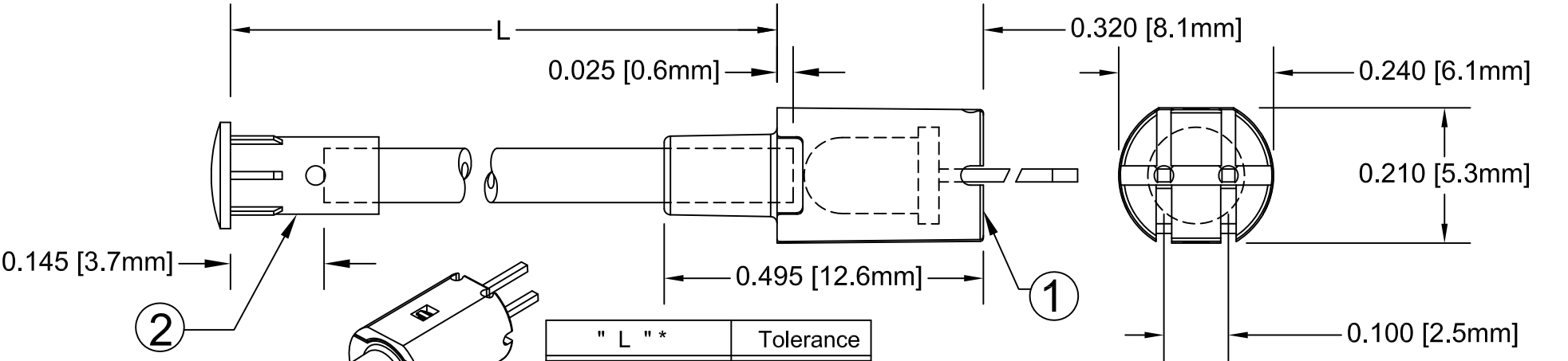


| ITEM | Q'TY | PART NUMBER | PART DESCRIPTION                                              |
|------|------|-------------|---------------------------------------------------------------|
| 1    | 1    | FLPV-XX     | Flexible Light Pipe Adapter, Vertical, w/LED, See page 2 & 3. |
| 2    | 1    | LC-XX.X     | Flexible Light Pipe Lens Cap Assembly                         |

| REV. | DESCRIPTION                                 | DATE     | APPROVED |
|------|---------------------------------------------|----------|----------|
| D    | Added Shipping Note and Tolerance Table     | 04/17/06 | M. C.    |
| E    | Changed Length from 2.5 to 0.5 at "L" Table | 02/12/07 | M. C.    |
| F    | Updated BOM                                 | 01/25/08 | M. C.    |
| G    | Updated FLPC Hidden View.                   | 08/27/08 | M. C.    |
| H    | Updated White Assy P/N                      | 12/03/10 | T. Y.    |
| J    | Updated Table For Length "L"                | 11/14/12 | T. Y.    |
| K    | Replace 3UWC-0.6K-F With 3UWC1.035C-F       | 04/08/13 | T. Y.    |

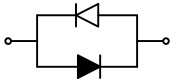
NOTE: FLPV-XX ADAPTER SHIPPED NON-ASSEMBLED



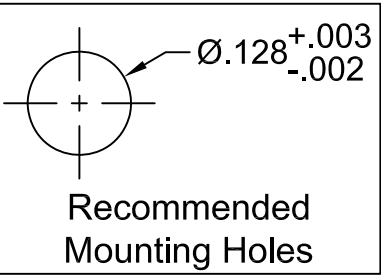
| " L " *          | Tolerance |
|------------------|-----------|
| 1.0" ~ 16.0"     | ±0.050"   |
| 16.1" ~ 40.0"    | ±0.15"    |
| 40.1" ~ 80.0"    | ±0.30"    |
| 80.1" ~ 3,940.0" | ±0.5%     |

