PHOENX® DURABILITY X DESIGN™

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DURABLE LIGHTING MADE FOR MINING[™]

Every day, with every light, and for every project ...

... we are committed to durability. As we design, engineer and manufacture our products for the mining industry, we are constantly thinking about operators and what they need to do their jobs safely and effectively.



Every night, at mines around the world,

P&H

operators depend on Phoenix lights. From the first light we built in 1943 to the LED fixture that was installed last week, our product line has been a sequence of innovations inspired by mine operators worldwide and their evolving needs.

With unrivaled industry expertise and the highest level of technology available, Phoenix light fixtures bring a new level of safety and efficiency to your operations.



Our fixtures have been tested and proven ...

... in the most extreme conditions for over 78 years. We use measures like potted drivers, high quality finishes and marine grade components to ensure our fixtures thrive in the mining environment and last longer than any other option.

We test our fixtures by exposing them to the most extreme scenarios they are designed for shock, vibration, moisture, hazardous conditions ... Phoenix sends every fixture out the door with the confidence that it will stand up to the rigors of the mining environment.









Dragline

Phoenix has retrofitted more draglines to LED globally than any other lighting company. Why are operators choosing Phoenix? They need the highest level of durability along with uniform, consistent light under the boom. When these two factors are optimized, so is productivity and safety.

ModCom[®] 3 Lo

Shovel On machine house pg. 6

ModCom[®] 3 Hi

Dragline Inside and outside machine house, on boom Shovel On A-frame pg. 6



ModCom[®] 3 Max Dragline Outside machine house, on mast, on boom *pg. 6*



HDL-LED Series

Dragline Inside machine house Shovel Inside and under machine house pg. 9



Wayfinder[™]2 Dragline Inside tub



SturdiLED[®]





Electric Rope Shovel

Phoenix has been working with operators and OEMs to deliver quality illumination to shovels since the 1940s. Enabling the operator to effectively read the grade while maintaining the highest level of safety has always been a joint goal of Phoenix and its customers.



Cube-Light Wall Mount

Dragline Inside tub Shovel Above doors pg. 10





Shovel Perimeter (back and sides) pg. 9



Dozer & DC Blasthole Drill

Extreme shock, vibration and g-force often cause premature failure of lights, leading to lost productivity. Phoenix lights are designed to endure these conditions so operators can get their jobs done at any hour.

Dozer

DC Blasthole Drill

Sturdilite[®] Master Series

Dozer Above blade and tracks, operator's cab Drill Above and below deck, operator's cab pg. 9

Sturdilite[®] Move Series

Dozer Above blade and tracks, operator's cab Drill Above and below deck, operator's cab pg. 9







Sturdilite[®] Master Series

Haul Truck Driving, side and back lights Excavator Dig lights and perimeter lights pg. 9

Sturdilite[®] Move Series

Haul Truck Driving, side and back lights



Haul Truck & Hydraulic Excavator

The punishing work of a hydraulic excavator and haul truck need lighting that can take a hit. With consistent light and exacting standards of durability, operators are choosing Phoenix for their mobile equipment to keep productivity and safety high and maintenance at a minimum.



Flood Lighting



ModCom[®] 3 Series Heavy Duty LED Floodlight

Patents pending

- the third generation of durable, compact, surface-mounted fixtures specifically designed for large AC mining equipment and hazardous locations
- optional lighting controls that enable color tuning, power monitoring and preventative maintenance notifications
- custom designed optics, including new, no-glare perimeter optic, maximize fixture performance and increase equipment efficiency
- optional Amber CCT models improve visibility in high fog and dirt conditions



Wattage up to 121W, 231W or 438W Lumens up to 15,000, 30,000, or 52,500 Warranty 5 years







Sturdilite[®] Master Series Low-voltage LED Floodlight

US Design Patent No. D993,511

- durable, compact design ideal for use on demanding mobile equipment
- customized optics minimize glare and provide precise optical control
- High model available with linear optics and red LEDs to indicate unsafe zones (Alert)



Wattage up to 24W, 48W or 82W Lumens up to 2500, 5000 or 7600 Warranty 3 years





DC Work Lights



Sturdilite[®] Move Series Low-voltage LED Floodlight

- durable, economic line of DC-voltage LED work lights
- ideal for mobile mining equipment such as haul trucks, excavators, bulldozers and wheel loaders
- easy installation and fits easily into factory-installed positions



Wattage 19W, 40W or 64W Lumens up to 2000, 5000 or 7000 Warranty 1 year



Large Area Lighting



Highland[®] Series **High Mast & Area LED Floodlight**

- ideal for stockyards, haul roads and pit lighting
- can be paired with Synapse® lighting controls system
- designed to meet U.S. and Canadian requirements



