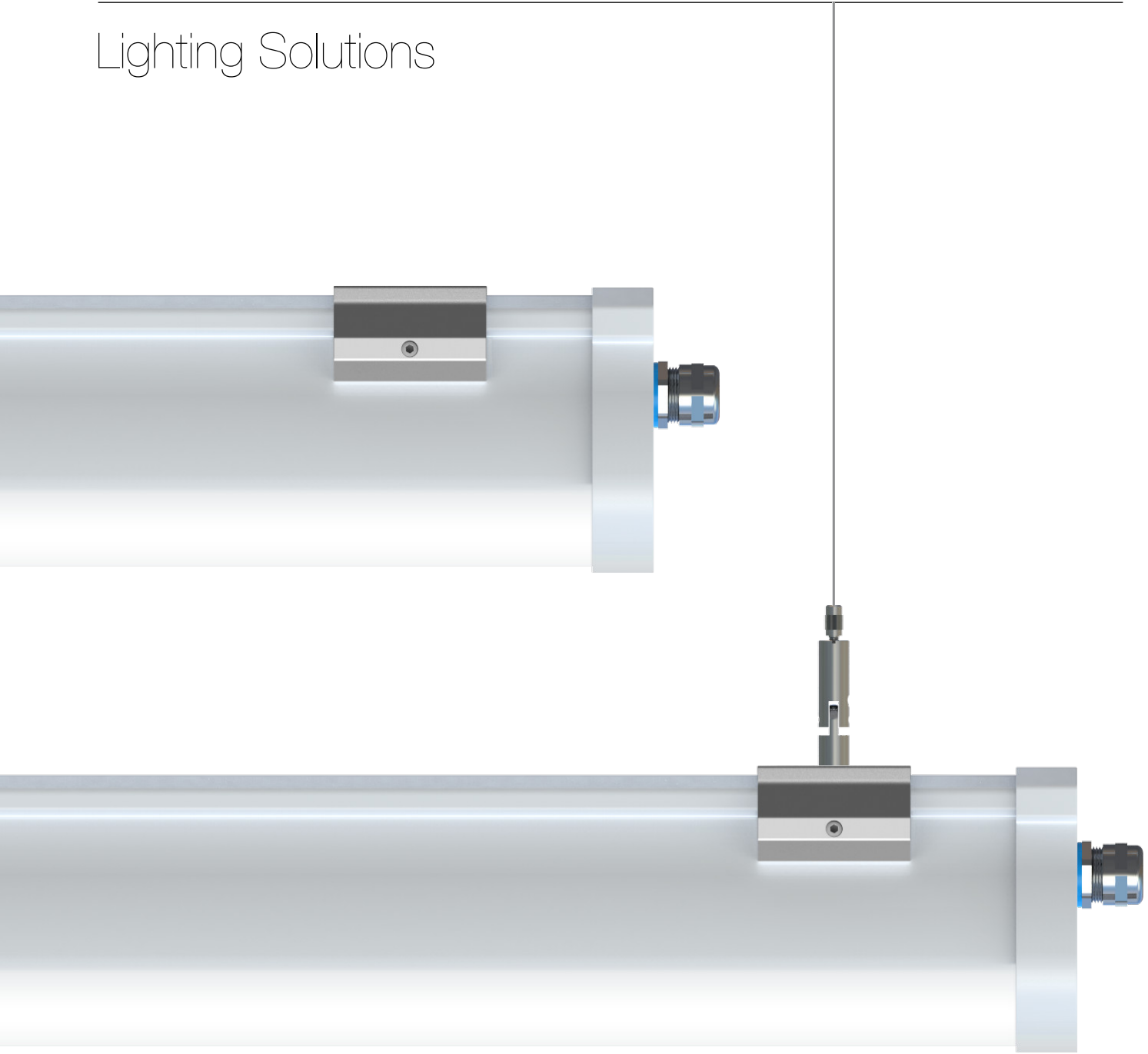




Lighting Solutions

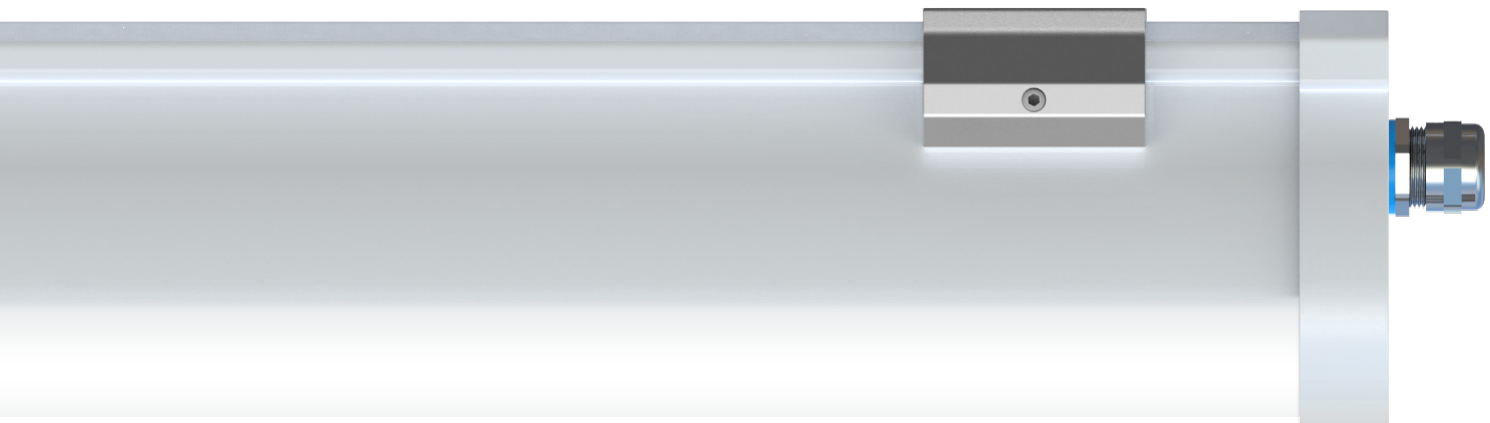


Specifier Series | **Proline Linear Low Bay**



Proline is the result of ten years research into material science, mechanical engineering, electronics and thermal management.





TPX



The ultimate food grade solution, with exceptional chemical resistance. TPX is food-safe, impact resistant and UV stable.

Protected by a fully serviceable enclosure designed to resist regular application of sanitisers and high temperature, high pressure washing up to 85°C @ 10,000kPa.

The fully serviceable enclosure of Proline TPX was developed specifically for increased resistance to alcohols, peroxides, aldehydes, quaternary compounds, alkyl amines and chlorine releasing compounds such as...

- Acetic Acid
- Ethoxylated Alcohols
- Amines
- Benzalkonium Chloride
- Benzyl Alkyldimethyl Chlorides
- Disodium Metasilicate
- Dodecyldimethylamine oxide
- Ethanol
- Hydrogen Peroxide
- Hypochlorous Acid
- Peroxyacetic Acid
- Potassium Hydroxide
- Quaternary Ammonium Compound
- Secondary Alkanesulphonates
- Sodium Carbonate
- Sodium Dodecylbenzene Sulfonate
- Sodium Hydroxide
- Sodium Hypochlorite

Luminaire Performance Up To:

20,250lm ~ 135 lm/W*

Ambient Temperature Range:

-30°C / +40°C*





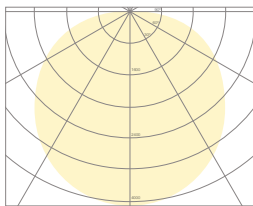
PCX



IP69K Polycarbonate, impact resistant, food-safe, fully serviceable V-0 fire rated enclosure.

