

# WIRELESS COMMUNICATION

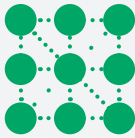


**It can be time-consuming and costly to install additional low voltage data connections associated with modern day lighting systems.**

For example in surface mounted retrofit installations, or in external areas such as open car parks. Philip Payne has therefore developed the SpectoXT system, providing the option of full wireless control between emergency luminaires.



## BENEFITS



### SYSTEM FLEXIBILITY

SpectoXT utilises a wireless mesh network. Each device acts as a repeater, ensuring that data signals always find a suitable communication path. Groups are easily created and changed providing future flexibility without altering wiring.



### EXCELLENT WIRELESS RELIABILITY

An operational frequency of 868MHz provides excellent transmission distances and better penetration of signals.



### EFFICIENT COMMUNICATION

Intelligent algorithm with low transmission of data - transmits less than 1% of total time (99% of time wireless is off) - reduces wireless traffic increasing reliability. Maximum data rate of 0.032Kps



### INTELLIGENT CONNECTIVITY

Software uses simple wait before transmit logic to ensure error free transmissions.



<b>EN 55015: 2013 +A1:2015</b>	Limits & methods of measurement of radio disturbances characteristics of electrical lighting & similar equipment
<b>EN 61547:2009</b>	Immunity
<b>EN 61000-4-3: 2006 + A1 + A2</b>	Electromagnetic Compatibility (EMC) part 4-3. Testing and measurement techniques - Radiated, radio frequency, electromagnetic field immunity test
<b>EN 300 220-2 v3.1.1</b>	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1000 MHz; Part 2: Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU for non specific radio equipment
<b>EN 301 489-1 v1.9.2</b>	Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements.
<b>EN 301 489-3 v1.6.1</b>	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz.
<b>BS EN 62311: 2008</b>	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz).
<b>EN 60950-1: 2006 2nd Edition + A11: 2009 + A1:2010 + A12:2011 + A2:2013</b>	Information technology equipment.



## DESIGN CONSIDERATIONS

**Wireless transmission distance will vary depending upon the type of luminaire and its location.**

The Maximum achievable for an open area external site is approximately 70 metres from one SpectoXT transceiver directly to another, reducing significantly indoors particularly where transmissions may be affected by thick concrete walls or metallic structures. Wireless mesh technology significantly improves transmission distances by propagating signals through many SpectoXT devices rather than simply point to point.

## SELECTING SPECTO-XT

Simply remove the 'DL' suffix from the DALI luminaire catalogue number and replace with 'XT'

**Eg. 250MCSHDL will become 250MCSHXT**

