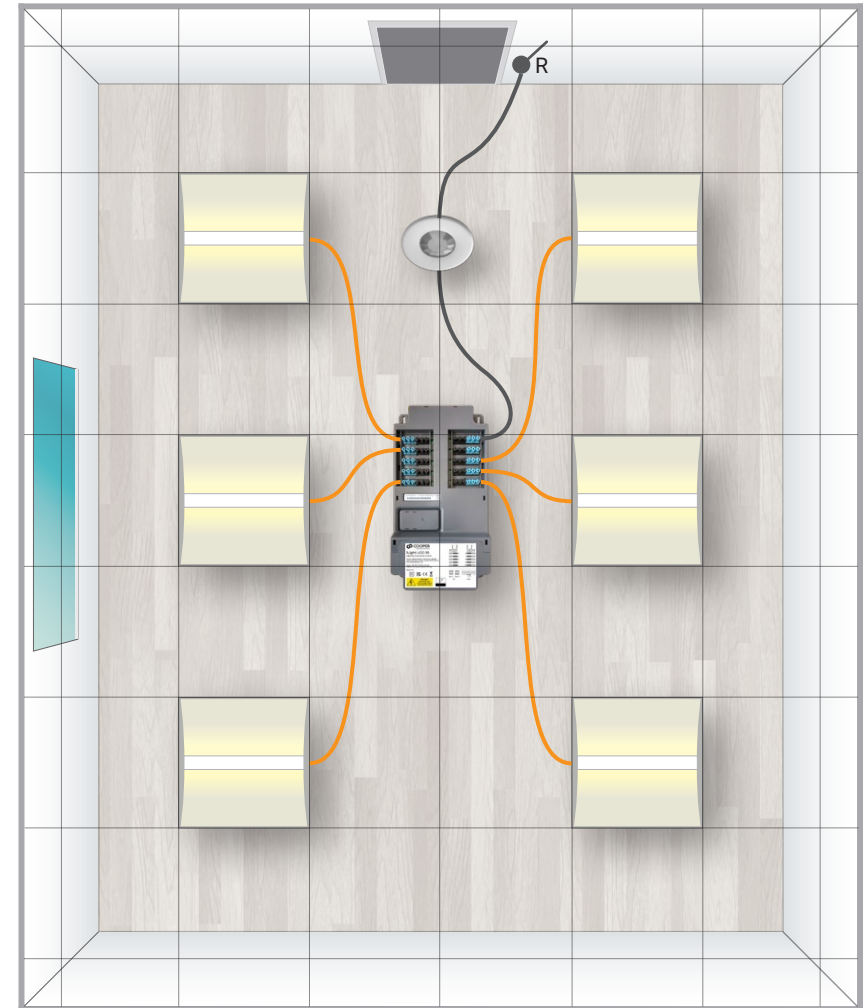
DALI Dimming - Application 2

DALI, absence detection and maintained illuminance

A dual position retractable switch provides manual dimming and enables the user to control their lighting levels.

An occupancy sensor is programmed to provide absence detection ensuring the lights switch off when the room is unoccupied.

- Meeting rooms
- Cellular offices
- Small receptions
- Patient rooms
- Doctors surgeries
- Laboratories



Offices



Healthcare



Veterinary



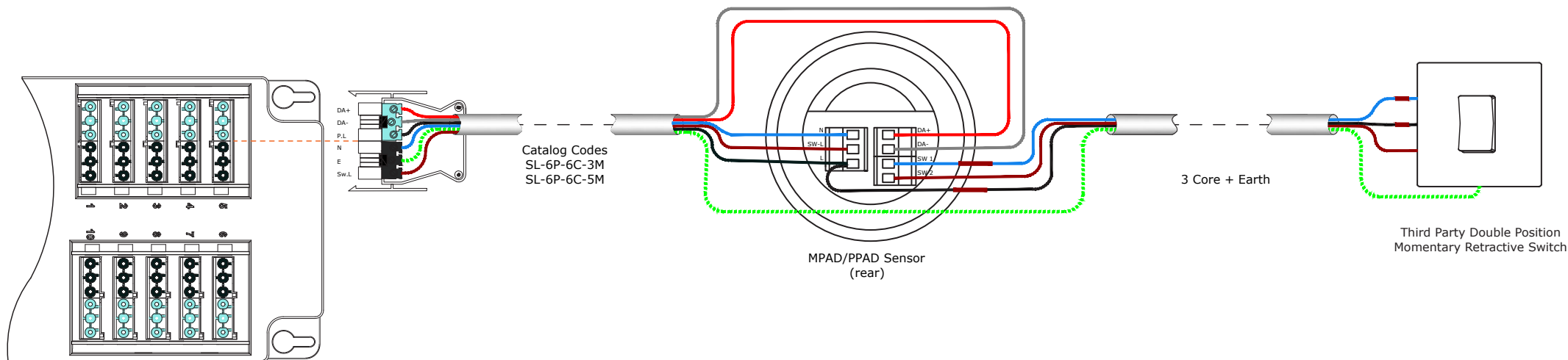
Education



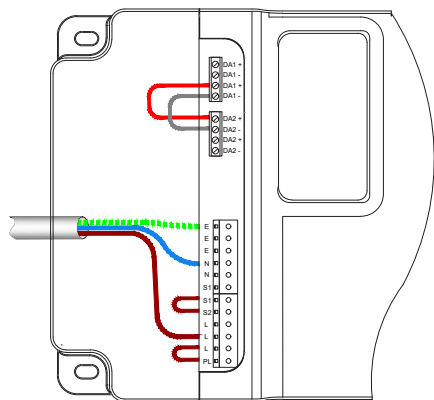
Research

DALI Dimming - Application 2

Connection Wiring Diagram



Output 1-10 - Switched/Dimmed



Pluggable Sensor arrangement

iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-DALI-230V	PIR - Presence/Absence DALI Dim & 230V Switching
MPAD-C-A-DALI-230V	Microwave - Presence/Absence DALI Dim & 230V Switching - Adjustable
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-5C-3M	Sensor Lead - 5-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
SL-6P-5C-5M	Sensor Lead - 5-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

DALI Dimming - Application 3

DALI and absence detection across two rooms

Dual position retractive switches provides manual dimming and enable the user to control their lighting levels.

An occupancy sensor in each space is programmed to provide absence detection ensuring the lights switch off when the room is unoccupied.

The LCC-10 supports two channels of control and the independent dimming and switching of two groups of five outputs.

- Meeting rooms
- Cellular offices
- Small receptions
- Patient rooms
- Doctors surgeries
- Laboratories



Offices



Healthcare



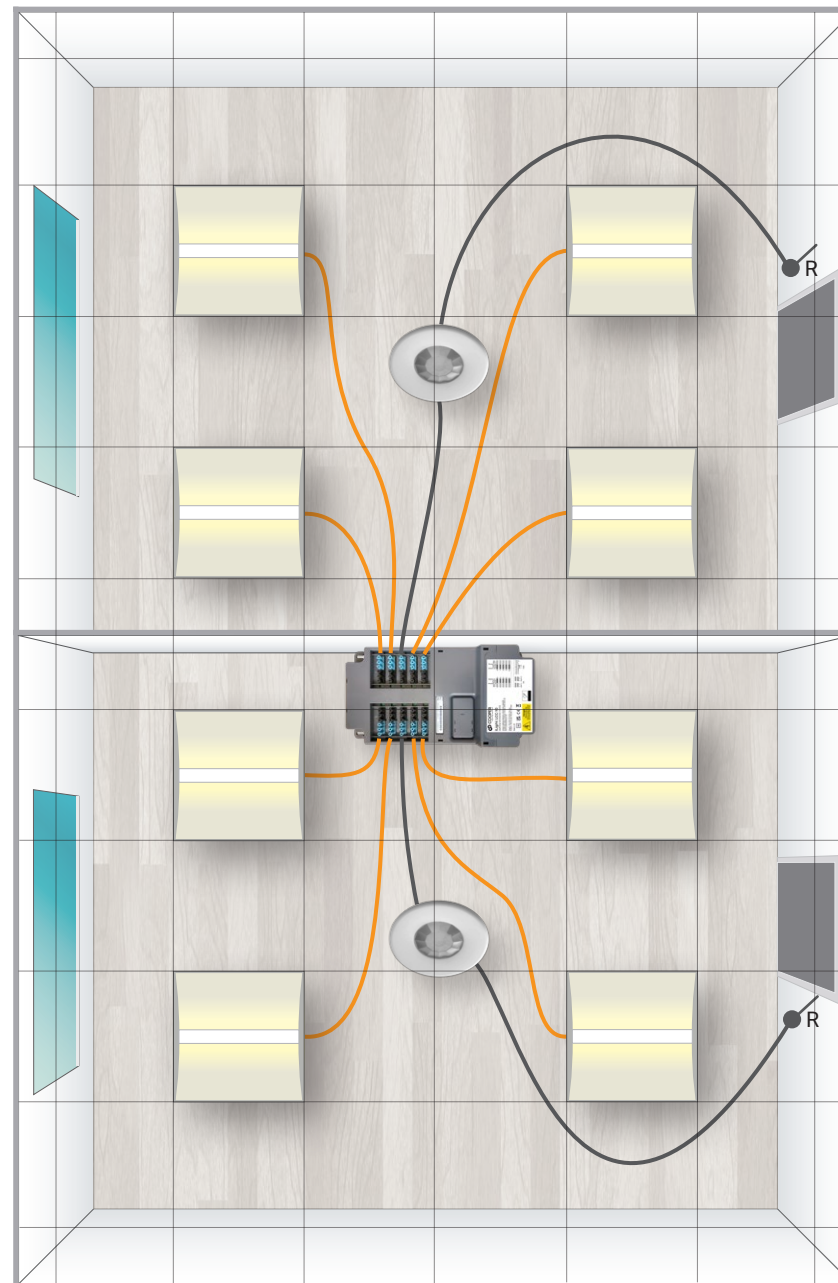
Veterinary



Education

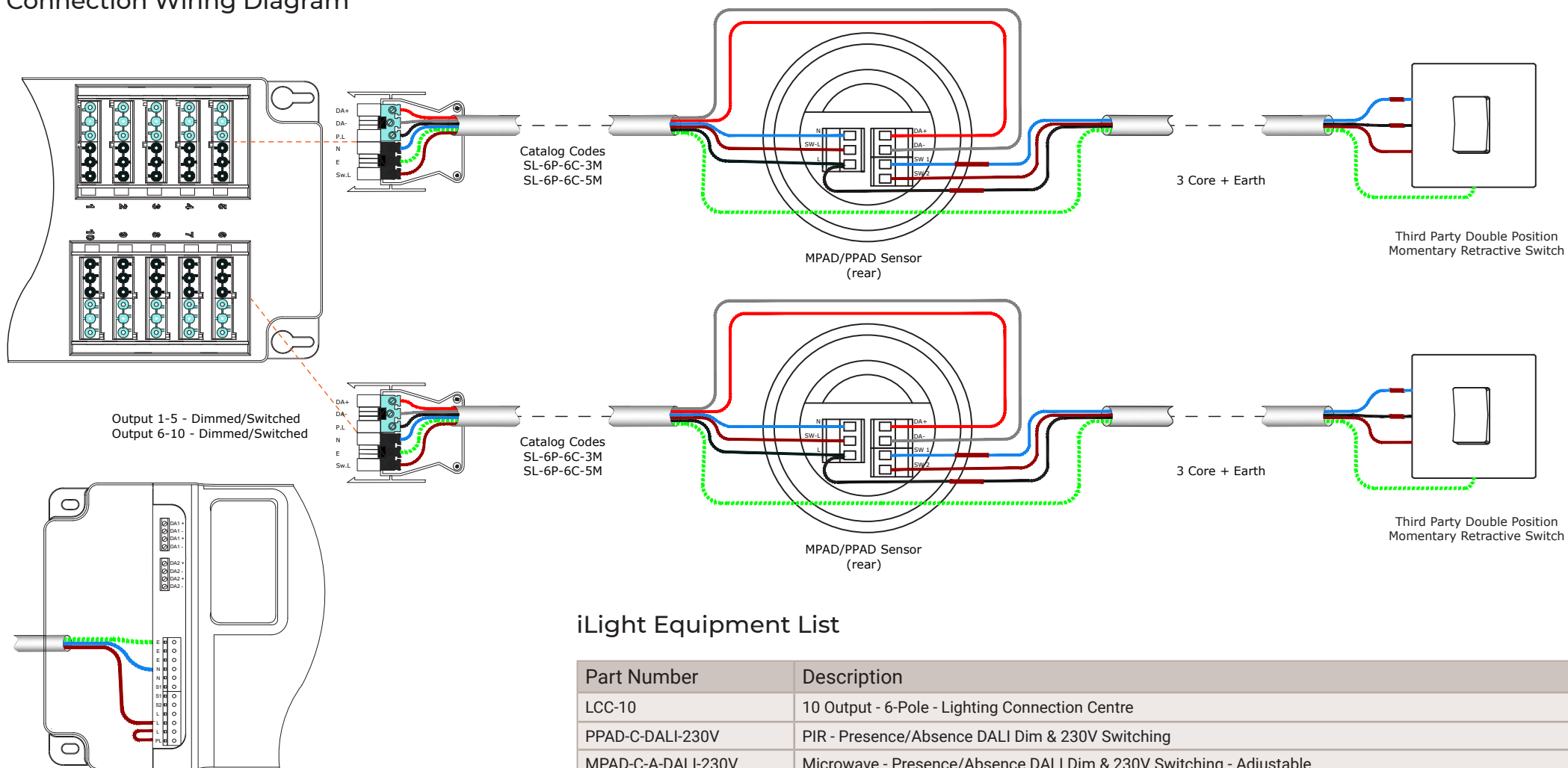


Research



DALI Dimming - Application 3

Connection Wiring Diagram



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-DALI-230V	PIR - Presence/Absence DALI Dim & 230V Switching
MPAD-C-A-DALI-230V	Microwave - Presence/Absence DALI Dim & 230V Switching - Adjustable
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-5C-3M	Sensor Lead - 5-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
SL-6P-5C-5M	Sensor Lead - 5-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

DALI Dimming - Application 4

DALI, presence detection with 2 stage dimming & off

An occupancy sensor is programmed to switch the lighting on to full brightness when presence is detected and the space occupied.

