



—Highlights of Our Environmental Activities in FY 2016—

Creating Value from Light and Illuminating a Bright Future

Here we will report on the new environmental activities that the Stanley Group has been working on, as well as activities that are worth taking note of.



Contributing to safety via boosting visibility

Successfully miniaturizing and reducing the weight of headlamps

Many of our products come equipped on the new CX-5 from Mazda Motor Corporation, including its headlamps, rear combination lamps, rear fog lamps, high-mount stop lamps, and more.

For the headlamps, we have developed a new Bi-function LED unit, as a move away from conventional 4 lamp system LED units, in an effort to miniaturize them and reduce their weight. Moreover, increasing the Adaptive Driving Beam (ADB) partitions from four to twelve segments makes it possible to control the light distribution to suit a variety of different situations, which contributes to further improving safety by boosting visibility.



► See Page 24 for details



First ever UV bactericidal functionality built into a Chinese water purifier

Supplying safe and secure water via powerful bactericidal capabilities

VIOMI is a Chinese manufacturer of home water purifiers that builds our UV cold-cathode lamps into its products.

This is the first time that UV bactericidal functionality has been built into a Chinese water purifier. Our product is small, yet features a long operating life, low energy consumption, and powerful bactericidal capabilities. It uses the power of light to sterilize the germs found within water that cannot be removed with filters, thereby supplying safe and secure water.



Red boxes:
Our built-in UV cold-cathode lamp

Views

An initiative realized through the combined efforts of Japan and China

Lin Yi (left)
Sales Department, Shanghai Stanley
Takako Kuwabara (right)
Sales Department, Head Office



This is an initiative that was tackled through the combined efforts of our Shanghai staff and the design, production, and planning departments of Stanley Japan. The end product was put to use in sterilizing drinking water, which is a first for Stanley. Moving forward, we will continue to provide safety and peace of mind by using the power of light to sterilize the water that is absolutely essential for human life.



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A wide range of far-field lighting with minimal electricity consumption

Illuminate Niagara Falls with vivid colors

Our ultra narrow light angle 2.5° LED floodlights equipped with the same optical technology as our headlamps were adopted to light up Niagara Falls, one of the world's foremost tourist attractions. The previous equipment used a 4kW xenon arc bulb. But our LED floodlight with improved luminous efficiency offers electricity consumption reductions of roughly 60%, even when you include that from the peripheral equipment involved with the lighting.

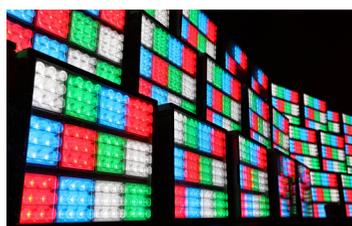
Moreover, the xenon arc bulbs were capable of expressing colors through a combination of four color filters. But our LED floodlights are capable of expressing more than 16.77 million colors through combining and dimming the four colors of red, green, blue, and white, thereby achieving detailed colorations. Our products serve to further accentuate the nighttime charm of Niagara Falls.



Canadian Falls



Far: American Falls; Front: Canadian Falls



Installation of 1,400 LED floodlights
 A collaborative project with four local Canadian companies*



Smooth operation with the feel of a tablet
Achieving a fully-flat profile with our capacitive sensing touchscreen

Konica Minolta, Inc.'s A3 full-color multifunction copy machines come equipped with control panels from Stanley Electric. The control panel has a comfortable 10.1-inch large, liquid crystal display that is both easy to see and operate, thereby improving work efficiency in office environments. We achieved a stepless, fully-flat profile and gave it multitouch functionality by using a capacitive sensing touchscreen, thereby enabling smooth operation with the feel of a tablet. Despite the large liquid crystal screen, the controls were made slim and compact, thereby substantially reducing the amount of resin used. Making the keypad optional also contributes to further reducing the amount of resin used. Efforts have also been made to effectively use resources and make these environmentally-friendly by using recycled resin for some of the control components.



◀ Views

We succeeded in brightly and uniformly illuminating falls that are 600m away using Stanley's technology

Tony Abe
 Stanley Electric Sales of America

Stringent requirements were placed on the Niagara Falls project, in which the lighting equipment was to be renewed for the first time in roughly 20 years. We had to double the brightness, use color mixing to produce a multi-color display, and reduce power consumption by approximately 60% through environmental considerations, among others. But by aggregating together Stanley's technologies, we were able to surmount these challenges. I encourage everyone to enjoy the light display that takes place at night at the world-famous tourist attraction of Niagara Falls.

*Salex Inc., Scenework Consulting Ltd., Ecco Electric Ltd., Mulvey & Banani Lighting Inc.



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Appraisal for our activities to reduce energy
 Vietnam Stanley Electric won the Effective Energy Management Award

In May 2016, Vietnam Stanley Electric Co., Ltd. won the Effective Energy Management Award for its ongoing activities to reduce energy over three years from the Ministry of Industry and Trade of Vietnam. For this award, 16 companies were selected from among 300,000 Vietnamese companies, of which only one was given the award.

Vietnam Stanley Electric switched its hydraulic molding machines over to the latest servomotor-driven molding machines, and switched its mercury and fluorescent lights to LED lights. These and other efforts enabled it to reduce its CO₂ emissions over a three-year period by 4,734t-CO₂, which resulted in reducing their electricity fees by 61 million yen. The company will continue to implement proactive activities to reduce energy in the future.



▶ Other environmental awards: See page 17 for details



Introduction to our environmentally-friendly initiatives
 Installation of a display corner within Shonai Airport

We set up a standing display that lasted for two months from July 27 – September 30, 2016 consisting of a piece of artwork that used Glass Packaged LED (GPL), LED headlamps, and more at the Shonai Airport, which is located near Stanley Tsuruoka Works. GPL achieves power savings and long operating lives while still recreating a glittering sensation, sense of warmth, and retro feel from incandescent light bulbs that had previously been difficult to reproduce. The display corner was located on the departure lobby floor, where it introduced numerous airport users to Stanley's environmentally friendly initiatives.



GPL artwork shining brightly



Raising awareness of environmental protection
 Taking part in the Shenzhen Green City Tree-Planting Campaign

Employees from Shenzhen Stanley Electric Co., Ltd. (China) and their families take part in the Shenzhen Green City Tree-Planting Campaign that has been held every year since FY2007 in Shenzhen City by planting trees.



Every year they plant trees in a nearby region that has now amounted to 340 trees. Company name plates are installed with every single sapling, offering the joy and anticipation of growing together with the trees 10 and 20 years on into the future. Having their families take part in planting trees leads to raising awareness about the conservation of biodiversity and protecting the natural environment among our employees.

