

**Outdoor Lighting Solution** 

#### WICOP \_ Street Light Lens

SMJL-1S2S77AA-XX01 (TII S Lens)







### **Product Brief**

#### **Description**

- Type II-Short Single Lens designed for Street Lighting
- Suitable for WICOP Module Cell 3030---Y19, Y22, 4in1 Y11
- Lens has high precision, non-spherical surface and optical level material

#### **Features and Benefits**

- High efficiency
- Good beam distribution
- Uniform light spot
- RoHS compliant

#### **Key Applications**

Street lighting

#### Material

- PMMA
- Efficiency: 96%

#### **Dimensions**

• L(mm)\*W(mm)\*H(mm): 19.0\*16.0\*5.2

#### **Beam Angle**

· Type II, Short

#### Installation

· With holder

Table 1. Product Selection (Order Code Table)

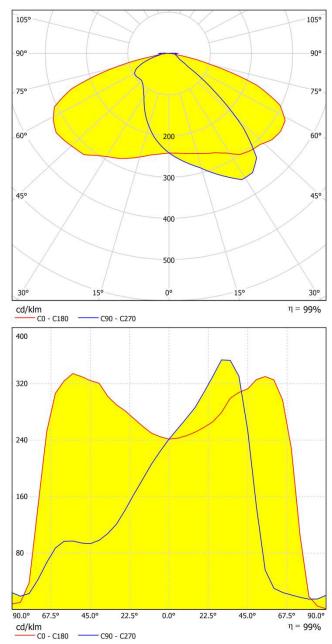
Part No.	SAP Code	Material	Efficiency	Beam Type	Size(mm)
SLJL-1S2S77AA-XX01	1011561	PMMA	96%	Type II, Short	19.0*16.0*5.2

Suitable Leds	сст	CRI	View Angle (Degree)	LES(mm)	Certificate
WICOP SZ8 Y19	2600~7000	70~90	140	1.8*1.8*0.4	LM80
WICOP SZ8 Y22	2600~7000	70~90	140	2.2*2.2*0.4	LM80
WICOP SZ8 Y11-4in1	2600~7000	70~90	150	2.78*2.78*0.45	LM80

# **Optical Characteristics**

#### **Polar Candela Distribution**

LED Source: SZ8 - Y19



#### **Photometric Characteristics**

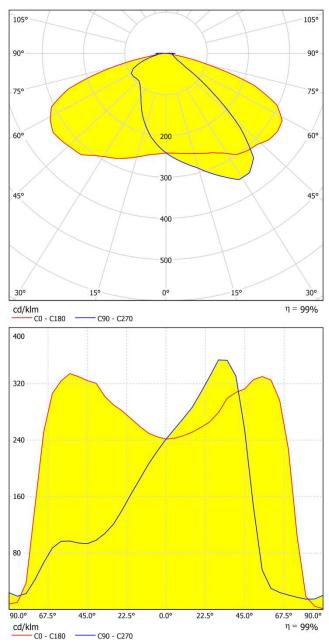
Characteristics	Properties		
IES Classification	Type II, Short		
Beam Angle(Degree)	Horizontal 141.7, Vertical 91.0		
Max. Cd. (Degree)	47.5H, 25.5V		
House Side	42.1%		
Cutoff Classification	Semi-Cutoff		



# **Optical Characteristics**

#### **Polar Candela Distribution**

LED Source: SZ8 - Y22



#### **Photometric Characteristics**

Characteristics	Properties		
IES Classification	Type II, Short		
Beam Angle(Degree)	Horizontal 142, Vertical 101		
Max. Cd. (Degree)	-42.5H, 29V		
House Side	41.7%		
Cutoff Classification	Semi-Cutoff		

## **Application Performance**

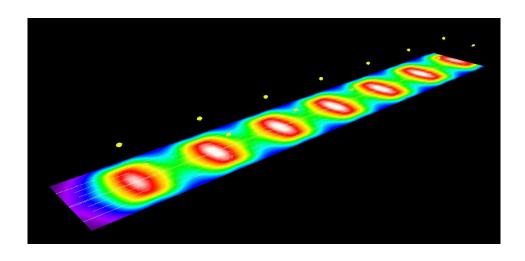
### **Street Lighting Simulation (Example):**

Arrangement: Double row, opposing

Pole Distance: 35.000 m Mounting Height: 12.000 m

Overhang: 1.500 m Boom Angle: 0 °

Boom Length: 2.800 m Luminous Flux: 28152 lm Road Pavement: R3, q0: 0.07 Selected Lighting Class: M1



Tarmac: R3, q0: 0.070

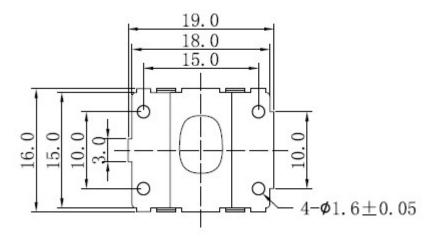
$$L_{av}$$
 [cd/m²] U0 UI TI [%] SR 2.09 0.75 0.81 7 0.86 ≥ 2.00 ≥ 0.40 ≥ 0.70 ≤ 10 ≥ 0.50

