DIALIGHT INDUSTRIAL LED LIGHTING

For General Manufacturing
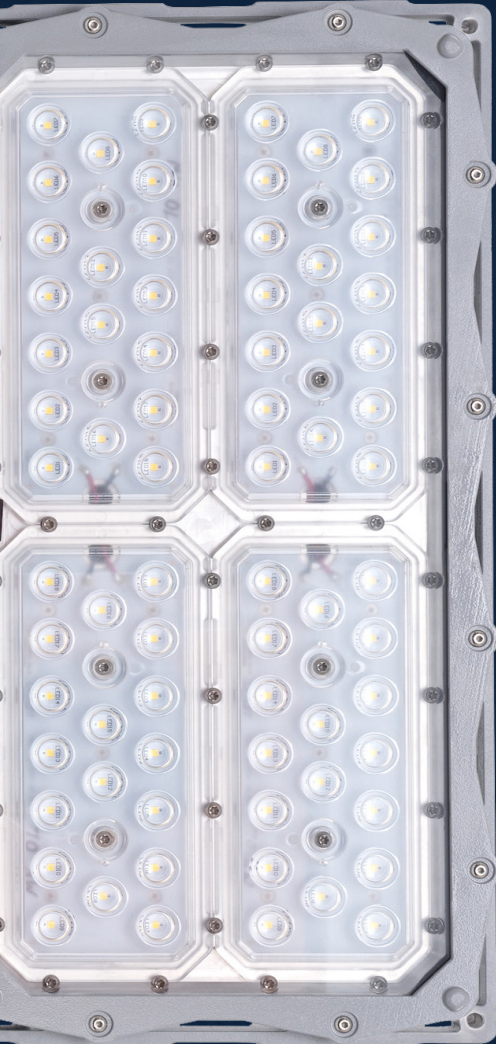
AMERICAS

Dialight

WHY LIGHTING MATTERS in General Manufacturing Applications

Lighting is of critical importance in industrial manufacturing facilities to maximize both safety and productivity. Manufacturing sites are notorious for harsh conditions that can contribute to premature fixture failure.

Physical hazards and moving objects

High heat and high vibration

Chemical vapors, dust and debris

Noisy, complex heavy machinery

Power surges

THE COST OF POOR LIGHTING in General Manufacturing Applications

Poor illumination can contribute to tragic work site accidents and injuries in the General Manufacturing sector. Between 2009-2018 the US Bureau of Labor statistics cited:

4,776,100 NON-FATAL INJURIES with **$167 BILLION** TOTAL COSTS

**3,280** FATALITIES with **$3.4 MILLION** TOTAL COSTS

While significant strides have been made by organizations such as OSHA over the past few decades to improve safety, the General Manufacturing industry inherently involve risks and hazards that demand high quality lighting. When choosing a lighting partner for your facilities, care must be taken to ensure their products have proven to perform safely and reliably in your environments and offer a sustainable solution.

DIALIGHT SOLUTIONS for General Manufacturing Applications

Dialight is the world leader in industrial LED lighting technology with millions of fixtures installed worldwide. We specialize in lighting products designed for the world's harshest industrial environments – enabling industrial customers to reduce their energy costs, maintenance costs, and carbon footprint while maximizing the safety and productivity of their employees and facility. From our signature High Bay line to our versatile Linear fixtures, Dialight offers a large selection of rugged products ideally suited for environments found within the General Manufacturing Industry.
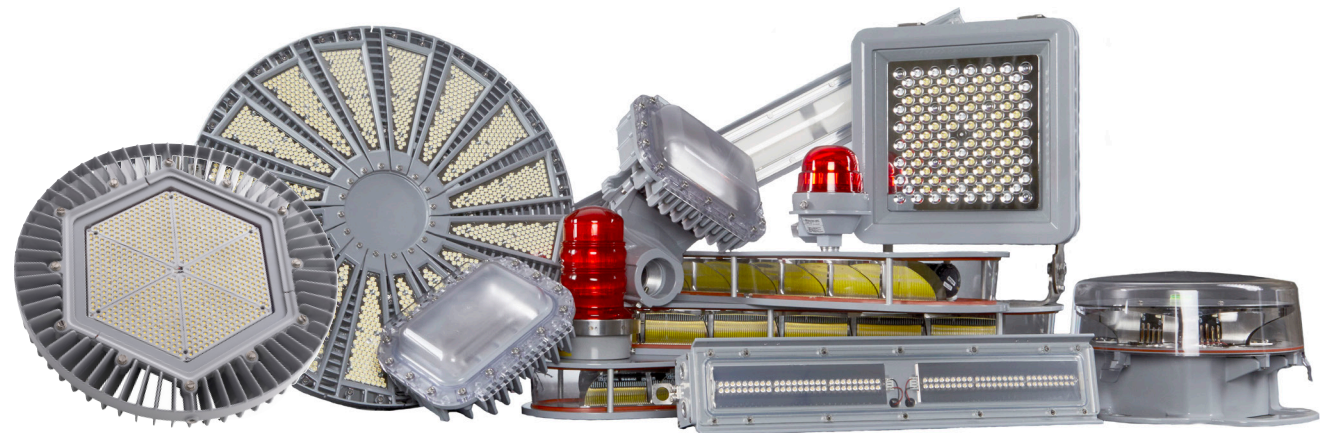
WHERE TO USE DIALIGHT PRODUCTS in General Manufacturing Applications