\* Available in 0.1" increments only

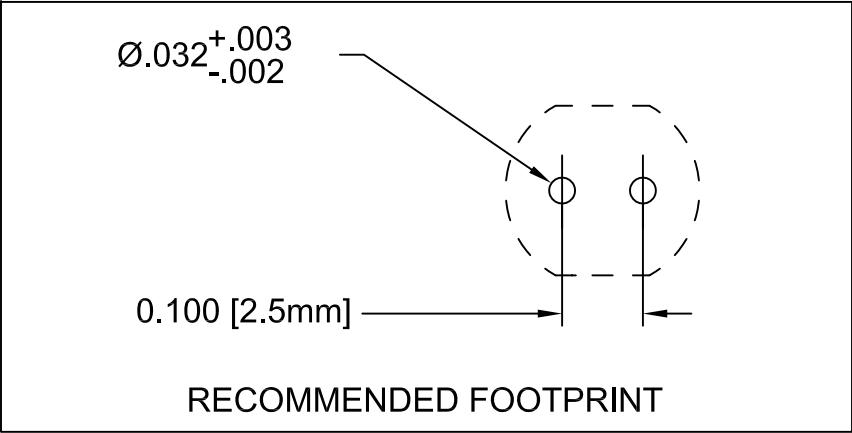
BI-COLOR LED'S



SINGLE COLOR LED  
SHORT LEAD CATHODE



| SHORT LEAD CATHODE | LED PART NO. | LONG LEAD CATHODE |
|--------------------|--------------|-------------------|
| RED                | 3xBCC-F      | GREEN             |
| YELLOW             | 3xBCC-Y/G-F  | GREEN             |
| RED                | 3xBCC-R/Y-F  | YELLOW            |
| AMBER              | 3xBCC-A/G-F  | GREEN             |



## ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

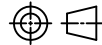
|                                             |                      |
|---------------------------------------------|----------------------|
| REVERSE VOLTAGE                             | 5V                   |
| REVERSE CURRENT                             | 100uA                |
| OPERATING TEMPERATURE RANGE                 | -25° C - 85° C       |
| STORAGE TEMPERATURE                         | -30° C - 100° C      |
| LEAD SOLDERING TEMPERATURE(1/16" FROM BODY) | 260° C FOR 5 SECONDS |

|                                                      |                          |                                                                                                                                   |                |
|------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED ) |                          | <div><b>BIVAR</b>®</div> <div>4 THOMAS, IRVINE, CA. 92618</div> <div>TEL: (949) 951-8808 FAX: (949) 951-3974</div>                |                |
| DECIMALS                                             | ANGULAR                  |                                                                                                                                   |                |
| .X ±.1                                               | X° ± 1°                  |                                                                                                                                   |                |
| .XX ±.02                                             |                          |                                                                                                                                   |                |
| .XXX ±.010                                           |                          |                                                                                                                                   |                |
| DESIGNED:<br><b>Shane Irving</b>                     | DATE:<br><b>05/06/99</b> | <div>TITLE: FLEXIBLE LIGHT-PIPE ASSY<br/>VERTICAL, 3mm LENS CAP W/LED</div> <div>PART NO: FLPVX.X-XX</div> <div>REVISION: K</div> |                |
| CHECKED:<br><b>M. Chen</b>                           | DATE:<br><b>07/03/02</b> |                                                                                                                                   |                |
|                                                      |                          | CAGE CODE : 32559                                                                                                                 | SHEET # 1 OF 3 |
| CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING.      |                          |                                                                                                                                   |                |

| REV. | DESCRIPTION  | DATE | APPROVED |
|------|--------------|------|----------|
|      | SEE SHEET#1. |      |          |
|      |              |      |          |

| LED Assy. No. | Emitted Color | Peak Wave Length<br>$\lambda_p$ (nm) | Lens Appearance | Absolute Max. Ratings |            |                 | Electro-Optical Data @ 20mA |      |             | Viewing Angle<br>$2\theta \frac{1}{2}$<br>(Deg) | LED P/N |
|---------------|---------------|--------------------------------------|-----------------|-----------------------|------------|-----------------|-----------------------------|------|-------------|-------------------------------------------------|---------|
|               |               |                                      |                 | Pd<br>(mW)            | If<br>(mA) | Peak If<br>(mA) | Vf<br>(V)                   |      | Iv<br>(mcd) |                                                 |         |
|               |               |                                      |                 |                       |            |                 | Typ.                        | Max. | Typ.        |                                                 |         |
| FLPVX.X-SG    | SUPER GREEN   | 568                                  | WATER CLEAR     | 80                    | 30         | 150             | 2.1                         | 2.8  | 50          | 20                                              | 3SGC-F  |
| FLPVX.X-SY    | SUPER YELLOW  | 590                                  | WATER CLEAR     | 85                    | 30         | 150             | 2.0                         | 2.8  | 50          | 20                                              | 3SYC-F  |
| FLPVX.X-SA    | SUPER AMBER   | 605                                  | WATER CLEAR     | 100                   | 30         | 150             | 1.8                         | 2.4  | 300         | 20                                              | 3SAC-F  |
| FLPVX.X-SR    | SUPER RED     | 645                                  | WATER CLEAR     | 70                    | 30         | 150             | 1.7                         | 2.4  | 60          | 20                                              | 3SRC-F  |

