The Champ® MLL linear LED is specifically designed to replace fluorescent T12, T8 and T5HO lighting in harsh and hazardous applications. The rugged and durable design features the industry’s most versatile and flexible mounting options. The Champ MLL is the ideal solution for high vibration, impact and hose down applications.

**Applications:**
- Oil and gas refineries, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present

**Features:**
- Industry-leading efficacy: up to 130 LPW
- -40°C to +65°C ambient operating temperature (standard model)
- Low profile fixture (<3” height)
- Versatile ceiling/swivel, wall, flush, pole and pendant mounting options
- Wide and narrow optics for uniform illumination
- Four points of secondary retention
- 2,000 PSI high pressure hose rated
- High vibration resistance
- Emergency battery back-up (90 minutes) and surge protection options (up to 10kV)
- DesignLights Consortium® Qualified (some models are not DLC qualified)
- 5 year fixture warranty

**Standard materials:**
- Housing – copper-free aluminum; Corro-free epoxy powder coat (optional)
- Lens – glass; polycarbonate, diffused glass, diffused polycarbonate (optional)

**Photometrics:**
- Complete photometrics can be found at www.crouse-hinds.com/photometrics

**Temperature performance data:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Typical lumens</th>
<th>Watts</th>
<th>Lumens per watt</th>
<th>Equivalent HID luminaire</th>
<th>Typical energy savings / lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLL2</td>
<td>3,600</td>
<td>29</td>
<td>124</td>
<td>T12HO</td>
<td>Up to 67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T8H</td>
<td>Up to 63%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T5H</td>
<td>Up to 52%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T12</td>
<td>Up to 42%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T8</td>
<td>Up to 32%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T5</td>
<td>Up to 17%</td>
</tr>
<tr>
<td>MLL4</td>
<td>7,100</td>
<td>54.5</td>
<td>130</td>
<td>T12HO</td>
<td>Up to 84%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T8H</td>
<td>Up to 80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T5H</td>
<td>Up to 50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T12</td>
<td>Up to 46%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T8</td>
<td>Up to 32%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T5</td>
<td>Up to 22%</td>
</tr>
</tbody>
</table>

**Mounting (ordered separately):**
- Versatile mounting options:
  - Flush back mount
  - Swivel/ceiling back mount
  - Offset ceiling mount
  - Offset wall mount
  - Pole mount
  - Pendant mount

**Electrical ratings:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage (VAC)</th>
<th>Current (A)</th>
<th>Watts</th>
<th>Power factor</th>
<th>THD</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLL2/UNV1</td>
<td>100</td>
<td>0.28</td>
<td>28.2</td>
<td>0.90</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL2/UNV1</td>
<td>277</td>
<td>0.12</td>
<td>29.4</td>
<td>0.90</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL2/UNV34</td>
<td>347</td>
<td>0.09</td>
<td>29.2</td>
<td>0.90</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL2/UNV34</td>
<td>480</td>
<td>0.07</td>
<td>30.1</td>
<td>0.90</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL4/UNV1</td>
<td>100</td>
<td>0.55</td>
<td>55.0</td>
<td>0.95</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL4/UNV1</td>
<td>277</td>
<td>0.20</td>
<td>54.5</td>
<td>0.95</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL4/UNV34</td>
<td>347</td>
<td>0.16</td>
<td>55.8</td>
<td>0.95</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>MLL4/UNV34</td>
<td>480</td>
<td>0.12</td>
<td>56.2</td>
<td>0.95</td>
<td>&lt;20%</td>
</tr>
</tbody>
</table>

**Weights:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Lbs.</th>
<th>Kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLL2</td>
<td>12.50</td>
<td>5.70</td>
</tr>
<tr>
<td>MLL4</td>
<td>22.50</td>
<td>10.20</td>
</tr>
</tbody>
</table>

**Certifications and compliances:**

**NEC:**
- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Division 1, Groups F, G
- Class III
- NEMA 4X, IP66
- Marine and wet locations

**UL standards:**
- UL844 – Electrical Fixture Hangers for Hazardous Locations
- UL1598 – Luminaire
- UL1598A – Luminaire for Installation on Marine Vessels
- UL924 – Emergency Lighting

**CSA standard:**
- C22.2 No. 137

**Additional certifications:**
- ABS design assessed
- DesignLights Consortium® Qualified (some models are not DLC qualified)
- 5 year fixture warranty

**Standard materials:**
- Housing – copper-free aluminum; Corro-free epoxy powder coat (optional)
- Lens – glass; polycarbonate, diffused glass, diffused polycarbonate (optional)