INTERIOR
- WAREHOUSE & STORE ROOMS
- PROCESS & ASSEMBLY AREAS
- MACHINE & WELDING SHOPS
- SHIPPING & RECEIVING AREAS
- BOILER & ELECTRICAL ROOMS

EXTERIOR
- FLOOD LIGHTING
- WALL PACK & CANOPY LIGHTING
- WALKWAY LIGHTING
- PARKING LOTS
- ROADWAY LIGHTING

See product portfolio pages for more detailed product and ordering information

TECHNOLOGY DIFFERENTIATION

When choosing an LED Lighting partner, consider how their products are engineered, constructed and tested prior to making your decision. Most Dialight products are engineered to a **10 year warranty** and were designed with harsh environments, such as General Manufacturing applications, in mind.

CUSTOM POWER SUPPLIES

Long-life potted drivers with optimized thermal dissipation for protection against environmental contaminants and vibration related failures.

LOW MAINTENANCE MECHANICAL DESIGN

Sealed and optimized to reduce or eliminate the need for maintenance over the life of the fixture. Easy to install and retrofit to existing infrastructure.

LATEST LEDS AND ADVANCED OPTICS

Highly efficient, crisp, low-glare illumination. Lighting where you need it, not where you don't.
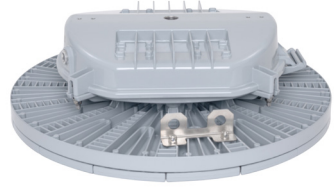
INTELLIGENT CONTROLS

Flexibility to group, dim and schedule lights around the unique needs of a facility to maximize energy savings. Plus, seamless integration with existing factory automation.

APPLICATION GUIDE for General Manufacturing Sites

1 Vigilant® High Output High Bay - Low Profile
For non-hazardous high ceiling high bay applications typically 40 feet or above

2 Vigilant® and SafeSite® Area Lights
For non-hazardous and hazardous lower ceiling indoor or outdoor process and stanchion mount applications*

3 Vigilant® and SafeSite® High Bay
For non-hazardous and hazardous indoor or outdoor high bay applications over 14 feet

4 Vigilant® and SafeSite® Low Bays
For non-hazardous and hazardous lower ceiling indoor or outdoor applications where wider light distribution is critical

