Industrial Ex /ATEX & Workplace Safety

EX /ATEX

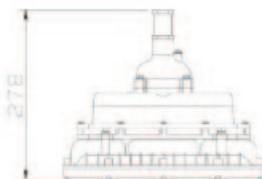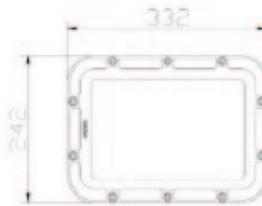## WORKPLACE SAFETY / SUPPORT

NOTE: These products are available to customers operating east of the Mississippi River in the United States

Ex /ATEX Hazardous Area

Explosion-Proof Lighting

LP1 Series

Explosion-Proof Low-Power LED Area Light

Ex LED Area light was designed specially to offer the lighting system in a variety of Hazardous Area applications like the oil & gas industry, chemical industry, marine and offshore platforms.

Features
- Explosion-proof, rated for hazardous areas (e.g. oil and gas industry, chemical plants, etc.)
- Corrosion-resistant aluminum alloy body. Impact & shock resistant tempered glass
- Wall and ceiling mount options

ATEX Standard:
II 2 G Ex d IIB T6 Gb
II 2 G Ex tb IIIC T6 Db

IECEx Standard:
Ex d IIB T6 Gb
Ex tb IIIC T6 Db

Technical Specifications

Standard	IEC60079-0, IEC60079-1, IEC60079-31
ATEX Marks	ExdIIBT6 Gb/Ext IIICT6 Db
Light Source	LED
Power Consumption	43W/55W/70W
Operating Voltage	AC 110-240V (50-60Hz)
Anti-Corrosion	C4/WF1/WF2
Operating Temperature	-30°C~+60°C
IP Rating	IP66
Humidity	10%~95%
Weight	17.6 lbs. (8KG)
Dimensions (D, W, H)	10.94 x 13.07 x 9.5" (278 x 332 x 242mm)

Part No.	Watts	Mount
LP103F	70W	Flange
LP103A	70W	Bracket
LP103X	70W	Ceiling

LP2 Series
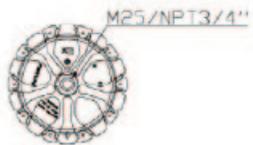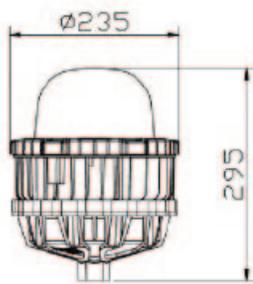
Explosion-Proof Low-Power LED Area Light

Ex LED Area light was designed specially for oil exploration, oil refining and the chemical and military industries as well as other dangerous environments.

Features
- Explosion-proof, rated for hazardous areas (e.g. oil and gas industry, chemical plants, offshore platforms, refineries)
- Corrosion-resistant aluminum alloy body. Impact- & shock-resistant tempered glass
- Adjustable flashing frequency

ATEX Standard:
II 2 G Ex d IIB T6 Gb
II 2 G Ex tb IIIC T6 Db

IECEx Standard:
Ex d IIB T6 Gb
Ex tb IIIC T6 Db

Technical Specifications

Standard	IEC60079-0, IEC60079-1, IEC60079-31
ATEX Marks	Ex d IIC T6 Gb/ Ex tb IIC T85 C Db IP66 Light Source
Light Source	LED
Power Consumption	9W (Warning Light)
	30W (Aviation/Obstruction Light)
	20W, 30W, 45W, 55W (Area Light)
Operating Voltage	AC 110-240V (50-60Hz)
Anti-Corrosion	C4/WF2
Installation	Flange mount (F), bracket mount(A),
	Ceiling mount(X), 180° wall mount(B)
Color	Red/yellow/white (optional)
Operating Temperature	-40°C~+60°C
Operating Humidity	10%~95%
IP Rating	IP66
Weight	17.6 lbs. (8KG)
Dimensions (D, W, H)	9.25 x 9.25 x 11.61" (235 x 235 x 295mm)

