



## AC LED Light Engine Specification

Model:RL-HM280x30A2801H

RL-LM280x30A1402H

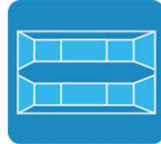
## Key Features

- ◇ High total efficiency up to 110lm/W
- ◇ Various CCT available: 2700/3000/3500/4000/5000/5700/6500K
- ◇ CRI:80/90/95 options
- ◇ Macadam 3/5 steps color bin
- ◇ Solutions for linear light/troffer light/panel light/wall light
- ◇ AC line voltage 230V /120V input directly
- ◇ Power factor higher than 0.95
- ◇ Low THDI:<18%
- ◇ TRIAC dimmable

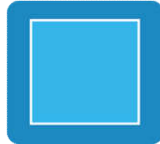
## General application



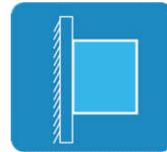
Linear light



Troffer light



Panel light



Wall light

## Applied standards



- ◇ EN 62321
- ◇ EMC: EN 55015 EN 61547 EN 61000-3-2 EN 61000-3-3
- ◇ EMI: EN55015 EN61000-3-2 EN61000-3-3
- ◇ EMS: EN61547
- ◇ EMF: EN62493
- ◇ LVD: EN62471 EN62031

## General information

P/N	Size	Input	Power	PF	Flux	Efficiency	CCT	CRI	Dimming
	mm	Vac	W	-	Lm	Lm/W	K	-	-
RL-HM280x30A2801H009-840T	280*30	230	9	0.95	990	110	4000	80	TRIAC
RL-HM280x30A2801H016-840T	280*30	230	16	0.95	1600	100	4000	80	TRIAC
RL-LM280x30A1402H009-840T	280*30	120	9	0.95	990	110	4000	80	TRIAC
RL-LM280x30A1402H016-840T	280*30	120	16	0.95	1600	100	4000	80	TRIAC

**Note:** 1-Variou CCT available ( 2700-6500K ); RL-XXXXXXXXXXXXXXXX-840X ( 8-80CRI;40-4000K CCT )

2-Typical Optical-electronic parameters above @ Ta=25°C

## Selection guide Example: RL-HM280x30A2801H009

P/N	Size	Input	Power	PF	Flux	Efficiency	CCT	CRI	Dimming
	mm	Vac	W	-	Lm	Lm/W	K	-	-
RL-HM280x30A2801H009-827T	280*30	230	9	0.95	855	95	2700	80	TRIAC
RL-HM280x30A2801H009-830T					900	100	3000		
RL-HM280x30A2801H009-835T					900	100	3500		
RL-HM280x30A2801H009-840T					990	110	4000		
RL-HM280x30A2801H009-850T	280*30	230	9	0.95	990	110	5000	90	TRIAC
RL-HM280x30A2801H009-857T					900	100	5700		
RL-HM280x30A2801H009-865T					900	100	6500		
RL-HM280x30A2801H009-927T					810	90	2700		
RL-HM280x30A2801H009-930T	280*30	230	9	0.95	855	95	3000	95	TRIAC
RL-HM280x30A2801H009-935T					855	95	3500		
RL-HM280x30A2801H009-940T					900	100	4000		
RL-HM280x30A2801H009-950T					900	100	5000		
RL-HM280x30A2801H009-957T	280*30	230	9	0.95	855	95	5700	95	TRIAC
RL-HM280x30A2801H009-U27T					675	75	2700		
RL-HM280x30A2801H009-U30T					720	80	3000		
RL-HM280x30A2801H009-U35T					720	80	3500		
RL-HM280x30A2801H009-U40T	280*30	230	9	0.95	765	85	4000	95	TRIAC
RL-HM280x30A2801H009-U50T					765	85	5000		
RL-HM280x30A2801H009-U57T					720	80	5700		

