



SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD





Introduction



Products and Services



Certifications



Designing and Testing



Production and Quality Control



Marketing



Solutions and Projects

KHJ GROUP

KHJ Lighting



KHJ Electronics



KHJ Dekwin(HongKong)



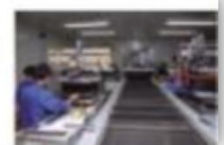
KHJ Technology



DeCai Printing



KHJ Printing(Shanghai)





Milestone and Achievements



1999, KHJ Electronics was founded



2001, factories were founded in Shenzhen and Shanghai



2002, KHJ DeCai Printing and KHJ Dekwin were founded



2003, Obtain ISO9001 by MOODY



2005, KHJ R&D Center was established



2016, KHJ Technology and KHJ Lighting were awarded as National High-tech enterprise



2012, KHJ Lighting became CNPC's approved supplier, supplier code: 1767168



2009, KHJ Lighting was founded



2008, KHJ Technology was founded



2006, Obtain ISO14000 by MOODY

Major Customers



ExxonMobil

ConocoPhillips



PETRONAS



PETROBRAS



Schlumberger



Petroleum Development Oman L.L.C.



شركة تنمية نفط عُمان ش.م.م

Petroleum Development Oman L.L.C.

CERTIFICATE OF REGISTRATION - PRODUCT VENDOR

CERTIFICATE NUMBER : **CR01002291-2022**

VENDOR CODE : **104158**

DATE OF ISSUE : 15.05.2022

PETROLEUM DEVELOPMENT OMAN LLC

CERTIFIES THAT :

MANUFACTURER : SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD.

COUNTRY OF ORIGIN : China

LOCAL AGENT : GLOBAL PAVILION LLC

COMMERCIAL AGENCY NO.: 328996

POSTAL ADDRESS : 845 AL ATHEIBAH P.O. Box 845 AL ATHEIBAH

IS REGISTERED WITH THE COMPANY AS AN APPROVED PRODUCT VENDOR WITH EFFECT FROM THE DATE OF ISSUE OF THIS CERTIFICATE FOR THE FOLLOWING PRODUCT GROUP CATEGORIES :

ELECTRICAL EQUIPMENT & SERVICES

Material Group	AVME NO.	PRODUCT CATEGORY	PRODUCT SUB CATEGORY	COMMENTS & ALERTS	MATERIALS	Pressure Rating/Max Size(NB)
69ABDA	AVME 4.12.1	LED LIGHTS	HAZARDOUS AREA	change Agent		
69ABCA	AVME 4.12.2	LED LIGHTS	LED FOR NON HAZARDOUS AREA/OUTDOOR/STRAIGHT LIGHTS	change Agent		

Certification of registration -Product vendor



SUPPLIER'S FULL INFORMATION REPORT



SUPPLIER : 905972

SESCO ABU DHABI TRADING L.L.C.

TYPE : V

S.No	PRINCIPAL CODE	PRINCIPAL NAME	AGENCY TYPE	CERTIFICATE NO	EXPIRY DATE	PRODUCT GROUP	PG DESCRIPTION	P.G. PQ STATUS	P.G.ASS GRADE	STOCKIST
	916179	SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD	A		22-APR-2017	PG - 322208	LIGHT FITTINGS - (SAFE AREA)	N	N	N
						PG - 322212	LAMPS/FLOOD LIGHT ALL TYPE	N	N	N
						PG - 322216	LIGHTFITTINGS - (EXPLOSION PROOF)	N	N	N

Certification of registration -Product vendor



VENDORS & CONTRACTORS EVALUATION COMMITTEE

M/S. SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD., DATE: 13TH APRIL 2022
4-5 FLOOR, BUILDING 1, CHUANGXIN INDUSTRIAL PARK, XINTIAN COMMUNITY, GUANLAN, REF: COM-EC&PQ-22-0501
LONGHUA NEW DISTRICT, SHENZHEN , 518110 FILE NO: V 5331
CHINA

SUBJECT: VENDOR APPROVAL – RE-QUALIFICATION

GENTLEMEN,

REFERENCE TO YOUR PREVIOUS APPROVAL LETTER DATED 10/04/2017, YOUR COMPANY IS RE-QUALIFIED AS A VENDOR EFFECTIVE 13/04/2022, FOR THE SUPPLY OF THE FOLLOWING PRODUCT(S) FOR K.N.P.C REFINERIES:

PRODUCT DESCRIPTION

74 20 FIXTURES, INDUSTRIAL (EXP. PROOF)

THE COMPANY (VENDOR) CODE ALLOCATED TO YOUR COMPANY IS **1003585**.

PLEASE ENSURE TO QUOTE THIS CODE AND ABOVE FILE NO. ON ALL YOUR FUTURE CORRESPONDENCE.

VERY TRULY YOURS,

HAA/NFH/sac



BANDAR M. AL-QAHTANI
CHAIRMAN V & CEC

CC: BAIT AL ASEEL FOR GENERAL TRADING & CONTRACTING EST... (CODE # 810081)
LOCAL AGENCY CERTIFICATE IS VALID UPTO 17TH MAY 2022.

THIS LETTER SUPERSEDES OUR LETTER DATED 10TH APRIL 2017.

NOTE: APPROVAL VALIDITY IS UPTO 12TH APRIL 2027.(APPROVED SINCE 10TH APRIL 2017)
REF. RFI # 14536

PLEASE REFER OVERLEAF FOR INSTRUCTIONS

Certification of registration -Product vendor



2701
151220



TO: M/s. Shenzhen KHJ Semiconductor Lighting Co. Ltd.,
China; Fax:- 0086 755 82949800 *Not going*
FROM: Team Leader Supplier Relationship Management,
Commercial Support Group
P.O. Box – 9758; 61008 Ahmadi, Kuwait
Fax No.: (965) 2387 7833

Date : 13th Dec. 2020
Msg. No.: PQAN/080/2020
Vendor Code: 41938
Total No. of Pages: 1

SUBJECT: **NOTIFICATION OF VENDOR APPROVAL**

OUR REF.: **VEG-29121901/EL/LF/008/2020**

Dear Sirs,

We are pleased to inform you that you have been approved for inclusion in KOC's Approved List of Manufacturer for the product category and manufacturing facility mentioned here below:

PRODUCT CATEGORY : **LIGHT FITTINGS (CONVENTIONAL / LED)**

- **HAZARDOUS AREA [LED TYPE ONLY]**
- **INDUSTRIAL TYPE [LED TYPE (EXCLUDING AVIATION OBSTRUCTION LIGHT FITTINGS) ONLY]**

FACILITY ADDRESS : **M/s. SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD.,
FLOOR 4 & NORTH OF FLOOR 5, BUILDING 1,
CHUANGXIN INDUSTRIAL PARK, XINTIAN COMMUNITY,
GUANLAN, LONGHUA NEW DISTRICT, SHENZHEN CITY,
GUANGDONG PROVINCE, CHINA.**

Validity : **From 13th December 2020 to 12th December 2025 (5 years)**

This notification of approval is issued subject to the following, failing which liable for cancellation at any time at the discretion of KOC.

- To update regularly with the latest product catalogue / information.
- To furnish Budgetary Quotations as & when requested.
- To furnish Audited financial details for every two years.
- To update with latest contact details / Change in Local Agent.
- To update with Name Change / Merging / Factory Shifting.
- To submit request for Re-Qualification (if required) 3 months prior the above expiry date.
- To hold all valid mandatory certifications at all times.