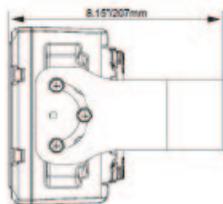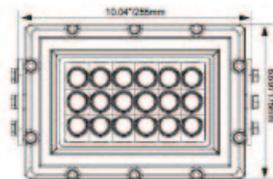| Part No.	Watts	Mount	Light
LP205AL	45W	Bracket	Flood
LP205XL	45W	Ceiling	Flood
LP205FL	45W	Flange	Flood
LP202AO	30W	Bracket	Obstruction
LP202FO	30W	Flange	Obstruction
LP201AW	9W	Bracket	Warning
LP201XW	9W	Ceiling	Warning
LP201FW	9W	Flange	Warning

Ex /ATEX Hazardous Area

Explosion-Proof Lighting

High Bay ATEX /Ex Series

ATEX CE0575 EX II 2G Ex d II B T5 Gb

The High Bay ATEX/ Ex Series 40W light fixture by Vision X was designed for Hazardous Area applications.

Technical Specifications

Type	18 x XP-E (CREE) LEDs
Lumens	3,500 Lu
Beam Patterns	Spot 10° (SD), Narrow 25° (ND), Flood 60° (FD)
Color Temperature	6000K
Voltage	90-277V AC (Standard), 480V AC (HV - High Voltage)
Wattage	40W
Current Draw	0.43A @ 115V AC, 0.22A @ 230V AC, 0.18A @ 277V AC
Operating Temperature	-40°C - 40°C
Vibration	15.6Grms
IP Rating	IP68, IP69k
Certifications / Ratings	**ATEX/ Ex:** Zone 1, Zone 2, EX d, II B. **EMC Emission:** B, EN61000-3-2, Class C (@Load ≥ 50%); EN61000-3-3. **EMC Immunity:** EN55015, EN55022 (CISPR22) Class: EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, Light Industry Level (surge immunity) Line-Earth 4KV, Line-Line 2KV
Short Circuit	Constant current limiting, recovers automatically after fault condition is removed
Housing and Lens	Die-Cast 6061 Aluminum, Black in color. Polycarbonate Lens
Weight	21 lbs (9.5kg)
Dimensions (D, W, H)	8.15 x 10.04 x 6.89" (207 x 255 x 175mm)

Part No.	eLumens	Beam	Voltage	Watts
LUC18E-10	3500 Lu	Spot 10°	90-277V AC	40W
LUC18E-25	3500 Lu	Spot 35°	90-277V AC	40W
LUC18E-60	3500 Lu	Spot 60°	90-277V AC	40W

Comparing ATEX / IECEx and North American NEC Classification

NEC Class 1 - Gases / Vapors

DIVISIONS: North America NEC

Division 1: Hazardous material is present during normal operating conditions and a hazardous condition is expected to exist all or most of the time.

Division 2: The presence of hazardous materials is only expected under abnormal conditions, such as during container failures, leaks or system failures.

Gas Groups

Division 1 and 2	Zone 0,1 and 2:
A (acetylene)	IIC (acetylene and hydrogen)
B (hydrogen)	IIB (ethylene)
C (ethylene)	IIA (propane)
D (propane)	

Temperature Codes Min Temp

Division 1 and 2	Zone 0,1 and 2:
T 1 = 450°C	T 1 = 450°C
T2 = 300°C, T2A = 280°C, T2B =260°C, T2C- = 230°C, T2D- = 2 15°C	T2 = 300°C
T3 = 200°C, T3A- = 180°C, T3B- =165°, T3C- = 160°C	T3 = 200°C
T4- = 135°C, T4A = 120°C	T4- = 135°C
T5- = 100°C	T5- = 100°C
T6- = 85°C	T6- = 85°C

ATEX / IECEx - Gases/Vapors

ZONES: ATEX / IECEx

Zone 0: An area where an explosive atmosphere is always present or may be present for an extended period of time.

Zone 1: An area where the atmosphere is likely to pose an explosion or firehazard during normal operations.