## Part Number & Explanation

RL	-	H	M	280	X30	A	28	01	H	009	-	8	40	T
1		2	3	4	5	6	7	8	9	10		11	12	13
1		Relight												
2		H: AC230V L: AC120V C: constant current V: constant Voltage												
3		M: Module series												
4		Length-mm												
5		Width-mm												
6		A: Aluminum P: CEM3 F: FR4 C: Copper (PCB material)												
7		Circuit												
8		Circuit												
9		Efficiency level ( H: high N: normal L: low)												
10		Power; Watt												
11		CRI (8:80;9:90;U95;V:98)												
12		CCT; 27:2700K ...												
13		Dimming function (N:non-dimmable; T:TRIAC ; A:0-10V ; P:PWM ; W:Wireless)												

## Characteristics

Input	100-130Vac or 200-250Vac
Frequency	50/60Hz
Rated power	Typical power (±10% tolerance)
PF	>0.95
Protection	IP20
Surge level	2.5KV
Hi-pot	1.5KVac
Storage temperature	-30-85°C
Operation temperature	-30-80°C (Ts of led components)
Beam Angle	120 deg

## Mechanical dimension (Unit: mm)

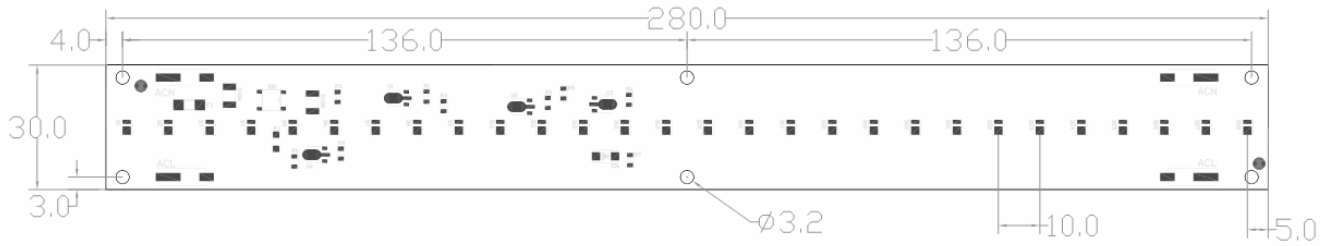


Fig1: RL-XM280x30AXXXXXXXXX-XXXX series outline

## Wiring example

Fig2: All modules connect to AC line separately by L and N connectors on board

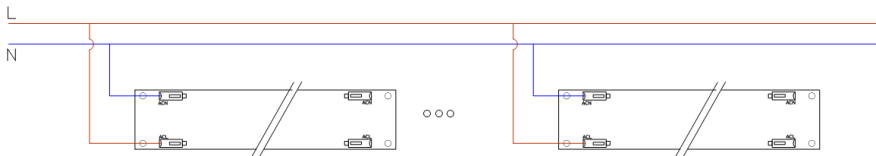
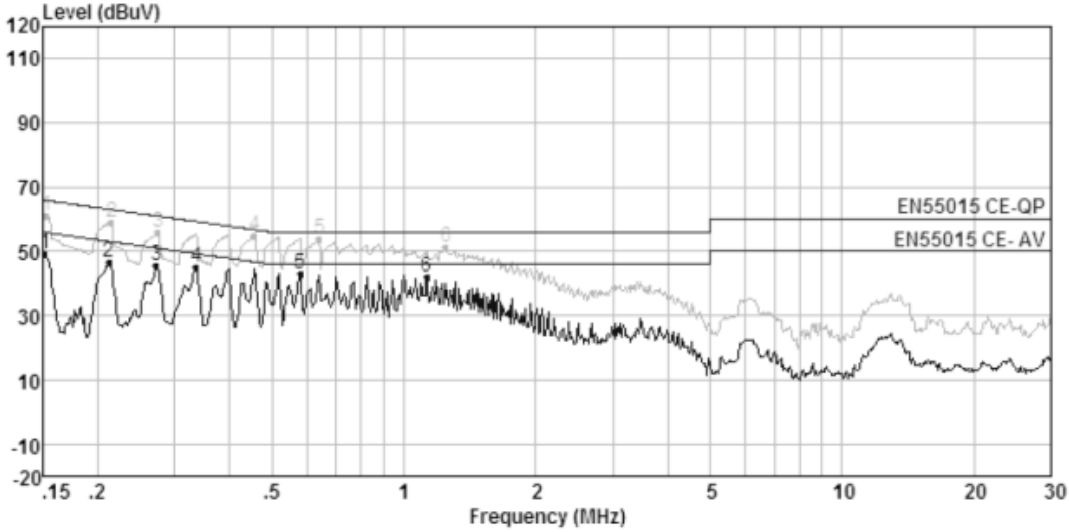


