

# MINING SOLUTIONS

VXINDUSTRIAL.COM



LED LIGHTING CATALOG



# LIGHTING SOLUTIONS

## FOR MINING CLASS VEHICLES AND EQUIPMENT

Vision X Lighting offers a large increase in energy efficiency over older technologies while also increasing the safety and productivity of the working environment by producing 80% more light than traditional fixtures.

### HEAVY DUTY BRACKETS

Designed with extreme conditions in mind, each fixture is equipped with forward rake trunnion or single bolt bracket options for functional mounting and stability.

### INCREASED PERFORMANCE

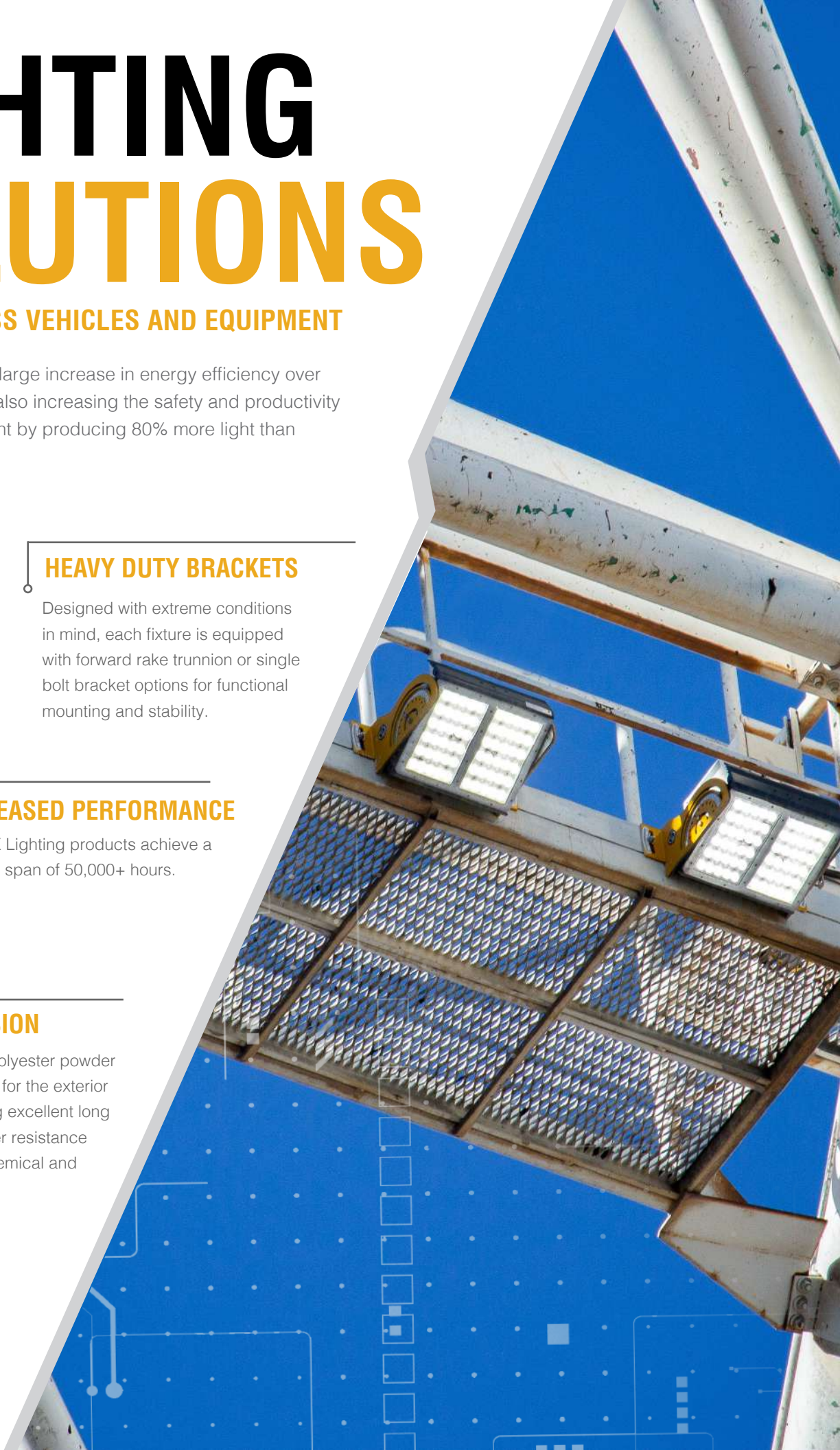
Vision X Lighting products achieve a long life span of 50,000+ hours.