Manufactured from tough, durable impact resistant Polycarbonate, the PCX provides an economical option, where the extreme chemical resistance capabilities of TPX are not required. It is suitable for most general applications such as freezers, food preparation areas, parking facilities and general under veranda applications.

PCX can also be supplied with our formidable range of ZigBee wireless sensors, to deliver sophisticated wireless lighting control to individual or linked units. With the power to provide ample light in warehouses and workshops.



Luminaire Performance Up To:

21,750lm ~ 145 lm/W*

Ambient Temperature Range:

-30°C / +40°C*



*Lumen output and maximum ambient temperature subject to model and specification.

Five Lengths, Eight Power Options.

With two options of chipset, five lengths and eight power options, we are confident that you will find the model, performance and output you need to deliver a perfect and lasting lighting outcome.

2000mm

- 150W - HE 21,750lm PCX
- 150W - HE 20,250lm TPX
- 120W - HE 17,400lm PCX
- 120W - HE 16,200lm TPX

1500mm

- 120W - HE 17,400lm PCX
- 120W - HE 16,200lm TPX
- 100W - HE 14,500lm PCX
- 100W - HE 13,500lm TPX

1200mm

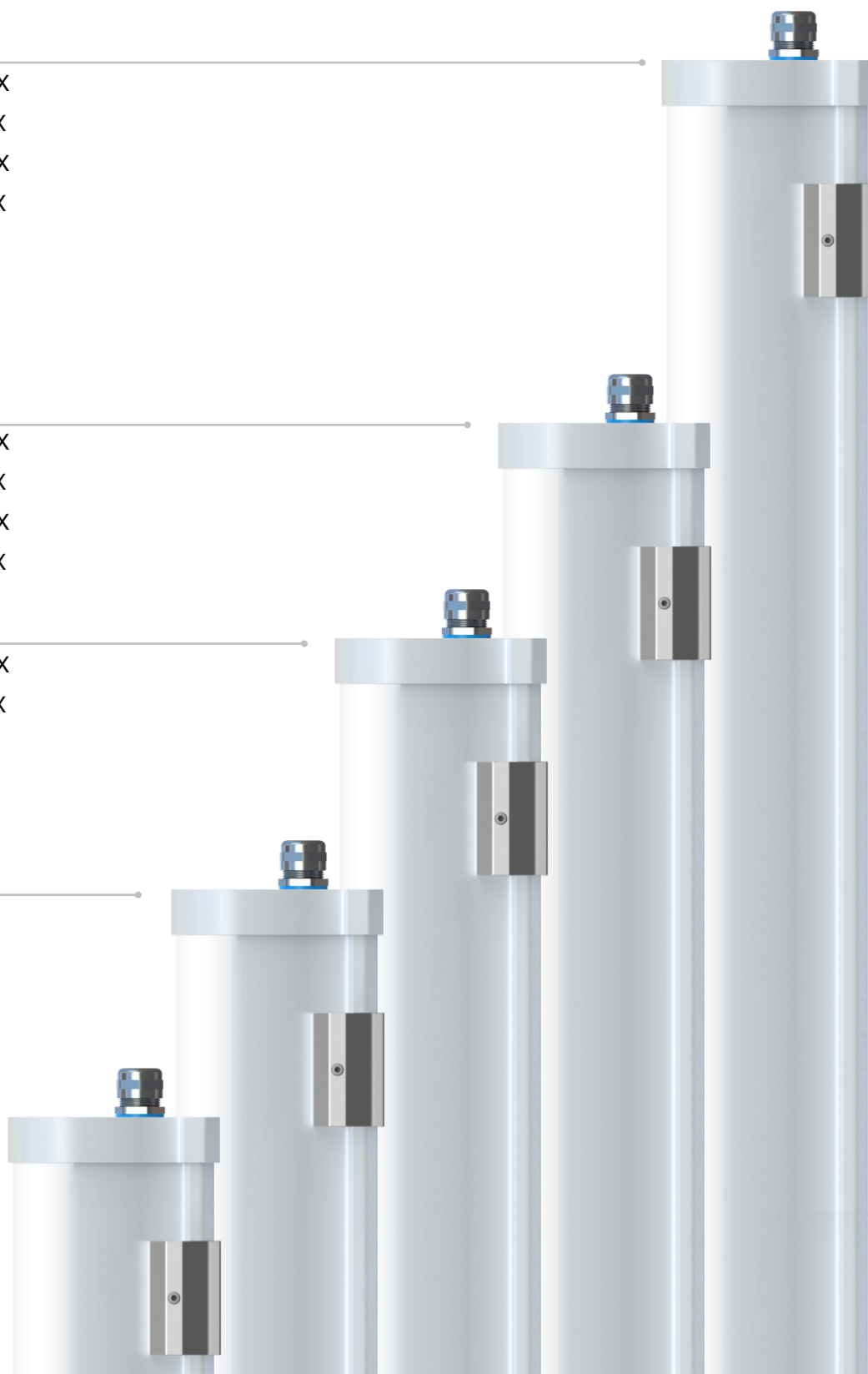
- 80W - HE 11,600lm PCX
- 80W - HE 10,800lm TPX
- 60W - HE 8,700lm PCX
- 60W - HE 8,100lm TPX

900mm

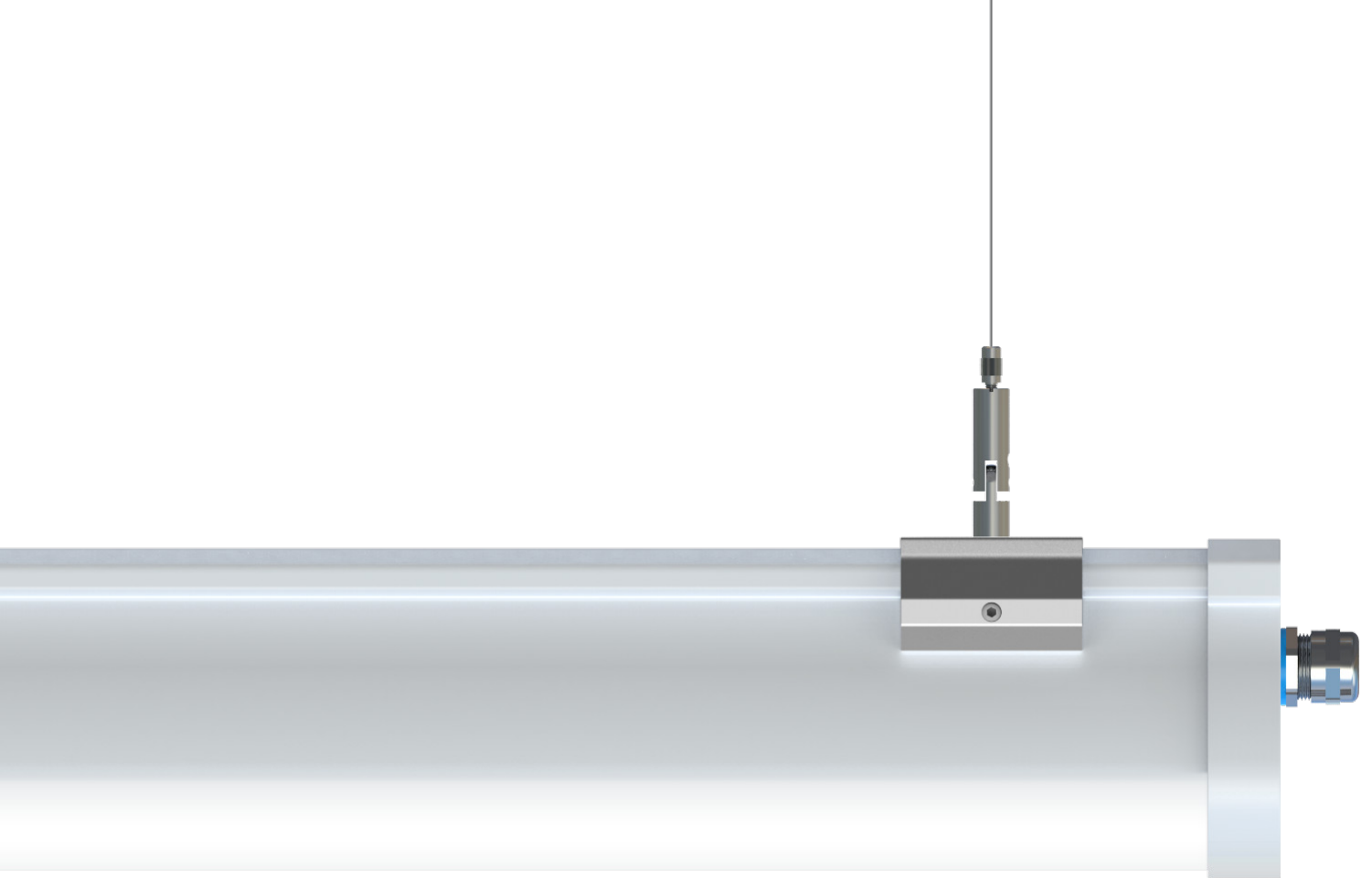
- 60W - HE 8,700lm PCX
- 60W - HE 8,100lm TPX

