

# SPECIFICATION



## LED MODULE MINI RGB-1 DIODES - 0,72W - 24V M-RGB -1

### Areas of application

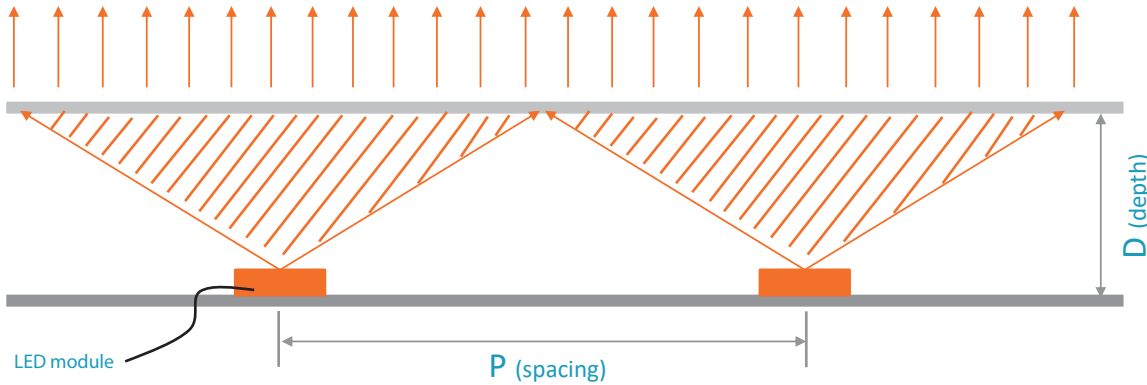
- Signage and illuminated advertising.
- Back-lighting for medium light box, channel letter.
- Best for 75mm ~ 200mm (3~8inch) depth

### Product main benefits

- Optical lens design can get better uniformity performance in application.



### Optics Technology



$$\text{optical performance proportion} = \frac{D(\text{depth})}{P(\text{spacing})} = 1:1.6$$

- The proportion of “P” and “D” can show the performance of lens optics design.
- The bigger proportion, the wider light spot.
- The proportion is for reference from lab, actual layout need based on real application.

### Electrical and Photometrical data

ELECTRICAL DATA	LED MODULE MINI RGB -1 DIODES
PART NUMBERS	M-RGB -1
Typical Voltage	24V DC
Energy Cons. (W/module)	0.72W
Light color (designation)	RGB
Typical Brightness (lumen/module)	27

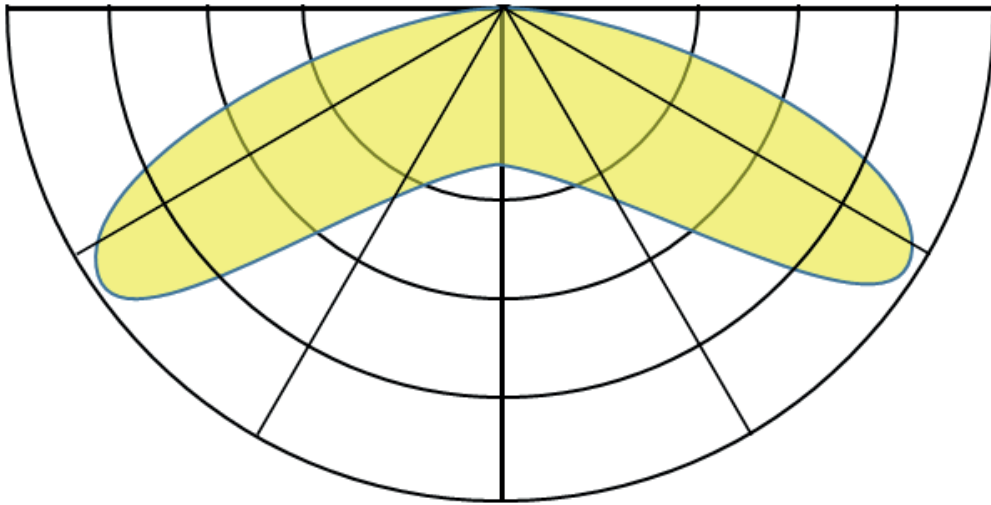
### Environmental and Application Conditions

Operating Environment ( t <sub>a</sub> )	-25°C to +50°C
Storage Temperature Range ( t <sub>s</sub> )	-40°C to +85°C
IP Rating	IP66
Lifetime (L70B50)	3 years
t <sub>c</sub> temperature	70°C
Dimming mode	Dimmable
Cutting Resolution	Cut on wire between every module