Sincerely,
For Kuwait Oil Company

Manal Abu-Shaibah

cc: M/s. Bait Al Aseel for General Trading & Contracting Group, Kuwait; Fax:- 2481 6071 *Not going*
File

Certification of registration -Product vendor



Approved Manufacturer List (AML)

ฉบับที่ 1/2560

S10332000-3001 Rev.2

26th December 2017

หมวดไฟฟ้า (Electrical)

ITEM	SYSTEM / EQUIPMENT	MANUFACTURER LIST		REMARK
		BRAND NAME	COUNTRY OF ORIGIN	
		ALLOY	THAILAND	Accept only Metallic Enclosure with ATEX certificate.
		EATON CROUSE-HINDS	SOUTH KOREA / CHINA	
		WAROM	CHINA	
14.2	LIGHTING FIXTURE - INDOOR : NON EXPLOSION PROOF TYPE			
		L&E	THAILAND	Former name: LUSO
		DELIGHT	THAILAND	
		MET	THAILAND	
		PHILIPS	THAILAND	
		RACER	THAILAND	
14.3	LIGHTING FIXTURE - OUTDOOR : WATER PROOF			
		ALLOY	THAILAND	Accept only copper- free Aluminium Enclosure
		OMS (TORNADO)	SLOVENIA	
		PHILIPS	THAILAND	
		RACER	THAILAND	Accept only Metallic Enclosure
		SYLVANIA	THAILAND	
		VELUX	THAILAND	
14.4	LIGHTING FIXTURE - HID LAMP : HI-BAY / FLOOD LIGHT / STREET LIGHT			
		CCH (CHUE CHIN HUA)	THAILAND	
		PHILIPS	THAILAND	
		SYLVANIA	THAILAND	
14.5	LIGHTING FIXTURE - LED LAMP : HI-BAY / FLOOD LIGHT / STREET LIGHT			
	14.5.1 EXPLOSION PROOF	EATON CROUSE-HINDS	CHINA / SOUTH KOREA	Accept only Metallic Enclosure with ATEX Certificate.
		DELIGHT	UK / MEXICO	
		KHJ	CHINA	

Certification of registration -Product vendor



FAX



No. 569 /E14020/2014-S5

Refinery Unit IV
Jl. MT. Haryono 77
Cilacap 53221 – Indonesia

T +62 282 531 633, 535333
F +62 282 531 920, 531 922
www.pertamina.com

Kepada	: PT Tunas Wirajaya	Fax	: (021) 87754718
Dari	: Reliability Manager RU IV	Tel / Fax	: (0282) 538607
Tanggal	: 27 November 2014	Jml. Hal. Dikirim (termasuk cover)	: 1
Perihal	: New Recommended Brand Led Lighting Shenzhen KHJ Semiconductor Lighting Co.Ltd		

Berdasarkan hasil presentasi & diskusi teknik PT Tunas Wirajaya sebagai distributor tunggal dari produk Shenzhen KHJ Semiconductor Lighting Co.Ltd tanggal 22 November 2013 dan hasil evaluasi produk serta sertifikat explosion proof ATEX & IECEX, dapat disampaikan bahwa produk Shenzhen KHJ Semiconductor Lighting Co.Ltd dapat dimasukkan ke dalam New Recommended Brand List, dengan susunan sebagai berikut :

3. ELECTRICAL

3.20. LIGHTING SYSTEM

3.20.6. LED LIGHTING

3.20.6.2. LED EXPLOSION PROOF LIGHT

1. SHENZHEN KHJ SEMICONDUCTOR LIGHTING, Co. Ltd
Country of origin : China

3.20.6.3. LED EXPLOSION PROOF PORTABLE LIGHT

1. SHENZHEN KHJ SEMICONDUCTOR LIGHTING, Co. Ltd
Country of origin : China

Apabila dikemudian hari ditemukan permasalahan yang menyangkut aspek teknis, kinerjanya & mutu, maka brand list ini akan ditinjau kembali dan New Recommended Brand List yang telah diterbitkan dinyatakan tidak berlaku.

Demikian disampaikan, atas perhatiannya diucapkan terima kasih.

Pjs. Reliability Manager,


Setia Abdi



Petrofac Limited

ACCOUNT

REFERENCE DOCUMENTS

My Requests

My Companies

Completed Requests



My Alerts

Req. No.	Company Name	GSID	Request Type	Supplier Type	Business Location	Requested On	Total Elapsed Time	Status	Actions
6977	SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO., LTD.	8805	Create	Potential	-NA-	2020/09/07	1 Day 23:29	Approved	   



Singapore Refining Company Private Limited



Singapore Refining Company Private Limited

Company Registration No: 87900084K

1 Maritime Road
Singapore 0995920
Tel : (65) 6867 0000 Direct Line :
Fax : (65) 6867 7880 Direct Fax :

TESTIMONIAL

TO WHOM IT MAY CONCERN,

SHENZHEN KHJ SEMICONDUCTOR LIGHTING CO LTD made KHJ -LED EXPLOSION PROOF LIGHTINGS certified by ATEX and IEC Ex.

- 1) AROWANA SERIES, MODEL Ex-KAF30CH-E FLOODLIGHT
30W AC100V ~ AC240V 50/60 HZ
- 2) FROG SERIES, MODEL Ex-KF150CH-E FLOODLIGHT 150W
AC180V ~ AC277V 50/60 HZ

We installed the above mention Floodlights in our Process Area early this year (2013) and were satisfied with the performance. The brightness improved tremendously and the installation easy.

Please find picture of installed products.



“ The brightness improved tremendously and the installation easy.”

***By SIM PENG KWANG
- IE Senior Supervisor of SRC***

More testimonials coming...



SIM PENG KWANG
IE Senior Supervisor
Singapore Refining Company
This is a soft copy
No signature required



Introduction



Who are we?



Shenzhen KHJ Semiconductor Lighting Co., Ltd. was established in 2009 engaged in R&D, manufacturing and marketing of explosion proof LED lighting and explosion proof electrical apparatus.

KHJ Lighting offers expansive ranges of explosion proof products and solutions in harsh and hazardous environment including Oil Refineries, Petrochemical Plants, Onshore and Offshore Oilfields, Power Plants, Gas Stations, Mining Tunnels and Warehouses etc.

“Providing customized and cost-effective explosion-proof solutions for a wide array of hazardous and industrial application.”

As an ISO9001:2015 certified manufacturer, KHJ Lighting strictly applies Total Quality Management to the entire production cycle with the dedicated work of our professional QC team to ensure the quality of every explosion proof products with markings as **Zone 1, Ex db, eb, mb Group IIA,IIB&IIC, T5/T6**; and certified by **ATEX** and **IECEx**, furthermore, features of the products are compliance with IEC 60079 standards concerning electrical equipment in hazardous areas.

Besides, KHJ Lighting is capable of providing suitable lighting simulations, we conduct delicate modeling, accurate engineering and precise calculation with CAD Software and DIALux in light planning to the requirements of every customer both in planning budget and solution optimization.

Having 20 overseas authorized distributors across continents, KHJ Lighting has never stopped the pursuit for innovation and progress, we put the trust in mutual benefits with our customers by bringing the state of the art technology and trustworthy partnership.



