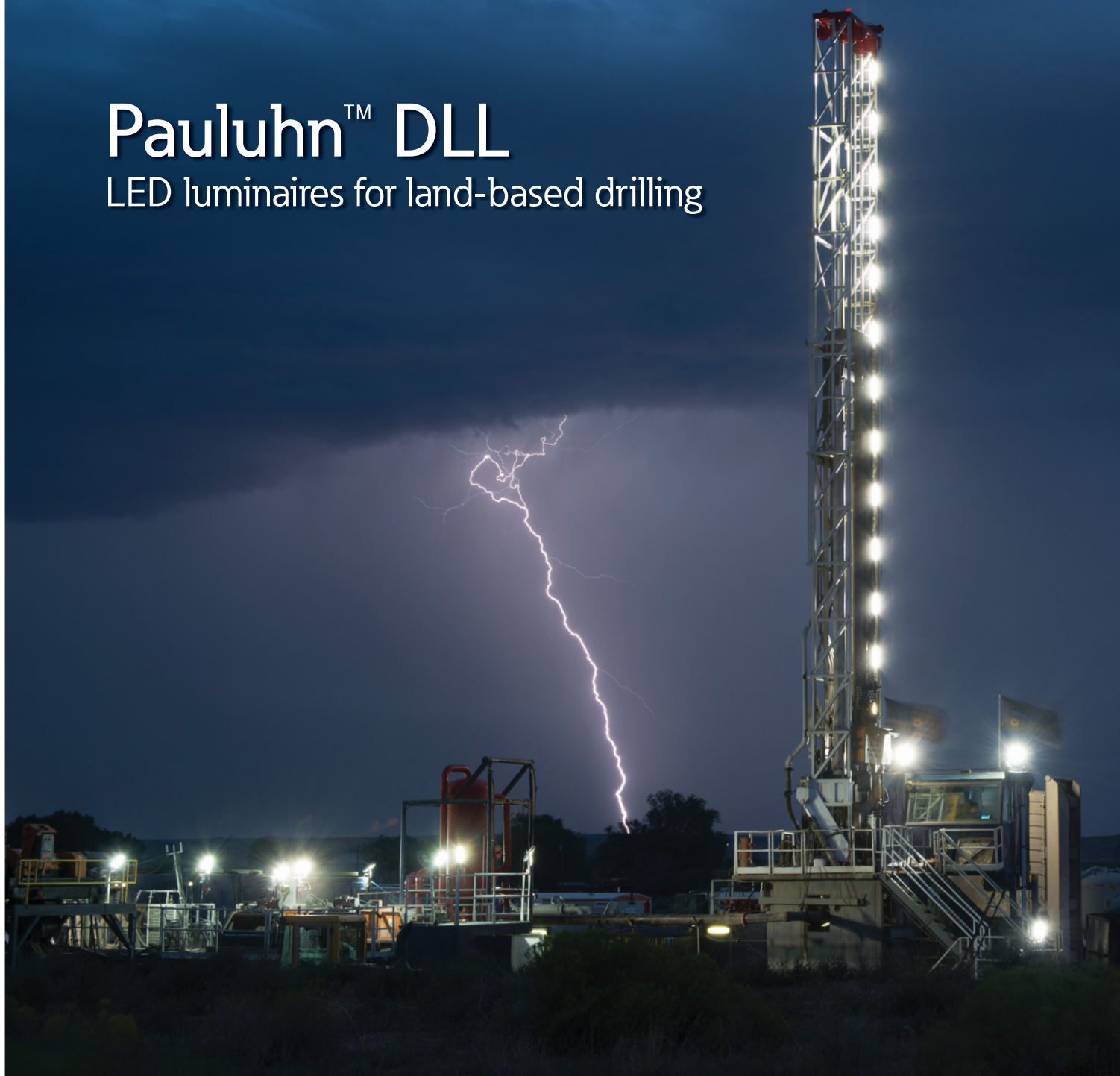


LED lighting for land-based rigs
Pauluhn™ DLL LED Luminaires

CROUSE-HINDS
SERIES

Pauluhn™ DLL

LED luminaires for land-based drilling



EAT•N

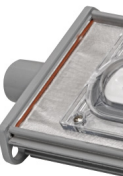
Powering Business Worldwide



Pauluhn™ DLL Series LEDs

Safe. Reliable. Efficient.

Featuring the industry's broadest range of LED luminaires for harsh and hazardous environments, Eaton's Crouse-Hinds can deliver a lighting solution that performs reliably in even the worst operating conditions. All the while reducing your energy, maintenance and manpower costs.



Why LED?

Useful life

Rated life is up to 60,000 hours of maintenance-free and safe operation

Energy efficiency

LED average energy consumption is 65% less than T12, T8 and T5HO fluorescent fixtures

Start/restart time

Instant illumination vs. 10 minute restrike time for fluorescent

Light quality

Higher color rendering and color temperature compared to fluorescent

Environmental benefits

Mercury-free LED eliminates disposal costs and lower energy consumption for a smaller carbon footprint

Why Crouse-Hinds?

Industry-best reliability

Built to withstand extreme temperatures, vibration, water and dust

Thermal management

Effective heat sinking ensures longer life

Quality of light

Custom optics designed to maximize light distribution and intensity

Retrofit compatibility

LED fixtures are compatible with Pauluhn DuraPro, MagnaPro, Rig-A-Lite™ and Snelson® fluorescent fixtures

Ensign Rig 89

LOCATION: Gillette, Wyoming

DETAILS: Rig retrofit with Pauluhn DLL4 LEDs

Why Pauluhn™ DLL LED?

Designed for drilling. Pauluhn DLL linear LED luminaires are engineered to stand up to the demanding conditions faced on land-based drilling rigs. The DLL 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 high mast/derrick application avoids spillage and light loss

Comprehensive certification:

- Single model certified for use in Class I, Division 2 and Class II, Division 2 harsh and hazardous applications

Quick & easy installation:

- Easy access to drivers and wiring
- No custom brackets or hardware needed
- Seven mounting options available
- Easily retrofit to Pauluhn DuraPro and MagnaPro, Rig-A-Lite and Snelson



Slim profile:

- 2.7" fixture height (excluding mounting brackets)
- Perfect for mounting in confined or low height areas

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 @ 55°C ambient



Case study: land-rig retrofit

Location:

Ensign Rig 122, Vernal, Utah

Challenge:

Ensign was looking for a rugged, low maintenance solution to replace existing Pauluhn DuraPro fluorescent fixtures on a drilling rig.

Solution:

Install Pauluhn DLL 2 foot linear LED luminaires

Results:

Ensign was easily able to replace 21 DuraPro fixtures with 14 DLLs in only about an hour by using the existing DuraPro brackets. Ensign saw better light quality on the mast and deck, while reducing amperage load and eliminating lamp maintenance.



Pauluhn™ DLL Series LED Luminaires

The Pauluhn DLL Linear LED by Eaton's Crouse-Hinds is specifically designed to replace fluorescent T12, T8 and T5HO lighting on land-based and offshore drilling platforms. The rugged and durable design features the industry's most versatile and flexible mounting options. The Pauluhn DLL is the ideal solution for high vibration, impact and hose down in drilling applications.

Applications:

Land-based and offshore rigs; areas include: derrick, mast, SCR house, top drive, operator's house, power and pump stations.

Key features & benefits:

- High efficacy: up to 120 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 in control room and drill mast
- 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†



‡ One year warranty

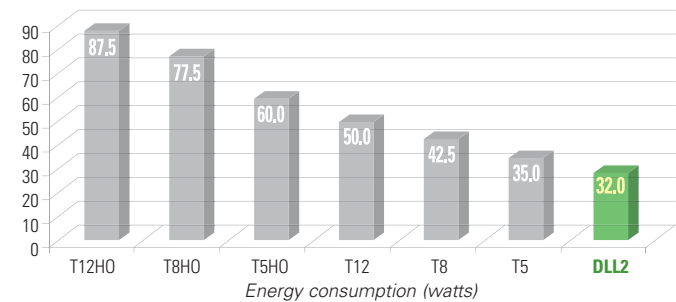
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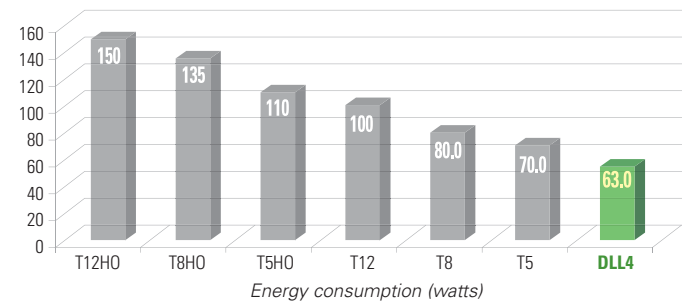
Energy consumption comparison

2 foot DLL linear LED vs. fluorescent



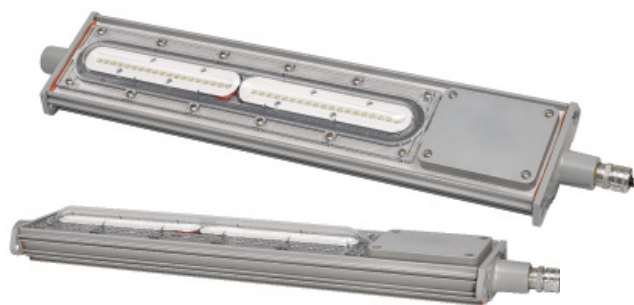
All luminaires in the comparison are 2 lamp, 2 foot

4 foot DLL linear LED vs. fluorescent



All luminaires in the comparison are 2 lamp, 4 foot

Specifications



Certifications:

NEC standards:

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Class I, Zone 2
- 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 for Emergency Lighting

CSA standard:

- C22.2 No. 137

Additional certifications:

- ABS design assessed

Materials:

Housing:

- Copper-free aluminum
- Optional Corro-free™ epoxy powder coat

Lens:

- Clear or diffused or polycarbonate

Mounting:

Versatile mounting options:

- Flush back mount
- Swivel/ceiling back mount
- Offset ceiling mount
- Offset wall mount
- Pole mount
- Pendant mount

Easily retrofit to:

- Existing Pauluhn DuraPro and MagnaPro fluorescent light fixtures
- Rig-A-Lite and Snelson C1D2 fluorescent lighting fixtures



