



Cu-Beam™ suspended lights

Heat pipe technology to cool LEDs.
Powerful light, precisely where you need it.

Jake Dyson Light

Manufactured by

dyson



“Other designers have made attempts to cool LEDs. But it’s not enough. They’re ignoring the vast potential of this technology.

We knew there had to be a better way.”

Jake Dyson



Light precisely where you need it

Task lighting provides a high level of illumination only over the areas where it's needed. Other areas, used for break-out and storage, require far less illumination.

Light isn't wasted, so energy and costs are saved.



Cu-Beam™ suspended lights work differently



Heat pipe technology

Cu-Beam™ suspended lights come equipped with an effective cooling system. Heat is transferred away from the light source and dissipated along the wings.

+

Single high-power LED

Because of Heat pipe technology, Cu-Beam™ suspended lights are able to use a single, high-power light source.

+

Custom designed lens

A single light source allows accurate optical control. Precisely calculated optical geometry directs light without compromising output – creating more light with less power.

=

**Heat pipe technology to cool LEDs.
Powerful light, precisely where you need it.**

heat pipe technology

Stage 1

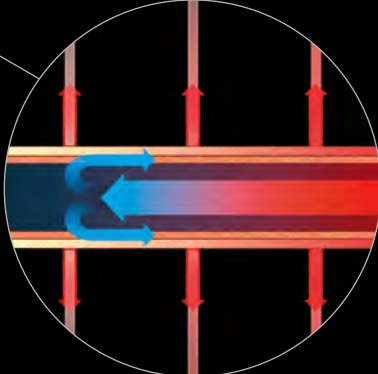
When the light is switched on, the heat generated by the LEDs turns the water inside the tubes into vapour. The vapour begins moving along the tubes due to the difference in pressure.

