SPECIFICATION

HPL- M L - N A X 02

3W

Product Type :	Package Type:	Assembly :	Application Power :	Color :
M : module	L : HPL-7070 LED	N: Star-O+Holed+10˚ collimator	A : ≤ 100W B : 101W~200W C : 201W~300W	W : Cool White N : Neutral White S : Warm White R : Red G : Green B : Blue A : Amber O : Orange

1. Features

- Lambertain or Collimated Radiation Pattern
- Low voltage DC operated
- 1W High Flux type
- All Metal Design Cu PCB/Al reflector
- Low thermal resistance
- The InGaN or AlInGaP Chip inside
- Superior ESD protect

2. Application

- Traffic signaling
- Backlighting
- Interior & exterior automotive lighting
- Decorative and landscape lighting
- Portable light source
- Decorating and entertainment lighting
- Architectural lighting
- Street lighting

3. Absolute Maximum Ratings

(Tj=25℃)

Parameter		Symbol	Rating	Unit
Power Dissipation	Cool White	P	3	W
	Neutral White		3	
	Warm White		3	
	Red		2.2	
	Green		3	
	Blue		3	
	Amber		2.2	
	Orange		2.2	
Forward Current		IF	700	mA
Forward Pulse Current (1/10 Duty Cycle, 400msec Pulse Width)		IFP	1000	mA
Thermal Resistance, Junction-Case		Rth, J-C1	10	°C/W
Reverse Voltage		VR	5	V
LED Junction Temperature		Tj	125	°C

Note: 1. The thermal resistance value is measured with MCPCB (Star).

4. Initial Electrical/Optical Characteristics

- **Forward Voltage** (Tj=25℃)

Color	Forward Voltage					
	Symbol	MIN.	TYP.	MAX.	Test Condition	Unit
Cool White	V_F	3.03	3.80	4.23	I_F= 700mA	V
Neutral White	V_F	3.03	3.80	4.23	I_F= 700mA	V
Warm White	V_F	3.03	3.80	4.23	I_F= 700mA	V
Red	V_F	1.83	2.50	3.03	I_F= 700mA	V
Green	V_F	3.03	3.80	4.23	I_F= 700mA	V
Blue	V_F	3.03	3.80	4.23	I_F= 700mA	V
Amber	V_F	1.83	2.50	3.03	I_F= 700mA	V
Orange	V_F	1.83	2.50	3.03	I_F= 700mA	V

- (Tj=25℃)

Color	Luminous Flux					
	Symbol	MIN.	TYP.	MAX.	Test Condition	Unit
Cool White	Φ_V	-	119	-	I_F = 700mA	lm
Neutral White	Φ_V	-	95	-	I_F = 700mA	lm
Warm White	Φ_V	-	52	-	I_F = 700mA	lm
Red	Φ_V	-	63	-	IF = 700mA	lm
Green	Φ_V	-	96	-	IF = 700mA	lm
Blue	Φ_V	-	25	-	IF = 700mA	lm
Amber	Φ_V	-	60	-	IF = 700mA	lm
Orange	Φ_V	-	67	-	IF = 700mA	lm

• Radiometric Power

(Tj=25℃)

Color	Luminous Flux					
	Symbol	MIN.	TYP.	MAX.	Test Condition	Unit
Blue[1]	Φ_V	-	340	-	I_F = 700mA	mW

