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Brochure

White Laser Source Technology and Light Source Module

Shenzhen Flamingoo Technology Co., Ltd.

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ADVANCED WHITE LASER PRODUCTS MANUFACTURER

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MANUFACTURER

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Enterprise

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Shenzhen Flamingoo Technology Co.,Ltd.

Flamingoo is the exclusive partner of Shanghai Blue Lake Lighting Technology for oversea sales.

Established in 2015, Blue Lake is a high–tech company, focusing on research, development and innovation of white laser light. With founding team from Tsinghua University, Blue Lake has been working in laser display and specialty lighting for more than 10 years.

Blue Lake uses a high–power blue laser to pump fluorescent crystal coating, resulting in bright white light, which is 5 to 10 times higher than that of LEDs. The fluorescent material is self developed and solves the quenching problem of high luminance. Blue Lakes more than 300 patents, including over 100 invention patents, 20 international PCT patents, and 6 US patents.

Flamingoo and Blue Lake will work together to provide you stable white laser light source.

300 Patents
(136 Innovation Patents,20 PCT,6 USA Patents)

More Than 60 Optical Experts

3 Series
10 Types

Exported to More Than 20 Countries and Regions

Machining Center

Laser Cutter

Patent Wall

AWARD & CERTIFICATION

The company's products have passed the International Electrotechnical Commission (IEC) 60825 certification, intellectual property management system certification, and won the high-tech enterprise, the sixth China International "Internet +" University Student Innovation and Entrepreneurship Competition Gold Award, Tianjin OTC third season roadshow special training camp Award of Investment Value, Aladdin Magic Lamp Award of the 24th Guangzhou International Lighting Exhibition, and Quality Award of Cross-Strait Lighting Design Competition.

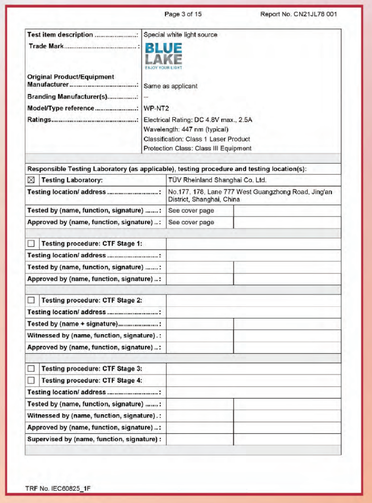
The company team is currently applying for more than 300 patents,invention patents136,practical new patent 165,12 PCT patents,enter 2 US patents.

136 Innovation Patents

165 Utility Model Patents

12 PCT

2 USA Patents



Technology

White Laser Source Technology

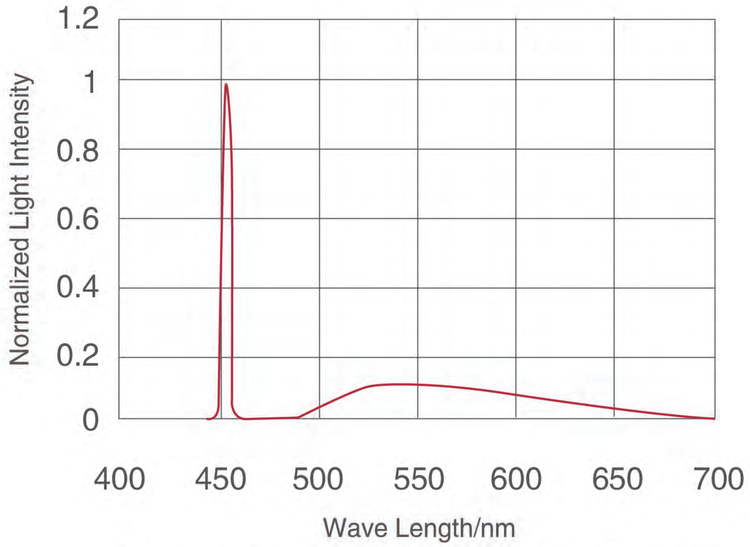
- How White Laser Works 09
- Core Technology 11

HOW WHITE LASER WORKS

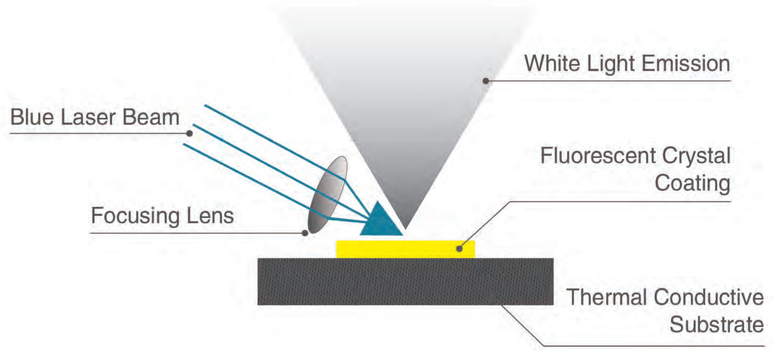
Blue Lake uses blue laser to excite yellow phosphor to deliver broad spectrum white light, which is the core technology of Blue Lake. As showed, the blue laser pumps upon the phosphor crystal coating (Phosphor Crystal Coating, PCC) and causes it to produce yellow light. The yellow light and the unabsorbed blue light form the white light. Since the yellow light is broad spectrum, the white light is also broad spectrum. The white laser light source is an ideal light source for illumination, with no color distortion.

The laser beam pumps upon a point on the phosphor to excite the the light, the intensity of white light is very high, closed to xenon, making it ideal for lighting choice.

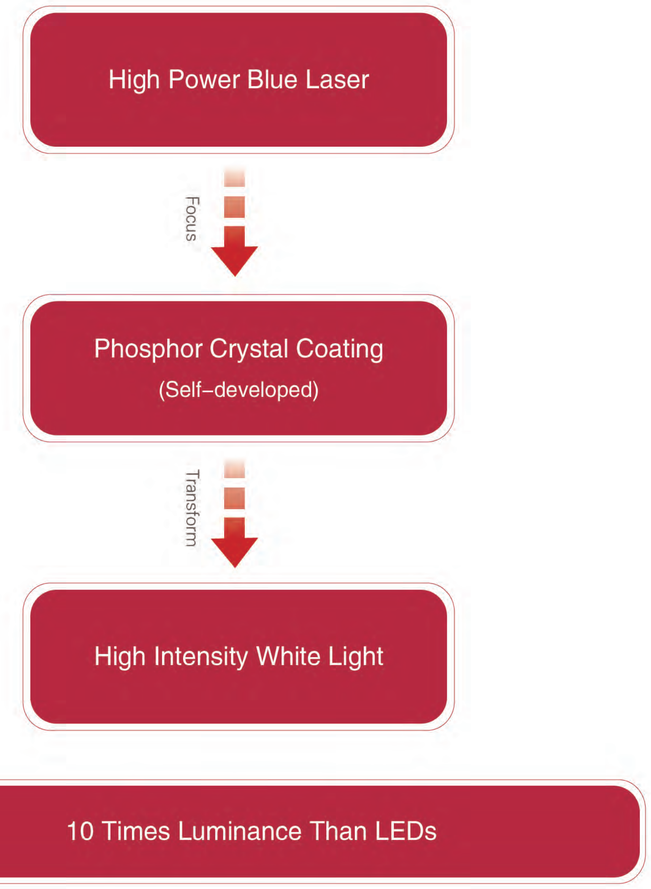
Spectrum



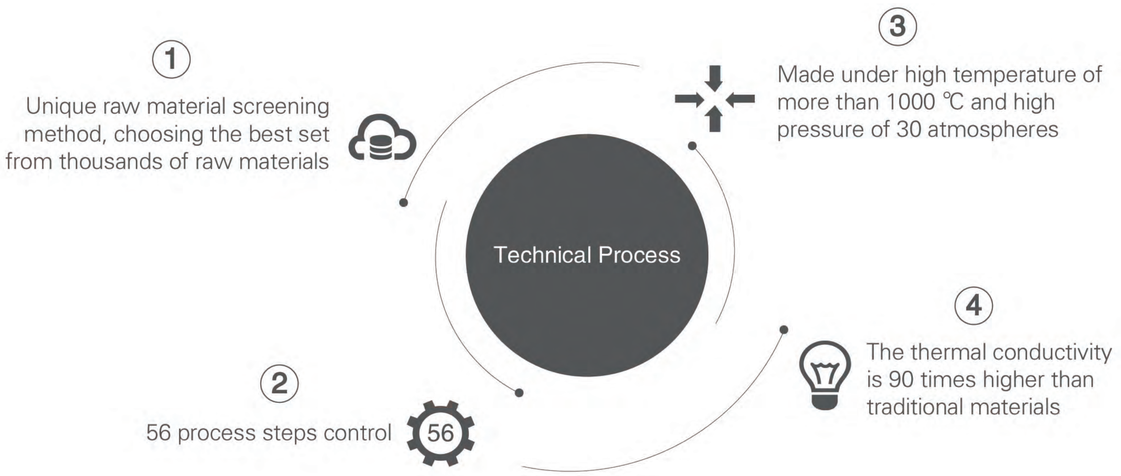
(Note:It can be modified to wide spectrum or high CRI spectrum)



Mechanism of White Laser



WHITE LASER SOURCE TECHNOLOGY

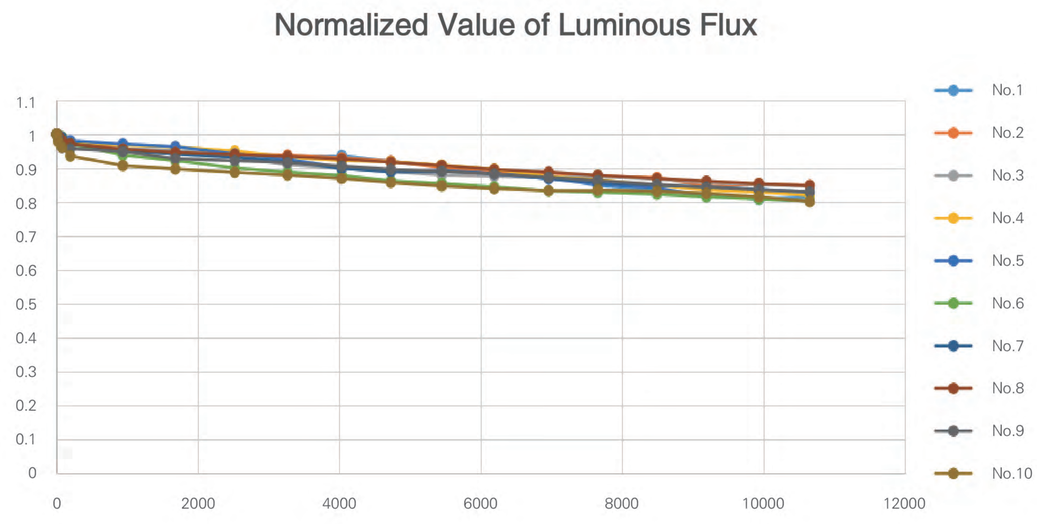


Production Equipment of Fluorescent Crystal Coating

2,000 ㎡ 10,000 Class Ultra Clean Room

Yellow Photolithography Workshop

Phosphor Crystal Coating Aging Test



Date	3.9	3.10	3.12	3.17	4.17	5.18	6.22	7.23	8.24	9.22	10.22	11.22	12.24	1.22	2.26	3.27	4.27	5.27
NO.	Luminous Flux																	
1	522	517	515	511	498	495	493	488	489	480	473	465	456	443	435	428	422	425
2	516	514	510	505	494	487	486	484	480	47	465	459	457	452	450	437	440	438
3	497	495	485	478	478	473	465	452	447	442	437	435	433	435	431	426	423	421
4	503	501	497	491	487	484	478	469	464	462	457	451	440	435	427	420	417	412
5	516	514	510	506	501	497	486	478	465	459	461	456	448	440	434	421	418	414
6	501	492	497	487	470	462	451	445	440	432	428	423	417	415	412	408	405	402
7	496	494	491	482	472	467	462	456	446	441	442	438	431	425	421	419	415	411
8	519	516	510	504	496	491	488	485	481	476	471	465	461	456	451	447	443	440
9	511	505	491	489	485	474	471	468	463	458	455	451	446	441	435	431	427	424
10	497	486	478	465	451	446	441	437	432	426	421	417	414	415	413	410	405	398

Safety Certification

It has been tested and certified by German Rhine TUV and reached class I safety standard

