

# MATRIX LED INTEGRATION LIGHT BAR

2014/03



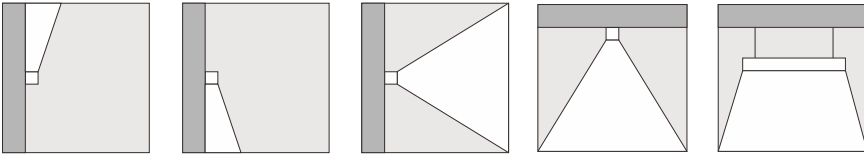
**SONARAY**

### Product Features

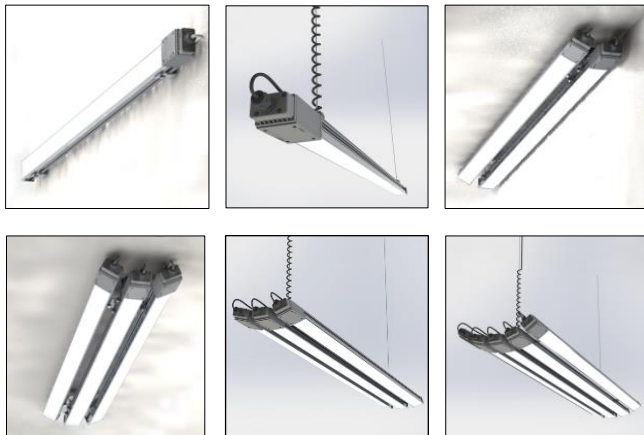
- High luminous efficiency, energy saving up to 70% compare of tradition lamp
- Modular design, can be used individually or in combination
- Fully sealed design, easy to clean and easy to maintain
- 30V low voltage design (LED section), more safety
- Easy maintenance (replaceable power supply)

### Installation

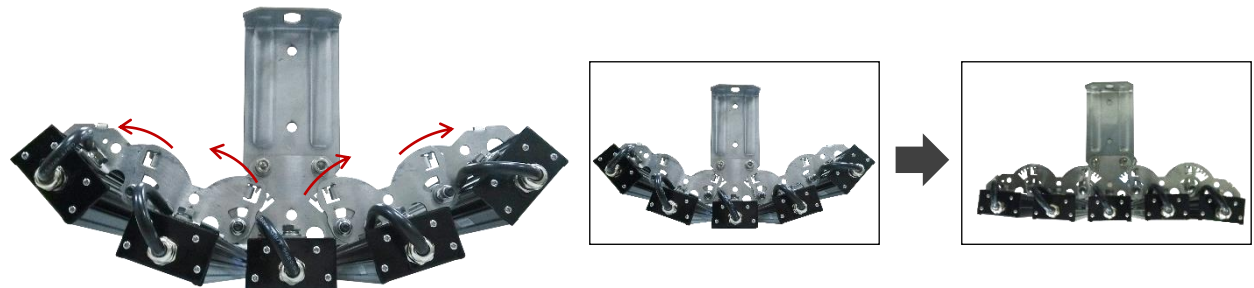
A variety of installation methods; can be used individually or in combination; replaces traditional fluorescent (with troffer or fixture) without changing the circuit .



### Combination



The angle can be adjusted.



## Matrix LED Integration

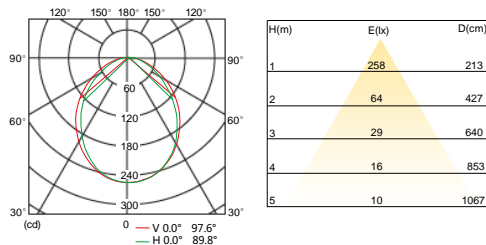
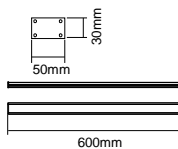
## Specification

### 10w



#### LB-1010

Power: 10W  
Luminous Flux: 900lm  
Luminous Efficacy: 90lm/w  
Color Temperature: 6000K  
CRI: Ra≥85  
Beam Angle: 93°  
Material: Aluminum  
Power Supply : External  
Input Voltage : AC 90-277V  
Output Voltage : 20-30V  
Power Factor : >0.95  
Weight: 1kg  
Operation Temperature: -25°C ~ +45°C  
Lifespan: ≥35000hrs