5 StreetSense® Street Light
For plant maintained roadways and general outdoor illumination

6 ProSite Floodlight F1 Model
For non-hazardous indoor or outdoor flood lighting applications; multiple beam patterns available
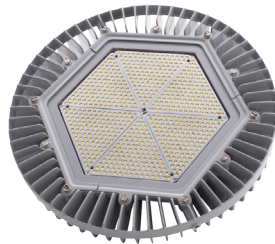
7 Reliant™ High Bay
For indoor, light industrial applications and lighter-duty areas of heavy industrial facilities, such as warehouses
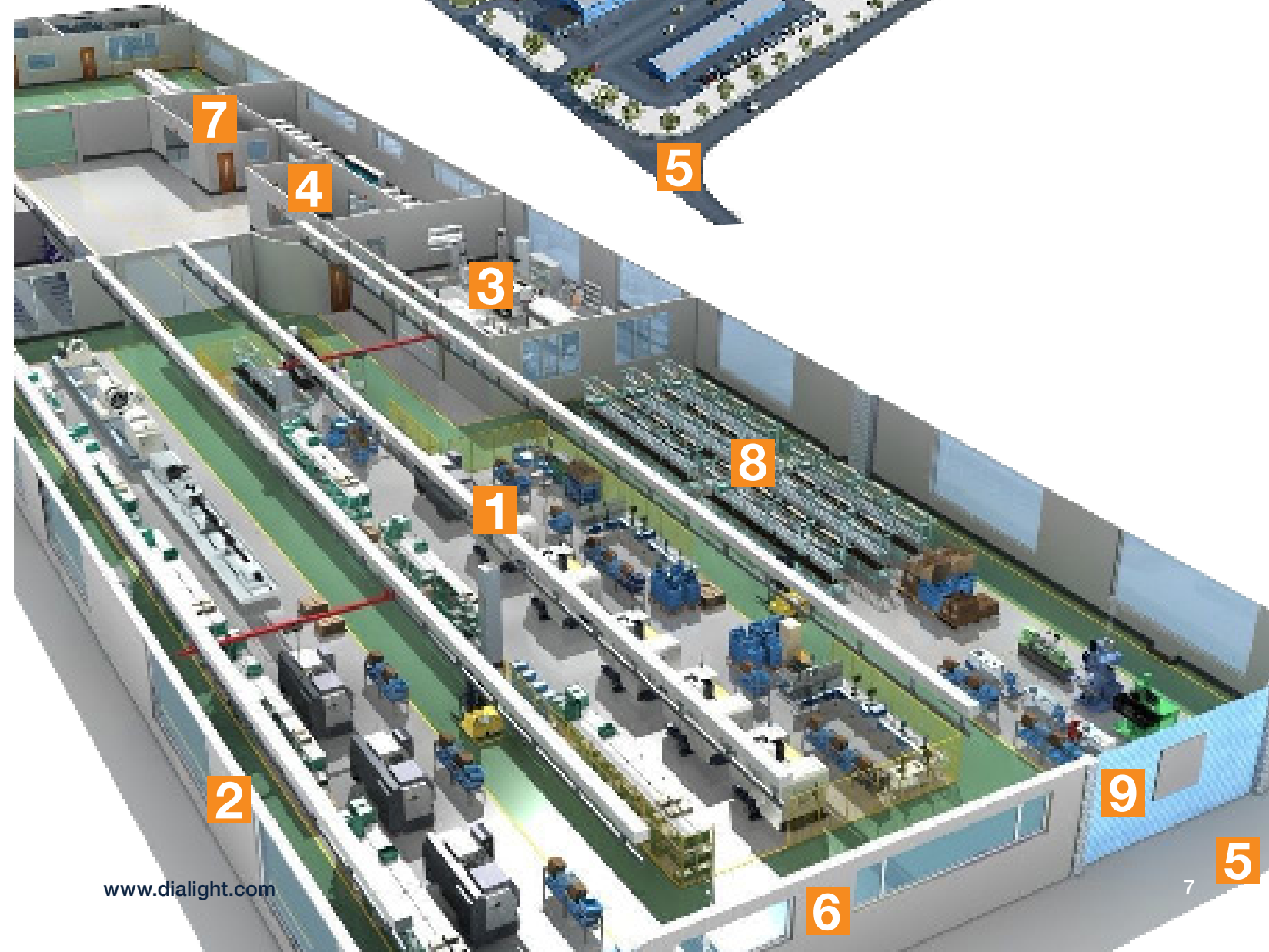
8 Vigilant®, SafeSite®, and DuroSite® LP/TC Linears
For non-hazardous and hazardous indoor or outdoor fluorescent strip/vaportite replacements, task or inspection lighting, electrical rooms, shops, and process areas. 4ft and 2ft versions available

9 ProSite Floodlight F2 Model
For non-hazardous indoor or outdoor high power flood applications (Typical 1,000 watt or better HID replacement)

www.dialight.com   www.dialight.com

*Ask about our retrofit adapters to save labor by retrofitting to existing HID infrastructure

CASE STUDY G.A. Braun *North Syracuse, New York*

To meet growing demand for its state-of-the-art systems, the company recently added a massive, 100,000 square foot expansion to its existing North Syracuse, NY facility, adding much-needed fabrication and assembly space. When it came to choosing lighting for the facility, David Welsh, director of operations, says the company had some stringent requirements. "We'd just switched our existing facility over to T5 fluorescents about 4 years earlier but that was already becoming a problem. The T5s were a maintenance nightmare. The bulbs dimmed after the first year, and they were so cheaply made the bulbs would sometimes actually fall right out of the fixture." Unfortunately, the T5s weren't cheap to maintain. With six bulbs per fixture, plus two starters, the systems were very expensive to replace and repair. Braun was spending about $6,800 a year to change out T5 bulbs, not to mention the storage and disposal of the tubes was also an issue.

Taking advantage of a $60,000 rebate from NYSERDA for the retrofit project and a $70,000 rebate from National Grid for the new construction, Braun installed 320 retrofit and 276 new construction fixtures, for a total of 596 Dialight 18K Vigilant industrial LED high bays. In the new facility, Braun opted to add Dialight's wireless network controls to operate the lights automatically. This way, if someone forgets to turn the lights off at the end of the shift, they're programmed to go off automatically at a designated time, reducing burn time, energy waste and electricity cost.

In addition to enjoying an outstanding quality of light and better visibility, Braun has also realized a substantial savings beyond the utility rebates. The company is saving $51,000 a year in electricity alone, plus nearly $7,000 in maintenance costs by eliminating the need to constantly replace the T5 bulbs and fixtures. And, they no longer have to worry about lights randomly falling from the ceiling for an added safety bonus. Meanwhile, the workers at Braun have been really impressed with the improved lighting, Welsh said. "I've had nothing but a good experience with the Dialight fixtures and the Dialight team...For anyone who's facing the same maintenance disaster I was, I recommend upgrading to Dialight's fixtures. You'll be very happy with the results."