Zone 2: An area where an explosive atmosphere is not and should not normally be present during normal operations, and should it appear, will only be present for a short period of time.

Matrix offers a free LED upgrade ROI analysis to support lighting upgrade decisions.

Worker Safety Gear
Rugged Equipment Bags & Harnesses

True North Equipment Bags / Chain Saw Bar Covers

Part No.	Color	Description	Materials	Weight	H x W x L
RD100	Black	Rolling Duffle Bag	Ballistic™ Nylon, Nylon Webbing Metal Hardware, Tarpaulin	8 lbs	14"H x 18"W x 30"L
TNG-SB**	Black	Saw Bar Cover	1000D Nylon, Leather, Nylon Webbing, Nylon Hardware	N/A	N/A

Sizes: 20" (508mm), 24" (610mm), 28" (711mm), 32" (813mm), 36" (914mm), 42" (1067mm)

Radio Harness Gen 2

With adjustable pockets designed to fit all makes of radios and True North's internal suspension system, the Gen. 2 Radio Harnesses are even more comfortable, durable and functional than ever. NFPA 1977 Certified.

The Dozer
- Adjustable radio pocket fits a wide range of models
- Front pocket fits large fire shelter
- Multiple storage throughout for batteries, maps, notebooks and pens
- Adjustable radio pocket fits a wide range of models
- Belt loops fit belts up to 1 3/4-inch
- Removable low-profile back harness made from durable Hypalon

Dual Universal
- 2 adjustable radio pockets fit a wide range of models
- Cell phone pocket developed to fit large phones and their cases
- Multiple storage throughout for batteries, maps, notebooks and pens
- Slots for holding two pens
- Can mount directly to your line pack shoulder harness
- Zippered front pocket for Kestrel or GPS

Single Universal
- Adjustable radio pocket fits a wide range of models
- Large map / notebook pocket with half-moon zip closure
- Cell phone pocket developed to fit large phones and their cases
- One buckle closure on radio pocket
- Spare battery pocket and more

Dozer Radio Harness Gen 2

Stealth Radio Harness Gen 2

Single Universal Radio Harness - Gen 2

Dual Universal Radio Harness - Gen 2

Part No.	Description	Weight
RH200C-D-GEN2	True North Dozer Radio Harness Gen. 2	1.6lbs (0.75kg)
RH200C-S-GEN2	True North Stealth Radio Harness Gen. 2	1.6lbs (0.75kg)
RH200C-DU-GEN2	True North Dual Universal Radio Harness Gen. 2	1.6lbs (0.75kg)
RH200C-SU-GEN2	True North Single Universal Radio Harness Gen. 2	0.8lbs (0.4kg)

Firefly Medic

This medic bag features include a drop-front opening for full, quick access, removable color-coded organizer pouches, two separate pockets for personal gear, zippered clear vinyl pockets for small meds and bandages and an optional O2 case (attaches to bottom of pack). NFPA 1977 Certified.

Features
- SCS™ patented shoulder strap design
- 100oz (3L) Hydration pocket (reservoir not included)
- Removable color-coded organizer pouches Velcro® in /out
- NFPA 1977 Certified
- Zippered vinyl pockets for small meds and bandages
- Drop-front opening for full, quick access
- Two separate pockets for personal gear
- Color-coded organizer pockets
- Optional O2 case (fits to bottom of pack)

Part No.	Description	Size	Weight
FF500	Firefly Medic Pack - Wildland	Small	6 lbs (2.7kg)
FF510	Firefly Medic Pack - Wildland	Standard	6 lbs (2.7kg)
FF600	Firefly Medic Pack - SAR (Search & Rescue)	Small	6.25 lbs (2.83kg)
FF610	Firefly Medic Pack - SAR (Search & Rescue)	Standard	6.25 lbs (2.83kg)

Worker Safety Gear
Rugged Safety Workwear / Personal LED Lighting

PowerDry® Dual Hazard Hi-Vis Shirt

- Inherently fire- and arc-resistant stand-alone baselayer
- 3M Scotchlite™ segmented silver reflective
- Polartec® moisture wicking technology
- Highly breathable and dries quickly
- Extra-long hem with flat-lock seam construction
- Yellow shirt has navy fabric on wrists
- Fabric : Polartec® Power Dry FR®: Fire-resistant 6.4oz Rayon, Modacrylic, Para-aramid, Spandex and DuPont™ with Rayon, Modacrylic and Para-aramid