**Temperature performance data:**

<table>
<thead>
<tr>
<th>Ambient temp. °C</th>
<th>Min. temp. supply wire °C</th>
<th>Class I, Div. 2</th>
<th>Class II, Div. 1</th>
<th>Class I, Div. 2; Class II, Div. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>60</td>
<td>T6</td>
<td>T6</td>
<td>T6</td>
</tr>
<tr>
<td>55</td>
<td>75</td>
<td>T5</td>
<td>T5</td>
<td>T5</td>
</tr>
<tr>
<td>65</td>
<td>90</td>
<td>T5</td>
<td>T5</td>
<td>T5</td>
</tr>
</tbody>
</table>

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© One year warranty.
© Refer to www.designlights.org Qualified Products List under Family Models for full listing details. Not all models are approved for all application categories.
Champ MLL LED luminaires

**Designed for harsh and hazardous.** Champ MLL linear LED luminaires are engineered to handle demanding conditions. The MLL stands up to high vibration, hose down, shock and impact, while delivering long life and high lumen performance for up to 20 years.

**Custom optics:**
- Standard wide (120°) beam spread for control room and indoor application maximizes illumination on wall panels
- Narrow (80°) beam spread option for targeted illumination; avoids spillage and light loss

**Comprehensive certification:**
- Single model certified for use in Class I, Division 2 and Class II, Division 1 harsh and hazardous applications

**Quick & easy installation:**
- Easy access to drivers and wiring
- No custom brackets or hardware needed
- Seven mounting options available

**Built to last:**
- Ingress protection from hose down water or diesel fuel in harsh operational conditions – passed 2,000 PSI high pressure test
- Vibration-, impact- and shock-resistant – passed 5G, 3-axis vibration test
- 60,000 hour lifetime at 55°C ambient

**Slim profile:**
- 2.7” fixture height (excluding mounting brackets)
- Perfect for mounting in confined or low height areas

**Best-in-class efficacy:**
- Up to 130 lumens per watt

| Cl. I, Div. 2, Groups A, B, C, D | UL Listed |
| Cl. I, Zone 2                     | CSA Certified |
| Cl. II, Div. 1, Groups F, G      | Marine & Wet Locations |
| Cl. III                          | NEMA 4X; IP66 |
## Champ MLL LED Luminaires

### Ordering information:

**Part number example**

**MLL4/N/UNV1 S903 TF P EM1**

### Accessories (ordered separately):

**Description**
- **Flush/back mount back plate**
  - Compatible with DuraPro
  - DP1057MTK
- **Ceiling/swivel mount**
  - Compatible with DuraPro
  - DP1050MTK
- **Ceiling/wall mount offset**
  - Compatible with DuraPro
  - DP1053MTK
- **Ceiling mount bracket and adapter kit**
  - Compatible with MagnaPro
  - MP1054MTK KIT
- **Offset wall mount**
  - Compatible with DuraPro
  - DP1052MTK
- **Pole mount kit, 1.25” conduit**
- **Pole mount kit, 1.50” conduit**
- **Pole mount kit, 2.00” conduit**

**Description**
- **Pendant mount kit**
- **Safety chain kit**
- **1 amp driver replacement kit, 100-277 VAC for 4 ft. linear**
- **1 amp driver replacement kit, 347-480 VAC for 4 ft. linear**
- **0.5 amp driver replacement kit, 100-277 VAC for 2 ft. linear**
- **0.5 amp driver replacement kit, 347-480 VAC for 2 ft. linear**

### Dimensions and mounting options:

- **Offset wall**
  - DP1052MTK
- **Flush ceiling**
  - DP1057MTK
- **Offset ceiling**
  - DP1053MTK
- **Ceiling/swivel**
  - DP1050MTK
- **Ceiling and adapter**
  - MP1054MTK KIT
- **Pole mount**
  - PM KIT 1.25/1.5/2.0
- **Pendant mount**
  - PEND HAZ KIT

### Notes:
- One year warranty. Remote EM kit also available. Available for 4 ft. model only.

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**Cl. I, Div. 2, Groups A, B, C, D**
**Cl. I, Zone 2**
**Cl. II, Div. 1, Groups F, G**
**Cl. III**
**UL Listed**
**CSA Certified**
**Marine & Wet Locations**
**NEMA 4X; IP66**