### ANTI-CORROSION

The marine grade polyester powder coating is designed for the exterior environment offering excellent long term life and weather resistance passing multiple chemical and durability tests.



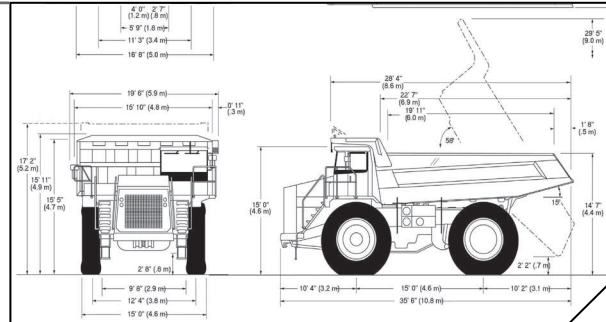
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# SOLUTION PROCESS

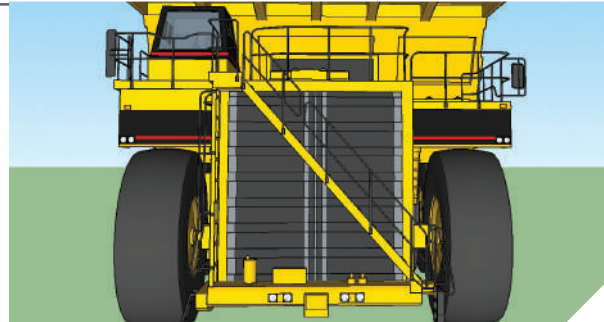
## 2D BLUEPRINT

Vision X Lighting begins each project with a customer provided blueprint of the equipment to be retrofitted, then gathers the technical information for those vehicles or equipment.



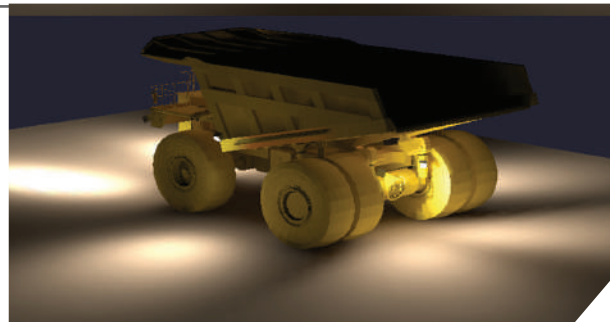
## 3D MODEL

A 3D model is built to the customer's specifications for employment in various work environments when carried into the rendering software.



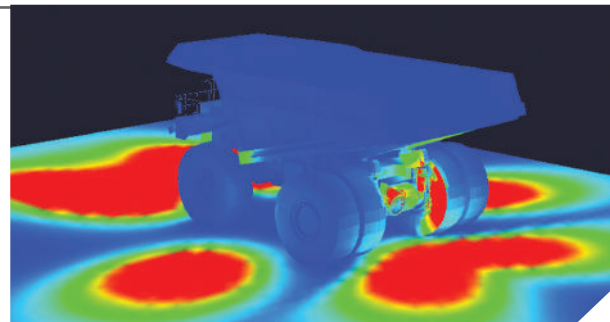
## SIMULATION RENDER

Our engineers place and aim the lights in the simulation rendering to calculate actual performance. This ensures the final product will meet the customer's lighting requirements.



## SOLUTION

Vision X Lighting creates a complete breakdown of the customer's specific needs to meet their safety and lighting requirements for an engineered solution.