Mission

- Providing the best LED explosion proof products and services for customers

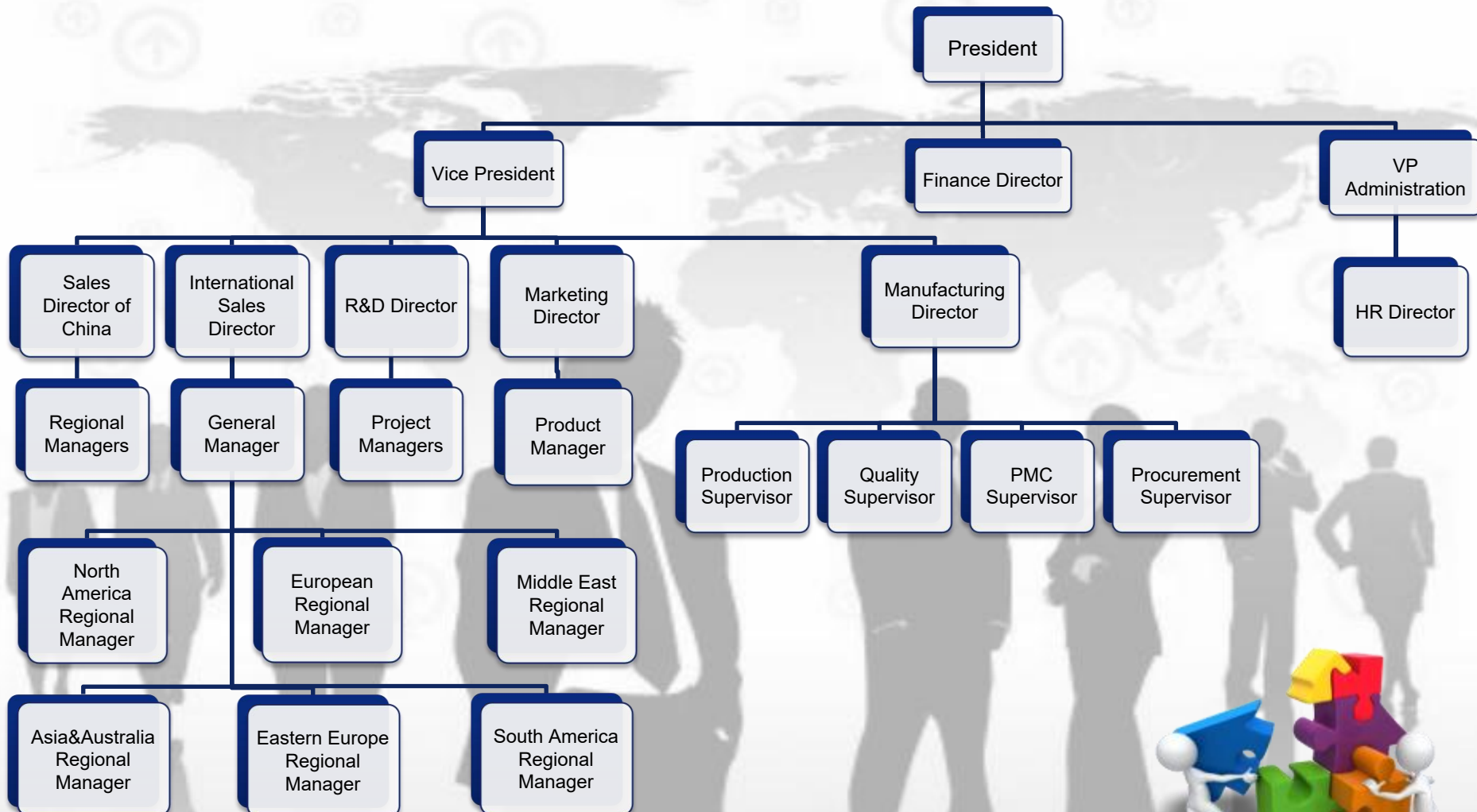
Vision

- To be the best partner with customers

Core Values

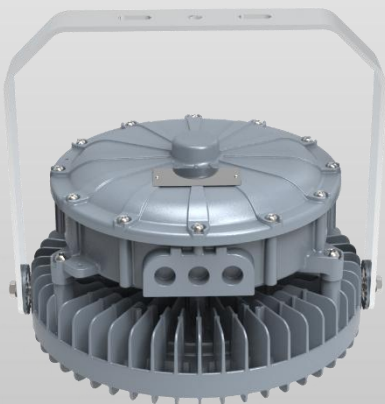
- Human - People oriented, realize the potential of our people.
- Technology - Knowledge innovation, technical innovation, management innovation.
- Value - Create profits for customers and sustain a strict Quality Control System.
- Devotion - Great enthusiasm towards work and willing to give and share.
- Responsibility - Be fully accountable for social responsibilities, and sustainable Health, Safety, Security and Environmental excellence.

Company Structure





Strength

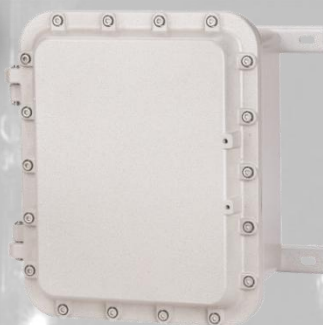


- Lumileds, Luminous efficacy Up to 140 lm/W, Long lifespan: 50,000 hours
- 5-year performance warranty for fixed lighting, 3-year warranty for lighting with battery back-up
- Low THD around 8%
- De-rating design
- Ex certified WAGO terminal block
- 5KV Surge Protection power supply
- PF ≥ 0.98 and electrical efficiency about 92%
- Strong toughened glass. Stand 7J direct impact, higher than IEC standards – 4J, up to 20J when fixed with guards
- Separated Terminal Compartment and LED Source Compartment
- Multiple cable entries optional, no additional junction box required, easy installation and cost efficient
- Anti-Vibration and shock proof
- Fast delivery: 3 days for samples, 15-20 days for mass production
- Providing delicate lighting plan solutions by using professional design software – DIALux, Auto CAD