Test item description ..... :	Special white light source
Trade Mark ..... :	BLUE LAKE ENJOY YOUR LIGHT
Original Product/Equipment Manufacturer ..... :	Same as applicant
Branding Manufacturer(s) ..... :	--
Model/Type reference ..... :	WP-NT2
Ratings ..... :	Electrical Rating: DC 4.8V max., 2.5A Wavelength: 447 nm (typical) Classification: Class 1 Laser Product Protection Class: Class III Equipment

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒ **Testing Laboratory:**	TÜV Rheinland Shanghai Co. Ltd.	
Testing location/ address ..... :	No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China	
Tested by (name, function, signature) ..... :	See cover page	
Approved by (name, function, signature) .. :	See cover page	
☐ **Testing procedure: CTF Stage 1:**		
Testing location/ address ..... :		
Tested by (name, function, signature) ..... :		
Approved by (name, function, signature) .. :		
☐ **Testing procedure: CTF Stage 2:**		
Testing location/ address ..... :		
Tested by (name + signature) ..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
☐ **Testing procedure: CTF Stage 3:**		
☐ **Testing procedure: CTF Stage 4:**		
Testing location/ address ..... :		
Tested by (name, function, signature) ..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
Supervised by (name, function, signature) :		

TRF No. IEC60825_1F

Produkte
Products

TÜVRheinland®

Prüfbericht-Nr.: *Test Report No.:*	**CN21JL78 001**	**Auftrags-Nr.:** *Order No.:*	244311465	Seite 1 von 15 *Page 1 of 15*
Kunden-Referenz-Nr.: *Client Reference No.:*	2285941	**Auftragsdatum:** *Order date:*	2020. 10. 22	
Auftraggeber: *Client:*	See following page for details			
Prüfgegenstand: *Test item:*	Special white light source			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	WP-NT2			
Auftrags-Inhalt: *Order content:*	Test Report			
Prüfgrundlage: *Test specification:*	IEC 60825-1:2014 EN 60825-1:2014			
Wareneingangsdatum: *Date of receipt:*	2021.01.22	See photo document for details.		
Prüfmuster-Nr.: *Test sample No.:*	A002981499-001			
Prüfzeitraum: *Testing period:*	2021.01.22 – 2021.01.22			
Ort der Prüfung: *Place of testing:*	TÜV Rheinland Shanghai Co. Ltd.			
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland Shanghai Co. Ltd.			
Prüfergebnis*: *Test result*:*	Pass			

geprüft von / *tested by:*			**kontrolliert von** / *reviewed by:*		
2021.03.08	Roy Chen / PE		2021.03.08	Vic Xin / Reviewer	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other:*

See following pages for details.

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

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Product

Lighting Application 17

- Low Power Source(<30W) 17
- Medium Power Source (30–100W) 33
- High Power Source(＞100W) 39

Special Application 44

- Ultra High Brightness Source 45
- Broad Spectrum / Infrared Source 47
- High CRI Source 48

Star Decoration Lamp Module 49

LASER LIGHT SOURCE FOR LIGHTING

Low Power Source(<30W)

Appearance

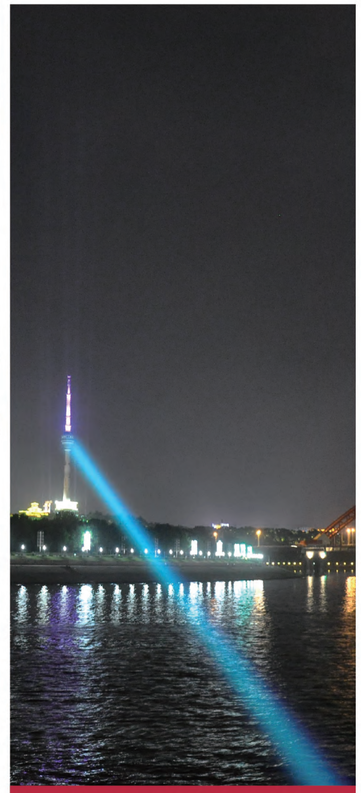
Model	Rx	Rx (High-End)	CT1	CT1-mini	CT1-Flat	NT2	TYX (High-Lumen)	TYX (Headlight)
Luminous Flux (lm)	500	650	370	370	370	570	950	630
Brightness (cd/mm²)	850	1180	770	770	770	1000	950	630
Spot Uniformity	★★★★★	★★★★★	★★★☆☆	★★★☆☆	★★★☆☆	★★★★★	★★★★★	★★★★★
Price Advantage	★★★☆☆	★★★☆☆	★★★★★	★★★★★	★★★★★	★★★☆☆	★★★☆☆	★★★☆☆
Structural Adaptability	★★★☆☆	★★★☆☆	★★★★☆	★★★★☆	★★★★☆	★★★★★	★★★★★	★★★★★
Others	/	/	/	/	/	Customizable	/	/

Application Scenario

Car Headlamp

UAE Lighting

Tactical Flashlight



High Intensity Flashlight

WP–Rx

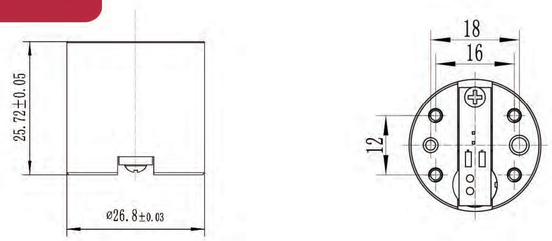
Low Power Source(<30W)

- High Adaptability
- High Uniformity
- High Brightness
- Clear Spot Boundary
- Approximate Point Light Source

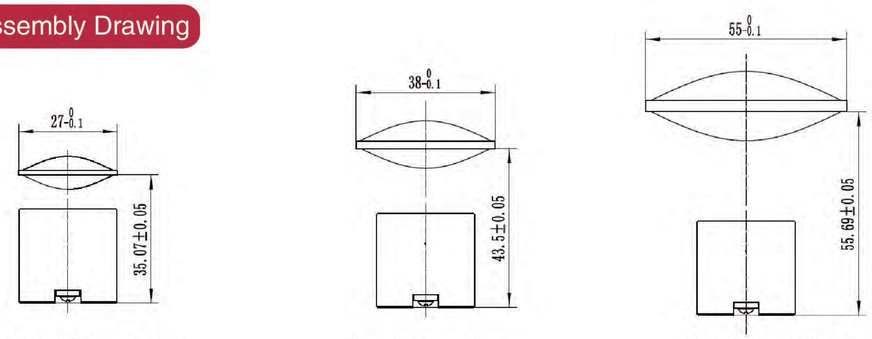
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	2.5	2.5	A
Drive Voltage@2.5A	4.0	4.4	4.8	V
Luminous Flux@2.5A	450	500	/	lm
Brightness@2.5A	680	850	1050	cd/mm²
Color Temperature	6000	7000	9000	K
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h

Dimensions



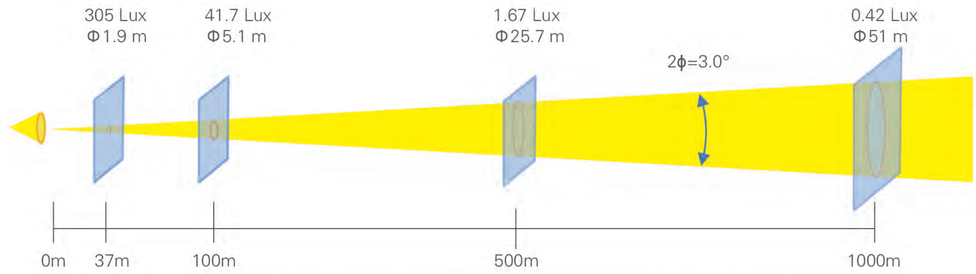
Lens Assembly Drawing



Rx–Φ27mm Lens　　Rx–Φ38mm Lens　　Rx–Φ55mm Lens

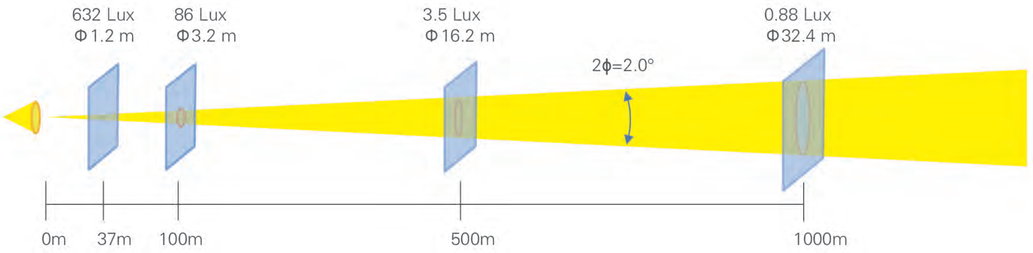
Optical Performance

Rx–Φ27mm Collimating Lens



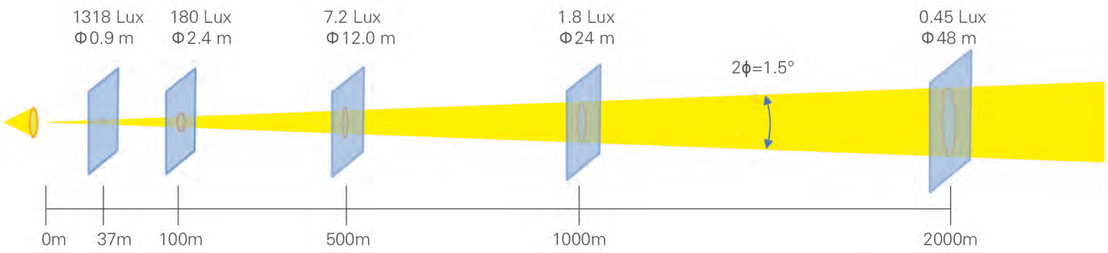
Luminous Intensity = 417,031 cd　Shot Distance =1,292 m

Rx–Φ38mm Collimating Lens



Luminous Intensity = 864,756 cd　Shot Distance =1,860 m

Rx–Φ55mm Collimating Lens



Luminous Intensity = 1,804,244 cd　Shot Distance =2,686 m

WP–Rx (High–End)

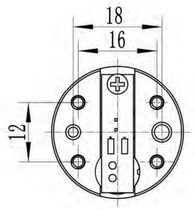
Low Power Source(<30W)

- High Adaptability
- High Uniformity
- High Brightness
- Clear Spot Boundary
- Approximate Point Light Source

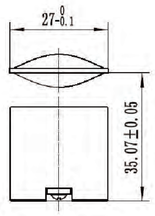
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	3.0	3.0	A
Drive Voltage@2.5A	4.0	4.6	4.8	V
Luminous Flux@2.5A	550	650	/	lm
Brightness@2.5A	1050	1180	/	cd/mm²
Color Temperature	6000	7000	9000	K
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h