600mm

- 40W - HE 5,800lm PCX
- 40W - HE 5,400lm TPX



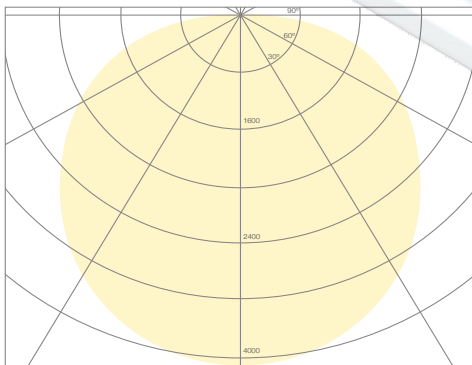
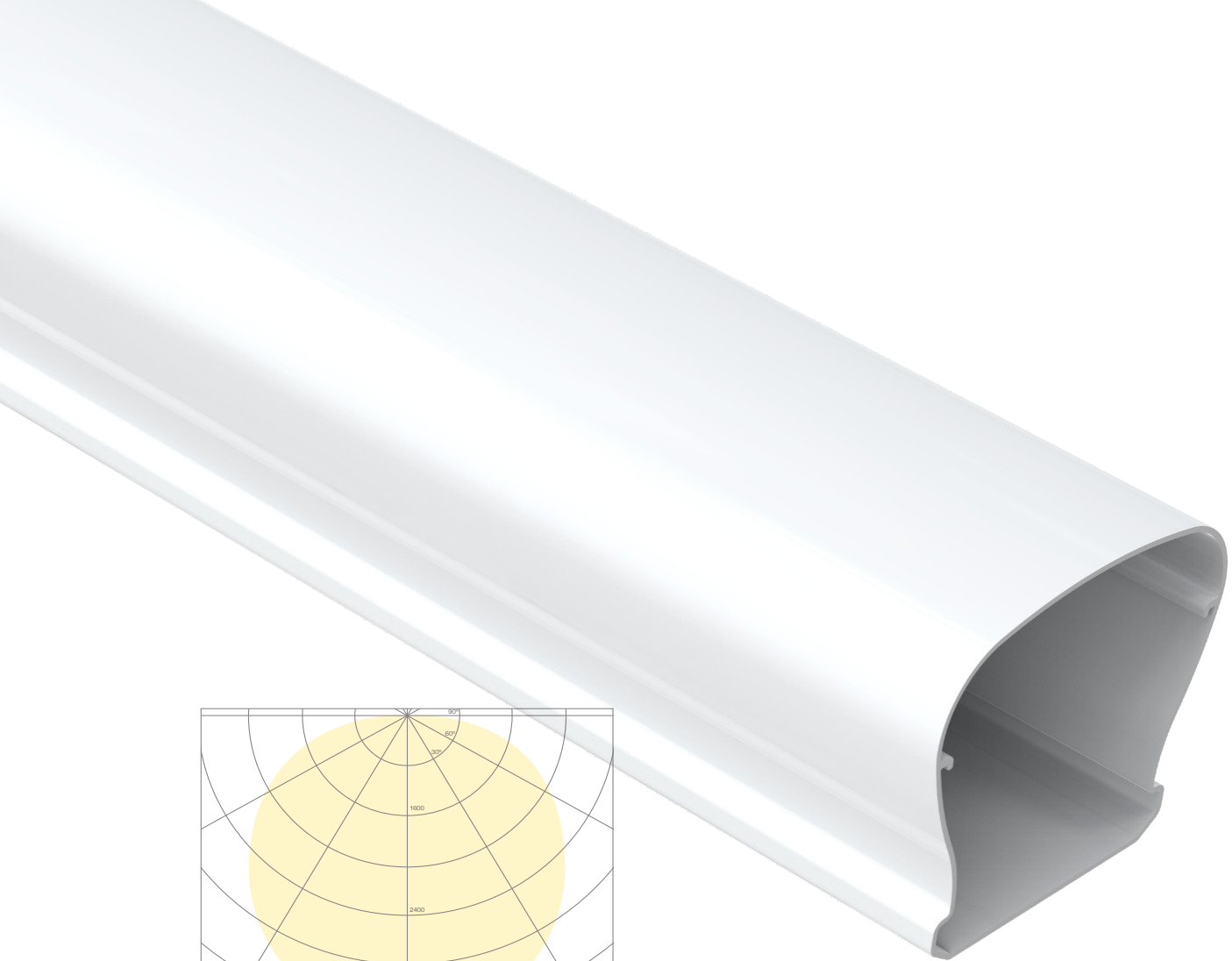
* Nominal output Luminaire after all losses based on CCT 5,000K, Ra85, R9≥10. specified with HE Chipset (lux) Ta 25°C, Ra95 multiplier 0.92



Simple and secure; surface mount with optional suspension kit

Proline features a unique bracket design, which provides a seismic secure, quick release connection between virtually any horizontal or vertical surface, allows direct mount options to machinery, ceilings and walls using the patented “key and clamp” mechanism.

The optional stainless steel suspension kit*, fixes directly to the bracket in seconds. To provide a sliding grip with easy and intuitive height adjustment.



Diffuse light output

The lens-sheath provides two important functions. Encapsulating and protecting the electronic components, whilst eliminating glare and spotting.

