# **4.4**" Front Light Panel

12561-06 | Product Data Sheet | 2020

## **Overview**

The **FLEx Front Light Panel** optical film is designed to laminate to the front surface of **Sharp reflective display (LSO44Q7DH01)** to provide high quality on-demand display lighting. This thin plastic panel incorporates only a single LED which enables product designers to develop ultra-thin devices and minimize battery use.

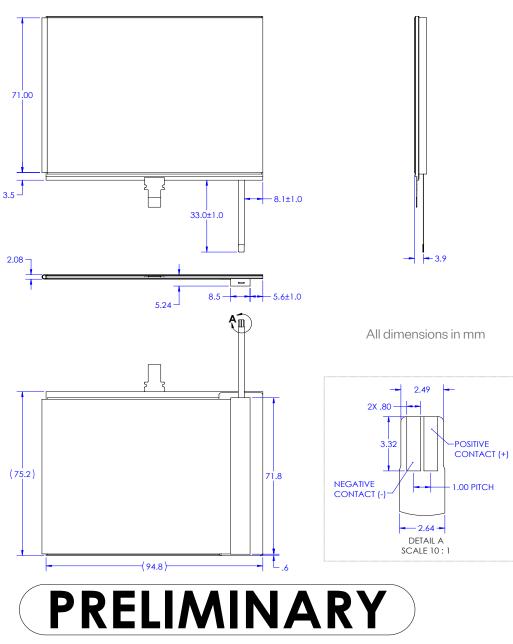
- One low-power LED (included in Front Light)
- Over 80x less power compared to traditional backlighting
- 0.05 mm thick FLEx film is over **5x thinner** than alternative lightguides
- Simple I/F and Connectivity to System Board

For more information: WEB <u>flexlighting.com</u> CONTACT <u>flexlighting.com/contact</u> PHONE 773-295-0305

FLEx



### **Mechanical**



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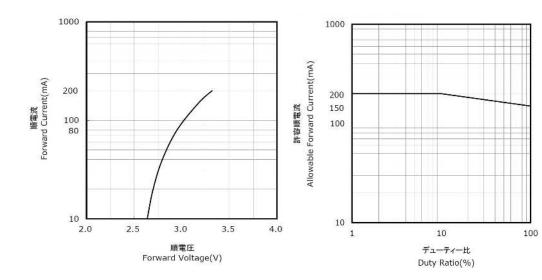
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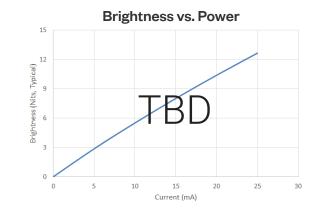
# Electrical

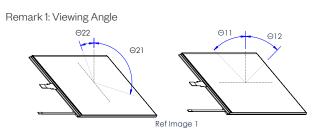
ltem	Symbol	Typical	Absolute Max	Unit
Forward Current	I <sub>F</sub>	40	60	mA
Pulse Forward Current	l FP		200	mA
Reverse Voltage	V <sub>R</sub>	2.95	3.4	V



## **Optical (PRELIMINARY)**

4.4" Sharp + Front Light (12561-06)								
ltem		Symbol	TYP.	Unit	Remark			
Viewing Angle CR >2	V	Θ 11 Θ 12		° (Degree)	[Remark 1]			
	Н	Θ 21 Θ 22		° (Degree)				
Contrast Ratio	Front light ON	CR	10		[Remark 2]			





Remark 2: Definition of Contrast Ratio

 $Contrast Ratio (CR) = \frac{Reflection intensity in white display}{Reflection intensity in black display}$ 

Measurements taken with a Minolta Chroma Meter CS-100 at a 17" view distance

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PHONE 773-295-0305

### Example ZIF Connectors:

- Molex 503480-0400
- Molex 52745-0497
- Molex 54550-0471
- Molex 54548-0471 (bottom)
- Molex 505110-0492