- Replaced 320 T5 fluorescents with Vigilant® High Bays
- Installed a nearly 600 Dialight LED High Bays in existing and new facility
- Saved $6,800 /year on labor & maintenance costs
- Saved $ 51,000/year in energy costs
- Redeemed $130,000 in energy rebates for installing LEDs
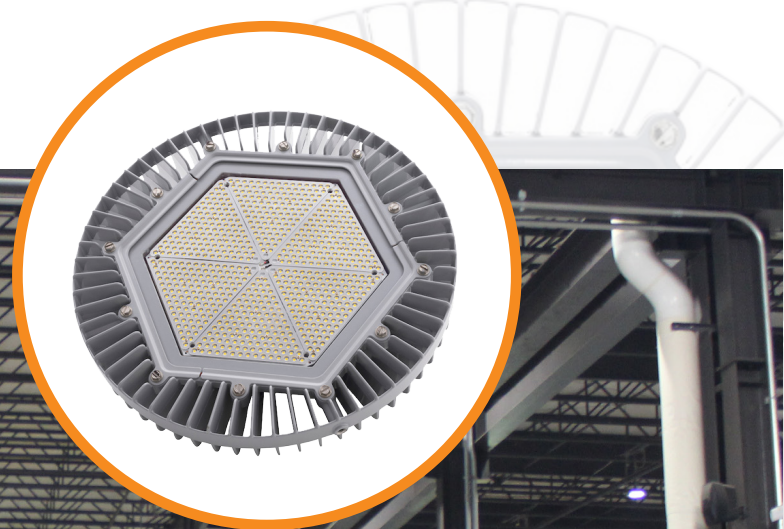
CASE STUDY Gas Monkey Garage *Dallas, Texas*

Gas Monkey Garage is arguably America's most recognized hot rod shop and is under the watchful eye of millions of TV viewers each week. In addition to the demand for visual clarity, GMG has zero room for downtime in its incredibly tight production schedules. The crew cannot afford to stop work and move cars and other equipment around in order to maintain lighting in the facility. Time is money, and time spent changing lightbulbs is wasted money. Looking for a cutting-edge lighting technology that would meet GMG's stringent standards for quality and performance—and live up to its demand for maintenance-free equipment, Rawlings and GMG turned to Dialight, the world leader in high-performance, industrial LED lighting for new fixtures in its workshop, "man cave", merchandise warehouse, paint booth and exterior areas. "We know a thing or two about industrial grade performance and design," Rawlings said. "When we saw the Dialight fixtures, that was it. The rugged design, performance and longevity of these fixtures sold us, and we've been blown away by just how much better we can see now versus the fluorescent fixtures we used to have."

Inside the main shop, GMG replaced all of its 8-foot, two-lamp T12 and 4-foot, four- and six-lamp T8 fluorescents with 152 of Dialight's DuroSite 4-foot Linear fixtures. The new fixtures provide the crystal-clear clarity and brightness the mechanics and fabricators need for precision work in a safe environment. In it's new "man cave" and outdoor lounge area, the team chose Dialight's 26,500-lumen Vigilant High Bay fixtures to replace the 4-foot, four- and six-lamp T8 fluorescents, and another 44 DuroSite Linears went into its expanded merchandise building. Outside, GMG installed a combination of 5 new Dual Vigilant Flood Lights and DuroSite single floods, along with 8 new 40-watt Vigilant Area Lights to replace it's antiquated 250-watt HID wall packs. While the primary goal in outdoor illumination was to improve exterior aesthetics, presence and security, the energy savings from the new high-efficiency Dialight fixtures is an added bonus. "Upgrading to Dialight LED High Bay and Linear fixtures meant we were actually able to use fewer fixtures, saving money on top of significant energy savings from the superior efficiency of these fixtures," Rawlings said. "Plus, these lights will last for the long haul without any maintenance. I can't say that for fluorescents."
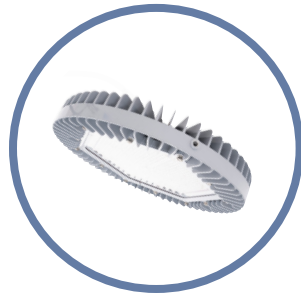
- Upgraded to 152 Dialight's DuroSite 4-foot Linear fixtures, 26,500-lumen Vigilant High Bay fixtures, 44 DuroSite Linears, 5 Dual Vigilant Flood Lights and DuroSite single floods and 8 new 40-watt Vigilant Area Lights

For more case study information please visit www.dialight.com.
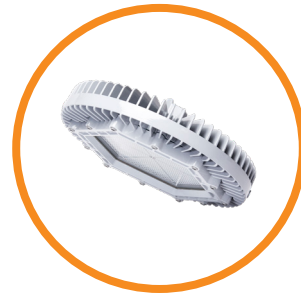
PRODUCT PORTFOLIO High Bays

VIGILANT® HIGH BAY

For use in non-hazardous indoor and outdoor high bay and occasionally flood lighting applications. Replaces up to 400 watt traditional HID fixtures.