Electrical ratings:

| | DLL2 | DLL4 |
|---------------------|--------------------------------------|----------|
| Lumen output | 3,958 | 7,900 |
| Frequency | 50/60 Hz | 50/60 Hz |
| Voltage | 100-277 VAC/108-250 VDC; 347-480 VAC | |

| Model | Voltage | Current (A) | Wattage (W) | Power factor | THD |
|-------------------|---------|-------------|-------------|--------------|------|
| DLL2/UNV1 | 100 | 0.33 | 32.5 | 0.92 | <20% |
| DLL2/UNV1 | 277 | 0.13 | 34.3 | 0.92 | <20% |
| DLL2/UNV34 | 347 | 0.10 | 32.2 | 0.92 | <20% |
| DLL2/UNV34 | 480 | 0.07 | 34.5 | 0.92 | <20% |
| DLL4/UNV1 | 100 | 0.63 | 63.4 | 0.92 | <20% |
| DLL4/UNV1 | 277 | 0.23 | 62.5 | 0.92 | <20% |
| DLL4/UNV34 | 347 | 0.18 | 61.4 | 0.92 | <20% |
| DLL4/UNV34 | 480 | 0.13 | 63.9 | 0.92 | <20% |

Temperature codes:

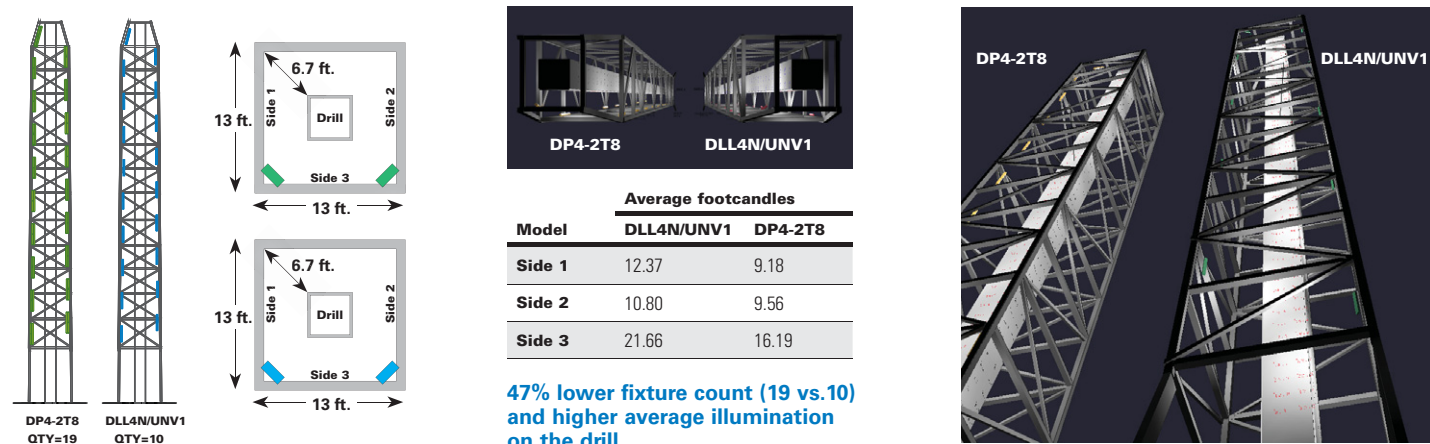
| Ambient temperature | Min. temp. wire supply | Class I, Div. 2 | Class II, Div. 2 | Simultaneous rating |
|---------------------|------------------------|-----------------|------------------|-----------------------------------|
| | | | | Class I, Div. 2, Class II, Div. 2 |
| 40°C | 60°C | T6 | T6 | T6 |
| 55°C | 75°C | T5 | T5 | T5 |
| 65°C | 90°C | T5 | T5 | T5 |

Weights:

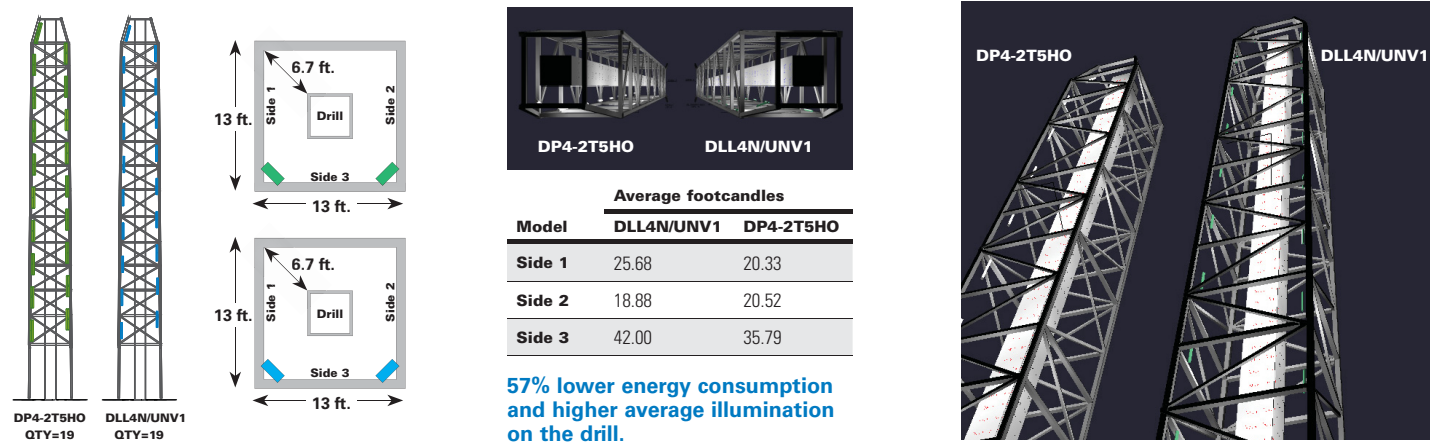
| Luminaire | lbs. | kg. |
|-------------|------|------|
| DLL2 | 12.5 | 5.7 |
| DLL4 | 22.5 | 10.2 |

Photometrics: high mast derrick

4 foot DLL LED with 80° optics vs. 4 foot 2 lamp T8 DuraPro

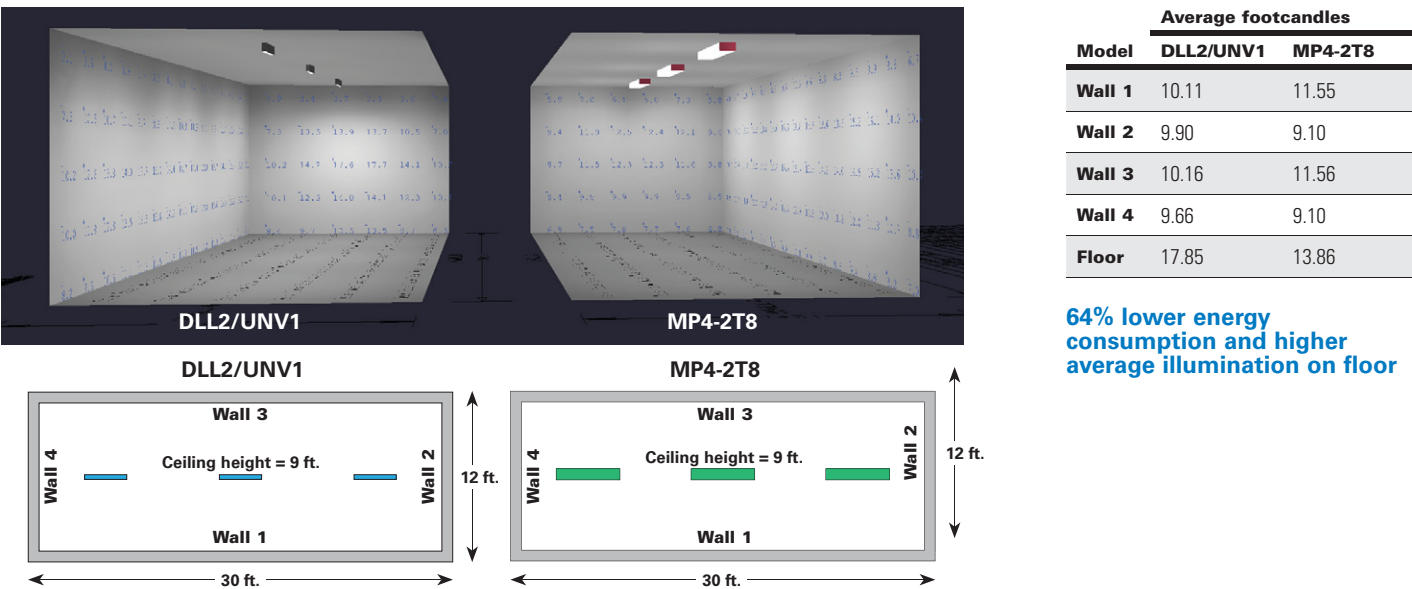


4 foot DLL LED with 80° optics vs. 4 foot. 2 lamp T5HO DuraPro



Photometrics: control room/pump shed

2 foot DLL LED with 120° optics vs. 4 foot 2 lamp T8 MagnaPro



Ordering information

Part number example

DLL4N/UNV1 S903 TF P EM1

DLL series linear LED, cool white, 4 foot, ½" hubs, 80° narrow light pattern, 100-277 VAC driver, polycarbonate lens, through feed hubs, painted, battery back-up

| Series | Optics | Lens | Emergency backup |
|--|--|--|--|
| DLL Pauluhn DLL series linear LED luminaire | BLANK Wide (120°) N Narrow (80°) | S903 Clear polycarbonate S903D Diffused polycarbonate | BLANK Standard model (no battery back-up) EM1* Integrated emergency battery back-up |
| Length/lumens | Voltage | | Finish |
| 4 4 foot length, 7,900 lumens 2 2 foot length, 3,900 lumens | /UNV1 100-277 VAC; 108-250 VDC /UNV34 347-480 VAC | | BLANK Natural aluminum P Painted (gray, epoxy) WH Painted (white, epoxy) |
| | | | Options |
| | | | TF Pull wire included in fixture |