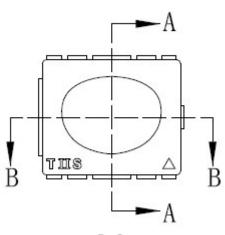
### **Suitable Street Arrangements:**

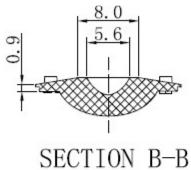
Street Surface	Number of lanes	Pole Height(m)	Pole Distance(m)	Boom Angle(°)	Single Row	Double Row
R3	2 ~ 3	10	≤35	0 ~ 15	S	S
	4 ~ 6	10 ~ 12	25 ~ 45	0 ~ 15	×	s

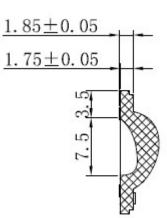
S: Suitable X: Not suitable

### **Mechanical Dimensions**

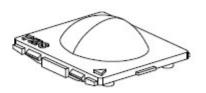


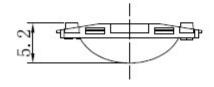






SECTION A-A





**Unit: millimeter** 



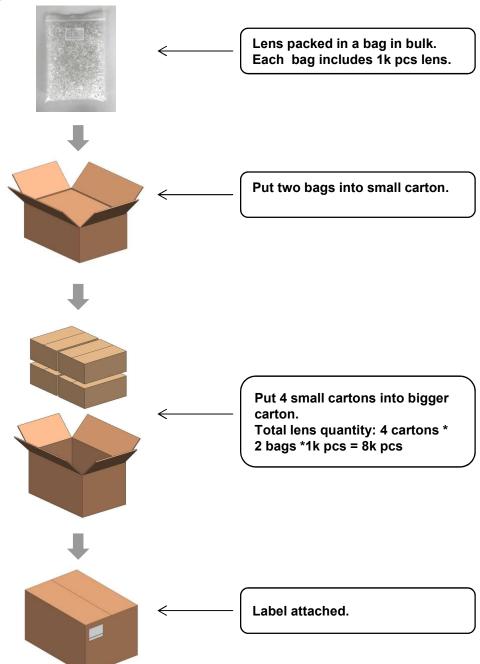
## **Marking Information**

Table 1. Product Information

<u>SMJL</u> - <u>1</u> <u>S</u> <u>2</u> <u>S</u> <u>7</u> <u>7</u> <u>A</u> <u>A</u> <u>A</u> - <u>XX</u> <u>O</u> <u>1</u> ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

No	Data	Digit	Example	Re	mark	
1	Product Name-1	4	SMJL	SSC Internal	Code for Lens	
2	Lens Category	1	1	2: 2X2 / 3: 2X6 /	gle Lens Array Lens Array Lens Array Lens	
3	Application Field	1	S	S: Stree	et Lighting	
4	Beam Angle – Class 1	1	2	1: <sup>-</sup> 2: T 3: T 4: T	erse Distribution: Гуре I Гуре II Гуре III Уре IV уре V	
5	Beam Angle – Class 2	1	S	Light Longitudinal Distribution: S: Short M: Medium L: Long		
6	Field Angle – Class 1	1	7	Horizontal	(NEMA Standard) 1: 10~18° 2: 19~29° 3: 30~46°	
7	Field Angle – Class 1	1	7	Vertical	4: 47~70° 5: 71~100° 6: 101~130° 7: >130°	
8	Material	1	Α	A: PMMA C: PC		
				A: WICOP 3030 Module	WICOP Y19/Y22	
		1			WICOP Y11 4in1	
9 Suitable LED Source	Suitable LED Source		Α		WICOP Y19 4in1	
				B: WICOP 5050 Module	WICOP Y22 4in1	
				iviodule	WICOP Y11 Matrix Cell-5/9	
10	Notes	2	XX	XX: Reference Design		
11	Version	2	01	01: Firs	st Version	

## **Packing Information**



### **Operation Environment**

ltem	Standard
Flammability	UL 94-HB
Vicat Softening Temperature	108℃
Operation Temp. Range	-10°C~+85°C
Recommended Storage	Temperature: -10°C~+40°C
Environment	Humidity: < 80%RH
Install Method	With holder



### **Company Information**

#### Published by

Seoul Semiconductor © 2013 All Rights Reserved.

#### **Company Information**

Seoul Semiconductor (SeoulSemicon.com) manufacturers and packages a wide selection of light emitting diodes (LEDs) for the automotive, general illumination/lighting, appliance, signage and back lighting markets. The company is the world's fifth largest LED supplier, holding more than 10,000 patents globally, while offering a wide range of LED technology and production capacity in areas such as "nPola", deep UV LEDs, "Acrich", the world's first commercially produced AC LED, and "Acrich MJT - Multi-Junction Technology" a proprietary family of high-voltage LEDs. The company's broad product portfolio includes a wide array of package and device choices such as Acrich, high-brightness LEDs, mid-power LEDs, side-view LEDs, through-hole type LED lamps, custom displays, and sensors. The company is vertically integrated from epitaxial growth and chip manufacture in it's fully owned subsidiary, Seoul Viosys, through packaged LEDs and LED modules in three Seoul Semiconductor manufacturing facilities. Seoul Viosys also manufactures a wide range of unique deep-UV wavelength devices.

#### **Legal Disclaimer**

Information in this document is provided in connection with Seoul Semiconductor products. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Seoul Semiconductor hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights of any third party. The appearance and specifications of the product can be changed to improve the quality and/or performance without notice.



# **Revision History**

Revision	Date	Page	Remarks
0.1	June 20, 2018	All	Version R0.1