# LED INITIATIVE PROGRAM

## SAFETY

- No effect on human eye or skin: IEC 62471 Photo biological tested
- Reduces operator fatigue: 5000k Color temperature
- Eliminates risk of shock: Low-voltage electronics
- Eliminates touch burns: Thermally-regulated housing
- Reduces near-miss incidents: Increased light output
- Contain no lead or mercury: ROHS Compliant electronics

## PREVENTATIVE MAINTENANCE

- Exceeds half engine life: Long-life LED
- Completely resist vibration: Solid-state components
- Reduces wear on associated components: Low in-rush current at startup
- Lessens chance of full-fixture failure: Built-in redundancy
- Uninterrupted fixture function and overheat protection: Built-in thermal management

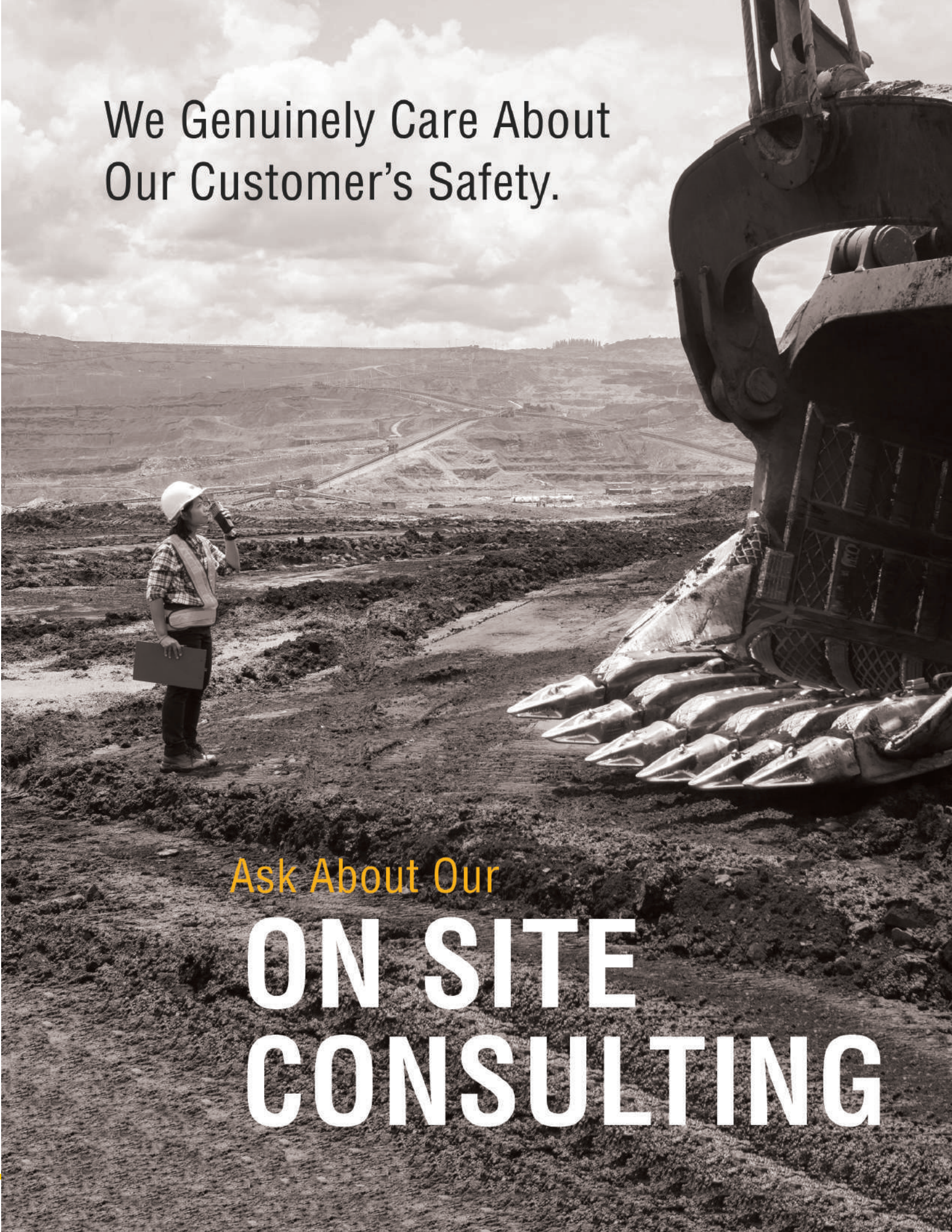
## COST SAVINGS

- Reduces associated component wear
- Less expensive than OE and HID options
- Increased reliability and longevity for increased production
- Reduces or removes unscheduled maintenance of lighting
- Increased productivity due to less operator fatigue
- Streamline inventory counts to common solution

## ENVIRONMENTAL

- ROHS-Compliant electronics
- Contains no lead or mercury
- Reduced CO<sub>2</sub> emissions
- No hazardous disposal required





We Genuinely Care About  
Our Customer's Safety.

Ask About Our

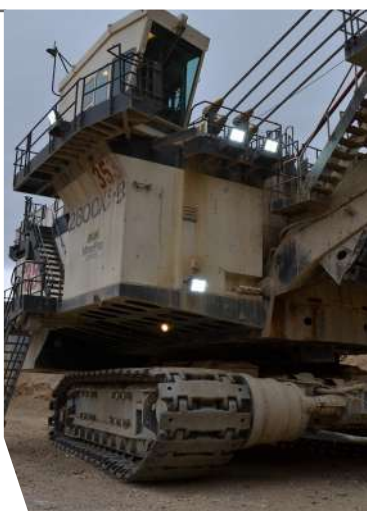
**ON SITE  
CONSULTING**