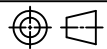
| LED Assy. No.  | Emitted Color | Peak Wave Length<br>$\lambda_p$ (nm) | Lens Appearance | Absolute Max. Ratings |            |                 | Electro-Optical Data @ 20mA |      |             | Viewing Angle<br>$2\theta \frac{1}{2}$<br>(Deg) | LED P/N      |
|----------------|---------------|--------------------------------------|-----------------|-----------------------|------------|-----------------|-----------------------------|------|-------------|-------------------------------------------------|--------------|
|                |               |                                      |                 | Pd<br>(mW)            | If<br>(mA) | Peak If<br>(mA) | Vf<br>(V)                   |      | Iv<br>(mcd) |                                                 |              |
|                |               |                                      |                 |                       |            |                 | Typ.                        | Max. | Typ.        |                                                 |              |
| FLPVX.X-UBW.6K | BLUE          | 470                                  | WATER CLEAR     | 150                   | 25         | 70              | 4.0                         | 4.5  | 400         | 20                                              | 3UBWC-0.6K-F |
| FLPVX.X-UT     | TURQUOISE     | 500                                  | WATER CLEAR     | 70                    | 30         | 150             | 3.5                         | 4.0  | 800         | 20                                              | 3UTC-F       |
| FLPVX.X-UG     | GREEN         | 570                                  | WATER CLEAR     | 100                   | 30         | 150             | 2.1                         | 2.4  | 200         | 20                                              | 3UGC-F       |
| FLPVX.X-SUG    | GREEN         | 570                                  | WATER CLEAR     | 100                   | 30         | 150             | 2.1                         | 2.4  | 300         | 20                                              | 3SUGC-F      |
| FLPVX.X-UY     | YELLOW        | 590                                  | WATER CLEAR     | 85                    | 30         | 150             | 2.0                         | 2.4  | 300         | 20                                              | 3UYC-F       |
| FLPVX.X-SUY    | YELLOW        | 590                                  | WATER CLEAR     | 85                    | 30         | 150             | 2.0                         | 2.4  | 400         | 20                                              | 3SUYC-F      |
| FLPVX.X-UUY    | YELLOW        | 590                                  | WATER CLEAR     | 85                    | 30         | 150             | 2.0                         | 2.4  | 600         | 20                                              | 3UUYC-F      |
| FLPVX.X-UO     | ORANGE        | 625                                  | WATER CLEAR     | 100                   | 30         | 150             | 1.8                         | 2.4  | 300         | 20                                              | 3UOC-F       |
| FLPVX.X-SUO    | ORANGE        | 625                                  | WATER CLEAR     | 100                   | 30         | 150             | 1.8                         | 2.4  | 400         | 20                                              | 3SUOC-F      |
| FLPVX.X-UR     | RED           | 645                                  | WATER CLEAR     | 60                    | 30         | 150             | 1.7                         | 2.4  | 200         | 20                                              | 3URC-F       |
| FLPVX.X-SUR    | RED           | 640                                  | WATER CLEAR     | 70                    | 30         | 150             | 1.8                         | 2.4  | 200         | 20                                              | 3SURC-F      |
| FLPVX.X-UW0.6K | WHITE         | -                                    | WATER CLEAR     | 120                   | 30         | 100             | 3.4                         | 3.8  | 1000        | 35                                              | 3UWC1.035C-F |

|                                                                               |                          |                                                                                                                                                                 |                       |
|-------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br>$\pm 10\%$ ALL VALUES |                          | <br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808 FAX: (949) 951-3974 |                       |
| ANGULAR<br>$X^\circ \pm 5^\circ$                                              |                          |                                                                            |                       |
| DESIGNED:<br><b>David Green</b>                                               | DATE:<br><b>06/09/03</b> | TITLE: FLEXIBLE LIGHT-PIPE ASSY<br>VERTICAL, 3mm LENS CAP W/LED                                                                                                 |                       |
| CHECKED:<br><b>M. Chen</b>                                                    | DATE:<br><b>06/09/03</b> | PART NO:<br><b>FLPVX.X-XX</b>                                                                                                                                   | REVISION:<br><b>K</b> |
|                                                                               |                          | CAGE CODE : 32559                                                                                                                                               | SHEET # 2 OF 3        |
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| REV. | DESCRIPTION  | DATE | APPROVED |
|------|--------------|------|----------|
|      | SEE SHEET#1. |      |          |
|      |              |      |          |

