12V Softstep II™ Titanium Plus +

Technical Information

<table>
<thead>
<tr>
<th>LED Spacing O.C. Step</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>9&quot;</th>
<th>12&quot;</th>
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<tbody>
<tr>
<td>Top Row Indicator</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Watts/ft</td>
<td>0.0072</td>
<td>0.0048</td>
<td>0.0026</td>
<td>0.0024</td>
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<tr>
<td>Bottom Row Illuminator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Lumens/ft</td>
<td>16.2</td>
<td>10.4</td>
<td>6.4</td>
<td>4.4</td>
</tr>
<tr>
<td>*Watts/ft</td>
<td>0.65</td>
<td>0.44</td>
<td>0.28</td>
<td>0.22</td>
</tr>
<tr>
<td>*Lumen/watt</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRI</td>
<td>&gt;80/TYP83</td>
<td></td>
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</tr>
<tr>
<td>Kelvin Temp</td>
<td>1900K, 2700K, 3000K, 35000K, 4000K (+/-80K) 3SDCM, Red, Blue, Amber</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rated Life</td>
<td>75,000 hrs.</td>
<td></td>
<td></td>
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<tr>
<td>**Max Ordering Length</td>
<td>12&quot;</td>
<td></td>
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<tr>
<td>Order Increments</td>
<td>6&quot;</td>
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<tr>
<td>Operating Voltage</td>
<td>12V DC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Supply</td>
<td>Class 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimmable</td>
<td>Yes</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* 3000K Sample
**Available in 6" increments up to 12'. Specify when ordering.

A patented, ADA compliant, co-extruded bullnose step light with contrasting stripe or 100% black (consult factory) and single or double row of LEDs.

**Feature**
- Softstep II Titanium Plus + Light Step is an illuminated, pliable bullnose designed for secure foot placement 3'-12' lengths with a reflective edge for delineation and patrons' safety.
- An LED top and bottom row is recommended for 90° indoor steps more than 4' in length.
- Pre-cut and assembled according to specification.
- Optional illuminated row indicator is available (see Page 2).
- Matching field-cutable wireway with contrasting grey stripe is available in 8' lengths.
- Soft-molded end caps complete the integrated system. Individually replaceable LED PCBs easily snap into Titanium modules for easy and economical maintenance.

**Mounting**
Easy glue and screw down installation with recommended construction adhesives.

**Applications**
Required for 90° indoor steps. Available in custom lengths up to 12 feet.

**Warranty**
5 years
## Recommended Power Supplies

### ADUL - NON DIMMING

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>CAT NO</th>
<th>APPLICATION</th>
<th>PRIMARY VOLTAGE</th>
<th>SECONDARY VOLTAGE</th>
<th>CIRCUIT BREAKERS</th>
<th>MAX LOAD</th>
<th>CIRCUIT CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADUL Series Class 2 Transformer</td>
<td>ADUL-80-1-5-12-D</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
<td>12V DC</td>
<td>1</td>
<td>60W</td>
<td>5A</td>
</tr>
<tr>
<td></td>
<td>ADUL-150-2-5-12-D</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
<td>12V DC</td>
<td>2</td>
<td>2x60W</td>
<td>2x5A</td>
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<tr>
<td></td>
<td>ADUL-240-3-5-12-D</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
<td>12V DC</td>
<td>3</td>
<td>3x60W</td>
<td>3x5A</td>
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<tr>
<td></td>
<td>ADUL-320-4-5-12-D</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
<td>12V DC</td>
<td>4</td>
<td>4x60W</td>
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### ADUL - 0-10V DIMMING

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<th>PRIMARY VOLTAGE</th>
<th>SECONDARY VOLTAGE</th>
<th>CIRCUIT BREAKERS</th>
<th>MAX LOAD</th>
<th>CIRCUIT CAPACITY</th>
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<tr>
<td>ADUL Series Class 2 Transformer</td>
<td>ADUL-80-1-5-12-DOT</td>
<td>Indoor / Damp</td>
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<tr>
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<td>100-277V AC 50/60 Hz</td>
<td>12V DC</td>
<td>2</td>
<td>2x60W</td>
<td>2x5A</td>
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<tr>
<td></td>
<td>ADUL-240-3-5-12-DOT</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
<td>12V DC</td>
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<td>3x5A</td>
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<td>ADUL-320-4-5-12-DOT</td>
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### ADUL - DMX SINGLE ADDRESS