Copper heat tube

Heat sink

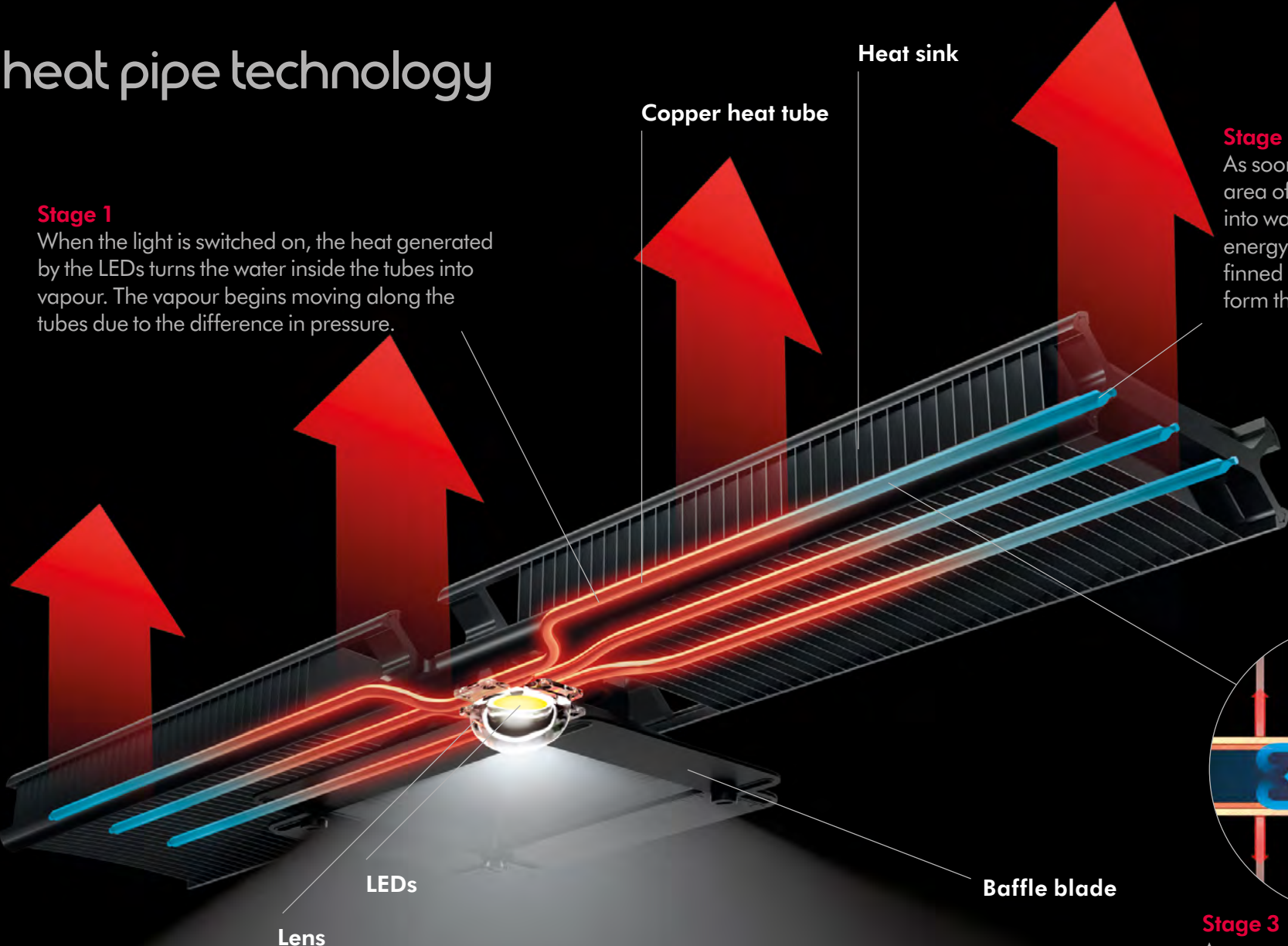
Stage 2

As soon the vapour reaches a cool area of the tube, it condenses back into water. The remaining heat energy is dissipated through the finned aluminium heat sinks that form the light's wings.



Stage 3

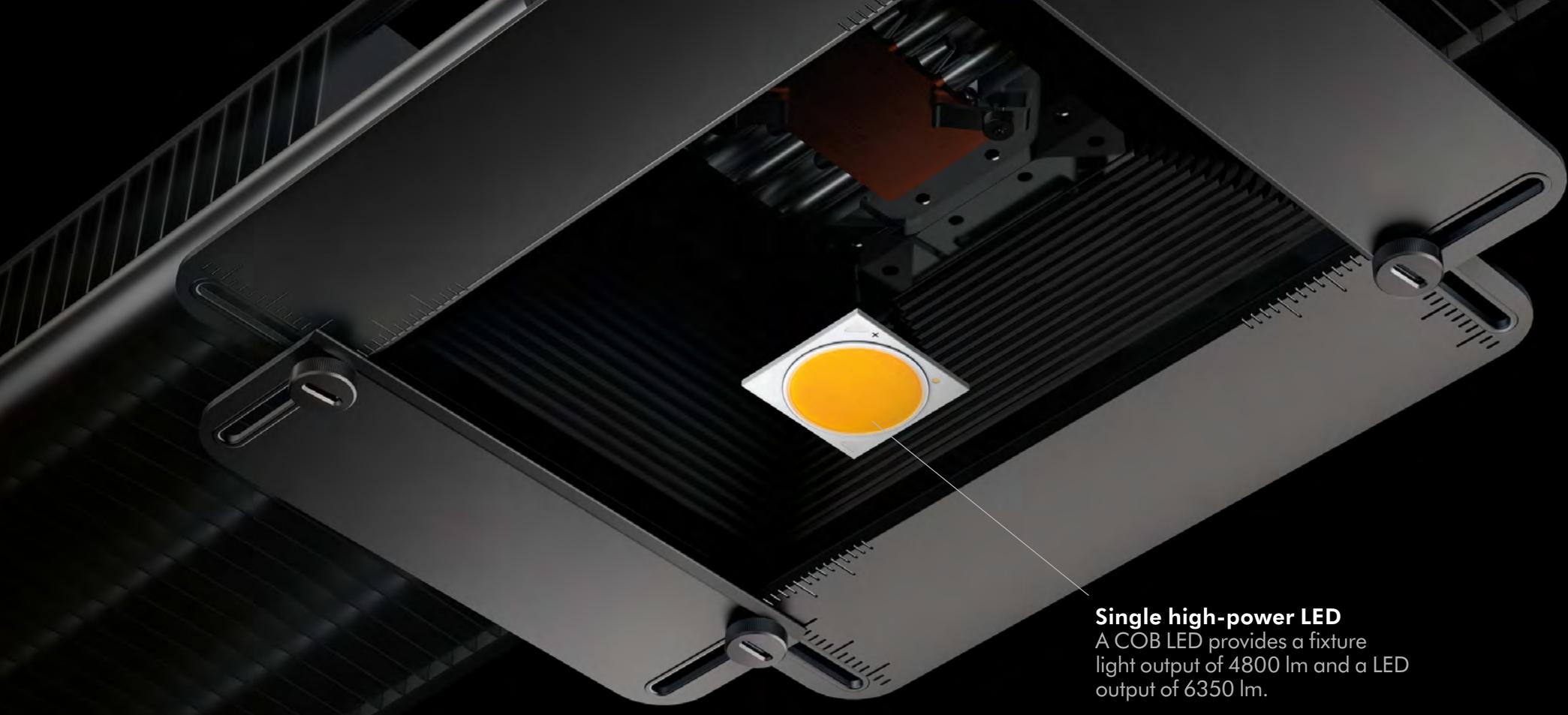
A copper wick draws the water back towards the LEDs via capillary action, and the cycle begins again.