# ENGINEERED LIGHTING SYSTEMS

Vision X Lighting fit outs are specifically designed for each particular piece of equipment, not just a generic light head. We engineer specific lighting models to reduce or eliminate unscheduled maintenance, reduce amperage draw to minimize wear on associated equipment, and increase light output on the work area while reducing glare to peripheral equipment.

## OPEN PIT

- Haul Trucks •
- Rope Shovels •
- Hydraulic Shovels •
- Dozers •
- Drag Lines •
- Graders •
- Drill Rigs •
- Loaders •



## UNDER GROUND

- Haul Trucks •
- Jumbos •
- Bolters •
- Muckers •
- Loaders •
- Concrete Sprayers •
- Graders •
- Utility Carriers •



## STRUCTURAL

- Work Shops •
- Wash Bays •
- Roasters •
- SX/EW •
- Crushers •
- Haul Roads •
- Exterior Buildings •
- Low Bay/Mezzanine •



## SUPPORT EQUIPMENT

- Light Plant Retro Fit •
- Lube Trucks •
- Tire Carriers •
- Work Trucks •
- Conveyor Systems •



# HAUL TRUCK FIT-OUT GUIDE



## KOMATSU HD785

1-2 BHB07053065



4.5" SQUARE FLOOD LED  
BHB-SERIES WORK LIGHT

1 & 2 Center Two Front Headlights  
Forward Facing

3-4 BHB070540



4.5" SQUARE FLOOD LED  
BHB-SERIES WORK LIGHT

3 & 4 Second From Inner Headlights  
Forward Facing

5-8 BHB070560



4.5" SQUARE FLOOD LED  
BHB-SERIES WORK LIGHT

5 & 6 Third From Inner Headlights  
Forward Facing  
7 & 8 Left and Right Sides of Deck  
Side Facing

9-10 DURA-460A



4.5" SQUARE FLOOD LED  
DURA-SERIES WORK LIGHT

9 & 10 Outer Two Indicator Lights  
Forward Facing



DURA-460A

BHB070560

BHB070540

BHB07053065



Vision X Industrial Lighting  
P: 1-800-994-4460 | [WWW.VXINDUSTRIAL.COM](http://WWW.VXINDUSTRIAL.COM)  
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SAMPLE