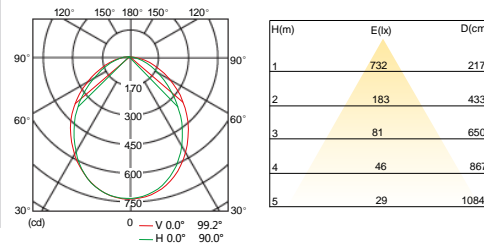
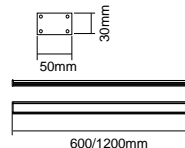


### 18w



#### LB-1018

Power: 18W  
Luminous Flux: 1676lm  
Luminous Efficacy: 93lm/w  
Color Temperature: 6000K  
CRI: Ra≥85  
Beam Angle: 93°  
Material: Aluminum  
Power Supply : External  
Input Voltage : AC 90-277V  
Output Voltage : 20-30V  
Power Factor : >0.95  
Weight: 1kg/1.74kg  
Operation Temperature: -25°C ~ +45°C  
Lifespan: ≥35000hrs

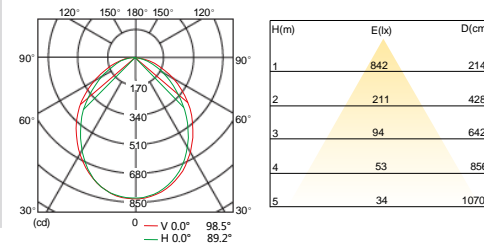
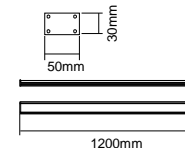


### 22w



#### LB-1022

Power: 22W  
Luminous Flux: 1980lm  
Luminous Efficacy: 90lm/w  
Color Temperature: 6000K  
CRI: Ra≥85  
Beam Angle: 93°  
Material: Aluminum  
Power Supply : External  
Input Voltage : AC 90-277V  
Output Voltage : 20-30V  
Power Factor : >0.95  
Weight: 1.74kg  
Operation Temperature: -25°C ~ +45°C  
Lifespan: ≥35000hrs

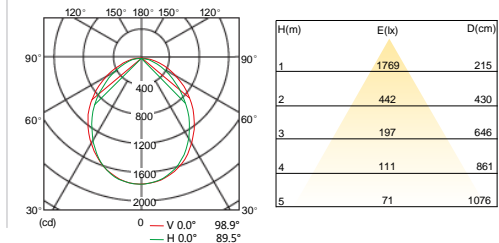
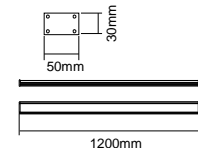


### 44w

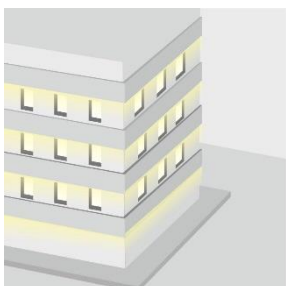


#### LB-1044

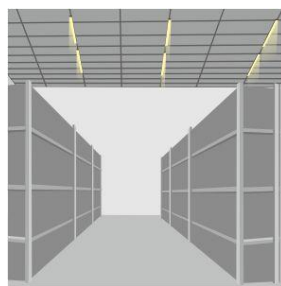
Power: 44W  
Luminous Flux: 4040lm  
Luminous Efficacy: 92lm/w  
Color Temperature: 6000K  
CRI: Ra≥85  
Beam Angle: 93°  
Material: Aluminum  
Power Supply : External  
Input Voltage : AC 90-277V  
Output Voltage : 20-30V  
Power Factor : >0.95  
Weight: 1.74kg  
Operation Temperature: -25°C ~ +45°C  
Lifespan: ≥35000hrs