Lens

LEDs

Baffle blade



Single high-power LED
A COB LED provides a fixture light output of 4800 lm and a LED output of 6350 lm.

Cu-Beam™ down-light

Focused lighting for task surfaces

Cu-Beam™ down-lights use a custom-engineered lens. Employing precisely calculated optical geometry, it takes a single light source and creates a targeted pyramid of light over a task area.



Custom-engineered lens
Directs light onto a surface for powerful and efficient task lighting.



Cu-Beam™ down-light

Focused lighting for task surfaces such as meeting tables, reception desks, office and dining areas.

Powerful light

Cu-Beam™ suspended lights use Heat pipe technology to cool a single high-power LED.

Precisely where you need it

A custom-engineered lens, combined with adjustable trim blades, projects controlled light exactly where it's needed.

Stays bright for 180,000 hours*

Heat pipe technology draws heat away from the LED, maintain colour and brightness over 180,000 hours*.

Surpasses the European Office Lighting standard

Just one fixture projects 517lx per 1m².

Fewer fixtures: more light

A Cu-Beam™ down-light can sufficiently illuminate four desks – twice that of some conventional lights.

Consistent colour across every fixture

With a CRI of 82 min and two-step binning, colour is kept consistent over all Cu-Beam™ suspended lights.

High efficacy

The custom-engineered lens projects more light than conventional lenses. Combined with effective cooling, this means that each fixture runs at 88lm/W.

Lightweight

Weighing just 1.6kg, Cu-Beam™ suspended lights can be easily suspended from plasterboard ceilings.

5 year guarantee

*Calculated lifetime based on IES TM-21-11 LM70.

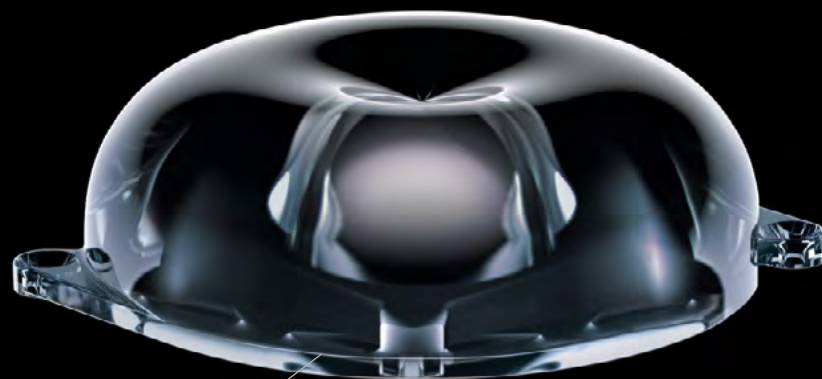
Cu-Beam™ up-light

Ambient lighting for open spaces

Cu-Beam™ up-light make indirect lighting possible. Using a custom-engineered bubble optic lens, they cast a wide pool of light across the ceiling. This eliminates hot spots and allows a short drop height, creating soft, ambient light through the room.

