



Ashworth Electrical Services Limited Townfield House, Townfield Street, Oldham OL4 1HE Tel: 0161 620 2689		Technical Submission Reference Number: E6392 - P01										
Project Title: Workdry International		Project Number: 0494										
Subject: External Lighting Luminaires												
To <u>Charleson Building Services</u>	Cc ☒ Consultant ☒ Portakabin ☐	☐ Other (define) _____										
APPROVAL / COMMENT ON THE FOLLOWING DOCUMENTATION IS REQUIRED <table border="0"><tr><td>☐ Equipment Specifying Schedule</td><td>☐ Builder's Work Requirements</td></tr><tr><td>☒ Manufacturer's Data</td><td>☐ Assembly / Installation Details</td></tr><tr><td>☐ Design Check Calculations</td><td>☐ Design Drawings</td></tr><tr><td>☐ Certified Performance Data</td><td>☐ Reports</td></tr></table>			☐ Equipment Specifying Schedule	☐ Builder's Work Requirements	☒ Manufacturer's Data	☐ Assembly / Installation Details	☐ Design Check Calculations	☐ Design Drawings	☐ Certified Performance Data	☐ Reports		
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ADDITIONAL DETAILS OF TECHNICAL SUBMISSION I have attached our Technical Submission Documents for the proposed External Lighting Luminaires for use on this project: • External Luminaire Schedule • External Luminaire Datasheets • External Lighting Drawings												
Originator: <u>Stephen Martin</u> Signed: _____	Checked and approved before submission by Originator Issued Date: <u>17/07/2026</u> Response Required: <u>31/07/2026</u>											
DOCUMENT ISSUE STATUS <table border="0"><tr><td rowspan="3"> A </td><td>Status A</td><td>APPROVAL</td><td>☒</td></tr><tr><td>Status B</td><td>INFORMATION</td><td>☐</td></tr><tr><td>Status C</td><td>CONSTRUCTION</td><td>☐</td></tr></table>			A	Status A	APPROVAL	☒	Status B	INFORMATION	☐	Status C	CONSTRUCTION	☐
A	Status A	APPROVAL		☒								
	Status B	INFORMATION		☐								
	Status C	CONSTRUCTION	☐									
COMMENTS ON SUBMISSION Issued for <u>APPROVAL</u>												

Signed: _____ Position: _____
Print: _____ On behalf of: _____
Date: _____

Please note that in the absence of any comments by the response required date we will consider this to be acceptance of the Technical Submission Document and proceed with incorporation into the scheme.

WORKDRY INTERNATIONAL

EXTERNAL LUMINAIRE SCHEDULE

EMERGENCY BULKHEAD LUMINAIRES

Type X1/E	LDL Lighting	LD5S	LD5S/3W/M3
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WALL MOUNTED BULKHEAD LUMINAIRES

Type X2	Ansell Lighting	Panther	APANLED
Type X2/E	Ansell Lighting	Panther	APANLED/M3

CANOPY DOWNLIGHTS

Type X3	Collingwood Lighting	H2 Pro Extreme	DL48938BS30
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BRICK LIGHTS

Type X4	Ansell Lighting	Mattone	AMATB/EYE
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COLUMN MOUNTED STREET LIGHTING

Type A/B	Kingfisher Lighting	Ecorays
Column	Kingfisher Lighting	Tubular 6m

LED TAPE FEATURE LIGHTING

Instyle LED	W-10-3000K-24V-COB / IP	Commercial Grade LED Tape
Instyle LED	P-WR-1 / P-WR-2	Aluminium Extrusion with Cover
Instyle LED	DD-200-24	DALI Driver

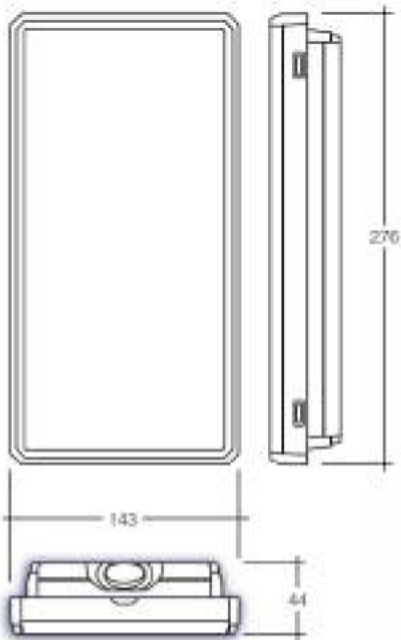
LED CLADDING LIGHTING

ATOM	NFWWIP6848V-1020	IP68 LED Neon Flex
ATOM	NFPROFILE-1020	LED Neon Flex Aluminium Channel
ATOM	PS48VIP67	IP67 Waterproof Power Supply

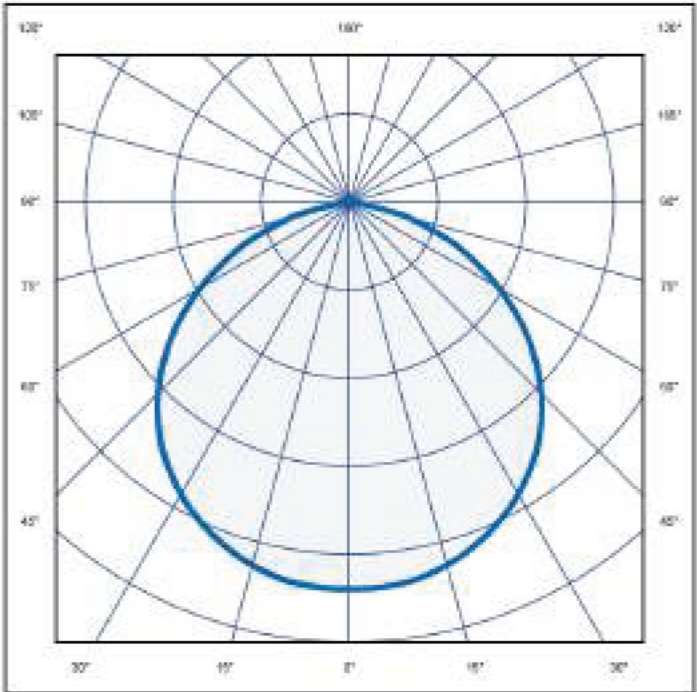
LD5S Emergency Bulkhead



- Extra long life LiFeP04 cells with 4 year warranty
- Impact rating of IK03
- IP65 suitable for external environments
- Surface Mount (Wall or Ceiling)
- Optional Recessed (Wall or Ceiling)
- Optional Pendant (Ceiling)
- DDP (Deep discharge protection)



Part No.	W	lm	Type
LD5S/3W/M3	7.6	350	Maintained
LD5S/3W/DA	5.5	245	DALI





Panther

Part of the Bulkheads product category



Model	Panther CCT Wallpack
Code	APANLED
Application	Industrial, Outdoor

GENERAL INFORMATION

Input	220-240V
Wattage	25W
Operating Temp	-10°C - 40°C
Lumens Delivered	2300lm (4000K)
lm/W	91lm/W (4000K)
CCT	3000/4000/6500K
Beam Angle	80

MATERIAL INFORMATION

Main Material	Polycarbonate
Diffuser Material	Polycarbonate
Product Weight without Packaging	1.01 kg
Colour / Finish	Black
Height	305 mm

TECHNICAL INFORMATION

Class Protection	2
Light Source	LED
SDCM (Initial Macadam)	3
CRI	80
Internal / External	External
Surface / Recessed / Suspended	Wall
Power Factor	0.9
L70 @ 25°C	L70 B50 60,000h

PRODUCT FEATURES

- Durable compact wall mounted luminaire for general accent illumination and suitable for industrial applications
- All polycarbonate construction ideal for coastal and adverse weather applications
- Multiple conduit entry and BESA box fixing points
- Selectable CCT between 3000K, 4000K and 6500K output
- Supplied c/w optional trim attachment which provides a more commercially aesthetic appearance



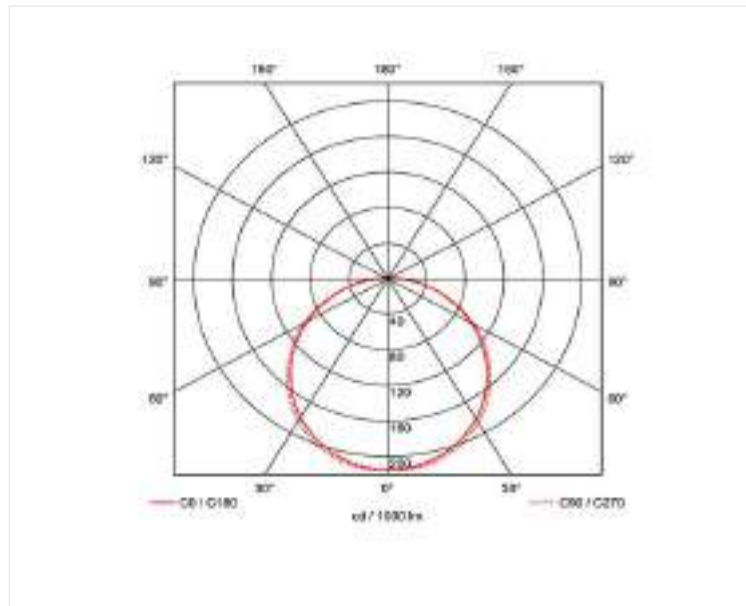


Panther



Part of the Bulkheads product category

Model	Panther CCT Wallpack
Code	APANLED
Application	Industrial, Outdoor





Panther

Part of the Bulkheads product category



Model Panther CCT Wallpack Emergency

Code APANLED/M3

Application Industrial, Outdoor

GENERAL INFORMATION

Input	220-240V
Wattage	25W
Operating Temp	5°C - 40°C
Lumens Delivered	2300lm (4000K)
lm/W	91lm/W (4000K)
CCT	3000/4000/6500K
Beam Angle	80