Ideally suited for:

PROCESS & ASSEMBLY AREAS

BOILER & ELECTRICAL ROOMS

SHIPPING & RECEIVING AREAS

SAFESITE® HIGH BAY

For use in hazardous classified high bay applications where chemical vapors or explosive dusts are present. See technical spec sheet for applicable certifications.

Ideally suited for:

PROCESS AREAS

CHEMICAL STORAGE

RELIANT™ HIGH BAY

For use in indoor non-hazardous applications to replace either HID or Fluorescent fixtures up to 1,000 watts where harsh environment protection is less of a concern.

Ideally suited for:

WAREHOUSE & STORE ROOMS

MACHINE & WELDING SHOPS
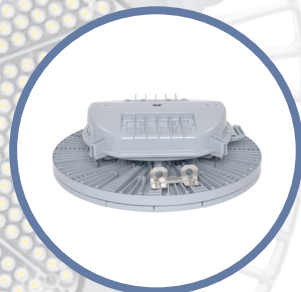
VIGILANT® HIGH OUTPUT HIGH BAY- LOW PROFILE

For use in high output or high ceiling non-hazardous indoor and outdoor high bay applications. Replaces up to 1,500 watt traditional HID fixtures with mounting heights up to 100'.

Ideally suited for:

PROCESS & ASSEMBLY AREAS

WAREHOUSE & STORE ROOMS

VIGILANT® LOW BAY

For use in indoor and outdoor lower mounting height high bay applications where wider light distribution is required. Replaces up to 250+ watt traditional HID fixtures.

Ideally suited for:

UTILITIES/BOILER AREAS

BASEMENTS

PROCESS AREAS

SAFESITE® LOW BAY

For use in lower mounting height hazardous high bay applications where chemical vapors or explosive dusts are present. See technical spec sheet for applicable certifications.

Ideally suited for:

PROCESS AREAS

CHEMICAL STORAGE

PRODUCT PORTFOLIO High Bays

Part Number	Certification	Fixture Lumens	Wattage	lm/W	CCT	Lens	Beam Distribution
Vigilant® High Bay							
VEU7MC2ENNWNGN	UL 1598, CSA	23,900	140	171	5000K (cool white)	Glass - Clear	Medium
VEULMC2ENNWNGN	UL 1598, CSA	23,500	140	168	5000K (cool white)	Polycarbonate Dome - Diffused	Medium
VEU7MC2CNNWNGN	UL 1598, CSA	17,400	96	181	5000K (cool white)	Glass - Clear	Medium
VEULMC2CNNWNGN	UL 1598, CSA	17,000	96	177	5000K (cool white)	Polycarbonate Dome - Diffused	Medium
VEU7MC2BNNWNGN	UL 1598, CSA	13,600	80	170	5000K (cool white)	Glass - Clear	Medium
VEU7MC2ANNWNGN	UL 1598, CSA	11,000	65	169	5000K (cool white)	Glass - Clear	Medium
Reliant™ High Bay*							
RHU7MC2FDCNNGN	UL 1598, CSA	29,400	199	148	5000K (cool white)	Tempered Glass	Medium
RHU7MC2EDCNNGN	UL 1598, CSA	23,520	163	144	5000K (cool white)	Tempered Glass	Medium
RHU7MC2CDCNNGN	UL 1598, CSA	18,000	123	146	5000K (cool white)	Tempered Glass	Medium
Vigilant® Low Bay							
VEULUC29NNWNGN	UL 1598, CSA	9000	60	150	5000K (cool white)	Polycarbonate Dome - Diffused	Ultra Wide
VEULUC26NNWNGN	UL 1598, CSA	6100	43	142	5000K (cool white)	Polycarbonate Dome - Diffused	Ultra Wide
Vigilant® Low Profile High Output High Bay							
H7U7NC2RDNNNGN	UL 1598, CSA	70,500	485	145	5000K (cool white)	Glass	Narrow
H7U7NC2NDNNNGN	UL 1598, CSA	61,200	418	146	5000K (cool white)	Glass	Narrow
H7U7MC2KDNNNGN	UL 1598, CSA	46,000	300	153	5000K (cool white)	Glass	Medium

For Hazardous Location part numbers please refer to Product Specification Sheet.

Dialight Vigilant® and Reliant™ Hgh Bay fixtures are available with IntelliLED® wireless controls for even greater energy savings. For more information, please visit our website at www.dialight.com.