- ▶ Eliminates dangerous reflections and glare
- ▶ Minimises shadows around complex machinery and aerial clutter
- ▶ Improves visual acuity for quality control and sanitation

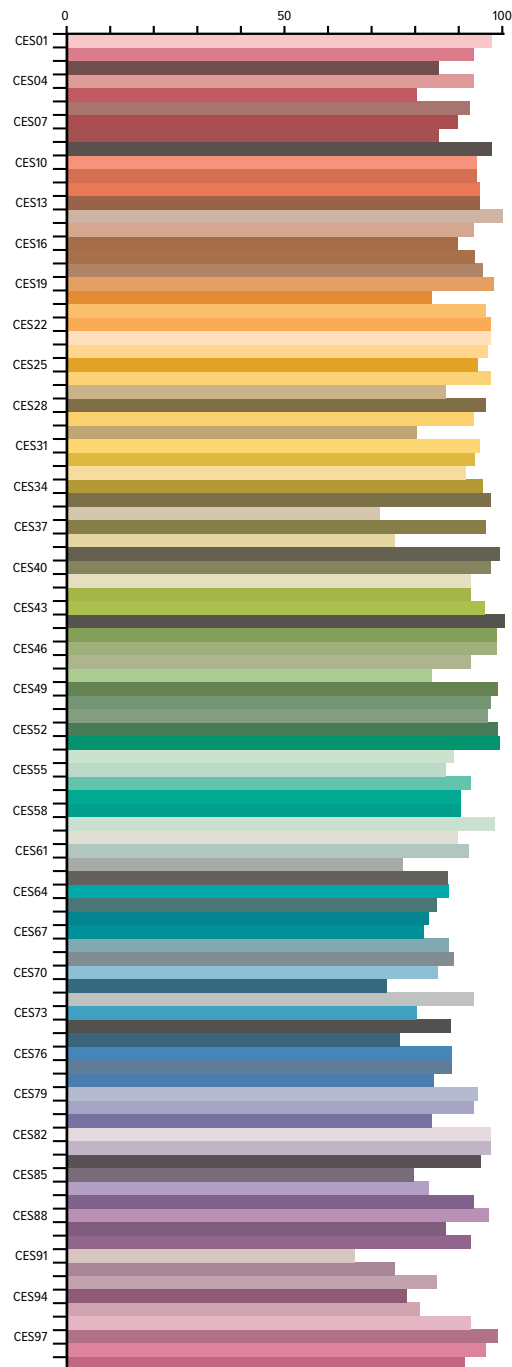
Ra95 for colour critical applications

Available in four standard colour temperatures, from 2,700~6,000°K
with superb colour rendering at both Ra85 and Ra95.

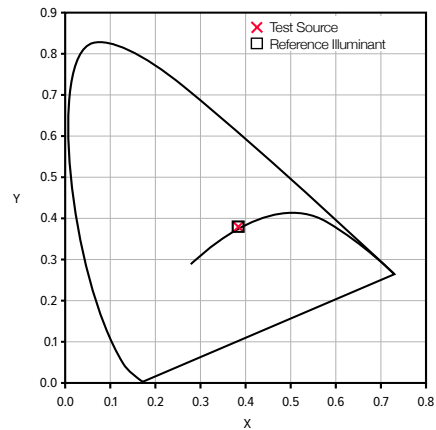
Proline PCX-HE-495-100W (IES LM79 TM30-18)

≥133lm/W @ Nominal Ra95 /4,000k (CRI 94.2)

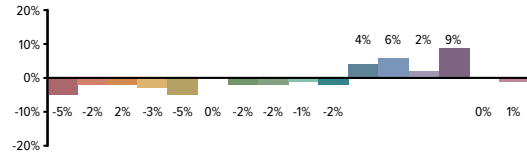
Colour Sample Fidelity ($R_{f, CES}$)



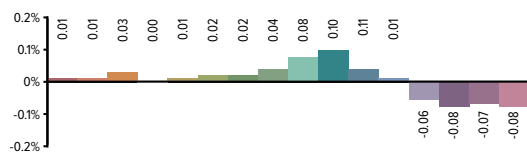
CIE1931 X Y Chromaticity



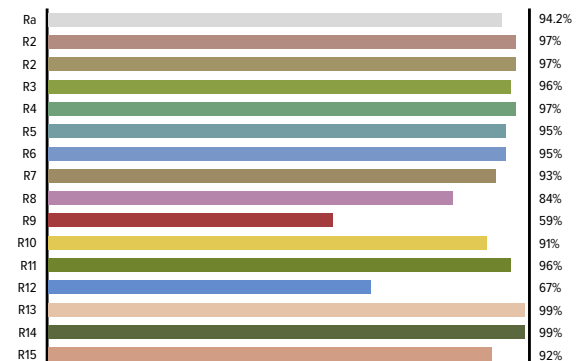
Local Chroma Shift ($R_{cs,h}$)



Local HueShift ($R_{hs,h}$)



Colour Rendering Index



*Please minor variations may occur

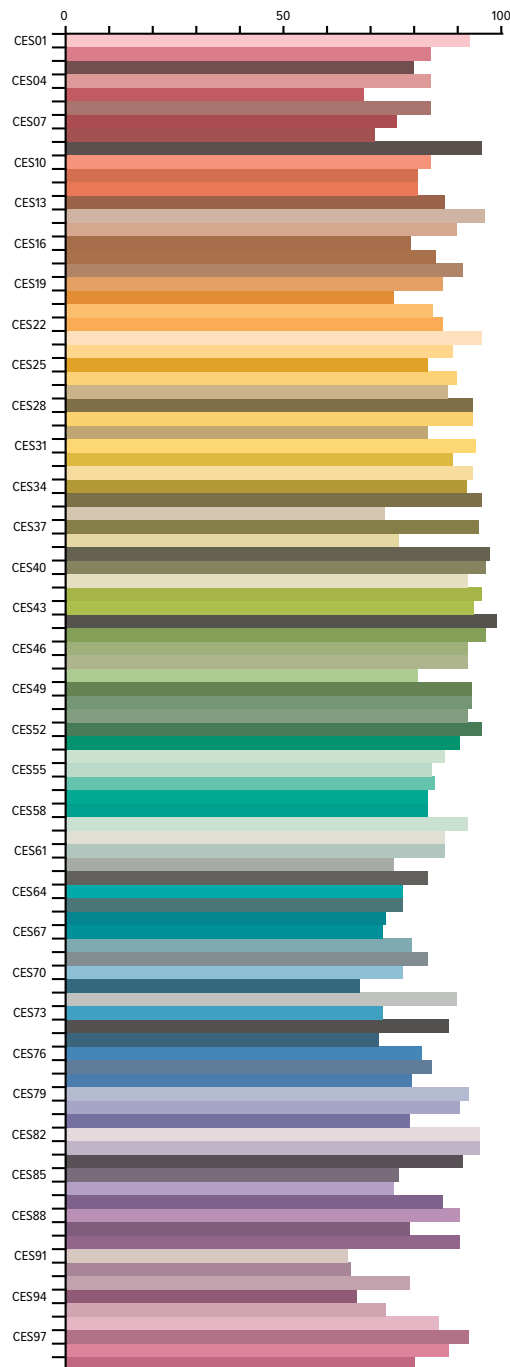
Ra85 boosts efficacy

Specifying Ra85 increases lumen output whilst maintaining full colour rendering, high R9 with neutral bias, perfect for general industrial commercial and retail applications.