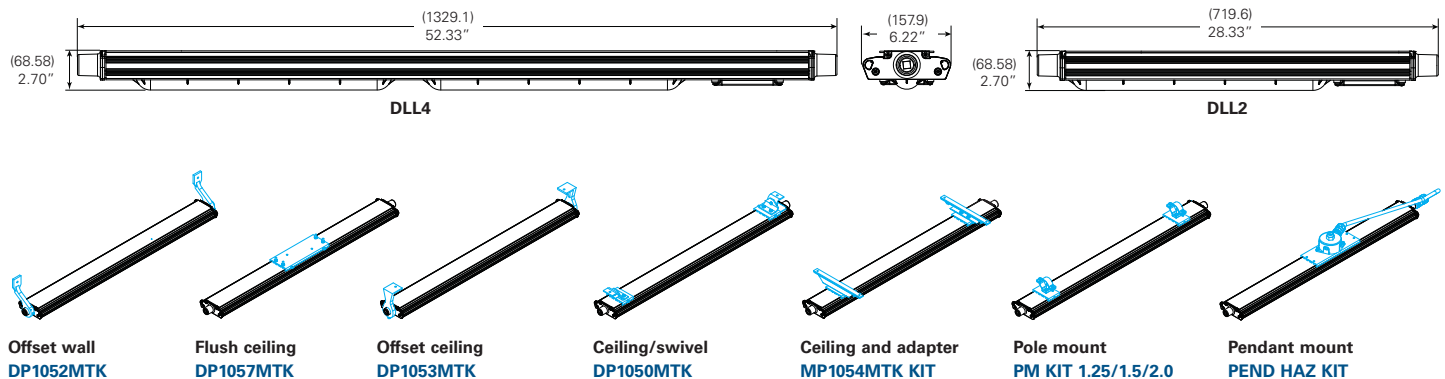
Accessories (ordered separately)

| | |
|----------------------|--|
| DP1057MTK | Flush/back mount back plate (compatible with DuraPro) |
| DP1050MTK | Ceiling/swivel mount (compatible with DuraPro) |
| DP1053MTK | Ceiling/wall mount offset (compatible with DuraPro) |
| MP1054MTK KIT | Ceiling mount bracket and adapter kit (compatible with MagnaPro) |
| DP1052MTK | Offset wall mount (compatible with DuraPro) |
| PM KIT 1.25 | Pole mount kit, 1.25" conduit |
| PM KIT 1.5 | Pole mount kit, 1.50" conduit |
| PM KIT 2.0 | Pole mount kit, 2.00" conduit |

Accessories (ordered separately)

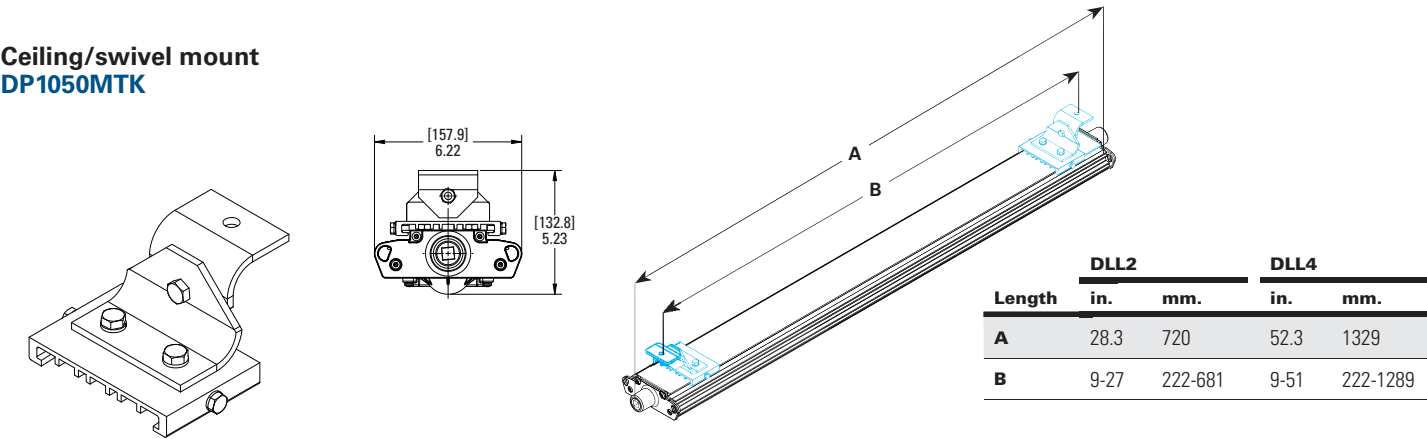
| | |
|--------------------------------|---|
| PEND HAZ KIT | Pendant mount kit |
| SS KIT | Safety chain kit |
| VMVL/UNV1 80W 1A KIT | 1 amp driver replacement kit 100-277 VAC for 4 ft. linear |
| VMVL/UNV34 80W 1A KIT | 1 amp driver replacement kit 347-480 VAC for 4 ft. linear |
| VMVL/UNV1 80W 0.5A KIT | 0.5 amp driver replacement kit 100-277 VAC for 2 ft. linear |
| VMVL/UNV34 80W 0.5A KIT | 0.5 amp driver replacement kit 347-480 VAC for 2 ft. linear |

Dimensions & mounting options:

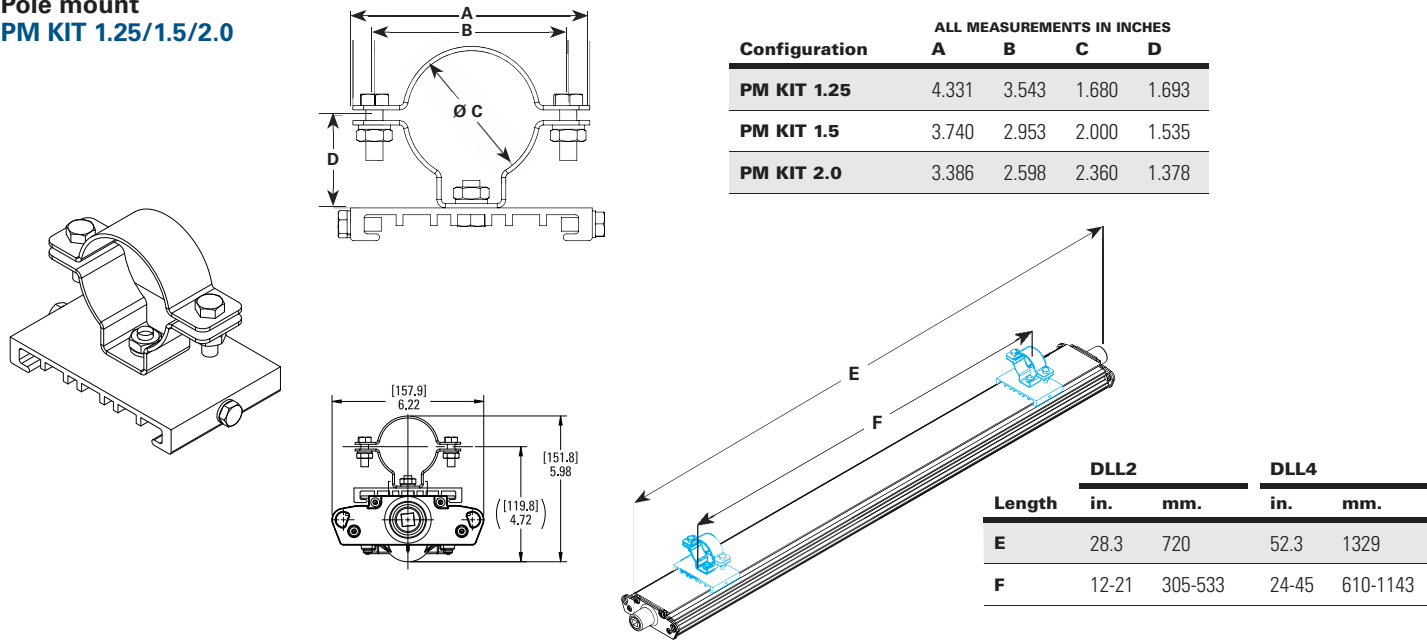


Mounting options

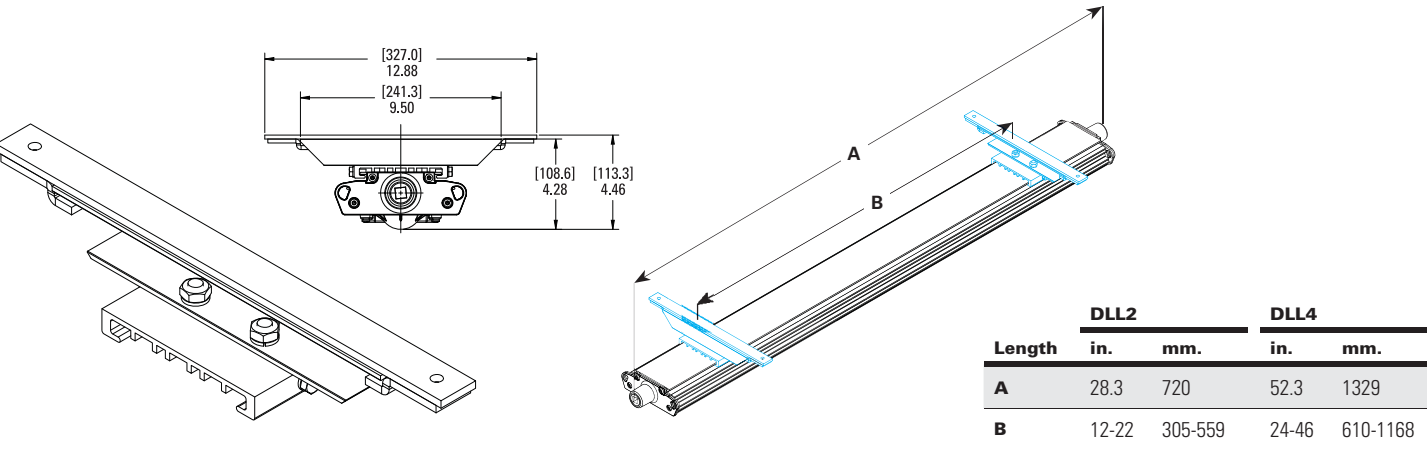
Ceiling/swivel mount DP1050MTK



Pole mount PM KIT 1.25/1.5/2.0

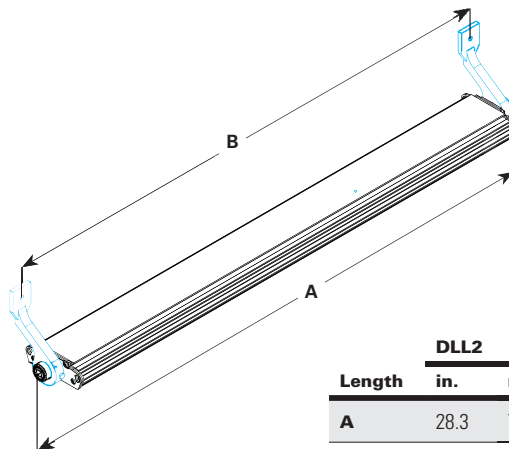
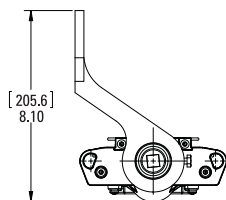
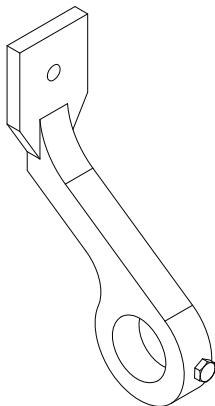