MATERIAL INFORMATION

Main Material	Polycarbonate
Diffuser Material	Polycarbonate
Product Weight without Packaging	1.345 kg
Colour / Finish	Black
Height	305 mm

TECHNICAL INFORMATION

Class Protection	1
Light Source	LED
SDCM (Initial Macadam)	3
CRI	80
Internal / External	External
Surface / Recessed / Suspended	Wall
Power Factor	0.9
L70 @ 25°C	L70 B50 60,000h

PRODUCT FEATURES

- Durable compact wall mounted luminaire for general accent illumination and suitable for industrial applications
- All polycarbonate construction ideal for coastal and adverse weather applications
- Multiple conduit entry and BESA box fixing points
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- Supplied c/w optional trim attachment which provides a more commercially aesthetic appearance



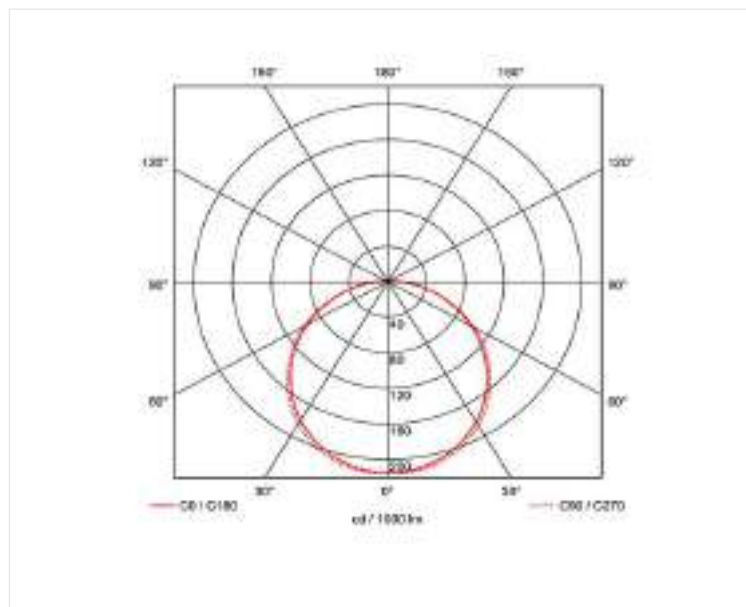


Panther



Part of the Bulkheads product category

Model	Panther CCT Wallpack Emergency
Code	APANLED/M3
Application	Industrial, Outdoor





Corrosion resistant technology



IP65 front and back for full protection



High efficacy up to 107lm/W

WARRANTY

Warranty

4 years

FEATURES & BENEFITS

Suitable for installation in soffits and eaves

Quick and easy installation with integrated driver

Integrated bezel

Compatible with Collingwood smart system

Flicker free

Fixed position downlight & Mains dimmable

Supplied with flying lead

H2 PRO EXTREME

IP65 outdoor downlight with waterproof seal for soffits

FEATURES

IP rating	IP65 (from below and above)
CSP Switchable	Single CCT
Tilttable (°)	Fixed
UGR	UGR<22
Sensor Option	No
Dimmable Option	Yes
LED Lifetime	L70 40,000h
Colour Rendering Index	CRI>80
Colour Consistency	SDCM3
Emergency Option	No
Rotation angle (°)	Fixed

INSTALLATION INFORMATION

Input	220-240V AC
Maximum Ambient Temperature	-30°C - 40°C
Weight	185g
Insulation Coverable	No
Inrush Current	1.0A 0.25ms
Cut Out Size	65-75
Construction Material	Aluminium / VO rated plastic
UK Bathroom Zone	1 (ceiling only)
Maximum ceiling thickness	30 mm
SELV	Yes
Electric Class (1, 2, 3)	II
Suitable for coastal areas	Yes
Install Connector Type	Flying lead
UK Building Regulations	Part C, P & L
FR Building Regulations	RE2020, EN 13141-1:2004
Part B Fire Rating	No

PHOTOMETRICS @ 25°C

Product code	Finish	Type	W	Colour	Beam	lm	lm/W	Lx @ 1m	Energy
DL48938BS30	Brushed steel	Standard	4.6W	3000K	38°	460	100	819	

Energy rating is a reflection of the LED light source.

WIRING INFORMATION

Cable / Flying Lead	0.15m H03VVH2-F 2x0.75mm ²
Type of Wiring Required	Parallel
Input Cable Type	H03VVH2-F (2 CORE 0.75MM)

LED DRIVER

Driver	Input	SELV	Dimming	Bathroom Zone	Min	Max
N/A (integrated SELV driver)	220-240V	Yes	Yes (mains)	1 (Ceiling only)	N/A	N/A

ACCESSORIES

DM298GRID	Grid Dimmer	Sold Separately
DM298FP	Flatplate Dimmer	Sold Separately



Mattone



Part of the Feature Lighting product category

Model	Mattone Bricklight CCT Eyelid Black
Code	AMATB/EYE
Application	Hospitality, Outdoor, Residential, Retail

GENERAL INFORMATION

Input	220-240V
Wattage	2W
Operating Temp	-10°C - 40°C
Lumens Delivered	100lm (4000K)
lm/W	51lm/W (4000K)
CCT	3000/4000K
Beam Angle	100

MATERIAL INFORMATION

Main Material	Polycarbonate
Diffuser Material	Polycarbonate
Product Weight without Packaging	0.558 kg
Colour / Finish	Black
Height	106 mm

TECHNICAL INFORMATION

Class Protection	1
Light Source	LED
SDCM (Initial Macadam)	6
CRI	80
Internal / External	External
Surface / Recessed / Suspended	Recessed
L70 @ 25°C	L70 B50 54,000h

PRODUCT FEATURES

- Universal polycarbonate LED bricklight suitable for residential and hospitality applications
- Plain frame or eyelid option
- Unique adjustable feet allows for installation into multiple brick apertures ranging from 85mm to 115mm
- Polycarbonate construction ideal for coastal applications
- Pre-wired with 500mm of rubber insulated cable

ACCESSORIES

AMATB/SMB	Mattone Bricklight CCT Surface Mounted Box
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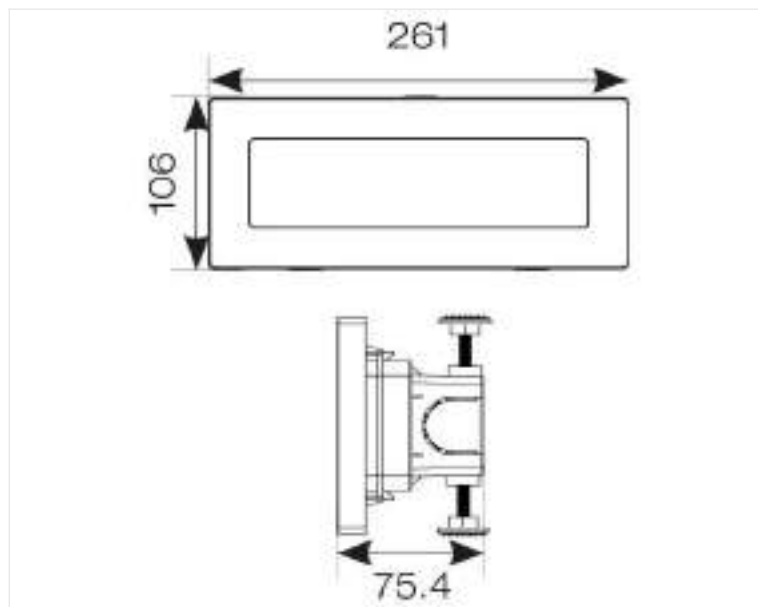


Mattone



Part of the Feature Lighting product category

Model	Mattone Bricklight CCT Eyelid Black
Code	AMATB/EYE
Application	Hospitality, Outdoor, Residential, Retail





Kingfisher Lighting

A division of the LUCECO group

Datasheet

ECORAYS



Specification Text

The ECORAY luminaire shall be manufactured from high-pressure die-cast aluminium and powder coated with a graphite grey marine grade finish. It shall have Zhaga D4i Certification, with a power output of 16 - 40W, with an efficacy from 106 - 121 lm/W. It shall deliver 1,790 - 4,720 luminaire lumens. The ECORAY shall utilise reflector-based optics to create a comfortable low glare illumination with distributions to suit pathways, roadways, and open areas such as carparks. It shall have a fully programmable DALI driver. The luminaire shall come in 2700K, 3000K and 4000K and be IK09 and IP66 rated as well as come with catenary, cradle mounted, post top and side entry options

Specification

Weight: 8.5 kg
Windage: 0.07-0.17m²
Material: Die-cast Aluminium
Paint finish: Graphite Grey

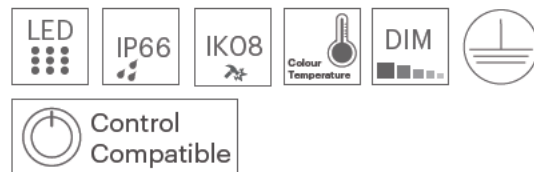
Product Description

Create a stunning silhouette and a superb light output with this luminaire. Available post-top, side-entry, catenary or suspended.