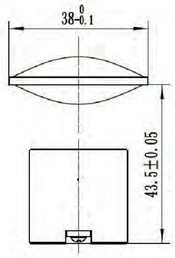
Dimensions



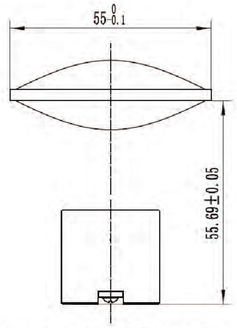
Lens Assembly Drawing



Rx (High–End) – Φ27mm Lens



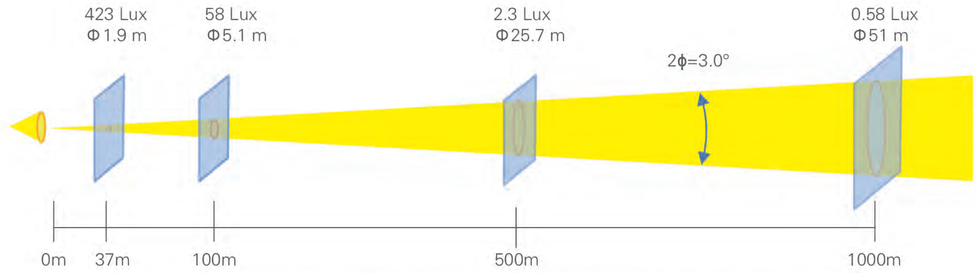
Rx (High–End) – Φ38mm Lens



Rx (High–End) – Φ55mm Lens

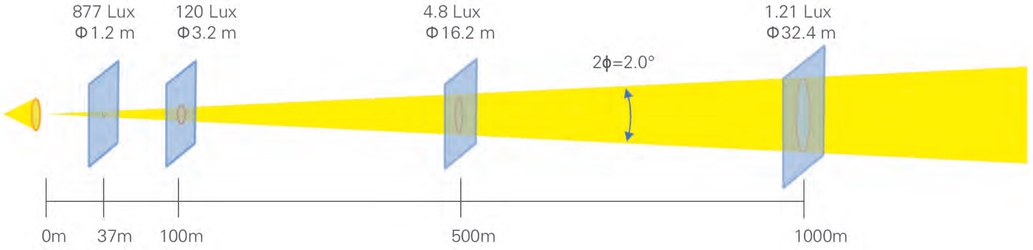
Optical Performance

Rx (High–End) – Φ27mm Collimating Lens



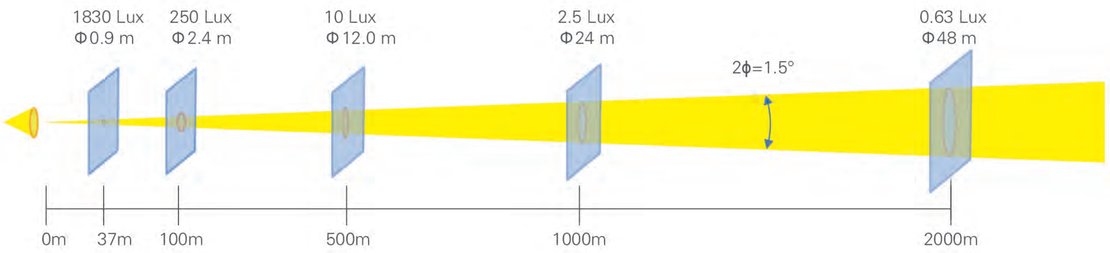
Luminous Intensity = 578,938 cd Shot Distance =1,522 m

Rx (High–End) – Φ38mm Collimating Lens



Luminous Intensity = 1,200,485 cd Shot Distance =2,191 m

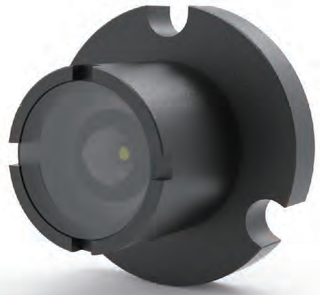
Rx (High–End) – Φ55mm Collimating Lens



Luminous Intensity = 2,504,715 cd Shot Distance =3,165 m

WP–CT1

Low Power Source(<30W)

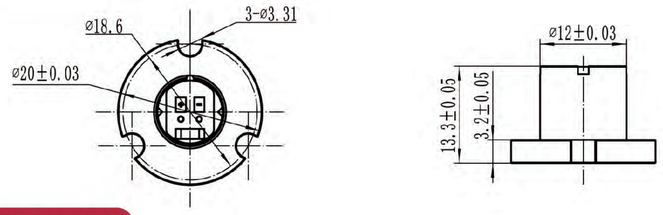


- High Brightness
- High Cost Performance
- Strong Structural Adaptability

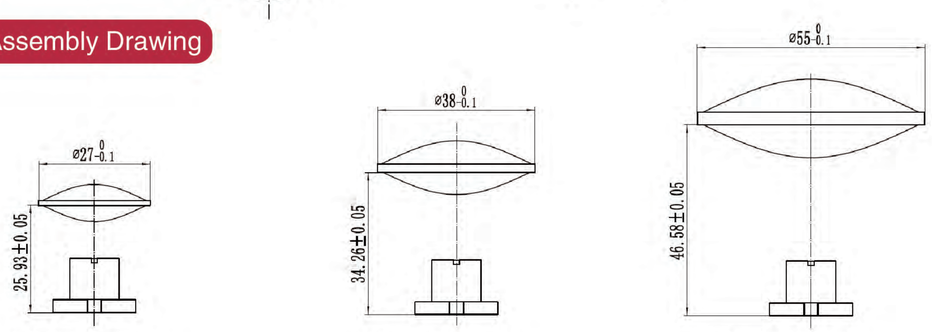
Product Parameters

		Value		Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	2.0	2.0	A
Drive Voltage@2.0A	4.0	4.4	4.8	V
Luminous Flux@2.0A	330	370	/	lm
Brightness@2.0A	700	770	/	cd/mm²
Color Temperature	6000	7000	8000	K
Emitting Half Angle	/	34	/	degree
Life	/	10000	/	h

Dimensions



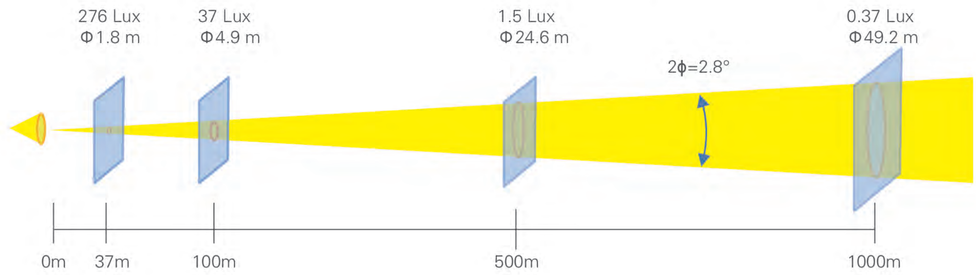
Lens Assembly Drawing



CT1–Φ27mm Lens　　CT1–Φ38mm Lens　　CT1–Φ55mm Lens

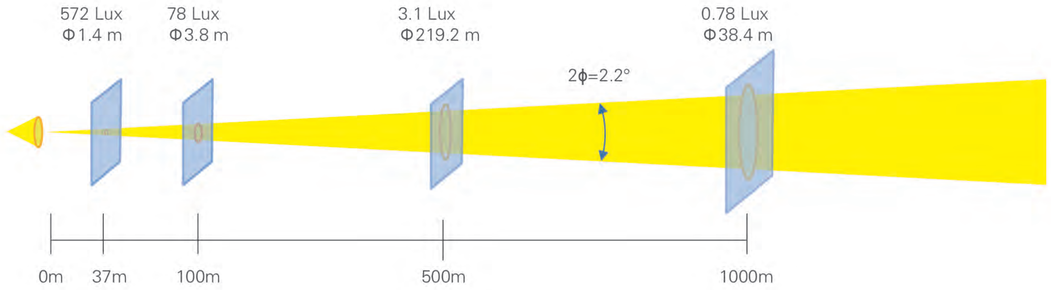
Optical Performance

CT1–Φ27mm Collimating Lens



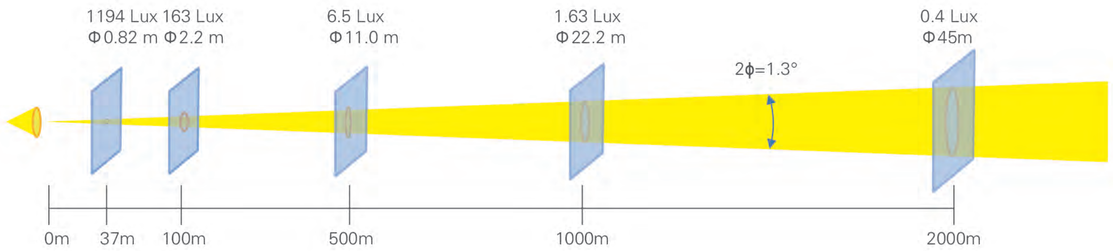
Luminous Intensity = 377,973 cd　Shot Distance =1,230 m

CT1–Φ38mm Collimating Lens



Luminous Intensity = 783,766 cd　Shot Distance =1,771 m

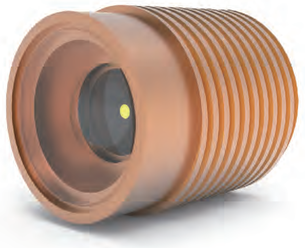
CT1–Φ55mm Collimating Lens



Luminous Intensity = 1,635,265cd　Shot Distance =2,558m

WP–CT1–mini

Low Power Source(<30W)

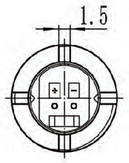


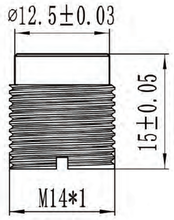
- High Brightness
- High Cost Performance
- Strong Structural Adaptability

Product Parameters

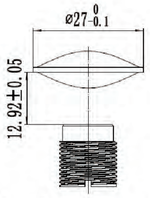
	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	2.0	2.0	A
Drive Voltage@2.0A	4.0	4.4	4.8	V
Luminous Flux@2.0A	330	370	/	lm
Brightness@2.0A	700	770	/	cd/mm²
Color Temperature	6000	7000	8000	K
Emitting Half Angle	/	34	/	degree
Life	/	10000	/	h

Dimensions

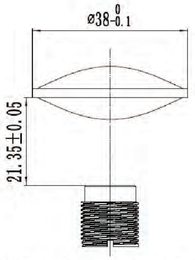




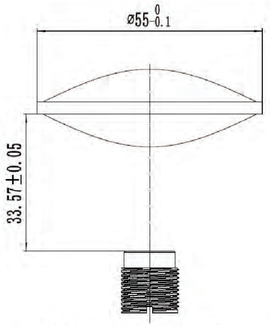
Lens Assembly Drawing



CT1–mini Φ27mm Lens



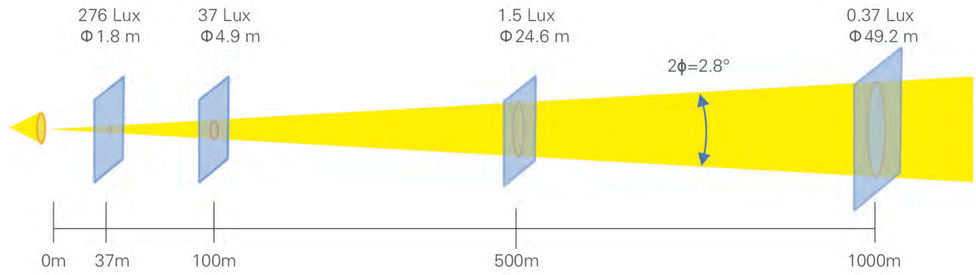
CT1–mini Φ38mm Lens



CT1–mini Φ55mm Lens

Optical Performance

CT1–mini Φ27mm Collimating Lens

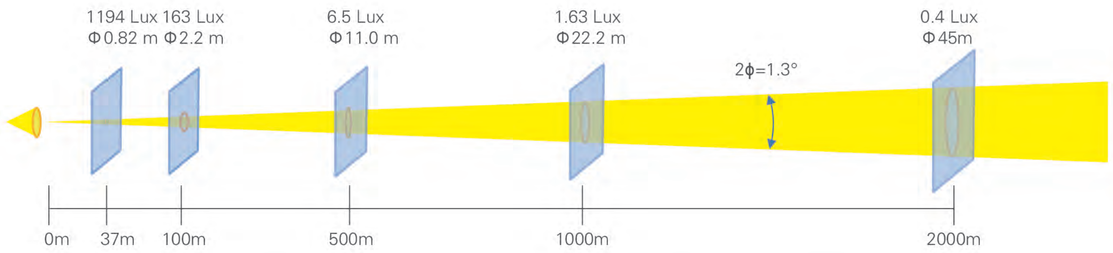


Luminous Intensity = 377,973 cd Shot Distance =1,230 m

CT1–mini Φ38mm Collimating Lens

Luminous Intensity = 783,766 cd Shot Distance =1,771 m

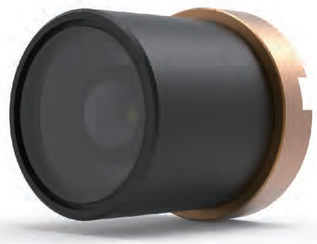
CT1–mini Φ55mm Collimating Lens



Luminous Intensity = 1,635,265cd Shot Distance =2,558m

WP–CT1–Flat

Low Power Source(<30W)

