Litex Elite

LED | IP65

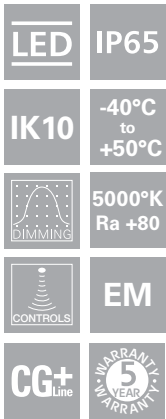IK10 | -40°C to +50°C

DIMMING | 5000°K Ra +80

CONTROLS | EM

CG+ Line | 5 YEAR WARRANTY

Litex Elite is the next generation IP65 Litex LED, and a performance leading luminaire in its class. Designed for high efficiencies, the Litex Elite delivers massive energy savings (ECA compliant) and rapid capital investment payback.

Available with a wide range of enabling options - 15K, 22K and 35K lumens, a selection of optical distributions, IP65 PIR sensor and integrated emergency. Litex Elite is the most complete and flexible high bay available.

Built to industrial specifications - IP65, 0 and extended operating temperature - Litex Elite is the perfect luminaire for industrial applications such as maintenance sheds, cold store, and a wide range of manufacturing, warehouse and amenity locations.

- 170Llm/cW – class leading luminaire efficiency
- Energy savings – over 65% vs metal halide and T5 fluorescent
- IP65 – dust and low pressure jet wash protection
- – robust, impact protection, 20 joule rating
- -40°C to +50°C extended operating temperature – suitable for a wide range of sites, including cold storage
- Integral emergency option – lower costs with reduced requirement for separate EM installation
- Sensor options – PIR, occupancy and daylight control
- DALI Dimming – allows for control of light levels to maximize savings
- Long life LED – in excess of L80 85,000 hours
- High quality white light (5000K, Ra80) – ideal for high activity areas and excellent colour recognition
- Rapid install – plug and play connector, suspension and surface mount bracket options
- 5 year warranty as standard – no registration of product required

5

LED and LED Driver

- High performance linear LED strip and LED driver system
- Leading efficiency LEDs
- 5000K, Ra +80

Materials

- IP65, IK10 luminaire
  - Sealed body mild steel housing - powder coated RAL9016
  - Impact resistant TPa Polycarbonate cover
- Aluminium gear tray, for optimised LED thermal management
- Anodised aluminium reflectors for maximum optical efficiency
- IP65 Plug and Play panel mounted connector
- Versatile mild steel mounting brackets

Installation Notes

- Mounting bracket options - BESA and suspended
- No requirement to access IP65 sealed unit
- Plug and play connection with IP65 panel mount connector supplied
- Fused as standard

Specification

To specify state: IP65 LED highbay luminaire with wide and narrow optic versions. High output high efficacy 5000K Ra 80 LED chip with high efficiency fixed output or DALI LED driver as standard with plug and socket connection to the end, as Eaton's Litex Elite, part no: _____

LED Lifetime Performance Data

Litex Elite luminare life values from TM21 calculator

Drive Current	Ambient Temp	LED Tc point	Operating hours to:		
			L90	L80	L70
500mA	25ºC	47	55,000	120,000	195,000
500mA	45ºC	65	48,000	100,000	160,000
700mA	45ºC	73	40,000	85,000	140,000

Note: using the TM21 algorithm for extrapolation of lifetime expectancy way beyond 6x tested duration has risks. Please contact the Eaton technical team for further info.

Dimensions
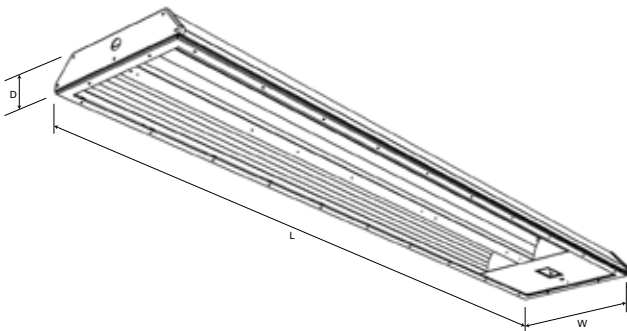
	Length (L)	Width (W)	Depth (D)	Weights (Kg)
4 foot standard	1205mm	295mm	65mm	7.3
4 foot standard with emergency	1405mm	295mm	65mm	8.4
6 foot standard	1766mm	295mm	65mm	10.9
6 foot standard with emergency	1881mm	295mm	65mm	12
Sensor unit add on	150mm	-	-	0.15

Options

- Nominal lumen and wattage
  - 15000 lumens , 93W
  - 22500 lumens , 142W
  - 35000 lumens, 222W
- Optical distribution - wide and narrow
- Fixed output or DALI LED driver
- Emergency
  - IP65 fully integrated conversion
  - 3 hour duration
  - High-bay option - narrow-beam reflector 'ELH' variant for up to 26 metres
  - Mid-bay option - wide-beam optic 'EL' variant for up to 14 metres
- Fully integrated IP65 PIR sensor module options for presence, occupancy and daylight control up to 20m
- Wireless control solution available upon request
- Polycarbonate impact resistant front cover, acrylic upon request