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<th>PRIMARY VOLTAGE</th>
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<th>MAX LOAD</th>
<th>CIRCUIT CAPACITY</th>
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</thead>
<tbody>
<tr>
<td>ADUL Series Class 2 Transformer</td>
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<td>5A</td>
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<td>ADUL-150-2-5-12-DIN</td>
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<td>100-277V AC 50/60 Hz</td>
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<td>ADUL-240-3-5-12-DIN</td>
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### ADUL - DMX MULTI ADDRESS

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<th>MAX LOAD</th>
<th>CIRCUIT CAPACITY</th>
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<tr>
<td>ADUL Series Class 2 Transformer</td>
<td>ADUL-150-2-5-12-DIN-2</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
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<td></td>
<td>ADUL-240-3-5-12-DIN-3</td>
<td>Indoor / Damp</td>
<td>100-277V AC 50/60 Hz</td>
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<td>3x5A</td>
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<tr>
<td></td>
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<td>100-277V AC 50/60 Hz</td>
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### INFINITY - MLV / ELV / 0-10V / PWM / TRIAC

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<th>DESCRIPTION</th>
<th>CAT NO</th>
<th>APPLICATION</th>
<th>PRIMARY VOLTAGE</th>
<th>SECONDARY VOLTAGE</th>
<th>CIRCUIT BREAKERS</th>
<th>MAX LOAD</th>
<th>MIN LOAD</th>
<th>CIRCUIT CAPACITY</th>
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<tbody>
<tr>
<td>Infinity Series Class 2 Transformer</td>
<td>INF-3-30-1-2.5-12</td>
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<td>100 - 277V AC</td>
<td>12VDC</td>
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<td>30W</td>
<td>3W</td>
<td>2.5A</td>
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<td>INF-3-60-1-5-12</td>
<td>Indoor / Outdoor</td>
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<td>6W</td>
<td>5A</td>
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<td>INF-3-180-3-5-12</td>
<td>Indoor / Outdoor</td>
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<td>INF-3-300-5-5-12</td>
<td>Indoor / Outdoor</td>
<td>100 - 277V AC</td>
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<td>5</td>
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<td>5x6W</td>
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Tivoli, LLC. reserves the right to modify this specification without prior notice.
# Recommended Dimmers

## DIMMING - 0-10V

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<th>DESCRIPTION</th>
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<th>MAX LOAD</th>
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<tbody>
<tr>
<td>0-10V Dimmer</td>
<td>DIM-LD-010</td>
<td>Indoor</td>
<td>24V DC</td>
<td>24V DC</td>
<td>30 mA max. output (sink only)</td>
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## DIMMING - MLV

<table>
<thead>
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<th>DESCRIPTION</th>
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<th>INPUT VOLTAGE</th>
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<th>MAX LOAD</th>
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</thead>
<tbody>
<tr>
<td>MLV Dimmer</td>
<td>N-600</td>
<td>Indoor</td>
<td>120V AC</td>
<td>120V AC</td>
<td>450W</td>
</tr>
<tr>
<td></td>
<td>N-1000</td>
<td></td>
<td></td>
<td></td>
<td>800W</td>
</tr>
<tr>
<td></td>
<td>N-1500</td>
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<td>1200W</td>
</tr>
<tr>
<td></td>
<td>D-600</td>
<td></td>
<td></td>
<td></td>
<td>450W</td>
</tr>
<tr>
<td></td>
<td>M-600</td>
<td></td>
<td></td>
<td></td>
<td>450W</td>
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<tr>
<td></td>
<td>M-1000</td>
<td></td>
<td></td>
<td></td>
<td>800W</td>
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## DIMMING - ELV

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<th>INPUT VOLTAGE</th>
<th>OUTPUT VOLTAGE</th>
<th>MAX LOAD</th>
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<tbody>
<tr>
<td>ELV Dimmer</td>
<td>ME-600</td>
<td>Indoor</td>
<td>120V AC</td>
<td>120V AC</td>
<td>450W</td>
</tr>
<tr>
<td></td>
<td>DE-300</td>
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<td>300W</td>
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## DIMMING - DMX