# ROI CALCULATIONS | ANALYSIS

## Opportunity

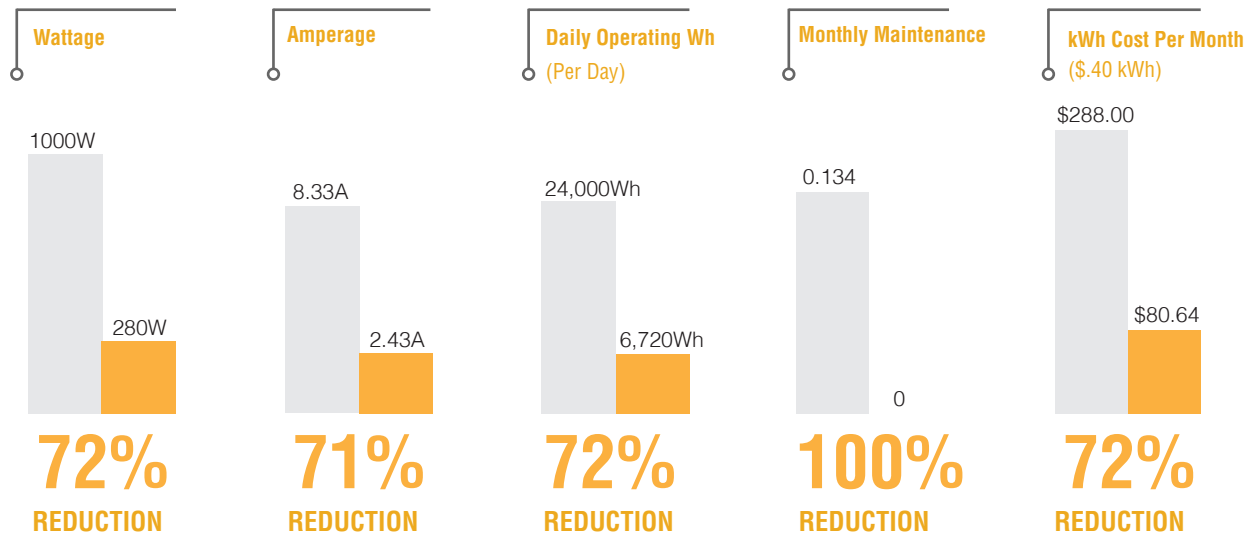
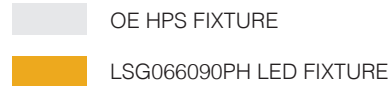
Lighting on P&H Models 2800 and 4100 has been adequate, at best. New LED technology has been designed specifically for these models and addresses issues with current lighting systems.

## Scope of Work

- Direct, one-for-one replacement of OE fixture.
- Bypass of OE ballast system allowing 120v AC to flow directly to the light fixture.

## Benefits Per Fixture

EXAMPLE



## Benefits Per Machine (12 Fixtures)

EXAMPLE



## Objectives Achieved Through LED Upgrade

|                                        |                         |
|----------------------------------------|-------------------------|
| Average Cost to Retrofit               | <b>\$27,672 USD</b>     |
| Annual Energy Savings                  | <b>\$30,274 USD</b>     |
| ROI Energy Savings Only                | <b>&lt; 1 YEAR</b>      |
| Annual Unscheduled Maintenance Savings | <b>\$630,000 USD</b>    |
| Total Annual Savings Per Machine       | <b>\$661,449.60 USD</b> |
| ROI (Energy and UM Savings)            | <b>18.25 DAYS</b>       |

**72%** Reduction in power consumption over current OE lighting system.

**80%** Decrease in light pollution (stray light loss into surrounding hills and into oncoming equipment).

- Built-in redundancy in each light fixture to completely remove unscheduled maintenance.
- Serviceable dual-power supply and circuit board during planned maintenance.
- ROHS-Compliant components contain no lead or mercury and require no hazardous disposal.