MagnaPro mount MP1054MTK KIT



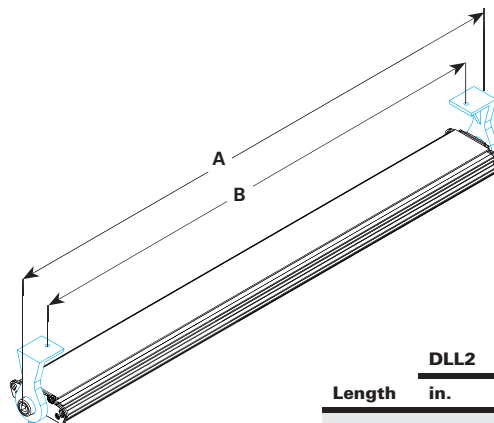
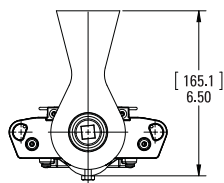
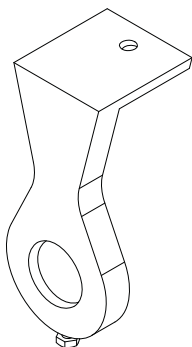
Mounting options

Offset wall DP1052MTK



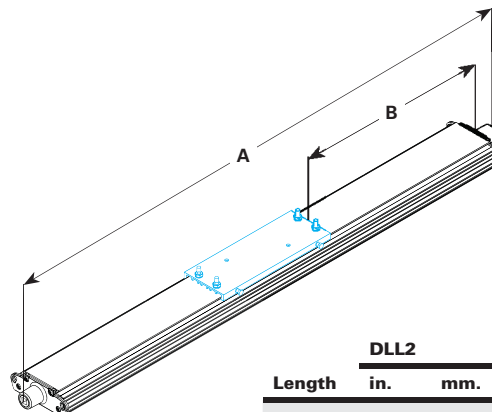
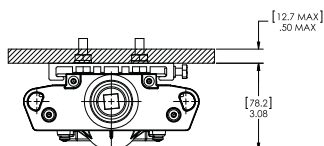
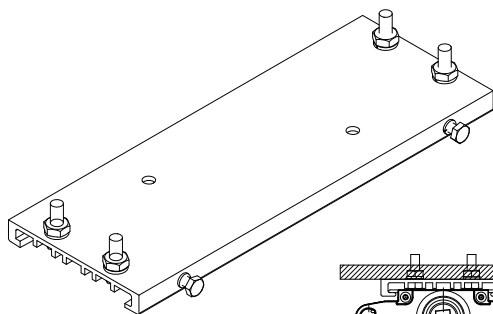
| Length | DLL2 | | DLL4 | |
|----------|------|-----|------|------|
| | in. | mm. | in. | mm. |
| A | 28.3 | 720 | 52.3 | 1329 |
| B | 26.3 | 669 | 50.3 | 1278 |

Offset ceiling/wall mount DP1053MTK



| Length | DLL2 | | DLL4 | |
|----------|------|-----|------|------|
| | in. | mm. | in. | mm. |
| A | 28.3 | 720 | 52.3 | 1329 |
| B | 26.3 | 584 | 47.0 | 1194 |

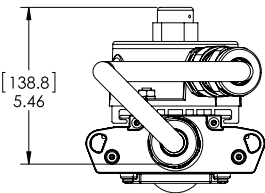
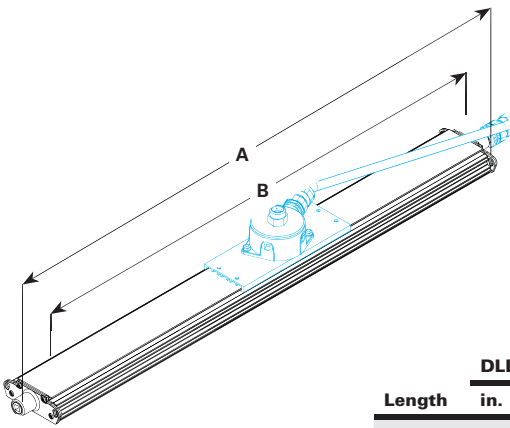
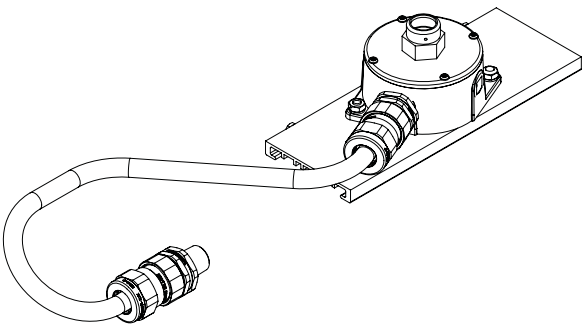
Flush ceiling DP1057MTK



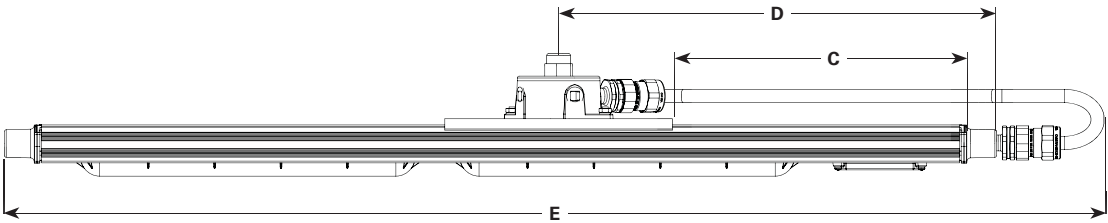
| Length | DLL2 | | DLL4 | |
|----------|------|-------|------|------|
| | in. | mm. | in. | mm. |
| A | 28.3 | 720 | 52.3 | 1329 |
| B | 6.2 | 157.5 | 18.2 | 462 |

Mounting options

Pendant mount - Class I, Div. 2 only
PEND HAZ KIT



| Length | DLL2 | | DLL4 | |
|--------|------|-----|------|------|
| | in. | mm. | in. | mm. |
| A | 31.7 | 805 | 55.8 | 1418 |
| B | 28.3 | 720 | 52.3 | 1329 |
| C | 4.2 | 108 | 16.0 | 406 |
| D | 12.2 | 310 | 24.0 | 610 |
| E | 34.9 | 886 | 58.9 | 1495 |



Battery back-up

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



| Model | EM output | Normal output |
|-----------------------|----------------------------|----------------------------|
| DLL4/UNV1 S903 EM1 | 1,400 lumens (100-277V) | 6,720 lumens (100-277V) |

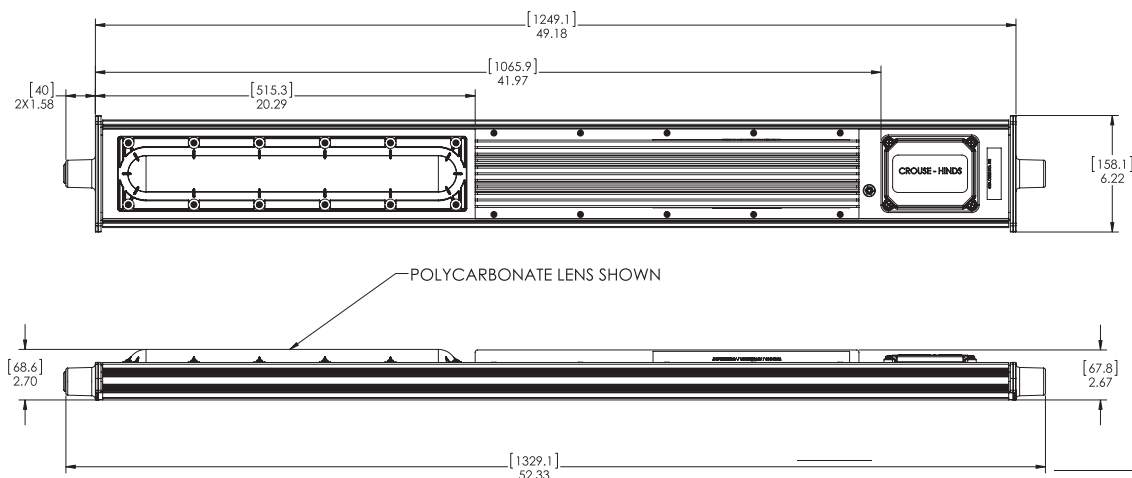
Applications:

- 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.

Key features:

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

Dimensions:



Certifications and compliances:

NEC/CEC

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Wet Location, IP66, Type 4X

UL Standards

- UL844 Hazardous (Classified)
- UL1598 Luminaires, UL1598A Marine
- UL924 Emergency Lighting

CSA Standard

- CSA C22.2 Nos. 137, 141

Electrical ratings:

| Voltage | 120 | 277 |
|------------------------|---------|---------|
| Amperage @ 120VAC | .48 | .212 |
| Wattage @ 120VAC | 57.8 | 57.7 |
| Lumen output | 6,720 | 6,720 |
| Frequency | 50/60Hz | 50/60Hz |
| Power factor @ 100 VAC | > .90 | > .90 |
| THD | 6.58 | 11.70 |

Temperature codes:

| Ambient temperature | Min. temp. wire supply | Class I, Div. 2 | Class II, Div. I | Simultaneous rating Class I, Div. 2, Class II, Div. 1 |
|---------------------|------------------------|-----------------|------------------|--|
| 40°C | 60°C | T5 | T6 | T5 |

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Eaton's Crouse-Hinds business**

