



# KS CERTIFICATE

This is to certify that the Korean Industrial Standard Mark(KS mark) of :

#### SEMI LIGHTING CP.,LTD.

#328-32, Docheogwit-ro, Gwangju-si, Gyeonggi-do, Korea Choi Seungja

has been approved by Korean Standards Association to the following Korean Industrial Standard:

KS C 7658

LED luminaires for road and street lighting

LED road luminaires: above 70W less than 150W / LED safety luminaries: less than 70W. end

in accordance with the Korean Industrial Standardization Act.

Certificate Number: 12-1415

Certification Date:

25-Jul-2012

Current Certificate:

17-Jun-2013

Certified by Chang Ryong Kim President

# KOREAN STANDARDS ASSOCIATION

Appliance No.: LED Safety Luminaires-No: 329

Validation period: 2012.09.21~2015.09.20



#### Certificate of High efficiency energy using appliance

- ① Company Name(Company ID No) Semi-Lighting Co.,Ltd (134211-0103533)
- ② Office Address #328-32 Docheogwit-ro Gwangju-si Gyeonggi-do Korea
- 3 Factory Address

#328-32 Docheogwit-ro Gwangju-si Gyeonggi-do Korea

**4** Certified Appliance

#### Characteristics of the Appliance

1.Power Factor: - 2.THD: - 3.Color Temperature: 5,200K

4.MIN.Road Illuminance(S4-H-D0): 10 lx 5.Color Rendering Index: 86.3

6.Luminous Source and LED Package Manufacturer (SAMSUNG)
7.Converter Manufacturer: Semi-Lighting(KC HK11026-10004)

Appliance : LED Safety Luminaires

Type : LED Safety Luminaires

Model : HRA-L5S

Capacity: AC220V 60Hz 25W

Efficiency: Luminaire efficiency 144.2 lm/W

This is to certify that the appliance above has been certified as High efficiency energy using appliance in accordance with the Rationalization of Energy Utilization Act clause 4, Article 22.

September 21, 2012.

## Korea Energy Management Corpora

<Date of the Initial Certification> 2012.09.21

Reference: This certificate is valid for three years from the date of issue. It is necessary to make an application within 90 days before the expiry date if your company wants to extend the validity period.



Appliance No.: LED Safety Luminaires-No: 551

Validation period: 2013.09.02~2016.09.01



### Certificate of High efficiency energy using appliance

- (1) Company Name(Company ID No) SEMI LIGHTING (134211-0103533)
- ② Office Address #328-32 Docheogwit-ro Gwangju-si Gyeonggi-do Korea ③ Factory Address

#328-32 Docheogwit-ro Gwangju-si Gyeonggi-do Korea

**4** Certified Appliance

#### Characteristics of the Appliance

1. Power Factor: 0.95 2. THD: 20.6% 3. Color Temperature: 5851K

4. MIN.Road Illuminance(S5-H-D1): 5lx

5. Color Rendering Index:

- 6. Luminous Source and Package (SAMSUNG ELECTRONICS)
- 7. Converter Manufacturer: SANGJI CORPORATION CO., LTD(KS 10-0161)

Appliance : LED Safety Luminaires

: S5-H-D1 Type

: HRA-L10S Model

: 46W Capacity

Efficiency: Luminaire Efficiency 117.8lm/W

This is to certify that the appliance above has been certified as High effic iency energy using appliance in accordance with the Rationalization of En ergy Utilization Act clause 4, Article 22.

September 2, 2013.

## Korea Energy Management Corpor

<Date of the Initial Certification> 2013.09.02

Reference: This certificate is valid for three years from the date of issue. It is necessary to make an applic ation within 90 days before the expiry date if your company wants to extend the validity period.



Appliance No.: LED Safety Luminaires-No: 673

Validation period: 2014.03.18~2017.03.17



#### Certificate of High efficiency energy using appliance

① Company Name(Company ID No) SEMI LIGHTING CO.,LTD. (134211-0103533)

2 Office Address

#328-32 Docheogwit-ro Gwangju-si Gyeonggi-do Korea

3 Factory Address

#328-32 Docheogwit-ro Gwangju-si Gyeonggi-do Korea

**4** Certified Appliance

#### Characteristics of the Appliance

1. Power Factor: 0.94 2. THD: 10%

3. Color temperature: 5,073K 4. Min Illuminance(S4-H-D0): 23lx

5. CRI: 84 6. Luminous source and Package(Samsung)

7. LED Converter: Unionelecom, KS(10-0161)

Appliance: LED Safety Luminaires

Type : S4-H-D0 Model : HRA-L30

Capacity: 30W

Efficiency: Luminaire Efficiency 133lm/W

This is to certify that the appliance above has been certified as High effic iency energy using appliance in accordance with the Rationalization of Energy Utilization Act clause 4, Article 22.

March 18, 2014.

## Korea Energy Management Corporat

<Date of the Initial Certification> 2014.03.18

Reference: This certificate is valid for three years from the date of issue. It is necessary to make an applic ation within 90 days before the expiry date if your company wants to extend the validity period.

