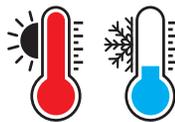# HALO

Data Sheet

HALO
Daisy Chain

The **HALO Daisy Chain** lighting solution, is by far the most versatile & affordable mine lighting platform available worldwide, it exhibits all the outstanding features which made the **HALO** LED Strip lighting so popular such as quality, reliability, high lumen output and longevity to name a few but masterfully engineered into a high quality & very cost-effective solution that is easy to install and requires no maintenance whatsoever.
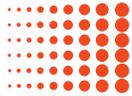
- Premium Grade Lighting
- 100% Waterproof - IP68 rated
- Dust-Tech Tm Integrated dust repellent technology
- Proven life expectancy exceeding 10 years
- Designed to manage continuously on conditions 24/7/365
- Suited for extreme heat/extreme cold operating temperatures from -45 °C (-49 °F) to +45 °C (+113 °F)
- Non-Corrosive
- Fire retardant
- Zero toxicity when burned
- Halogen free cabling
- Zero maintenance
- Patented 2013
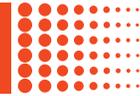- Double for Your Trouble
- Upgrades available.

FIRE Resistant

24 7 365

ANTI-CORROSION

LONG LIFE

ZERO MAINTENANCE

Dust Proof

IP68

HF Halogen Free

IMPACT RESISTANT

FEATURES

FIRE

WATER

ICE

HALO DAISY CHAIN is available in all popular colours in 4 brightness options namely:

ALPHA – ULTRA BRIGHT | **BETA** – HIGH BRIGHT | **GAMMA** – MEDIUM BRIGHT | **DELTA** – LOW BRIGHT

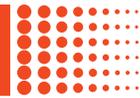| RED	GREEN	BLUE	AMBER	MAGENTA
2700K	3000K	4000K	5000K	6500K

2700K-3000K
Warm White

4000K
Cool White

6500K
Daylight

HALO DAISY CHAIN IS SUITABLE FOR THE FOLLOWING APPLICATIONS

- Mining
- Commercial
- Industrial
- Gas
- Petrochemical
- Marine Craft
- Military
- Submarine
- Ports
- Tunnels
- Subways
- Roadways
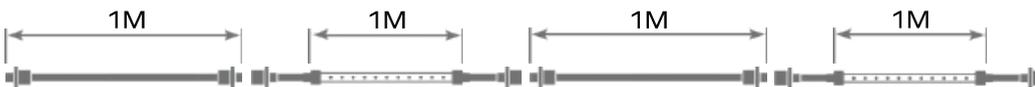- Residential
- Architectural

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HALO

INSTALLATION

The design consists of specialized cable jumpers available in lengths of 1m, 2.5m and 5m (custom lengths available) which are factory fitted on each end with IP68 adaptors; these adaptors enable the cables to be coupled together in any configuration to achieve any length desired. These lengths are followed by HALO T-Pieces or 4-Way pieces which are also complete with the IP68 adaptors which facilitates the continuation of the cable length and simultaneously the inclusion of any length of HALO LED Strip lighting.

HALO DAISY CHAIN 1+1 (1 Metre of HALO ALPHA 220V LED Strip followed by 1 Metre HALO Cable)

| 1M | 1M | 1M | 1M |

HALO DAISY CHAIN 1+2 (1 Metre of HALO ALPHA 220V LED Strip followed by 2 Metres HALO Cable)

| 2M | 1M | 2M | 1M |

HALO DAISY CHAIN 1+5 (1 Metre of HALO ALPHA 220V LED Strip followed by 5 Metres HALO Cable)
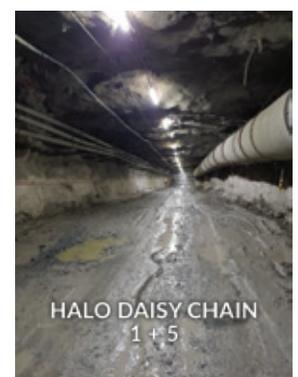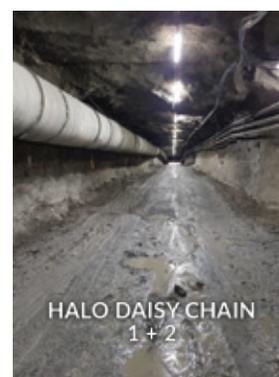
| 5M | 1M | 5M | 1M |

The jumper cabling provided is of a double PVC insulated cable design with wire mesh armouring, & complies fully with the international safety standards to ensure compliance with flammability, toxicity, smoke emission, etc. Due to the low power consumption of HALO, the conductor core size is only 1.5mm which incurs massive overall savings in cost.