*Occupancy Sensor models available, see Product Specification Sheet

PRODUCT PORTFOLIO Area Lights

VIGILANT® AREA LIGHT

This extremely versatile fixture series can be used in non-hazardous indoor and outdoor applications. Designed for ease of installation, this product line features quick install retrofit kits that support legacy HID fixtures from GE, Crouse, Appleton, Killark and others. See technical spec sheet for more information and additional accessories.

Ideally suited for:

CONVEYORS

PROCESS AREAS

GENERAL AREAS

TUNNELS & NARROW SPACES

SAFESITE® AREA LIGHT

For use in hazardous classified applications where chemical vapors or explosive dusts are present. Designed for ease of installation, this product line features quick install retrofit kits that support many legacy HID fixture brands. See technical spec sheet for hazardous certifications and more information on additional accessories.

Ideally suited for:

PROCESS AREAS

TANK FARMS

CHEMICAL STORAGE

Part Number	Certification	Fixture Lumens	Wattage	lm/W	CCT	Lens	Beam Distribution
Vigilant® Area Light							
ALU7BC29NNWNGN	UL 1598, CSA	9,000	66	136	5000K (cool white)	Glass	360°
ALU5BC29NNWNGN	UL 1598, CSA	8,300	66	126	5000K (cool white)	Polycarbonate Diffused	360°
ALU7BC27NNWNGN	UL 1598, CSA	7,300	52	140	5000K (cool white)	Glass	360°
ALU5BC27NNWNGN	UL 1598, CSA	6,700	52	129	5000K (cool white)	Polycarbonate Diffused	360°
ALU7BC26NNWNGN	UL 1598, CSA	5,700	40	143	5000K (cool white)	Glass	360°
ALU5BC26NNWNGN	UL 1598, CSA	5,300	40	133	5000K (cool white)	Polycarbonate Diffused	360°

**For Hazardous Location part numbers please refer to Product Specification Sheet.**

*For more details on product specifications, and our full suite of retrofit adapters, please visit www.dialight.com.*

WARNING - INSTALLATION & SECONDARY RETENTION. Use of any Dialight products without proper installation (including secondary retention / netting) and periodic inspections could cause severe injury or death. Dialight recommends that all installations should use secondary retention / netting (appropriate to the installation environment) where applicable.It is the exclusive responsibility of the contractor, installer and/or end-user to: (a) determine the suitability of the product for its intended application; and, (b) ensure that the product is safely installed (with secondary retention / netting where appropriate) and in compliance with all applicable laws and regulations. To the extent permissible under applicable laws, Dialight disclaims all liability for personal injury and/or other damage resulting from any dislodgment or other dislocation of its products.

PRODUCT PORTFOLIO Area Light Accessories

With a wide variety of brackets and retrofit kits available, Dialight's versatile Area Light can easily meet the needs of virtually any industrial application, while saving time and money on installation.

AREA LIGHT RETROFIT KITS

Dialight's Area Light series is available with quick install retrofit kits to the following products: Eaton's Crouse-Hinds – Champ®, GE Lighting Solutions – Filtr-Gard™, Holophane Petrolux® II, III, Thomas & Betts Hazlux®, Appleton® Mercmaster III , Appleton® Mercmaster II, and Killark® Certilite® & Certilite® V
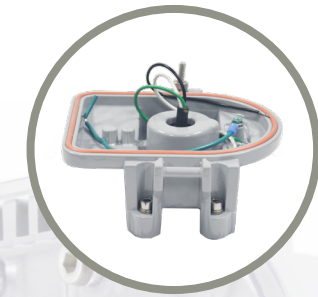
AREA LIGHT MOUNTING ACCESSORIES

The Area Light has always been extremely versatile and now with our new Universal Mounting Adapter (HZXUMA), it provides even greater flexibility by allowing you to modify stock you have on-hand to configure based on your needs. All available in Class I, Div. 2, Class II, and Class III certified options.

Eaton's Crouse-Hinds – Champ® Retrofit Kit - HZXTHCH

Pendant	Ceiling	Wall	Stanchion	Quad Mount
APM2	CM2	TWM2	JM5	QM25
APM3	CM3	TWM3	PM5	
HPM2				

Holophane® Petrolux II, III Retrofit Kit - HZXTHP3

Pendant	Universal	Stanchion	Ceiling	Wall
PD	UN	SA	CD	WL
GH		ST	CE	W
P		A	B, C, D	

Killark® Certilite® & Certilite® V Retrofit Kit - HZXTHKL

Pendant	Ceiling	Wall	Stanchion
VMA2B & VMA-2	VMX2B & VMX-2	VMB2B & VMB-2	VMD4B
VMA3B & VMA-3	VMX3B & VMX-3	VMB3B & VMB-3	VMD5B
VMC2B & VMC-2	VMX6B, 7B, 8B, 9B		VMS5B
VMC3B & VMC-3			
VMF2B, 3B			

