## A new way to illuminate box signs

 G-NOR KE LED posterbox modules

- New LED based solution for box signs
-Why?
- perfect images
- uniform \& bright light without zebra-effect
- low energy consumption (reduction > 50\% !!)
- easy to install
- less maintenance
- How?
- LED's with special optics
- patented light effect in box (patent pending)
- 'light recycling' in the box


## N'́ <br> NOR G-NOR OPTOELECTRONICS Co.,Ltd.

Lighting
LED TECHNOLOGY


GNL-KE1W-3CW-WP OR GNL-KE3W-3CW-WP


GNL-KE1W-6CW-WP OR GNL-KE3W-6CW-WP

Dimensions

| G-NOR LED posterbox module |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D | E | F |
| KE SERTES |  |  |  |  |  |  |
| GNL-KE1W-3CW-WP OR GNL-KE3W-3CW-WP | 12" | 10.8" | 11.1" | 1.4 " | 0.84" | 0.18" |
| GNL-KE1W-6CW-WP OR GNL-KE3W-6CW-WP | 24" | 22.8 " | 23 " | 1.4" | 0. 84 " | 0.18" |



## Specification

| G-NOR LED posterbox module | Voltage | Lifetime | Color temperature | Beam angle | Ingress protection | Lumen output | No. of LEDs | Wattage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KE SERIES |  |  |  |  |  |  |  |  |
| GNL-KE1W-3CW-WP | 12 V | $50,000 \mathrm{Hrs}$ | 6300 +/- 700 | $120^{\circ}$ | IP66 | 1601m | 3 | 3W |
| GNL-KE1W-6CW-WP | 12 V | 50,000 Hrs | 6300 +/- 700 | $120^{\circ}$ | IP66 | 3201 m | 6 | 6W |
| GNL-KE3W-3CW-WP | 12 V | $50,000 \mathrm{Hrs}$ | 6300 +/- 700 | $120^{\circ}$ | IP66 | 4201m | 3 | 8W |
| GNL-KE3W-6CW-WP | 12 V | 50,000 Hrs | 6300 +/- 700 | $120^{\circ}$ | IP66 | 8001m | 6 | 15W |

Maximum number of modules to be connected to LED Power Driver

| LED Power Driver | $\begin{aligned} & \text { KE-3W } \\ & 12 " \end{aligned}$ | $\begin{aligned} & \text { KE-6W } \\ & 24 " \end{aligned}$ | $\begin{aligned} & \text { KE-8W } \\ & 12^{\prime \prime} \end{aligned}$ | $\begin{aligned} & \text { KE-15W } \\ & 24^{\prime \prime} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 30W | 10 | 5 | 3 | 2 |
| 60W | 20 | 10 | 7 | 4 |
| 150W | 50 | 25 | 18 | 10 |



## Easy to read signs with high attention value

 uniform lighting without "zebra" effectTL solution


G-NOR KE LED posterbox module



## Energy saving TL vs LED's

## average saving > 50\%

TL solution


G-NOR KE LED posterbox module


3 fluorescent tubes
$3 \times 36$ Watt $=108 \mathrm{Watt}$

6 KE-8W modules
$6 \times 8$ Watt $=48 \mathrm{Watt}$

## G-NOR KE LED posterbox module

 Installation instructions

Mounting with tapes

Installation instructions: double sided vs single sided


LED TECHNOLOGY
The proposal