## A Green Solution

Vision X Lighting technology ensures that your LED Upgrade will be a solid investment in a sustainable future. The 79,000 kWh saved per year prevents approximately 55 metric tons of greenhouse gas emissions being released into the atmosphere. In addition to our energy efficiency, all Vision X LED fixtures contain no Lead or Mercury, which eliminates the risk to the environment upon disposal and requires no special disposal procedures.

What does 55 metric tons of CO<sub>2</sub> emissions look like? Well it equates to...

| Greenhouse Gases From...                                                                                          | CO <sub>2</sub> Emissions From...                                                                               | Carbon Sequestered By...                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|  12 Passenger Vehicles         |  6,186 Gallons of Gasoline   |  45 Acres of U.S. Forests in 1 Year |
|  130,097 Miles Driven          |  59,070 lbs. of Coal Burned  |  1,411 Saplings Grown for 1 Year    |
|  20 Tons of Waste in Landfills |  128 Barrels of Oil Consumed |                                                                                                                          |

Energy data pulled from: [www.epa.gov/cleanenergy/energy-resources/calculator.html](http://www.epa.gov/cleanenergy/energy-resources/calculator.html)

# DURALUX SERIES



## DURALUX MINI

- 2,000 Lumens
- 12-Watt
- Amp Draw: 1.0A @12V
- 15.6 Grms Vibration Rating
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Pattern: 60°

Application: White Iron, Ladder, Engine Bay

ITEM#: DURA-M460

2.75" x 3.62" x 1.94"

Available with a single bolt mounted trunnion for adjustable angle alignment.

ITEM#: BLB050460

12-Watt  
Beam Pattern: 60°



25° Beam Pattern

ITEM#: BHB0504M

20-Watt  
Mixed Beam Pattern



## DURALUX 4 LED

- 2,112 Lumens
- 20-Watt
- Amp Draw: 1.6A @12V
- 15.6 Grms Vibration Rating
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 40°, 60°
- Amber LEDs Available

Application: White Iron

ITEM#: DURA-4xxA

3.94" x 4.24" x 2.57"



## DURALUX 6 LED

- 3,696 Lumens
- 30-Watt
- Amp Draw: 2.5A @12V
- 15.6 Grms Vibration Rating
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 40°, 60°

Application: White Iron

ITEM#: DURA-6xx

5.38" x 4.19" x 2.72"



# SOLSTICE SERIES



## SOLSTICE PRIME 5 LED



- 5,260 Lumens
- 50-Watt
- Amp Draw: 4.17A @12V
- 15.6 Grms Vibration Rating
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 20°, 40°

**Application:** Rubber Tire Equipment, Drift Lighting

**ITEM#: XIL-SP5xx**

5.83" x 4.92" x 3.11"

The Solstice Prime Series from Vision X combines traditional form factor and single-bolt mounting with the energy-efficient benefits of LED lighting. This provides the ultimate OE upgrade option for commercial and industrial vehicles that use HID and Halogen fixtures.



# RIPPER SERIES

## RIPPER 12 LED

- 6,336 Lumens
- 60-Watt
- Amp Draw: 5.0A @12V
- 60 Grms Vibration Rating
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 40° 60°, 90°

Application: Ground Engaging | Tracked

ITEM#: MIL-RXP12xxT

4.72" x 6.93" x 4.05"

\*Dual Mounting - Comes with Standard Suspension Mount and Fully-Adjustable Trunnion



6.61" x 6.97" x 4.05"

\*Dual Mounting - Comes with Standard Suspension Mount and Fully-Adjustable Trunnion

## RIPPER 20 LED

- 10,560 Lumens
- 100-Watt
- Amp Draw: 8.34A @12V
- 60 Grms Vibration Rating
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 40° 60°, 90°

Application: Ground Engaging | Tracked

ITEM#: MIL-RXP20xxT

# BT HEAVY DUTY SERIES

Direct Metal Halide/Halogen Replacement | Stainless Steel Trunnion Brackets | Reverse Polarity Protection | Integrated Aiming System