Products and Services



KBH02-S Series



KDP11 Series



**KBH31/32 Series
Terminal Box**



EXPLOSION PROOF ELECTRICAL APPARATUS



**KBH03 Series
Terminal Box-**



**KBH05 Series
Terminal Box**

Products and Services



**KBX02 Series
Control Station**



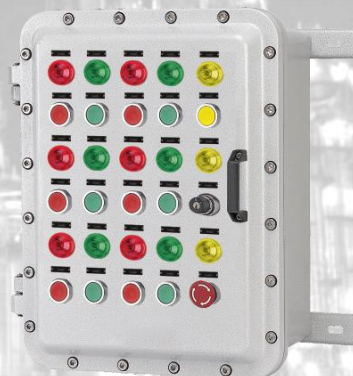
**KBX03 Series
Control Station**



EXPLOSION PROOF ELECTRICAL APPARATUS

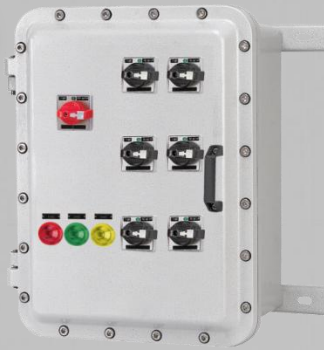


**KBX05 Series
Control Station**



KDP07 Series

Products and Services



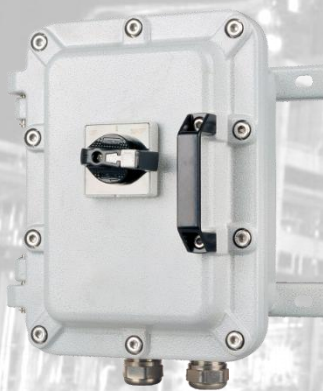
KDP03 Series



KDP06 Series



EXPLOSION PROOF ELECTRICAL APPARATUS



KDP05 Series



KBSP01 Series
Explosion proof Plug and Sockets-

Products and Services



KBM-09,10 Series



KBM-13,14 Series

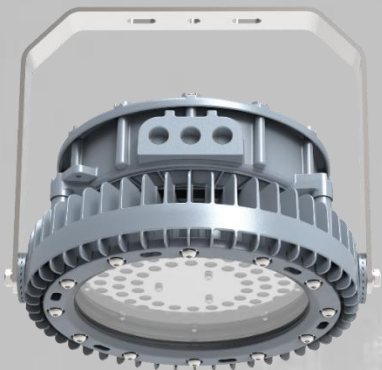


EXPLOSION PROOF CABLE GLANDS

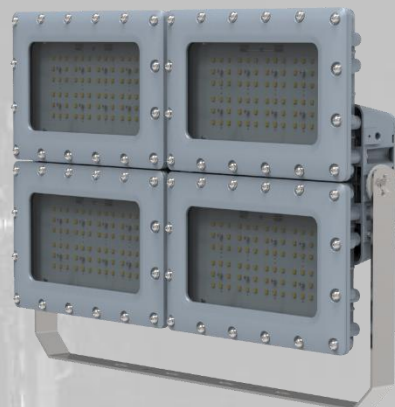
Products and Services



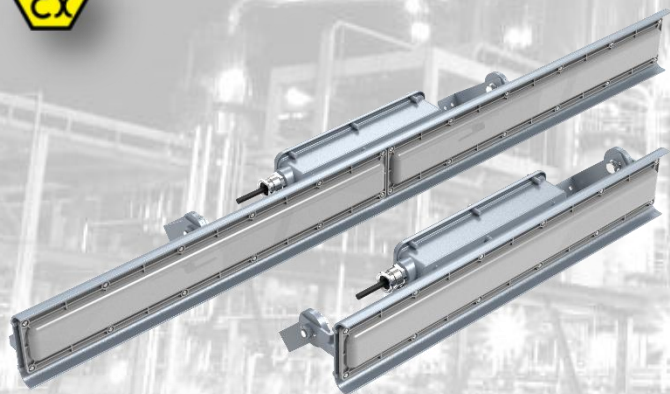
EXPLOSION PROOF LED



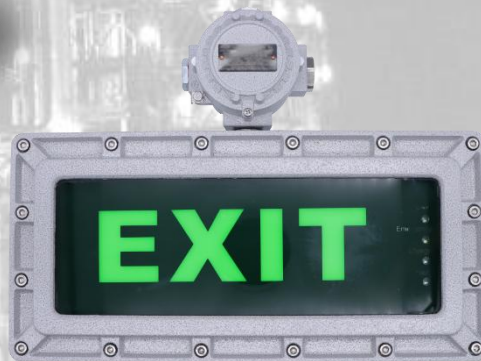
Ex-KSeaLion Series



Ex-KTank Series

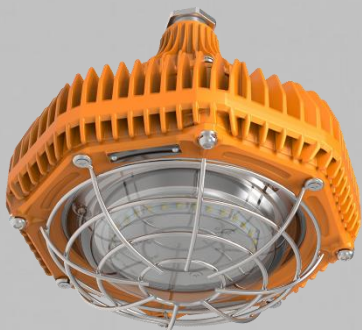


Ex-KKingfish Series

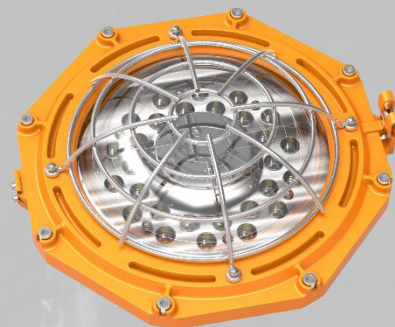


KBDJ11 Series

Products and Services



Ex-KForest Frog Series



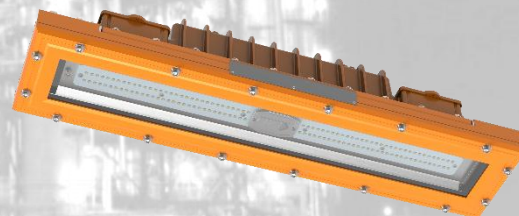
Ex-KGolden Frog Series



EXPLOSION PROOF LED

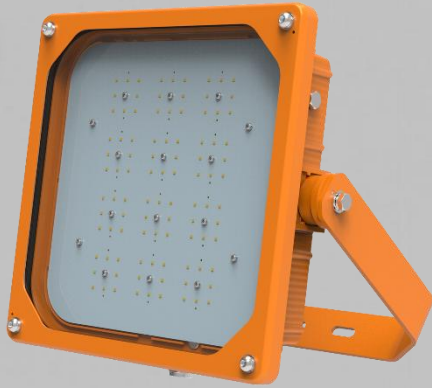


Ex-KPolar Bear Series



Ex-KSwordfish Series

Products and Services



Ex-KBrown Bear Series



Ex-KFirefly Series



Ex-KPolaris Series



EXPLOSION PROOF LED



Ex-KVictoria Harbour Series



Ex-KMickey Mouse Series

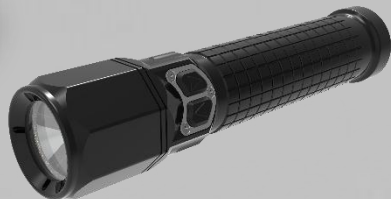


Ex-KVictoria Harbour Series

Products and Services



EXPLOSION PROOF LED



Ex-KAlcidae Series



Ex-KHill Myna Series



Ex-KSaturn Series



Ex-KForest Frog Series

KBH02-S Series

Explosion proof Electrical Apparatus



Ex mark: II 2 G Ex eb IIC T6/T5/T4 Gb

II 1 G Ex ia IIC T6 Ga

II 2 G Ex ia IIC T6 Gb

II 2 D Ex tb IIIC T80/T95/T130 °C Db

Rated voltage: Max. AC/DC36V (Ex i, Ex tb)

Max. 690V AC, 220V DC (Ex e, Ex tb)

Rated current: 5A (Ex i, Ex tb)

10A, 16A, 25A, 40A, 50A, 100A, 142^a (Ex e, Ex tb)

Material: Stainless steel

IP code: IP66

Temperature: -40 °C ~ +40/55 °C (Ex e, Ex tb)

-40 °C ~ +40/45/55/60 °C (Ex i, Ex tb)

Application area: Zone 0

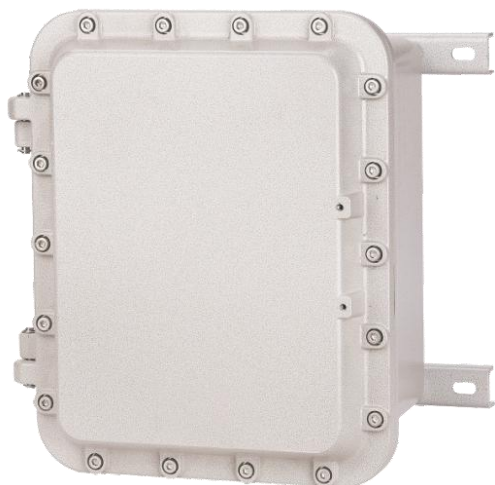
Zone 1 and Zone 2,

Zone 21 and Zone 22

IECEX EUT 22.0002, IECEX EUT 22.0003

EPT 22 ATEX 4938 X, EPT 22 ATEX 4939 X

KDP11 Series Explosion proof Electrical Apparatus(Terminal box)



Ex mark: II 2 G Ex db IIB T6/T5/T4 Gb
II 2 G Ex db IIB+H2 T6/T5/T4 Gb
II 2 D Ex tb IIIC T80/T95/T130°C Db

Rated voltage: Max. 1000V AC, 1500V DC

Rated current: Max. 1200A

Material: Aluminum alloy enclosure

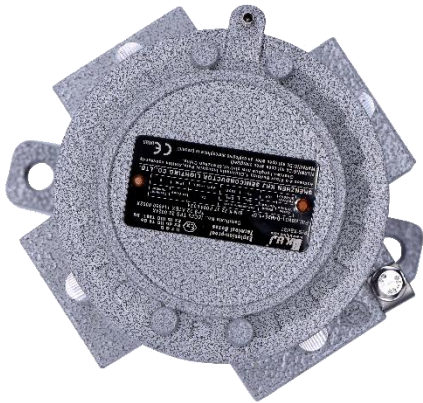
Temperature: : --20 °C ~+40/60 °C, -40 °C ~+40/60 °C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16×1.5-M63×1.5 (default, exact size according to requirement) , NPT thread (optional)

IECEX TPS 22.0025X, TPS 22 ATEX 114950 0003 X

KBH31/32 Series Explosion proof Junction Box



Ex mark: II 2 G Ex db IIC T6 Gb

II 1 G Ex ia IIC T6 Ga

II 2 G Ex ib IIC T6 Gb

II 2 D Ex tb IIIC T80 °C Db

Rated voltage: 36VAC/DC, 220V DC, 400V AC, 500V AC

Rated current: 5A, 16A, 20A

Material: Aluminum alloy enclosure

Temperature: : -60°C~+55 °C

Application area: Zone 0, Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: Standard M20×1.5~M32×1.5
Optional NPT1/2~NPT1

IECEx TPS 22.0024X, TPS 22 ATEX 114950 0002 X

KBH03 Series Explosion proof Terminal Box



Ex mark: II 2 G Ex eb IIC T6/T5 Gb
II 1 G Ex ia IIC T6 Ga
II 2 G Ex ib IIC T6 Gb
II 2 D Ex tb IIIC T80/T95°C Db

Rated voltage: Max. AC/DC36V(Ex i, Ex tb)
Max. 690V AC, 220V DC(Ex e, Ex tb)

Rated current: 5A(Ex i, Ex tb)
10A, 16A, 25A, 40A, 50A, 100A, 142A(Ex e, Ex tb)

Material: GRP (Polyester resin, glass fibre reinforced), anti-static

IP code: IP66

Temperature: : -40 °C ~+40/55°C (Ex e, Ex tb)
-40 °C ~+50/60/65 °C (Ex i, Ex tb)

Application area: Zone 0
Zone 1 and Zone 2,
Zone 21 and Zone 22

IECEX SEV 22.0012X, SEV 22 ATEX 0630 X

KBH05 Series Explosion proof Terminal Box



Ex mark: II 2 G Ex eb IIC T6/T5 Gb
II 1 G Ex ia IIC T6 Ga
II 2 G Ex ib IIC T6 Gb
II 2 D Ex tb IIIC T80°C Db

Rated voltage: Max. AC/DC36V(Ex i, Ex tb)
Max. 500V AC, 220V DC (Ex e,Ex tb)

Rated current: 5A(Ex i, Ex tb)
10A,12A,20A (Ex e,Ex tb)

Material: Nylon (PA66)

IP code: IP66

Temperature: : -40 °C ~+45/55/60 °C (Ex e,Ex tb)
-40 °C ~+45/65°C (Ex i, Ex tb)

Application area: Zone 0
Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M20X1.5, M25X1.5, M32X1.5
IECEX SEV 22.0012X, SEV 22 ATEX 0630 X

KBX02 Series Explosion proof Control Station



Ex mark: II 2 G Ex db eb IIC T6 Gb
II 2 D Ex tb IIIC T80°C Db

Rated voltage: Max. 415V AC, 250V DC

Rated current: 6, 10A, 16A

Material: Stainless steel, anti-drop structure

IP code: IP66

Temperature: : -40 °C ~+40/45/50/55/60/65/70°C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16 × 1.5 ~ M63 × 1.5

IECEX SEV 22.0011X, SEV 22 ATEX 0606 X

KBX03 Series Explosion proof Control Station



Ex mark: II 2 G Ex db eb IIC T6 Gb
II 2 D Ex tb IIIC T80°C Db

Rated voltage: Max. 415V AC, 250V DC

Rated current: 6, 10A, 16A

Material: GRP (Polyester resin, glass fibre reinforced), antistatic

IP code: IP66

Temperature: : -40 °C ~+40/45/50/55/60/65/70°C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16 × 1.5 ~ M63 × 1.5