Photometric Data

Area distribution
Cat. No: LTEA1505KZ
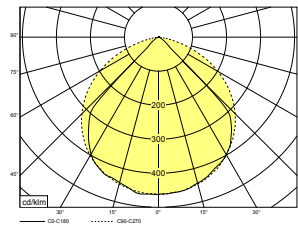
LOR 100%
Total flux 15945lm
SHRnom 1.25
SHRmax 1.379

Utilisation factors / TM5

Reflectances			Room index								
C	W	F	0.75	1	1.25	1.5	2	2.5	3	4	5
0.7	0.5	0.2	67	77	84	88	94	99	101	105	107
0.7	0.3	0.2	60	71	78	83	90	94	97	102	104
0.7	0.1	0.2	55	66	73	78	86	91	94	99	102
0.5	0.5	0.2	65	75	81	86	92	95	98	101	103
0.5	0.3	0.2	59	69	76	81	88	92	95	98	101
0.5	0.1	0.2	55	65	72	77	84	89	92	96	99
0.3	0.5	0.2	64	73	79	83	89	92	94	97	99
0.3	0.3	0.2	59	68	75	79	85	89	92	95	97
0.3	0.1	0.2	55	65	71	76	83	87	90	94	96
0	0	0	53	62	69	73	79	83	86	89	91
BZ-class			2	2	2	2	2	2	2	2	2

See page 382 for design guide

Narrow distribution
Cat. No: LTEN1505KZ
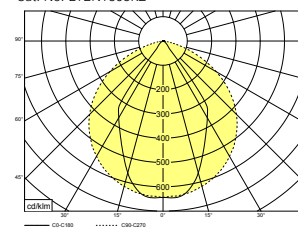
LOR 100%
Total flux 15684lm
SHRnom 1.00
SHRmax 1.141

Utilisation factors / TM5

Reflectances			Room index								
C	W	F	0.75	1	1.25	1.5	2	2.5	3	4	5
0.7	0.5	0.2	70	79	85	90	96	100	102	105	108
0.7	0.3	0.2	63	73	80	85	91	95	98	102	105
0.7	0.1	0.2	59	69	75	80	87	92	95	100	103
0.5	0.5	0.2	68	77	83	87	93	96	99	102	103
0.5	0.3	0.2	63	72	78	83	89	93	96	99	101
0.5	0.1	0.2	58	68	75	79	86	90	93	97	100
0.3	0.5	0.2	67	76	81	85	90	93	95	98	100
0.3	0.3	0.2	62	71	77	81	87	90	93	96	98
0.3	0.1	0.2	58	67	74	78	84	88	91	94	97
0	0	0	56	65	71	75	81	84	87	90	92
BZ-class			2	2	2	2	2	2	2	2	2

See page 382 for design guide

Emergency options

- Litex Elite has the option of an IP65 fully integral emergency unit built into the body of the luminaire
- Utilising Eaton's efficient optical system, capital and installation costs are reduced with class leading spacings
- High-bay and mid-bay variants allow the luminaire to be tailored to the application requirements
  - The high-bay (narrow-beam reflector) 'ELH' option is especially suitable for higher rack or aisle areas and escape routes up to 26 metres
  - The mid-bay (wide-beam optic) 'EL' option provides a square light distribution. It is most suitable for illuminating open areas up to 14 metres

Note, use of the Litex Elite Emergency option reduces the certified operating temperature from -40ºC - +50ºC to 0 to 25ºC .
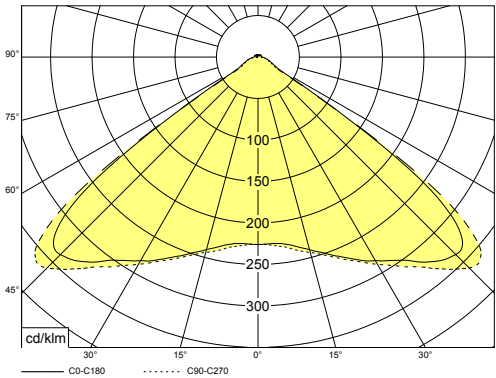
Please contact our technical support team for further details on 01302 303240 or email LightingTechnicalUK@Eaton.com
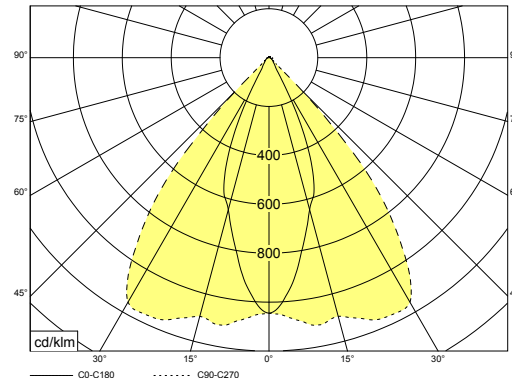