**Series**
- **MLL**
  - Champ MLL linear LED luminaire

**Length / lumens**
- **4**
  - 4 ft. length, 7,100 lumens
- **2**
  - 2 ft. length, 3,600 lumens

**Voltage**
- **/UNV1**
  - 100-277 VAC, 108-250 VDC
- **/UNV34**
  - 347-480 VAC

**Lens**
- **BLANK**
- **N**
- **S891**
- **S903**
- **S903D**

**Optics**
- **BLANK**
- **Wide (120°)**
- **Narrow (80°)**

**Options**
- **TF**
  - Pull wire included in fixture
- **P**
  - Painted (gray, epoxy)
- **WH**
  - Painted (white, epoxy)

**Emergency back-up**
- **EM1**
  - Integrated emergency battery back-up
- **EM**
  - Remote emergency kit

**Finish**
- **BLANK**
  - Natural aluminum
- **P**
  - Painted (gray, epoxy)
- **WH**
  - Painted (white, epoxy)
Champ MLL LED luminaires

Mounting options:

Ceiling/swivel mount
DP1050MTK

Pole mount
PM KIT 1.25/1.5/2.0

MagnaPro mount
MP1054MTK KIT

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Div. 1, Groups F, G
Cl. III

UL Listed
CSA Certified
Marine & Wet Locations
NEMA 4X; IP66
Mounting options (continued):

Offset wall
DP1052MTK

Offset ceiling/wall mount
DP1053MTK

Flush ceiling
DP1057MTK
Champ MLL LED luminaires

Mounting options (continued):

Pendant mount – Class I, Division 2 only
PEND HAZ KIT

<table>
<thead>
<tr>
<th></th>
<th>MLL2</th>
<th>MLL4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>in.</td>
<td>mm.</td>
</tr>
<tr>
<td>A</td>
<td>31.7</td>
<td>805</td>
</tr>
<tr>
<td>B</td>
<td>28.3</td>
<td>720</td>
</tr>
<tr>
<td>C</td>
<td>4.2</td>
<td>108</td>
</tr>
<tr>
<td>D</td>
<td>12.2</td>
<td>310</td>
</tr>
<tr>
<td>E</td>
<td>34.9</td>
<td>886</td>
</tr>
</tbody>
</table>

Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2
Cl. II, Div. 1, Groups F, G
Cl. III

UL Listed
CSA Certified
Marine & Wet Locations
NEMA 4X; IP66
Champ MLL LED luminaires
Integral battery back-up

Champ MLL linear LED luminaires are available with an integral battery back-up module. Virtually the same size as the standard 4 foot model and 90 minutes of emergency lighting to keep your facility and personnel safe.

### Applications:
- Egress and emergency lighting for areas requiring uninterrupted lighting during power failure
- Hazardous rated indoor and outdoor emergency lighting in manufacturing plants, heavy industrial, chemical and petrochemical facilities, platforms, loading docks and parking areas

### Features:
- Operating ambient: 0°C to +40°C
- 90-minute run time in emergency mode
- 6,720 lumen output for normal operation; 1,400 lumen output in emergency mode
- 50,000 hours rated life at 40°C
- IP66 rated enclosure
- LED indicator to check battery operation
- Nickel cadmium battery
- 1 year warranty

### Certifications and compliances:
**NEC/CEC:**
- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Wet locations, Type 4X, IP66

**UL standards:**
- UL844 – Hazardous (Classified)
- UL1598 – Luminaires
- UL1598A – Marine
- UL924 – Emergency Lighting

**CSA standard:**
- CSA C22.2 Nos. 250, 137, 141

### Electrical ratings:

<table>
<thead>
<tr>
<th>Model</th>
<th>EM output</th>
<th>Normal output</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLL4/UNV1 EM1</td>
<td>1,400 lumens</td>
<td>6,720 lumens</td>
</tr>
<tr>
<td></td>
<td>(100-277V)</td>
<td>(100-277V)</td>
</tr>
</tbody>
</table>

### Temperature performance data:

<table>
<thead>
<tr>
<th>Ambient temp. °C</th>
<th>Min. temp. supply wire °C</th>
<th>Class I, Div. 2</th>
<th>Class II, Div. 1</th>
<th>Class I, Div. 2; Class II, Div. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>60</td>
<td>T5</td>
<td>T6</td>
<td>T5</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Photometrics:
- Complete photometrics can be found at [www.crouse-hinds.com/photometrics](http://www.crouse-hinds.com/photometrics)

### Dimensions:

```
POLYCARBONATE LENS SHOWN
```

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**Luminaires**

**UL Listed**
**CSA Certified**
**Wet Locations**
**Type 4X; IP66**

2L