IECEx SEV 22.0011X, SEV 22 ATEX 0606 X

KBX05 Series Explosion proof Control Station



Ex mark: II 2 G Ex db eb IIC T6 Gb
II 2 D Ex tb IIIC T80°C Db

Rated voltage: Max. 415V AC, 250V DC

Rated current: 6, 10A, 16A

Material: GRP (Polyester resin, glass fibre reinforced), antistatic

IP code: IP66

Temperature: : -40 °C ~+40/45/50/55/60/65/70°C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: $\Phi 25.5\text{mm}$

(The cable gland is not available when delivery, please indicate if necessary)

IECEX SEV 22.0011X, SEV 22 ATEX 0606 X

KDP07 Series

Explosion proof Electrical Apparatus(Control circuit)



Ex mark: II 2 G Ex db IIB T6 Gb
II 2 G Ex db[ia/ib] IIB T6 Gb
II 2 G Ex db IIB+H2 T6 Gb
II 2 G Ex db[ia/ib] IIB+H2 T6 Gb
II 2 D Ex tb IIIC T80°C Db

Rated voltage: Max. 415V AC

Rated current: Max. 200A

Material: Aluminum alloy enclosure

Temperature: : --20 °C ~+40/60 °C, -40 °C ~+40/60 °C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16×1.5-M63×1.5 (default, exact size according to requirement) , NPT thread (optional)

IECEX TPS 22.0025X, TPS 22 ATEX 114950 0003 X

KDP03 Series Explosion proof Electrical Apparatus



Ex mark: II 2 G Ex db IIB T6/T5/T4 Gb
II 2 G Ex db[ia/ib] IIB T6/T5/T4 Gb
II 2 G Ex db IIB+H2 T6/T5/T4 Gb
II 2 G Ex db[ia/ib] IIB+H2 T6/T5/T4 Gb
II 2 D Ex tb IIIC T80/T95/T130 °C Db

Rated voltage: Max. 1000V AC, 1500V DC

Rated current: Max. 1200A

Material: Aluminum alloy enclosure

Temperature: : --20 °C ~+40/60 °C, -40 °C ~+40/60 °C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16×1.5-M63×1.5(default, exact size according to requirement) , NPT thread (optional)

IECEX TPS 22.0025X, TPS 22 ATEX 114950 0003 X

KDP06 Series Explosion proof Electrical Apparatus



Ex mark: IIB G Ex db IIB T6/T5/T4 Gb
IIB G Ex db IIB+H2 T6/T5/T4 Gb
IIB D Ex tb IIC T80/T95/T130°C Db

Rated voltage: Max. 690V AC

Rated current: Max. 200A

Material: Aluminum alloy enclosure

Temperature: : --20 °C ~+40/60 °C, -40 °C ~+40/60 °C

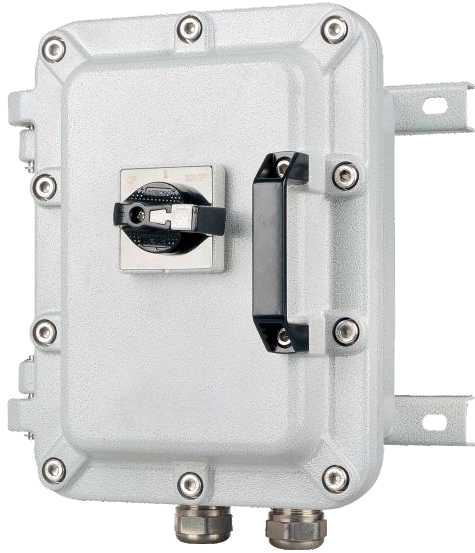
Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16×1.5-M63×1.5(default, exact size according to requirement) , NPT thread (optional)

IECEX TPS 22.0025X, TPS 22 ATEX 114950 0003 X

KDP05 Series

Explosion proof Electrical Apparatus(Circuit breaker)



Ex mark: II 2 G Ex db IIB T6/T5/T4 Gb
II 2 G Ex db IIB+H2 T6/T5/T4 Gb
II 2 D Ex tb IIIC T80/T95/T130°C Db

Rated voltage: Max. 1000V AC, 1500V DC

Rated current: Max. 630A

Material: Aluminum alloy enclosure

Temperature: : --20 °C ~+40/60 °C, -40 °C ~+40/60 °C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16×1.5-M63×1.5 (default, exact size according to requirement) , NPT thread (optional)

IECEX TPS 22.0025X, TPS 22 ATEX 114950 0003 X

KBSP01 series Explosion-proof Plug and Sockets



Ex mark: II 2 G Ex db IIC T6 Gb
II 2 D Ex tb IIIC T80°C Db

Rated voltage: 24,36V DC(10、16A)
20~50V AC,100~130V AC, 200~250V AC,
380~415V AC, 480~500V AC, 600~690V AC

Rated current: 10A, 16A, 25A, 32A, 50A, 63A,100A, 125A

Material: Aluminum alloy enclosure

Poles: 2P, 3P(2P+PE), 4P(3P+PE), 5P(3P+N+PE)

IP code: IP66

Temperature: 10、16、25、32、50、63A: -60°C~+45°C,
-60°C~+65°C (Please specify when ordering)

100、125A: -60°C~+50°C

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Wire diameter: 2.5~35mm²

IECEX CSAE 22.0005X, CSANe 22ATEX1008X

KBM-09,10 Series
Explosion proof Cable Glands
(Double Seal, Unarmoured)



Type: KBM-9,10 (Double Seal, Unarmoured)

Ex mark: II 2 G Ex db IIC Gb
II 2 G Ex eb IIC Gb
II 3 G Ex nR IIC Gc
II 2 D Ex tb IIIC Db

Material: Stainless steel, nickel plated brass, brass, etc.

Temperature: : -43 °C +120 °C

IP code: IP66, IP67, IP68(2m/72h)

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16~M63, NPT 1/2~NPT 2

IECEX TPS 22.0023X, TPS 22 ATEX 114950 0001 X

KBM-13,14 Series
Explosion proof Cable Glands
(Double Seal, Armoured, Unarmoured)



Type: KBM-13,14 (Double Seal, Armoured, Unarmoured)

Ex mark: II 2 G Ex db IIC Gb
II 2 G Ex eb IIC Gb
II 3 G Ex nR IIC Gc
II 2 D Ex tb IIIC Db

Material: Stainless steel, nickel plated brass, brass, etc.

Temperature: : -43 °C +100 °C

IP code: IP66, IP67, IP68(2m/72h)

Application area: Zone 1 and Zone 2,
Zone 21 and Zone 22

Cable entries: M16~M63, NPT 1/2~NPT 2

IECEX TPS 22.0023X, TPS 22 ATEX 114950 0001 X

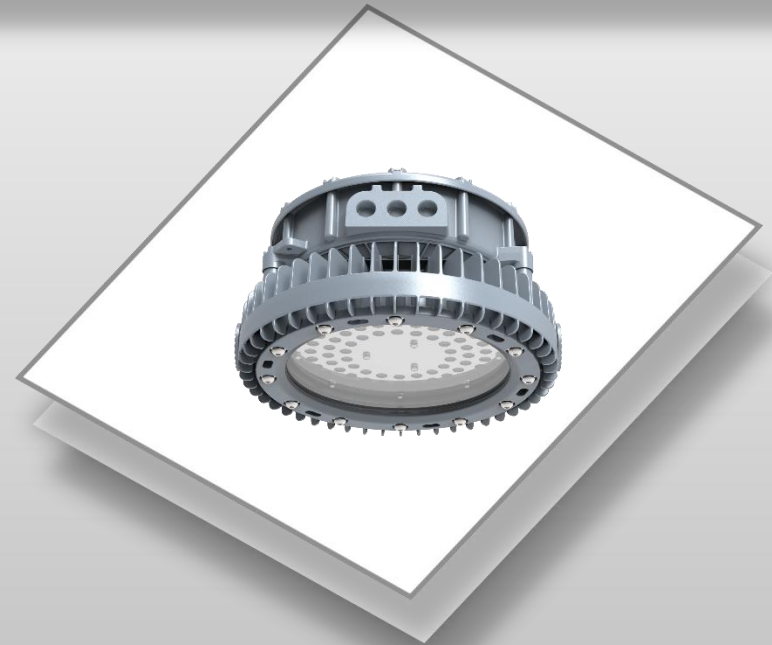
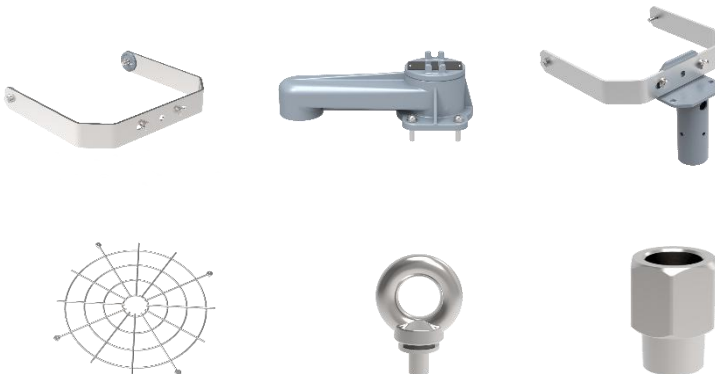
Ex db IIC T4/T5 Gb
Ex tb IIIC T115°C/105°C /T95°C Db



Ex-KSeaLion Series

30W,45W,60W,80W,100W,120W,150W,200W,240W,300W
 optional LED light, IP66, 3 candela distribution for different
 application requirements, used as wide-range floodlight and high
 bay light in Oil&Gas Industry, Power Plants and Metallurgical
 Industry etc. For replacing 70~1000W traditional lamps.
 NI-MH battery, 500 cycles lifespan, back up 3 hours.