Detail showing integrated wide beam emergency module (distribution illustrated below)

Detail showing integrated narrow beam emergency module (distribution illustrated below)

Mid-bay emergency - wide-beam optic
Based on Factors K 0.85 S 0.95

High-bay emergency- narrow-beam reflector
Based on Factors K 0.85 S 0.95

	Mounting Height (m)	Lux Level Directly under	Escape route - 1 lux		Open Area - 0.5 lux			
Highbay	6	9.92	5.8	12.1	5.5	11.6	7.3	3.7
	7	7.30	6.4	13.8	6.2	13.2	8.2	4.0
	8	5.61	7.1	15.4	7.1	14.9	9.0	4.1
	9	4.48	7.8	16.9	7.8	16.5	9.7	4.2
	10	3.65	8.2	18.3	8.5	18.1	10.4	4.3
	17	1.26	6.4	24.7	10.5	27.7	14.4	5.0
	20	0.91	- -	- -	10.0	31.0	16.0	4.5
	25	0.58	- -	- -	7.3	36.0	16.2	2.5
	26	0.54	- -	- -	6.5	35.6	16.2	1.7
Midbay	6	2.91	7.3	16.6	7.6	15.8	15.8	7.6
	7	2.12	7.5	18.4	8.5	18.1	18.1	8.5
	8	1.6	6.5	19.3	9.3	20.4	20.4	9.3
	9	1.27	4.7	19.1	10.0	22.5	22.5	10.0
	10	1.04	- -	- -	10.5	24.4	24.4	10.5
	14	0.54	- -	- -	4.6	27.0	27.0	4.6

Controls

Energy saving is key to sustainable buildings and businesses. By adopting a clear strategy for managing the occupancy and daylight, significant energy savings may be achieved.

Application dependent, energy savings against constant illumination can be up to 70%.

IP65 PIR Sensor

The Litex Elite is available with a high sensitivity IP65 PIR detector suitable for high bay applications, such as warehouses and factories.

The Litex Elite sensor has exceptionally sensitive and long range detection, sensing movement up to 40m at a 15m mounting height, making it suitable for high bay applications.

The sensor is supplied with masking shields that allow the pattern to be modified to suit the requirement. Simply click into the lens body and mask areas of the lens that are not required.

All functionality is fully programmable via an infrared handset.

Features:

- Presence, occupancy and daylight harvesting
- Maximum mounting height up to 20m
- Detection range of up to 40m at 15m mounting height
- Supplied with masking shields to focus detection
- Operating temperatures between -10˚c to +50˚c
- Infrared handset control for quick and easy set up

Range:
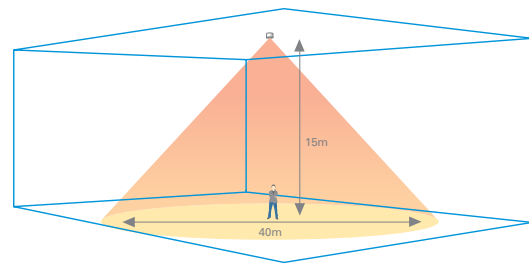
Maximum mounting height 20m

Detection mode

Presence

When movement is detected the load will automatically turn on. When the area is no longer occupied the load will automatically switch off after an adjustable time period.

Sensitivity to movement of the PIR sensor can be adjusted using the sensitivity parameter.
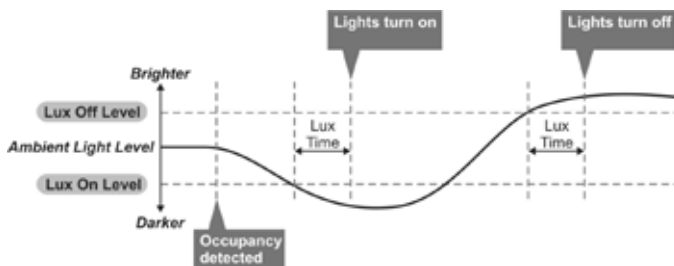

Occupancy detection:

Can be made dependant on the ambient light level using the Lux On Level and Lux Off Level parameters.

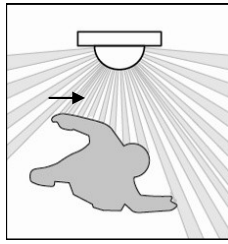### Maintained Illuminance (daylight harvesting) - DD variants only

The detector measures the overall light level in the detection area and calculates the correct output for the luminaires, to achieve a pre-set lux level (maintained illuminance or daylight harvesting).
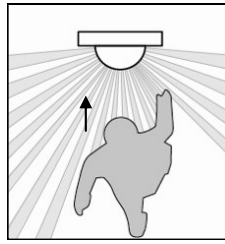
Sensor Details cont.