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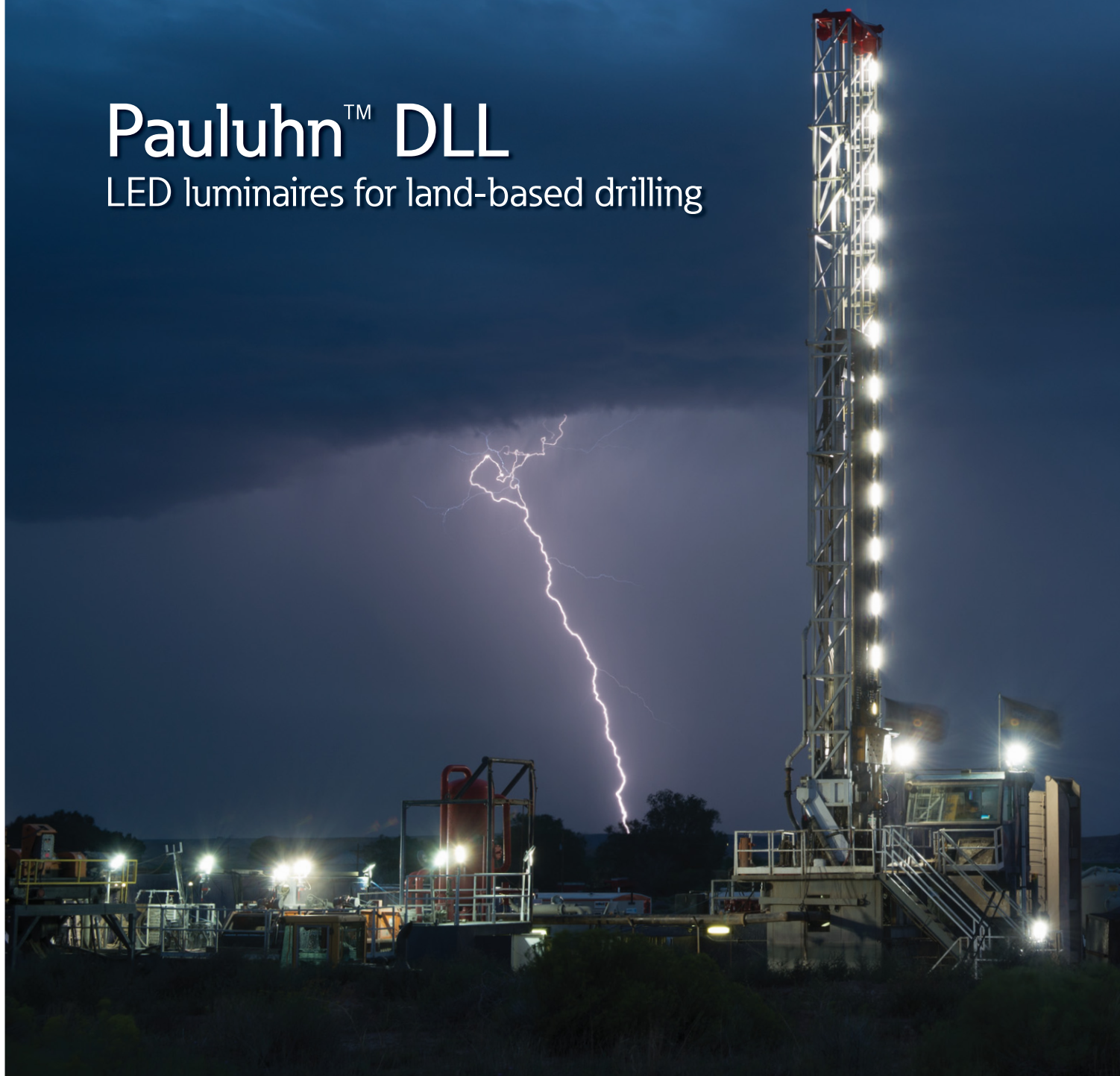
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LED lighting for land-based rigs
Pauluhn™ DLL LED Luminaires

CROUSE-HINDS
SERIES

Pauluhn™ DLL

LED luminaires for land-based drilling



EAT•N

Powering Business Worldwide



Pauluhn™ DLL Series LEDs

Safe. Reliable. Efficient.

Featuring the industry's broadest range of LED luminaires for harsh and hazardous environments, Eaton's Crouse-Hinds can deliver a lighting solution that performs reliably in even the worst operating conditions. All the while reducing your energy, maintenance and manpower costs.



Why LED?

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Rated life is up to 60,000 hours of maintenance-free and safe operation

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LED average energy consumption is 65% less than T12, T8 and T5HO fluorescent fixtures

Start/restart time

Instant illumination vs. 10 minute restrike time for fluorescent

Light quality

Higher color rendering and color temperature compared to fluorescent

Environmental benefits

Mercury-free LED eliminates disposal costs and lower energy consumption for a smaller carbon footprint

Why Crouse-Hinds?

Industry-best reliability

Built to withstand extreme temperatures, vibration, water and dust

Thermal management

Effective heat sinking ensures longer life

Quality of light

Custom optics designed to maximize light distribution and intensity

Retrofit compatibility

LED fixtures are compatible with Pauluhn DuraPro, MagnaPro, Rig-A-Lite™ and Snelson® fluorescent fixtures

Ensign Rig 89

LOCATION: Gillette, Wyoming

DETAILS: Rig retrofit with Pauluhn DLL4 LEDs

Why Pauluhn™ DLL LED?

Designed for drilling. Pauluhn DLL linear LED luminaires are engineered to stand up to the demanding conditions faced on land-based drilling rigs. The DLL 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 high mast/derrick application avoids spillage and light loss

Comprehensive certification:

- Single model certified for use in Class I, Division 2 and Class II, Division 2 harsh and hazardous applications

Quick & easy installation:

- Easy access to drivers and wiring
- No custom brackets or hardware needed
- Seven mounting options available
- Easily retrofit to Pauluhn DuraPro and MagnaPro, Rig-A-Lite and Snelson



Slim profile:

- 2.7" fixture height (excluding mounting brackets)
- Perfect for mounting in confined or low height areas

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 @ 55°C ambient



Case study: land-rig retrofit

Location:

Ensign Rig 122, Vernal, Utah

Challenge:

Ensign was looking for a rugged, low maintenance solution to replace existing Pauluhn DuraPro fluorescent fixtures on a drilling rig.

Solution:

Install Pauluhn DLL 2 foot linear LED luminaires

Results:

Ensign was easily able to replace 21 DuraPro fixtures with 14 DLLs in only about an hour by using the existing DuraPro brackets. Ensign saw better light quality on the mast and deck, while reducing amperage load and eliminating lamp maintenance.



Pauluhn™ DLL Series LED Luminaires

The Pauluhn DLL Linear LED by Eaton's Crouse-Hinds is specifically designed to replace fluorescent T12, T8 and T5HO lighting on land-based and offshore drilling platforms. The rugged and durable design features the industry's most versatile and flexible mounting options. The Pauluhn DLL is the ideal solution for high vibration, impact and hose down in drilling applications.

Applications:

Land-based and offshore rigs; areas include: derrick, mast, SCR house, top drive, operator's house, power and pump stations.

Key features & benefits:

- High efficacy: up to 120 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 in control room and drill mast
- 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†



‡ One year warranty

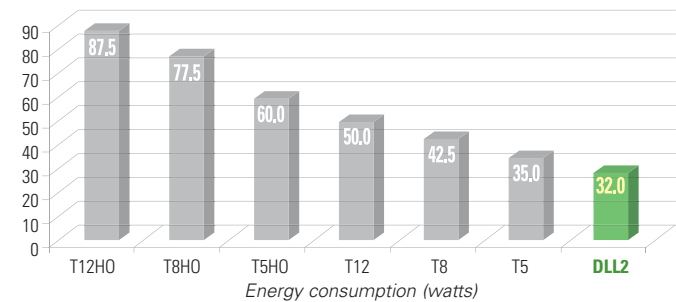
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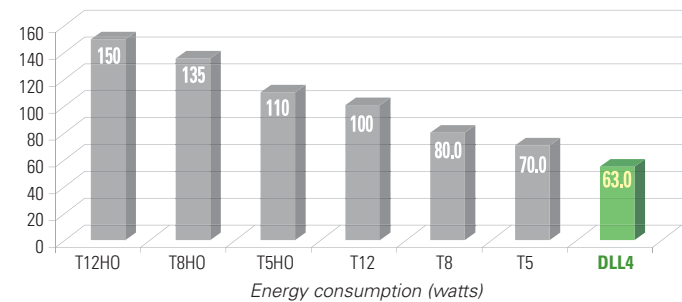
Energy consumption comparison

2 foot DLL linear LED vs. fluorescent



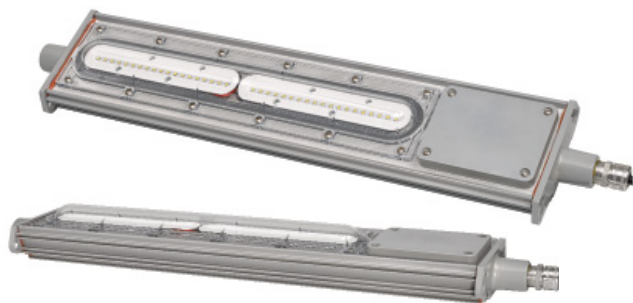
All luminaires in the comparison are 2 lamp, 2 foot

4 foot DLL linear LED vs. fluorescent



All luminaires in the comparison are 2 lamp, 4 foot

Specifications



Certifications:

NEC standards:

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Class I, Zone 2
- 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 for Emergency Lighting

CSA standard:

- C22.2 No. 137

Additional certifications:

- ABS design assessed

Materials:

Housing:

- Copper-free aluminum
- Optional Corro-free™ epoxy powder coat

Lens:

- Clear or diffused or polycarbonate

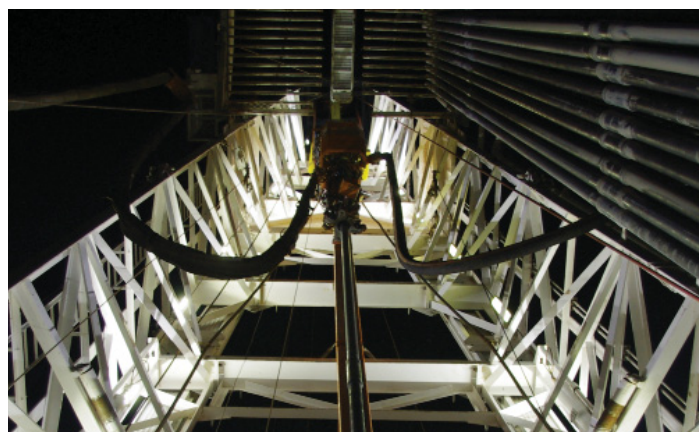
Mounting:

Versatile mounting options:

- Flush back mount
- Swivel/ceiling back mount
- Offset ceiling mount
- Offset wall mount
- Pole mount
- Pendant mount

Easily retrofit to:

- Existing Pauluhn DuraPro and MagnaPro fluorescent light fixtures
- Rig-A-Lite and Snelson C1D2 fluorescent lighting fixtures