IECEx TUR 20.0086X; TUV 20 ATEX 8608 X;
TÜV 22 UKEX 7125 X



Ex db IIC T* Gb
Ex tb IIIC T* Db

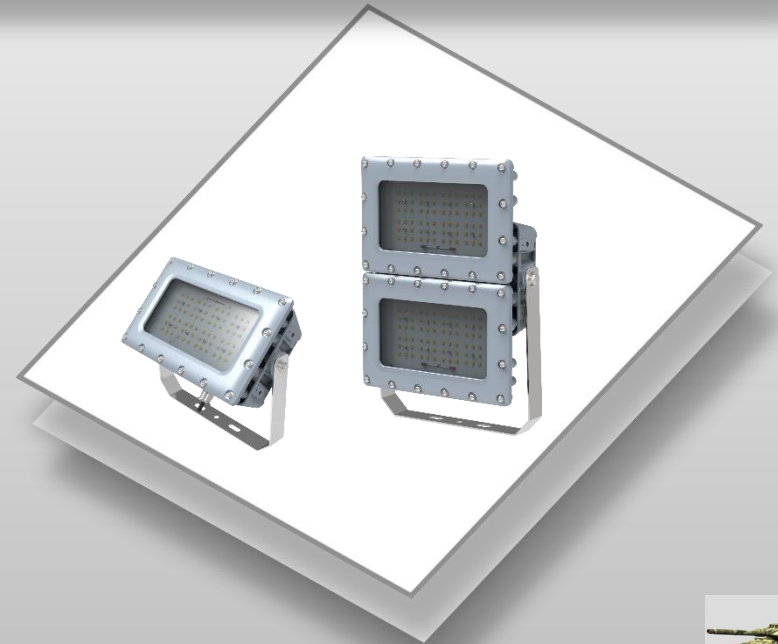
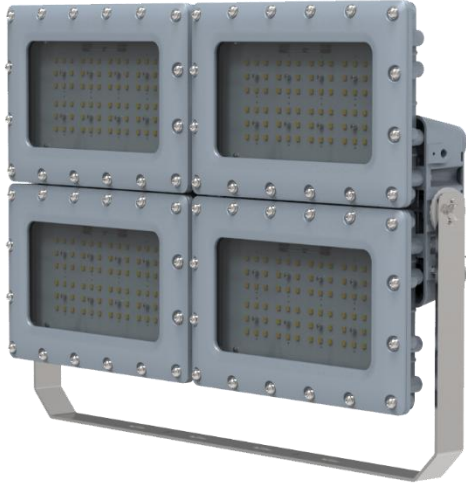
Ex-KTank Series

80W, 100W, 120W, 160W, 200W, 240W, 320W, 400W and 480W LED light, IP66, 3 candela distribution for different application requirements, specially carved heat sink, used as wide-range floodlight and high bay light in Oil&Gas Industry, Power Plants and Metallurgical Industry etc. for replacing over 175~2000W traditional lamps.

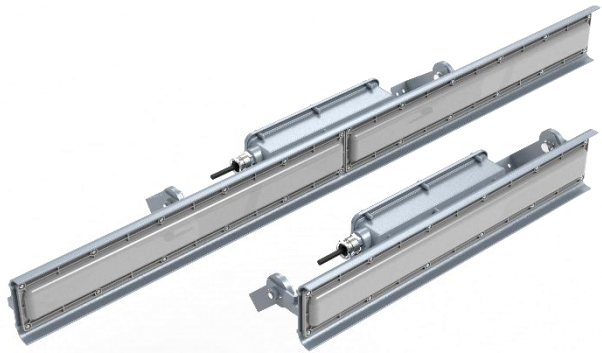
NI-MH battery, back up 3 hours.

IECEx TUR 21.0070X; TUV 21 ATEX 8775 X;

TÜV 22 UKEX 7129 X

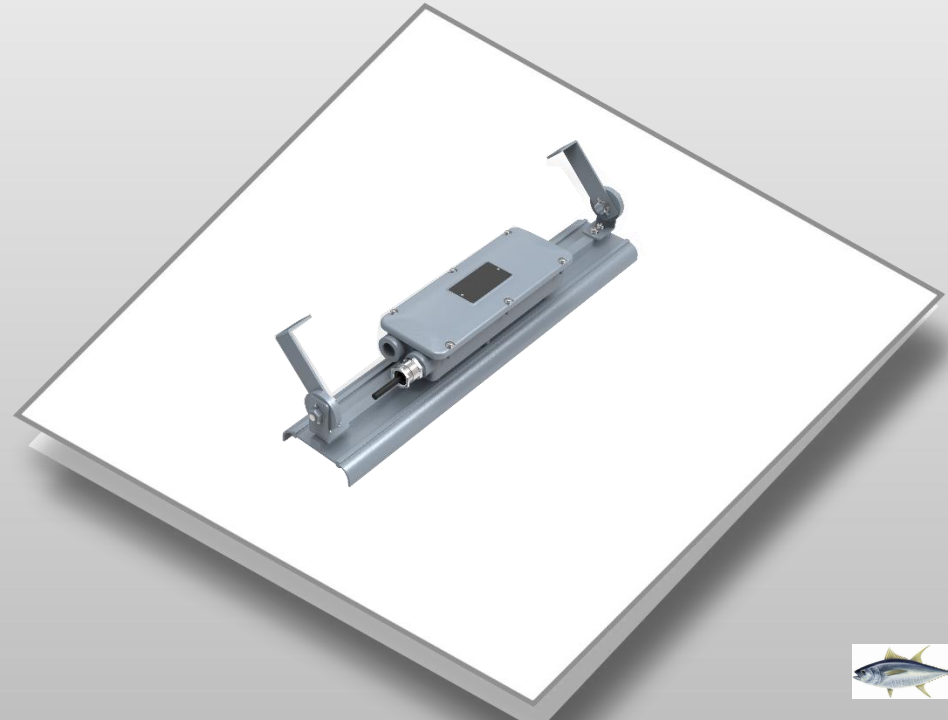


Ex eb mb IIC T5/T6 Gb
Ex tb IIIC T95° C/T80° C Db IP66



Ex-KKingfish Series

18W,36W,48W,64W Led linear light, IP66,
candela distribution similar with fluorescent tube,
2ft and 4ft Length for optional. Ideal to replace EX
conventional fluorescent tube 2X18, 2X36W,
2X54W.



