

Next generation LED lights with a reduced power consumption of one fifteenth or less.

LED lights that will replace mercury lamps.

Features

- LED lights reduce running costs to as low as one fifteenth of existing mercury lamps. The lights can be used in combination with a solar power system or wind power generation system.
- LED lights can be applied to both outdoor and indoor use, including billboard lighting, parking lot lighting, street lamps, factory lighting, and canopy lights. Many LED lighting products have been delivered to facilities in both the private and public sectors in the past 12 years.
- The proprietary light distribution properties achieved by multiple types of special lenses enable super-wide angle lighting of billboards with just a single light unit. This feature reduces the number of lights compared with mercury lamps or standard LED lights.

Overview

(Technical principles, actions, etc.)

Hikari Telecommunication System has released LED wide square lights as a new alternative to mercury lamps. The lights enable super-wide angle light distribution by adopting multiple special lenses. The lights are expected to reduce the number of installed light units compared with standard mercury lights or other LED lights to provide the same brightness. This leads to initial costs that are lower than conventional LED lights. For example, 4 units of existing LED lights required for a certain space can be replaced with one or two wide square lights to provide sufficient brightness (Patent Number 4746152).

The product specifications include measures for enhancing water resistance, salt resistance and weather resistance to allow outdoor and indoor use. Furthermore, drivers and other control devices are provided externally to downsize/reduce the weight of the square lights, reduce the defect rate, and simplify the structure. These features reduce faults and ensure a longer service life. LED powerful square lights equivalent to 700-W mercury lamps were released in December, 2013.



LED wide-square light products



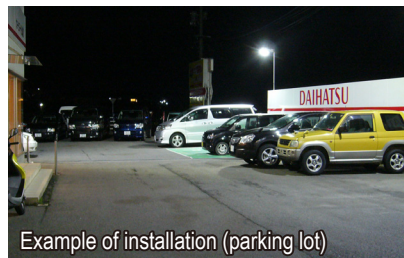
16 LED wide-angle type (95 W) made by company I
Example of installation (signboard 1) 6 of our products (102.3 W)



Example of installation (signboard 2)



Example of installation (signboard 3)



Example of installation (parking lot)



Example of installation (driving school)



Example of installation (factory)



Example of installation (swimming pool)



Example of installation (gas station)

Introductory Track Record

- The Philippines – LED lighting for farms, The Philippines – LED security lights
- The system has also been installed in public facilities, including government offices and schools, as well as World Heritage Sites and National Treasures.

Effects

LED wide square lights adopt a special distribution design and high power LED to obtain higher performance and provide the products with a maximized commercial value. Technically, they can be used as alternatives to conventional mercury lamps as a light source that provides the same brightness with a fewer number of units. The redundant thermal design adopted for our LED lighting products enables a service life of as long as 60,000 hours, i.e., 16 years assuming 10 hours of operation each day. This will reduce the number of lamp replacements, which has been an issue to be addressed, and personnel costs at the same time. Taking into account these benefits, the cost effectiveness in many newly constructed facilities will be sufficient to recover the initial cost within a year.

CO2 emissions are reduced to one fifteenth or less. In addition, approximately 90% of the LED lights can be recycled, while 100% of conventional light sources were disposed of as industrial waste.

Applicable field
Companies planning to introduce energy-saving equipment
Companies that must reduce power consumption.

Water

Energy saving/Energy recovery

Energy storage/Energy creation

New energy

Waste disposal/
Recycling/
Resource saving

Air

Soil

Other

Electric Lighting LED System Co.,Ltd

827-5 Yomi-cho, Yonago, Tottori 683-0851 Japan

● TEL / +81-859-24-0116 ● FAX / +81-859-24-2612 ● E-Mail / h-denki@fancy.ocn.ne.jp ● <http://www.hikari-system.com/>

※Note: This publication introduces examples of technologies and products believed useful towards solving environmental and energy issues. In no way does it constitute guarantees concerning their transfer or sale.