Fig3: All modules connect to each other by L and N connectors at opposite end, make sure the max quantities of module is less than 25pcs in one cluster



## EMC report



Site : Shenzhen BST Technology Co.,Ltd.  
Condition:

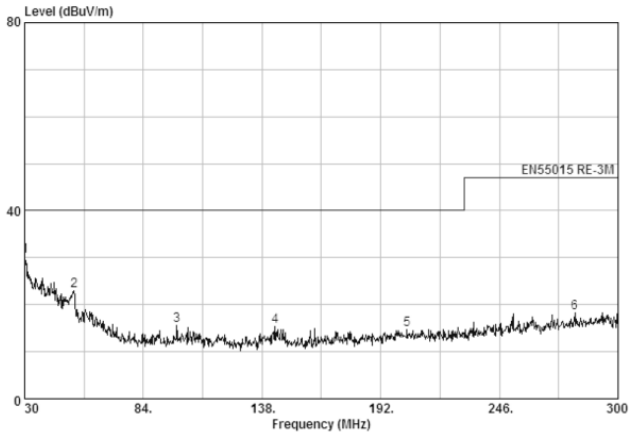
: RBW:9.000KHz VBW:30.000KHz

	Freq	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dBuV	dB		
1	0.152	49.3	55.9	-6.6	Average	NEUTRAL
2	0.213	46.9	53.1	-6.2	Average	NEUTRAL
3	0.273	45.6	51.0	-5.4	Average	NEUTRAL
4 Max	0.336	44.9	49.3	-4.4	Average	NEUTRAL
5	0.579	42.9	46.0	-3.1	Average	NEUTRAL
6	1.129	42.2	46.0	-3.8	Average	NEUTRAL

Site : Shenzhen BST Technology Co.,Ltd.  
Condition:

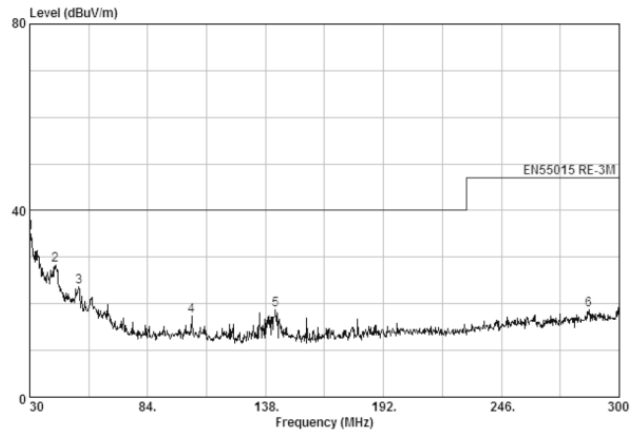
: RBW:9.000KHz VBW:30.000KHz

	Freq	Level	Limit	Over	Remark	Pol/Phase
	MHz	dBuV	dBuV	dB		
1	0.153	61.3	65.8	-4.5	Peak	NEUTRAL
2	0.215	59.0	63.0	-4.0	Peak	NEUTRAL
3	0.274	55.8	61.0	-5.2	Peak	NEUTRAL
4 Max	0.456	54.7	56.8	-2.1	Peak	NEUTRAL
5	0.641	53.7	56.0	-2.3	Peak	NEUTRAL
6	1.249	51.2	56.0	-4.8	Peak	NEUTRAL



Condition : EN55015 RE-3M 3m HORIZONTAL  
 : RBW:120.000KHz VBW:300.000KHz SWT:Auto  
 : Shenzhen BST Technology Co.,Ltd.