When the space is unoccupied, the lighting level will dim down to an intermediate level for a time before switching off, alerting anyone occupying the space that the lights will soon switch off. The levels can be configured to suit and set with the programming handset.

This application is ideally suited in areas where the lighting should not suddenly switch off when the space is unoccupied. This could be implemented in WCs, stairwells and circulation routes, where extra safety measures are required.

- Stairwells
- Circulation routes
- WCs



Offices



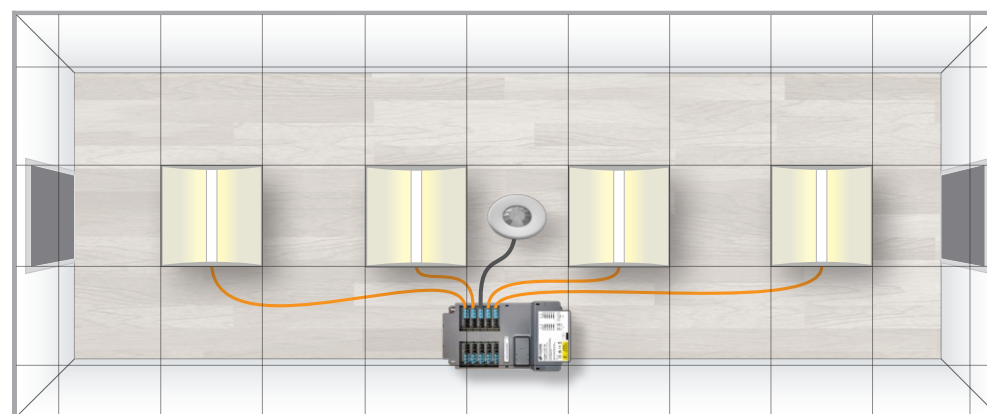
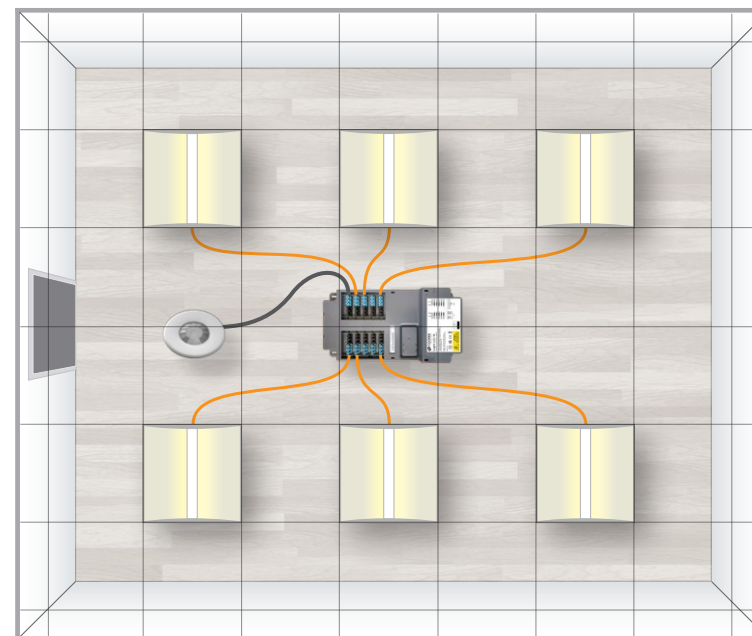
Education



Research

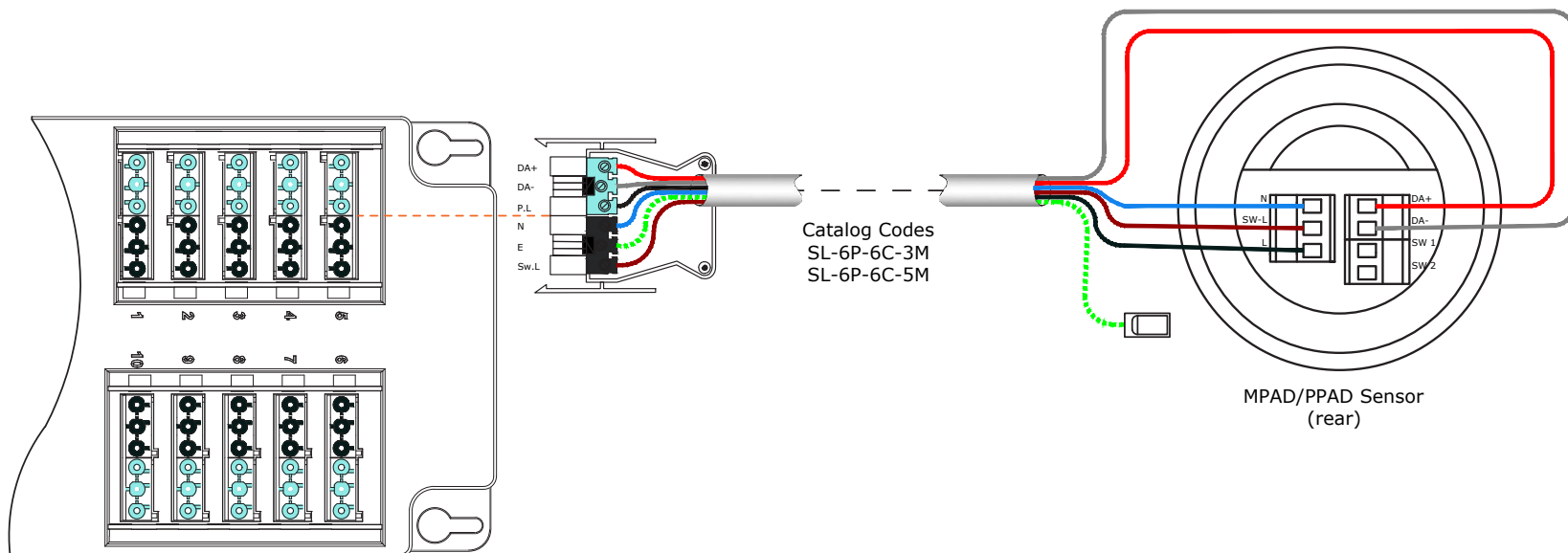


Care Homes

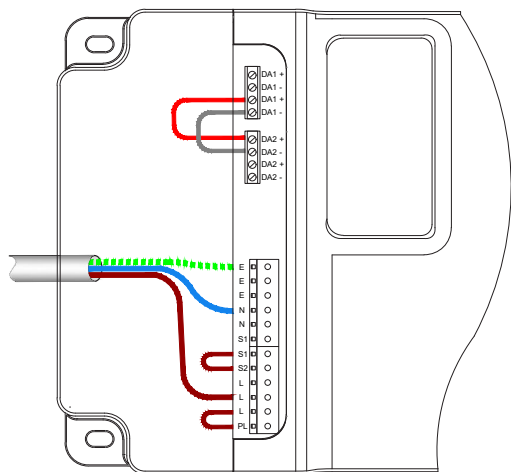


DALI Dimming - Application 4

Connection Wiring Diagram



Output 1-10 - Dimmed



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-DALI-230V	PIR - Presence/Absence DALI Dim & 230V Switching
MPAD-C-A-DALI-230V	Microwave - Presence/Absence DALI Dim & 230V Switching - Adjustable
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-5C-3M	Sensor Lead - 5-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
SL-6P-5C-5M	Sensor Lead - 5-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

DALI Dimming - Application 5

Fully Addressable DALI

The LCC-10 provides a quick method of installation for the distribution of power and DALI across a floor or area. With ease of installation in mind plentiful Mains and DALI connections are provided in within the wiring compartment of the LCC-10.

This is ideal for use with the iLight SCMD2 or SCMD4 fully addressable DINrail modules providing a powerful plug and play system.

- Open plan offices
- Cellular offices
- Collaborative Spaces
- Receptions
- Meeting rooms
- Classrooms
- Lecture Rooms
- Event Spaces
- Day Centres



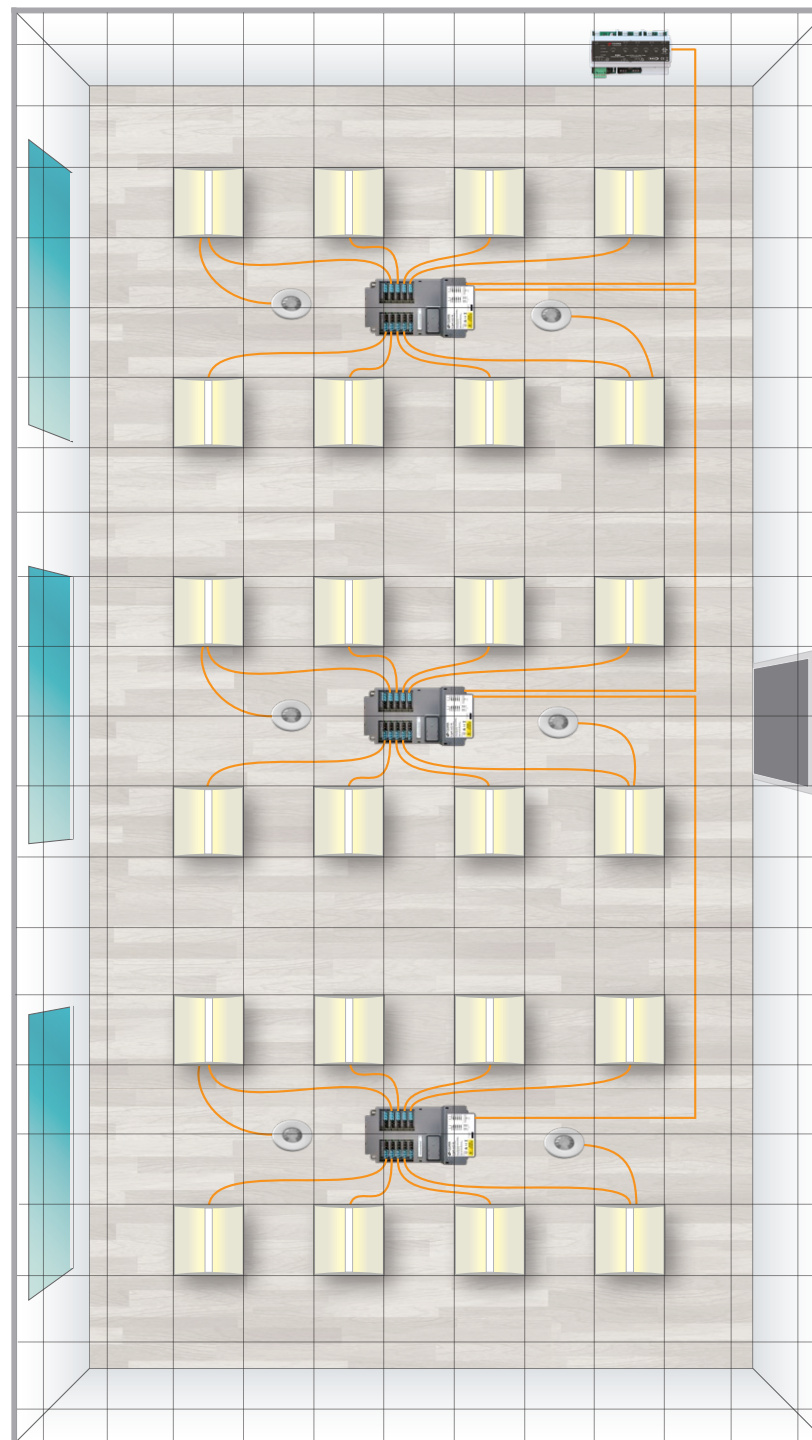
Office



Education

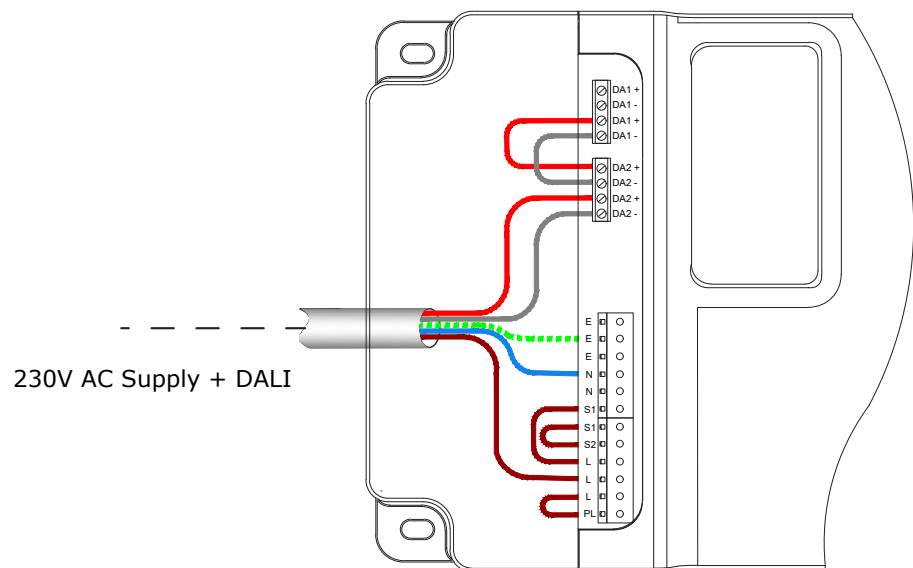


Healthcare



DALI Dimming - Application 5

Connection Wiring Diagram



Earth	Grn/Yel
Neutral	Blue
Live	Brown
DALI +	Colour Determined by installation
DALI -	Colour Determined by installation

iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
SCMD2	2 Universe DALI Controller - DINrail Mount
SCMD4	4 Universe DALI Controller - DINrail Mount
PPAD-C-DALI-ADDR	PIR - Presence/Absence DALI Addressable
PPAD-C-MB-DALI-ADDR	PIR - Presence/Absence Mid Bay DALI Addressable
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-2+5C-3M	Sensor Lead - 5-core + Core DALI Sensor - 3 metre Male - Plug to Phoenix Connectors to suit DALI PIR
SL-6P-2+5C-5M	Sensor Lead - 5-core + Core DALI Sensor - 5 metre Male - Plug to Phoenix Connectors to suit DALI PIR
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell

DALI Dimming - Application 6

Fully Addressable DALI with Scene Setting

The LCC-10 provides a quick method of installation for the distribution of power and DALI across a floor or area. With ease of installation in mind, plentiful Mains and DALI connections are provided within the wiring compartment of the LCC-10.