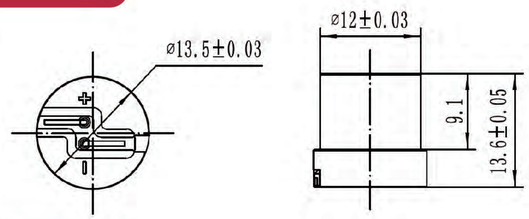


- High Brightness
- High Cost Performance
- Strong Structural Adaptability

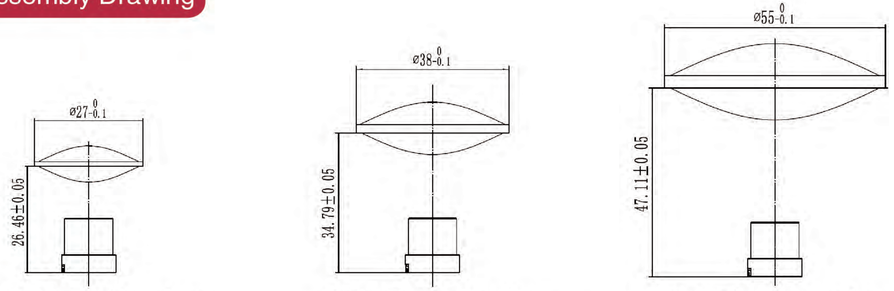
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	2.0	2.0	A
Drive Voltage@2.0A	4.0	4.4	4.8	V
Luminous Flux@2.0A	330	370	/	lm
Brightness@2.0A	700	770	/	cd/mm²
Color Temperature	6000	7000	8000	K
Emitting Half Angle	/	34	/	degree
Life	/	10000	/	h

Dimensions



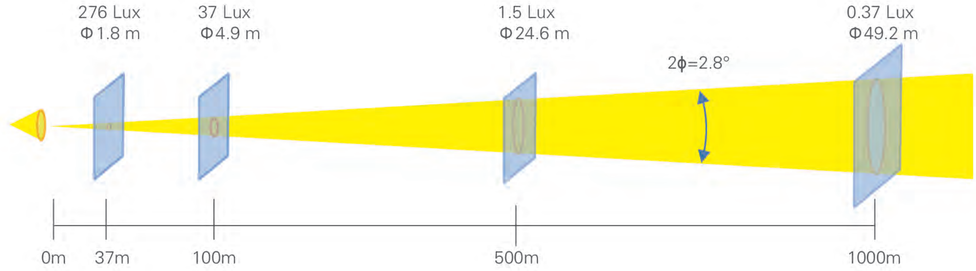
Lens Assembly Drawing



CT1–Flat Φ27mm Lens　　CT1–Flat Φ38mm Lens　　CT1–Flat Φ55mm Lens

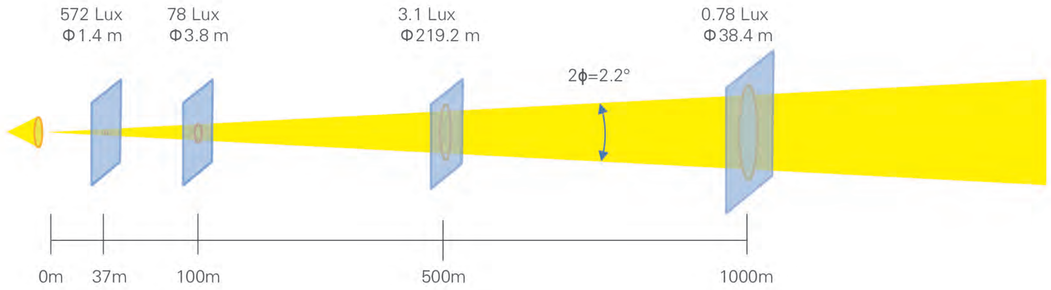
Optical Performance

CT1–Flat Φ27mm Collimating Lens



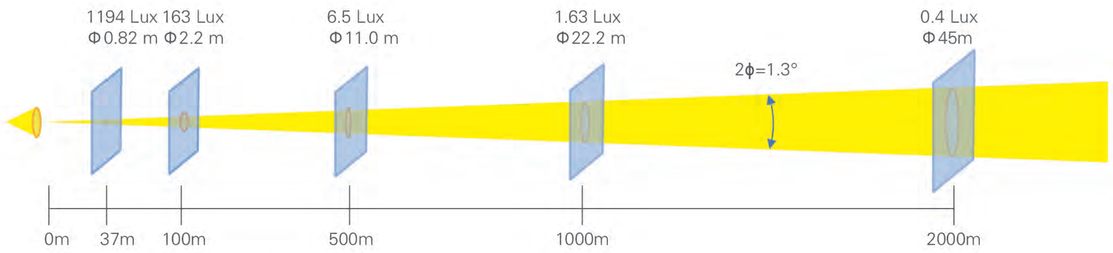
Luminous Intensity = 377,973 cd　Shot Distance =1,230 m

CT1–Flat Φ38mm Collimating Lens



Luminous Intensity = 783,766 cd　Shot Distance =1,771 m

CT1–Flat Φ55mm Collimating Lens



Luminous Intensity = 1,635,265cd　Shot Distance =2,558m

WP–NT2

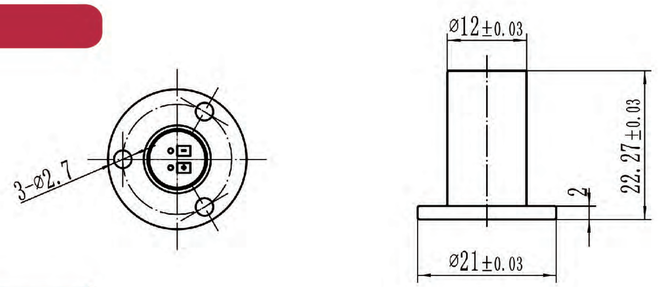
Low Power Source(<30W)

- High Brightness
- High Adaptability
- High Uniformity
- Strong Structural Adaptability

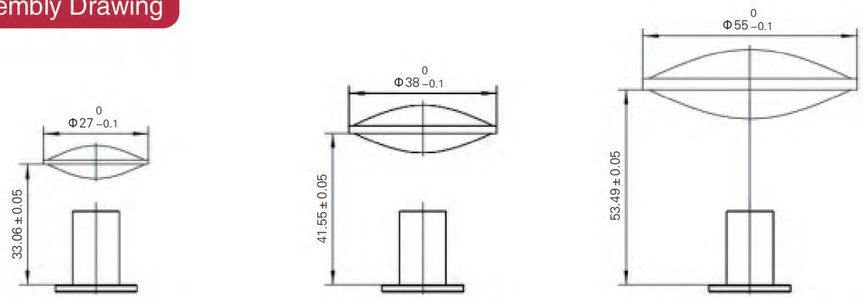
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	2.5	2.5	A
Drive Voltage@2.5A	4.0	4.4	4.8	V
Luminous Flux@2.5A	500	570	/	lm
Brightness@2.5A	850	1000	/	cd/mm²
Color Temperature	6000	7200	9000	K
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h

Dimensions



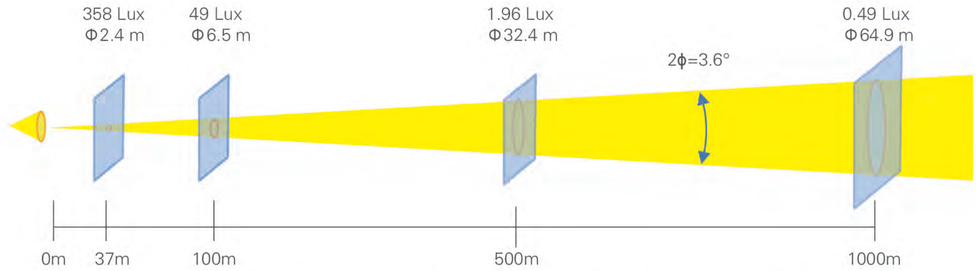
Lens Assembly Drawing



NT2–Φ27mm Lens　NT2–Φ38mm Lens　NT2–Φ55mm Lens

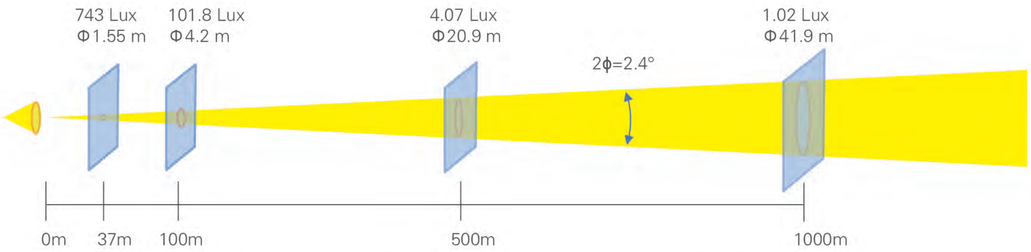
Optical Performance

NT2–Φ27mm Collimating Lens



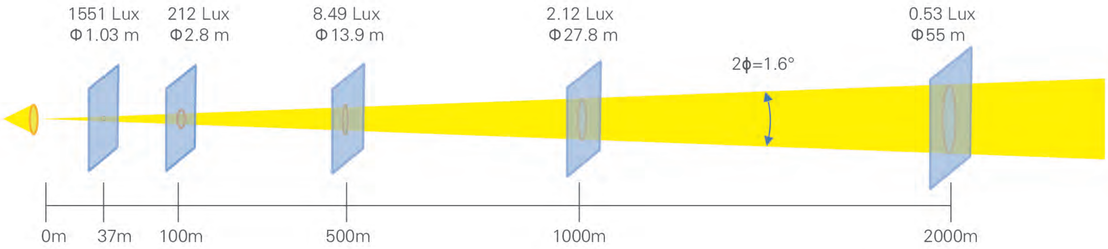
Luminous Intensity = 490,874 cd　Shot Distance =1,401 m

NT2–Φ38mm Collimating Lens



Luminous Intensity = 1,017,876 cd　Shot Distance =2,018 m

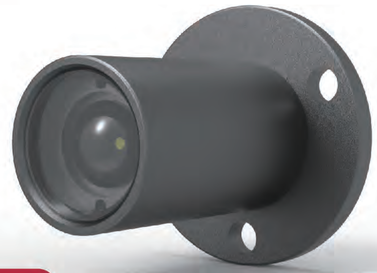
NT2–Φ55mm Collimating Lens



Luminous Intensity = 2,123,717 cd　Shot Distance =2,915 m

WP–NT2–Polar

Low Power Source(<30W)

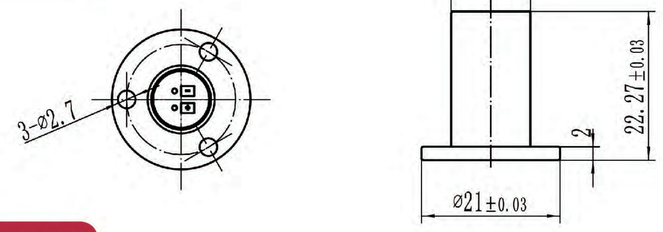


- Strong Structural Adaptability
- Approximately Rounded Rectangle Spot

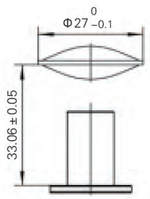
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	3.0	3.3	A
Drive Voltage@3.0A	4.2	4.8	5.2	V
Luminous Flux@3.0A	580	650	/	lm
Brightness@3.0A	470	530	/	cd/mm²
Color Temperature	5000	6000	8000	K
Emitting Half Angle	/	Φx=34 Φy=38	/	degree
Life	/	20000	/	h