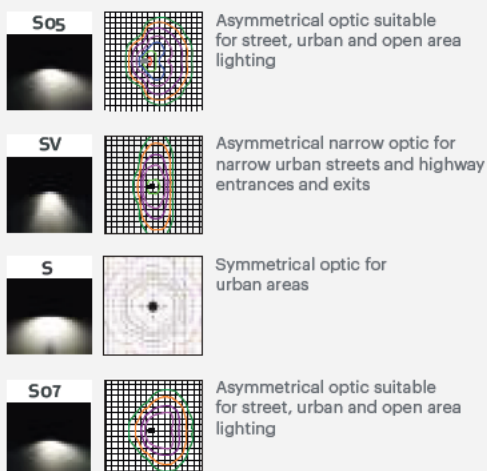


Key Features

- 11.9W - 37.4W
- 1,590 - 5,160 Luminaire Lumens
- Efficacy up to 121.0 lm/W
- 2700K, 3000K, 4000K, CRI >70
- Lifetime >100,000hr, L90



Optics



Mounting Options

- Stirrup Post Top 60-76mm

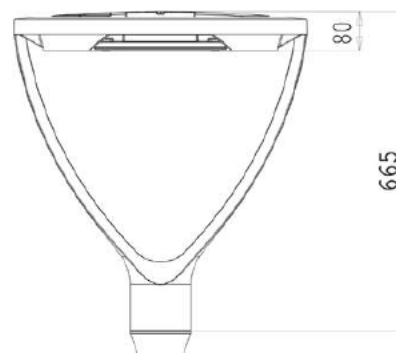
Body Type	A	B	C	D
Standard	665	495	80	76

All measurements in mm

Other Options

- Colour Temperature Options
- Photocell Options
- Paint Finish Options

[Contact for details](#)



Code	Power (W)	Luminaire Lumens (lm)	Drive Current (mA)	Optic	CCT(K)	IP	IK	Weight (kg)	Paint Finish	Driver Included	Driver Type
ECR-PEN-TP-SV-4.060-1M1F	11.9	1610	60	Asymmetrical Street Optic (SV)	4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SV-4.060-2M1F	23	3150	60		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SV-4.100-1M1F	19.1	2640	100		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SV-4.140-1M1F	26.8	3650	140		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO5-4.060-1M1F	11.9	1590	60	Asymmetrical Suburban Street Optic (SO5)	4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO5-4.060-2M1F	23	3080	60		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO5-4.100-1M1F	19.1	2590	100		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO5-4.140-1M1F	26.8	3560	140		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO7-4.060-1M1F	11.9	1590	60	Asymmetrical Street Optic (SO7)	4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO7-4.060-2M1F	23	3080	60		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO7-4.100-1M1F	19.1	2590	100		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-SO7-4.140-1M1F	26.8	3560	140		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-S-4.060-2M1F	23	3160	60	Symmetrical Street Optic (S)	4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI
ECR-PEN-TP-S-4.100-2M1F	37.4	5160	100		4000	IP66	IK08	8.5	Graphite Grey	Driver Inc	DALI



Kingfisher Lighting

Datasheet

Columns

A comprehensive range of tubular, conical and hinged columns, for road & transport, car parks, residential and urban landscapes.



Experts in columns

- Wide range of columns and masts
- Design facility to help you specify
- Support to match the columns with luminaires and brackets
- Column key and door spares available

Maintained stock levels

- Extensive stock of most columns held at our warehouse
- In-house fabrication and finishing options

Nation-wide delivery

- Hi-ab equipment to enable fast and safe off-loading
- Fleet fitted with trackers to monitor deliveries
- Helpful drivers who handle the on-site deliveries
- Free delivery on orders over £500 within mainland GB

High quality standards

- Designed in accordance with BS EN40
- Manufactured from steel tube to EN10210

What to consider when designing with columns

BS EN40 provides a detailed framework for the design of a lighting column and provides key considerations when designing an exterior lighting scheme to ensure the structural integrity of the column.

A lighting column design must take into account (in relationship to mounting height):

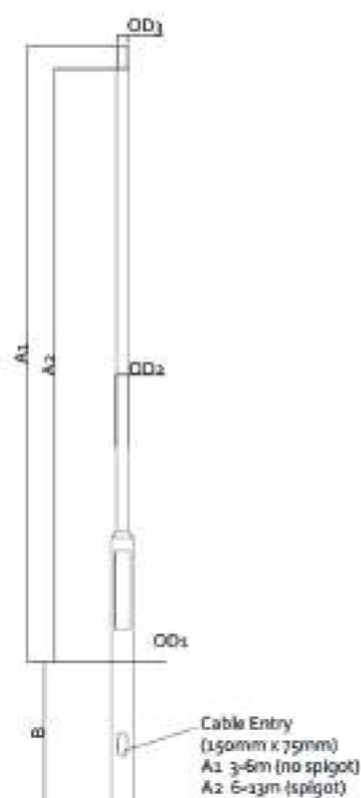
- Weight and windage of the luminaire and bracket
- Wind speed
- Site altitude
- Site terrain and topography

When this information is not readily available, PD 6547:2004 may be used for guidance. This document contains informative data relating to the administrative areas of the UK, providing a rationalised wind loading factor (RWF) for each location. Please contact us for more information.

Tubular columns (3m - 12m)

A range of tubular lighting columns suitable for road, residential and general amenity areas. Available root mounted or flange plated.

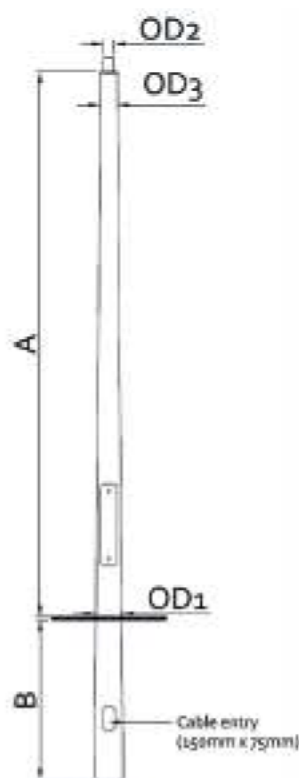
Tubular



Conical lighting columns (4m - 8m)

An aesthetic range of conical lighting columns suitable for residential and amenity areas. Available root mounted or flange plated.

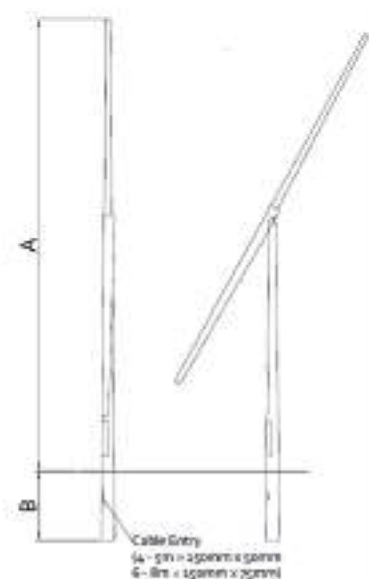
Conical



Mid-hinged columns (4m - 15m)

An easy-access range of mid-hinged columns suitable for residential, amenity, rail and industrial areas where conventional access platforms are unsafe or unsuitable. Available root mounted or flange plated. When installing mid-hinged columns, minimum head load is required for the column to hinge.

Mid-hinged



Base-hinged columns

Base-hinged columns are an option for cost effective, safe and easy maintenance. The lowering of the column is done quickly and safely using a raising and lowering tool specific to the column. This lowers the column to ground level for easy access to the luminaire. Base-hinged columns are best suited to sites with tight access and where mobile platforms cannot be used such as sports facilities, car parks and footpaths.



Tubular columns (3-12m)

A range of tubular lighting columns suitable for road, residential and general amenity areas. Available root mounted or flange plated.

Code	A	OD1	OD2	OD3	Door Openings	B	Terrain Category	Max Head Load
Tubular Columns (Root Mounted)								
3CT76	3m	Ø140	Ø76	N/A	500 x 100	800	3	50kg/0.90m²
4CT76	4m	Ø140	Ø76	N/A	500 x 100	800	3	50kg/0.50m²
5CT76	5m	Ø140	Ø76	N/A	500 x 100	800	3	50kg/0.50m²
6CT76	6m	Ø140	Ø76	N/A	500 x 100	1000	3	50kg/0.50m²
6CTH89	6m	Ø168	Ø89	Ø76	600 x 115	1000	3	50kg/0.75m²
8CT89	8m	Ø168	Ø89	Ø76	600 x 115	1200	2	50kg/0.36m²
8CTM114	8m	Ø168	Ø114	Ø101	600 x 115	1200	2	60kg/0.55m²
10CT114	10m	Ø168	Ø114	Ø101	600 x 115	1500	2	50kg/0.50m²
10CTH140	10m	Ø192	Ø140	Ø127	600 x 115	1500	2	80kg/1.00m²
12CTHB140	12m	Ø192	Ø140	Ø127	600 x 115	1700	2	70kg/0.85m²