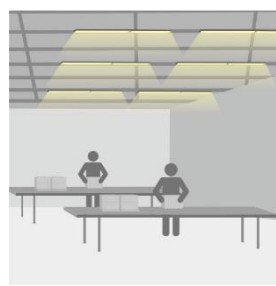
## Applications



Building Decoration



Low shed Warehouse



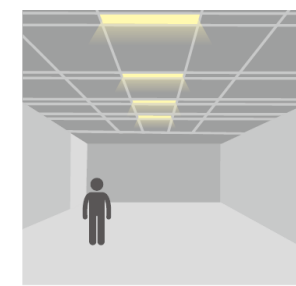
Food production plant



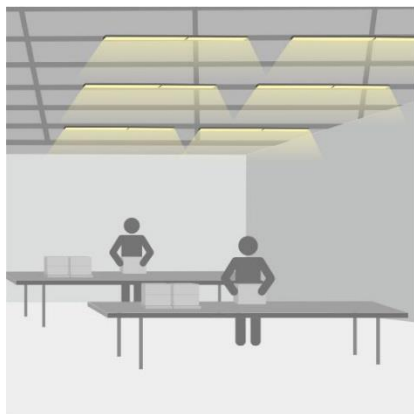
Parking Lot



Offices



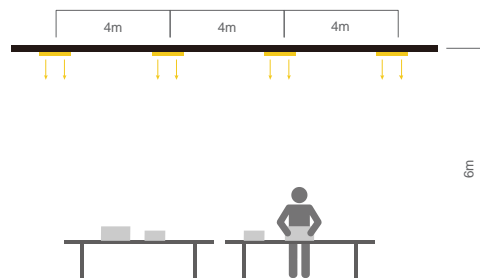
Pedestrian bridges, tunnel



Design Example : Flour, food factory

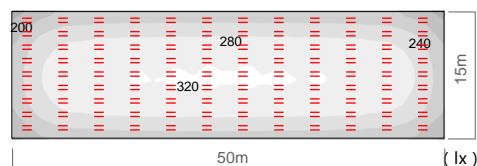
Design illumination : 300lx

Vertical section



Traditional lamp  
2×36W

Horizontal illuminance distribution

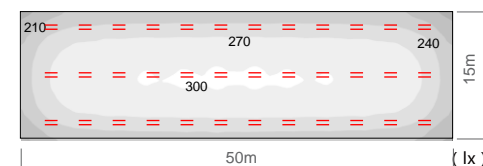


Lamp	Light Panel
Light source	Fluorescent tube
Initial Luminous flux ( lm )	2×2430
Lifetime ( hrs )	8000
Mounting height ( m )	6.0
Maintained average illuminance ( lx )	270
Total power ( W )	8532



LED Light Bar 44W  
SONARAY LB-1044

Horizontal illuminance distribution



Lamp	LB-1044
Light source	LED
Luminous flux ( lm )	4040
Lifetime ( hrs )	35000
Mounting height ( m )	6.0
Maintained average illuminance ( lx )	305
Total power ( W )	3168

Same  
brightness

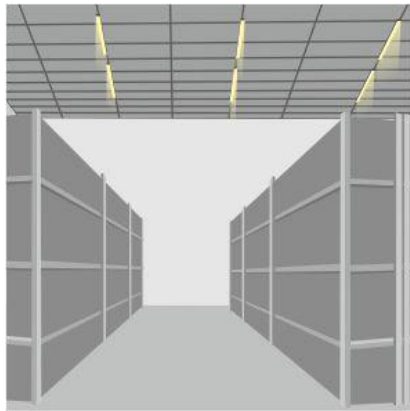
Energy  
saving  
63%

Reduce  
36 sets

5 times  
longer  
lifetime

※The traditional lamp power of light source is about 80% of the total power consumption.  
※The luminous flux of whole lamp is about 50% of light source..

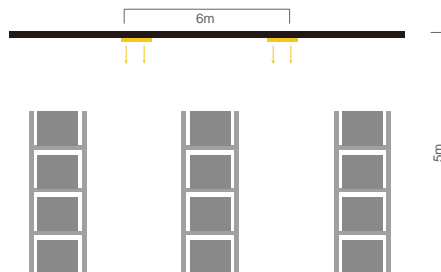




Design Example : Low shed Warehouse

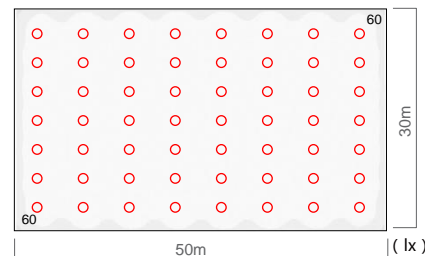
Design illumination : 75lx

Vertical section



Traditional lamp  
70W

Horizontal illuminance distribution

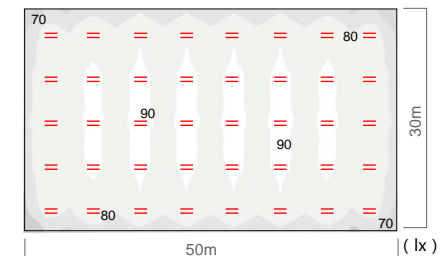


Lamp	Traditional Lamp
Light source	HPS
Initial Luminous flux ( lm )	6000
Lifetime ( hrs )	8000
Mounting height ( m )	5.0
Maintained average illuminance ( lx )	76
Total power ( W )	3920



