The Halo Light™

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THE NEED

Safety concerns are a natural part of many outdoor human experiences, across many jobs and industries including construction, mining, and emergency services, as well as many day-to-day activities such as biking, hiking, and running. One common consistency across these varied experiences is the need to see and be seen in low light and low-visibility conditions. Today, we are still relying on the reflective vest as the primary means for illuminating a person at risk – a product that came out in the 1970s and hasn’t significantly changed in over 40 years – creating a need for safety products that matches today’s demands for safer work environments.

This void in the market creates an opportunity to deliver a better experience through innovative products; products that radically improve the safety of people working in risky environments, making them more visible and more productive by lighting their personal work area better. Doing so has the potential to increase productivity and reduce on-site accidents, which in turn would reduce worker compensation claims and lower insurance costs. For these reasons, ILLUMAGEAR founder and CEO Max Baker invented The Halo Light™ in 2012.

Figure 1 Nighttime Paving Inspector with The Halo Light
THE TECHNOLOGY
The Halo Light™ is a personal active safety system that attaches to any hard hat, illuminating the wearer 360° and enabling him or her to see the task area and to be seen by others in all directions at all times, especially in low light conditions (See the product demonstration video at http://illumagear.com/company/media).

Unlike standard reflective gear, The Halo Light actively illuminates the worker and is not dependent on a secondary source of light reflecting at the right angle. Unlike headlamps, The Halo Light is designed specifically for a hard hat, lights the entire task area without adjustment, and illuminates the worker in all directions. And unlike area task lights, The Halo Light is portable and personal, illuminating the task area without shadows regardless of where the worker moves.

The Halo Light is built for construction. It installs in seconds on any hard hat, weighs little more than current headlamps while spreading the weight evenly across the head, and is built to survive in rough environments.

Many of the top construction companies in the world are using The Halo Light today. ILLUMAGEAR’s customers include 14 of the 30 largest US Contractors, over 150 of the ENR Top 400 Contractors, and 20 of the 50 State DOTs.
The Halo Light offers four lighting modes which are accessed by clicking the Mode Button at the back of the halo:

- **1 click – HALO** – full brightness in 360 degrees to help you see and be seen in all directions
  Example Use: moving around and performing a number of jobs around a job site
- **2 clicks – HI-ALERT** – provides a unique visual identifier by flashing the light in a 360-degree spin to maximize your chance to be seen by others
  Example Use: flagging or operating around cranes, moving vehicles and machinery
- **3 clicks – TASK** – maximum brightness on the front third to illuminate your immediate work area out to the visual periphery
  Example Use: working on a specific task in a darkened area
- **4 clicks – DIM** – a low-power, 360-degree light when working in close proximity to others
  Example Use: having a face-to-face conversation with another person

**Technical specifications:**
- **Dimensions:** 38 x 263 x 308mm (not including strain relief cord)
- **Weight:** 266g
- **Illumination:**
  - Halo mode: 276 lumens, 25.64 foot-candle
  - HI-Alert mode: fluctuating luminosity
  - Task mode: 259 lumens, 82.4 candela
  - Dim mode: 49 lumens
- **Power:** 7.2 volts @ 0.6 amps
- **Safety Standards:** UL24, UL1638, UL 8750, IEC/EN 60598-1, IEC/EN 60598-2-4, IEC/EN 62031, CSA9, CSA C22.2 No.9, CSA C22.2 No.250.13, FCC Part 15-b
• IP Rating 67
• Dielectric strength measured from Halo to Battery Pack: 9000V minimum

![Figure 3 The Halo Light](image)

**The Benefits**

- Provides visibility at all times in all directions over 1/4 mile away
- Fully illuminates your task area out to your visual periphery
- Rechargeable lithium-ion battery provides over 12 hours on full power
- Connects securely to almost any hard hat

**Status**

The Halo Light from ILLUMAGEAR has been honored with 16 product and safety innovation awards including the Construction Innovation Forum’s NOVA Award, the American Traffic Safety Services Association (ATSSA) Innovation Award, and the American Road & Transportation Builders Association (ARTBA) Roadway Work Zone Safety Award, as well as endorsement from the American Association of Safety Councils.

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REFERENCES

REVIEWERS
Peer reviewed as emerging construction technology

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