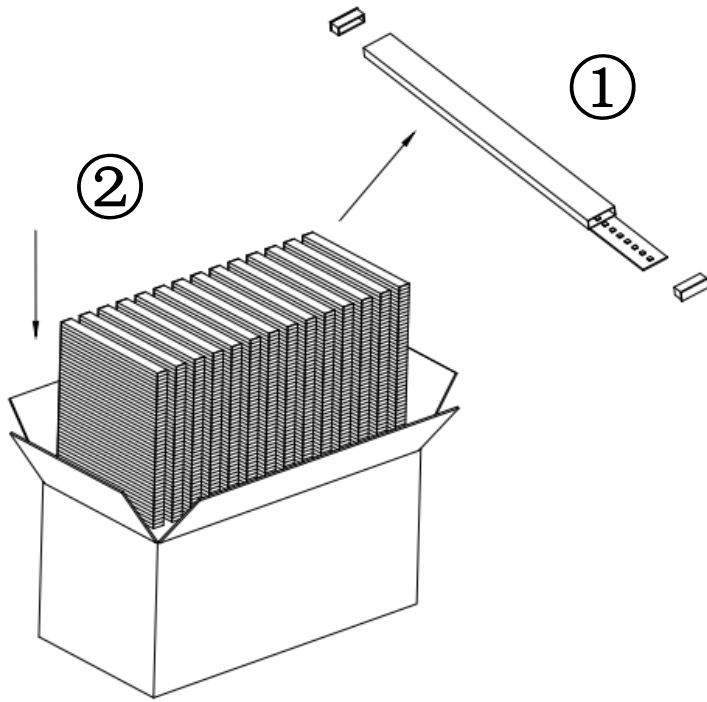
	Freq	Limit	Level	Limit	Over	Remark	Pol/Phase
1 max	30.000	40.0	30.2	-9.8	Peak	HORIZONTAL	
2	52.410	40.0	23.0	-17.0	Peak	HORIZONTAL	
3	99.120	40.0	15.6	-24.4	Peak	HORIZONTAL	
4	143.940	40.0	15.4	-24.6	Peak	HORIZONTAL	
5	203.880	40.0	14.8	-25.2	Peak	HORIZONTAL	
6	280.290	47.0	18.2	-28.8	Peak	HORIZONTAL	



Condition : EN55015 RE-3M 3m VERTICAL  
 : RBW:120.000KHz VBW:300.000KHz SWT:Auto  
 : Shenzhen BST Technology Co.,Ltd.

	Freq	Limit	Level	Limit	Over	Remark	Pol/Phase
1 max	30.000	40.0	35.2	-4.8	Peak	VERTICAL	
2	41.880	40.0	28.4	-11.6	Peak	VERTICAL	
3	52.410	40.0	23.7	-16.3	Peak	VERTICAL	
4	104.250	40.0	17.3	-22.7	Peak	VERTICAL	
5	142.590	40.0	18.7	-21.3	Peak	VERTICAL	
6	285.960	47.0	18.6	-28.4	Peak	VERTICAL	

## Package Information



		Per PVC tube	Per carton
Modules	----pcs	1	400
Weight	----Kg	0.07	28
Dimension	----mm	300*32*8	700*320*320



## Safety Information

1. The LED module and all its components shall not be subjected to mechanical stress
2. Correct electrical polarity, or not module may be damaged
3. Ensure the power supply is suitable for the total load.
4. Electrostatic Discharge (ESD) precautions shall be incorporated when handling or installing the module.
5. Installation of LED modules shall be made referring to all applicable electrical and safety standards.
6. Suitable for luminaire of protection class 1, grounding is mandatory to comply with safety standards
7. The AC light engine needs to be mounted to a heat sink with thermal interface material between them
8. It is better to use the AC led module with safety cover
9. Modules may be hot to the touch. Use caution when handling.

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