## BHB 5 LED

- 400 Watt Halogen Equivalent
- 4,000 Lumens
- 35-Watt
- 60 Grms Vibration Rating
- Amp Draw: 2.9A@12V
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 25°, 40°, 60°, 90°, 30°/65°

**Application:** Heavy Duty Vehicles and Equipment

**ITEM#: BHB0705xx**

4.86" x 4.41" x 3.98"

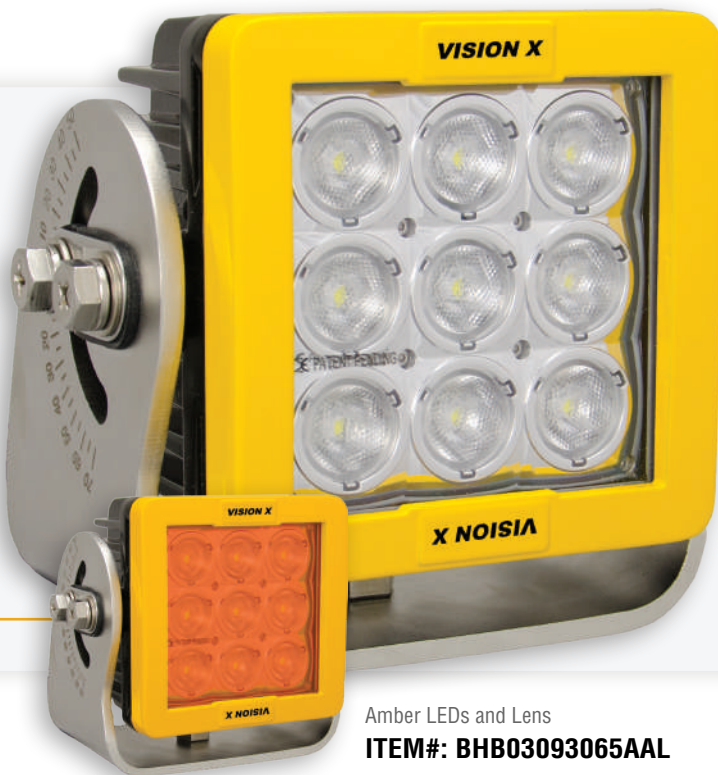
## BHB 9 LED

- 700 Watt Halogen Equivalent
- 7,200 Lumens
- 63-Watt
- 60 Grms Vibration Rating
- Amp Draw: 5.3A@12V
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 25°, 40°, 60°, 90°, 30°/65°
- Amber Leds and Lens

**Application:** Heavy Duty Vehicles and Equipment

**ITEM#: BHB0709xx**

6.08" x 5.20" x 3.33



Amber LEDs and Lens

**ITEM#: BHB03093065AAL**



## BHB 12 LED

- 1000 Watt Halogen Equivalent
- 9,600 Lumens
- 84-Watt
- 60 Grms Vibration Rating
- Amp Draw: 7.0A@12V
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 25°, 40°, 60°, 90°, 30°/65°

**Application:** Heavy Duty Vehicles and Equipment

**ITEM#: BHB0712xx**

6.95" x 5.20" x 4.02"



VISION X

X NOISIA



9.42" x 6.81" x 4.92"

## BHB 20 LED

- 400/500 Watt Halide Equivalent
- 16,000 Lumens
- 140-Watt
- 60 Grms Vibration Rating
- Amp Draw: 11.7A@12V
- 11-65V DC Input
- IP-68 / IP69K, CISPR 25
- Beam Patterns: 10°, 25°, 40°, 60°, 90°, 30°/65°

**Application:** Heavy Duty Vehicles and Equipment

**ITEM#: BHB0720xx**

# AC FLOOD SERIES



15.0" x 13.37" x 7.16"

## AC FLOOD SERIES

- 1000 - Watt Metal Halide Replacement
- 36000 Lumens
- 280 Watt
- 90-305V AC | HV 249-528V AC
- Amp Draw: 2.55A @110V
- 15.6 Grms Vibration Rating
- IP-68 / IP69K
- Beam Patterns: 10°, 25°, 40°, 60°, 90°, 180°

Application: P&H Shovel | Dragline Lighting

ITEM#: LSG0660xxPHXX



\*Cord Included

6.6' QUICK CONNECT CABLE  
ITEM# : LAYUC2M



Equipped with our patented ProTrac aiming system for easy angle alignment.