Ex db IIB T6 Gb,
Ex db IIB+H2 T6 Gb
Ex tb IIIC T80°C Db



KBDJ11 Series

Luminaire with self-contained battery unit and automatic function monitoring

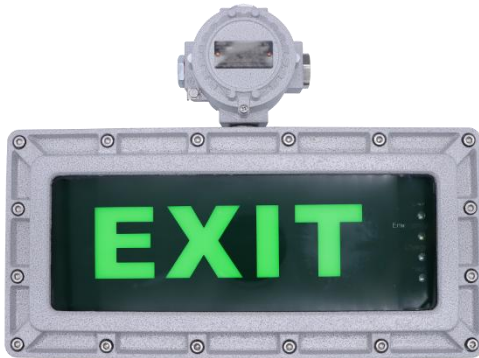
Nickel-cadmium battery

Overcharge, over discharge and short circuit protection

Normal use $\leq 6W$, Emergency power 0.6W

Battery duration time ≤ 3 hours

9 Guide signs, and customizable



Guide sign



KBDJ11-*/A/*



KBDJ11-*/B/*



KBDJ11-*/C/*



KBDJ11-*/D/*



KBDJ11-*/E/*



KBDJ11-*/F/*



KBDJ11-*/G/*

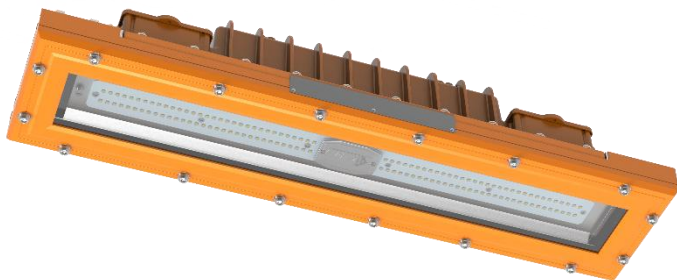


KBDJ11-*/H/*



KBDJ11-*/I/*

Ex d eb op is IIB T6 Gb
Ex tb op is III C T80°C Db



Ex-KSwordfish Series

18W,36W,48W,56W,72W Led linear light, IP66,
candela distribution similar with fluorescent tube,
2ft , 3ft and 4ft Length for optional. Ideal to replace
EX conventional fluorescent tube 2X18, 2X36W,
2X54W and 2*80W

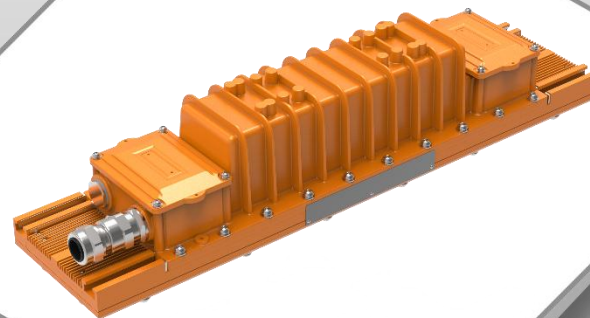
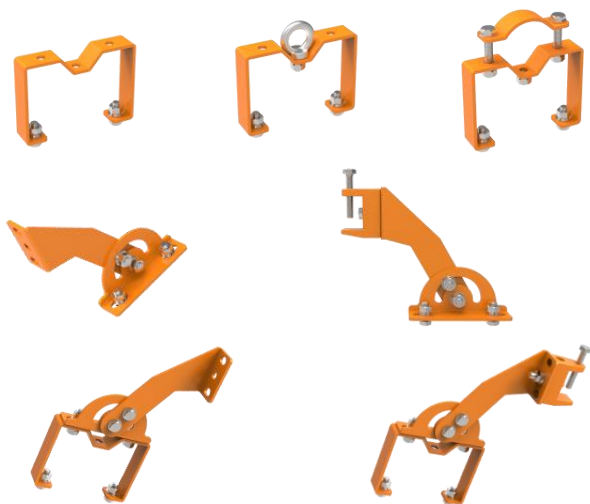
Nickel-cadmium Battery, 300 cycles lifespan, back
up 3 hours.

UL844 (Certificate No.:20170914-E491372)

UL1598 (Certificate No.: 20170823- E491373)

IECEx TUR 16.0028; TUV 15 ATEX 7673X;

TÜV 22 UKEX 7128 X

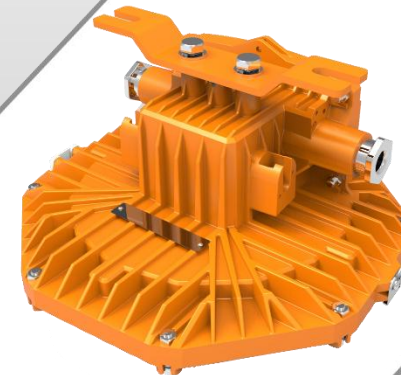
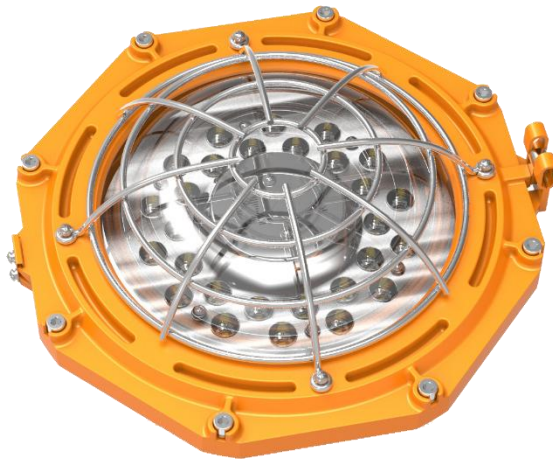


Ex d IIB T5 or T6 Gb
Ex t IIIC T95°C or T80°C Db

Ex-KGolden Frog Series

30W and 60W LED light, IP66, embedded with 28 LEDs, hexagon shape, small size with specially carved heat sink, suitable for Refinery Plants, Power Plants and Drilling Sites etc. for replacing typical 60~150W traditional lamps.

IECEX CQM 12.0033X; LCIE 12 ATEX 3070 X

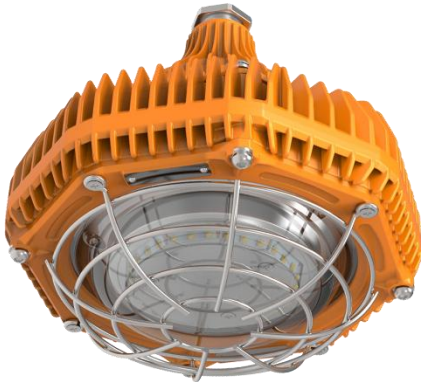


II2 G Ex db IIC T6...T4 Gb
II2 G Ex db eb IIC T6...T4 Gb
II2 D Ex tb IIC T80°C...T130°C Db

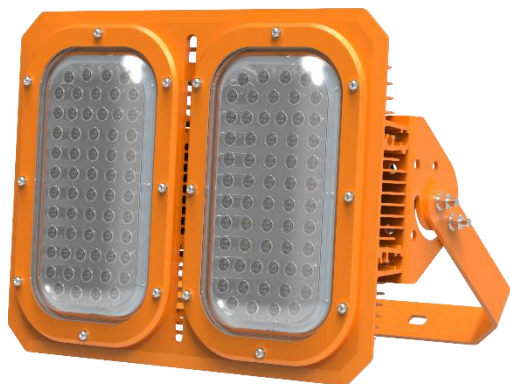
Ex-KForest Frog Series

30W , 45W and 60W LED light, IP66, embedded with 20, 24, 30 LEDs, small size with specially carved heat sink, suitable for Petroleum Industry, Petrochemical Industry, Metallurgical Industry, Power Generation Industry, Power Transmission Industry, Railway Industry, for replacing typical 60~150W traditional lamps.

IECEX CQM 15.0039XX ; EPT 18 ATEX 2977 X;
CML 22 UKEX 1362 X



Ex nR II C T* Gc
Ex tc III C T* Dc



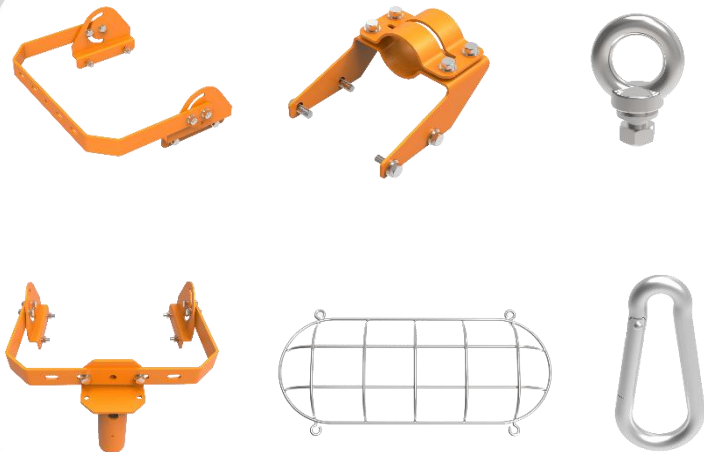
Ex-KPolar Bear Series

80W, 120W, 150W/160W, 200W and 240W floodlight, IP66, 6 candela distribution for different application requirements, specially carved heat sink, used as wide-range floodlight and high bay light in Oil&Gas Industry, Power Plants and Metallurgical Industry etc. for replacing over 200~400W traditional lamps.