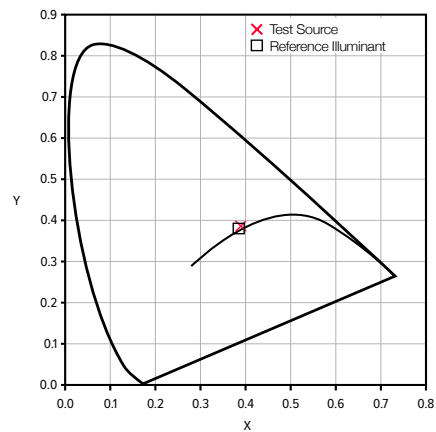
Proline PCX-HE-485-100W-DA (IES LM79 TM30-18)

≥145m/W @ Nominal Ra95 /4,000k (CRI 85.9)

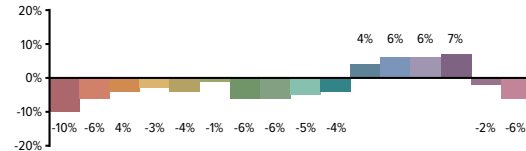
Colour Sample Fidelity ($R_{f, CESi}$)



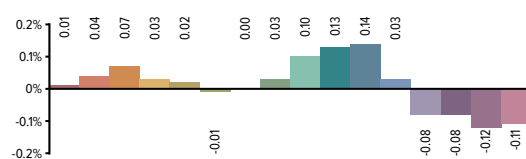
CIE1931 X Y Chromaticity



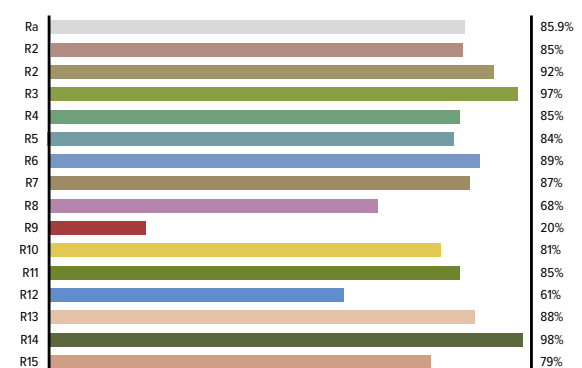
Local Chroma Shift ($R_{cs, hj}$)

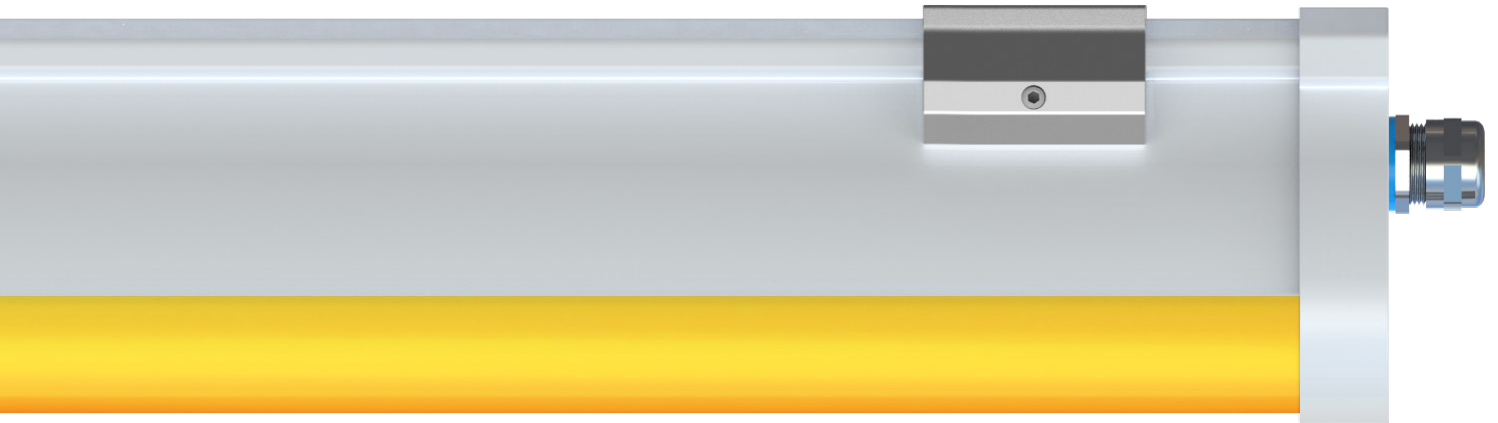


Local HueShift ($R_{hs, hj}$)



Colour Rendering Index





Ambrite™

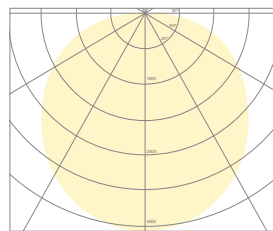
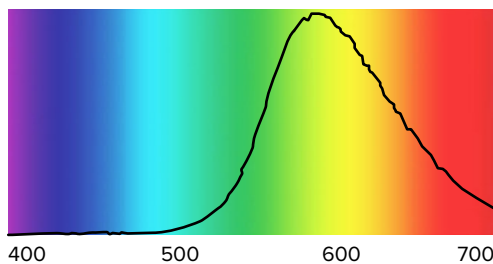


Elimination of blue spectrum ($\leq 500\text{nm}$)

Ambrite™ is a new LED chipset from Isollux that effectively eliminates blue spectrum below 500nm. Ambrite™ chipsets deliver up to 129lm/W. Outperforming products that rely on filters or optics to control blue peak emissions.

Ambrite is perfect for Photosensitive manufacturing, pharmaceuticals, brewing and exterior applications where insects present a significant commercial risk, such as loading bays.

To order, select the Proline protection grade required (TPX/PCX) and specify AMB in place of Ra/CCT



Luminaire Performance Up To:

19,350lm ~ 129 lm/W*

Ambient Temperature Range:

-30°C / +40°C*



*Lumen output and maximum ambient temperature subject to model and specification.

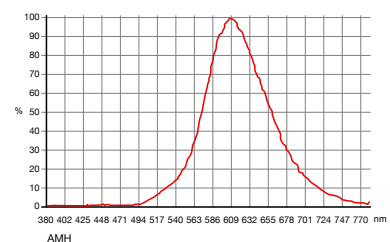
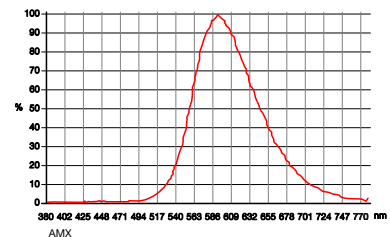


Photo-Sensitive Applications

Isollux **Ambrite™** LED offers two distinct environmental colour tones. Both options eliminate wavelengths below 500nm with only moderate differences in spectral performance.

Customers can choose the most appropriate colour for staff by specifying either **Ambrite™ AMX** or the warmer **Ambrite™ AMH**.

Proline is easily customised to provide dual chip options to a single luminaire, making total control of the lighting environment available at the flick of a switch, ideal for dark rooms or small laboratories.



AMH provides similar spectral performance in a warmer tone.

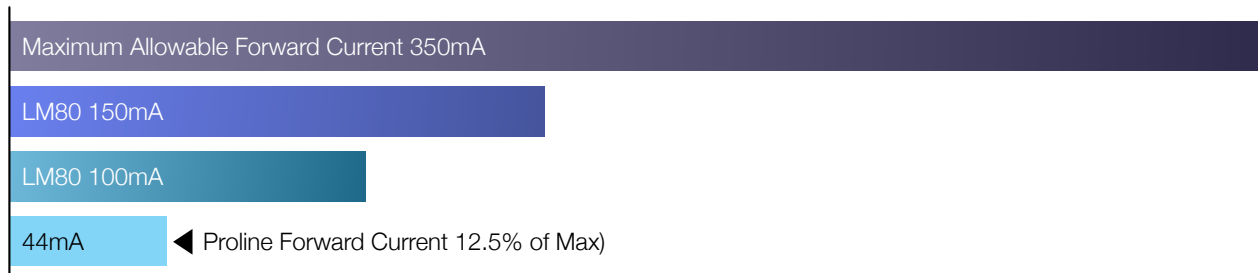
How and why we de-stress key components to achieve maximum service life and optimum value

Isollux HE Chipsets are backed by independent photometry reports including, LM79 for colour rendering and IES files; and LM80 (10,000Hrs) predictive endurance tests. The LM80 reports allow engineers to accurately predict the expected performance of individual LEDs across a given range of thermal and electrical conditions. Typically manufacturers use this data to run the LEDs in circuit at or near peak loads to minimise cost to market by reducing component count.