For most typical underground overhead or vertical installations, the **HALO** LED strip lighting is attached to straining wires by means of our purpose made '**HALO** CLIPS', with most other general installations making use of the **HALO** ALUMINIUM CHANNELS with optional covers, however the **HALO** LED strip lighting may be attached to most surface structures through the use of glue.

Things to avoid during installation:
- Sharp bends on LED strip
- Unsupported and hanging on own weight
- Stress on connectors
- Stress on LED strip

BEFORE

AFTER

HALO DAISY CHAIN 1 + 2

HALO DAISY CHAIN 1 + 5

SOS COMPATIBILITY

HALO SOS COMPATIBILITY allows for multiple & diverse HALO product compatibility & interchangeability to provide a wholistic & full turnkey solution for all your lighting requirements:
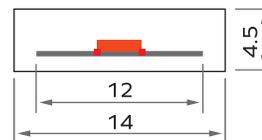
HALO DAISY CHAIN SOS (Strategic Optimal Synergy)

- HALO 1
- HALO 3
- HALO PORTABLE
- HALO EMERG
- HALO EMERG EVAC
- HALO ULTRA LONG DISTANCE
- HALO ULTRA BRIGHT
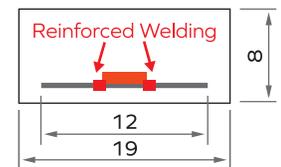- HALO SIGNAL
- HALO BATTEN
- HALO APEX

OPTIONAL UPGRADES

TOUGH-TECH ™

This upgrade includes almost doubling the protective silicone extrusion further increasing the impact resistance to unbelievable levels of IK09, plus the implementation of reinforced internal welded connections.
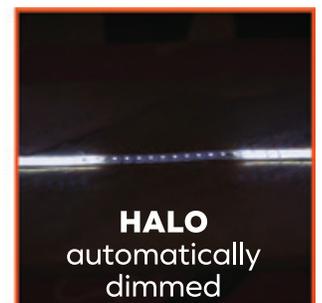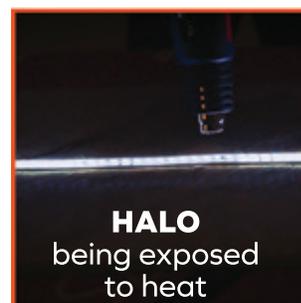
Standard **HALO**

4.5
12
14

TOUGH-TECH **HALO**

Reinforced Welding
8
12
19

TEMP-TECH ™

With this upgrade, each PCB or LED cluster segment is fitted with intelligent temperature management technologies, which will in the event of exposure to dangerously high temperatures, it will automatically dim the specific PCB affected only, thereby allowing the LED's to return back to within safe temperature parameters, & once this has been achieved, then the LED's will automatically return to full power lumen output.

NOTE: TEMP-TECH comes as standard feature in **HALO 1 LV**.

HALO being exposed to heat
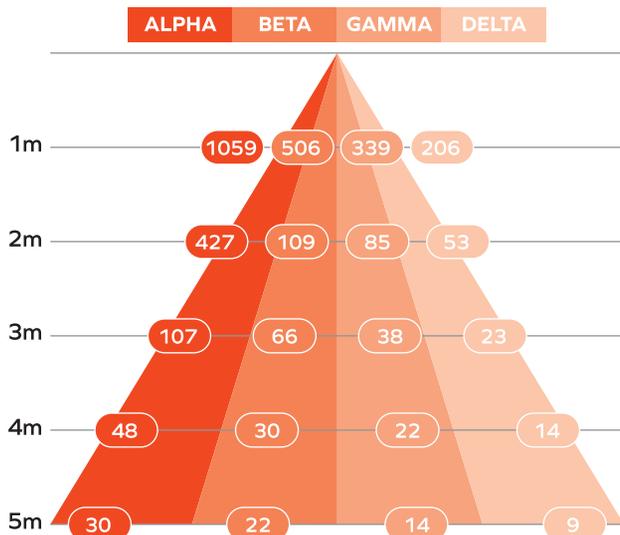
HALO automatically dimmed