This is ideal for use with the iLight SCMD2 or SCMD4 fully addressable DINrail modules providing a powerful plug and play system. iLight DALI control plates and DALI sensors can also be added to provide occupancy control and scene recall.

- Cellular offices
- Collaborative Spaces
- Receptions
- Meeting rooms
- Classrooms
- Lecture Rooms
- Event Spaces
- Day Centres



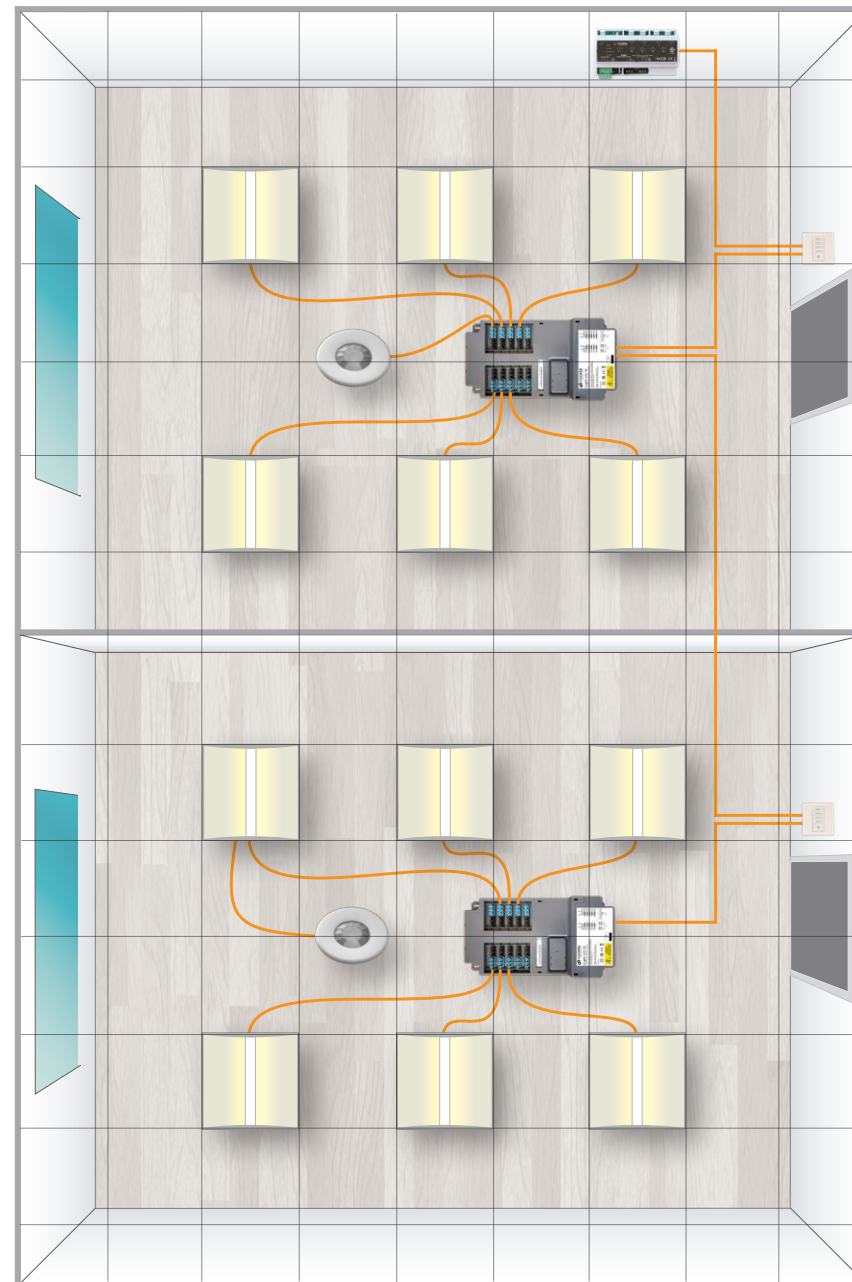
Office



Education

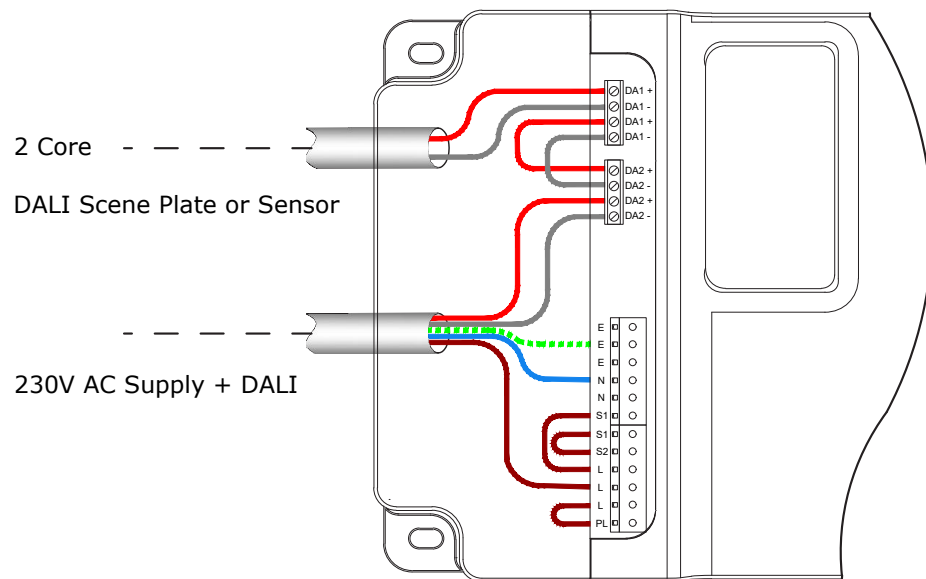


Healthcare



DALI Dimming - Application 6

Connection Wiring Diagram



Earth	Grn/Yel
Neutral	Blue
Live	Brown
DALI +	Colour Determined by installation
DALI -	Colour Determined by installation

iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
SCMD2	2 Universe DALI Controller - DINrail Mount
SCMD4	4 Universe DALI Controller - DINrail Mount
CLD	DALI Scene Setting Control Plate
CRP-D	DALI Classic Scene Setting Control Plate
PPAD-C-DALI-ADDR	PIR - Presence/Absence DALI Addressable
PPAD-C-MB-DALI-ADDR	PIR - Presence/Absence Mid Bay DALI Addressable
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-2+5C-3M	Sensor Lead - 5-core + Core DALI Sensor - 3 metre Male - Plug to Phoenix Connectors to suit DALI PIR
SL-6P-2+5C-5M	Sensor Lead - 5-core + Core DALI Sensor - 5 metre Male - Plug to Phoenix Connectors to suit DALI PIR
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell

DALI Dimming - Application 7

Switch Dim

The LCC-10 provides connection for switch dim applications. This solution is typically applied in spaces without occupancy control where a single position retractive switch is required to dim the lighting.

The luminaires need to be specified as 'switch dim' or 'touch dim', subject to the manufacturer's terminology, as the internal wiring configuration of the driver differs from a DALI installation.

When the switch is pressed and held, it will raise or lower the lighting level. A second press and hold will dim the lighting in the opposite direction, alternating between dim up & dim down. A quick press will switch the lighting on or off.

- Rooms which require dimming, without any occupancy control
- Consulting rooms
- Examination rooms
- Laboratories



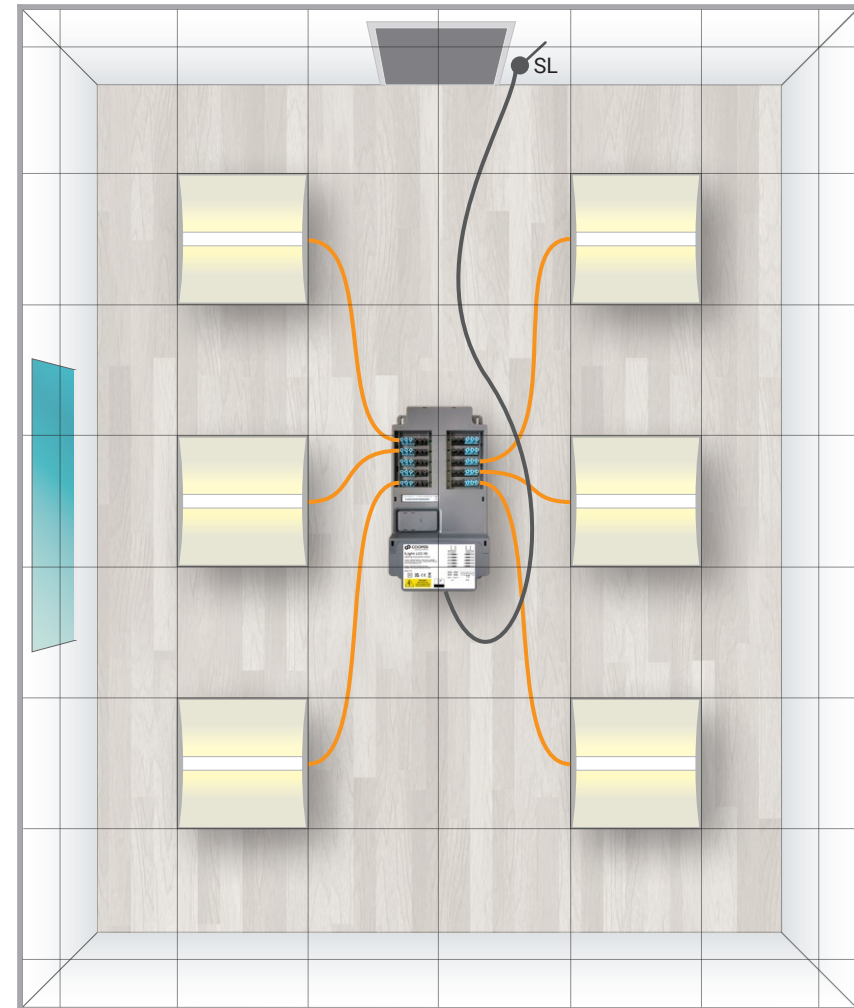
Healthcare



Veterinary

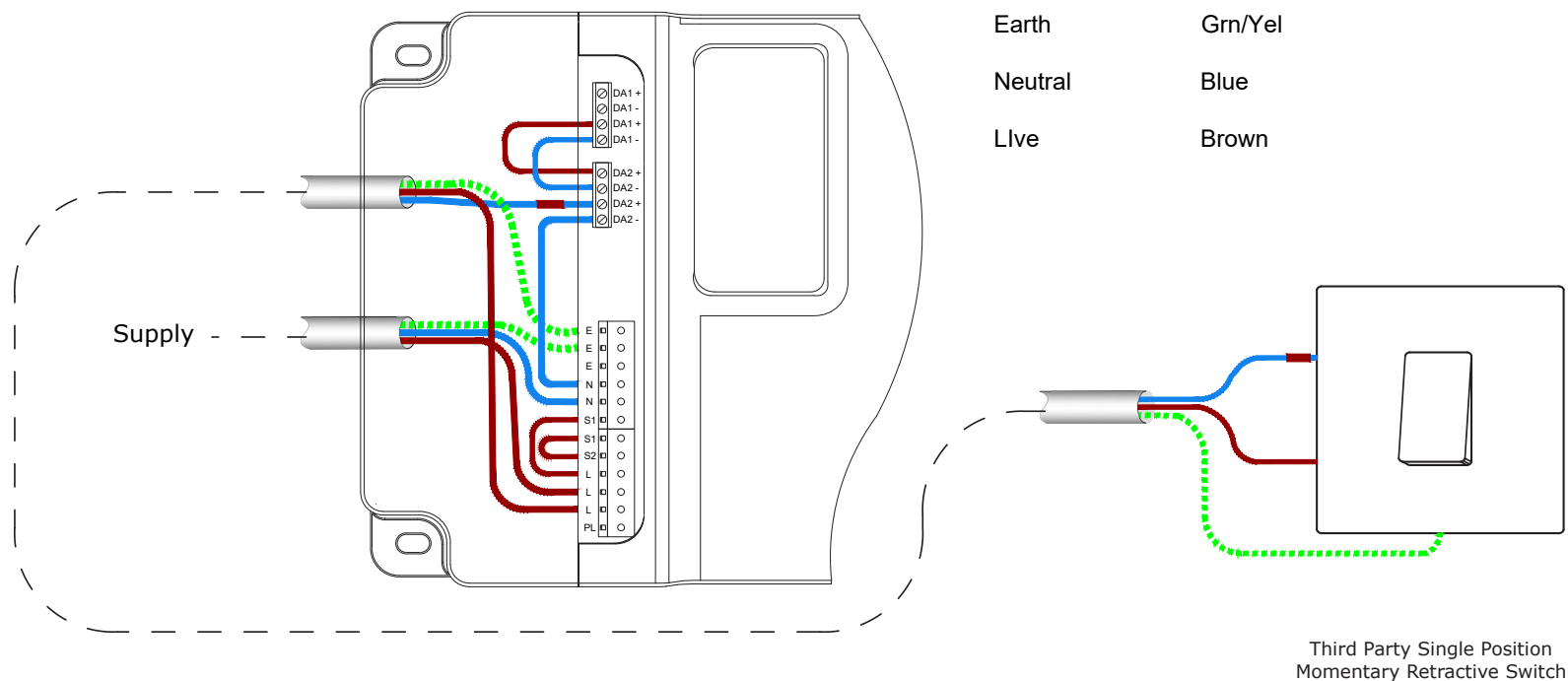


Research



DALI Dimming - Application 7

Connection Wiring Diagram



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell

DALI Dimming - Application 8

DALI, & fixed output, absence detection with maintained illuminance

The LCC-10 supports two channels of control and the independent dimming and switching of two groups of five outputs.

This can be particularly useful where dimming of the luminaires alongside windows is required to meet building regulations. The two groups of lights are controlled with two, two position retractable switches, one controlling the dimming, the other the switching.

An occupancy sensor in the space can still provide presence and/or absence detection.

Ideally suited to design & build projects, where DALI is not required throughout.