Our engineers use the test data, as a bench mark from which to de-rate components, increasing the number of LED in circuit to optimise performance. Increasing LED count allows us to reduce drive current lowering the thermal load on all critical components, including the LED die, driver, PCB and electrical connections. This approach delivers significant gains in, efficiency, performance and reliability, in particular maximising the service life of each of the key components.

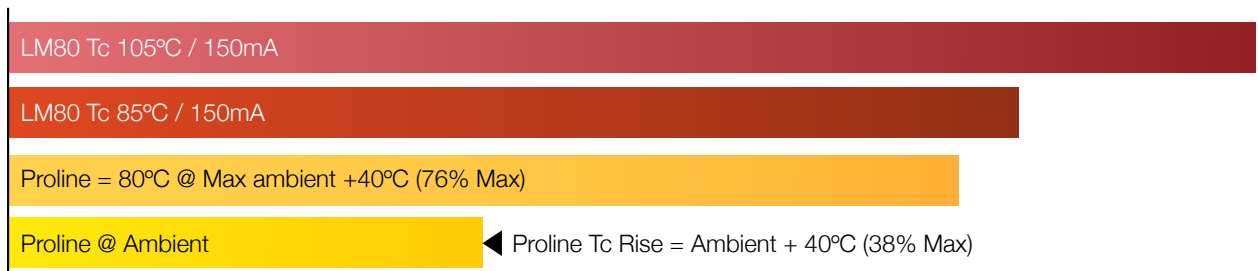
Proline-HE Drive current I_f

The illustration below scales the maximum allowable forward current for the Isollux HE chipset and the drive current used in the independent LM80 reports compared to the actual drive current used to power the Proline PCX (480 LED HE High Density Array per metre).



Proline-HE Case Temperature T_c

The illustration below scales the case temperatures used in the LM80 reports tested at 150mA, compared to the actual case temperature of production models driven at 44mA. The combination of reduced I_f and T_c significantly increases performance and reliability.



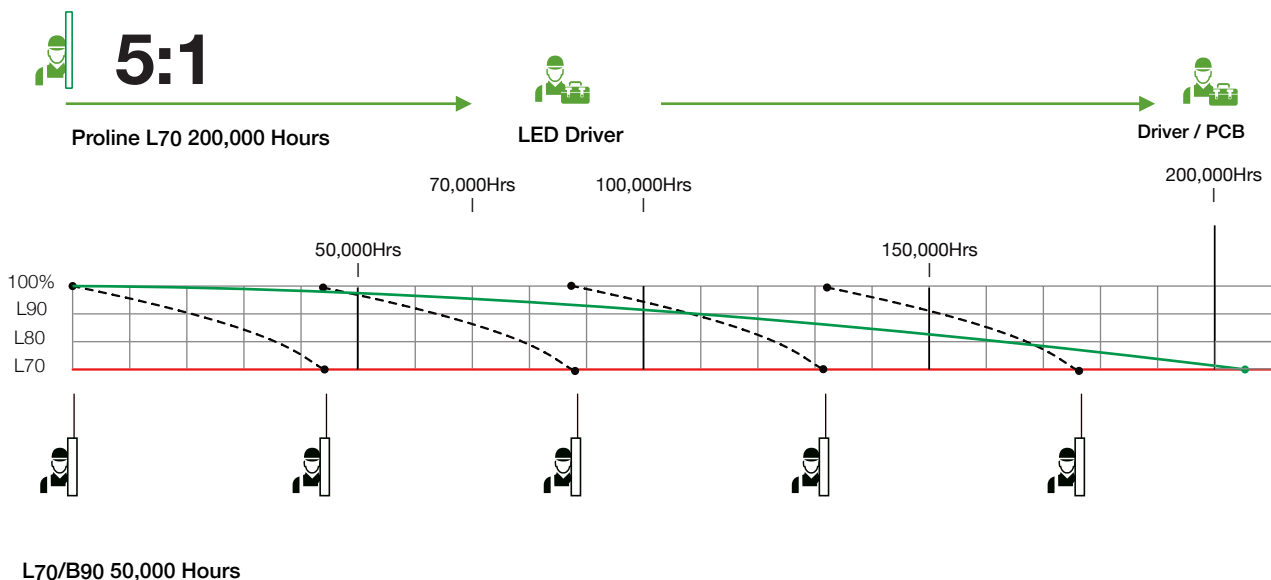
Customer benefits of de-rating components

De-rating components reduces the Total Cost of Ownership (TCO) ie it reduces the long term cost of both **operating** and **maintaining** a lighting solution. Rather than focusing on headline price. TCO includes the capital cost of the luminaire and the cost of installing and maintaining the fixture.

The cost related to regular replacement of LED fittings is often overlooked. In the case of clean rooms it also generally results in significant business interruption to complex and sensitive production facilities. Adding the additional risk of performance caveats such as B'ratings and the costs quickly spiral. (See illustration below)

Isollux products are designed to surpass warranty without caveats, even when installed in challenging environments at high ambient temperatures. It provides specifiers with the option to compare operational savings over extended periods. Up to 200,000 Hours L₇₀ when using lighting controls or a lower light loss factor, with the option to increase driver output retrospectively at the mid point in the product life cycle where controls are not an option.

Performance life cycle comparison



*HE Chipset L90 Lifetime calculated using Independent LM80 photometry report, using the Energy Star TM-21 06/18/21, protocol and adjusting for reduced thermal load and drive current. Two LM80 test reports are used with a duration of 10,000Hrs 150mA, 9,000 Hrs 100mA citing zero failures on multiple samples..

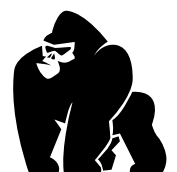


Maintain and save.

Proline makes sense, financially, ecologically and practically. Its designed for scheduled maintenance, allowing each component to be replaced for scheduled maintenance or accidental damage.

