# OPA775, OPA776 VLED Back Lighting Ladder



### **Back Lighting Ladder**

- 3, 0.5 watt LEDs per strip
- Mono-color per strip (Daylight White)
- Component beam angle 120°
- RoHS Compliant



The **OPA775 and OPA776** are designed for areas where light output and reliability are essential. The light beam angle of 120° is ideal for illuminating small and m edium size areas while requiring minimal space. The devices are mounted on an FR-4 PC Board for ease of use with an easy to use IDC connector interface.

For custom colors and design contact your OPTEK representative.

#### Applications

- Architectural accent lighting
- Under-counter lighting
- Media illumination

- Lighting for large channel letters
- Backlighting for light boxes
- Point-of-sale displays

#### Optical and Electrical Characteristics - Daylight White ( $I_F = 125 \text{ mA}, T_A = 25^{\circ}\text{C}$ )

| Part Number     | Typical<br>Forward<br>Voltage (V) | Typical<br>Luminous<br>Flux (Im) | Beam<br>Angle | Color             | Typical<br>CCT | Connector     | Insertion Tool         | Wire Size<br>Min/Max |
|-----------------|-----------------------------------|----------------------------------|---------------|-------------------|----------------|---------------|------------------------|----------------------|
| OPA775 (Note 3) | 12                                | 63                               | 120°          | Daylight<br>White | 5,750K         | Zierick 1286T | Zierick 1286<br>Series | 18 or 20<br>AWG      |
| OPA776 (Note 4) | 24                                | 126                              |               |                   |                |               |                        |                      |



#### Notes:

- 1. Maximum storage and operating temperature −40°~ +100℃
- 2. ESD threshold (HBM) 2000V
- 3. 12VDC power supply not included. 0.2A minimum rating required, for each OPA775.
- 4. 24VDC power supply not included. 0.2A minimum rating required for each OPA776.





OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.



## Suggested Design Options

| Optek Part Number | Number of LEDs per<br>Strip | Number of Strips<br>per Buss | LED Drive Current<br>per Strip | AWG | Supply<br>Voltage |
|-------------------|-----------------------------|------------------------------|--------------------------------|-----|-------------------|
| OPA775            | 3                           | 1 to 30                      | 125mA                          | 18  | 12V               |
| OPA776            | 6                           | 2 to 60*                     | 125mA                          | 18  | 24V               |

Notes:

Multiples of 2 only

Mounting Instructions:

- 1. Install backplane (not included) behind panel to be illuminated.
- 2. Use masking tape (not included) to temporarily position the boards on backplane.
- 3. Reposition all boards until optimal illumination is achieved.
- 4. Attach PCBs to backplane with #6 screw and nut, nylon press fastener, or adhesive tape on back of boards.



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