- Meeting rooms
- Cellular offices
- Small Receptions



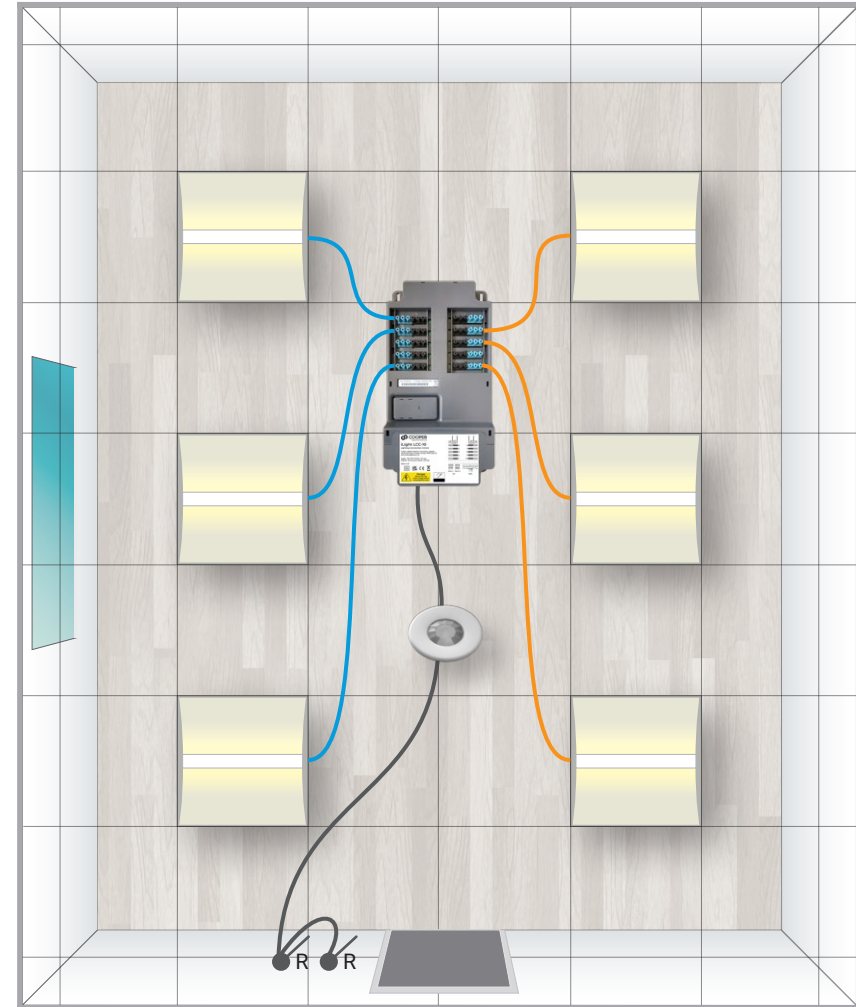
Offices



Healthcare

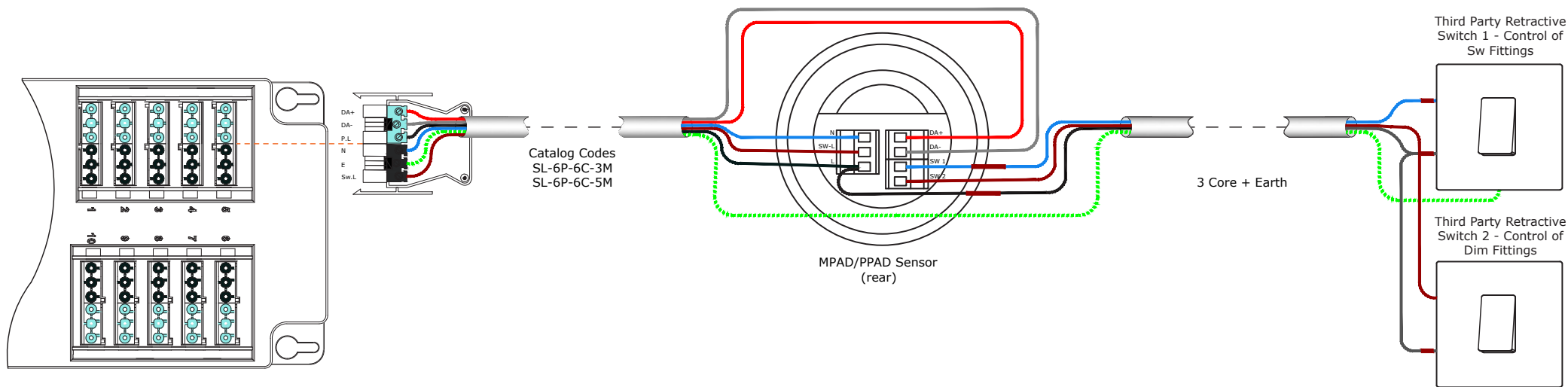


Education

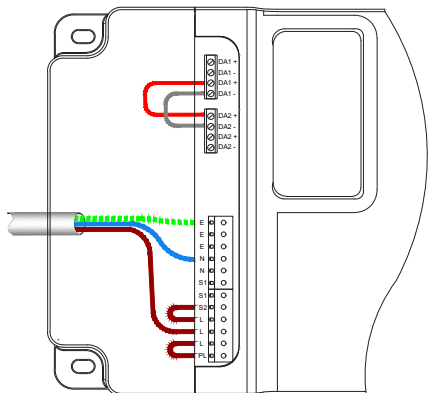


DALI Dimming - Application 8

Connection Wiring Diagram



Output 1-5 - Switched
Output 6-10 - Dimmed



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-DALI-230V	PIR - Presence/Absence DALI Dim & 230V Switching
MPAD-C-A-DALI-230V	Microwave - Presence/Absence DALI Dim & 230V Switching - Adjustable
LUPX-6P-3C-3M	6-pole Luminaire Lead - 3-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-3C-5M	6-pole Luminaire Lead - 3-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-4C-3M	6-pole Luminaire Lead - 4-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-4C-5M	6-pole Luminaire Lead - 4-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-5C-3M	Sensor Lead - 5-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
SL-6P-5C-5M	Sensor Lead - 5-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Dimming Applications)
HHR-LCD-PROG	Infrared Programming Handset with LCD display
HHR-PROG	Infrared Programming Handset

Non-Dimmable - Application 9

Presence Detection On/Off

An occupancy sensor is programmed to provide presence and absence detection. Switching lighting on when the space is occupied and ensuring lighting is switched off when the room is unoccupied.

Time adjustment is available up to 99 minutes, in increments of 1 minute. A time out of 20 minutes is set as default.

The timings can be configured to suit and set with the programming handset - HHIR-LCD-PROG.

- Warehouses
- WCs
- Store rooms
- Internal meeting rooms with no daylight
- Lobby areas



Industrial



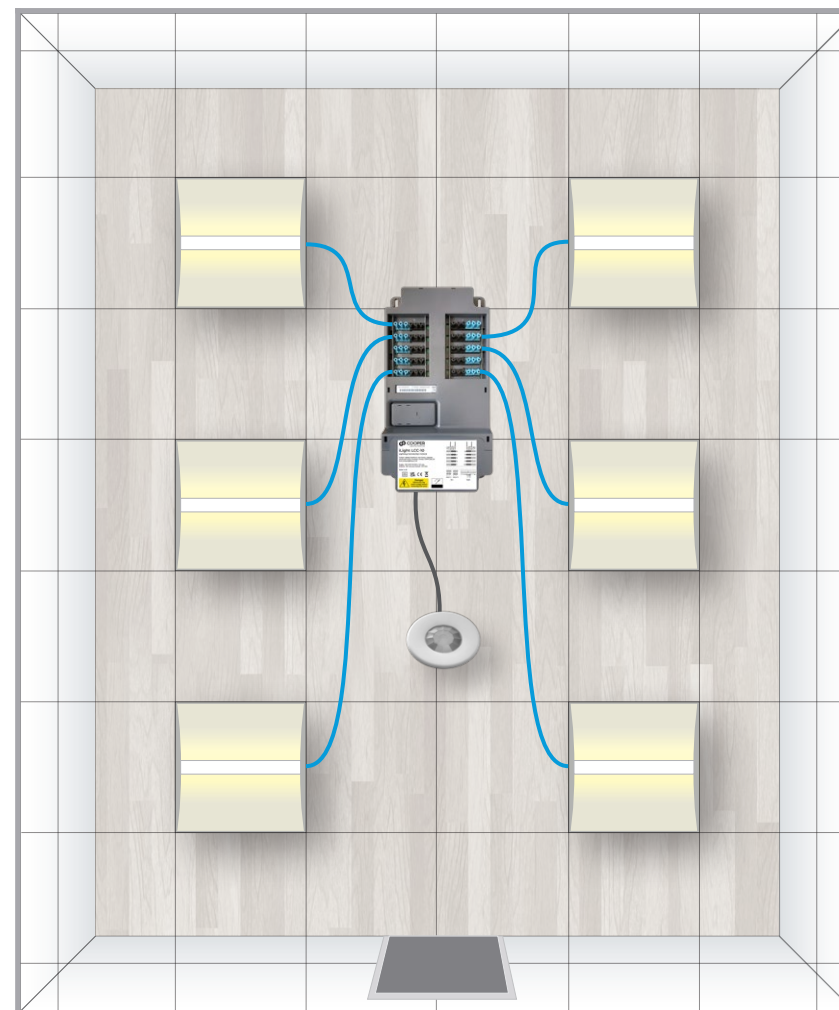
Offices



Education

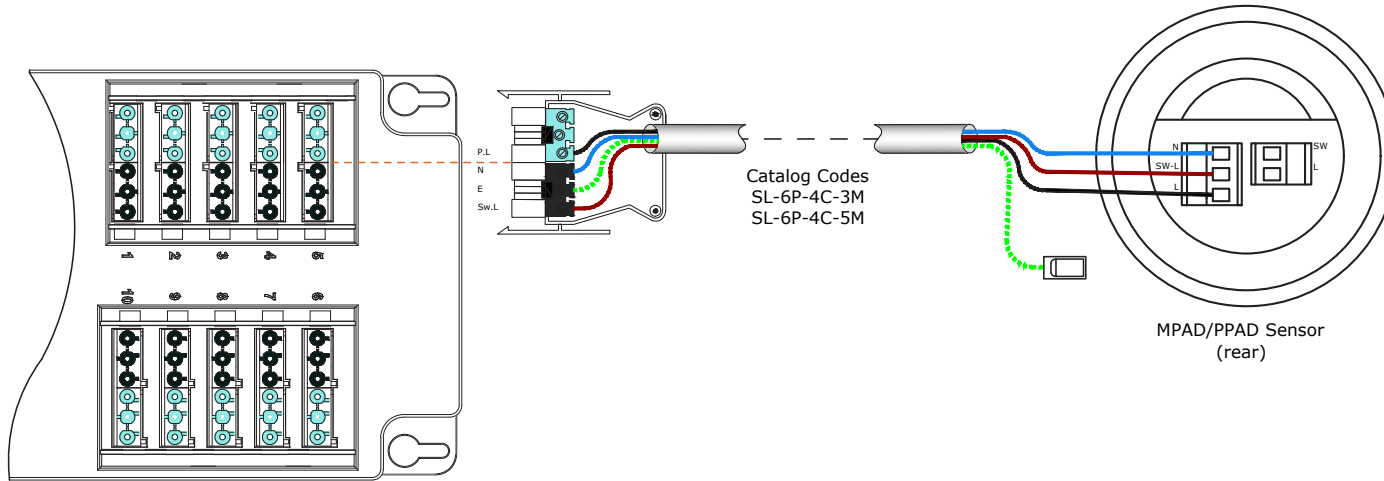


Research

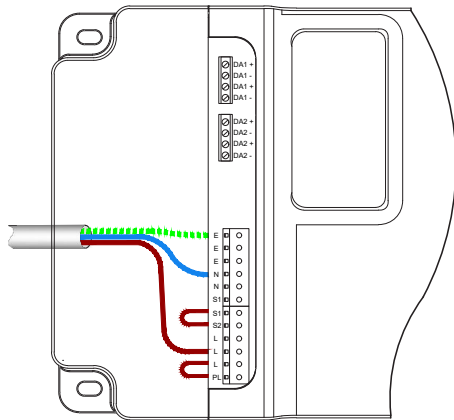


Non-Dimmable - Application 9

Connection Wiring Diagram



Output 1-10 - Switched



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-230V	PIR - Presence/Absence 230V Switching
PPAD-C-HB-230V	PIR - High Bay Presence/Absence 230V Switching
MPAD-C-230V	Microwave - Presence/Absence 230V Switching
LUPX-6P-3C-3M	6-pole Luminaire Lead - 3-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-3C-5M	6-pole Luminaire Lead - 3-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-4C-3M	6-pole Luminaire Lead - 4-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-4C-5M	6-pole Luminaire Lead - 4-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-4C-3M	Sensor Lead - 4-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Switching Applications)
SL-6P-4C-5M	Sensor Lead - 4-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Switching Applications)
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

Non-Dimmable - Application 10

Absence Detection On/Off

A single position retractable switch provides manual control and enables the user to switch lights on or off.

An occupancy sensor is programmed to provide absence detection ensuring lighting is switched off when the room is unoccupied. A Lux-level threshold can be programmed to ensure lighting is switched off when there is adequate daylight present in the space.

Time adjustment is available up to 99 minutes, in increments of 1 minute. A time out of 20 minutes set as default.

The timings and lux levels can be configured to suit and set with the programming handset - HHR-LCD-PROG.