| LED Assy. No.  | Emitted Color | Peak Wave Length<br>$\lambda_p$ (nm) | Lens Appearance | Absolute Max. Ratings |            |                 | Electro-Optical Data @ 20mA |      |             | Viewing Angle<br>2 $\theta$ $\frac{1}{2}$<br>(Deg) | LED P/N    |
|----------------|---------------|--------------------------------------|-----------------|-----------------------|------------|-----------------|-----------------------------|------|-------------|----------------------------------------------------|------------|
|                |               |                                      |                 | Pd<br>(mW)            | If<br>(mA) | Peak If<br>(mA) | Vf<br>(V)                   |      | Iv<br>(mcd) |                                                    |            |
|                |               |                                      |                 |                       |            |                 | Typ.                        | Max. | Typ.        |                                                    |            |
| FLPVX.X-BC     | HE RED        | 625                                  | WATER CLEAR     | 80                    | 30         | 150             | 2.0                         | 2.8  | 8           | 40                                                 | 3BCC-F     |
|                | GREEN         | 568                                  |                 | 80                    | 30         | 150             | 2.1                         | 2.8  | 8           |                                                    |            |
| FLPVX.X-BC-Y/G | YELLOW        | 590                                  | WATER CLEAR     | 80                    | 30         | 150             | 2.0                         | 2.8  | 6           | 40                                                 | 3BCC-Y/G-F |
|                | GREEN         | 568                                  |                 | 80                    | 30         | 150             | 2.1                         | 2.8  | 8           |                                                    |            |
| FLPVX.X-BC-R/Y | HE RED        | 625                                  | WATER CLEAR     | 80                    | 30         | 150             | 2.0                         | 2.8  | 8           | 40                                                 | 3BCC-R/Y-F |
|                | YELLOW        | 590                                  |                 | 80                    | 30         | 150             | 2.0                         | 2.8  | 6           |                                                    |            |
| FLPVX.X-BC-A/G | AMBER         | 605                                  | WATER CLEAR     | 80                    | 30         | 150             | 2.0                         | 2.8  | 6           | 40                                                 | 3BCC-A/G-F |
|                | GREEN         | 568                                  |                 | 80                    | 30         | 150             | 2.1                         | 2.8  | 8           |                                                    |            |

| LED Assy. No.   | Emitted Color | Peak Wave Length<br>$\lambda_p$ (nm) | Lens Appearance | Absolute Max. Ratings |            |                 | Electro-Optical Data @ 20mA |      |             | Viewing Angle<br>2 $\theta$ $\frac{1}{2}$<br>(Deg) | LED P/N     |
|-----------------|---------------|--------------------------------------|-----------------|-----------------------|------------|-----------------|-----------------------------|------|-------------|----------------------------------------------------|-------------|
|                 |               |                                      |                 | Pd<br>(mW)            | If<br>(mA) | Peak If<br>(mA) | Vf<br>(V)                   |      | Iv<br>(mcd) |                                                    |             |
|                 |               |                                      |                 |                       |            |                 | Typ.                        | Max. | Typ.        |                                                    |             |
| FLPVX.X-SBC     | SUPER RED     | 645                                  | WATER CLEAR     | 70                    | 30         | 150             | 1.7                         | 2.4  | 100         | 20                                                 | 3SBCC-F     |
|                 | HE GREEN      | 568                                  |                 | 80                    | 30         | 150             | 2.1                         | 2.8  | 60          |                                                    |             |
| FLPVX.X-SBC-Y/G | SUPER YELLOW  | 585                                  | WATER CLEAR     | 85                    | 20         | 160             | 2.1                         | 2.4  | 15          | 40                                                 | 3SBCC-Y/G-F |
|                 | HE GREEN      | 565                                  |                 | 80                    | 20         | 160             | 2.1                         | 2.8  | 5           |                                                    |             |
| FLPVX.X-SBC-R/Y | SUPER RED     | 645                                  | WATER CLEAR     | 70                    | 30         | 150             | 1.7                         | 2.4  | 100         | 20                                                 | 3SBCC-R/Y-F |
|                 | SUPER YELLOW  | 590                                  |                 | 85                    | 30         | 150             | 2.0                         | 2.4  | 300         |                                                    |             |

|                                                                               |                          |                                                                                                                                                                 |                       |
|-------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| STANDARD TOLERANCE<br>( UNLESS OTHERWISE SPECIFIED )<br>$\pm 10\%$ ALL VALUES |                          | <br>4 THOMAS, IRVINE, CA. 92618<br>TEL: (949) 951-8808 FAX: (949) 951-3974 |                       |
| ANGULAR<br>X° $\pm$ 5°                                                        |                          |                                                                            |                       |
| DESIGNED:<br><b>David Green</b>                                               | DATE:<br><b>06/09/03</b> | TITLE: FLEXIBLE LIGHT-PIPE ASSY<br>VERTICAL, 3mm LENS CAP W/LED                                                                                                 |                       |
| CHECKED:<br><b>M. Chen</b>                                                    | DATE:<br><b>06/09/03</b> | PART NO:<br><b>FLPVX.X-XX</b>                                                                                                                                   | REVISION:<br><b>K</b> |
|                                                                               |                          | CAGE CODE : 32559                                                                                                                                               | SHEET # 3 OF 3        |
| CAD GENERATED DOCUMENT, DO NOT MEASURE DRAWING.                               |                          |                                                                                                                                                                 |                       |