Appleton® Mercmaster II Retrofit Kit - HZXTHM2

Pendant	Ceiling	Wall	Stanchion
LPA-75	LPC-75	LPWB-75	LPS-125
LPA-100	LPC-100	LPWB-100	LPS-150

Appleton® Mercmaster III Retrofit Kit - HZXTHAP

Pendant	Ceiling	Wall	Stanchion
KPA- 75, 100	KPC-75	KPWB-75	KPS-125
KPAF-75, 100	KPC-100	KPWB-100	KPS-150
KPCH-75, 100			KPST-125
			KPST-150

Thomas & Betts Hazlux® Retrofit Kit - HZXTHTB

Pendant	Pendant Cone	Flexible Pendant	Ceiling	Wall
3P	3F	3C	3W	5S
4P	4F		4W	6S
				5J, 6J

Wall	25° Angle Stanchion	25° Angle Stanchion	Straight Stanchion	Straight Stanchion
VB2-VIB	VS4	VS4-VIB	VL4	VL4-VIB
VB3-VIB	VS5	VS5-VIB	VL5	VL5-VIB

GE Lighting Solutions – Filtr-Gard™ Retrofit Kit - HZXTHGE

Pendant	Ceiling	Wall	Stanchion	Quad Mount
3P	3F	3C	3W	5S
4P	4F		4W	6S
				5J, 6J

UMA Area Light
ALx-xxxx-xxUx-xxN

+

Stanchion 45°
HZXS45

Wall 45°
HZXW45

Wall 0°
HZXW01

Conveyor
HZXCV34

Ceiling
HZXFM

NEW

WARNING - INSTALLATION & SECONDARY RETENTION. Use of any Dialight products without proper installation (including secondary retention / netting) and periodic inspections could cause severe injury or death. Dialight recommends that all installations should use secondary retention / netting (appropriate to the installation environment) where applicable.It is the exclusive responsibility of the contractor, installer and/or end-user to: (a) determine the suitability of the product for its intended application; and, (b) ensure that the product is safely installed (with secondary retention / netting where appropriate) and in compliance with all applicable laws and regulations. To the extent permissible under applicable laws, Dialight disclaims all liability for personal injury and/or other damage resulting from any dislodgment or other dislocation of its products.

PRODUCT PORTFOLIO Floodlights
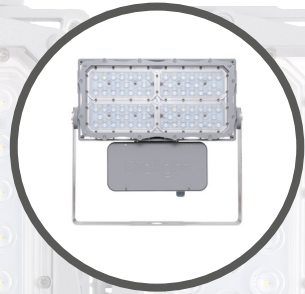
PROSITE FLOODLIGHT F1 MODEL

Flood light family designed to replace 250 – 1000W HID units in industrial and hazardous certified areas where chemical vapors or explosive dusts are present. See technical spec sheet for certification information and further details on lumen output options, accessories and optical patterns.

Ideally suited for:

GENERAL FLOOD LIGHTING

LOADING/UNLOADING AREAS

ROADWAYS/PARKING AREAS

PROSITE FLOODLIGHT F2 MODEL

Flood light family designed to replace 250 – 1000W HID units in industrial and hazardous certified areas where chemical vapors or explosive dusts are present. See technical spec sheet for certification information and further details on lumen output options, accessories and optical patterns.

Ideally suited for:

GENERAL FLOOD LIGHTING

LOADING/UNLOADING AREAS

STREETSENSE® STREET LIGHT

For use in plant maintained roadways, parking areas and general outdoor illumination.

Ideally suited for:

ROADWAYS/PARKING AREAS

Part Number	Certification	Fixture Lumens	Wattage	lm/W	CCT	Lens	Beam Distribution
F1 ProSite Floodlight							
F1UN6B2BDENVGN	UL1598/A / CSA	13,200	81	163	5000k (cool white)	Integrated PC	NEMA 6
F1UN6B2CDENVGN	UL1598/A / CSA	19,100	124	154	5000k (cool white)	Integrated PC	NEMA 6
F1UN6B2EDENVGN	UL1598/A / CSA	25,000	175	143	5000k (cool white)	Integrated PC	NEMA 6
F2 ProSite Floodlight							
F2UN6B8LDENVGN	UL1598/A / CSA	51,000	346	147	5000k (cool white)	Integrated PC	NEMA 6
F2UN6B8NDENVGN	UL1598/A / CSA	65,000	484	134	5000k (cool white)	Integrated PC	NEMA 6
StreetSense® Street Light							
SL3C5SLGG	UL 1598, CSA	20,250	252	80	5000K (cool white)	Tempered Glass	Type III

For Hazardous Location part numbers please refer to Product Specification Sheet.