- Meeting Rooms
- Cellular Offices
- Small Receptions
- Patient Rooms
- Doctors Surgeries
- Laboratories
- Consulting Rooms
- Warehouses
- Store Rooms



Industrial



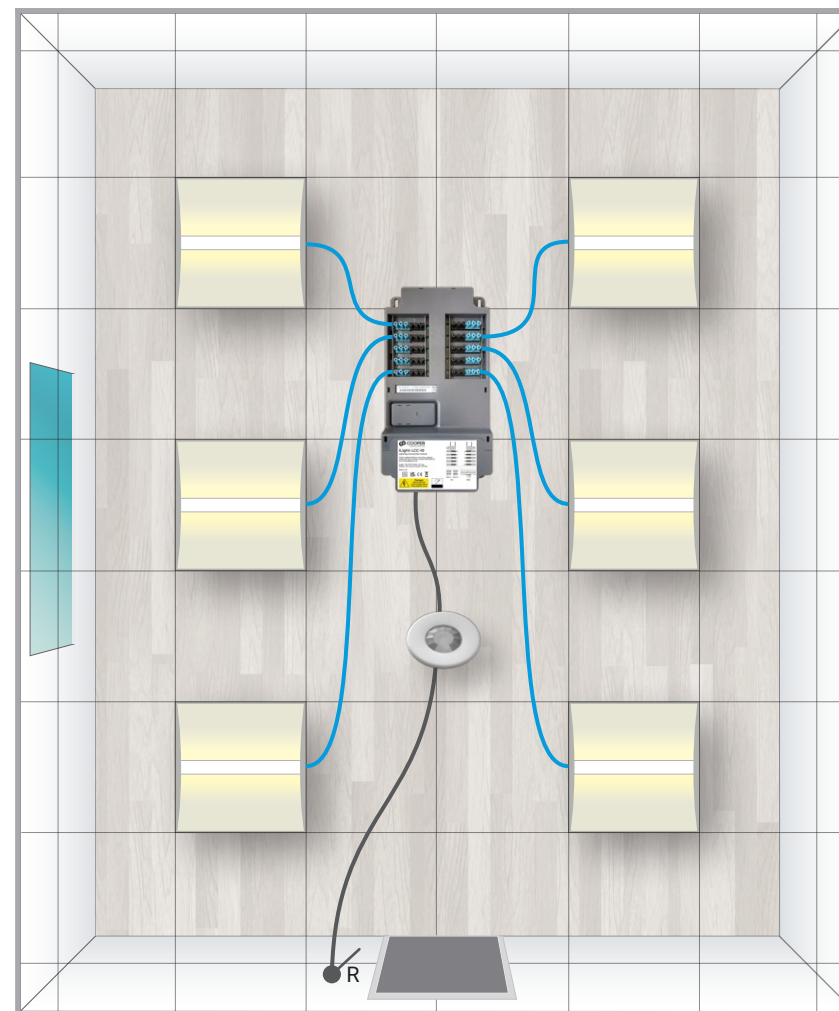
Offices



Education

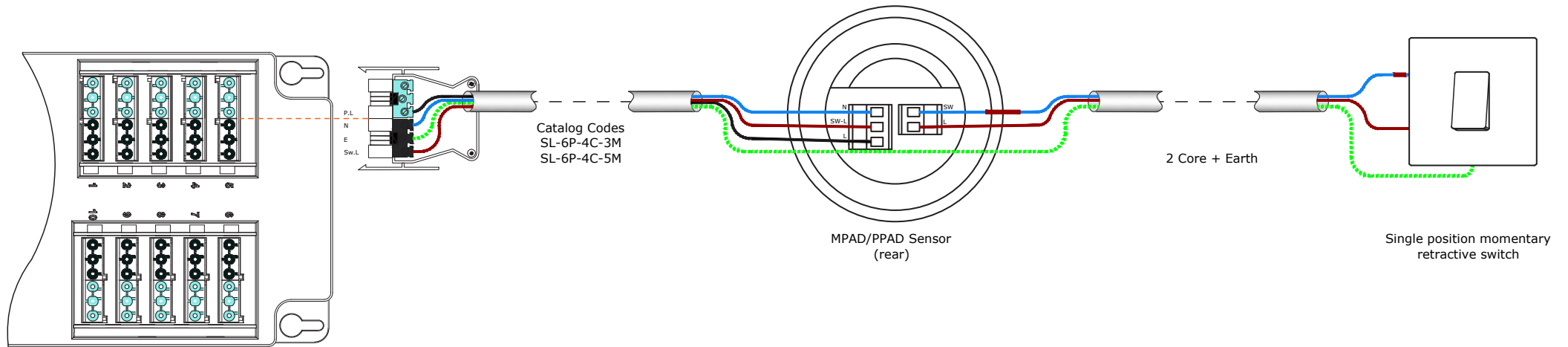


Research

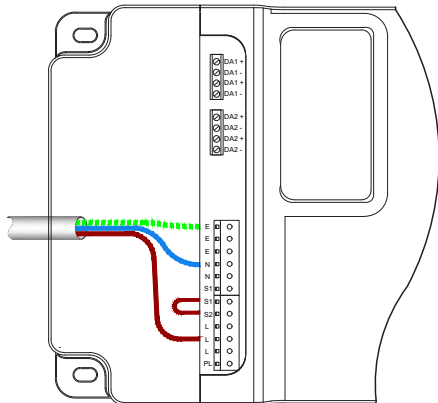


Non-Dimmable - Application 10

Connection Wiring Diagram



Output 1-10 - Switched



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-230V	PIR - Presence/Absence 230V Switching
PPAD-C-HB-230V	PIR - High Bay Presence/Absence 230V Switching
MPAD-C-230V	Microwave - Presence/Absence 230V Switching
LUPX-6P-3C-3M	6-pole Luminaire Lead - 3-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-3C-5M	6-pole Luminaire Lead - 3-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-4C-3M	6-pole Luminaire Lead - 4-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-4C-5M	6-pole Luminaire Lead - 4-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-4C-3M	Sensor Lead - 4-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Switching Applications)
SL-6P-4C-5M	Sensor Lead - 4-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Switching Applications)
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

Non-Dimmable - Application 11

Absence Detection Across Two Rooms

Single position retractive switches provides manual control and enables the user to switch lights on or off.

An occupancy sensor is programmed to provide absence detection ensuring lighting is switched off when the room is unoccupied. A Lux-level threshold can be programmed to ensure lighting is switched off when there is adequate daylight present in the space.

Time adjustment is available up to 99 minutes, in increments of 1 minute. A time out of 20 minutes set as default. The timings and lux levels can be configured to suit and set with the programming handset - HHIR-LCD-PROG.

The LCC-10 supports two channels of control and the independent switching of two groups of five outputs.

- Meeting Rooms
- Cellular Offices
- Small Receptions
- Patient Rooms
- Doctors Surgeries
- Laboratories
- Consulting Rooms
- Warehouses
- Store Rooms



Industrial



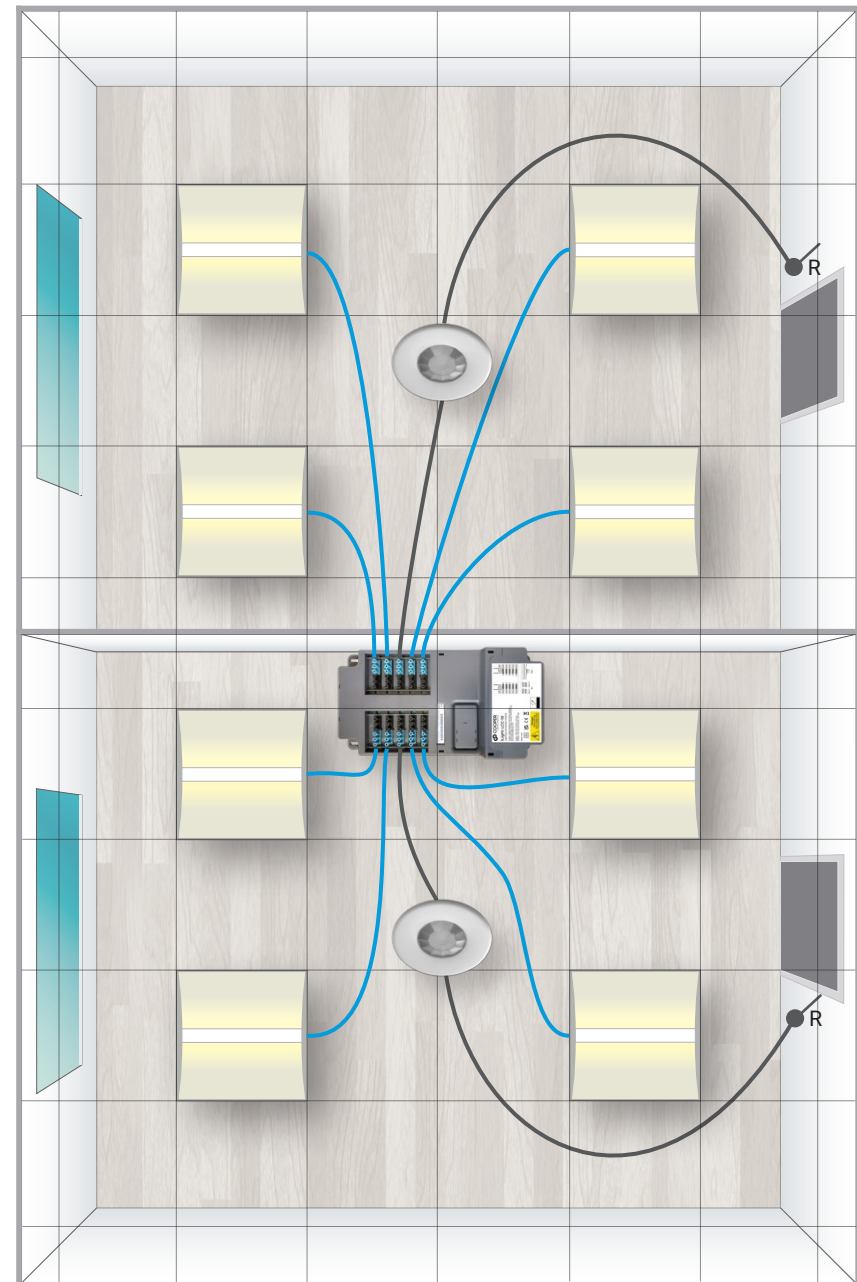
Offices



Education

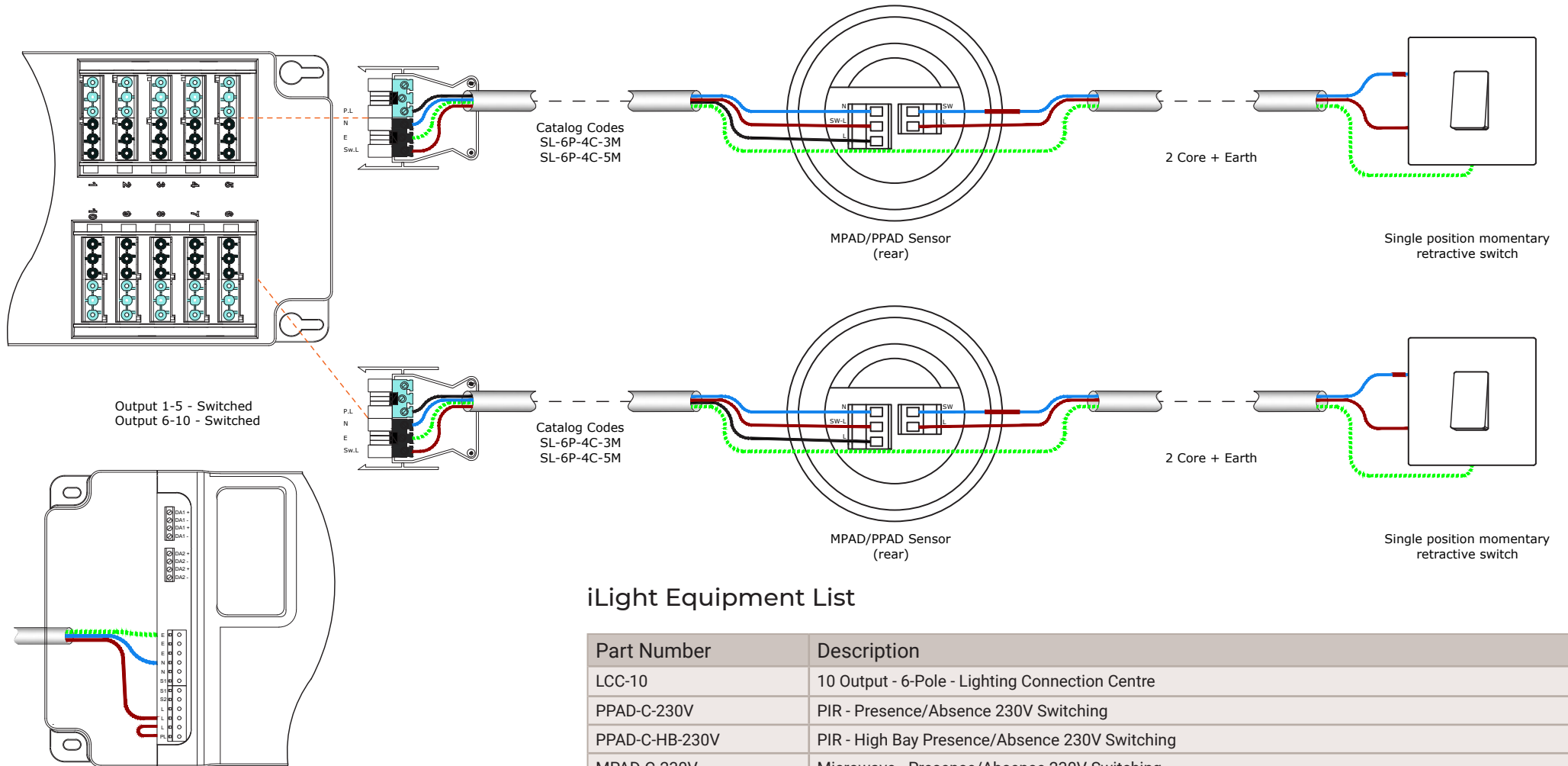


Research



Non-Dimmable - Application 11

Connection Wiring Diagram



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
PPAD-C-230V	PIR - Presence/Absence 230V Switching
PPAD-C-HB-230V	PIR - High Bay Presence/Absence 230V Switching
MPAD-C-230V	Microwave - Presence/Absence 230V Switching
LUPX-6P-3C-3M	6-pole Luminaire Lead - 3-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-3C-5M	6-pole Luminaire Lead - 3-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-4C-3M	6-pole Luminaire Lead - 4-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-4C-5M	6-pole Luminaire Lead - 4-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
SL-6P-4C-3M	Sensor Lead - 4-core 3 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Switching Applications)
SL-6P-4C-5M	Sensor Lead - 4-core 5 metre Male - Plug to Phoenix Connectors to suit P/MPAD (Switching Applications)
HHR-LCD-PROG	Infrared Programming Handset with LCD display
HHR-PROG	Infrared Programming Handset

Non-Dimmable - Application 12

Locally switched with no controls

For rooms requiring conventional control the LCC-1 can be employed to provide pluggable connection points for luminaires. Used in combination with the wide range of supporting wiring accessories for a quick and easy installation.

A standard latching light switch can be installed for switching the lighting on or off.

Multiple LCC-10's can be wired in parallel increasing output capability as required.