Wattage up to 265W or 530W (pictured) Lumens up to 40,000 or 80,000 Warranty 5 years



CLIR[™] Series

High Performance LED Large Area Floodlight

- ideal for stockyards, haul roads and pit lighting
- exceptional output for effective long-distance lighting
- unmatched efficiency with maximum glare control



Wattage 630W Lumens 85,000 Warranty 5 years



Meridian Series High Mast & Area LED Floodlight

- ideal for stockyards, haul roads and pit lighting
- can be paired with Synapse[®] lighting controls system
- certified for markets outside of North America



Wattage up to 265W or 530W (pictured) Lumens up to 40,000 or 80,000 Warranty 5 years



Soar[™] Series

High Mast & Large Area LED

- ideal for stockyards, haul roads and pit lighting
- can be paired with Synapse[®] lighting controls system
- delivers powerful, high output illumination



Wattage 960W Lumens up to 130,000 Warranty 5 years





Wayfinder[™] 2 LED Accessway Light

Patent Pending

- projects up to 1300 lumens to walkways, stairways and other small areas
- integrated emergency battery backup (EMB) option keeps the fixture illuminated for 6-hour or 2-hour durations during power interruptions
- optional motion sensor for additional energy savings



Wattage 3.2W - 11W (field adjustable output) Lumens up to 1300 Warranty 5 years



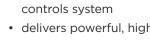
SturdiLED® Super-rough Service LED Floodlight

US Design Patent No. D708,776

- potted driver, conformal coated circuit board and rugged shock mount base provides maximum vibration resistance
- replaces up to 150W HID or 500W quartz halogen



Wattage 37W Lumens 2900 Warranty 5 years



Accessway & Flood Lighting



Cube-Light **Compact LED Area Light**

Australian Design No. 359170; **US Patent No. D762,321 S**

- simple, yet durable 13W LED area light
- compact design makes it ideal for use along accessways and stairways and in small spaces
- wall mount version available as a complete fixture or retrofit kit, an ideal replacement for jelly jar fixtures



Wattage 13W Lumens up to 1000 Warranty 3 years



Sturdilite[®] Grind 18W LED Floodlight

US Design Patent No. D957,023

- compact, yet durable design
- energy efficient and replaces up to 250W quartz halogen fixtures
- magnetic base accessory makes fixture ideal for maintenance or task lighting



Wattage 18W Lumens up to 2500 Warranty 5 years



Linear & Area Lighting



HDL-LED Series Heavy Duty LED

US Design Patent No. D720,875

- designed to replace linear fluorescent fixtures and up to 400W HID floodlights
- marine grade construction, potted driver and emergency battery backup (EMB) option
- ideal for applications that require hazardous ratings



Wattage 28W, 55W (pictured) or 83W Lumens 2850, 5700 or 8550 Warranty 5 years



Danger Light[™] Heavy Duty LED

- designed to illuminate the area surrounding large mobile equipment to visually indicate dangerous zones (red) or safe zones (green)
- compact design with an adjustable mounting harp



Wattage 42W Lumens up to 3800 Warranty 5 years

PHOENIX



CVO 2 LED Conveyor & Area Light

- ideal for use on conveyor belts, pathways, bridge/ street lighting, perimeter lighting as well as general pole or wall mount lighting
- hazardous and emergency battery backup options coming soon
- International Dark Sky Association approved (2200K and Amber models only)



Wattage up to 75W, field adjustable output Lumens up to 11,000 (50K), 8,000 (22K) or 6,500 (Amber) Warranty 5 years



