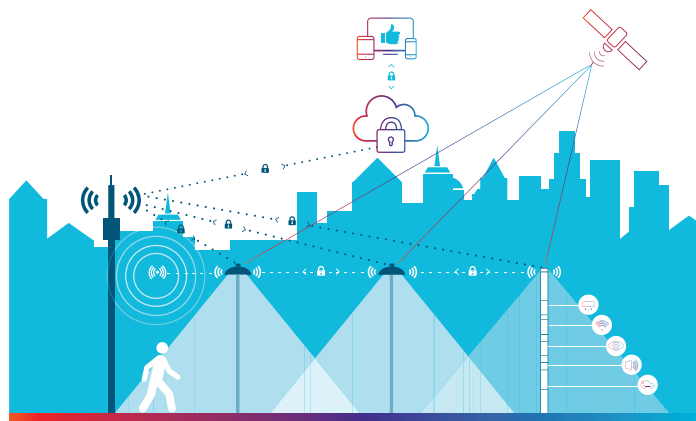


Owlet IoT

Wireless Outdoor Luminaire Controller

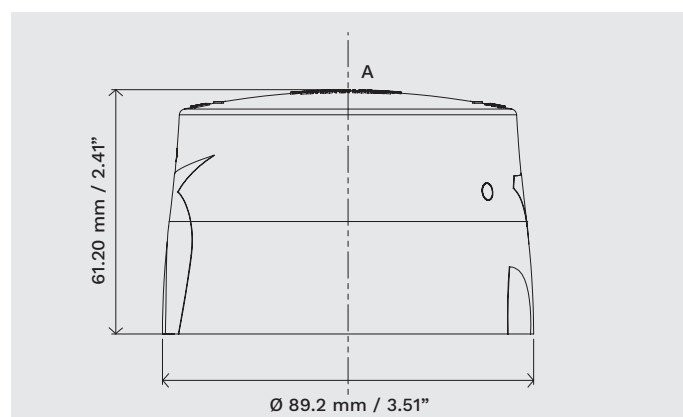
LUCO P7 CM (cellular-mesh)



Streetlight controls for smart cities based on IoT Technology

The LUCO P7 CM 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 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

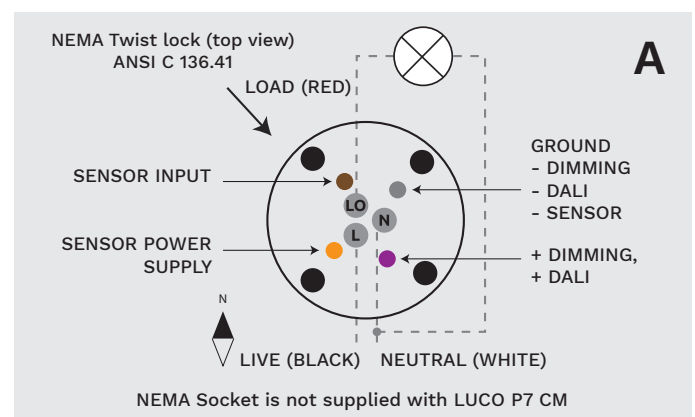
The LUCO P7 CM is designed to execute Plug and Play commissioning with instant connectivity over the existing cellular infrastructure without any need for an additional gateway or IT structure.

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

LUCO P7 CM Auto-Commissioning

Due to its built-in GPS and cellular module the LUCO P7 CM 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
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Relative humidity	10% to 90%
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Non-operating conditions

Temperature	-40°C to +80°C -40°F to +175°F
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Relative humidity	5% to 90%
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Mains connection

Mains voltage	110-277VAC ± 10%
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Mains frequency	50/60 Hz ± 5%
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Maximum load current	5 A
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Maximum power at 5A	600VA@120V 1.2kVA@240V 1.38kVA@277V
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Required external fuse	≤ 10A
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Power consumption

Stand-by wattage	< 1.0W
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Operating wattage	< 2.7W
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Integrated powermeter accuracy	1% and better (between 0% and 100% dimming)
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Radio frequency

Protocol	Zigbee, IPv4
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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
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DALI output interface

DALI Compliant to IEC62386 part 101, 102, 201, 203, 207	
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Load capacity	4 drivers (DALI)
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Protection	Interface is short circuit protected
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DALI voltage	12.0 to 20.5 Vdc
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DALI supply current	max. 16 mA
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1-10V interface

Compliant to 1-10VDC IEC60929 (Annex E)	
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Load capacity	4 drivers (1-10V)
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Load current	Interface is current sinking, max. 16mA
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Housing

Material	PC, UV stabilized
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Colour	RAL 7042 translucent light grey
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Protection class	IP 66 (installed condition for controller only in combination with NEMA socket)
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Mounting

Push	+/- 55 N (12.5 Lb.)
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Rotation	45° with max. 4.5 Nm (3.3 Lb.ft)
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Standards & Legislation

Approvals	Radio Equipment Directive (2014/53/EU) RoHS Directive (2011/65/EU) + Amendment (2015/863/UE)
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EMC	EN 301 489-1 EN 301 489-17 Draft EN 301 489-52 Draft EN 301 489-19 Final draft EN 301 489-3 ANSI/IEEE C63.4 ICES-003
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Cellular	EN 301 511 EN 301 908-1 FCC/IC RSS-132 FCC/IC RSS-133 FCC/IC RSS-139 FCC/IC 47 CFR Part 22 Subpart H FCC/IC 47 CFR Part 24 Subpart E FCC/IC 47 CFR Part 27 Subpart C
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Radio	EN 300 328 EN 303 413 47 CFR Part 15 Subpart C §15.247 RSS-247 RSS-310
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RF-ID	EN 300 330 47 CFR Part 15 Subpart C §15.225 RSS-210
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Safety	EN 61347-1 EN 61347-2-11 EN 60950-22 EN 60529 EN 62311 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)
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Connector	ANSI C136.41, ANSI C136.10
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Sensor power supply

12 Vdc ± 0.5 V, 2 mA max.

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)



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