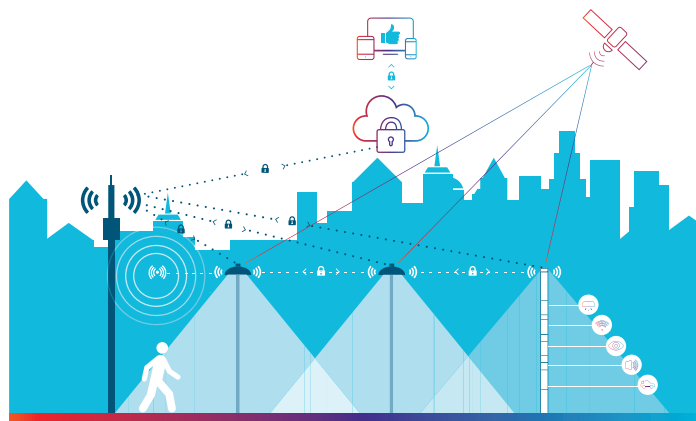


Owlet IoT

Wireless Outdoor Luminaire Controller

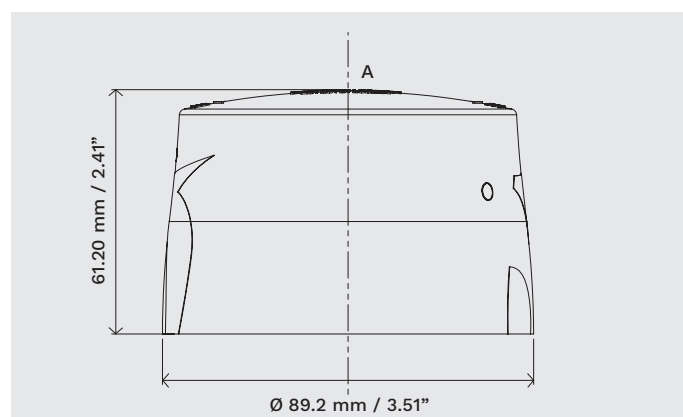
LUCO P7 CM HV (347V-480V)



Streetlight controls for smart cities based on IoT Technology

The LUCO P7 CM HV (High Voltage) Luminaire Controller is a smart control module that monitors and controls LED or HID luminaires. It is designed for easy installation and Plug and Play commissioning. Insert, twist and lock the LUCO P7 CM onto the 5 or 7 pin NEMA socket and your system is ready to go:

- Auto-commissioning
- Auto-connectivity
- GPS-location
- Sensors enabled
- Asset management
- DALI and 1-10V Driver Support
- Integrated powermeter with 1% accuracy (0-100% Dimming)



Applications

The LUCO P7 CM HV controls LED drivers and ballasts as per the wiring diagram (A). It is designed to replace a standard NEMA photocell (on a 5 or 7 pin socket) for use in outdoor luminaires for residential, road and urban applications.

General operation

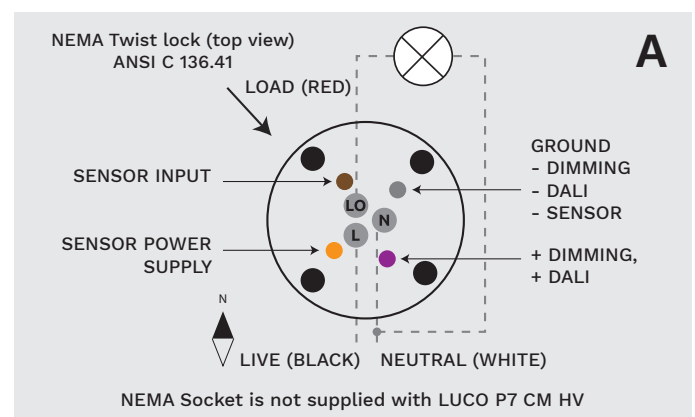
The LUCO P7 CM HV is designed to execute Plug and Play commissioning with instant connectivity over the existing cellular infrastructure without any need for an additional gateway or IT structure.

Each controller can communicate in two independent ways, cellular and RF-Mesh, offering instant, robust, reliable and flexible connectivity.

Communication between the luminaires, for exchanging sensor information for example, is done through a fast IP based self-forming RF mesh net, where one controller in the mesh also acts as a router module for the neighbouring controllers through the Central Management System.

Asset-management

An ID reader reads out the asset information stored in the luminaire tag for further use in the Central Management System asset application.



Wireless Outdoor Luminaire Controller LUCO P7 CM HV

LUCO P7 CM HV (347V-480V) Auto-Commissioning

Due to its built-in GPS and cellular module the LUCO P7 CM HV supports auto-commissioning and auto-connectivity. Owlet controllers with GPS will automatically be imported and located in the Owlet IoT user interface.