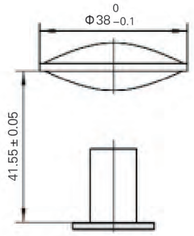
Dimensions



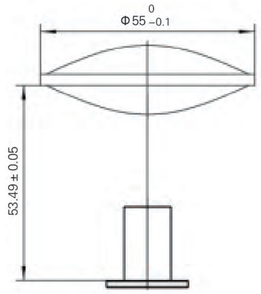
Lens Assembly Drawing



NT2–Polar–Φ27mm Lens



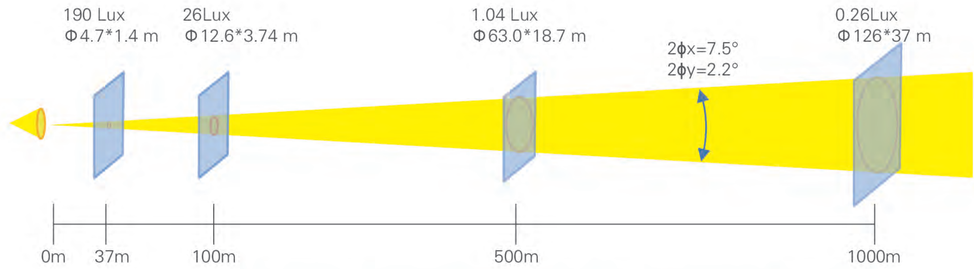
NT2–Polar–Φ38mm Lens



NT2–Polar–Φ55mm Lens

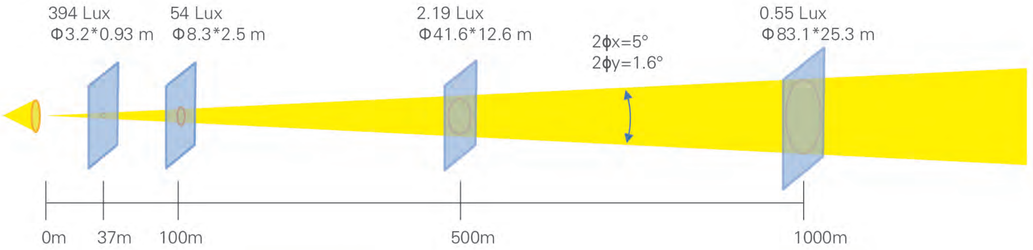
Optical Performance

NT2–Polar–Φ27mm Collimating Lens



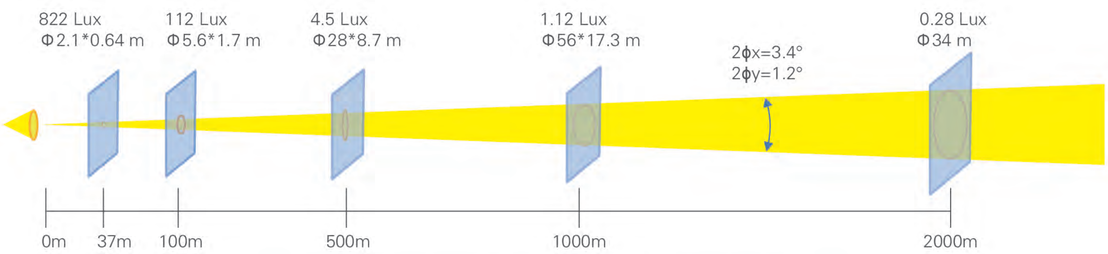
Luminous Intensity = 260,000 cd Shot Distance =1,020 m

NT2–Polar–Φ38mm Collimating Lens



Luminous Intensity = 547,000 cd Shot Distance =1,469 m

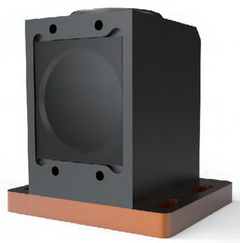
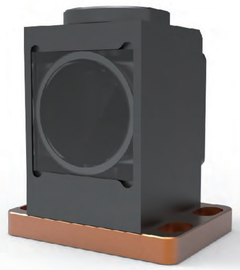
NT2–Polar–Φ55mm Collimating Lens



Luminous Intensity = 1,124,999 cd Shot Distance =2,121 m

LASER LIGHT SOURCE FOR LIGHTING

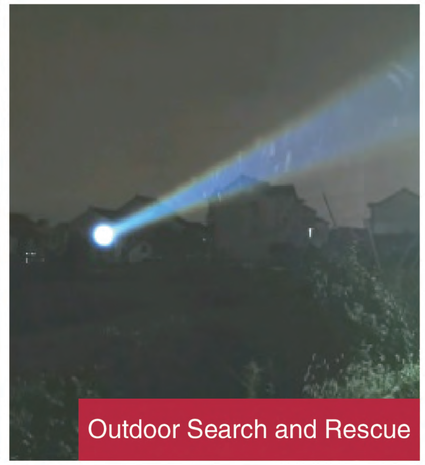
Medium Power Source(30–100W)

Exterior		
Model	NR2–UNI	NR8–UNI
Luminous Flux (lm)	1800	4900
Brightness(cd/mm²)	★★★★☆	★★★★★
Uniformity	★★★★★	★★★★☆
Price Advantage	★★★☆☆	★★★★★
Others	Zoomable	Zoomable

Application Scenario

Power Inspection

Lighthouse Lighting


Outdoor Search and Rescue

Searchlight

Searchlight

FLAMING OPTICS

WP–NR2–UNI

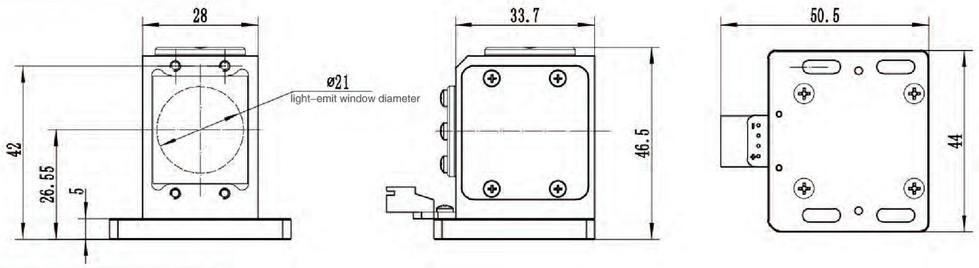
Medium Power Source(30–100W)

- High Brightness
- No Chromatic Aberration
- High Uniformity

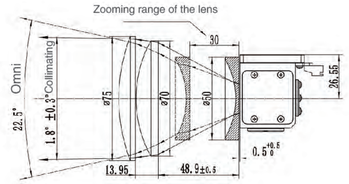
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	3.0	3.0	A
Drive Voltage@2.5A	14	16	18	V
Luminous Flux@2.5A	1650	1800	/	lm
Brightness@2.5A	1700	1900	/	cd/mm²
Color Temperature	6000	7000	8000	K
Emitting Half Angle	/	20	/	degree
Life	/	20000	/	h

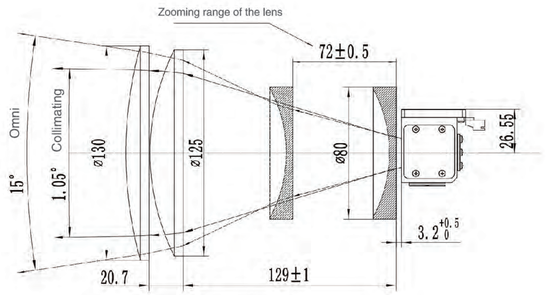
Dimensions



Lens Assembly Drawing



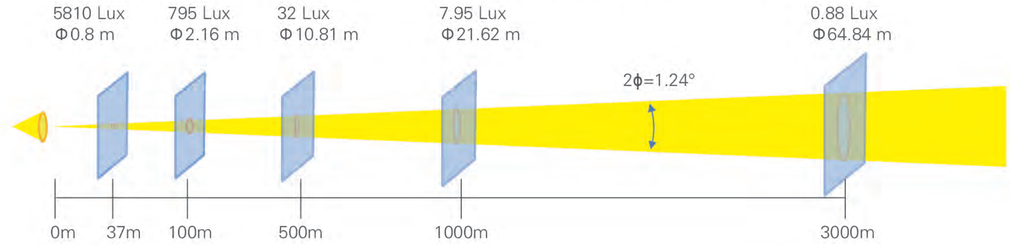
NR2–UNI– Φ75mm Lens Group



NR2–UNI– Φ130mm Lens Group

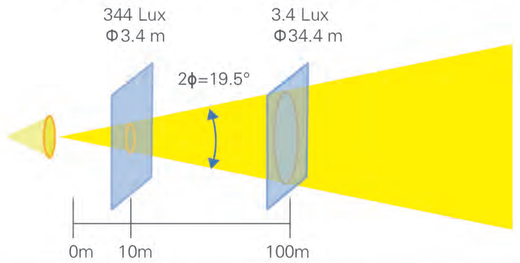
Optical Performance

NR2–UNI– Φ75mm Lens Group (Collimating)



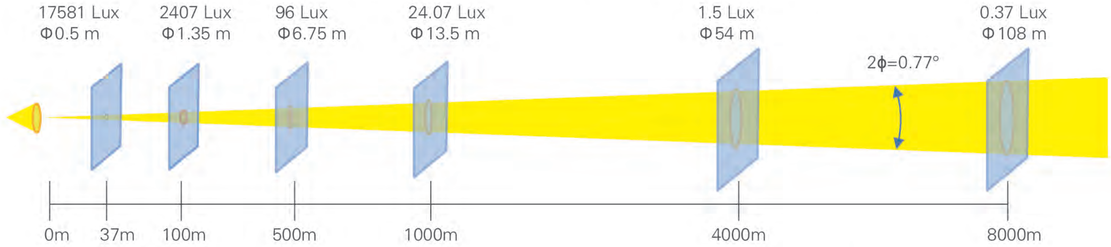
Luminous Intensity = 7,950,000 cd Shot Distance =5,641 m

NR2–UNI– Φ75mm Lens Group (Omni)



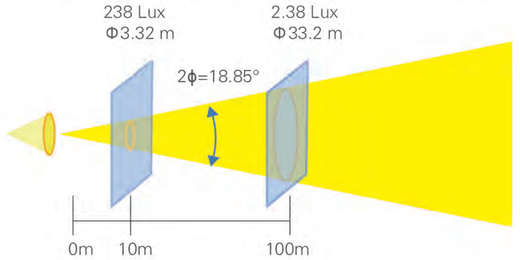
Luminous Intensity = 34,400 cd Shot Distance =371 m

NR2–UNI– Φ130mm Lens Group (Collimating)



Luminous Intensity = 24,070,000 cd Shot Distance =9,812 m

NR2–UNI– Φ130mm Lens Group (Omni)



Luminous Intensity = 23,750 cd Shot Distance =308 m

FLAMING OPTICS

WP–NR8–UNI

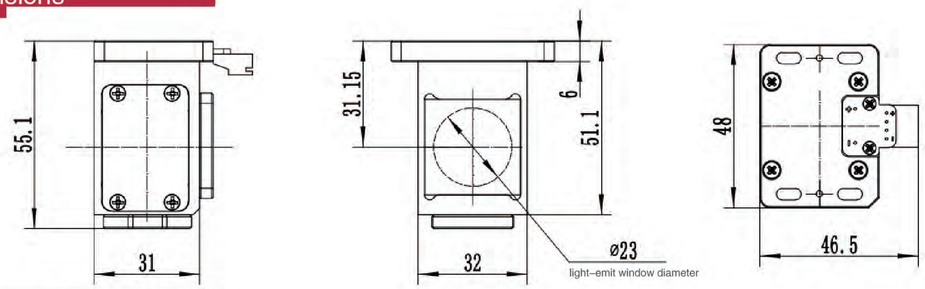
Medium Power Source(30–100W)

- High Brightness
- No Chromatic Aberration
- High Uniformity

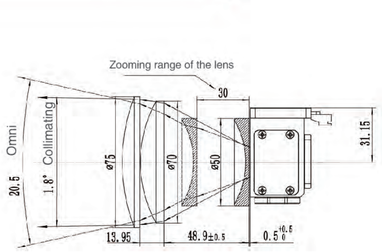
Product Parameters

	Value			Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	3.0	3.0	A
Drive Voltage@2.5A	28	32	36	V
Luminous Flux@2.5A	4400	4900	/	lm
Brightness@2.5A	1800	2000	/	cd/mm²
Color Temperature	5500	6500	7500	K
Emitting Half Angle	/	20	/	degree
Life	/	20000	/	h

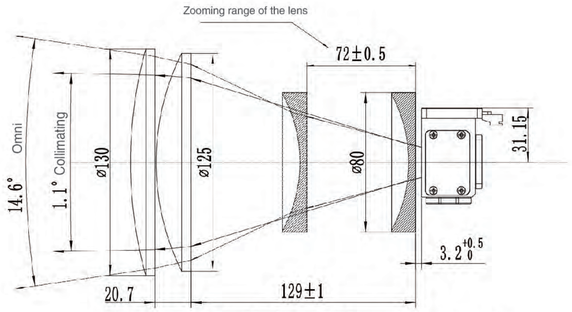
Dimensions



Lens Assembly Drawing



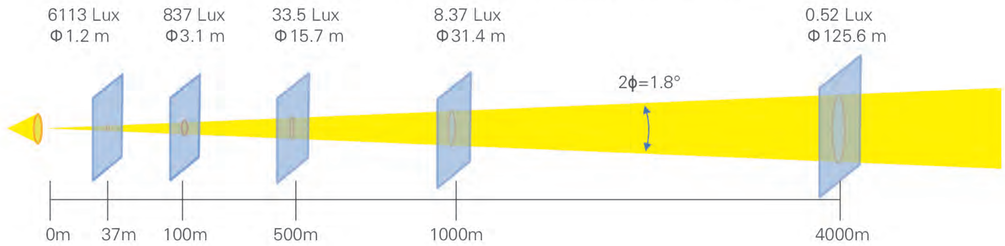
NR8–UNI– Φ75mm Lens Group



NR8–UNI– Φ130mm Lens Group

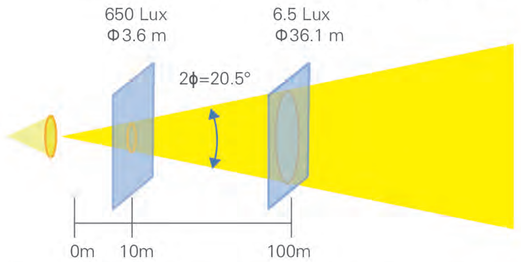
Optical Performance

NR8–UNI– Φ75mm Lens (Collimating)