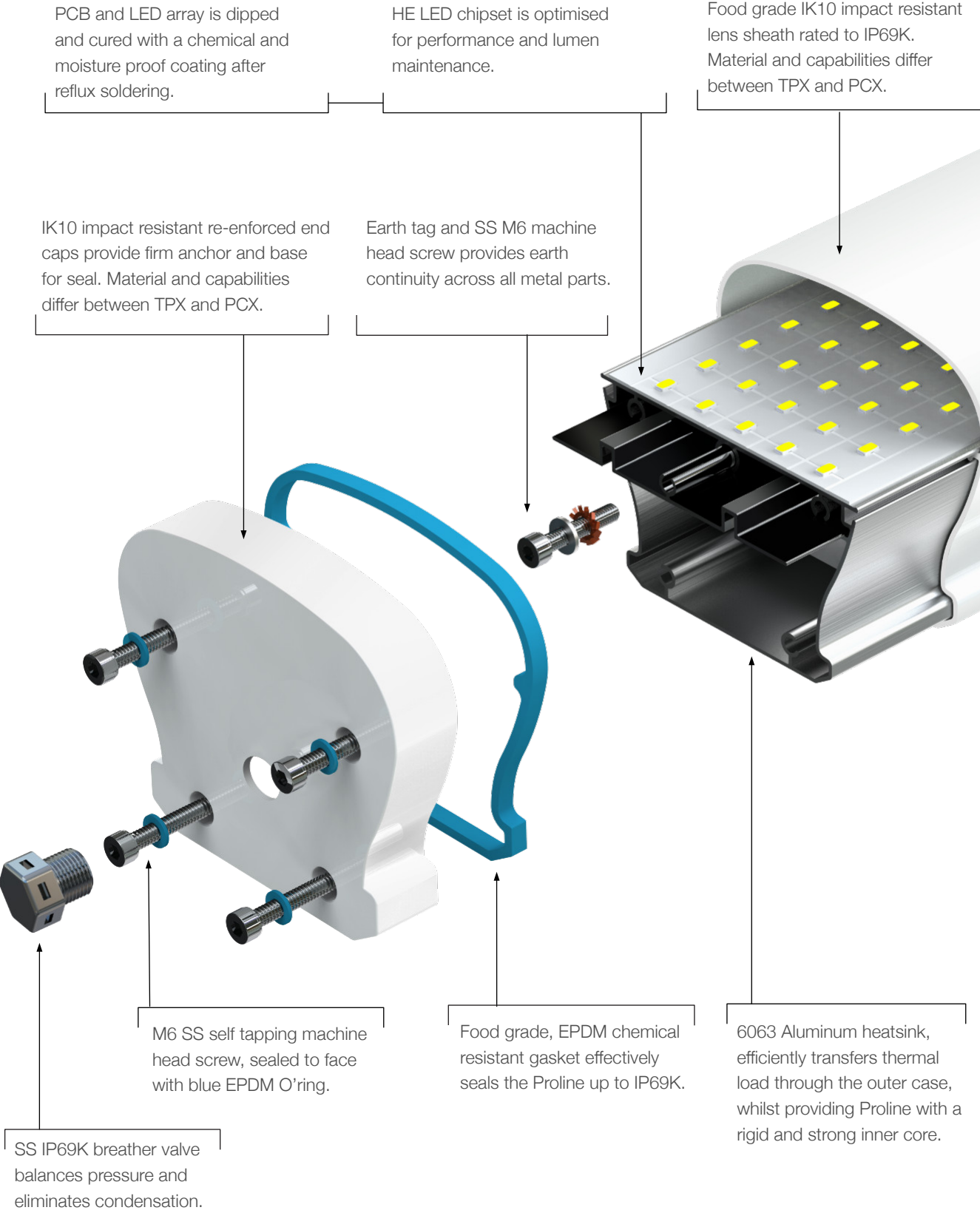
Proline - Maintenance Kits

Maintenance Kit	Average installation to maintenance cycles*
Outer Sheath	35,000 - 70,000 Hrs
End Caps and Seals	35,000 - 70,000 Hrs
Driver Tray and connections	50,000 - 100,000 Hrs
LED Array (Not Shown)	200,000 Hrs L70 (HE Chipset)

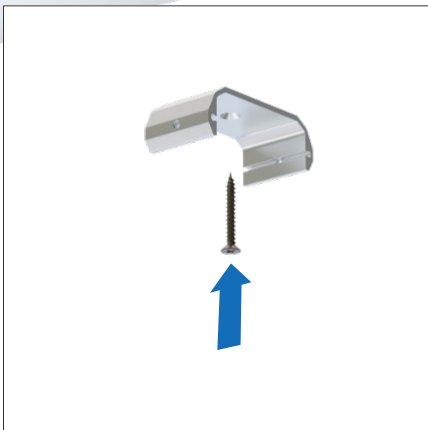


* Maintenance cycles are dependent on ambient temperatures, frequency of wash cycles, application method, duration and concentration of chemicals used for sanitation and wash down and the hours of operation and switching of the luminaire.

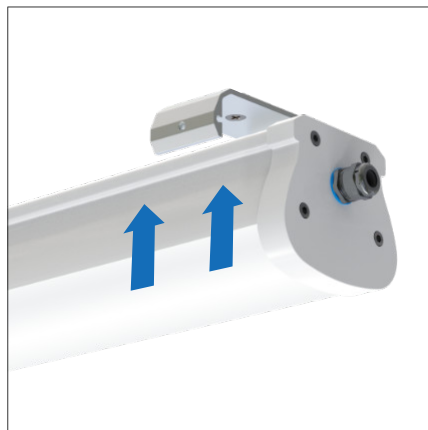
Solid construction in food and surgical grade materials



Flush or surface mount



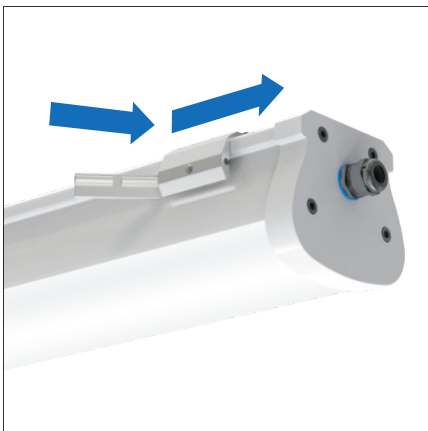
FIX bracket to surface.



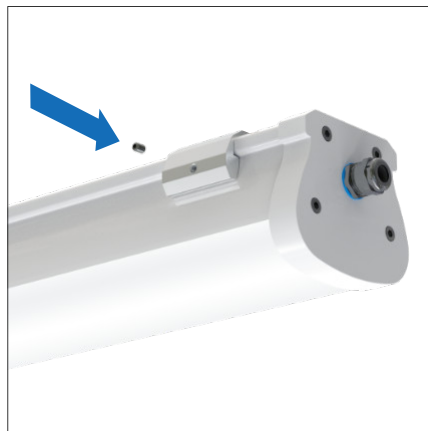
PLACE Proline into bracket.



Slide to ADJUST.



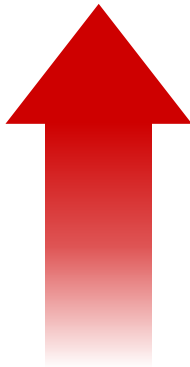
Tip to start and slide wedge to SECURE.



Tighten Nyloc Grub Screw to LOCK.



SEISMIC SAFE with QUICK RELEASE.



INFRA RED UPLINK

Wired or wireless controls to optimise service life and efficiency

The Proline series supports both wired and wireless control options to minimise running costs associated with warehouse or storage areas. From simple set ups with multiple units hard wired and switched via occupancy sensors to fully optimised wireless controls



Reliable mesh network without internet connection

The optional OS-NET ZigBee control system delivers unparalleled control of luminaire without the need for complex programming or data management. Simply program via a point and push infra-red remote to select individual lights or program entire groups instantly.

Update or change groups at any time, add multiple luminaire to groups or single luminaire to multiple groups.

No ongoing fees, no wireless updates, no complex programming or mapping required. Simple stand alone efficient lighting controls to maximise your energy savings.



OSiNET

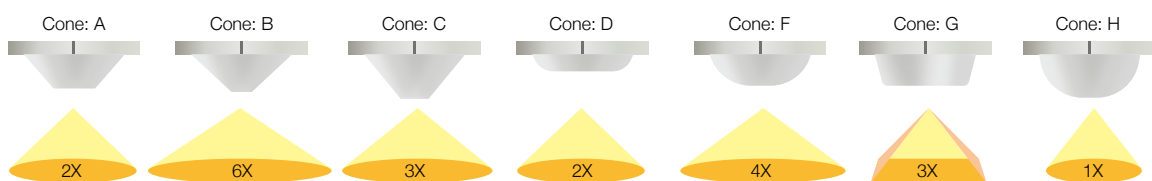
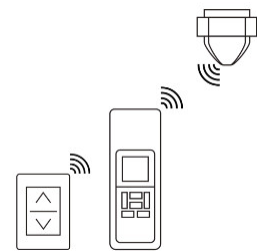
Wireless wall switches provide practical over-ride.