Electrical ratings:

| | DLL2 | DLL4 |
|---------------------|--------------------------------------|----------|
| Lumen output | 3,958 | 7,900 |
| Frequency | 50/60 Hz | 50/60 Hz |
| Voltage | 100-277 VAC/108-250 VDC; 347-480 VAC | |

| Model | Voltage | Current (A) | Wattage (W) | Power factor | THD |
|-------------------|---------|-------------|-------------|--------------|------|
| DLL2/UNV1 | 100 | 0.33 | 32.5 | 0.92 | <20% |
| DLL2/UNV1 | 277 | 0.13 | 34.3 | 0.92 | <20% |
| DLL2/UNV34 | 347 | 0.10 | 32.2 | 0.92 | <20% |
| DLL2/UNV34 | 480 | 0.07 | 34.5 | 0.92 | <20% |
| DLL4/UNV1 | 100 | 0.63 | 63.4 | 0.92 | <20% |
| DLL4/UNV1 | 277 | 0.23 | 62.5 | 0.92 | <20% |
| DLL4/UNV34 | 347 | 0.18 | 61.4 | 0.92 | <20% |
| DLL4/UNV34 | 480 | 0.13 | 63.9 | 0.92 | <20% |

Temperature codes:

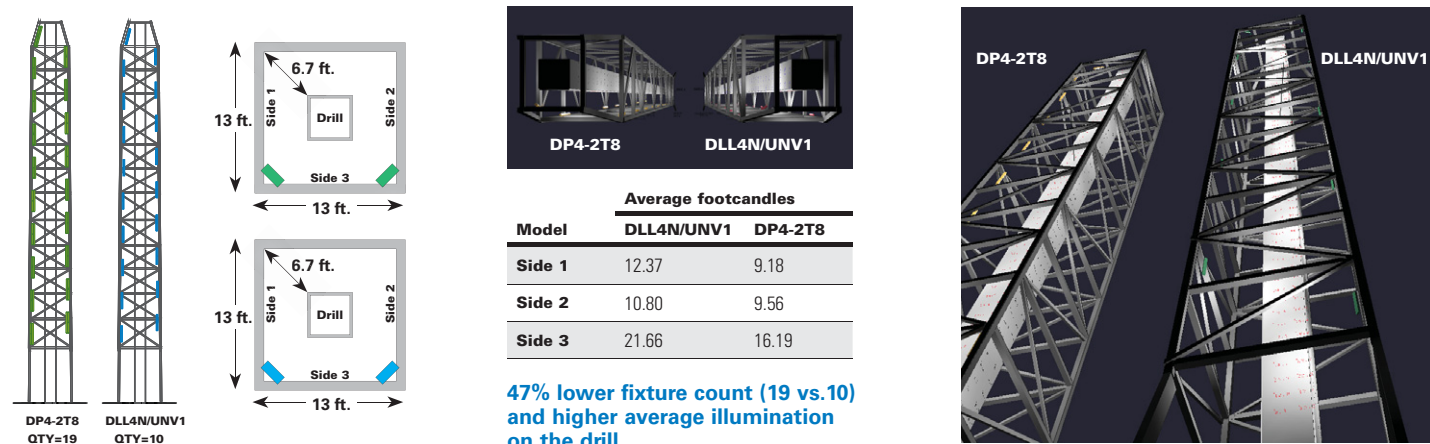
| Ambient temperature | Min. temp. wire supply | Class I, Div. 2 | Class II, Div. 2 | Simultaneous rating |
|---------------------|------------------------|-----------------|------------------|-----------------------------------|
| | | | | Class I, Div. 2, Class II, Div. 2 |
| 40°C | 60°C | T6 | T6 | T6 |
| 55°C | 75°C | T5 | T5 | T5 |
| 65°C | 90°C | T5 | T5 | T5 |

Weights:

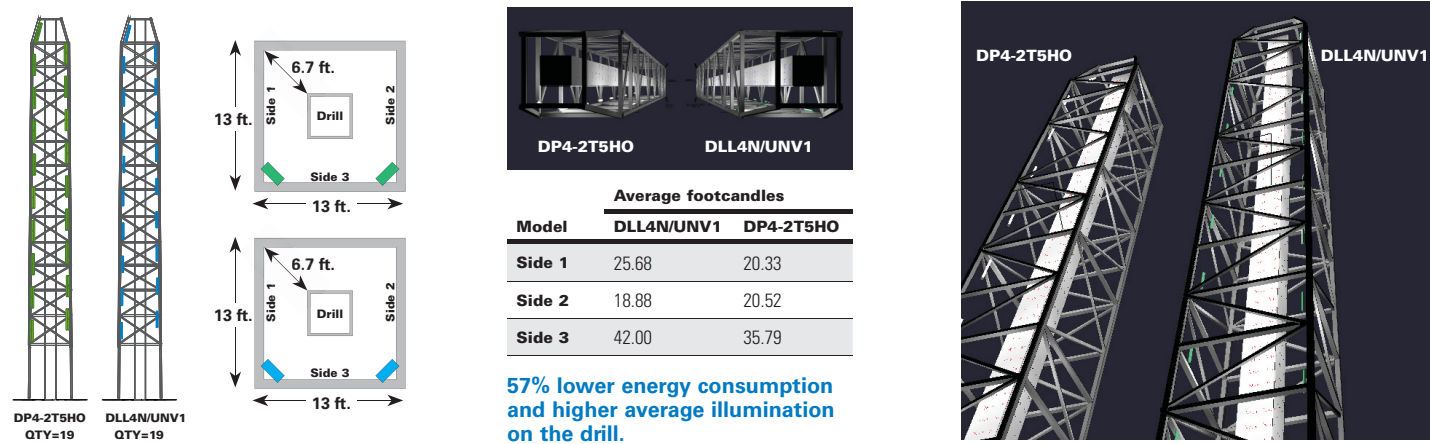
| Luminaire | lbs. | kg. |
|-------------|------|------|
| DLL2 | 12.5 | 5.7 |
| DLL4 | 22.5 | 10.2 |

Photometrics: high mast derrick

4 foot DLL LED with 80° optics vs. 4 foot 2 lamp T8 DuraPro

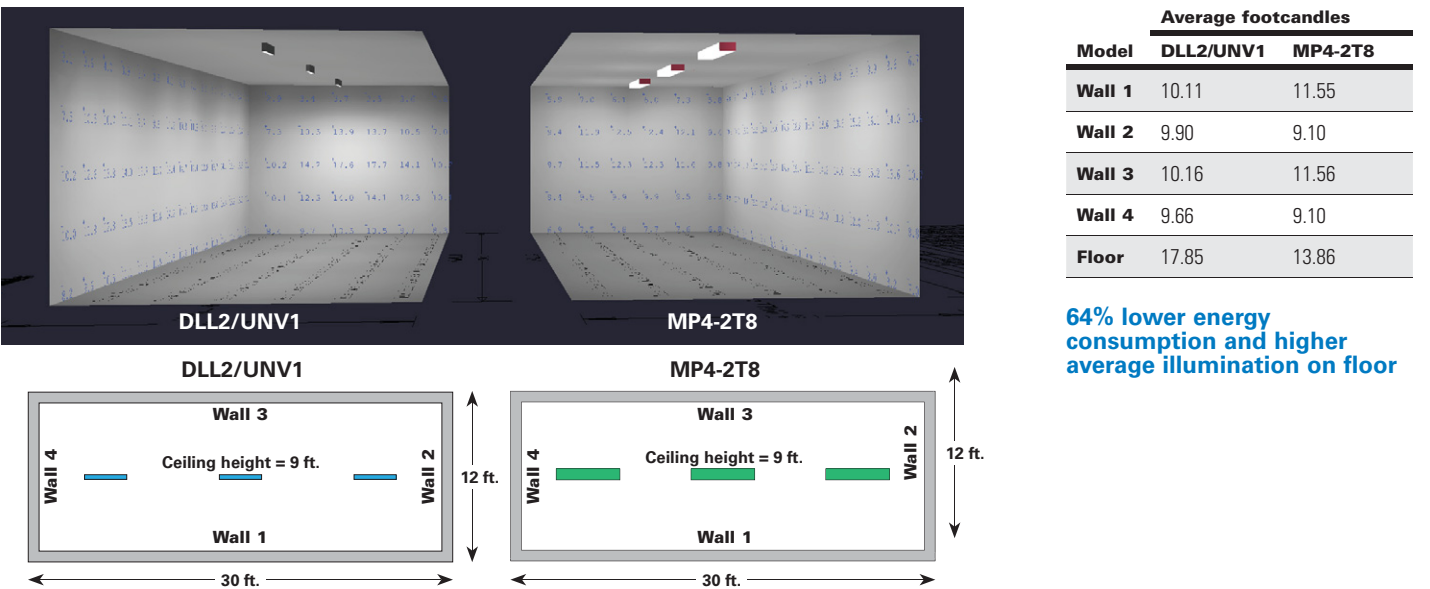


4 foot DLL LED with 80° optics vs. 4 foot. 2 lamp T5HO DuraPro



Photometrics: control room/pump shed

2 foot DLL LED with 120° optics vs. 4 foot 2 lamp T8 MagnaPro



Ordering information

Part number example

DLL4N/UNV1 S903 TF P EM1

DLL series linear LED, cool white, 4 foot, ½" hubs, 80° narrow light pattern, 100-277 VAC driver, polycarbonate lens, through feed hubs, painted, battery back-up

| Series | Optics | Lens | Emergency backup |
|--|--|--|--|
| DLL Pauluhn DLL series linear LED luminaire | BLANK Wide (120°) N Narrow (80°) | S903 Clear polycarbonate S903D Diffused polycarbonate | BLANK Standard model (no battery back-up) EM1* Integrated emergency battery back-up |
| Length/lumens | Voltage | | Finish |
| 4 4 foot length, 7,900 lumens 2 2 foot length, 3,900 lumens | /UNV1 100-277 VAC; 108-250 VDC /UNV34 347-480 VAC | | BLANK Natural aluminum P Painted (gray, epoxy) WH Painted (white, epoxy) |
| | | | Options |
| | | | TF Pull wire included in fixture |