Code	A	OD1	OD2	OD3	Door Openings	B	Terrain Category	Max Head Load	Hole Centres C	Slot Size H	Bolt Code
Tubular Columns (Flange Plated)											
3CT76FP	3m	Ø140	Ø76	N/A	500 x 100	800	3	50kg/0.90m²	200	20 x 50	FB001
4CT76FP	4m	Ø140	Ø76	N/A	500 x 100	800	3	50kg/0.50m²	200	20 x 50	FB001
5CT76FP	5m	Ø140	Ø76	N/A	500 x 100	800	3	50kg/0.50m²	200	20 x 50	FB001
6CT76FP	6m	Ø140	Ø76	N/A	500 x 100	1000	3	50kg/0.50m²	200	20 x 50	FB001
6CTH89FP	6m	Ø168	Ø89	Ø76	600 x 115	1000	3	50kg/0.75m²	200	24 x 50	FB007
8CT89FP	8m	Ø168	Ø89	Ø76	600 x 115	1200	2	50kg/0.36m²	300	29 x 64	FB004
8CTM114FP	8m	Ø168	Ø114	Ø101	600 x 115	1200	2	60kg/0.55m²	300	29 x 64	FB004
10CT114FP	10m	Ø168	Ø114	Ø101	600 x 115	1500	2	50kg/0.50m²	300	29 x 64	FB004
10CTH140	10m	Ø192	Ø140	Ø127	600 x 115	1500	2	80kg/1.00m²	300	29 x 64	FB004
12CTHB140	12m	Ø192	Ø140	Ø127	600 x 115	1700	2	70kg/0.85m²	300	29 x 64	FB004

Conical lighting columns (4-8m)

An aesthetic range of conical lighting columns suitable for residential and amenity areas. Available root mounted or flange plated.

Code	A	B	OD1	OD2	OD3	Door Size	Terrain Category	Max Head Load	Max Windage
4CCS60L	4m	800mm	133mm	60mm	60 x 85	500 x 100	3	30kg	0.5m²
5CCS60L	5m	800mm	145mm	60mm	60 x 85	500 x 100	3	35kg	0.5m²
6CCS60L	6m	800mm	157mm	60mm	60 x 85	500 x 100	3	40kg	0.5m²
8CCS60L	8m	1200mm	168mm	60mm	76mm	500 x 100	2	40kg	0.45m²

Mid-hinged columns (4-8m)

An easy-access range of mid-hinged columns suitable for residential, amenity, rail and industrial areas where conventional access platforms are unsafe or unsuitable for use. Available root mounted or flange plated.

Code	A	Description - Mid-hinged octagonal	B	Max Head Load*	Max Windage	Hole Size L	Flange Size / Code	Bolt Code	Bolt	Winch
Rope Operated										
4MHRL	4m	Root mounted	800	20kg	0.5m²					Rope
4MHFPL	4m	Flange plated		20kg	0.5m²	200	300mm/18mm	M16 x 500	FB001	Rope
5MHRL	5m	Root mounted	800	20kg	0.5m²					Rope
5MHFPL	5m	Flange plated		20kg	0.5m²	200	300mm/18mm	M16 x 500	FB001	Rope
6MHRL	6m	Root mounted	1000	20kg	0.5m²					Rope
6MHFPL	6m	Flange plated		20kg	0.5m²	200	300mm/18mm	M16 x 500	FB001	Rope
Winch Operated										
4MHRL	4m	Root mounted	800	35kg	0.5m²					KLWINCHL
4MHFPL	4m	Flange plated		35kg	0.5m²	200	300mm/18mm	M16 x 500	FB001	KLWINCHL
5MHRL	5m	Root mounted	800	35kg	0.5m²					KLWINCHL
5MHFPL	5m	Flange plated		35kg	0.5m²	200	300mm/18mm	M16 x 500	FB001	KLWINCHL
6MHRL	6m	Root mounted	1000	35kg	0.5m²					KLWINCHL
6MHFPL	6m	Flange plated		35kg	0.5m²	200	300mm/18mm	M16 x 500	FB001	KLWINCHL
8MHFFH1	8m	Flange plated		70kg	0.98m²	300	420mm/25mm	M24 x 820	FB004	KLWINCHL
8MHRL1	8m	Root mounted	1200	135kg	0.70m²					KLWINCHSHD <100kg KLWINCHSHD2 >100kg

Above weight and windage area figures are based on a medium terrain category. Other sizes & variations available on request.

*Please note maximum carrying weight of a 4m - 6m mid - hinged column is 20kg with a rope or 35kg with a winch.

DATA SHEET

White LED Strip

Product Code: W-10-3000K-24V-COB / IP

10W 24V WHITE COB

10W

Wattage / M

24V

Voltage DC

480

LED / M

ROHS
Compliant

CE

5 YEAR
WARRANTY



PRODUCT SPECIFICATION

Wattage / M	10W
Voltage (DC)	24V
LED / M	480
Cut Points (mm)	50mm
Strip Width (mm)	8mm (IP: 8.5mm)
Lumens / M	922
Lumens / W	120
Kelvin	3000K
CRI	90+
IP Rating	IP20, IP65, IP67
Strip Depth (mm)	2mm (IP: 3mm)
Beam Angle	180°
Reel Length (m)	5m (Custom Lengths Available)
Max Run Length (m)	10m (Powered From One End)
Chip Set	Epistar (COB)
Warranty	5 Years
Backing Tape	3M 300LSE

DIMENSIONS



ADVICE

All of our LEDs are self adhesive and backed with 3M adhesive backing, which can be upgraded to our extra-strong foam backing tape for additional stability on horizontal surfaces.

Aluminium profiles benefit in a number of ways:

Heatsink - Applying the LED strip onto or into an LED profile will ensure that any heat created will dissipate, which in turn will benefit the LEDs longevity.

Adhesion - LED strip lights will always adhere better to the aluminium profile than any other substrate. So no LEDs falling down a few days after installation.

A Complete Project - Housing within a profile will always offer a more complete look. Rather than having your LEDs on show, you can have plastered in, recessed or surface mounted profiles which blend into their surroundings, completing the project perfectly.

Protection - Instead of leaving the LEDs open to the elements, even on internal projects, housing within an aluminium profile will give added protection for little fingers, spilt drinks or dusting / cleaning.

DATA SHEET

Water Resistant LED Profile

Product Code: P-WR-1 / P-WR-2

P-WR

Free Foam
Inserts



Fixing Clips



End Caps



Semi Diffused
Cover



RoHS
Compliant



CE

5 YEAR
WARRANTY



PRODUCT SPECIFICATION

Profile Width	16mm
Profile Depth	8.8mm
Max LED Width	13mm
Available Lengths	1m / 2m (Bespoke Lengths Available)
IP Rating	65
Lens Cover	Opal / Semi Diffused (20%)
Certified	CE + RoHS
Colour	Silver
Material	Base - Aluminium / Cover - Polycarbonate
Included	1x Base / 1x Cover / 2-4 End Caps / 2-4 Fixing Clips

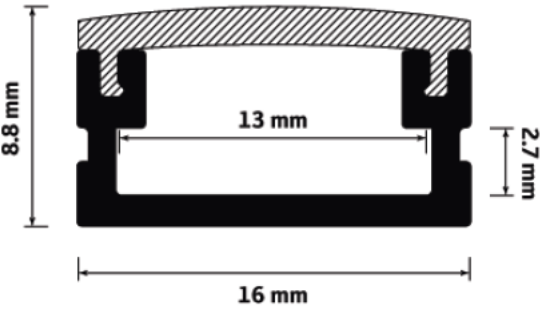
DESCRIPTION

The water resistant aluminium profile can be used for both surface mounted or recessed installations. Boasting a robust opal lens, this profile is built to handle the daily wear and tear of high traffic areas.

Whilst its IP rating will repel light rain or moisture, it cannot be submerged in water. So if there is risk of pooling, please ensure measures are taken to avoid this.

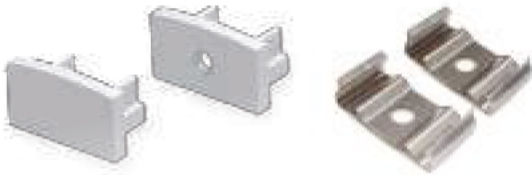
Also featuring a semi-diffused opal lens, which effectively disperses the light from individual LED diodes, creating a smooth and continuous light-bar effect.

DIMENSIONS



ACCESSORIES

End Caps: Fixing Clips:



INSTALLATION OPTIONS

Fixing Brackets:

For added convenience, use our specially designed fixing brackets. These can be screwed or nailed into place, allowing the aluminium profile to clip securely onto them.