LED Integration 22W  
SONARAY LB-1022

Horizontal illuminance distribution



Lamp	LB-1022
Light source	LED
Luminous flux ( lm )	1980
Lifetime ( hrs )	35000
Mounting height ( m )	5.0
Maintained average illuminance ( lx )	81
Total power ( W )	1792

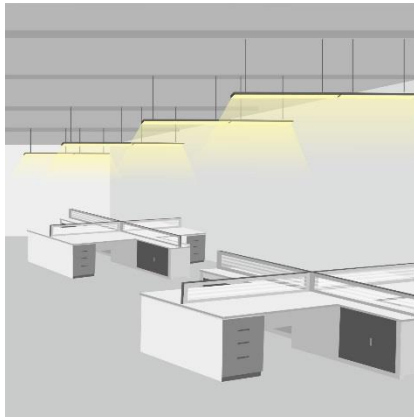
Same  
brightness

Energy  
saving 54%

Add 24  
sets

5 times  
longer  
lifetime

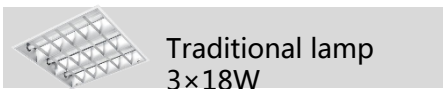
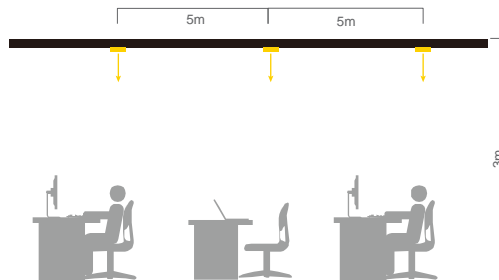
※The traditional lamp power of light source is about 80% of the total power consumption.  
※The luminous flux of whole lamp is about 50% of light source.



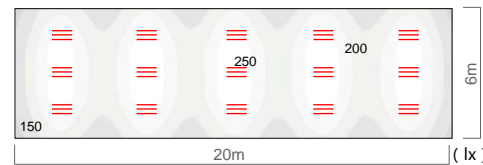
Design Example : Office area lighting

Design illumination : 200lx

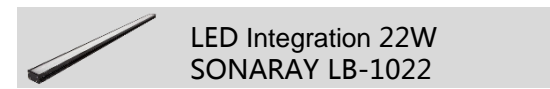
Vertical section



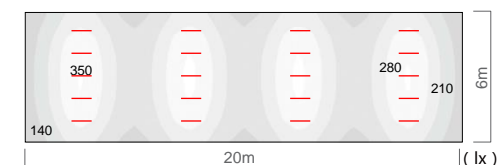
Horizontal illuminance distribution



Lamp	Light Panel
Light source	Fluorescent tube
Initial Luminous flux ( lm )	3×1260
Lifetime ( hrs )	8000
Mounting height ( m )	3.085
Maintained average illuminance ( lx )	201
Total power ( W )	1080



Horizontal illuminance distribution



Lamp	LB-1022
Light source	LED
Luminous flux ( lm )	1980
Lifetime ( hrs )	35000
Mounting height ( m )	3.0
Maintained average illuminance ( lx )	228
Total power ( W )	440

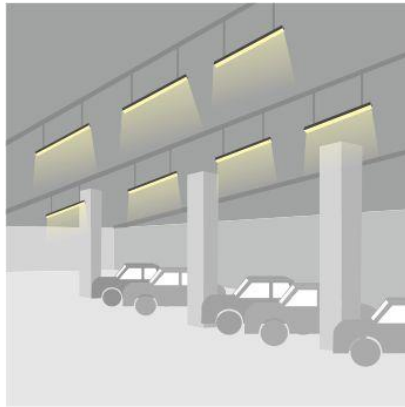
Same  
brightness

Energy  
saving 60%

Add 5  
sets

5 times  
longer  
lifetime

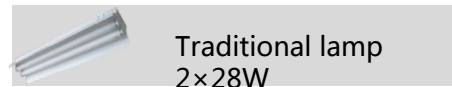
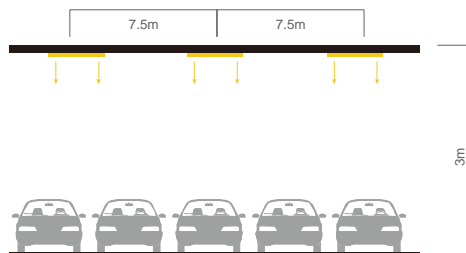
※The traditional lamp power of light source is about 80% of the total power consumption.  
※The luminous flux of whole lamp is about 50% of light source.