MOOD-TECH ™

With the MOOD-TECH Tm upgrade, you can soften the temperament of your lighting providing zones with a more softer mood, for communal areas such as canteens, refuge bays, meeting areas, et cetera, without compromising on high lumen output.
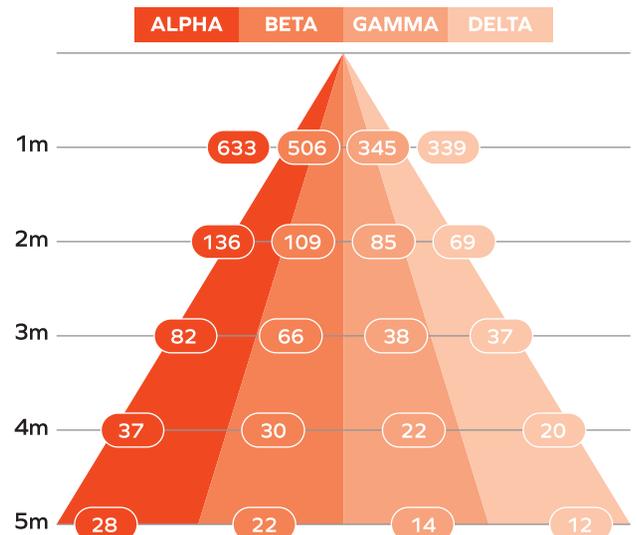
HALO 1 - 230VAC / 110VAC (LV - Low Voltage)

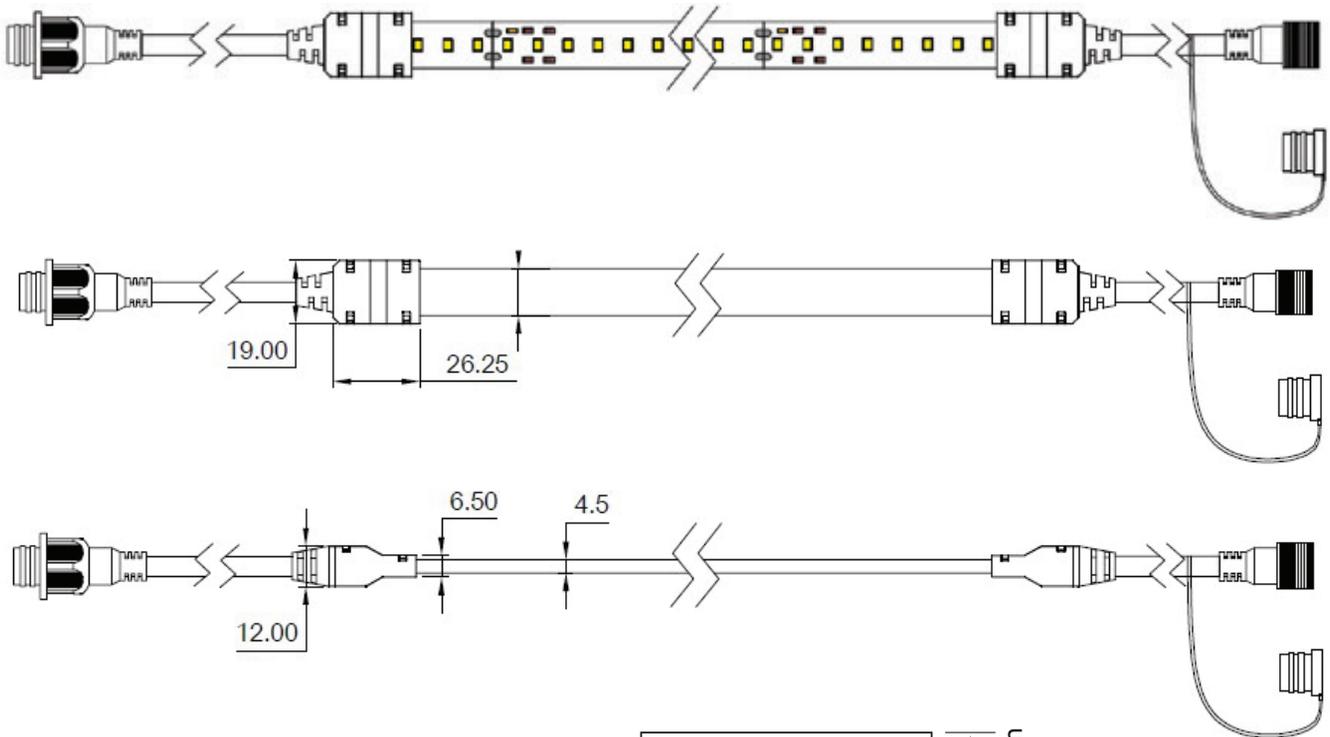| Category	ALPHA	BETA	GAMMA	DELTA	ALPHA	BETA	GAMMA	DELTA
Voltage rating	230VAC				110VAC			
Range fed from ONE side	100 Metres				80 Metres			
Range fed from BOTH sides	NA				NA			
Operating temperature	-45°C - 45°C				-45°C - 45°C			
IP Rating	68				68			
Power Consumption /metre	16W	12W	12W	8W	16W	12W	12W	9.6W
Colour Rendering Index (CRI)	>80				>80			
Colour temperature	5500 Kelvin				5500 Kelvin			
Lumens per metre	1500-1600	1200-1300	920-1100	700-800	1500-1600	1100-1200	920-1100	800-900
Supply Voltage VAC	200 ~ 240VAC				90 ~ 140VAC			
Expected Lifespan	10 Years +				10 Years +			
Warranty Lighting	10 Years				10 Years			
Fire Retardant	Yes				Yes			
Outer Extrusion	Food Grade Silicone				Food Grade Silicone			
Dimensions	4.5mm x 14mm				4.5mm x 14mm			
Tensile Strength	+- 50kg - 60kg				+- 50kg - 60kg			
Overvoltage Protection	Yes				Yes			
Overheat Protection	Yes				Yes			
Dust Repellant	Yes				Yes			

