

# SELC 8480 & 8480-H

The One Part  
Photoelectronic Lighting Controllers.

## Key Features

- Very accurate light sensing
- Omni directional ambient light sensing
- RAT switching up to 2000 VA
- IP67 sealed enclosure
- Temperature contained within enclosure so as to eliminate condensation
- Better than 25 years life expectancy
- Plastic conical cover ensuring good ambient light transmission during lifetime
- One part, easy to install
- Designed to operate on voltage with extreme dips and fluctuations and brown-outs
- Available in Nema twist lock or hard wired versions
- Circuit power consumption 194.51 milli watts better than 0.25 watts

## Applications

- Street and road lighting
- Security and floodlighting
- Amenity and sign lighting
- All type of industrial and consumer external lighting
- All types of high intensity discharge lighting up to 2000 VA
- Other loads that utilise dusk to dawn as the switching method

## The SELC 8480 range offers...

1. Energy saving
2. Control of all HID lamps up to 2000 VA
3. A switch 'on' and 'off' accuracy better than any other photocell +/- 2.5% P/U
4. A lifetime in excess of 25 years
5. Automatic switch 'on' and 'off' of all types of external lighting



The Selc 8480

**The SELC 8480** is the first P.E.C.U. to incorporate a customised photo detector with a spectral filter, to closely match the human eye response, so as to further improve the already accurate sensing as experienced with the past range of photocells. Phototransistors and photodiodes do not experience internal drift when compared with cadmium sulphide detectors and any measurable drift is calculated in millions of hours. Their use in light detection is now of importance, due to the increased awareness by electricity supply utilities of the high drift associated with other detectors.

To further improve the efficiency and benefits of this superior technology, a special Cone of a very new and different plastic is also incorporated - Tested for 2000 hours, under Ultra Violet A & B light to ASTM. 953-77 & G53-84, a variation of 0.5% in light transmission was recorded as against a leading top brand of acrylic, which showed a variation of 3.4%. From those and other tests performed, we can easily state that weathering of this cone, will not affect the calibration performance any more than 1% in a six year exposed life period, either in the UK or worldwide. All other plastics can vary up to 50% in the same period.

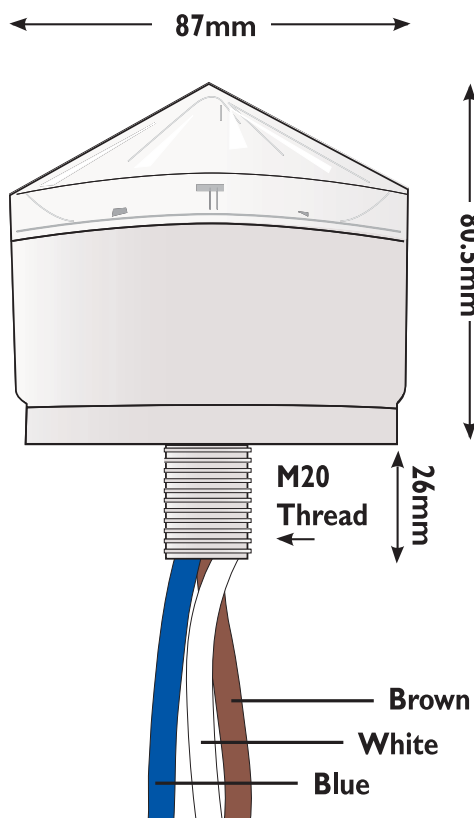
A new cooling method developed exclusively by SELC is now employed within the housing so as to minimise the damaging effects of heat generated by the lantern on the electronic circuitry. (The golden rule of thumb in electronic reliability engineering is: "a temperature reduction of 10 degrees almost doubles the reliability").

## SELC 8480 hard-wired version



Selc 8480 Hardwired Photocell

## SELC 8480 H Dimensions



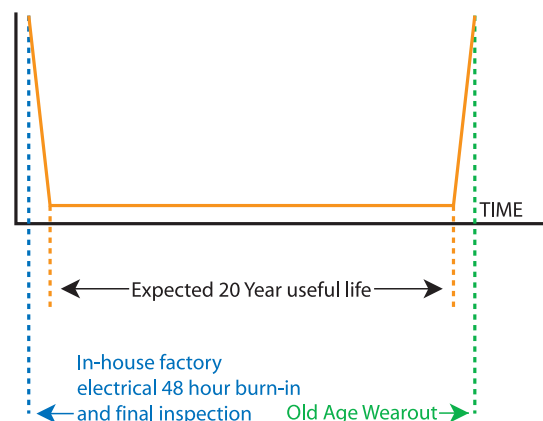
## The SELC 8480-H Multiple Features

- A highly regulated transformer power supply.
- State-of-the-art micro-controlled circuitry for control of sensing time delays and R.A.T. switch sequencing.
- Relay Assisted Triac (R.A.T.) solid state switching circuit. (This unique switching technology ensures that power loss is negligible when carrying the load and ensures that up to 10 Amps of inductive power can be switched without overheating or switch breakdown or the necessity to check the lantern power factor correction capacitor). It ensures that the switch complies with all International Electro-Magnetic Interference regulations and directives.
- All SELC PECU's are fitted with mains transients suppressors so as to increase both the life of the unit and lantern.
- The hard-wired configuration method is invaluable where photocells are installed in areas of high vandalism.

## Highest quality design, manufacture and test techniques employed

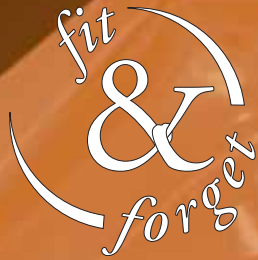
- All products tested 100% X 3.
- **100% Electrical Test**
- **100% 48 Hour Burn-in**
- **100% Final Inspection**

## Bath tub curve test concept



High Tech Dusk to Dawn Lighting Controller

*guaranteed for 12 years*



**Specifications 8480 Range  
PECU**

Type	Electronic - Solid State
Voltage	200-260V AC 50-60 Hz
Switch On/Off Ratios	1:2, 1:1.5, 1:1, 1:0.5
Switching Levels	70 Lux, or as Customer Specification
Sensor Drift	Zero Over 6 Years
Evening to Evening Drift	+/-2.5% P/U
Load Handling	3 x 400W HID
Temperature Range	-20°C to +85°C
Load Current Capacity	10 Amps Inductive Direct Source
Switching Delay	25 Seconds or per specification
Conical Cover - weather performance	1% decrease in light transmission over 6 yrs
Enclosure Materials	Plastic
Circuit Power Consumption	<b>194.51 Milli Watts</b>
Power Loss During Load Handling	Negligible
Guarantee	12 Years
Manufacturing Standard	I.S. E.N. ISO 9001-2000
P.E.C.U Standard	B.S. 5972
Sealed Housing	I.P. 67
EMC	To EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3
Testing Standards:	
Plastic:	ASTM. 953-77 & G53-84
Electronics:	B.S. 5942., B.S. 5225 Part 1 Photo-Cell Linearity/Response

# SELC products