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<th>OUTPUT PROTOCOL</th>
<th>MAX UNIVERSE</th>
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<tbody>
<tr>
<td>DMX Controller</td>
<td>TVOQ-1-WH</td>
<td>Indoor</td>
<td>5V DC</td>
<td>DMX 512</td>
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<td>TVOQ-2-BK</td>
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<td>6V DC</td>
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<td>2</td>
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<td>TVOQ-2-WH</td>
<td></td>
<td>6-7V DC</td>
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<td>TVOQ-10-BK-7</td>
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<td></td>
<td>TVOQ-10-WH-7</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Touchscreen**

TVOQ-1-WH
WH (White only)

TVOQ-10-XX-7
XX = BK (Black), WH (White)

TVOQ-2-XX
XX = BK (Black), WH (White)
Ordering Information

Optional Row Indicator Information

*For ordering details see sample organizing chart below.

Figure (A) Example figure shows Row Indicators on middle staircase, steps 10, 13, and 16.

Character Designation

When selecting Row Indicators for your SoftStep II™ Titanium Plus + installation, here are some examples and guides to make your ordering process easier.

Within the figure (A) illustration we have offered an example spreadsheet to help organize your needs when designing row indicators into your venue. Your spreadsheet should reflect the call out and placement of each step by row and it’s number that requires an indicator as shown in figure (A).

When looking at a seating layout from the stage or screen perspective, usually the first chair on the left side of the first row would be A1. In our illustration we have an orchestra pit section, so our Row A and seat 1 to 11 start on the isle. Seats A11 and A12 are separated by the middle staircase and reflect that design in the Row Indicators as shown.

With every venue, each auditorium has it own unique design parameters. To assist you, the SoftStep II™ Titanium Plus + row indicators offer THREE CHARACTER placements of any letter or number combination you desire. Defining those character call outs is as easy as listing them in a spreadsheet as shown in figure (B).

To help organize and clarify your need for row indicators, it is important to create a spreadsheet that reflects the placement of row indicators in your working drawings or blueprints. Our figure (A) example shows the placement of row indicators on steps 10, 13 and 16 in the middle staircase.

Figure (B)

<table>
<thead>
<tr>
<th>PRODUCT CODE</th>
<th>OPTION</th>
<th>PLACEMENT</th>
<th>LED COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>RI</td>
<td>BTH = Both</td>
<td>19 = 1900K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LWR = Lower</td>
<td>27 = 2700K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UPR = Upper</td>
<td>30 = 3000K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AM = Amber</td>
<td>35 = 3500K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RD = Red</td>
<td>40 = 4000K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BL = Blue</td>
<td></td>
</tr>
</tbody>
</table>

*Available in 6” increments up to 12’
12V Softstep II™ Titanium Plus +

Mounting Accessories

**Mounting Accessories**

- **ST-LENS-C-12**
  - Clear top lens, 12'
- **ST-LENS-B-12**
  - Bronze top lens, 12'
- **ST-LL-12**
  - Lower lens, 12'
- **ST-BS-12**
  - Base Extrusion 12', Grey Tread
- **ST-BS-BK-12**
  - Base Extrusion 12', All Black

**Replacement Parts**

- **REPLACEMENT STRAND WITH LED (Top Row)**
  - TT-STP-04-STRD-XX
    - Replacement Strand - 4" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM
  - TT-STP-06-STRD-XX
    - Replacement Strand - 6" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM
  - TT-STP-09-STRD-XX
    - Replacement Strand - 9" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM
  - TT-STP-12-STRD-XX
    - Replacement Strand - 12" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM

- **REPLACEMENT STRAND WITH LED (Bottom Row)**
  - TT-STP-04-STRD-XX-B
    - Replacement Strand - 4" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM
  - TT-STP-06-STRD-XX-B
    - Replacement Strand - 6" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM
  - TT-STP-09-STRD-XX-B
    - Replacement Strand - 9" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM
  - TT-STP-12-STRD-XX-B
    - Replacement Strand - 12" O.C., Available in XX = 19/27/30/35/40/ RD/BL/AM