#### Remark:

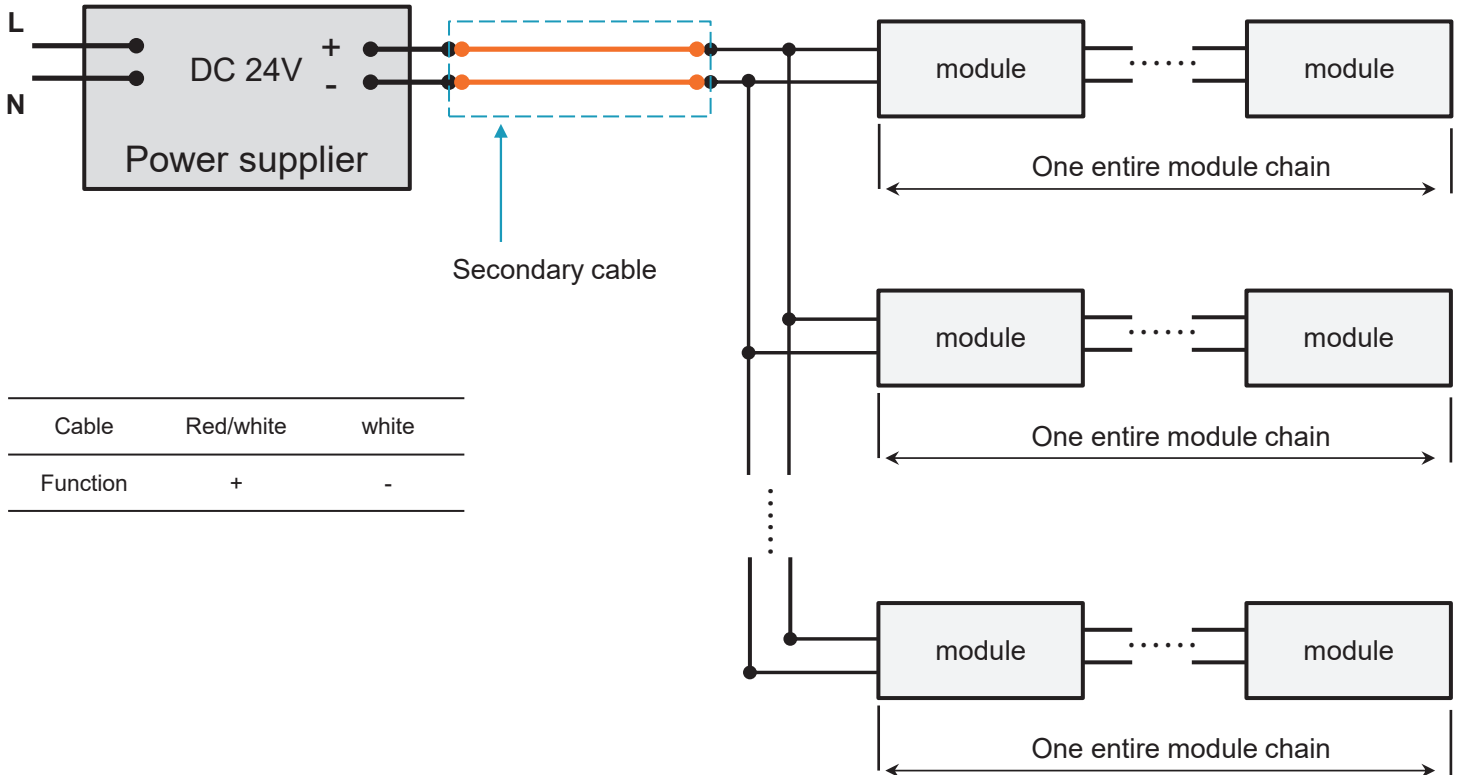
1. Ranking at t<sub>a</sub> = 25°C.
2. Constant voltage design.
3. Tolerance of measurements for power/lumen are ±10%.