- Disabled toilets
- Commercial Kitchens
- Dark rooms



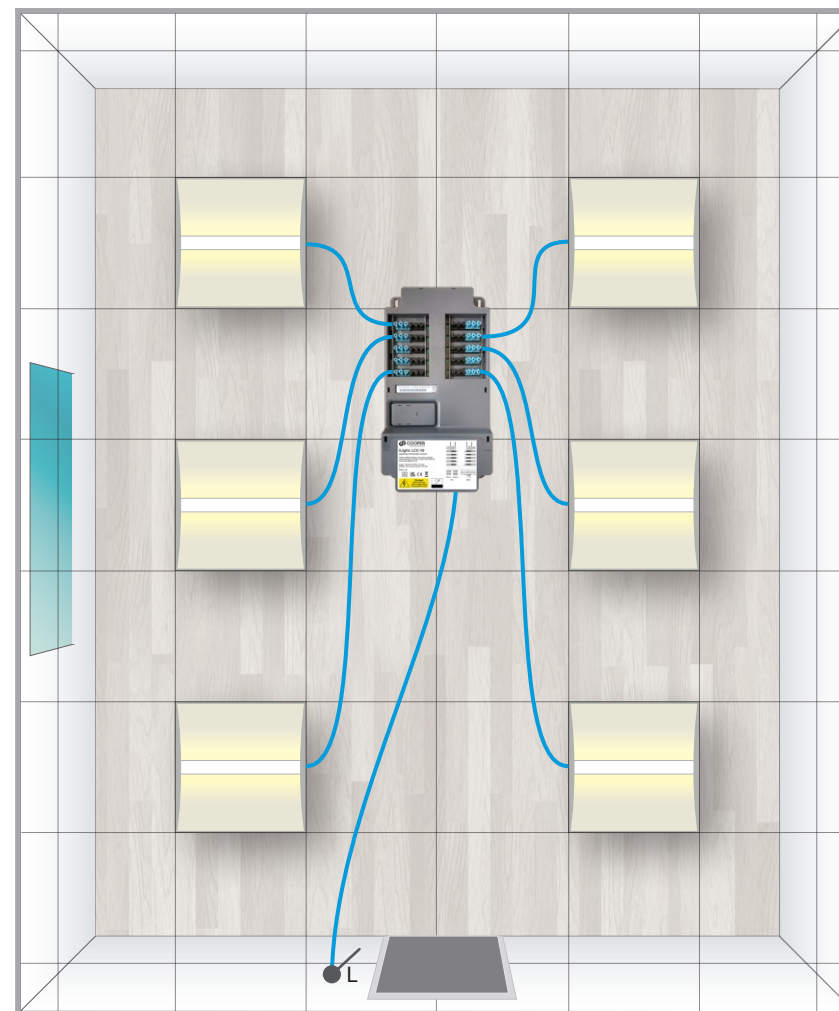
Industrial



Healthcare

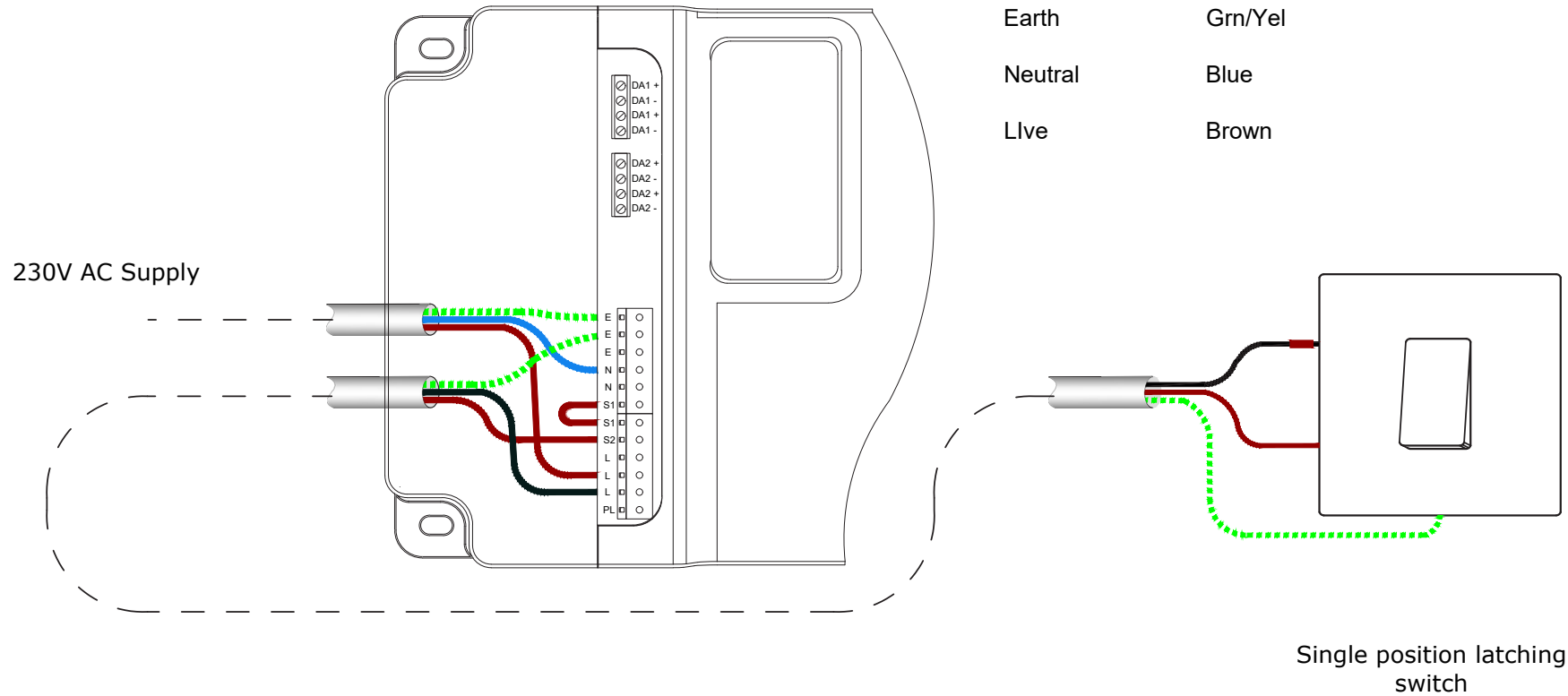


Research



Non-Dimmable - Application 12

Connection Wiring Diagram



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
LUPX-6P-3C-3M	6-pole Luminaire Lead - 3-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-3C-5M	6-pole Luminaire Lead - 3-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-4C-3M	6-pole Luminaire Lead - 4-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-4C-5M	6-pole Luminaire Lead - 4-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

Emergency - Application 13

DALI Emergency Monitoring

The LCC-10 provides a quick method of installation for the distribution of power and DALI across a floor or area when linked to a central lighting and emergency monitoring system.

Emergency luminaires can be monitored when DALI inverters or drivers are installed. The fittings can be maintained (normally lit) or Non maintained (not normally lit), including exit lighting, general lighting, and standalone non-maintained LEDs.

- Serviced Apartments
- Circulation spaces
- Corridors
- Stairwells



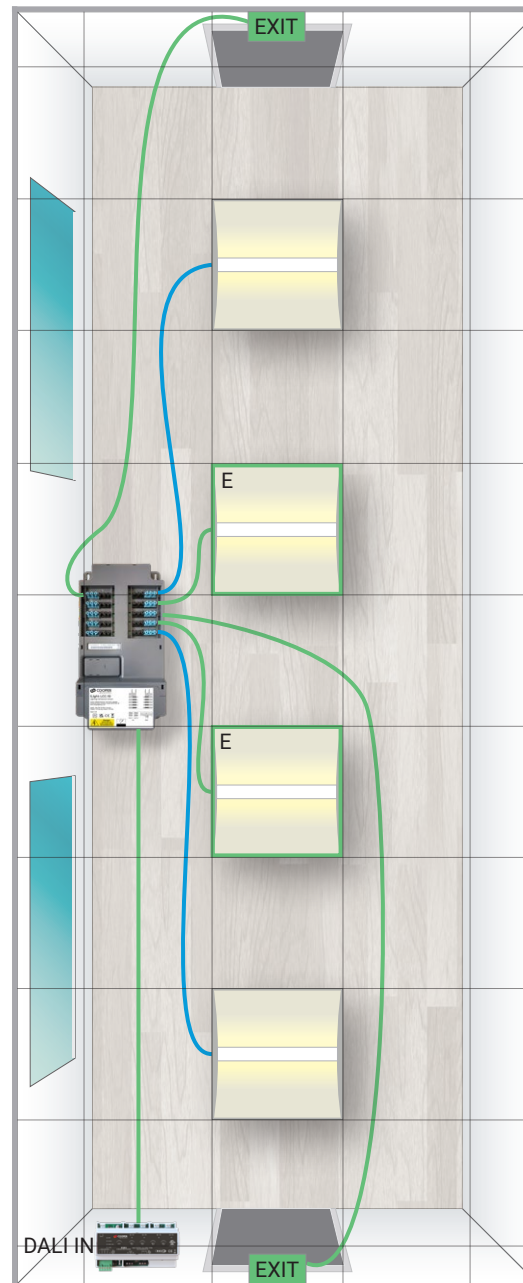
Residential



Education

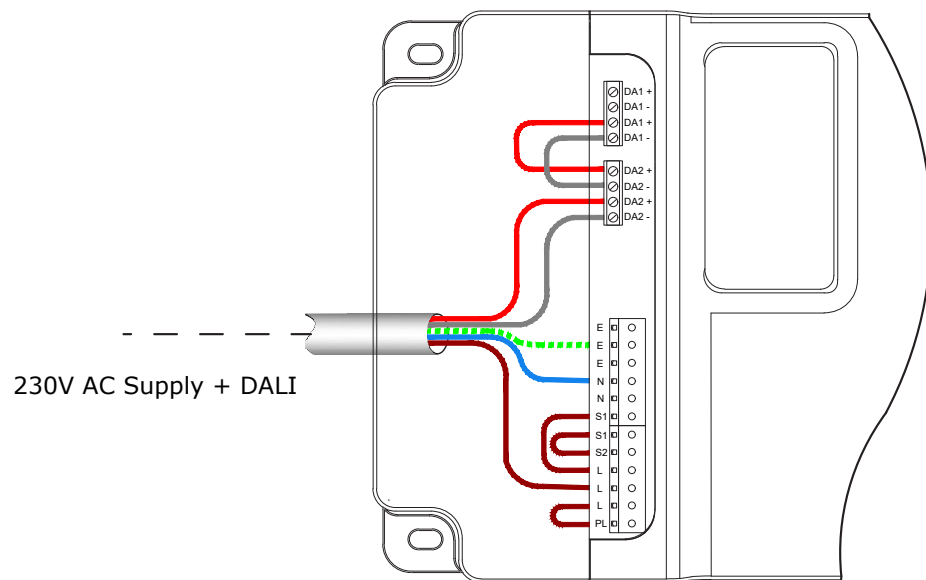


Industrial



Emergency - Application 13

Connection Wiring Diagram



- Earth Grn/Yel
- Neutral Blue
- Live Brown
- DALI + Colour Determined by installation
- DALI - Colour Determined by installation

iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell
HHIR-LCD-PROG	Infrared Programming Handset with LCD display
HHIR-PROG	Infrared Programming Handset

Emergency - Application 14

Key Switch Emergency Test

The LCC-10 provides a dedicated terminal for permanent live, allowing for the connection of a conventional keys switch. This allows the supply to emergency luminaires to be interrupted for the purpose of testing.

The LCC-10 supports two channels of control and the independent switching and dimming of two groups of five outputs or all ten outputs to be linked. In either configuration all ten outputs are served by the same permanent live.