**Replacement Lamp**

- **OPTIONAL ROW INDICATOR**
  - Ri-Led-19
    - 1900K
  - Ri-Led-27
    - 2700K
  - Ri-Led-30
    - 3000K
  - Ri-Led-35
    - 3500K
  - Ri-Led-40
    - 4000K
  - Ri-Led-AM
    - Amber
  - Ri-Led-AM-B
    - Amber
  - Ri-Led-AM-BL
    - Blue
  - Ri-Led-AM-BL
    - Blue
  - Ri-Led-AM-BL
    - Red

**Lens Cover**

- **LENSCOVER BASE**
  - WW-CC-BK-8
    - Carpet to Edge Base and Cover 8' - Black
  - WW-CC-GY-8
    - Carpet to Edge Base and Cover 8' - Grey
  - WW-CW-BK-8
    - Carpet to Wall Base and Cover 8' - Black
  - WW-CW-GY-8
    - Carpet to Wall Base and Cover 8' - Grey
  - WW-CC-BS-8
    - Base Only, Carpet to Wall, Black, 8'
  - WW-CC-CL-8
    - Lens Cover Only, Clear, 8'
  - WW-TC-BK-8
    - Lens Cover Only, Black, 8'
  - WW-TC-BZ-8
    - Lens Cover Only, Bronze, 8'
  - WW-TC-GY-8
    - Lens Cover Only, Gray, 8'

**EXTRUSION ADHESIVE**

- **ADH-MB-75AM-10**
  - Extrusion adhesive, 10.1 oz tubes, sold individually. 30 per case.
- **ADH-MB-75AM-29**
  - Extrusion adhesive, 29 oz tubes, sold individually. 12 per case.

**EXTRUSION ADHESIVE**

- **ADH-5-CA**
  - Clear liquid adhesive for end caps, 5 oz tube.

- **END CAP ADHESIVE**
  - **ADH-5-CA**
  - Clear liquid adhesive for end caps, 5 oz tube.

**SoftStep Landing Tread Extender, 12'**

- **STP-EXTNDR-12**
  - SoftStep Landing Tread Extender, 12'

**Carpet to Edge End Cap**

- **ST-EC-L**
  - Left End Cap
- **ST-EC-R**
  - Right End Cap

**Carpet to Carpet End Cap**

- **ST-CC-EC-L**
  - Left End Cap, Carpet-To-Carpet
- **ST-CC-EC-R**
  - Right End Cap, Carpet-To-Carpet

**Clear Top Lens**

- **ST-LENS-C-12**
  - Clear top lens, 12'

**Bronze Top Lens**

- **ST-LENS-B-12**
  - Bronze top lens, 12'

**Lower Lens**

- **ST-LL-12**
  - Lower lens, 12'

**Base Extrusion**

- **ST-BS-12**
  - Base Extrusion 12', Grey Tread
- **ST-BS-BK-12**
  - Base Extrusion 12', All Black

**Carpet to Edge Base & Conduit Cover**

- **WW-CE-BS-8**
  - Base Only, Carpet To Edge, Black, 8'
- **WW-TC-BS-8**
  - Lens Cover Only, Clear, 8'
- **WW-TC-BK-8**
  - Lens Cover Only, Black, 8'
- **WW-TC-BZ-8**
  - Lens Cover Only, Bronze, 8'
- **WW-TC-GY-8**
  - Lens Cover Only, Gray, 8'

**Carpet to Carpet Base & Conduit Cover**

- **WW-CC-BK-8**
  - Carpet to Edge Base and Cover 8' - Black
- **WW-CC-GY-8**
  - Carpet to Edge Base and Cover 8' - Grey
- **WW-CW-BK-8**
  - Carpet to Wall Base and Cover 8' - Black
- **WW-CW-GY-8**
  - Carpet to Wall Base and Cover 8' - Grey
- **WW-CC-BS-8**
  - Base Only, Carpet to Wall, Black, 8'
- **WW-CC-CL-8**
  - Lens Cover Only, Clear, 8'
- **WW-TC-BK-8**
  - Lens Cover Only, Black, 8'
- **WW-TC-BZ-8**
  - Lens Cover Only, Bronze, 8'
- **WW-TC-GY-8**
  - Lens Cover Only, Gray, 8'

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