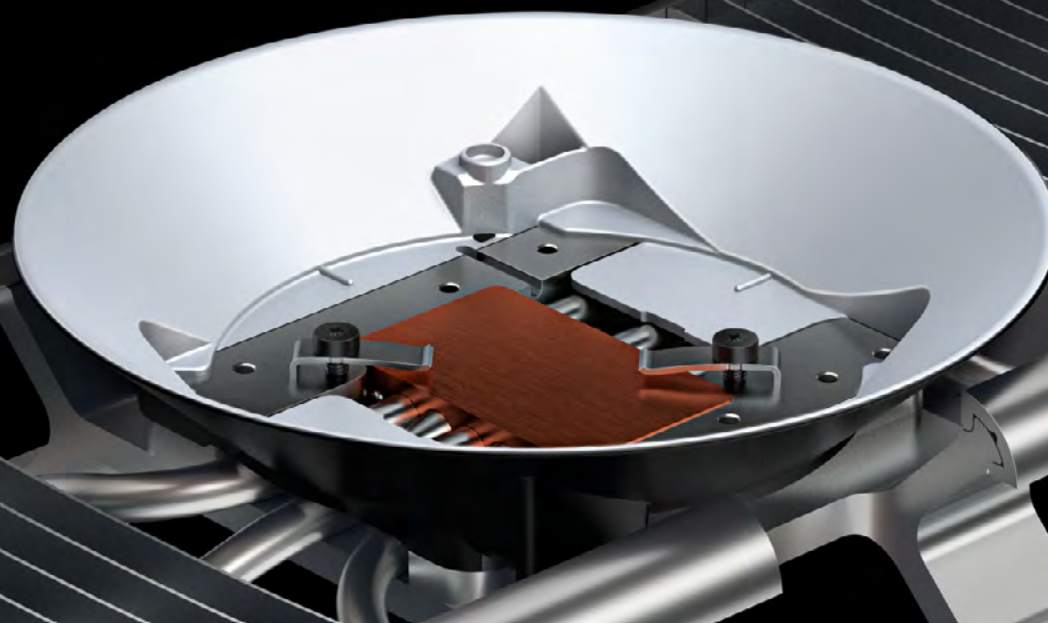
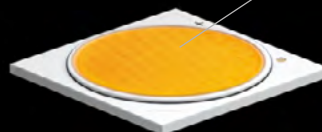
A custom-engineered bubble optic lens

Projects an ultra-wide beam of light towards the ceiling, creating ambient light throughout the room.



Single high-power LED

A COB LED provides a fixture light output of 7750 lm and LED output of 8600 lm.





Cu-Beam™ up-light

Ambient lighting for open spaces like atriums, foyers, circulation areas and general office lighting.

Powerful light

Cu-Beam™ lights use Heat pipe technology to cool a single high-power LED.

Precisely where you need it

A custom-engineered bubble optic lens casts even, ambient light throughout the room.

Stays bright for 180,000 hours*

Heat pipe technology draws heat away from the LED, maintain colour and brightness over 180,000 hours*.

Fewer fixtures: more light

Unlike others, a Cu-Beam™ up-light casts a wide pool of light across the ceiling. No hot spots.

Short drop height

Because of their wide projection, Cu-Beam™ up-light have a short drop height that's ideal for low ceilings.

Consistent colour across every fixture

With a CRI of 82 min and two-step binning, colour is kept consistent over all Cu-Beam™ suspended lights.