Offices



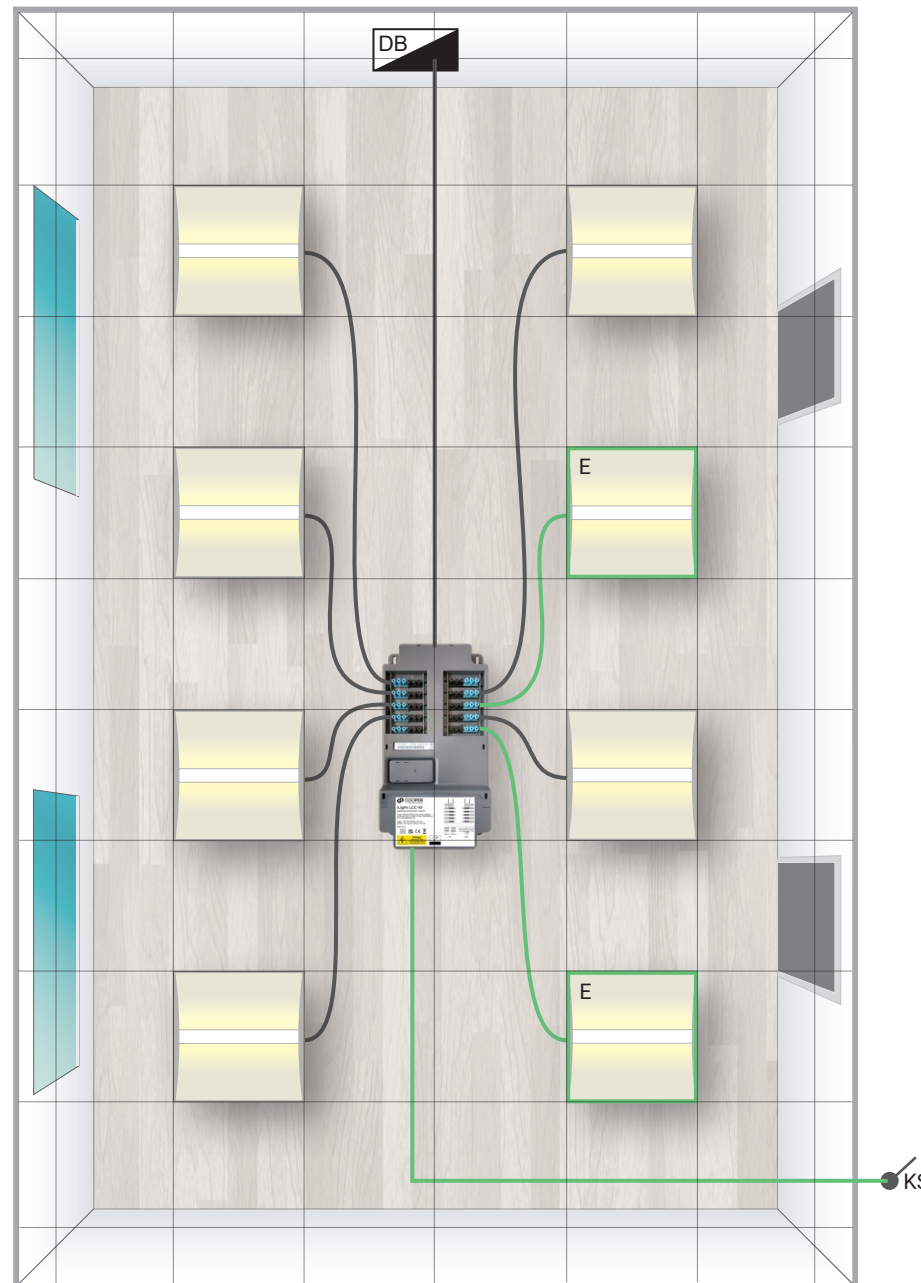
Education



Research

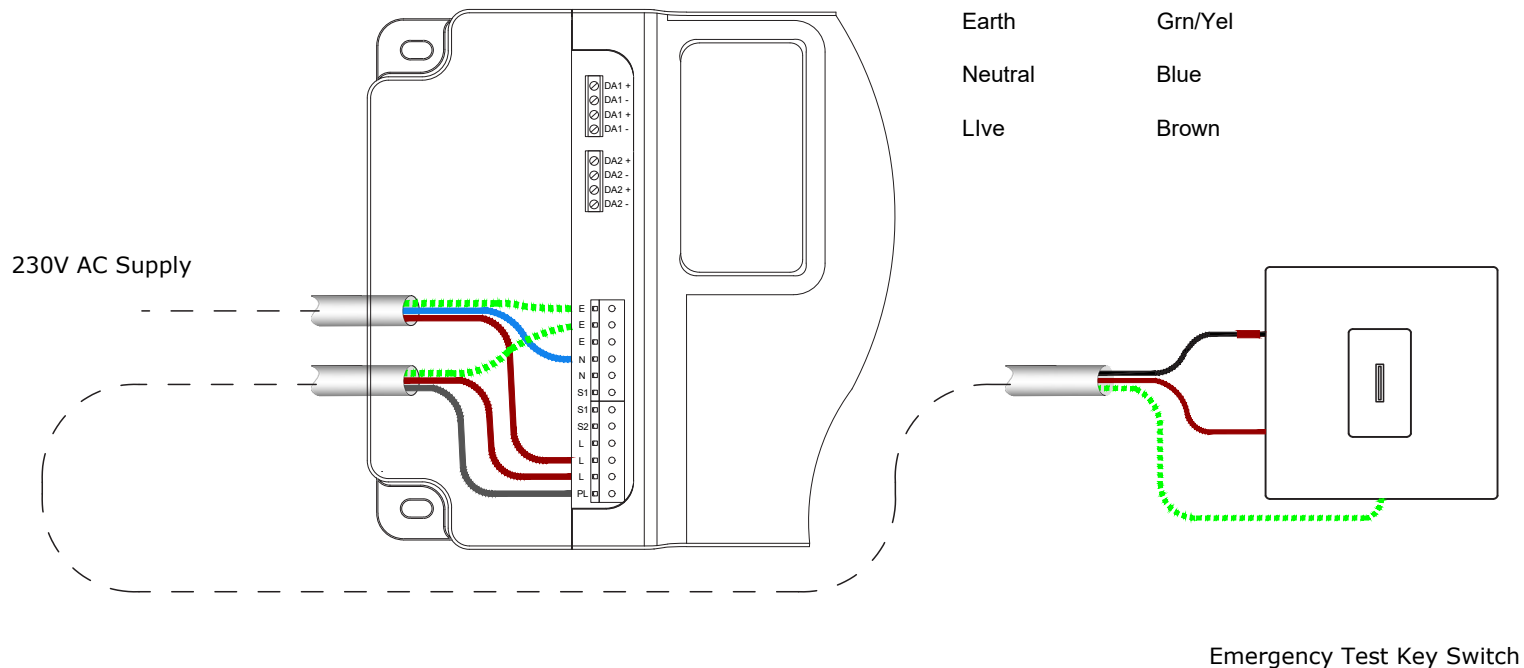


Healthcare



Emergency - Application 14

Connection Wiring Diagram



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell

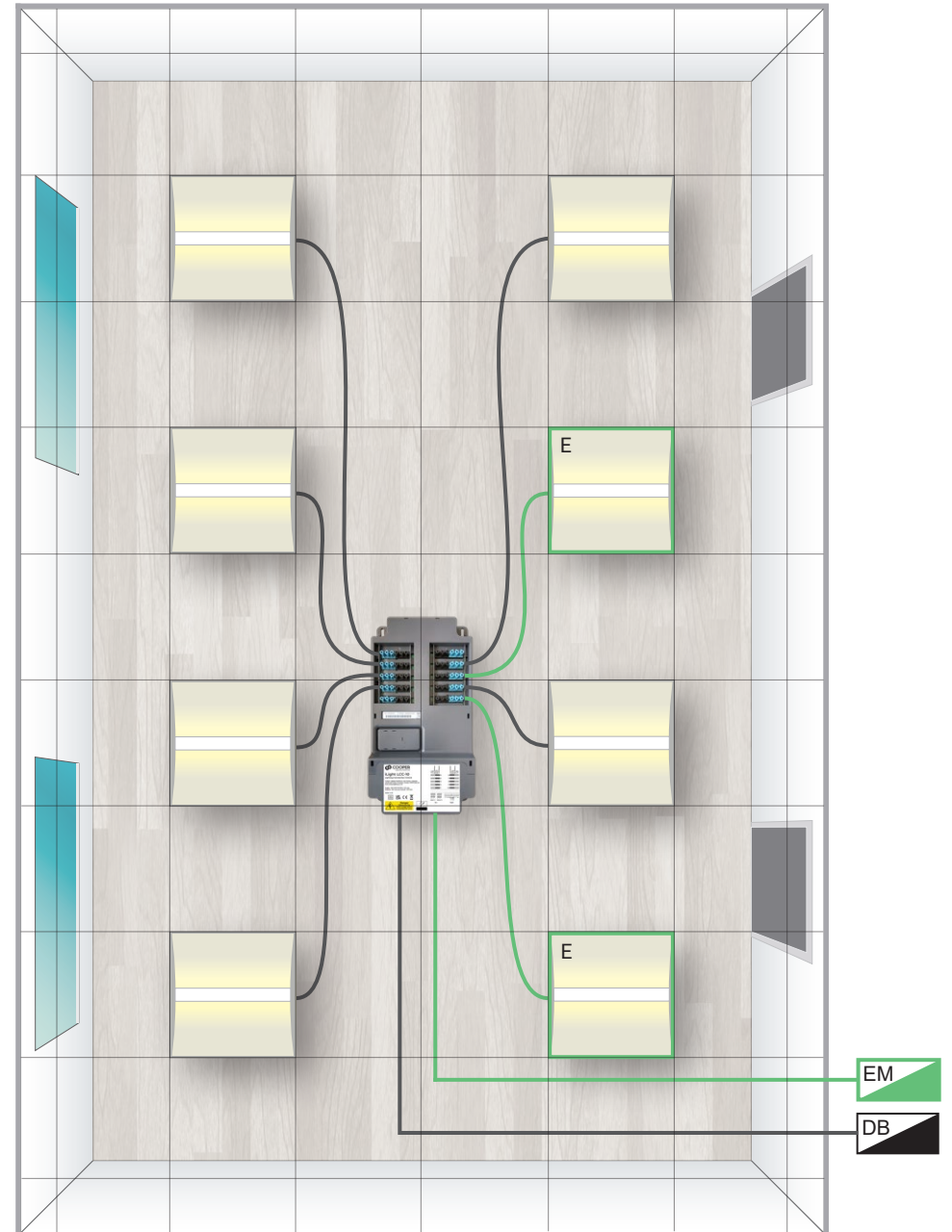
Emergency - Application 15

Emergency Central Battery

Hospitals and data centres require a UPS system for critical areas, ensuring there is no interruption to the power supply, during a mains power failure.

The LCC-10 provides a dedicated terminal for permanent live, allowing for the connection of a separate maintained or specific emergency supply from a central battery system or other un-interruptible source.

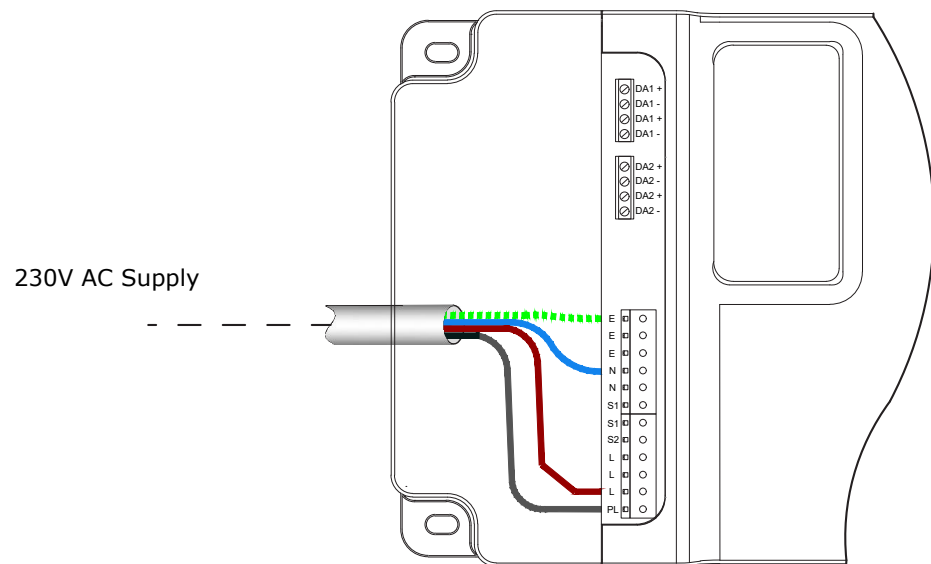
The LCC-10 supports two channels of control and the independent switching and dimming of two groups of five outputs or all ten outputs to be linked. In either configuration all ten outputs are served by the same permanent live.



Emergency - Application 15

Connection Wiring Diagram

Switching Arrangement Dependant on application



- Earth Grn/Yel
- Neutral Blue
- Live Brown
- Permanent/EM Live Black

iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell

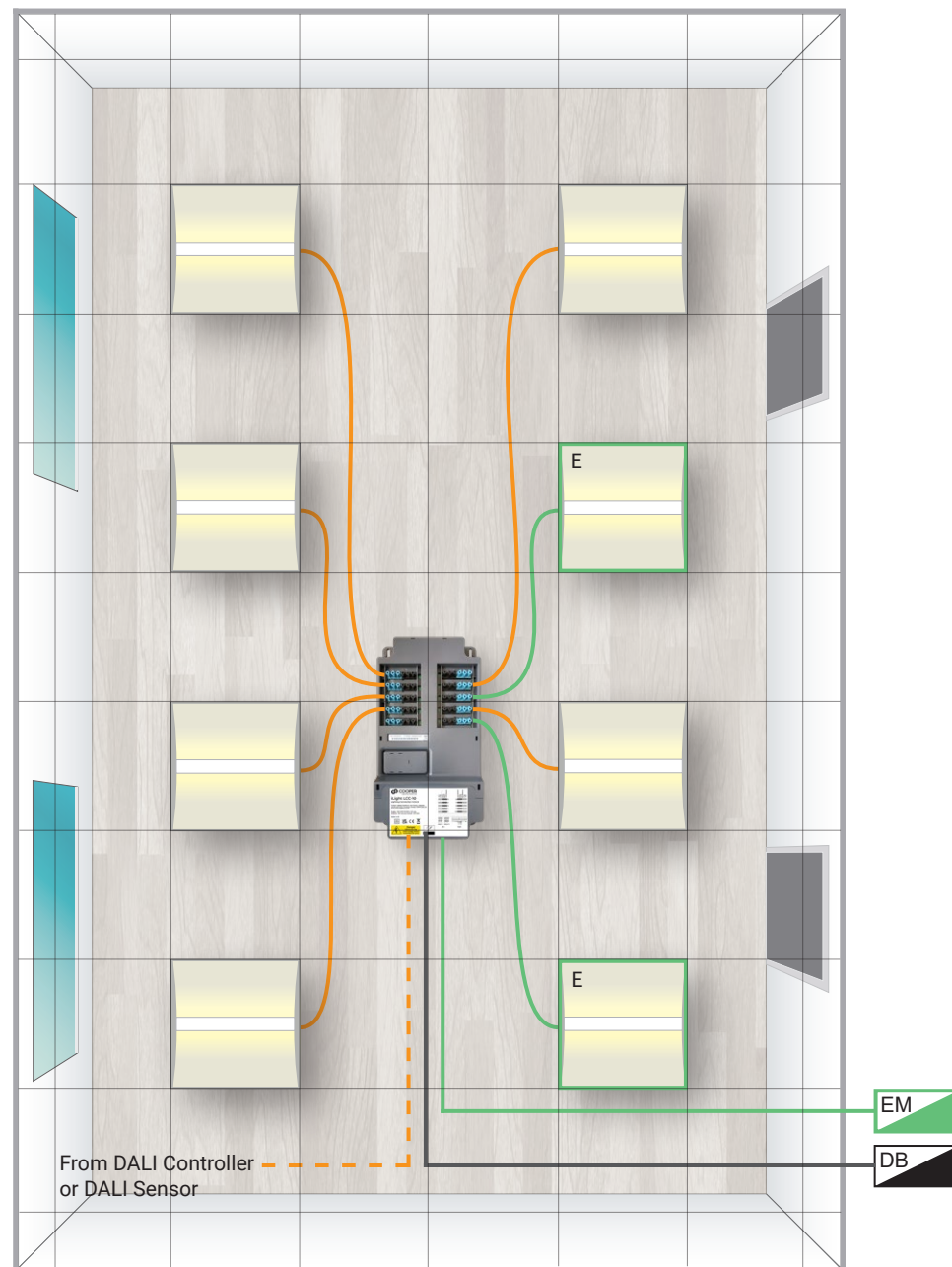
Emergency - Application 16

Emergency Central Battery (DALI dimmable)

Hospitals and data centres require a UPS system for critical areas, ensuring there is no interruption to the power supply, during a mains power failure.

