

## Power Line Illuminance Photometer (ILCAM2)

### General Description

The ILCAM2 measures the level of illuminance within the road tunnel bore to ensure interior illumination levels are being continuously maintained, to improve lighting conditions for drivers. It communicates the above information to lighting controllers included in LCC, UDE and ADE cabinets, through power line communication using the existing power cables.

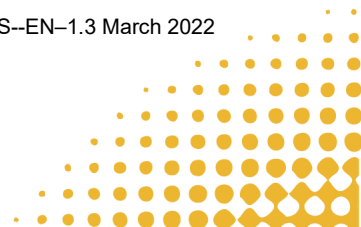
The ILCAM2 uses a specially designed, highly light-sensitive photocell, filtered to provide a spectral response close to that of the average human eye, to react to changes in light levels due to luminaires aging and dust accumulation between cleaning within the tunnel environment.

The ILCAM2 measures the illuminance over a standard range of 0-20,000 lux, (max.), which can be scaled to meet user requirements.



### Features and characteristics

- Accurate measurement:
  - Tunnel illuminance within the road tunnel bore, maintaining constant lighting in tunnel through lighting controllers
- CIE and IES Approved measurement technology
- Designed specifically for road tunnels
- Rugged painted stainless steel 316 construction
- Simple installation/operation
- Power line communication for remote control, monitoring, and diagnostic
- Silicon photo diode,  $\lambda$  filtered for spectral response
- NEMA 4x / IP66 rating



**Specifications**

**Measurement Range**

| Parameter                | Units   | Min. | Max.   | Comment   |
|--------------------------|---------|------|--------|---|
| <b>Detector</b>          |         |      |        | Silicon photo diode, Vλ filtered<br>lx 0 20,000 |
| <b>Measurement range</b> | Lx      | 0    | 20,000 | Can be scaled within this range                 |
| <b>Resolution</b>        | Lx      |      | 1      | Display resolution                              |
| <b>Accuracy</b>          | %       | -1   | +1     | Lux   |
| <b>Damping</b>           | seconds | 1    | 100    | Default setting 10 s.                           |

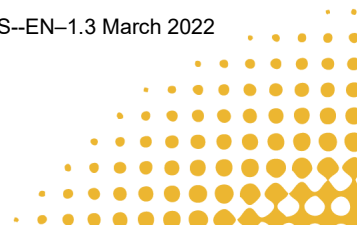
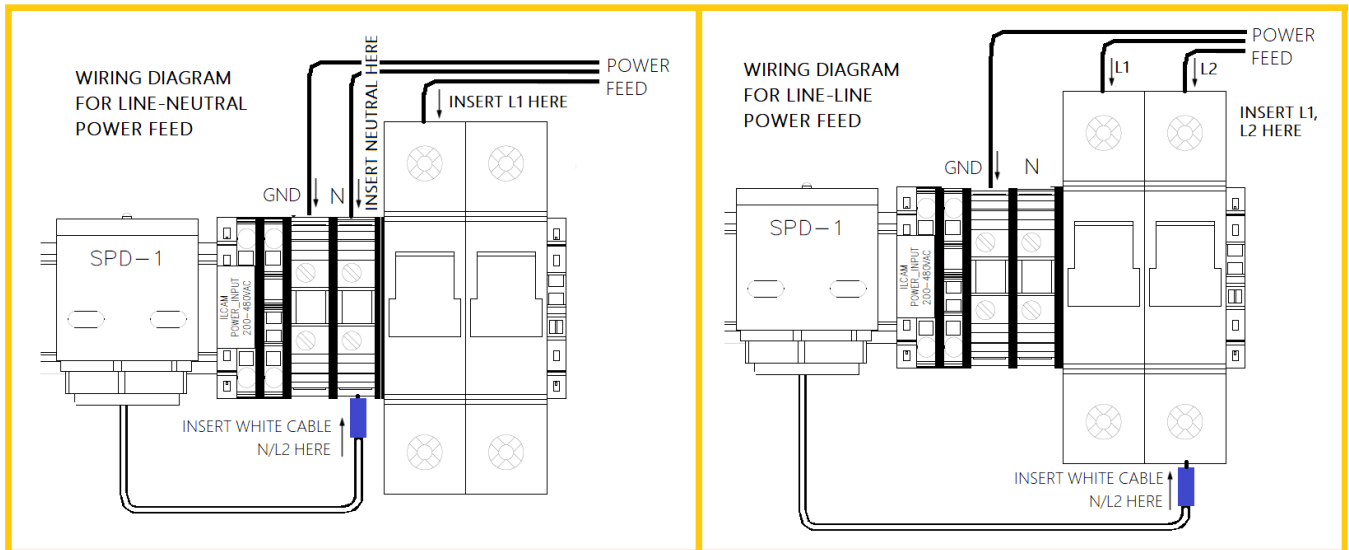
**Electrical**