Adhesive:

Due to its lightweight, you can Dot & Dab the profile directly to the surface with a grab adhesive (CT1 for example)

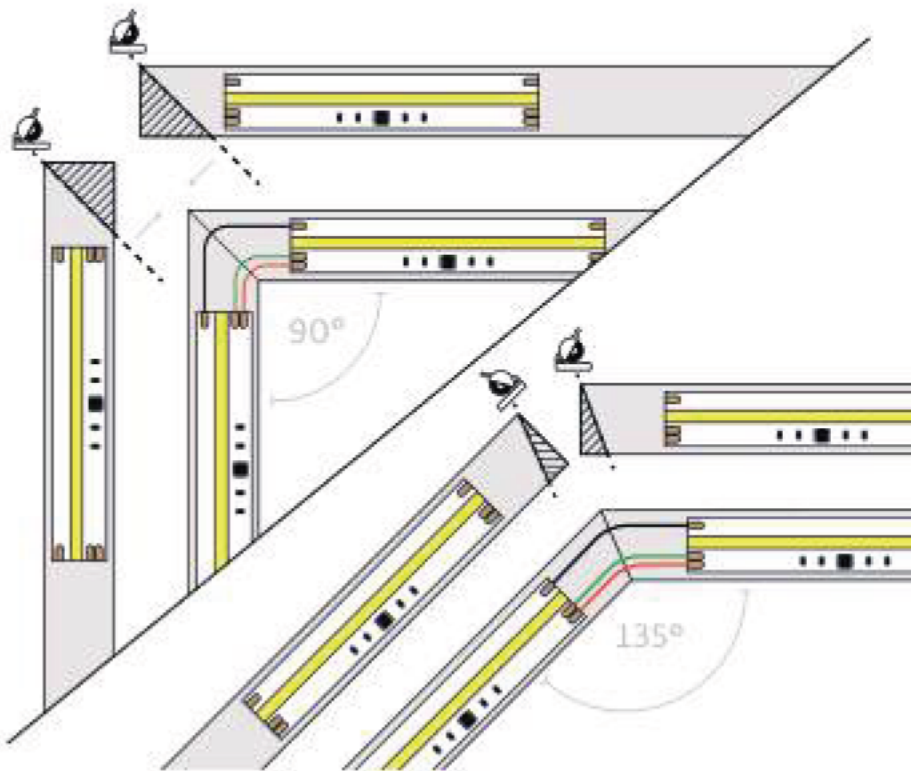
Countersink Screws:

Secure the profile directly to the surface with countersink screws.

CUSTOMISABLE LENGTHS

Our water resistant profile is available in standard lengths of 1m and 2m but they can be easily customised to your specific requirements. Simply cut the profile with straight or mitred cuts by using a hacksaw for a perfect fit.

For further details and support on LED profiles and extrusions, visit our dedicated aluminium profiles and extrusions support page.



SPECIFICATION SHEET

Dimmable LED Driver

Product Code: DD-200-24

200W DALI

200W

Wattage

24V

Voltage DC

DALI / 1 / 0-10v

Dimmable

ROHS
Compliant

CE

**5 YEAR
WARRANTY**

PRODUCT SPECIFICATION

Current (DC)	8.3A
Input Voltage (AC)	220 / 240 AC
Input Current	1A @ 230V
Inrush Current	50A / 230V
IP Rating	20
Input Frequency	50 / 60hz
Power Factor	>0.95
Weight	860g
Min. Operating Temp.	-20°C
Max. Operating Temp.	50°C

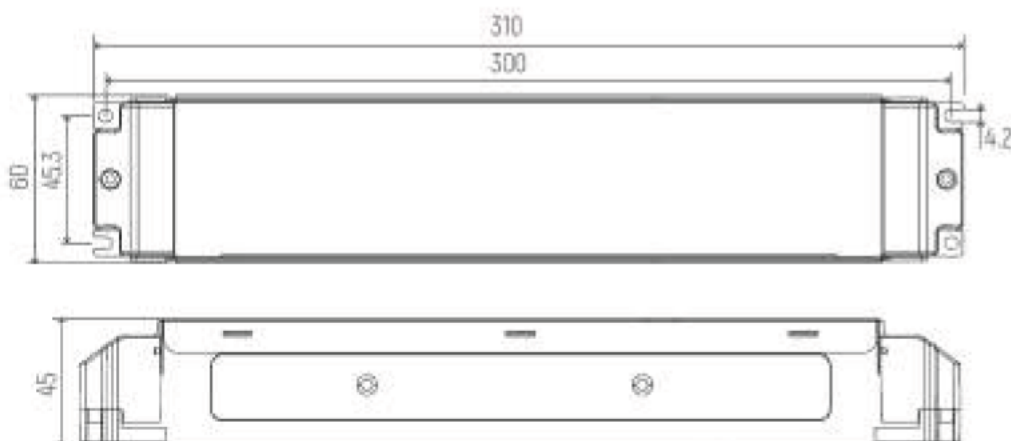
DESCRIPTION

The 200W Dali is a constant voltage mode output LED driver.

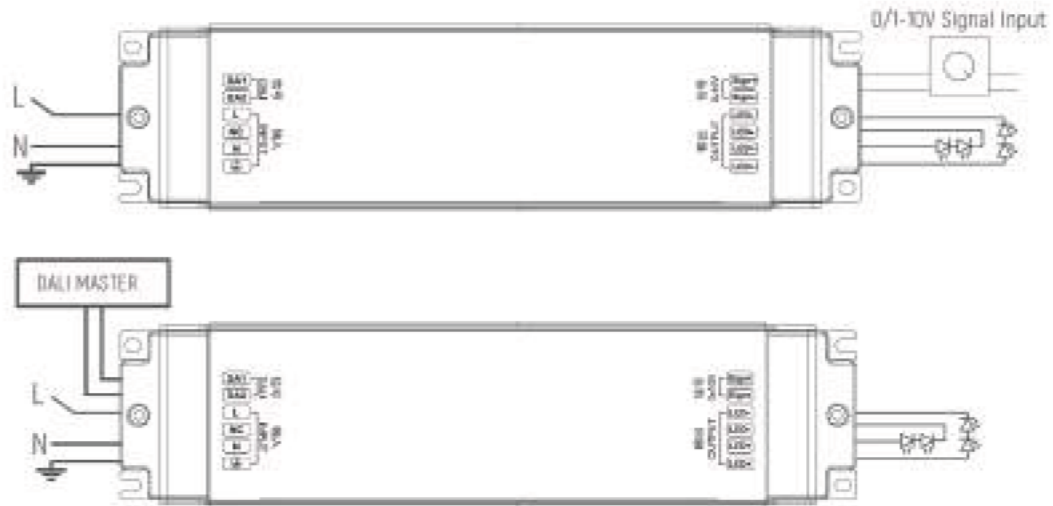
This driver complies with DALI standard protocol IEC 62386, and provides multiple dimming functions:

- Active Signal
- PWM
- Adjustable resistance
- Touch DIM

DIMENSIONS (mm)



WIRING DIAGRAM



CAUTIONS ⚠

- This product should be installed by qualified personnel.
- This product is non waterproof, need to avoid sun and rain. In case of outdoor use, please ensure it is mounted in a water proof enclosure.
- Good heat dissipation conditions extend product life. Please install the product in a well-ventilated environment.
- Please make sure LED power supply output voltage, current is used to meet the product requirements.
- Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the cable is secured tightly in the connector.
- Due to safety concerns, PVC or rubber cord of 0.75- 1.5mm² is recommended for input and output terminal(s) (excluding signal terminals). Flat power cord is not suitable. Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
- In case of malfunction, do not repair it yourself.

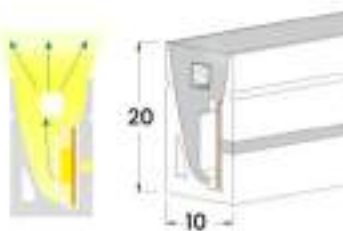


Extra Long Warm White Neon Flex 48V 10x20mm IP68 Waterproof – Cut to Length (Max 50m)

SKU: NFWWIP6848V-1020



Dimensions



Description:

Our high-quality Extra Long Warm White 2800K is horizontal bending which emits a bright dotless LED light from the top of the flex. Our led neon flex is a low voltage, compact, highly flexible, dotless, Linear lighting solution.

Our LED flexible neon is designed for both outdoor and indoor architectural projects in commercial installations. These include settings such as shopping centres, hotels, restaurants and many other applications where a neon light would be required. It can light up to 50 metre continuous run with one side power without any voltage drop.

It comes with a 5 year Indoor Warranty & 3 year Outdoor Warranty.

The IP68 rating offers full protection against water, salt water, UV radiation and solvents making this product ideal for use in exposed locations and challenging environments such as coastal holiday resorts and theme parks.



Suitable for use with neon flex mounting channel. We recommend installing our LED neon flex within an LED Aluminium Profile. These offer protection for the neon flex and the aluminium material acts as a heat sink, reducing the chance of over-heating and prolonging the life of the product.

With a 50 metre roll you will get one Front wire IP68 connector with 3 Metre Extension Cable & End Cap attached to the NEON Flex.

Specification:

- Working Voltage: DC 48V
- Light Colour: Warm White 2800K
- LEDs: 2835 SMD
- Cutting: 10cm
- Standard Packing: 1m to 50m Continuous Length
- Strip Backing: White
- Waterproof Rating: IP68 Fully Waterproof
- Working Temperature: -20-60 degree
- LED Neon Flex Dimension: 10 x 20mm
- Power: 9 W/Meter
- Extension Lead: 3 Metre Extension Lead

Package Contents: LED Neon Flex

Power Supply Needed: DC 24V Power Supply

1 Metre Length : DC 9W

Upto 5 Metre Length : DC 48V 60W

Upto 10 Metre Length: DC 48V 120W

Upto 15 Metre Length: DC 48V 180W

Upto 20 Metre Length: DC 48V 250W

Upto 30 Metre Length: DC 48V 400W

The lights are custom cut as per your specific requirements.



LED Neon Flex Aluminium Channel Mounting Track for 10x20mm Neon Flex 1 Metre

SKU: NFPROFILE-1020



Description:

Aluminium mounting track for 10 x 20mm LED Neon Flex

1-metre lengths

2 screw slots per channel

Dimensions: W10mm x H19mm x L1000mm

Specification:

Warranty: Up to 7 years



48V 60W- 500W LED Power Supply Transformer IP67 Waterproof

SKU: PS48VIP67



Description:

Universal AC input/full range(175-277VAC)

Built in active PFC function

Efficiency up to 93%, super thin and small size.