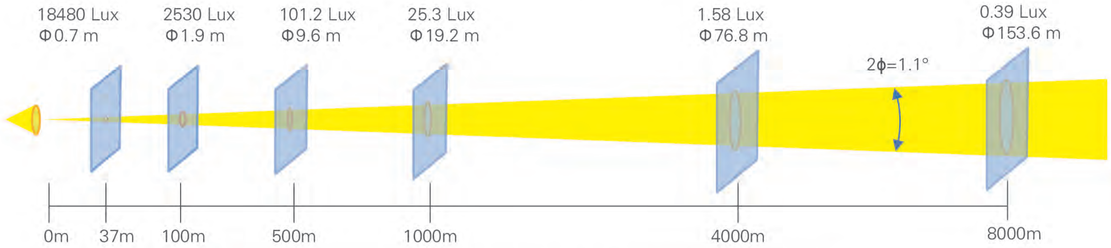
Luminous Intensity = 8,370,000 cd Shot Distance =5,786 m

NR8–UNI– Φ75mm Lens (Omni)



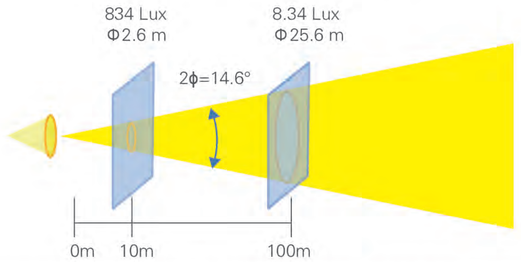
Luminous Intensity = 65,000 cd Shot Distance =510 m

NR8–UNI– Φ130mm Lens (Collimating)



Luminous Intensity = 25,300,000 cd Shot Distance =10,000 m

NR8–UNI– Φ130mm Lens (Omni)



Luminous Intensity = 83,400 cd Shot Distance =578 m

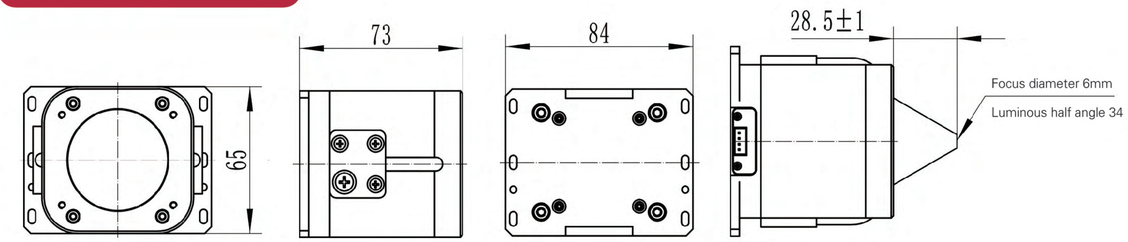
LASER LIGHT SOURCE FOR LIGHTING

High Power Source(＞100W)

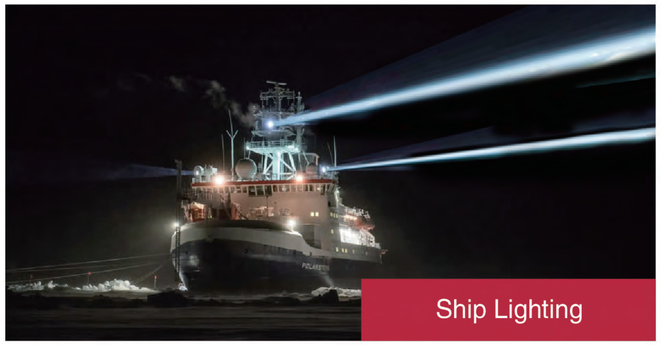
WP–P20

Project	Value			Unit
	Min.	Typical	Max.	/
Drive Current	0.5	3.0	3.0	A
Drive Voltage@3.0A	74	80	82	V
Luminous Flux@3.0A	10000	12500	/	lm
Brightness@3.0A	1250	1318	/	cd/mm²
Color Temperature	6500	8000	9000	K
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h

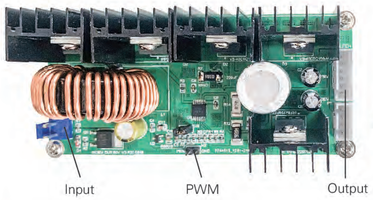
Dimensions

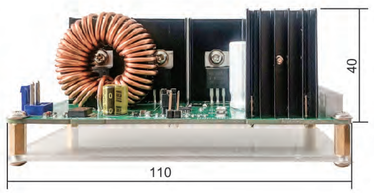


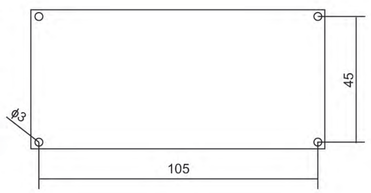
Application Scenario



Constant Current Driver



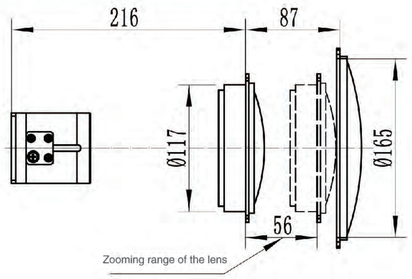




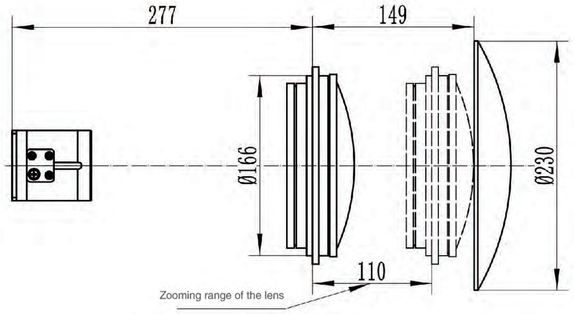
Drive Technical Indicators

Project	Value Min.	Typical	Max.	Unit
Input Voltage Range	35	36	42	V
Input Current Range	8	8	––	A
Output Voltage Range	80	80	––	V
Output Current Range (Constant Current)	3	3	3	A
Output Power Range	240	240	––	W
Output Ripple		<50mVpp		MV
Output Efficiency		95%		
Dimming Ratio (PWM)		0% – 100%		
Dimming Frequency(PWM)		⩾15		KHZ
Dimming Voltage (PWM)		0–3.3 /0–5		V
Dimming Function (PWM)		Active high,Brightness is Proportional to Percentage		
Dimming Interface (PWM)		HY2.0 – 2P Model:HX20020–2A		
Input Wiring Port		VH3.96 – 2P Model:B2P–VH(LF)(SN)		
Output Wiring Port		Model:XHB–6A/XHB–4A		
Operating Environment Temperature		–40~+85		℃
Installation Method		4/Φ3		
Dim(L*W*H)		110*50*40		MM

Lens Assembly Drawing



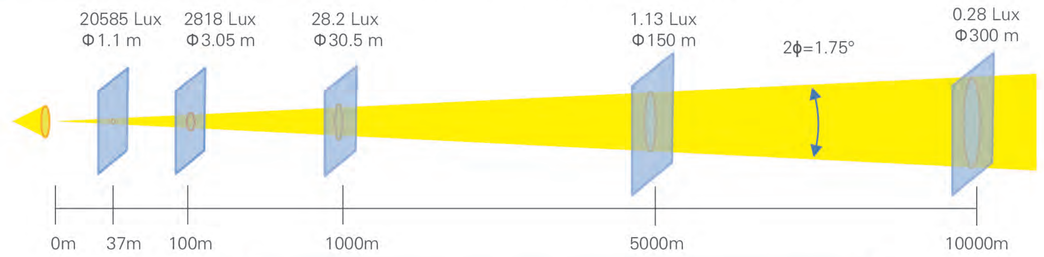
P20–Φ165mm Lens Group



P20–Φ230mm Lens Group

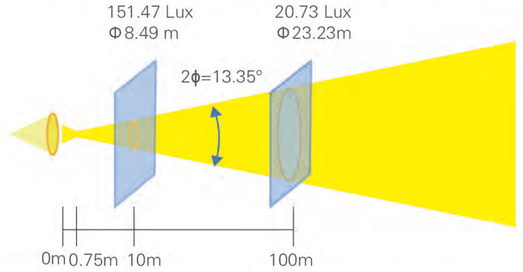
Optical Performance

P20–Φ165mm Lens Group（Collimating）



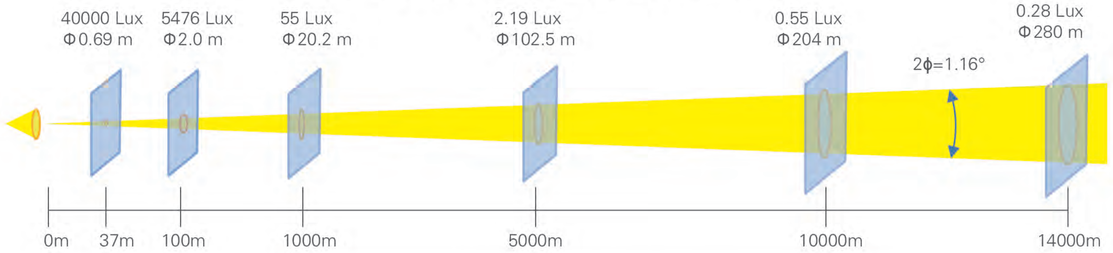
Luminous Intensity = 28,180,000 cd　Shot Distance =10,617 m

P20–Φ165mm Lens Group（Omni）



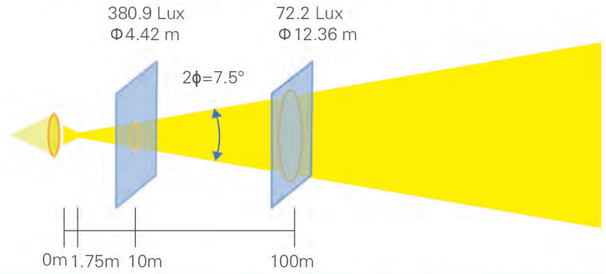
Luminous Intensity = 207,000 cd　Shot Distance =910 m

P20–Φ230mm Lens Group（Collimating）



Luminous Intensity = 54,760,000 cd　Shot Distance =14,800 m

P20–Φ230mm Lens Group（Omni）



Luminous Intensity = 521,000 cd　Shot Distance =1,444 m

LASER LIGHT SOURCE FOR LIGHTING

Application Success Stories

Tactical Flashlight

Light Source Model	WP–Rx
Light Intensity	1,917,000 cd
Shot Distance	2770 m
Endurance	1h45min
Full–angle	\
Application Scenario	HKP

Search and Rescue Light

Light Source Model	WP–NR1–UNI
Light Intensity	3,970,000 cd
Shot Distance	3985 m
Endurance	2h
Full–angle	1.7° – 24.8°
Application Scenario	Disaster Relief

Stage Lamp

Light Source Model	WP–P20
Light Intensity	50,000,000 cd
Shot Distance	14140 m
Endurance	\
Full–angle	\
Application Scenario	Performance

SPECIAL APPLICATION LIGHT SOURCE

Sensor, Machine Vision, Endoscope, etc.