Your facility may only require low lux levels for most of the day with casual traffic, and none when empty. Occasionally however you need maximum power for a short burst of activity. The OS-NET wireless wall switch provides a simple over-ride command to raise lux levels instantly for a time you choose.

Easy to install, no direct connection to the luminaire circuit required. It provides an invaluable link between one or more luminaire and the operator on the ground.

Multiple lenses optimize detection.

All sensors supplied with the Proline series feature hot swappable lenses to fine tune and target detection exactly. The lens system offers a range of options to a maximum height of 14m.



Applications



Dairy Production & Storage



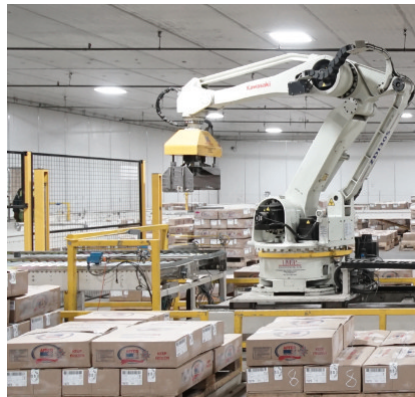
Meat & Poultry



Pharmaceuticals



Food Packaging & Printing



Cool stores & Distribution



Medical & Pathology



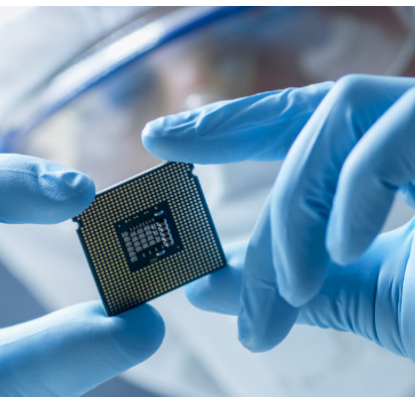
Bottling & Labelling



Bakeries & sweets



Fresh Produce



High-Tech Manufacturing



Aqua Culture Smolt & Production



Industrial Chemicals

Proline TPX-HE Chipset Product Codes

L90-100,000Hrs
135lm/W



PRODUCT	PERFORMANCE			AMBIENT		DRIVER	INRUSH	MAX PSU 16A	WARRANTY
Model Number	Output	Power	Efficiency	Min	Max	Function	Amps	Type C Breaker	24/7 @ max (Ta)
600mm									
TPX-0600-HE-XYX-40W-ZZ	5,400lm	40W	135lm/W	-30°C	40°C	See Below	50A	20 @ 230 Vac	5 YRS
900mm									
TPX-0900-HE-XYX-60W-ZZ	8,100lm	60W	135lm/W	-30°C	40°C	See Below	55A	16 @ 230 Vac	5 YRS
1200mm									
TPX-1200-HE-XYX-60W-ZZ	8,100lm	60W	135lm/W	-30°C	40°C	See Below	55A	16 @ 230 Vac	5 YRS
TPX-1200-HE-XYX-80W-ZZ	10,800lm	80W	135lm/W	-30°C	40°C	See Below	60A	8 @ 230 Vac	5 YRS
1500mm									
TPX-1500-HE-XYX-100W-ZZ	13,500lm	100W	135lm/W	-30°C	40°C	See Below	60A	8 @ 230 Vac	5 YRS
TPX-1500-HE-XYX-120W-ZZ	16,200lm	120W	135lm/W	-30°C	40°C	See Below	60A	8 @ 230 Vac	5 YRS
2000mm									
TPX-2000-HE-XYX-120W-ZZ	16,200lm	120W	135lm/W	-30°C	40°C	See Below	65A	6 @ 230 Vac	5 YRS
TPX-2000-HE-XYX-150W-ZZ	20,250lm	150W	135lm/W	-30°C	35°C	See Below	65A	6 @ 230 Vac	5 YRS

(X) Correlated Colour Temperature options include: 4000°K **(4)** | 5000°K **(5)** | 6000°K **(6)**

(YY) Ra (CRI) Options include Ra85 **(85)**, Ra95. **(95)** Example: 5,000k Ra85, XYX = 585

(ZZ) Driver Function: **ND** Non dimming (Vo to reduce output) | **DM** 1-10V Dimming | **DA** DALI

Ambrite™ can be specified by replacing the **(XYX)** options with: **AMB** or **AMH**

*Additional Hanging Suspension Kit is available

Proline PCX-HE Chipset Product Codes

L90-100,000Hrs
145lm/W



PRODUCT	PERFORMANCE			AMBIENT		DRIVER	INRUSH	MAX PSU 16A	WARRANTY
Model Number	Output	Power	Efficiency	Min	Max	Function	Amps	Type C Breaker	24/7 @ max (Ta)
600mm									
PCX-0600-HE-XYX-40W-ZZ	5,800lm	40W	145lm/W	-30°C	40°C	See Below	50A	20 @ 230 Vac	5 YRS
900mm									
PCX-0900-HE-XYX-60W-ZZ	8,700lm	60W	145lm/W	-30°C	40°C	See Below	55A	16 @ 230 Vac	5 YRS
1200mm									
PCX-1200-HE-XYX-60W-ZZ	8,700lm	60W	145lm/W	-30°C	40°C	See Below	55A	16 @ 230 Vac	5 YRS
PCX-1200-HE-XYX-80W-ZZ	11,600lm	80W	145lm/W	-30°C	40°C	See Below	60A	8 @ 230 Vac	5 YRS
1500mm									
PCX-1500-HE-XYX-100W-ZZ	14,500lm	100W	145lm/W	-30°C	40°C	See Below	60A	8 @ 230 Vac	5 YRS
PCX-1500-HE-XYX-120W-ZZ	17,400lm	120W	145lm/W	-30°C	40°C	See Below	60A	8 @ 230 Vac	5 YRS
2000mm									
PCX-2000-HE-XYX-120W-ZZ	17,400lm	120W	145lm/W	-30°C	40°C	See Below	65A	6 @ 230 Vac	5 YRS
PCX-2000-HE-XYX-150W-ZZ	21,750lm	150W	145lm/W	-30°C	35°C	See Below	65A	6 @ 230 Vac	5 YRS

(X) Correlated Colour Temperature options include: 4000°K **(4)** | 5000°K **(5)** | 6000°K **(6)**

(YY) Ra (CRI) Options include Ra85 **(85)**, Ra95. **(95)** Example: 5,000k Ra85, XYX = 585

(ZZ) Driver Function: **ND** Non dimming (Vo to reduce output) | **DM** 1-10V Dimming | **ZB** 1-10V Dimming (Excludes sensor) | **DA** DALI

Ambrite™ can be specified by replacing the **(XYX)** options with: **AMB** or **AMH**

*Additional Hanging Suspension Kit is available

The inclusion of zigbee sensors reduces the IP rating to IP66.



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E: chris.wheatley@isollux.com

Regional Authorised Global Partners can be found in the following locations

Sydney/Melbourne – Australia | Fresno – USA | London – UK | Belgium/Holland – EU
Hong Kong – China | Jaingxi – China