Protections: short circuit/over load/over voltage/over temperature

IP67 design for indoor or outdoor installation

It can be used in dry, wet and rainy environment

Cooling by free air, high reliability

Up to 50000-hour life time

Suitable for internal lights application for I /I/I.

Widely used in LED lighting and IT equipment

Do not use it to full capacity, leave about 10% to 15%

Technical information:

Input Voltage: AC 170V - 230V

Output Voltage: DC 48V

constant Voltage

IP rating: IP67 Waterproof



Dimensions:

60W - 202x48x19mm(LxWxH)

100W - 202x48x19mm(LxWxH)

200W - 242x67x22.8mm(LxWxH)

250W - 242x67x22.8mm(LxWxH)

300W - 282x86x23.5mm(LxWxH)

350W - 282x86x23.5mm(LxWxH)

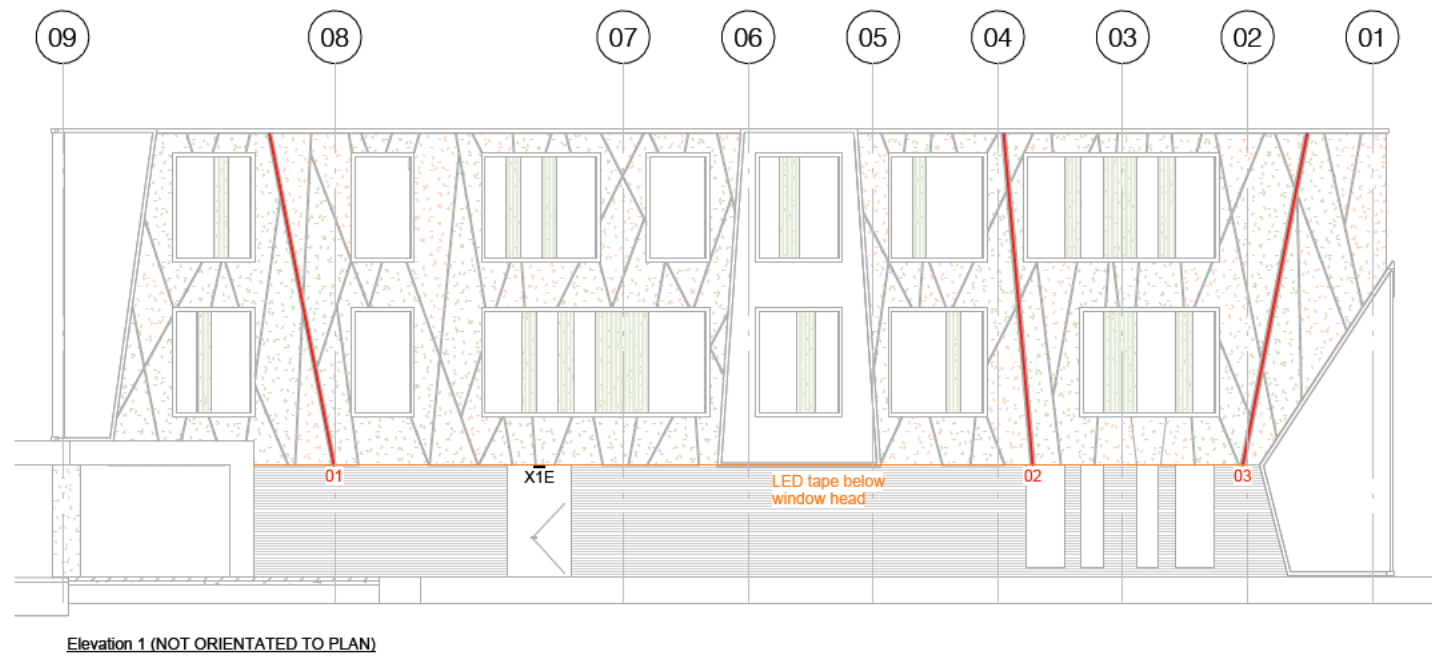
400W - 282x86x23.5mm(LxWxH)

500W - 282x86x23.5mm(LxWxH)