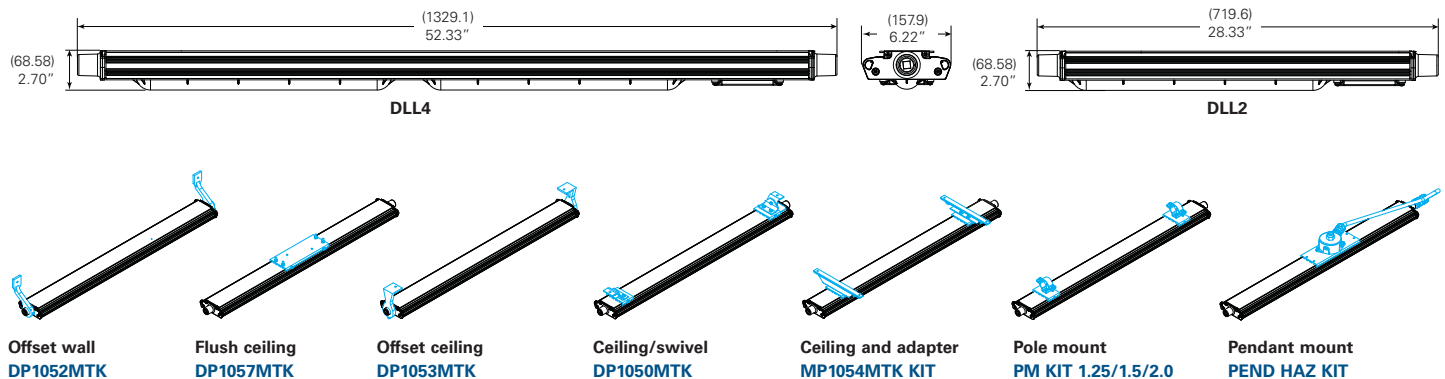
Accessories (ordered separately)

| | |
|----------------------|--|
| DP1057MTK | Flush/back mount back plate (compatible with DuraPro) |
| DP1050MTK | Ceiling/swivel mount (compatible with DuraPro) |
| DP1053MTK | Ceiling/wall mount offset (compatible with DuraPro) |
| MP1054MTK KIT | Ceiling mount bracket and adapter kit (compatible with MagnaPro) |
| DP1052MTK | Offset wall mount (compatible with DuraPro) |
| PM KIT 1.25 | Pole mount kit, 1.25" conduit |
| PM KIT 1.5 | Pole mount kit, 1.50" conduit |
| PM KIT 2.0 | Pole mount kit, 2.00" conduit |

Accessories (ordered separately)

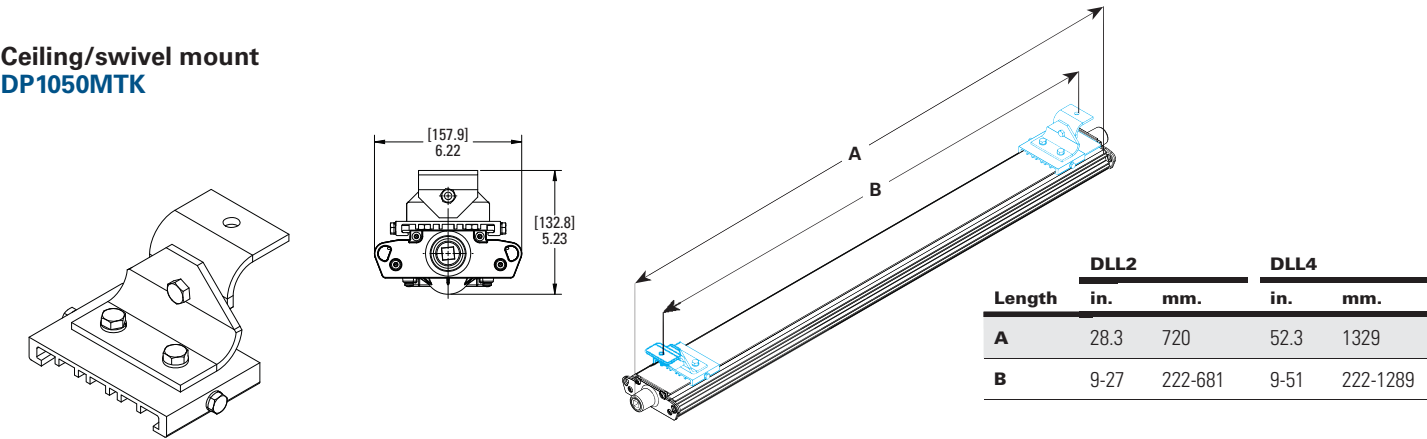
| | |
|--------------------------------|---|
| PEND HAZ KIT | Pendant mount kit |
| SS KIT | Safety chain kit |
| VMVL/UNV1 80W 1A KIT | 1 amp driver replacement kit 100-277 VAC for 4 ft. linear |
| VMVL/UNV34 80W 1A KIT | 1 amp driver replacement kit 347-480 VAC for 4 ft. linear |
| VMVL/UNV1 80W 0.5A KIT | 0.5 amp driver replacement kit 100-277 VAC for 2 ft. linear |
| VMVL/UNV34 80W 0.5A KIT | 0.5 amp driver replacement kit 347-480 VAC for 2 ft. linear |

Dimensions & mounting options:

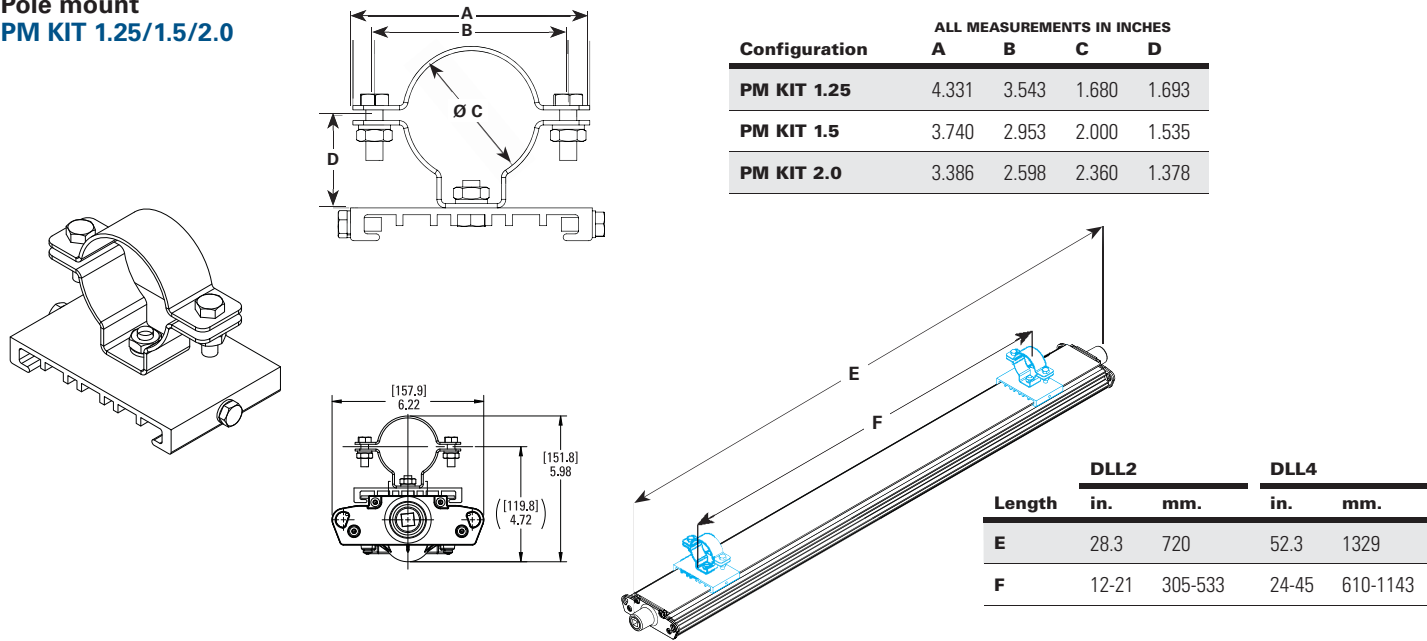


Mounting options

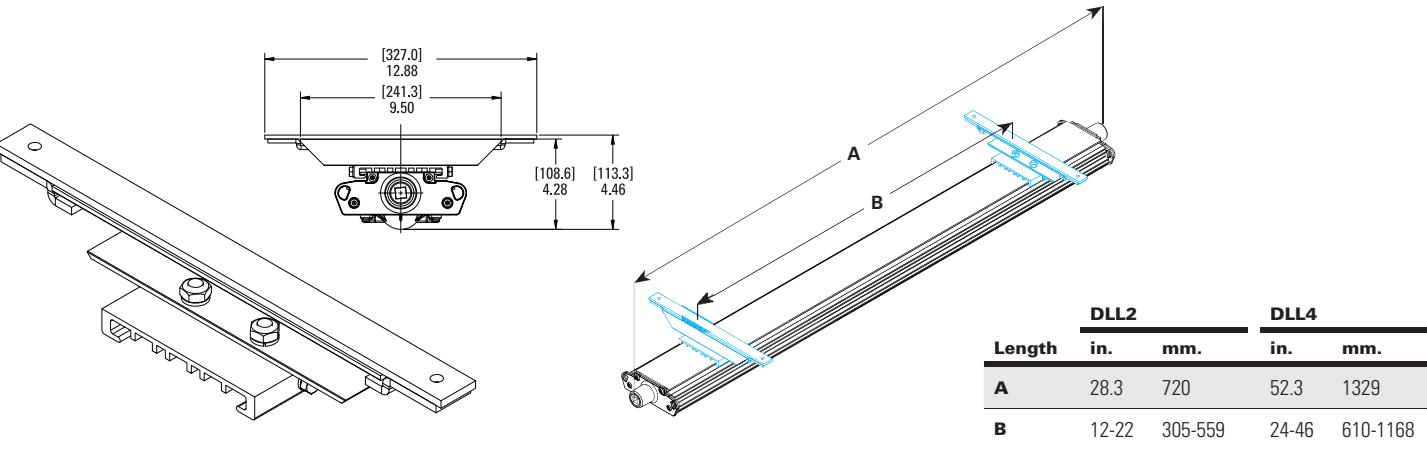
Ceiling/swivel mount DP1050MTK



Pole mount PM KIT 1.25/1.5/2.0

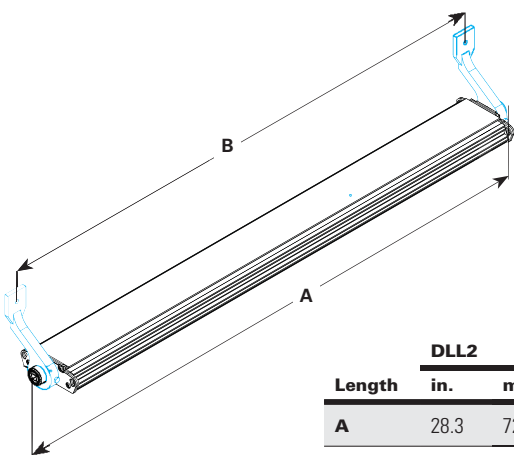
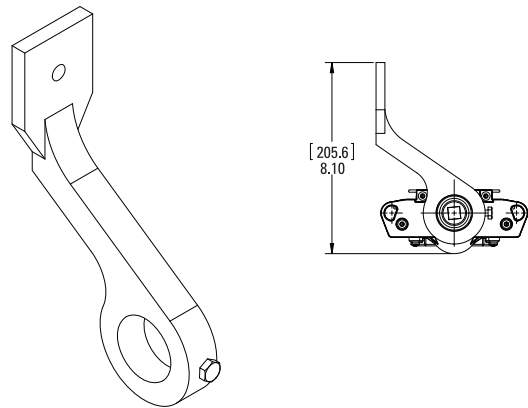