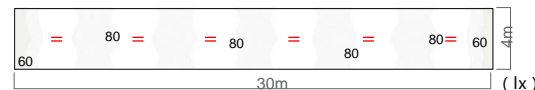
Design Example : Parking Lot

Design illumination : 75lx

Vertical section

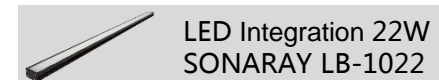


Horizontal illuminance distribution



Lamp	Light Panel
Light source	Fluorescent tube
Initial Luminous flux ( lm )	2×1930
Lifetime ( hrs )	8000
Mounting height ( m )	3.060
Maintained average illuminance ( lx )	80

※ The total power of light source is about 80% of the total power consumption.  
※ The luminous flux of whole lamp is about 50% of light source.



Horizontal illuminance distribution



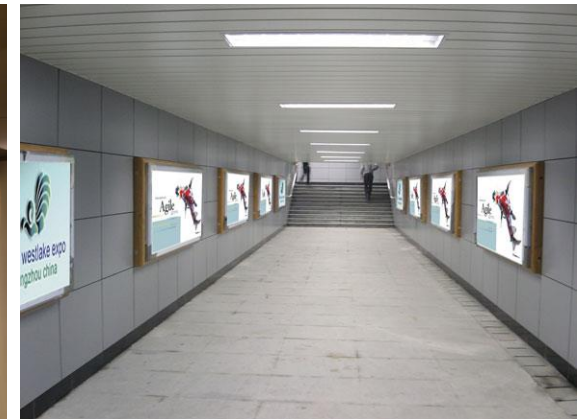
Lamp	LB-1022
Light source	LED
Luminous flux ( lm )	1980
Lifetime ( hrs )	35000
Mounting height ( m )	3.0
Maintained average illuminance ( lx )	78
Total power ( W )	176

Same brightness

Energy saving 50%

Add 2sets

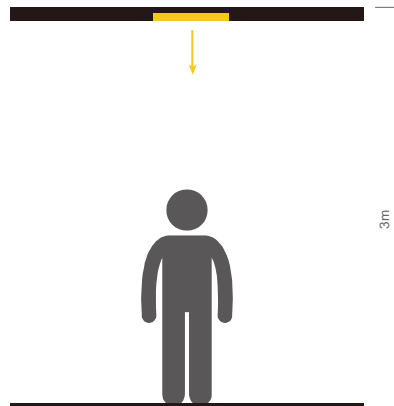
5 times longer lifetime



Design Example : Pedestrian bridges, tunnel

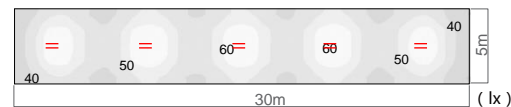
Design illumination : 45lx

Vertical section



Traditional lamp  
2×24W

Horizontal illuminance distribution

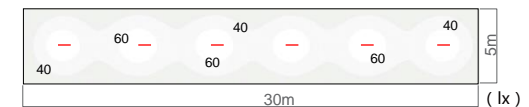


Lamp	Tube+Panel
Light source	Fluorescent tube
Initial Luminous flux ( lm )	2×1000
Lifetime ( hrs )	8000
Mounting height ( m )	3.0
Maintained average illuminance ( lx )	45
Total power ( W )	240



LED Integration 18W  
SONARAY LB-1018

Horizontal illuminance distribution



Lamp	LB-1018
Light source	LED
Luminous flux ( lm )	900
Lifetime ( hrs )	35000
Mounting height ( m )	3.0
Maintained average illuminance ( lx )	49
Total power ( W )	108

Same  
brightness

Energy saving  
55%

Reduce  
4sets

5 times  
longer  
lifetime

※The traditional lamp power of light source is about 80% of the total power consumption.  
※The luminous flux of whole lamp is about 50% of light source.