| Item                           | Description  |
|--------------------------------|--|
| <b>Input voltage (nominal)</b> | 120 VAC<br>220-480 VAC   |
| <b>Frequency (nominal)</b>     | 50-60 Hz   |
| <b>Load rating</b>             | 120 VAC<br>220-480 VAC<br>Steady state current: 0.5 A<br>Peak current: 0.7 A |

**Interface Option**

| Item                                  | Description              |
|---------------------------------------|--------------------------|
| <b>Supported interface connection</b> | Power Line Communication |

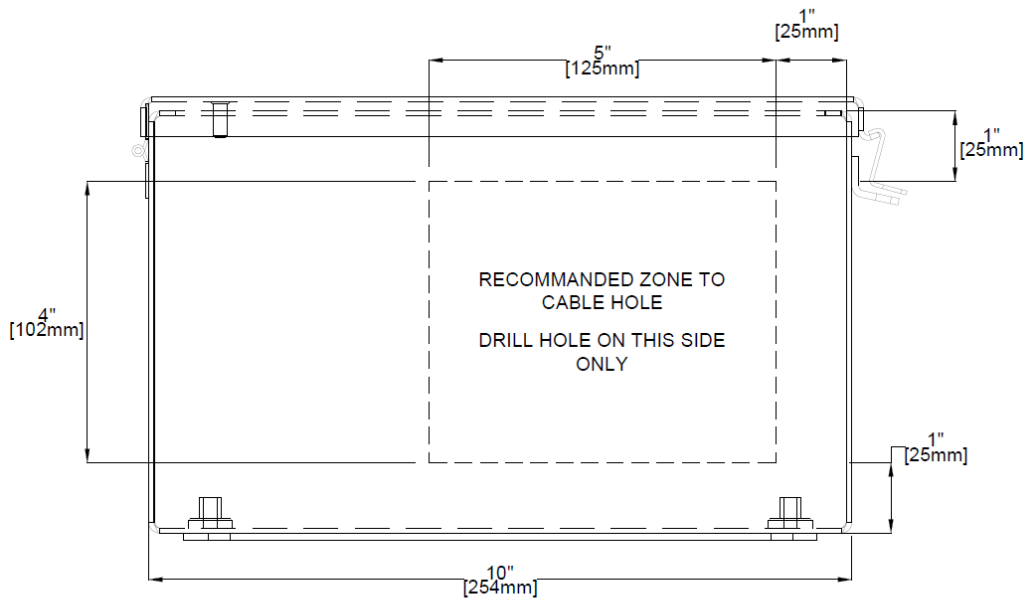
**Wiring Diagram (ILCAM2-2)**



**Environmental Conditions**

| Item                          | Unit                 | Min | Max |
|-------------------------------|----------------------|-----|-----|
| Operating ambient temperature | °C                   | -10 | 40  |
|                               | °F                   | 14  | 104 |
| Storage temperature           | °C                   | -30 | 70  |
|                               | °F                   | -22 | 158 |
| Humidity                      | 0-95% non-condensing |     |     |