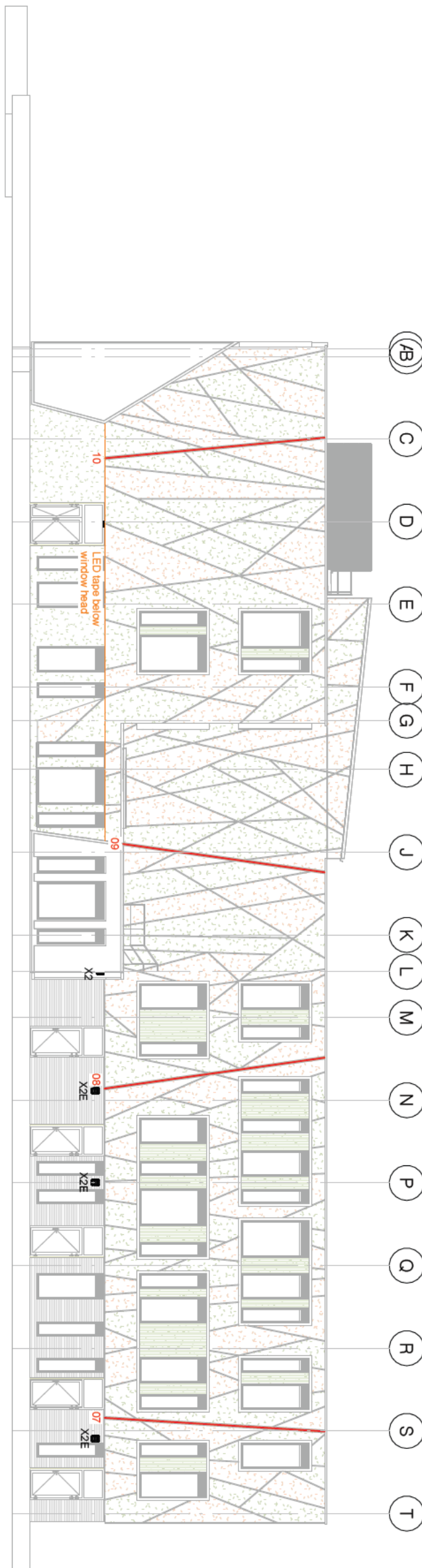
Calculation Summary										Meter Type		Description	
Label	Qty	Label	Arrangement	LLP	Description	Luminaire L/W	LM/L	Luminaire Height					
EV Parking & Parking Bay		Luminaire			Lux	20.00	42	17	0.00	Horizontal			
Footway		Luminaire			Lux	10.01	41	5	0.00	Horizontal			
Luminaire Schedule													
Symbol	Qty	Label	Arrangement	LLP	Description	Luminaire L/W	LM/L	Luminaire Height					
11A	2	A	Single	0.000	ECORAYS Panther TP, 1 nos, 3,000lm, 20,000, 100,000, 200,000, 400,000, 800,000, 1,600,000, 3,200,000, 6,400,000, 12,800,000, 25,600,000, 51,200,000, 102,400,000, 204,800,000, 409,600,000, 819,200,000, 1,638,400,000, 3,276,800,000, 6,553,600,000, 13,107,200,000, 26,214,400,000, 52,428,800,000, 104,857,600,000, 209,715,200,000, 419,430,400,000, 838,860,800,000, 1,677,721,600,000, 3,355,443,200,000, 6,710,886,400,000, 13,421,772,800,000, 26,843,545,600,000, 53,687,091,200,000, 107,374,182,400,000, 214,748,364,800,000, 429,496,729,600,000, 858,993,459,200,000, 1,717,986,918,400,000, 3,435,973,836,800,000, 6,871,947,673,600,000, 13,743,895,347,200,000, 27,487,790,694,400,000, 54,975,581,388,800,000, 109,951,162,777,600,000, 219,902,325,555,200,000, 439,804,651,110,400,000, 879,609,302,220,800,000, 1,759,218,604,441,600,000, 3,518,437,208,883,200,000, 7,036,874,417,766,400,000, 14,073,748,835,532,800,000, 28,147,497,671,065,600,000, 56,294,995,342,131,200,000, 112,589,990,684,262,400,000, 225,179,981,368,524,800,000, 450,359,962,737,049,600,000, 900,719,925,474,099,200,000, 1,801,439,850,948,198,400,000, 3,602,879,701,896,396,800,000, 7,205,759,403,792,793,600,000, 14,411,518,807,585,587,200,000, 28,823,037,615,171,174,400,000, 57,646,075,230,342,348,800,000, 115,292,150,460,684,697,600,000, 230,584,300,921,369,395,200,000, 461,168,601,842,738,790,400,000, 922,337,203,685,477,580,800,000, 1,844,674,407,370,955,161,600,000, 3,689,348,814,741,910,323,200,000, 7,378,697,629,483,820,646,400,000, 14,757,395,258,967,641,292,800,000, 29,514,790,517,935,282,585,600,000, 59,029,581,035,870,565,171,200,000, 118,059,162,071,741,130,342,400,000, 236,118,324,143,482,260,684,800,000, 472,236,648,286,964,521,369,600,000, 944,473,296,573,929,042,739,200,000, 1,888,946,593,147,858,085,478,400,000, 3,777,893,186,295,716,170,956,800,000, 7,555,786,372,591,432,337,913,600,000, 15,111,572,745,182,864,675,827,200,000, 30,223,145,490,365,729,351,654,400,000, 60,446,290,980,731,458,702,708,800,000, 120,892,581,961,462,917,405,417,600,000, 241,785,163,922,925,834,810,835,200,000, 483,570,327,845,851,669,621,670,400,000, 967,140,655,691,703,339,243,340,800,000, 1,934,281,311,383,406,678,486,481,600,000, 3,868,562,622,766,813,356,972,963,200,000, 7,737,125,245,533,626,713,945,926,400,000, 15,474,250,491,067,253,427,891,852,800,000, 30,948,500,982,134,506,845,775,705,600,000, 61,897,001,964,269,013,691,551,411,200,000, 123,794,003,928,538,027,383,102,222,400,000, 247,588,007,857,076,054,766,204,444,800,000, 495,176,015,714,152,109,532,408,889,600,000, 990,352,031,428,304,219,064,817,777,600,000, 1,980,704,062,856,608,438,128,135,555,200,000, 3,961,408,125,713,216,876,256,271,110,400,000, 7,922,816,251,426,433,752,512,542,220,800,000, 15,845,632,502,848,867,504,024,084,441,600,000, 31,691,265,005,697,735,008,048,068,883,200,000, 63,382,530,011,395,470,016,137,177,766,400,000, 126,765,060,022,790,940,032,274,355,532,800,000, 253,530,120,045,581,880,064,548,711,065,600,000, 507,060,240,091,163,763,168,109,422,131,131,200,000, 1,014,120,480,327,327,527,336,218,844,262,262,400,000, 2,028,240,960,654,655,054,672,437,688,524,524,800,000, 4,056,481,921,309,311,109,344,875,377,049,049,600,000, 8,112,963,842,618,622,218,689,750,754,098,099,200,000, 16,225,927,685,237,244,437,379,501,509,197,600,000, 32,451,855,370,474,488,874,759,003,018,395,200,000, 64,903,710,740,948,977,749,506,006,036,790,400,000, 129,807,421,481,897,955,499,012,012,181,580,800,000, 259,614,842,963,795,911,998,024,024,363,161,600,000, 519,229,685,927,591,823,996,048,048,726,323,200,000, 1,038,459,371,855,183,847,992,096,096,144,646,400,000, 2,076,918,743,710,367,695,984,192,189,291,291,200,000, 4,153,837,487,420,735,391,968,384,378,582,582,400,000, 8,307,674,974,841,470,783,936,768,757,165,165,200,000, 16,615,349,949,682,941,567,873,536,150,330,330,400,000, 33,230,699,899,365,883,135,747,072,300,660,660,800,000, 66,461,399,798,731,766,271,494,140,120,120,800,000, 132,922,799,597,463,532,542,988,280,240,240,800,000, 265,845,599,194,927,065,085,976,560,480,480,800,000, 531,691,198,389,854,130,171,152,112,096,960,960,800,000, 1,063,382,396,779,708,260,342,304,224,192,192,800,000, 2,126,764,793,559,416,520,684,608,448,384,384,800,000, 4,253,529,587,118,833,137,369,716,896,768,768,800,000, 8,507,059,174,277,666,274,739,433,792,153,792,800,000, 17,014,118,348,555,332,548,868,867,584,307,584,800,000, 34,028,236,697,110,665,097,737,737,116,575,116,800,000, 68,056,473,394,221,331,195,475,475,231,153,231,800,000, 136,112,946,788,442,662,390,950,950,462,307,462,800,000, 272,225,893,576,885,324,781,901,901,924,614,614,800,000, 544,451,787,153,770,648,563,802,802,184,928,928,800,000, 1,088,903,574,307,541,127,105,604,604,369,856,369,800,000, 2,177,807,148,615,082,254,211,209,209,739,712,712,800,000, 4,355,614,297,230,164,508,422,418,418,478,424,424,800,000, 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1,141,798,154,333,166,584,109,109,191,191,307,307,766,766,800,000, 2,283,596,308,666,333,167,218,218,383,383,307,307,766,766,800,000, 4,567,192,617,332,666,436,436,766,766,383,383,307,307,766,766,800,000, 9,134,385,234,665,332,872,872,153,153,766,766,383,383,307,307,766,766,800,000, 18,268,770,469,332,874,172,172,307,307,766,766,383,383,307,307,766,766,800,000, 36,537,540,938,665,333,344,344,614,614,307,307,766,766,800,000, 73,075,081,877,332,666,688,688,122,122,307,307,766,766,800,000, 146,150,163,754,665,333,137,137,244,244,307,307,766,766,800,000, 292,300,327,509,332,666,274,274,488,488,307,307,766,766,800,000, 584,600,655,018,665,333,548,548,976,976,307,307,766,766,800,000, 1,169,201,310,037,332,666,109,109,191,191,307,307,766,766,800,000, 2,338,402,620,074,665,333,218,218,383,383,307,307,766,766,800,000, 4,676,805,240,148,665,333,436,436,766,766,383,383,307,307,766,766,800,000, 9,353,610,480,297,332,872,872,153,153,766,766,383,383,307,307,766,766,800,000, 18,707,220,960,594,665,333,307,307,766,766,383,383,307,307,766,766,800,000, 37,414,441,920,118,665,333,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 74,828,883,840,237,332,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 149,657,767,680,474,665,244,244,488,488,307,307,766,766,800,000, 299,315,535,360,948,665,488,488,976,976,307,307,766,766,800,000, 598,631,070,721,896,665,976,976,191,191,307,307,766,766,800,000, 1,197,262,141,443,792,665,191,191,383,383,307,307,766,766,800,000, 2,394,524,282,887,584,665,383,383,766,766,307,307,766,766,800,000, 4,789,048,565,775,167,665,766,766,153,153,766,766,383,383,307,307,766,766,800,000, 9,578,097,131,554,332,153,153,307,307,766,766,383,383,307,307,766,766,800,000, 19,156,194,263,109,665,307,307,766,766,383,383,307,307,766,766,800,000, 38,312,388,526,218,665,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 76,624,777,052,437,332,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 153,249,554,104,874,665,244,244,488,488,307,307,766,766,800,000, 306,499,108,209,748,665,488,488,976,976,307,307,766,766,800,000, 612,998,216,419,496,665,976,976,191,191,307,307,766,766,800,000, 1,225,996,432,838,992,665,191,191,383,383,307,307,766,766,800,000, 2,451,992,865,677,984,665,383,383,766,766,307,307,766,766,800,000, 4,903,985,731,355,968,665,766,766,153,153,766,766,383,383,307,307,766,766,800,000, 9,807,971,462,711,936,332,153,153,307,307,766,766,383,383,307,307,766,766,800,000, 19,615,942,925,423,665,307,307,766,766,383,383,307,307,766,766,800,000, 39,231,885,850,847,332,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 78,463,771,701,694,665,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 156,927,543,403,388,665,244,244,488,488,307,307,766,766,800,000, 313,855,086,806,776,665,488,488,976,976,307,307,766,766,800,000, 627,710,173,613,552,665,976,976,191,191,307,307,766,766,800,000, 1,255,420,347,227,104,665,191,191,383,383,307,307,766,766,800,000, 2,510,840,694,454,208,665,383,383,766,766,307,307,766,766,800,000, 5,021,681,388,908,416,665,766,766,153,153,766,766,383,383,307,307,766,766,800,000, 10,043,362,777,816,332,153,153,307,307,766,766,383,383,307,307,766,766,800,000, 20,086,725,555,632,665,307,307,766,766,383,383,307,307,766,766,800,000, 40,173,451,111,264,665,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 80,346,902,222,528,665,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 160,693,804,445,056,665,244,244,488,488,307,307,766,766,800,000, 321,387,608,890,112,665,488,488,976,976,307,307,766,766,800,000, 642,775,217,780,224,665,976,976,191,191,307,307,766,766,800,000, 1,285,550,435,560,448,665,191,191,383,383,307,307,766,766,800,000, 2,571,100,871,120,896,665,383,383,766,766,307,307,766,766,800,000, 5,142,201,742,241,792,665,766,766,153,153,766,766,383,383,307,307,766,766,800,000, 10,284,403,484,483,332,153,153,307,307,766,766,383,383,307,307,766,766,800,000, 20,568,806,968,966,665,307,307,766,766,383,383,307,307,766,766,800,000, 41,137,613,937,932,665,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 82,275,227,875,864,665,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 164,550,455,751,728,665,244,244,488,488,307,307,766,766,800,000, 329,100,911,503,456,665,488,488,976,976,307,307,766,766,800,000, 658,201,823,006,912,665,976,976,191,191,307,307,766,766,800,000, 1,316,403,646,012,824,665,191,191,383,383,307,307,766,766,800,000, 2,632,807,292,025,648,665,383,383,766,766,307,307,766,766,800,000, 5,265,614,584,051,296,665,766,766,153,153,766,766,383,383,307,307,766,766,800,000, 10,531,229,168,103,332,153,153,307,307,766,766,383,383,307,307,766,766,800,000, 21,062,458,336,206,665,307,307,766,766,383,383,307,307,766,766,800,000, 42,124,916,672,412,665,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 84,249,833,344,824,665,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 168,499,666,688,164,665,244,244,488,488,307,307,766,766,800,000, 336,999,333,376,328,665,488,488,976,976,307,307,766,766,800,000, 673,998,666,752,656,665,976,976,191,191,307,307,766,766,800,000, 1,347,997,333,504,312,665,191,191,383,383,307,307,766,766,800,000, 2,695,994,667,008,624,665,383,383,766,766,307,307,766,766,800,000, 5,391,989,334,016,128,665,766,766,153,153,766,766,383,383,307,307,766,766,800,000, 10,783,978,668,032,332,153,153,307,307,766,766,383,383,307,307,766,766,800,000, 21,567,957,336,064,665,307,307,766,766,383,383,307,307,766,766,800,000, 43,135,914,672,128,665,614,614,307,307,766,766,383,383,307,307,766,766,800,000, 86,271,829,344,256,665,122,122,307,307,766,766,383,383,307,307,766,766,800,000, 172,543,658,688,512,665,244,244,488,488,307,307,766,766,800,000, 345,087,317,376,1024,665,488,488,976,976,307,307,766,766,800,000, 690,174,634,752,2048,665,976,976,191,191,307,307,766,766,800,000, 1,380,349,269,504,4096,665,191,191,383,383,307,307,766,766,800,000, 2,760,698,539,008,8192,665,383,383,766,766,307,307,766,766								