## Beam Angle

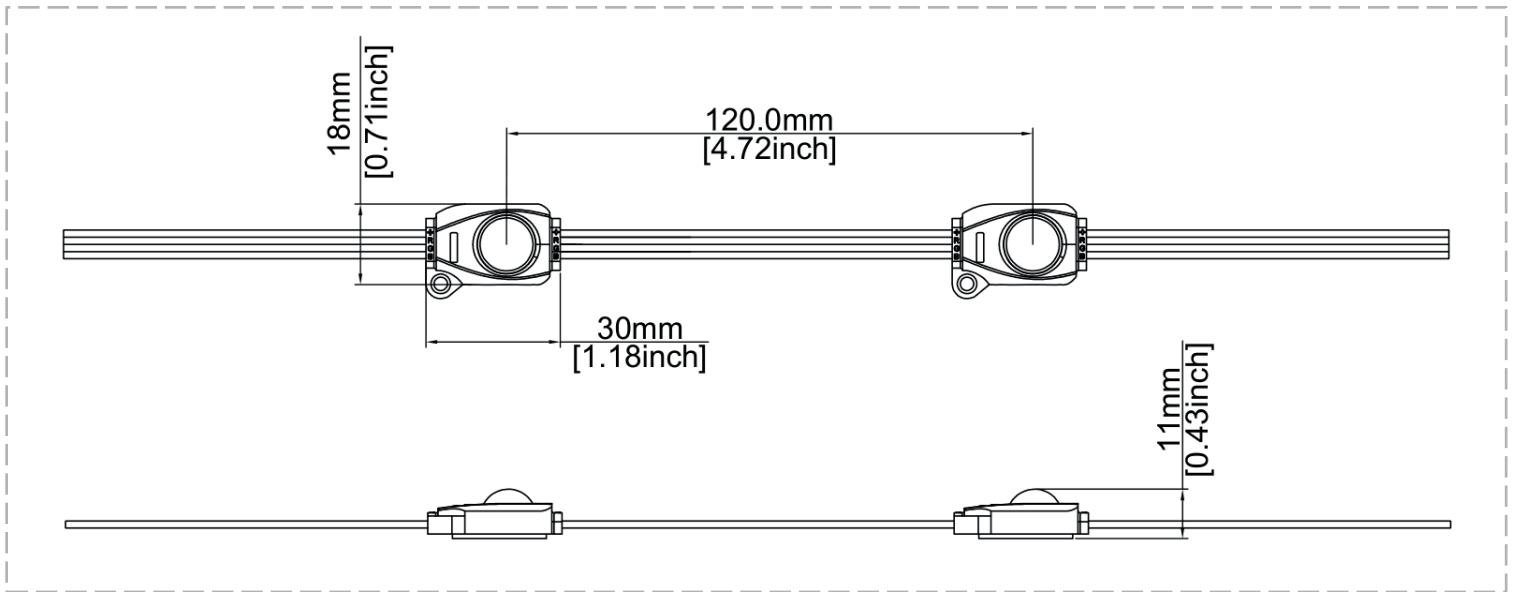


Beam angle: 150°

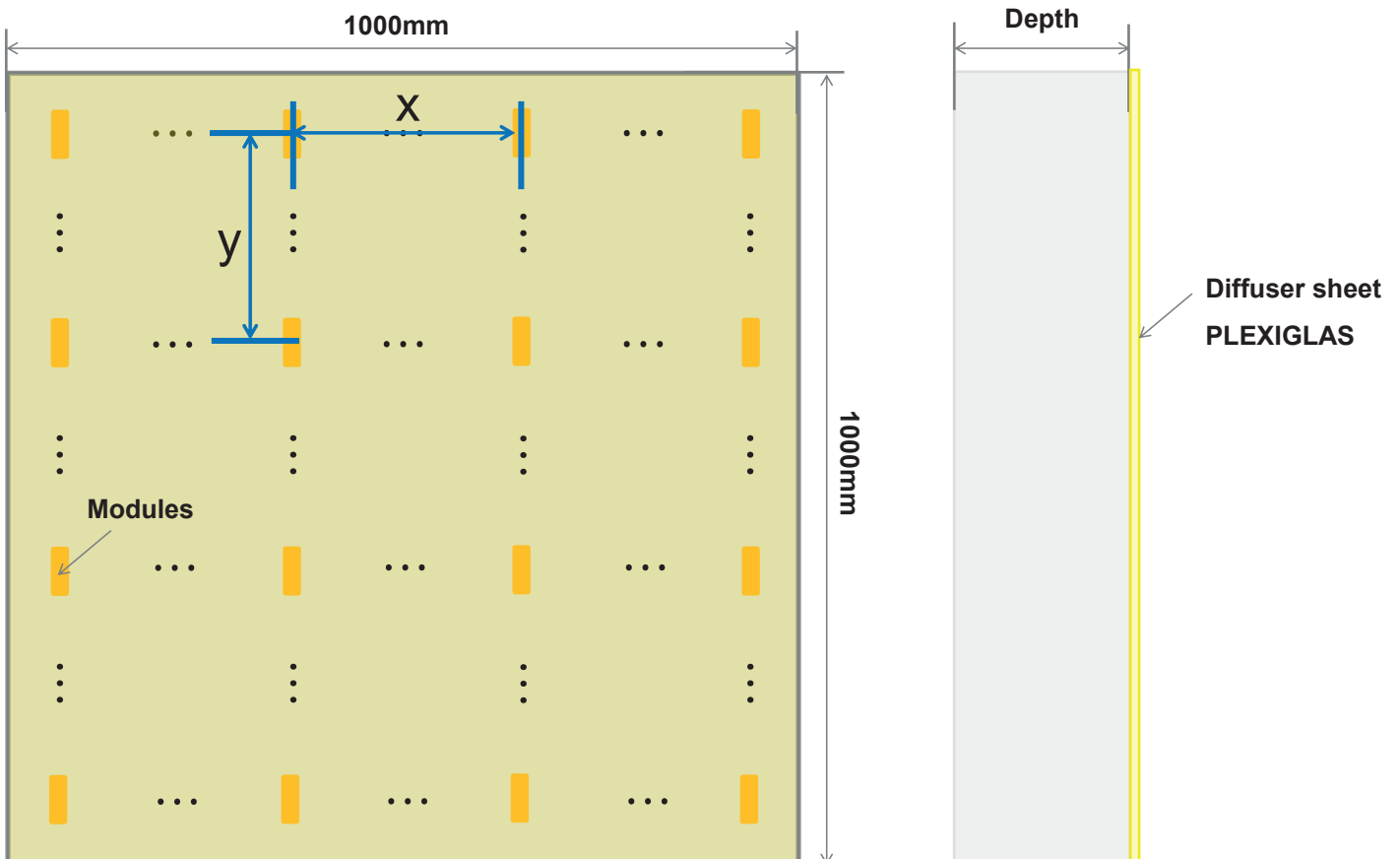
## Wiring Method



## Drawing



## Method Layout



- Lighting box information:
- Single side light box, back board reflection rate ~70%.
- Transparent material: PLEXIGLAS 3mm thickness sheet, WH02(light transmission rate 44%, lower light scattering), WH73(light transmission rate 23%, higher light scattering).

## Method Layout

			PLEXIGLAS WH02 diffuser sheet				PLEXIGLAS WH73 diffuser sheet				
Depth mm	Module distance (center to center) mm		Qty. pcs	Illu. lx	Lum. nit	MIN./ AVE.	MIN./ MAX.	Illu. lx	Lum. nit	MIN./ AVE.	MIN./ MAX.
	x:75	y:75									
75	x:75	y:75	169	3060	826	80%	70%	2673	722	82%	71%
80	x:75	y:75	169	3024	816	80%	70%	2559	691	82%	71%
90	x:75	y:75	169	1812	489	82%	71%	2437	658	84%	71%
100	x:75	y:120	104	1644	444	85%	75%	1394	376	86%	77%
120	x:75	y:120	104	1532	414	87%	78%	1276	344	88%	80%
150	x:75	y:120	104	1408	380	88%	78%	1135	306	88%	83%
200	x:75	y:120	104	1226	331	90%	80%	964	260	90%	84%

- Note:
- 1. Short for name in table: Illu.: average illuminance, Lum.: average luminance, Min.: minimum value, Max.: maximum value, Ave.: average value.
- 2. All the values are measured based on single lighting box with back board reflection rate ~70%, and PLEXIGLAS 3mm thickness sheet,
- WH02(light transmission rate 44%, lower light scattering), WH73(light transmission rate 23%, higher light scattering).
- 3. All the data is just for reference, final lighting effect will depend on the actual lighting box situation.
- 4. All the measured data has  $\pm 2\%$  tolerance.

## Additional product information

- Installation of LED modules (with power supplies) needs to be made under consideration of all valid regulations and norms.
- Installation by qualified electrician only.
- Parallel connection is mandatory for safe electrical operation. Serial connection of LED modules is discouraged.
- Unbalanced voltage drop in serial connection can cause hazardous overload
- Electrical contact is achieved with the contact cables or the terminals of the module. Please refer to the technical data for maximum number of LED modules that can be operated on one control gear.
- To avoid mechanical damage, the LED modules have to be attached securely to the intended mounting surface. It is recommended to avoid heavy vibration.
- LED modules are dimmable by means of PWM (pulse width modulation).
- During installation, it is highly recommended to install modules with screws to ensure long-term stability. Other means of securing modules(sealant, vinyl, etc.) are also acceptable.

### Declaration

The data listed in this product specification are typical values for reference only, specific parameters are subject to the actual *measurement report*. All product illustrations in this product specification are schematic drawings, details are subject to the actual received goods.