Operating conditions

Ambient temperature (ta) -40°C to +70°C
-40°F to +158°F

Relative humidity 10% to 90%

Non-operating conditions

Temperature -40°C to +80°C
-40°F to +175°F

Relative humidity 5% to 90%

Mains connection

Mains voltage 347V-480VAC ± 10%

Mains frequency 50/60 Hz ± 5%

Maximum load current 2 A

347V, 2A - Electronic Ballast
480V, LED Drivers that may be used:
LED Driver Model 1: HVGC-320-1750B
Manufactured by: Mean Well Enterprises Co. Ltd. (E334687-FKSZ2/8)
LED Driver Model 2: HVGC-240-1750B
Manufactured by: Mean Well Enterprises Co. Ltd. (E334687-FKSZ2/8)
LED Driver Model 3: ESD-320S150DT
Manufactured by: Inventronics (HANGZHOU) Inc. (E328335-FKSZ2/8)
LED Driver Model 4: ESD-320S220DT
Manufactured by: Inventronics (HANGZHOU) Inc. (E328335-FKSZ2/8)
LED Driver Model 5: OT100W/347-480V/1250C/2DIMLT2/P6
Manufactured by: OSRAM SYLVANIA INC (E320395-FKSZ2/8)
LED Driver Model 6: OT180W/347-480V/1250C/2DIMLT2/P6
Manufactured by: OSRAM SYLVANIA INC (E320395-FKSZ2/8)

Rating

Required external fuse ≤ 10A

Power consumption

Stand-by wattage < 1.0W

Operating wattage < 2.7W

Integrated powermeter accuracy 1% and better
(between 0% and 100% dimming)

Radio frequency

Protocol Zigbee, IPv4

Frequency bands
RF output power
Cellular GSM: 900MHz & 850MHz +33dBm
1800MHz & 1900MHz +30dBm
Cellular UMTS/HSPA: 800MHz, 850MHz,
900MHz, 1900MHz & 2100MHz +24dBm
Zigbee: 2400MHz +10dBm
GPS: 1575.42 MHz <-47dBm receive only

GPS capabilities

Supports GPS system (L1C/A signals provided at 1575.42 MHz)

Supports SBAS (Satellite Based Assist System)

Position accuracy up to 2.5m/8 ft (with > 6 satellites)

DALI output interface

DALI Compliant to IEC62386 part 101, 102, 201, 203, 207

Load capacity 4 drivers (DALI)

Protection Interface is short circuit protected

DALI voltage 12.0 to 20.5 Vdc

DALI supply current max. 16 mA

1-10V interface

Compliant to 1-10VDC IEC60929 (Annex E)

Load capacity 4 drivers (1-10V)

Load current Interface is current sinking, max. 16mA

Housing

Material PC, UV stabilized

Colour RAL 7042 translucent light grey

Protection class IP 66 (installed condition for controller only in combination with NEMA socket)

Mounting

Push +/- 55 N (12.5 Lb.)

Rotation 45° with max. 4.5 Nm (3.3 Lb.ft)

Standards & Legislation

EMC FCC/IC part 15B, ICES-003 (ANSI/IEEE C63.4:2014)

Cellular
FCC/IC RSS-132
FCC/IC RSS-133
FCC/IC RSS-139
FCC/IC RSS-247
FCC/IC 47 CFR Part 22 Subpart H
FCC/IC 47 CFR Part 24 Subpart E
FCC/IC 47 CFR Part 27 Subpart C

Radio FCC/IC 47 CFR Part 15 Subpart C §15.247

GPS EN 300 330-2 V1.6.1:2015-03

RF-ID
FCC/IC 47 CFR Part 15 Subpart C §15.225
FCC/IC RSS-210 (Dec 2010 + Amendment 1, Feb 2015)

Safety
IEC 61347-1: 2008+A1:2011+A2:2013
IEC 61347-2-11
UL 773 (E359906)
C22.2 No. 182.2-M1987
CSA C22.2 No. 205-12
FCC/IC 47 CFR Part 2 Subpart J §2.1091
FCC/IC RSS-102
(FCC ID: 2AW4F-LCP7CM, IC: 26343-LCP7CM)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la partie 15 des règles de la FCC. Le fonctionnement est soumis aux deux conditions suivantes: (1) ce dispositif ne peut pas causer d'interférences nuisibles et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences qui peuvent causer un mauvais fonctionnement.

Connector ANSI C136.41, ANSI C136.10

Sensor power supply

12 Vdc ± 0.5 V, 2 mA max.



FCC ID: 2AW4F-LCP7CM
IC: 26343-LCP7CM