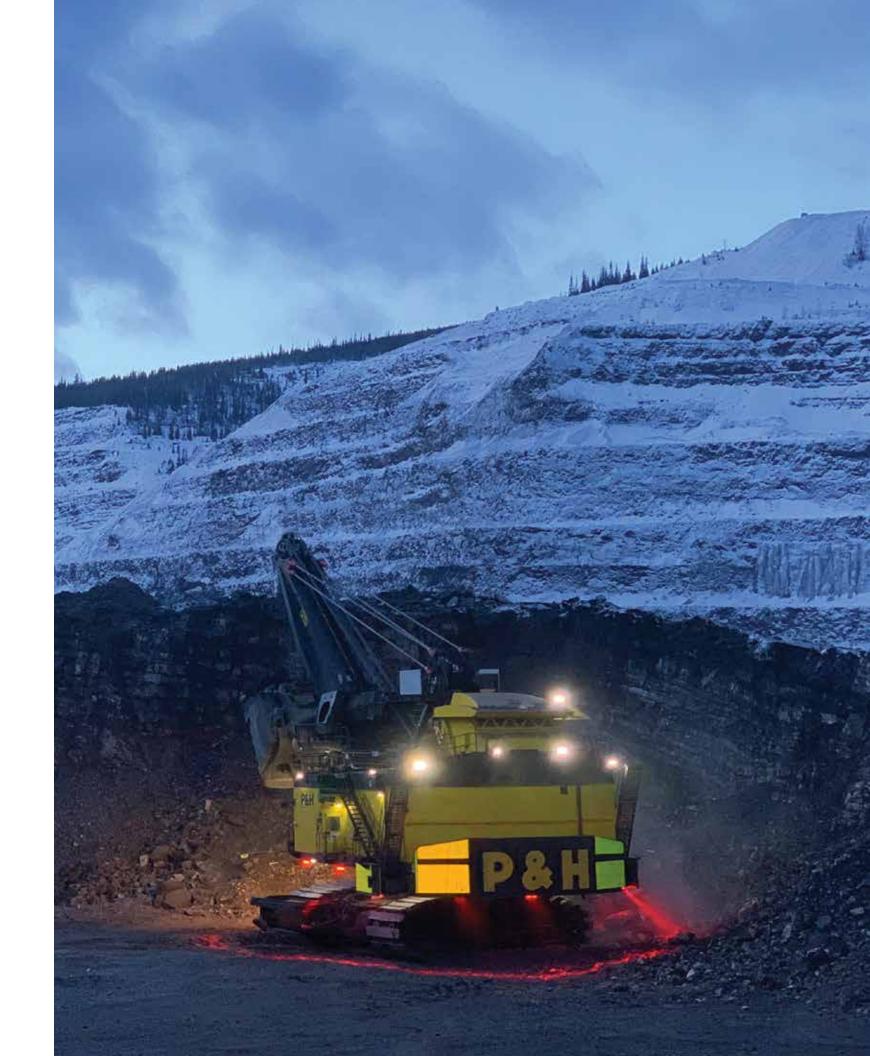
Ascend LHB Series Linear LED High Bay

- ideal for warehouses, maintenance bays, processing facilities, and wide temperature ranges, including applications up to 55°C
- three models available are wattage and color temperature selectable
- optional emergency battery backup and occupancy sensor



Wattage 80/125/180W, 200/240/290W or 325/385/450W Lumens 24,000, 42,000 (pictured) or 65,000 Warranty 5 years





Additional Hazardous Rated Mining Lighting

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Conquer[™] Series Floodlight Mid-watt Hazardous Rated LED Flood



Wattage 60W Lumens 6000 Warranty 5 years (-40°C to +64°C ambient temperature)

Conquer[™] Series Linear

Mid-watt Hazardous Rated Linear LED



Wattage 60W (pictured) or 80W Lumens 6600 or 9400 Warranty 5 years (-40°C to +64°C ambient temperature)

LFXB LED Series Explosion-proof LED



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Wattage 40W (pictured) or 80W Lumens up to 4200 or 8400 Warranty 3 years

Defend Flood[™] Series

Explosion-proof LED Floodlight



Wattage 100W or 165W Lumens 14,000 or 23,500 Warranty 5 years

Metallic LED VP Series

Vaporproof Fixture

ABS

SLX LED/SLXP LED/

Explosion-proof LED Floodlights

DLX LED docklite[®]

Wattage 17W

Lumens 1336

c(UL)us

Wattage 39W

Lumens 2540

Warranty 3-5 years

Warranty 5 years





Command Flood® Series Marine Grade Floodlight





Wattage 120W (pictured), 240W or 360W Lumens up to 15,300, 32,000 or 48,000 Warranty 5 years

ReadiLED[™] Series

LED Snaplight[®] and Retrofit Kit



Wattage 19W (pictured) or 38W Lumens 2700 or 5400 Warranty 3 years

LEDBM LED Berth & Mirror Light



c(UL)us

Wattage 14W Lumens up to 520 Warranty 3 years



Additional Mining Lighting

DLA 2 *docklite*^{*} 9W Modular LED Loading Dock Light Head



US Design Patent No. D957,023



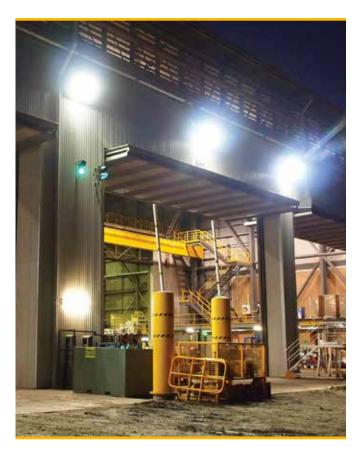
Wattage 9W Lumens 1100 Warranty 5 years

FlexPro *docklite*^{*} Flexible Arm LED Dock Light



Wattage 10W Lumens up to 1100 Warranty 3 years











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