Detection pattern	Walk Through	Walk Towards
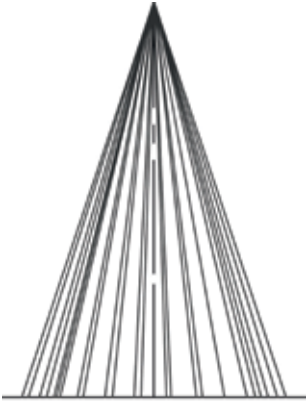
Range	Diameter
15m	40m
10m	26m
6m	16m
3m	9m

| Range	Diameter
15m	30m
10m	20m
6m	12m
3m	8m

Alignment Marks
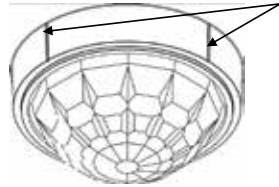
The sensor head has 4 alignment marks. These correspond to the 4 outer passive infrared sensors under the lens. Use these marks to align with aisles and corridors to ensure the best detection characteristics.

Masking Shields

The sensor includes two clip-on masking shields to allow for precise masking of the detection shape.

The masks can be easily shaped to produce detection patterns suitable for application such as aisles and corners and for the narrowing of the detection diameter.

Before shield use, please refer to sensor installation leaflet supplied, or contact our technical support team on 01302 303240 or email LightingTechnicalUK@Eaton.com.

Shield for end of isle detection pattern

Shield for focused detection pattern

Shield for isle detection pattern
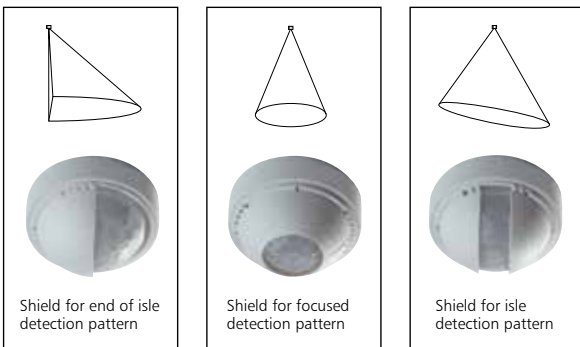
Typical Detection permutations (illustrative purposes only)

Luminaire Efficiency

Option	Lumen Output (lm)	Wattage (W)	Efficiency (Llm/cW)
Wide area reflector	15945	93.41	170.7
Narrow reflector	15684	93.45	167.8
Wide area reflector	23803	141.6	168.1
Narrow reflector	23097	141.6	163.1
Wide area reflector	35417	222	159.5
Narrow reflector	34434	222	155.1

Catalogue Numbers

Cat No.	Nominal Lumen Output (lm)	Optic	Length (mm)
LTEA1505KZ	15000lm	Wide area reflector	1205
LTEN1505KZ	15000lm	Narrow reflector	1205
LTEA2255KZ	22500lm	Wide area reflector	1766
LTEN2255KZ	22500lm	Narrow reflector	1766
LTEA3505KZ	35000lm	Wide area reflector	1766
LTEN3505KZ	35000lm	Narrow reflector	1766

For DALI dimming option, replace catalogue number character **Z** with **DD**, e.g. LTEA1505K**Z** becomes LTEA1505K**DD**

For IP65 sensor option add **S** in front of catalogue number e.g. - LTEA1505KZ becomes **S**LTEA1505KZ (20m)

For Emergency Mid Bay (up to 14m) option add **EL** in front of catalogue number, e.g. - LTEA1505KZ becomes **EL**LTEA1505KZ

For Emergency High Bay (up to 26m) option add **ELH** in front of catalogue number, e.g. - LTEA1505KZ becomes **ELH**LTEA1505KZ

Accessories

Cat No.	Description
LTEMB1	Suspension mounting brackets (Pair)
LTEMB2	BESA Mounting brackets (Pair)
SLTEC	Commissioning handset[1]
SLTEPC	Professional commissioning handset[2]

SLTEC Infrared Handset for most basic programming operations.

SLTEPC Infrared Handset (with LCD) for advanced programming features.

For full commissioning and programming information please refer to the manufacturer installation notes which are supplied or please contact our technical support team for further details on 01302 303240 or email LightingTechnicalUK@Eaton.com

For more information on the installation requirements and product specifications, please visit our website: https://uk.eaton.com/content/gb/en/products/product-catalog/litex-elite.html

Plug and play connection

IP65 PIR sensor

Programming handset - SLTEC

Suspension brackets - LTEMB1

BESA mounting bracket - LTEMB2