Museum Lighting

Jewelry Testing

Application Scenario

Endoscope

Machine Vision

Vehicle Grade Laser Diode

- Working temperature from –20 to 120 degree
- Impact resistance, anti–vibration and max working stability

Unique Phosphor Crystal Coating Material

Special Nano diamond particles added,greatly improve the thermal conductivity, light intensity and reliability

Spectrum Can Be Customized

- CRI>90, real color rendering with high light intensity
- Broad spectrum from visible spectrum to infrared spectrum, wide application on sensing and detection

WP–P1

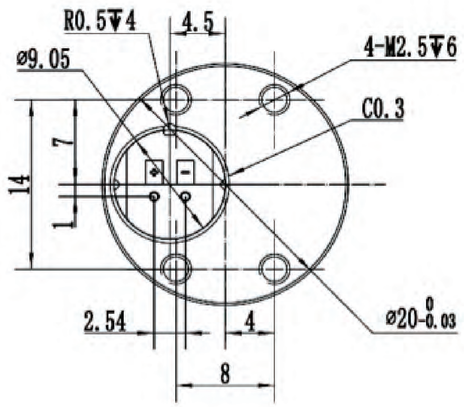
Special Application–Ultra High Brightness Source

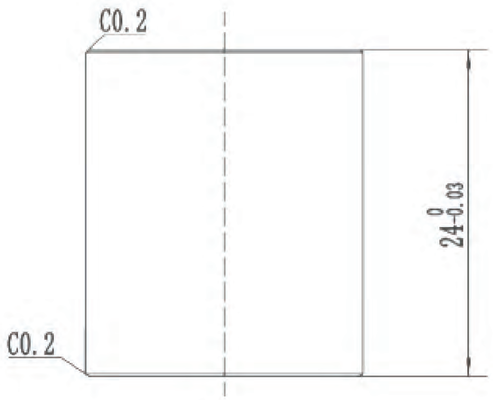
- High Brightness
- High Uniformity
- Zoomable
- 2 Times High Brightness

Product Parameters

		Value		Unit
Project	Min.	Typical	Max.	/
Drive Current	0.5	3.0	2.5	A
Drive Voltage@2.5A	4.0	4.6	4.8	V
Luminous Flux@2.5A	360	400	/	lm
Brightness@2.5A	1800	2000	/	cd/mm²
Color Temperature	5000	6000	7000	K
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h

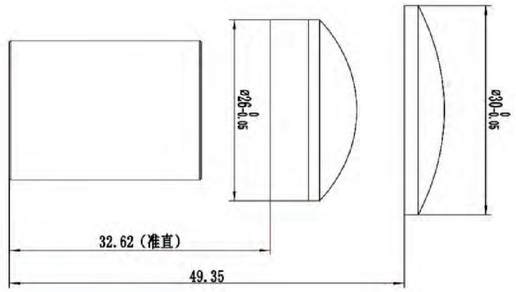
Dimensions



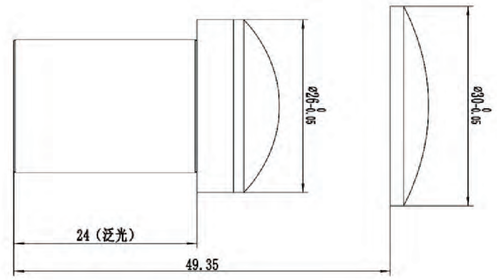


Lens Assembly Drawing

Long–shot State



Wide–angle State

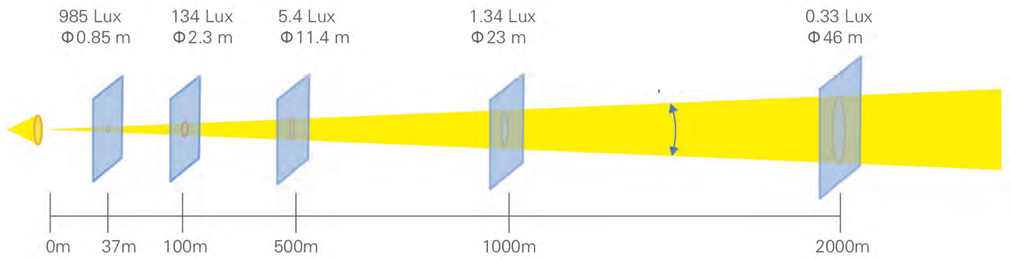


P1–Φ30mm Adjustable Lens Group

Optical Performance

P1–Φ30mmm Lens Group

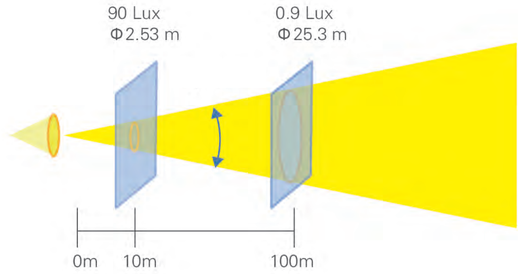
（Collimating）



Luminous Intensity = 1,348,465 cd　Shot Distance =2,322 m

P1–Φ30mmLens Group

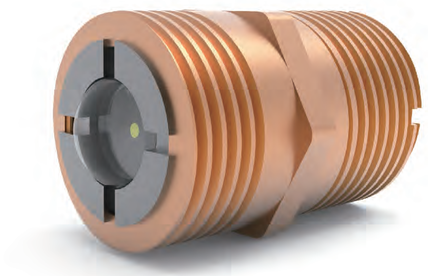
（Omni）



Luminous Intensity =9,000 cd　Shot Distance =189 m

WP–T2–spectra

Special Application–Broad Spectrum / Infrared Source

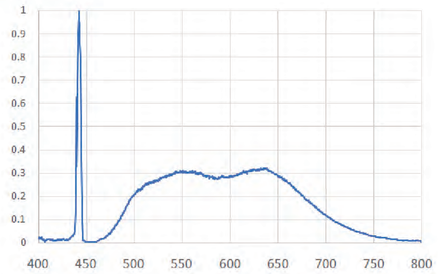


- Highly Customized
- Structural Fitness
- Broad Spectrum

Product Parameters

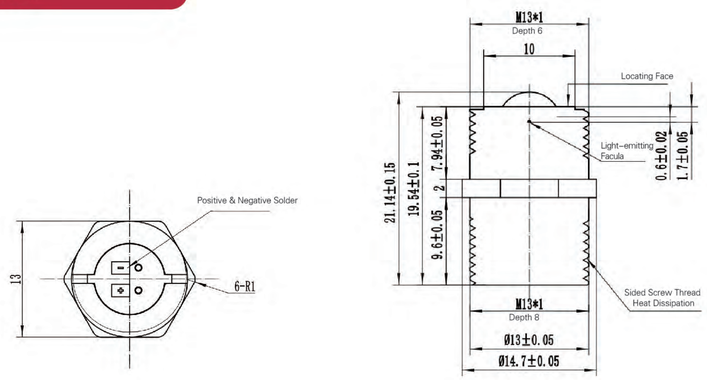
Project	Value			Unit
	Min.	Typical	Max.	/
Drive Current	0.5	2.5	2.5	A
Drive Voltage@2.5A	4.0	4.4	4.8	V
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h

Spectrum



1st Generation Broad Spectrum

Dimensions



WP–NT2–CRI

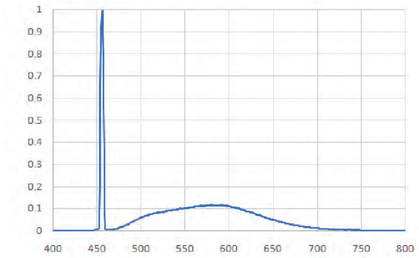
Special Application–High CRI Source

- Highly Customized
- Structural Fitness
- Hight CRI

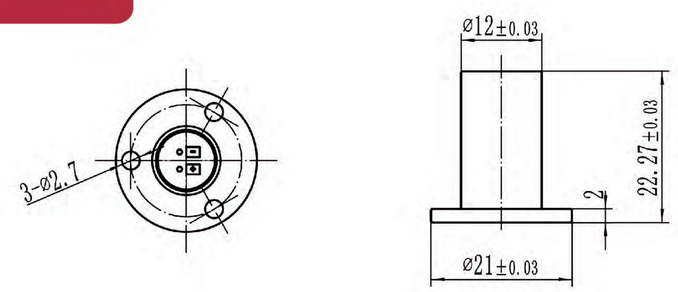
Product Parameters

Project	Value			Unit
	Min.	Typical	Max.	/
Forward Current	0.5	2.5	2.5	A
Forward Voltage@2.5A	4.0	4.4	4.8	V
Luminous Flux@2.5A	240	300	/	lm
Brightness@2.5A	220	260	/	cd/mm²
CRI	80	85	/	/
Color Temperature	4500	5500	6500	K
Emitting Half Angle	/	34	/	degree
Life	/	20000	/	h
Du	–0.015	/	0.015	/

Spectrum



Dimensions

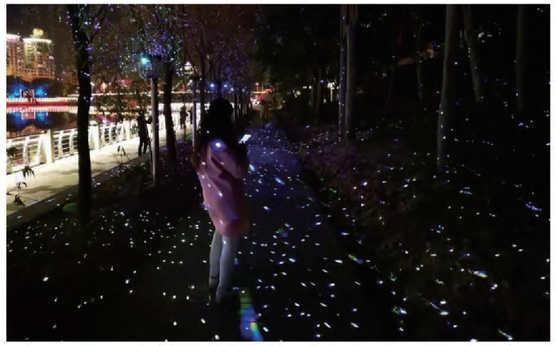


STARRY SKY DECORATIVE LIGHT MODULE

Application Success Stories

- ◆ Good Performance: Multiple light spots are moving irregularly
- ◆ Laser Safety of FDA Class I (No risk)
- ◆ Long Lifetime of 10,000 Hours
- ◆ Patterned Effect: Flexibly achieve rolling nebula, constellation, color and other special effects
- ◆ Intellectual Property: More than 20 patents, including US patents

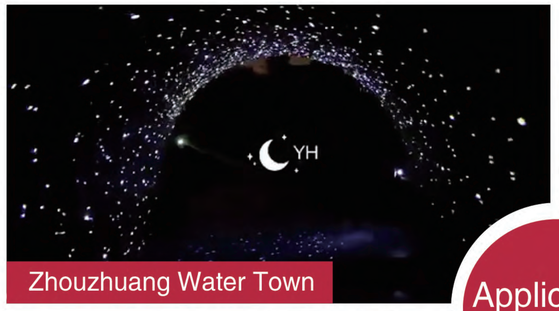
- ◆ Lighting Decoration of Buildings
- ◆ Application in KTV, Bar, Lobby and Stage
- ◆ Outdoor, Street and Landscape Lighting
- ◆ Light Shows



STARRY SKY DECORATIVE LIGHT MODULE

Product Features

Module				
	D5	D9	D12	D18
Light Source Power	6W	9W	11W	18W
Input Voltage	12–24V	12–24V	12–24V	12–24V
Rated Current	1A	2A	2A	3A
Brightness	★★★★☆	★★★★☆	★★★★☆	★★★★★
Projection Distance	★★★☆☆	★★★☆☆	★★★★☆	★★★★★
Security Level	★★★★★	★★★★★	★★★★★	★★★★★
Coverage Area@3m	15~30㎡	15~45㎡	20~60㎡	30~75㎡



Zhouzhuang Water Town

"Planet" Decorative Effect

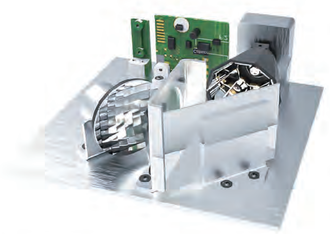
Application Scenario

Lanxi, Fujian

Changshan Lighting Project

D5 Star Decoration Lamp Module

Product Parameters

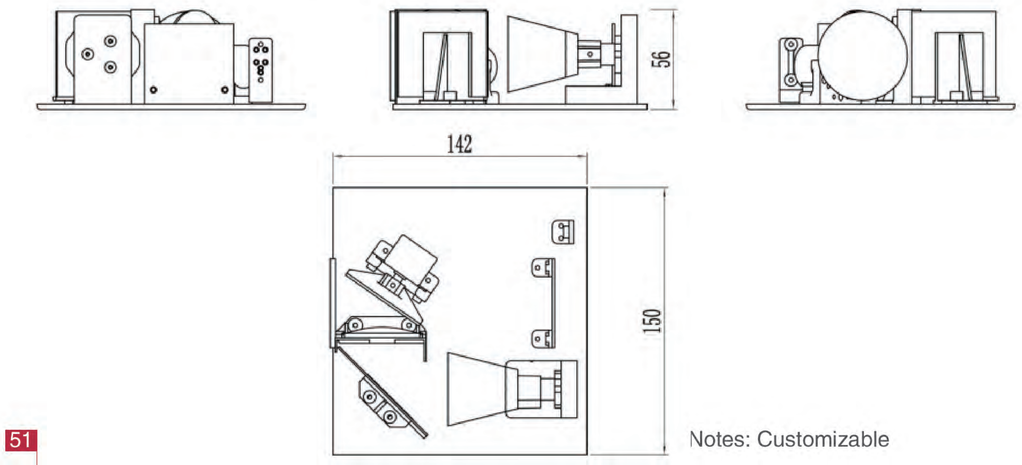


Parameter	Value			Unit
/	Min.	Typical	Max.	/
Forward Power	/	6	/	W
Luminous Flux	110	130	170	lm
Color Temperature	7000	/	/	K
Angle Coverage	/	90	/	degree
Life Time	/	10000	/	h