High efficacy

The custom-engineered lens projects more light than conventional lenses. Combined with effective cooling, this means that each fixture runs at 92lm/W.

Lightweight

Weighing just 1.6kg, Cu-Beam™ suspended lights can be easily suspended from plasterboard ceilings.

5 year guarantee

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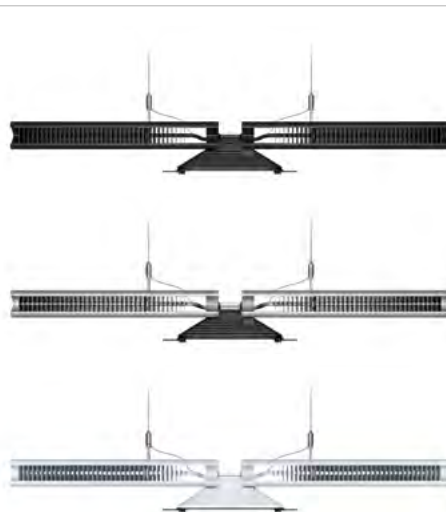
Cu-Beam™ down-light

Cu-Beam™ suspended lights provide powerful light, precisely where you need it. Their Heat pipe technology creates a highly effective cooling system, meaning they can use a single high-power, high-efficiency COB LED. This single light source, combined with a custom-designed PMMA lens, delivers optically efficient, precisely controlled illumination.

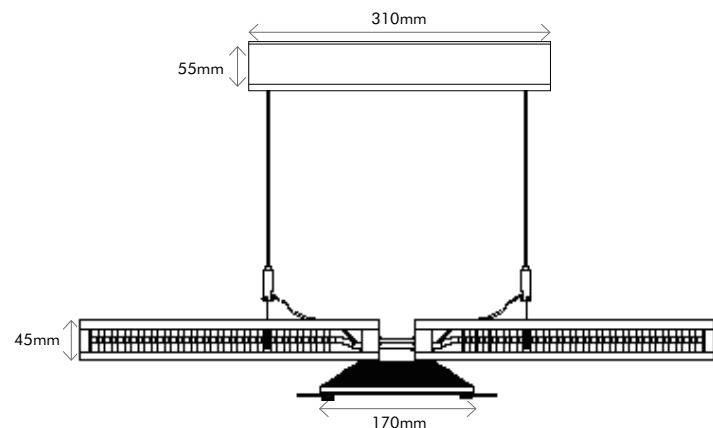
The cooling system also prolongs the life of the light, ensuring long-lasting performance and colour stability. A customised long-life DALI driver, with additional heatsinks and high-grade capacitors, is engineered to last as long as the LED.

To specify, state:

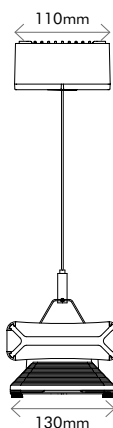
Sleek suspended luminaire with single high efficiency chip on board LED CRI 80min 2 step binning - cooled via sintered copper heat pipes. Unique rectangular distribution optic with adjustable trim blades for optimum framing & glare control. Power over suspension cable DALI Driver, Jake Dyson Light Cu-Beam™ down-light order no. _____



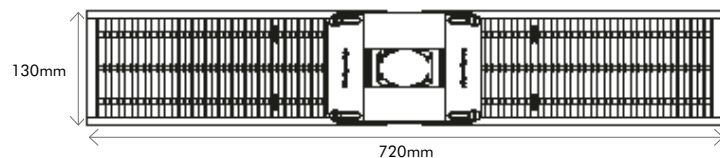
FRONT ELEVATION



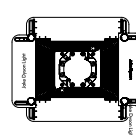
SIDE ELEVATION



UNDER ELEVATION



TRIM BLADES



Installation

Pendant. System complete with power supply base and L = 4000mm Cable

Mounting: Ceiling pendant

Environment: Indoor

Complies with: IEC/EN 62471 (Including national deviations)
IEC/EN 60598-1 (Including national deviations)
IEC/EN 60598-2-1 (Including national deviations)
IEC 61347-1, IEC 61347-2-13, IEC 62031,
UL 1598, SAC GB 7000-1, SAC GB 7000-201,
SAC GB 7000-202, M.I.T.I - Appendix 8 (1993),
JIS C8105-1, JIS C8105-2-4