HRC2
NFPA 70E
NF PA 2112

Arc Rating 8.1 cal/cm²

Part No.	Description	Color	Sizes
DFH04x	PowerDry Hi-Viz Shirt (6.4 oz)	ANSI 107 Yellow	SM, MD, LG, XL, 2X, 3X
DFH05x	PowerDry Hi-Viz Shirt (6.4 oz)	CSA Z96 Orange	SM, MD, LG, XL, 2X, 3X

HRC1 — Single base layer of FR protection. Required minimum Arc Rating 4 cal/cm². HRC (Hazard Risk Category) is used to determine the necessary arc rating of a garment worn during a given job task.

NFPA 70E — National Fire Protection Administration standard for electrical safety in the workplace.

PowerGrid™ 1/4 Zip Dual Hazard Shirt

- Inherently fire- and arc-resistant stand-alone baselayer
- Moisture wicking, jersey microfiber face for easy layering
- Lofted, grid-structured fleece enhances airflow and dry time
- ¼-Zip neck with stand up collar
- Extra-long hem with flat-lock seam construction
- Polartec® Power Stretch FR® Fabric 9.2oz/sq yd – Rayon, Modacrylic, Para-aramid, Spandex and DuPont™ Nomex® Thread

HRC2
NFPA 70E
NF PA 2112

Arc Rating 8.1 cal/cm²

Part No.	Description	Color	Sizes
DFB20xDH	PowerGrid 1/4-Zip Dual Hazard Shirt (9.2 oz)	Black	SM, MD, LG, XL, 2X, 3X
DFB23xDH	PowerGrid 1/4-Zip Dual Hazard Shirt (9.2 oz)	Steel Grey	SM, MD, LG, XL, 2X, 3X

HRC2 — One or more layers of FR protection. Required minimum Arc Rating 8 cal/cm². HRC (Hazard Risk Category) is used to determine the necessary arc rating of a garment worn during a given job task.

NF PA 2112 — National Fire Protection Administration standard for protection of industrial personnel against flash fire.

Adventure Lights Guardian & VIP Series LED

The Guardian is the lightest, brightest, toughest light in its class. This light, unlike its competitors, is visible from all sides (omni-directional) and extremely impact-resistant. In addition, the Guardian is very lightweight and will not restrict movement. The product comes with a variety of attachments that can be fastened to either the user or equipment. The light is available with either a belt clip, wrist strap / arm band, swivel clip key chain attachment, or magnetic base.

Part No.	Color	Type	Voltage	Flash	Additional Information
ADV-50001	Red	1 LED	3V CR2032 Lithium	Steady On/ Flashing	Rugged, 300 ft waterproof, 3 mile (5km) visibility, CE 250 hr. battery time. Includes free clip or velcro strap
ADV-50001	Blue	1 LED	3V CR2032 Lithium	Steady On/ Flashing	Rugged, 300 ft waterproof, 3 mile (5km) visibility, CE 250 hr. battery time. Includes free clip or velcro strap
ADV-50002C	Blue	1 LED	3V CR2032 Lithium	Steady On/ Flashing	Rugged, 300 ft waterproof, 3 mile (5km) visibility, CE 250 hr. battery time. Includes belt clip
ADV-2504	Red	5 LED VIP Series	3V CR123A Lithium	Steady On/ SOS, Flashing	Impact resistant, waterproof, clip mount, 3 mile (5km) visibility, 6 mile (10km) from air, CE, 72 battery time

Guardian Accessories:

Part No.	Color	Type	Voltage	Flash	Additional Information
ADV-49004	N/A	Velcro Strap	N/A	N/A	12" velcro attachment strap for all standard Guardian lights (not included). 11.8"x 1.2" (30x3cm)
ADV-49030	N/A	Belt Clip	N/A	N/A	Belt Clip for all standard Guardian lights (not included). For belts, straps, webbing, hats, clothing, collars, etc
ADV-49053	N/A	Velcro Strap	N/A	N/A	Male/ Female Velcro hook and loop attachments for Guardian warning light and helmet

Adventure Lights

Guardian Warning Light (Red)

Guardian Warning Light (Blue)

VIP Series (Red)

Velcro Strap for Guardian Lights

Belt Clip for Guardian Lights

Velcro Hook & Loop for Guardian Lights

Phone: 812.490.1525 • Fax: 812.490.1582 • 3299 Tower Drive • Newburgh, Indiana 47630 • email: sales@matrixteam.com • **www.matrixteam.com**

Worker Safety Gear

Light Sticks

AmeriGlo Light Sticks

Part No.	Color	Type	Duration	Length	Additional Information
AMG-608HB10B	Blue	Chemical Light	8 hours	6" (152.4mm)	Blue light stick, waterproof, non-sparking, non-heat producing. For fire fighting, SCUBA , boating, emergency, gas leak lighting
AMG-608HW10B	White	Chemical Light	8 hours	6" (152.4mm)	White light stick, waterproof, non-sparking, non-heat producing. For fire fighting, SCUBA , boating, emergency, gas leak lighting
MG-608HG10B	Green	Chemical Light	8 hours	6" (152.4mm)	Green light stick, waterproof, non-sparking, non-heat producing. For fire fighting, SCUBA , boating, emergency, gas leak lighting
MG-608HO10B	Orange	Chemical Light	8 hours	6" (152.4mm)	Orange light stick, waterproof, non-sparking, non-heat producing. For fire fighting, SCUBA , boating, emergency, gas leak lighting
MG-608HR10B	Red	Chemical Light	8 hours	6" (152.4mm)	Red light stick, waterproof, non-sparking, non-heat producing. For fire fighting, SCUBA , boating, emergency, gas leak lighting
MG-608HY10B	Yellow	Chemical Light	8 hours	6" (152.4mm)	Yellow light stick, waterproof, non-sparking, non-heat producing. For fire fighting, SCUBA , boating, emergency, gas leak lighting

Blue Light Stick
8-Hour Duration

White Light Stick
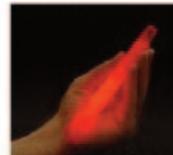8-Hour Duration

Green Light Stick
8-Hour Duration

Orange Light Stick
8-Hour Duration

Red Light Stick
8-Hour Duration

Yellow Light Stick
8-Hour Duration

AMG-608HB10B   AMG-608HW10B   AMG-608HG10B   AMG-608HO10B   AMG-608HR10B   AMG-608HY10B

LW400-BP-20W-GRN
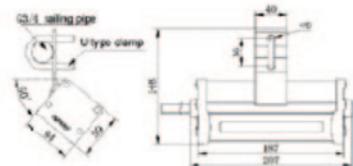
Eye-wash Station LED Green Light
The Nanhua LW400-BP-20W-GRN is a 20W Green LED light designed for eye-wash stations.

Features
- Green light with wide 140° optical lens for even light distribution
- Industrial-grade LED chips and driver
- Tempered glass effective against aging and color-changing
- IP65 fixture, waterproof & shock-resistant

Application: Eye-wash stations

Technical Specifications

Lumens	1100 Lu (Green)
Voltage	100V~240V AC (50Hz~60Hz)
Wattage	20W
Beam Angle	140°
Humidity	10% ~ 95% (no coagulation)
Operating Temperature	-30°C to +45°C (cover heat protection)
IP Rating	IP65
Housing	Forged aluminum alloy
Lens	Tempered glass
Mount	Pole (Spigot), Bulkhead
Weight	2.2 lbs (1kg)
Dimensions (D, W, H)	5.83x 12.09x2.52" (148x307x64mm)

Part No.	Mount	Beam Angle	Lumens	Voltage	Watts
LW400-BP-20W-GRN	40mm diameter	Pole mount bracket	140°	1100 Lu	20W