**Drilling Information**



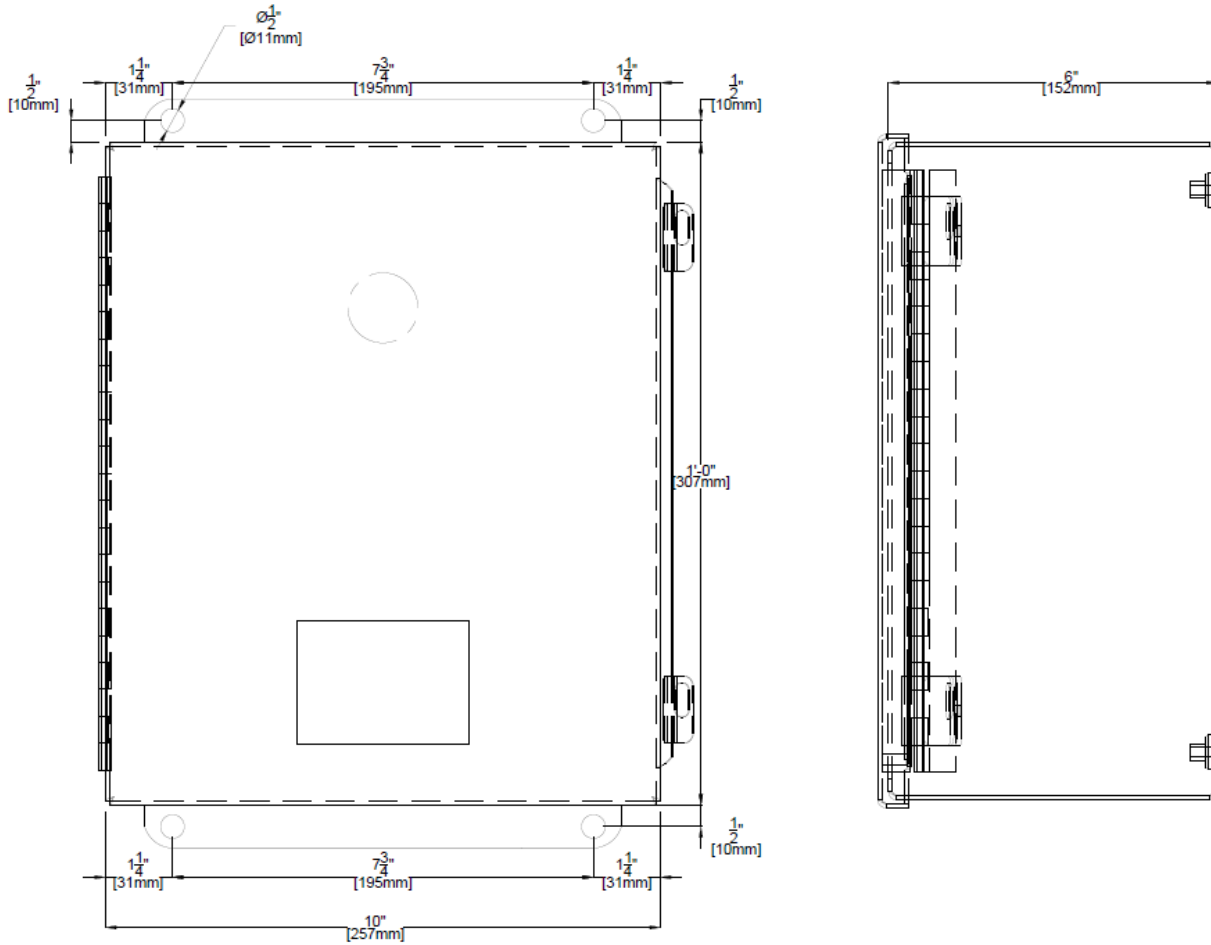
BOTTOM VIEW

**Physical**

| Item                    |              | Description  |
|-------------------------|--------------|--|
| Ingress Protection      |              | NEMA 3R  |
| Enclosure Material      |              | Powder-coated stainless steel 316<br>(Traffic Yellow - RAL 1023) |
| Dimensions<br>W × H × D | mm<br>inches | 254 × 305 × 153<br>10 × 12 × 6                                   |
| Weight                  | kg<br>lbs    | 8.2<br>18  |



**Mechanical Dimensions**



**Product Ordering Information**



| Segment name<br>(left to right) | Segment value | Description   |
|---------------------------------|---------------|---|
| <b>Model</b>                    | ILCAM2        | Powerline illuminance meter                             |
| <b>Input voltage</b>            | 1             | 120 VAC phase-neutral                                   |
|                                 | 2             | 220-480 VAC input voltage, phase-neutral or phase-phase |

**Note:** Different options and configurations available. For further information, please contact [info@nyx-hemera.com](mailto:info@nyx-hemera.com)

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Specification subject to change without notice – ILCAM2-DTS--EN-1.3 March 2022