Electrical

Input voltage / Frequency: 100-240 V, 50/60 Hz

Control signal voltage: 0-16 V (0-16 V DC DALI)

Rated power: 55W

Standby power consumption: 0.5W

Driver / Power unit / Transformer: PSD (Power supply unit with DALI interface) Universal

Driver included: Yes

Embedded control: No

Dimmable: DALI

Minimum dim level: 10%

Suitable for random switching: Yes (relate to presence / movement detection and daylight harvesting)

Wiring: Product complete with electronic components

Glow-wire test: 850/5 (Temperature 850°C, duration 5s)

Optical

Light source: Chip on board LED

Number of light source: 1

Light source replaceable: No

Fixture light output: 4800lm

LED output: 6350lm

Luminous efficacy: 88lm/w

Light output ratio: 0.75

Illuminance Eav: 517 lux across 3200mm x 1600mm surface (at 1.3m height above task surface)

LED life time: 180,000hrs L70

Colour temperature: 3000K / 4000K (custom option on request)

CRI: 80min

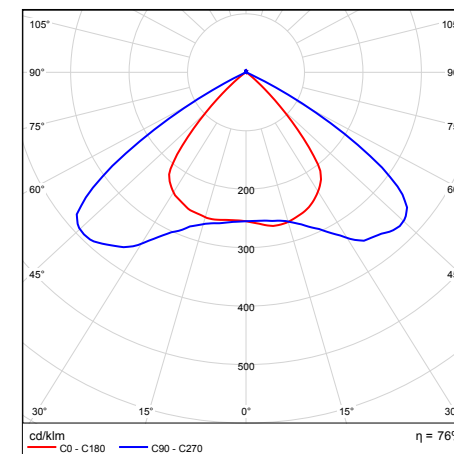
Beam angle: 111° x 78°

IP rating: Indoor use only

MacAdam steps: 2 step binning

Operating temperature range: 0°C - 40°C or Application conditions, Average ambient temperature T25 (+25°C)

Polar plot



Operation

DALI dimming

Construction

Housing materials: Aluminium / Copper / Polycarbonate

Optical lens materials: PMMA (Acrylic)

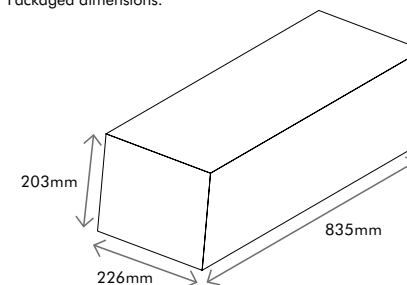
Logistics

Net (fixture) weight: 2.9kg

Luminaire weight: 1.6kg

Packaged weight: 4.8kg

Packaged dimensions:



Standard guarantee

5 years

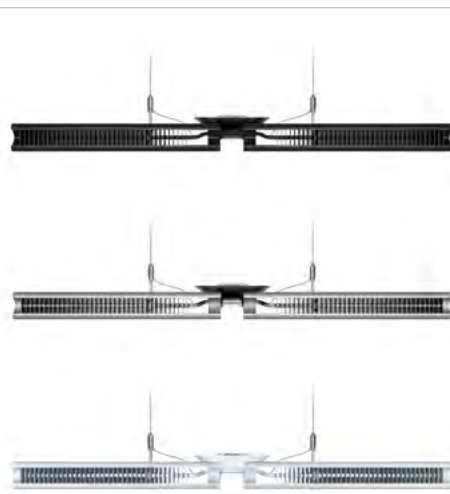
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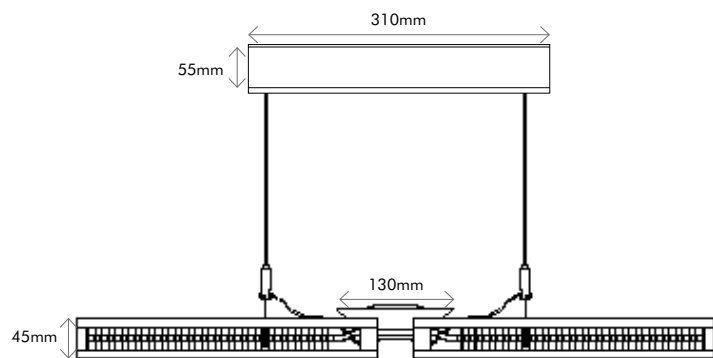
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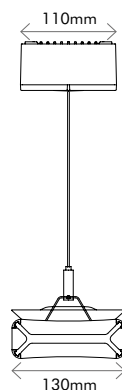
Sleek suspended luminaire with single high efficiency chip on board LED. Sleek suspended luminaire with single high efficiency chip on board LED CRI 80min 2 step binning - cooled via sintered copper heat pipes. Unique toroidal optic with ultra-wide 160° distribution for shallow mounting height. Power over suspension cable DALI Driver, Jake Dyson Light Cu-Beam™ up-light order no.



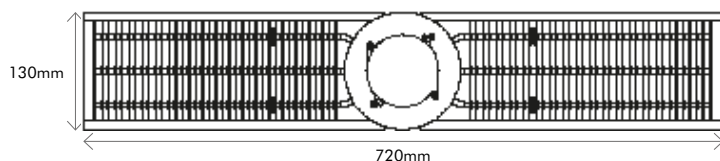
FRONT ELEVATION



SIDE ELEVATION



TOP ELEVATION



Installation

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Mounting: Ceiling pendant

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Complies with: IEC/EN 62471 (Including national deviations)
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Control signal voltage: 0-16 V (0-16 V DC DALI)

Rated power: 85W

Standby power consumption: 0.5W

Driver / Power unit / Transformer: PSD (Power supply unit with DALI interface) Universal

Driver included: Yes

Embedded control: No

Dimmable: DALI

Minimum dim level: 10%

Suitable for random switching: Yes (relate to presence / movement detection and daylight harvesting)

Wiring: Product complete with electronic components

Glow-wire test: 850/5 (Temperature 850°C, duration 5s)

Optical

Light source: Chip on board LED

Number of light source: 1

Light source replaceable: No

Fixture light output: 7750lm

LED output: 8600lm

Luminous efficacy: 92lm/W

Light output ratio: 0.90

LED life time: 180,000hrs L70

Colour temperature: 3000K / 4000K (custom option on request)

CRI: 80min

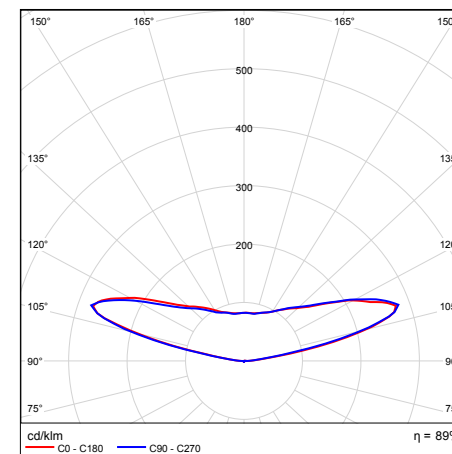
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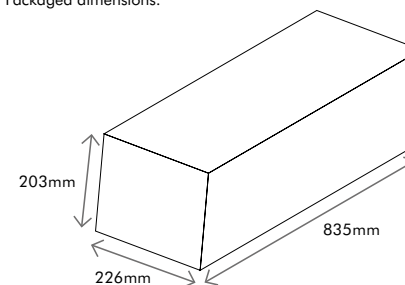
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Thank you.

For further information on Cu-Beam™ suspended lights
please don't hesitate to get in touch.

Paul Gregory, Sales Director

Tel: +44 (0)207 7713 0188

Email: lightingsales@dyson.com

Jake Dyson Light

Manufactured by

dyson