NOTES:

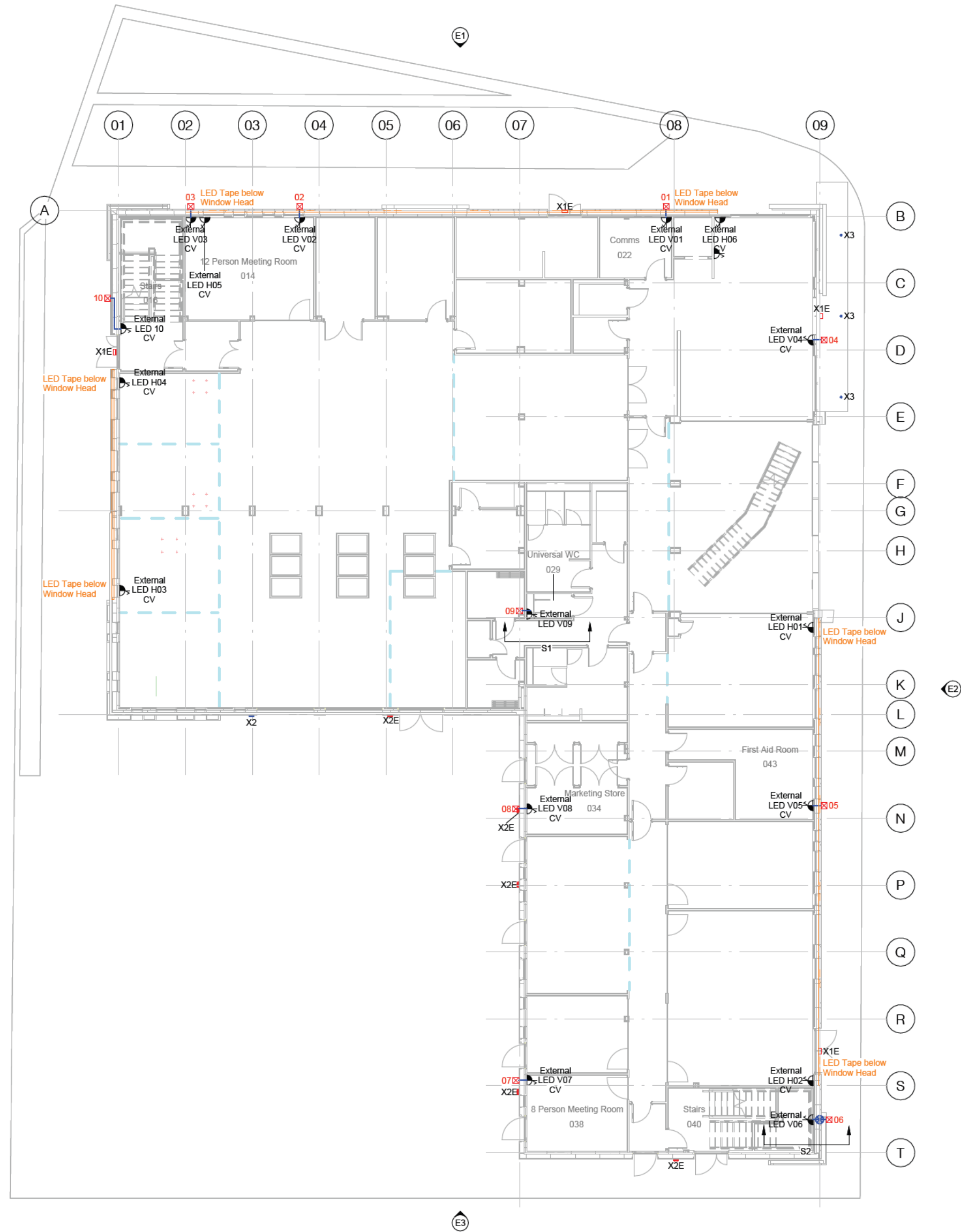
- REFER TO DRAWING 16894-AES-M1-ZZ-D-E-6801 FOR DETAILS ON THE EXTERNAL LIGHTING.
- THE EXTERNAL LIGHTING IS CONTROLLED VIA A TIMECLOCK AND PHOTOCELL ARRANGEMENT.
- THE LUMINAIRES WILL ONLY OPERATE DURING THE HOURS TO BE ADVISED BY THE CLIENT SECURITY CONTRACTOR WITH THE PHOTOCELL PREVENTING OPERATION DURING ADEQUATE LEVELS OF DAYLIGHT. THE LUMINAIRES WILL BE SWITCHED OFF DURING THE HOURS OF CURFEW (22:00 TO 06:00).



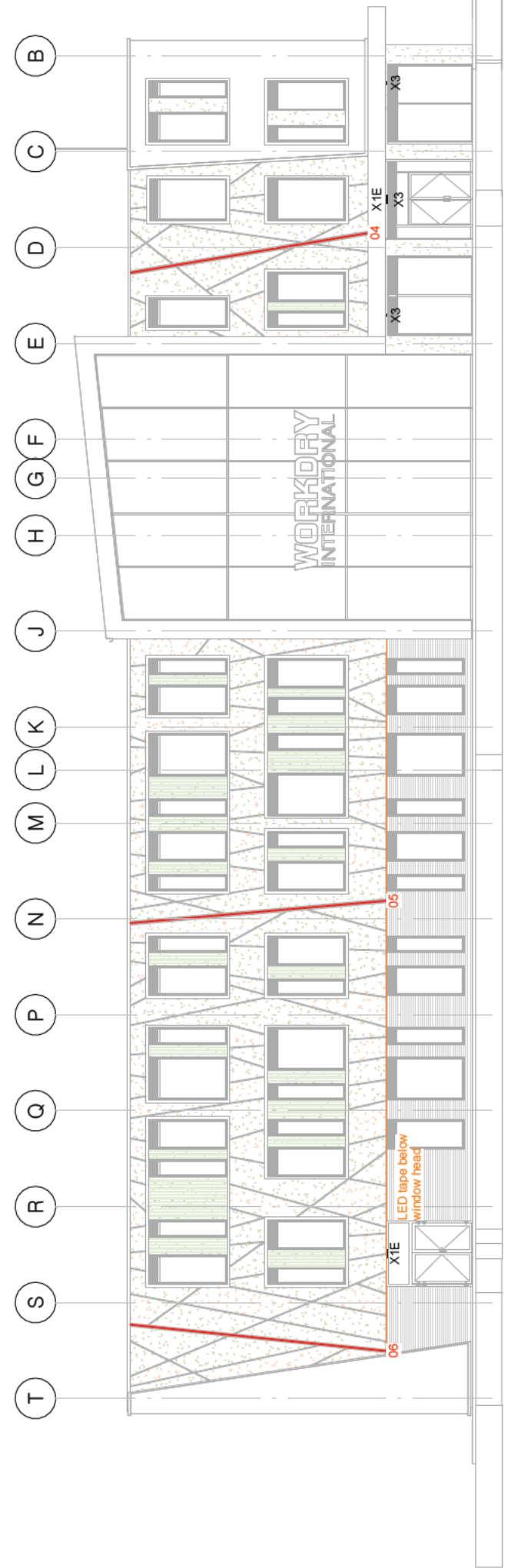
Elevation 1 (NOT ORIENTATED TO PLAN)



Elevation 4



Elevation 3

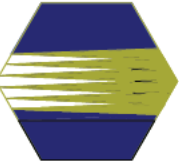


Section 1 through WC Lobby 024 & Above

Section 2 through Stairs 040 & Above

C	1	17.07.06	Construction Issue
P	1	17.06.26	Preliminary Issue
-	REV	DATE	AMENDMENT

Charleson
Charleson Building Services Limited
Unit 8 Easter Court, Europa Boulevard, Westbrook,
Warrington, WA5 7ZB
Telephone 01925 655929
Incorporating
Ashworth Electrical Services Ltd

 Townfield House
Townfield Street
Oldham OL4 1HE
Tel: 0161 620 2689

CONTRACT
Workdry International Headquarters

DESCRIPTION
External LED Cladding Lighting Supplies



S3 - Construction Issue

DATE Jul 26	SCALE As indicated @ A1	REV C1
DRAWN SR	DRAWING No. 16894-AES-M1-ZZ-D-E-6806	