Specification Module

Parameter	Content/Values	Unit
Input Voltage	12–24	V
Color	White or Colorful	/
Dimensions	150x142x60	mm
Number of Light Spots	500 (Customizable)	pcs
Spot Shape	Circular	/
Diameter of Coverage Area@3m	15~30	m^2
Spot Diameter@3m	25~80	mm
Control Model	Clockwise Quick/Clockwise Slow/Anti–clockwise Slow/ Anti–clockwise Quick/Bright and Dark/Stop	/
Operating Temperature	–20℃~60℃	/

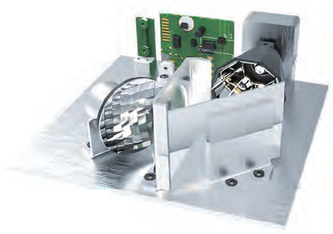
Dimensions



Notes: Customizable

D9 Star Decoration Lamp Module

Product Parameters

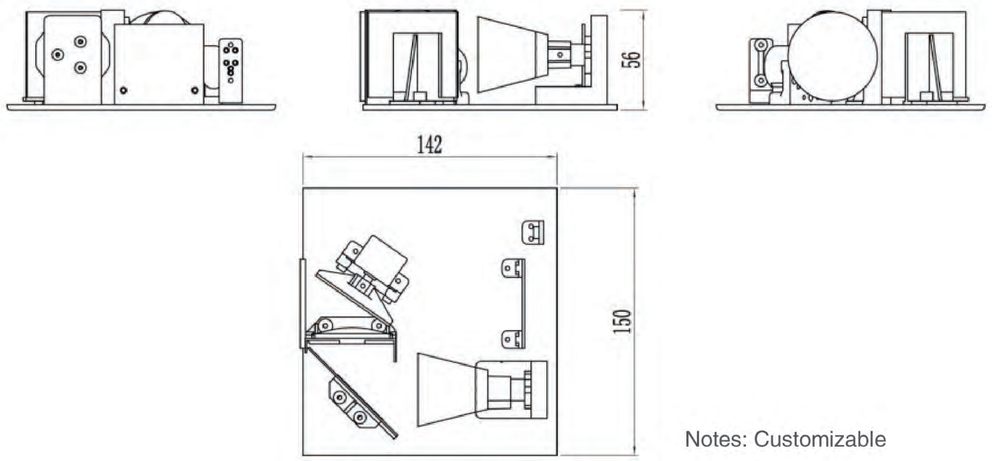


Parameter	Value			Unit
/	Min.	Typical	Max.	/
Forward Power	/	9	/	W
Luminous Flux	290	380	/	lm
Color Temperature	7000	/	/	K
Angle Coverage	/	90	/	degree
Life Time	/	10000	/	h

Specification Module

Parameter	Content/Values	Unit
Input Voltage	12–24	V
Color	White or Colorful	/
Dimensions	150x142x60	mm
Number of Light Spots	500 (Customizable)	pcs
Spot Shape	Circular	/
Diameter of Coverage Area@3m	15~45	m^2
Spot Diameter@3 m	25~80	mm
Control Model	Clockwise Quick/Clockwise Slow/Anti–clockwise Slow/ Anti–clockwise Quick/Bright and Dark/Stop	/
Operating Temperature	–20℃~60℃	/

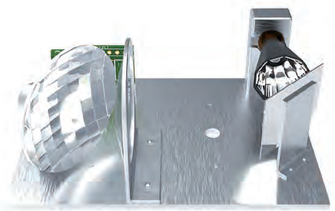
Dimensions



Notes: Customizable

D12 Star Decoration Lamp Module

Product Parameters

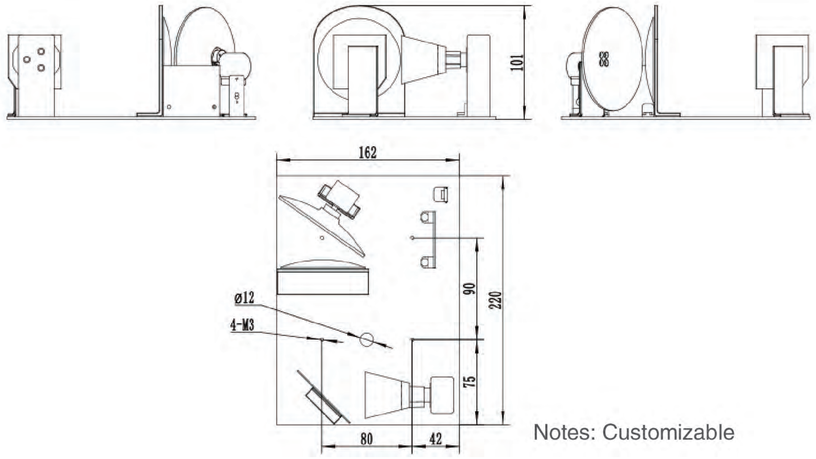


Parameter	Value			Unit
/	Min.	Typical	Max.	/
Forward Power	/	11	/	W
Luminous Flux	350	450	/	lm
Color Temperature	7000	/	/	K
Angle Coverage	/	90	/	degree
Life Time	/	10000	/	h

Specification Module

Parameter	Content/Values	Unit
Input Voltage	12–24	V
Color	White or Colorful	/
Dimensions	220x162x101	mm
Number of Light Spots	500 (Customizable)	pcs
Spot Shape	Circular	/
Diameter of Coverage Area@3m	20~60	㎡
Spot Diameter@3 m	15~40	mm
Control Model	Clockwise Quick/Clockwise Slow/Anti–clockwise Slow/ Anti–clockwise Quick/Bright and Dark/Stop	/
Operating Temperature	–20℃~60℃	/

Dimensions



Notes: Customizable

D18 Star Decoration Lamp Module

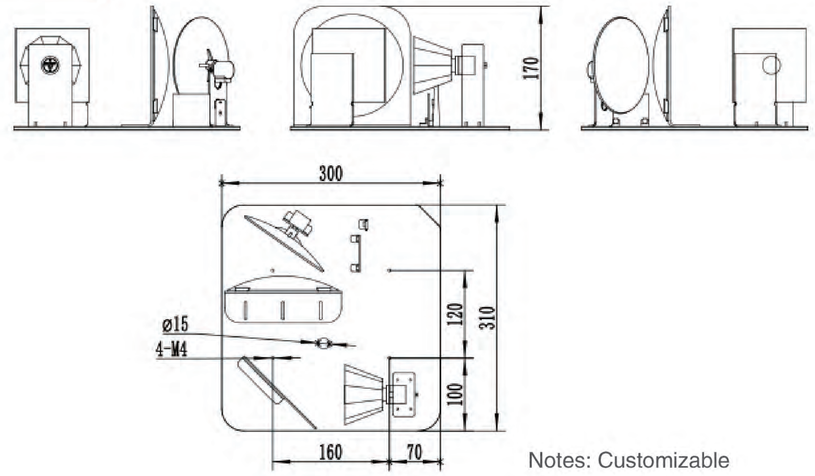
Product Parameters

Parameter	Value			Unit
/	Min.	Typical	Max.	/
Forward Power	/	18	/	W
Luminous Flux	600	660	/	lm
Color Temperature	7000	/	/	K
Angle Coverage	/	90	/	degree
Life Time	/	10000	/	h

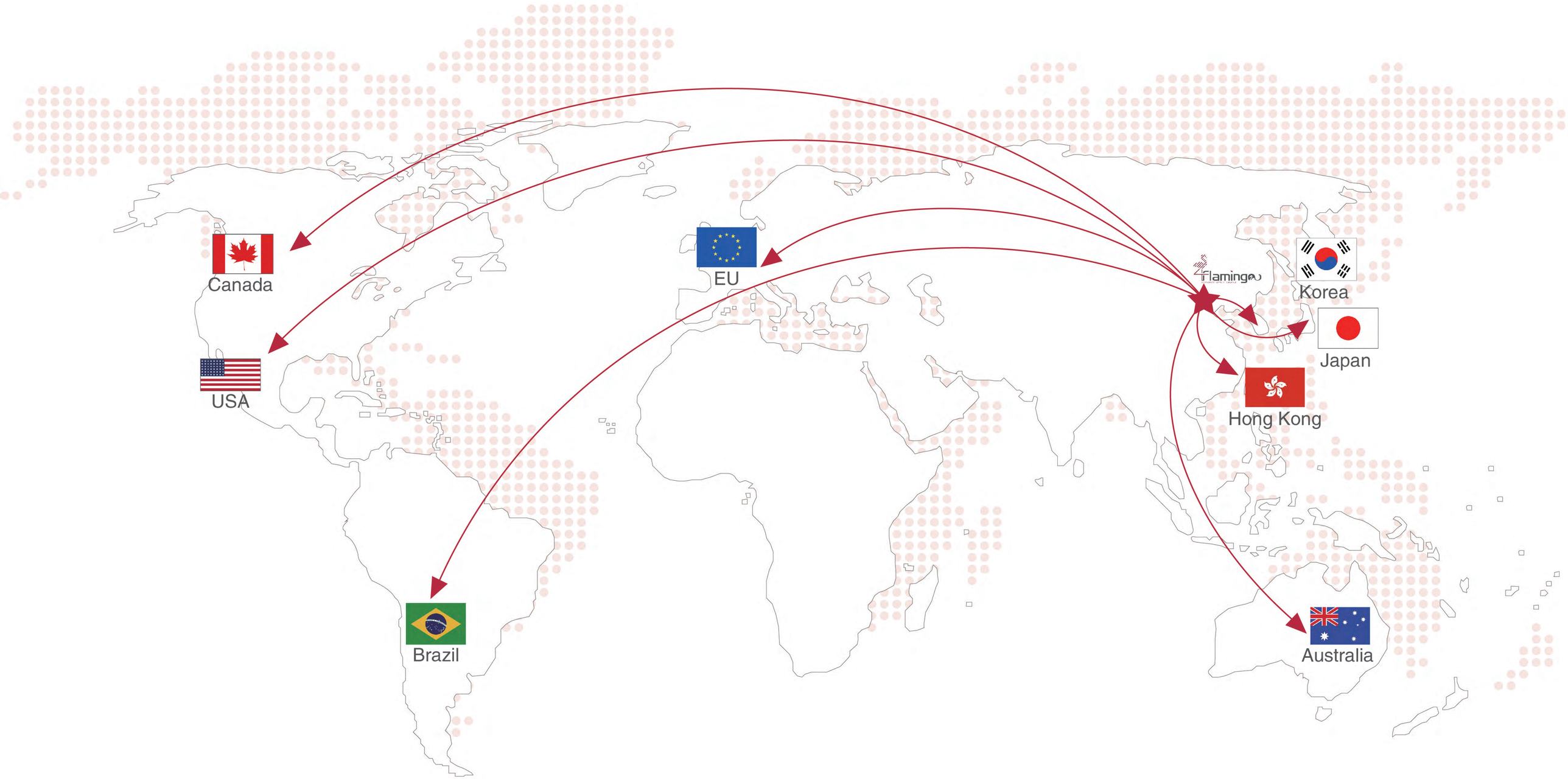
Specification Module

Parameter	Content/Values	Unit
Input Voltage	12–24	V
Color	White or Colorful	/
Dimensions	310x300x170	mm
Number of Light Spots	500 (Customizable)	pcs
Spot Shape	Circular	/
Diameter of Coverage Area@3m	30~75	㎡
Spot Diameter@3 m	20~45	mm
Control Model	Clockwise Quick/Clockwise Slow/Anti–clockwise Slow/ Anti–clockwise Quick/Bright and Dark/Stop	/
Operating Temperature	–20℃~60℃	/

Dimensions



Notes: Customizable


Canada
USA
EU
Brazil
Flamingoo
Korea
Japan
Hong Kong
Australia