MagnaPro mount MP1054MTK KIT



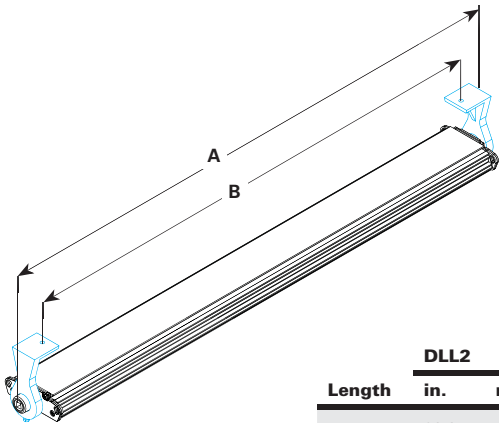
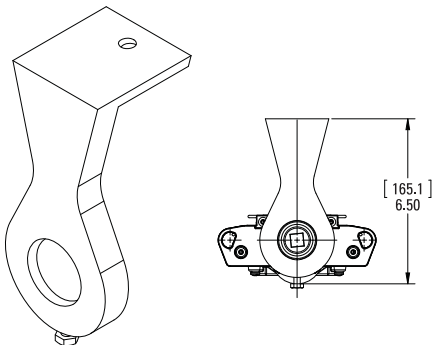
Mounting options

Offset wall DP1052MTK



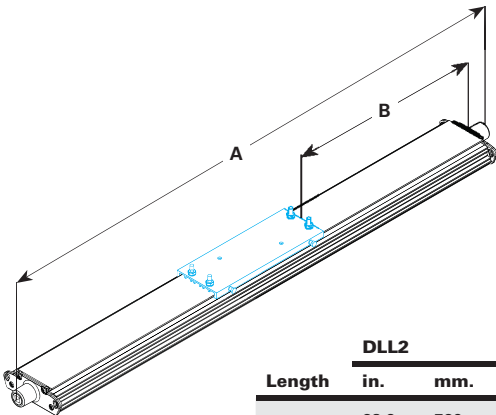
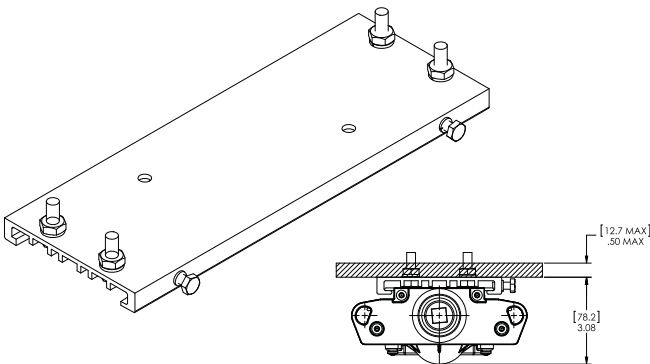
| Length | DLL2 | | DLL4 | |
|--------|------|-----|------|------|
| | in. | mm. | in. | mm. |
| A | 28.3 | 720 | 52.3 | 1329 |
| B | 26.3 | 669 | 50.3 | 1278 |

Offset ceiling/wall mount DP1053MTK



| Length | DLL2 | | DLL4 | |
|--------|------|-----|------|------|
| | in. | mm. | in. | mm. |
| A | 28.3 | 720 | 52.3 | 1329 |
| B | 26.3 | 584 | 47.0 | 1194 |

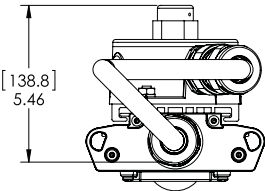
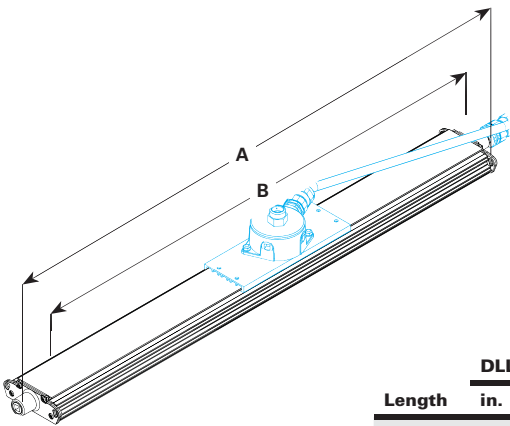
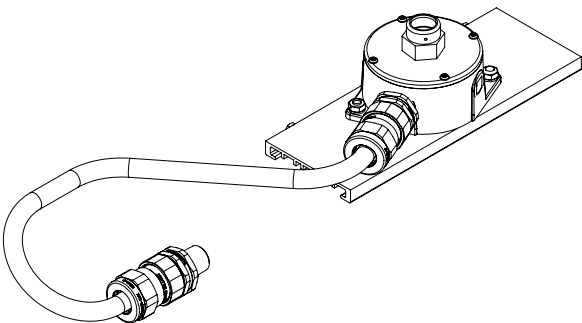
Flush ceiling DP1057MTK



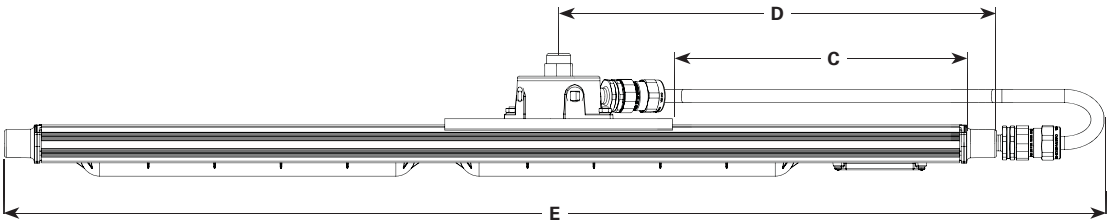
| Length | DLL2 | | DLL4 | |
|--------|------|-------|------|------|
| | in. | mm. | in. | mm. |
| A | 28.3 | 720 | 52.3 | 1329 |
| B | 6.2 | 157.5 | 18.2 | 462 |

Mounting options

Pendant mount - Class I, Div. 2 only
PEND HAZ KIT



| Length | DLL2 | | DLL4 | |
|----------|------|-----|------|------|
| | in. | mm. | in. | mm. |
| A | 31.7 | 805 | 55.8 | 1418 |
| B | 28.3 | 720 | 52.3 | 1329 |
| C | 4.2 | 108 | 16.0 | 406 |
| D | 12.2 | 310 | 24.0 | 610 |
| E | 34.9 | 886 | 58.9 | 1495 |



Battery back-up

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



| Model | EM output | Normal output |
|-----------------------|----------------------------|----------------------------|
| DLL4/UNV1 S903 EM1 | 1,400 lumens (100-277V) | 6,720 lumens (100-277V) |

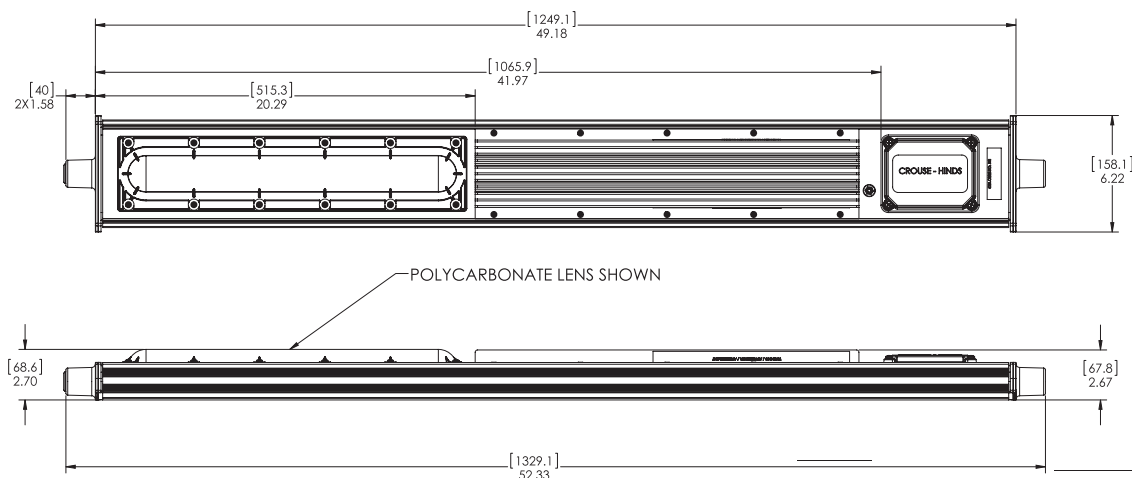
Applications:

- 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.

Key features:

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

Dimensions:



Certifications and compliances:

NEC/CEC

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Wet Location, IP66, Type 4X

UL Standards

- UL844 Hazardous (Classified)
- UL1598 Luminaires, UL1598A Marine
- UL924 Emergency Lighting

CSA Standard

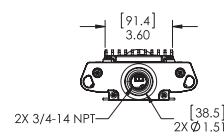
- CSA C22.2 Nos. 137, 141

Electrical ratings:

| Voltage | 120 | 277 |
|------------------------|---------|---------|
| Amperage @ 120VAC | .48 | .212 |
| Wattage @ 120VAC | 57.8 | 57.7 |
| Lumen output | 6,720 | 6,720 |
| Frequency | 50/60Hz | 50/60Hz |
| Power factor @ 100 VAC | > .90 | > .90 |
| THD | 6.58 | 11.70 |

Temperature codes:

| Ambient temperature | Min. temp. wire supply | Class I, Div. 2 | Class II, Div. I | Simultaneous rating Class I, Div. 2, Class II, Div. 1 |
|---------------------|------------------------|-----------------|------------------|---|
| 40°C | 60°C | T5 | T6 | T5 |



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