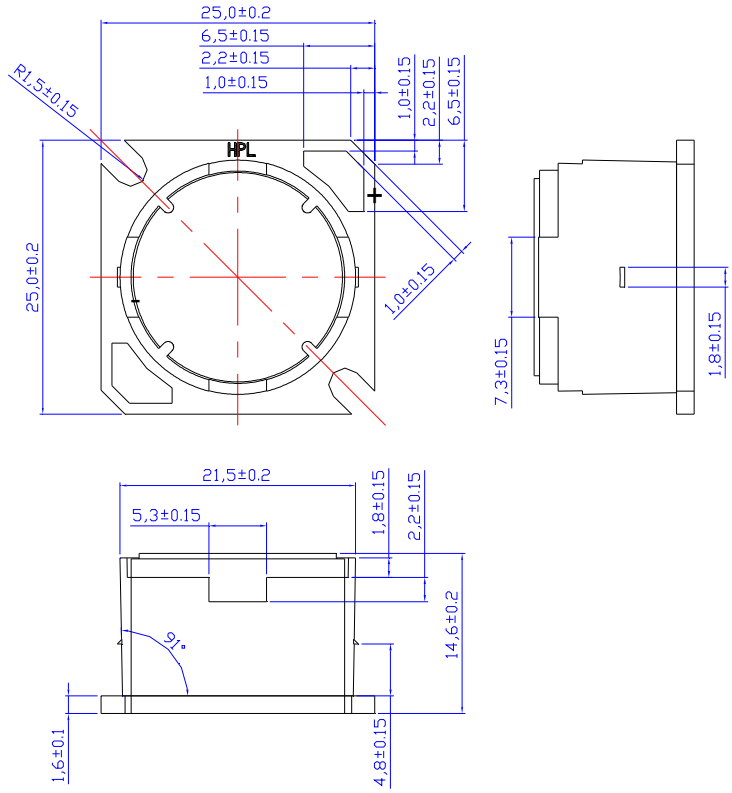
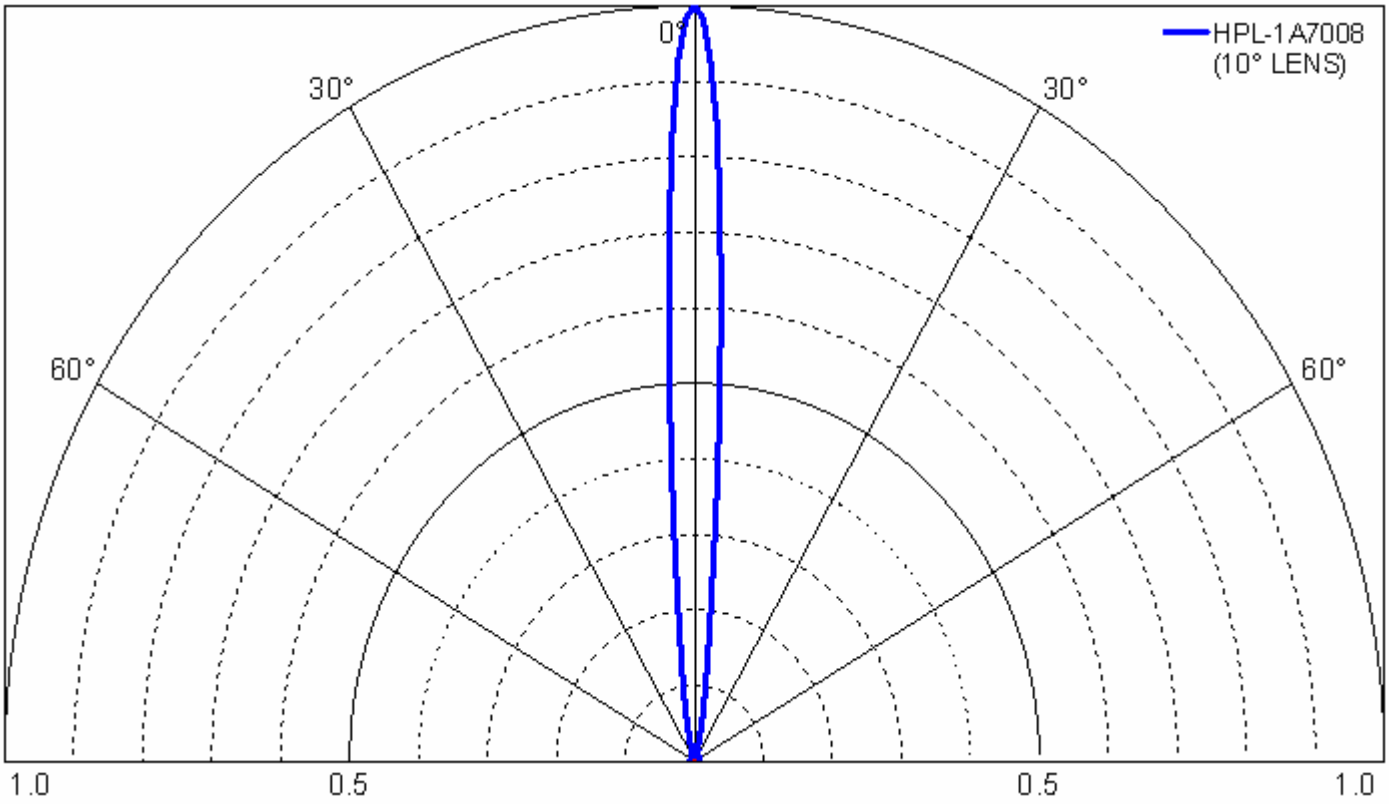
• Color Temperature or Dominate wavelength

(Tj=25℃)

Color	Color Temperature or Dominate Wavelength					
	Symbol	MIN.	TYP.	MAX.	Test Condition	Unit
Cool White	CCT	4100	5600	10000	IF = 700mA	˚K
Neutral White	CCT	3250	3800	5650	IF = 700mA	˚K
Warm White	CCT	2760	3250	4100	IF = 700mA	˚K
Red	λ_d	620	-	630	IF = 700mA	nm
Green	λ_d	520	-	540	IF = 700mA	nm
Blue[1]	λ_d	450	-	470	IF = 700mA	nm
Amber	λ_d	585	-	595	IF = 700mA	nm
Orange	λ_d	610	-	620	IF = 700mA	nm

Note: 1. Royal Blue Products: Wavelength defined is Peak Wavelength ($\lambda_p = 450 \sim 460\text{nm}$).

5. Outline Dimension



6. Typical Radiation Pattern