The LCC-10 provides a dedicated terminal for permanent live, allowing for the connection of a separate maintained or specific emergency supply from a central battery system or other un-interruptible source. DALI connections can be made simultaneously to the electrical and emergency supplies.

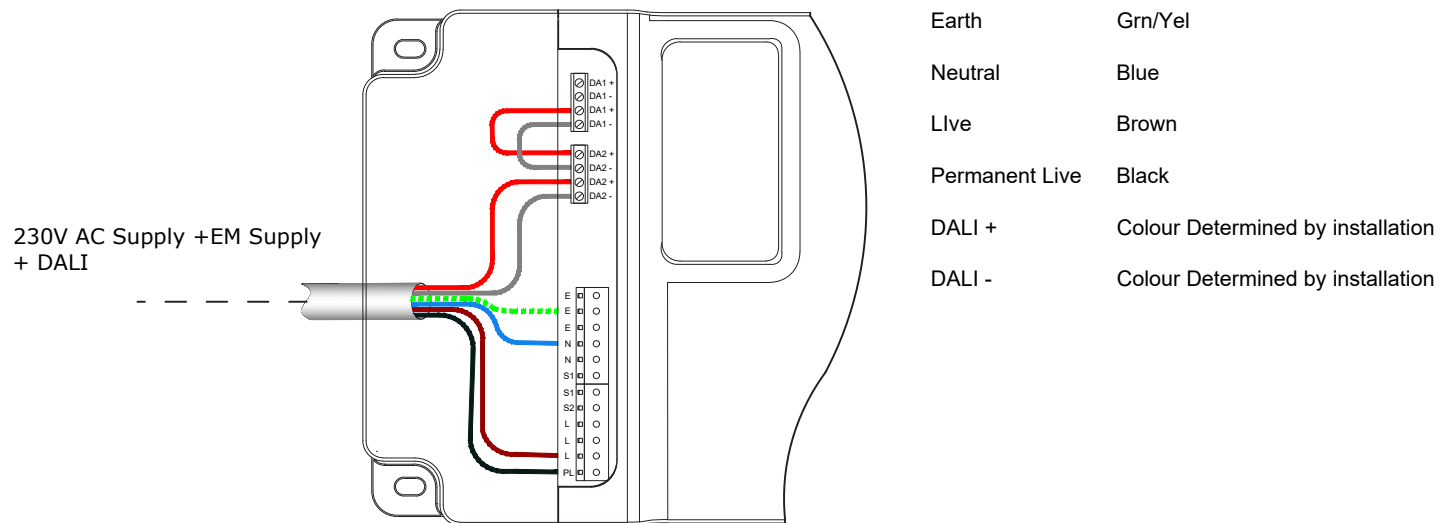
During change over from normal operation to the back up supply the DALI line must also be disconnected. These applications call for the use of an ACM (Automatic Changeover Module).



Emergency - Application 16

Connection Wiring Diagram

Switching Arrangement Dependant on application



iLight Equipment List

Part Number	Description
LCC-10	10 Output - 6-Pole - Lighting Connection Centre
LUPX-6P-5C-3M	6-pole Luminaire Lead - 5-core 3 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6P-5C-5M	6-pole Luminaire Lead - 5-core 5 metre - Plug to Open Ends 1.0mm ² cable
LUPX-6PR-6C-3M	6-pole Luminaire Lead - 6-core 3 metre - Plug to Open Ends - Red Connector 1.0mm ²
LUPX-6PR-6C-5M	6-pole Luminaire Lead - 6-core 5 metre - Plug to Open Ends - Red Connector 1.0mm ²
ACCPL-6P-01-B	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Black Shell
ACCPL-6P-01-R	6-pole line Plug Connector - Blue/Black (LCMD/LCC) - Red Shell

Quick Start Commissioning

With the HHIR-LCD-PROG

All programming requires the following functions

- Press & hold the on/off button to switch the handset on
- Click the right arrow to go into the standalone menu
- Select V3 products, using the navigation arrows
- Select PRM for switching PIRs or DD for DALI dimmable PIRs
- Detector parameters



Detector parameters (most commonly used features)

The following functions can be applied to any detector, switching or dimming.

- Time-out: Min is 1 minute, max is 99 minutes
- Detection mode: Presence operation auto on /auto off or absence operation manual on, auto off
- Sensor sensitivity: When the sensor is on or off (1 is min, 9 is max)
- Walk test on or off: When on, the led in the sensor flashes when movement is detected
- Disabling the detector: Used when you only want the photocell to work. This can be used when daylight dimming a row of luminaires running adjacent to the window or with a non dimming detector. When a lux level is reached the luminaires will switch off.

HHIR-LCD-PROG



Navigate
up/down left/right arrows.

Read Back
Reads back the selected parameters when in the active menu.

Return Key
Press to go back to the previous menu.

Numeric Pad
Used to enter time outs, sensor sensitivity and lux levels.

On / Off Button
Press and hold to switch the handset on.

Home Button
Takes you back to the beginning of the navigation.

Send Button
Used for sending infra-red commands to the sensor.

+ Yes / - No
Can be used to toggle between absence and presence mode.

Commissioning

Adjusting the time out Go to detector parameters

- Press the down arrow to the time out
- Type in the numerical keypad the number of minutes
- Aim the handset at the sensor and press the send button
- The led will flash

```
Detection Mode Abs  
→Timeout 30  
Recovery (secs) 10  
Sensitivity On 9
```

Adjust the sensitivity

- Go to detector parameters
- Press the down arrow to the sensitivity on or sensitivity off
- Type in the numerical keypad numbers 1 to 9 (9 = max sensitivity)
- Aim the handset at the sensor and press the send button
- The led will flash

```
Abs Recovery (se 10  
→Sensitivity On 9  
Sensitivity Off 9  
Manual Time Out 10
```

Adjust the detection mode absence or presence

- Go to detector parameters
- Press the down arrow to the detection mode
- Type in the numerical keypad the number of minute
- Aim the handset at the sensor and press the send button
- The led will flash

```
DETECTOR PARAMS  
→Detection Mode Abs  
Timeout 20  
very (secs) 10
```

Walk test

- Go to detector parameters
- Press the down arrow to the walk test LED
- Press yes or no on the keypad
- Aim the handset at the sensor and press the send button
- The led will flash

```
Manual Time Out 10  
→Walk Test LED Off  
Disable Detect. No  
Power Up State Yes
```



Quick Start Commissioning

With the HHIR-LCD-PROG

Adjusting the lux level (a lux meter is required)

- Go to detector parameters
- Press the down arrow to lux control & press the right arrow
- Type in the numerical keypad a value between 1 and 999 (The numbers represent a percentage and not a lux level. This is why a separate lux meter is required. For setting the light level to around 500 lux, initially set the numerical number to around 650 to 750 and measure the illuminance on the working plan. Increase or decrease the value on the numerical key by increments of around 25 until you reach your desired lux level. Aim the handset at the sensor and press the send button
- The led will flash



DALI luminaires flashing

- Go to detector parameters
- Press the down arrow to Output Ch.2 (Dim)
- Please note that there are two channels when commissioning the DALI 230V range of detectors. Channel 1 is the relay and channel 2 is the DALI
- Press the right arrow and scroll down the menu to the Gear Type
- Press the +/yes button D-ON (DALI on mode)
- Aim the handset at the sensor and press the send button
- The led will flash



Factory reset

- Go to detector parameters
- Press the down arrow to config
- Scroll to factory reset
- Aim the handset at the sensor and press the send button
- The led will flash

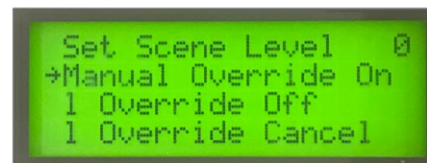


User menu

- Go to standalone
- Select V3 (version 3)
- Select DD for DALI dimming or PRM for switching
- Scroll down detector parameters to the user menu



The user menu options allow you to test the luminaires are switching and dimming



Over-ride-on switches the lights permanently on
Over-ride off switches the lights permanently off
Cancel puts to sensor back into normal operation



Test the lights are dimming



Scene 1 - 100% output
Scene 2 - 50% output
Scene 3 - 25% output
Scene 4 - 25% output

Commissioning

Applications 2 & 3 - DALI Dimming

2 position retractive switch - Adjusting the switch configuration

- Standalone menu
- Select V3 products, using the navigation arrows
- Scroll down to DD for DALI dimmable and press the right arrow
- Detector parameters- press the right arrow
- Scroll down to config-press the right arrow
- Select channel mode- switch & dim together
- Select switch mode-2 position switch together (factory default)
- Aim the handset at the sensor and press the send button
- The led will flash
- The led will flash

Application 8 - DALI Dimming and Switching

2 x 1 position retractive switches - CH-1 switched, CH-2 DALI dimmable.

- Standalone menu
- Select V3 products, using the navigation arrows
- Scroll down to DD for DALI dimmable and press the right arrow
- Detector parameters- press the right arrow
- Scroll down to config-press the right arrow
- Select channel mode- switch & dim separately
- Select switch mode- 1 position switch separate
- Aim the handset at the sensor and press the send button
- The led will flash

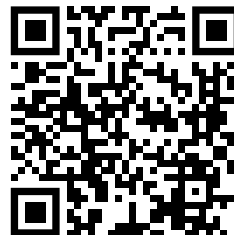
Applications 10 & 11 - Switching

1 position retractive switch

- Select V3 products, using the navigation arrows
- Scroll down to DD for DALI dimmable and press the right arrow
- Detector parameters- press the right arrow
- Scroll down to config-press the right arrow
- Select channel mode- switch only
- Select switch mode- 2 position switch together
- Aim the handset at the sensor and press the send button
- The led will flash

Commissioning using the HHIR-PROG

For full programming instructions see our install guide here:



Click or scan QR code



Specification documentation

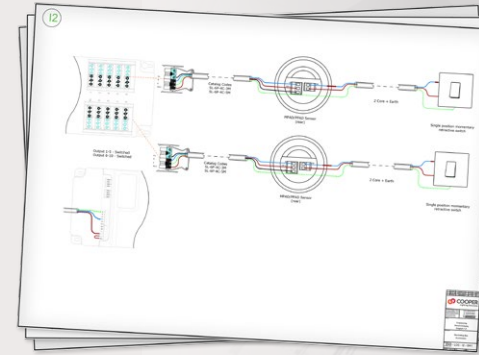
Download everything you need to spec this product and associated system components here:



Click or scan QR code

Code	Description	Light Series	Product Code	Image	Area
CL01	Reception Desk	Light	IP60-D		Open Plan Office & Library
CL02	100m2 Lecture Theatre	Light	TS11		Building-wide control module
CL03	100m2 Lecture Theatre	Light	TS11		For building-wide on-site control module
CL04	Public Information Point (Cafe & Retail)	Light	BI-D		Open Plan Office
CL05	Open Plan Office	Light	L240-D		Open Plan Office
CL06	100m2 Lecture Theatre	Light	EX02		Building-wide
CL07	100m2 Lecture Theatre	Light	EX02		Building-wide
CL08	100m2 Lecture Theatre	Light	EX02		Building-wide
CL09	100m2 Lecture Theatre	Light	EX02		Building-wide
CL10	100m2 Lecture Theatre	Light	EX02		Building-wide

Lighting Control Equipment Schedules



Supporting System Schematics

- 1.0. Distributed intelligence
- 2.0. Dimming protocols
- 3.0. User interface
- 4.0. Lighting control modules
- 5.0. Occupancy detection
- 6.0. System configuration
- 7.0. Commissioning & testing
- 8.0. Expansion
- 9.0.
- 1.0

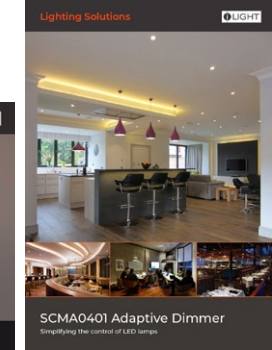
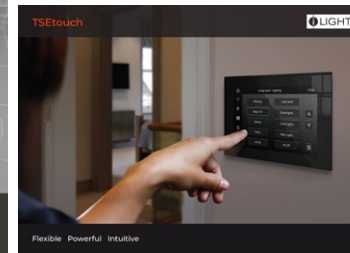
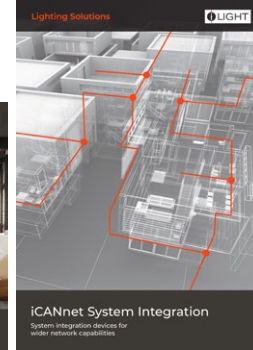
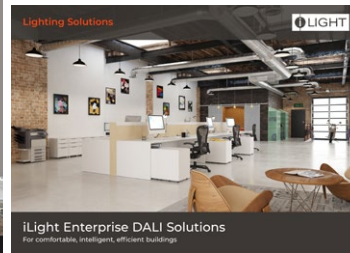
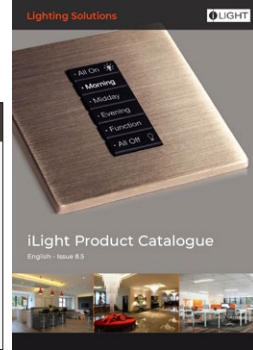
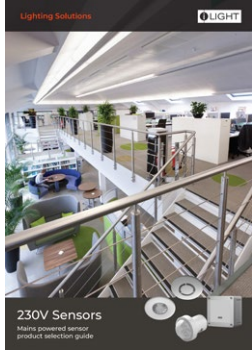
The lighting control infrastructure will include for DALI luminaires throughout, with a backbone for building-wide communication, managed from a Report PC located in the FM office. It shall be possible to carry out the following functions from the back-end web:

- Data management feedback
 - DALI lamp and cable fault diagnostics
 - E-mail reporting
 - Multi-room APP controls via a smart phone or tablet
 - Virtual scene controllers
 - Replace a product and re-program without the requirement for an engineer
 - Calendar for emergency test events
 - Control for lighting scenes
 - Log in hierarchy
 - Remote access
 - Luminaire demand status
 - Back up facility

The wiring structure will include the capability to test sections of a floor to accommodate for multiple tenants. All luminaires will be individually addressable, enabling the system to be re-configured and with minimal hard wiring of the system when areas in floors are being tested but a new sheet of usage of the space.

System Specifications

Related iLight literature



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