For more details on product specifications, please visit www.dialight.com.

PRODUCT PORTFOLIO Linear Lights

VIGILANT® LP/TC LINEAR

Now featuring Dialight's exclusive 10 year warranty. Available in 2ft and 4ft varieties. For use in indoor and outdoor non-hazardous linear and occasionally flood lighting applications. For top conduit model, please see website.

Ideally suited for:

TASK LIGHTING

PROCESS & INSPECTION AREAS

MAINTENANCE AREAS

STORAGE & GENERAL AREAS

SAFESITE® LP/TC LINEAR

Now featuring Dialight's exclusive 10 year warranty. Available in 2ft and 4ft varieties. For use in indoor and outdoor hazardous certified linear and occasionally flood lighting applications where chemical vapors or explosive dusts are present. CID1 linear available in a different series. Refer to Dialight website for more information and top conduit model.

Ideally suited for:

PROCESS AREAS

MAINTENANCE AREAS

CHEMICAL STORAGE

Part Number	Certification	Fixture Lumens	Wattage	lm/W	CCT	Lens	Beam Distribution
Vigilant® Linear							
LKU4MC27DNNNGN	UL 1598, CSA	7,250	52	139	5000K (cool white)	Clear Polycarbonate	Medium
LKU5MC27DNNNGN	UL 1598, CSA	6,550	52	126	5000K (cool white)	Diffused Polycarbonate	Medium
LJU4MC25DNNNGN	UL 1598, CSA	4,750	37	128	5000K (cool white)	Clear Polycarbonate	Medium
LJU5MC25DNNNGN	UL 1598, CSA	4,450	37	120	5000K (cool white)	Diffused Polycarbonate	Medium
DuroSite® Linear							
LPM3C4M2P	UL 1598, CSA	7,900	60	132	5000K (cool white)	Clear Polycarbonate	Medium
LPM3C4H2W	UL 1598, CSA	7,100	60	118	5000K (cool white)	Diffused Polycarbonate	Medium
LPM3C4D2P	UL 1598, CSA	3,850	29	133	5000K (cool white)	Clear Polycarbonate	Medium
LPM3C4B2W	UL 1598, CSA	3,500	29	121	5000K (cool white)	Diffused Polycarbonate	Medium

For Hazardous Location part numbers please refer to Product Specification Sheet.

For more details on product specifications, please visit www.dialight.com.

HAZARDOUS LOCATIONS RATINGS

Fixed and portable fixtures for installation and use in hazardous (classified) locations Class I, Divisions 1 and 2, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class II, Division 2, Groups F and G; and Class III, Divisions 1 and 2, in accordance with the National Electrical Code, NFPA 70

Classes

The classes define the general nature of hazardous material in the surrounding atmosphere.

Class	Hazardous Material in Surrounding Atmosphere
Class I	Hazardous due to the presence of flammable gases or vapors in the air in quantities to produce explosive or ignitible mixtures
Class II	Hazardous due to the presence of combustible and/or conductive dusts
Class III	Hazardous due to the presence of easily ignitible fibers and flyings, such as wood chips, cotton, flax and nylon. Group classifications are not applied to this class

Divisions

The division defines the likelihood of hazardous substances being present in ignitible concentrations in the surrounding atmosphere.

Division	Presence of Hazardous Material
Division 1	The hazard exists during normal operating conditions
Division 2	The hazard is present only due to accidental system breakdowns or abnormal operations

Groups

The group(s) are determined by the specific hazardous materials which may be present.

Group	Hazardous Material in Surrounding Atmosphere
Class I Groups	
Group A	Acetylene
Group B	Hydrogen, fuel and combustible process gases containing more than 30% hydrogen by volume or gases of equivalent hazard such as butadiene, ethylene oxide, propylene oxide and acrolein
Group C	Carbon monoxide, methyl ether, hydrogen sulfide, methylacetylene, cyclopropane, ethyl and ethylene or gases of equivalent hazard
Group D	Gasoline, acetone, ammonia, benzene, butane, cyclopropane, ethanol, hexane, methanol, methane, vinyl chloride, natural gas, naphtha, propane or gases of equivalent hazard
Class II Groups	
Group E	Combustible metal dusts, including aluminum, magnesium and their commercial alloys or other combustible dusts whose particle size, abrasiveness and conductivity present similar hazards in connection with electrical equipment
Group F	Carbonaceous dusts that have more than 8 percent total entrapped volatiles or that have been sensitized by other materials so that they present an explosion hazard. Coal, carbon black, charcoal, and coke dusts are examples of carbonaceous dusts
Group G	Flour dust, grain dust, flour, starch, sugar, wood, plastic and chemicals

Reference
2020 NEC Code

North American HQ
1501 Route 34 South
Farmingdale, NJ 07727
Tel: 732-919-3119
Fax: 732-751-5778
info@dialight.com