HALO 1 - 230VAC LIGHT GRAPH

ALPHA	BETA	GAMMA	DELTA

	ALPHA	BETA	GAMMA	DELTA
1m	1059	506	339	206
2m	427	109	85	53
3m	107	66	38	23
4m	48	30	22	14
5m	30	22	14	9

Measured in lux
Readings may vary slightly depending on site conditions

HALO 1 - 110VAC LIGHT GRAPH

ALPHA	BETA	GAMMA	DELTA

	ALPHA	BETA	GAMMA	DELTA
1m	633	506	345	339
2m	136	109	85	69
3m	82	66	38	37
4m	37	30	22	20
5m	28	22	14	12

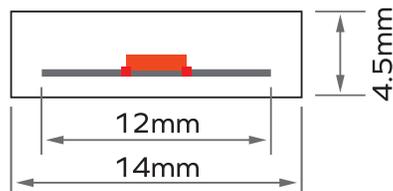**Measured in lux**
Readings may vary slightly depending on site conditions

TECHNICAL DRAWINGS

19.00

26.25

6.50   4.5
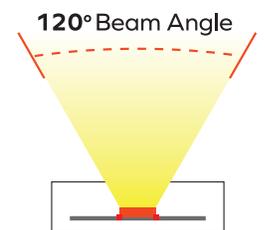
12.00

Standard **HALO**

4.5mm

12mm

14mm

FOCUS-TECH ™

120° Beam Angle
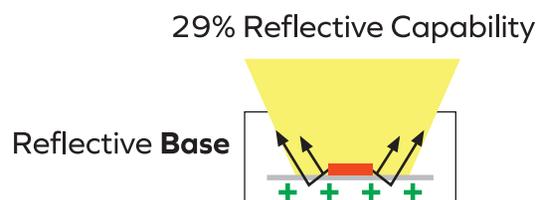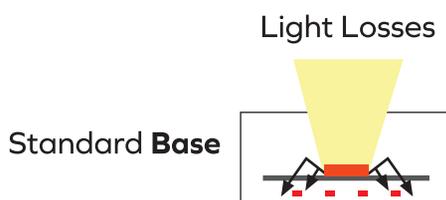
With the implementation of FOCUS-TECH™ technologies as a standardized upgrade on all HALO LED Lighting; all LED's now have a focused 120° beam angle which considerably improves light quality, efficiency & intensity with a remarkable increase in lumen output.

REFLECT-TECH ™

All HALO LED Strip lighting configurations has as a standard feature the incorporation of our REFLECT-TECH™ technologies, this feature incorporates cutting edge reflective technologies, meticulously engineered to cover the entire PCB LED base, thereby reflecting all previously lost lumen output, into the main beam of lighting, drastically increasing the efficiency of your lighting.

Light Losses

29% Reflective Capability

Standard **Base**

Reflective **Base**

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PART NUMBER GENERATION

SPECIFICATIONS HALO 1							
Category	ALPHA	BETA	GAMMA	DELTA	ALPHA	BETA	GAMMA	DELTA
Voltage Rating	230VAC				110VAC			

Example: Name HALO 1 + Category GAMMA + Voltage Rating 230VAC = HALO 1 - GAMMA - 230VAC

WARRANTY

10 YEAR WARRANTY - 5 Year 'Double for your trouble'

HALO products have a proven lifespan exceeding 10 years, with **HALO DAISY CHAIN** carrying a full **10-year warranty**, this warranty is backed up with a **'Double for your trouble'** replacement policy for the **first 5 years**, which means that we replace double the quantity of any product failures as quickly and as efficiently as possible.

Limited to LED strip lighting excluding accessories falling under general 'one-for-one' warranty replacement policies. With **HALO**, even when you think you lose, you always win.

5 YEARS

Whatever the trouble... receive back **DOUBLE!**

CERTIFICATIONS

ISO9001:2015 SAA | RCM, CE ROHS (TUV) | ETL – C / US (Intertek) | Fire Resistant (MASC) | Toxicity (Firelab) | Anti-Static (MASC) | FCC (GTS) | Dustproof, IP68 Waterproof

HALO

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