# AC INTERIOR SERIES



## AC 50-WATT JUNCTION BOX

- Direct OEM Replacement
- 6000 Lumens
- 50 Watt
- 90-305V AC
- Amp Draw: 0.09A @ 115V AC, 0.04A @ 230V AC, 0.04A @ 277V AC
- 15.6 Grms Vibration Rating
- IP-68 / IP69K
- Beam Patterns: 180° Ultra Wide Flood

Application: House | Track Lighting

ITEM#: LSG0225180PH



3.94" x 4.24" x 2.57"



\*Cord Included

6.6' QUICK CONNECT CABLE  
ITEM#: LAYUC2M

## 10-WATT JUNCTION BOX

- 100-Watt Halogen Bulb Replacement
- 1000 Lumens, 5000K CCT
- 10 Watt
- 90-264V AC
- Amp Draw: 0.09A @110V
- 15.6 Grms Vibration Rating
- IP-68 / IP69K
- Beam Patterns: 180°

Application: Equipment | Over-door Lighting

ITEM#: LSGSM40180PH



4.41" x 2.17" x 2.58"



# VEHICLE IDENTIFICATION

Pulse Width Modulation | Electronic Thermal Management | Redundant Circuit Design | 3 Year Extended Warranty



29.84" x 17.26" x 1.41"



22.56" x 17.32" x 1.41"

## LED ID BOARDS

- 195 Crisp LEDs Per Digit
- Magnetic Sensor to Change Digits
- Engineered for 24/7 Operation
- 2-Digits, 3-Digits
- 12-32V DC Input
- IP-68 / IP69K
- Available Colors: Red, Green, Blue, Amber



**Application:** Ground Engaging | Tracked, Rubber Tire Equipment

**ITEM#: MIL-ID03R**

**ITEM#: MIL-ID03B**

**ITEM#: MIL-ID03G**

**ITEM#: MIL-ID03A**

**ITEM#: MIL-ID02R**

**ITEM#: MIL-ID02B**

**ITEM#: MIL-ID02G**

**ITEM#: MIL-ID02A**



\*Hardware Included

## DRIFT STOBE 3 LED

- 684 Lumens
- 9-Watt
- Amp Draw: 0.6A @12V
- 15.6 Grms Vibration Rating
- 9-32V DC Input
- IP-68
- Colors Available: Red, Green, Blue, Amber

**Application:** Drift Lighting

**ITEM#: XIL-LP625x.2HZ**



8.43" x 2.06" x 2.45"

# STROBE SERIES

## HEAVY DUTY BEACON

- Full 360 Degree Visibility Dual Flash
- Wattage: 36W
- 15.6 Grms Vibration Rating
- Rugged Die-Cast Aluminum Housing
- Shatterproof Polycarbonate Lens
- 12-32V DC Input
- IP-68 / IP69K, CISPR 25
- Available Colors: Amber, Red, Blue, Green, White

**Application:** Rubber Tire Equipment

**ITEM#: MIL-HDBR**

**ITEM#: MIL-HDBG**

**ITEM#: MIL-HDBB**

**ITEM#: MIL-HDBA**

**ITEM#: MIL-HDBW**

6.30" x 5.12" x 5.31"



## 36 STROBE BEACON

- Full 360° Visibility
- 7.2-Watt
- Amp Draw: 0.8A @12V
- 15.6 Grms Vibration Rating
- 12-32V DC Input
- IP-68 / IP69K, CISPR 25
- Colors Available: Red, Green, Blue, Amber, White

**Application:** Drift Lighting

**ITEM#: XIL-UB36x**

2.79" x 5.19" x 3.81"





**NOTES:**

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