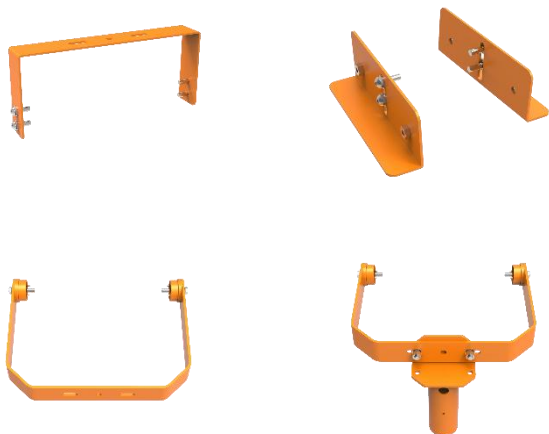
UL844 (Certificate No.:20170914-E491372)

UL1598 (Certificate No.: 20170823- E491373)

IECEX CQM 13.0044X; LCIE 14 ATEX 1014 X



Ex nR IIC T5 or T6 Gc
Ex tc III C T95°C or T85°C



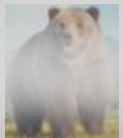
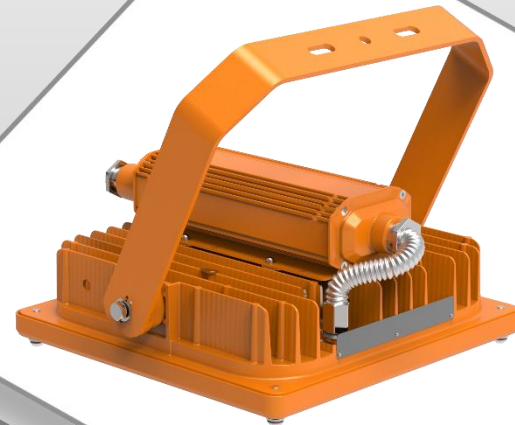
Ex-KBrown Bear Series

80W,100W,120W,150W for optional, IP66,
ambient Temp.-40~+55°C.

Square shape, built in mount,
designed for gas station.

Also suitable for warehouse and other Zone 2. Zone 22 area.

LCIE 14 ATEX 1014X



Ex de IIC T5 Gb



Ex-KSaturn Series

IP54, compatible with lights of 5~60W, small size and portable, lead acid batteries(24V 12Ah) with 300 cycles, stepless dimmer design controls the brightness, providing better lighting and extending the working time. Suitable for temp. of -20°C ~ $+55^{\circ}\text{C}$, specially designed for drilling site, oil tanks, workover platform, production platform and tunnels etc.

IECEx CQM 16.0005X; ECM 17 ATEX-B TD45



II2 G Ex db IIC T6...T4 Gb
II2 D Ex tb IIIC T80°C...T130°C Db

Ex-KForest Frog Series

IP66, 10W/15W, over 10h discharge time for 10W and over 6h discharge time for 15W, meet the demand of the emergency illumination.

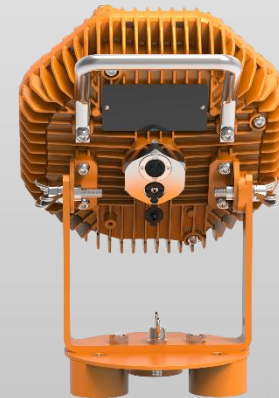
Lithium batteries with 500 cycles.

With strong magnet base.

Suitable for temp. of -20~+55°C, specially designed for oil tanks cleaning, Plant shutdown tunnels etc.

IECEX CQM 15.0039XX ; EPT 18 ATEX 2977 X;

CML 22 UKEX 1362 X



Ex ib IIC T4 Gb
Ex ib IIIC T130°C Db



Ex-KAlcidae Series

IP68, Lithium batteries, 300 charge cycles lifetime, up to 200m irradiation distance, wide temperature tolerance and built-in over charge protection, used in cases of emergency, Oil & Gas Industry tool kit for night working, supplement to dark-adapted vision.

TUV 15 ATEX 7713X;
TÜV 22 UKEX 7130 X



Ex mb ib op is IIC T6 Gb
Ex tb op is IIIC T80°C Db

Ex-KHill Myna Series



Rechargeable Led Handlamp
IP66, Lithium batteries, 500 charge cycles lifetime
For safe use in Zone 1 and Zone 2 potentially explosive
gas and Zone 21 and 22 dust atmospheres.

Spot and flood switchable beam options
Up to 16 hours floodlight



Ex mb ib op is IIC T6 Gb
Ex tb op is IIIC T80°C Db



Ex-KPolaris Series

Luminaire with self-contained battery unit and automatic function monitoring

Nickel-hydrogen(Ni-MH) battery, 300 cycles life span

Overcharge, over discharge and short circuit protection

Normal use 6W, Emergency power 0.5W

Battery duration time about 3 hours



Ex db op is IIC T5 or T6 Gb
Ex tb op is IIIC T95°C or T80°C Db

Ex-KVictoria Harbour Series



Copper free aluminium alloy enclosure
IP 67 Rated
Designed to facilitate electrical connection in
hazardous areas
Optional terminal blocks for easy connection

Optional Cable entries :
M20, M25, NPT ½, NPT ¾



Ex db op is IIC T5 or T6 Gb
Ex tb op is IIIC T95°C or T80°C Db

Ex-KVictoria Harbour Series



Copper free aluminium alloy enclosure
IP 67 Rated
Designed to be used in classified hazardous areas, to connect and disconnect operation of lighting and light power loads

Optional Cable entries :
M20, M25, NPT ¾



Ex db op is IIC T5 or T6 Gb
Ex tb op is IIIC T95°C or T80°C Db

Ex-KFirefly Series

LED explosion proof Aviation Obstruction light
IP 66 Rated

L810 Steady-burning Red Obstruction Light

L864 Flashing Red Obstruction Light 30FPM

L885 Flashing Red Obstruction Light 60FPM



Ex db op is IIC T5 or T6 Gb
Ex tb op is IIIC T95°C or T80°C Db

Ex-KMickey Mouse Series



LED explosion proof Emergency Exit light
High quality Ni-Cd batteries with 300 cycles
Battery back-up time about 120 minutes
With Over voltage, short circuit protection
IP 66 Rated
Adjustable head lamp for different application requirement

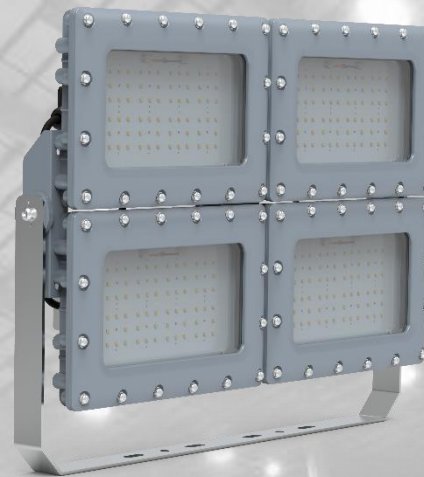




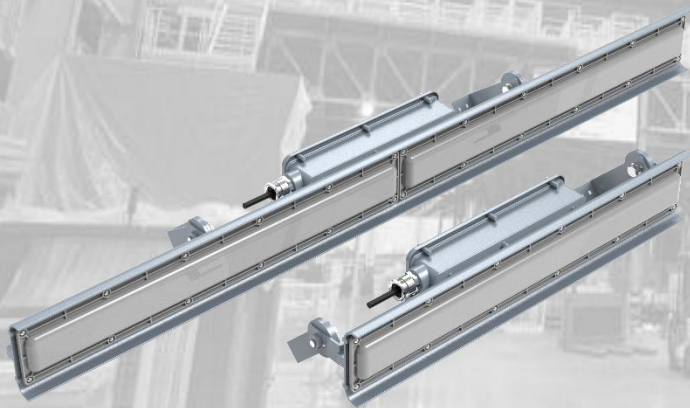
NON-EXPLOSION PROOF LED



KSeaLion Series



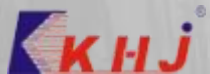
KTank Series



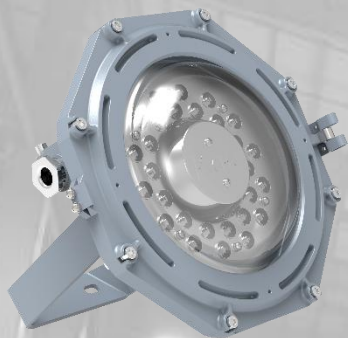
KKingfish Series



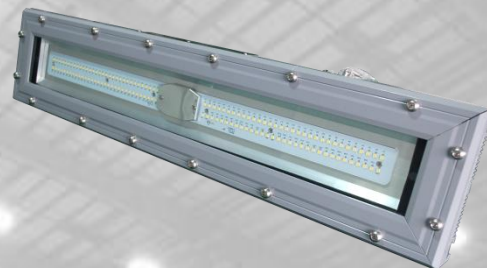
KBrown Bear Series



NON-EXPLOSION PROOF LED



KGolden Frog Series



KSwordfish Series



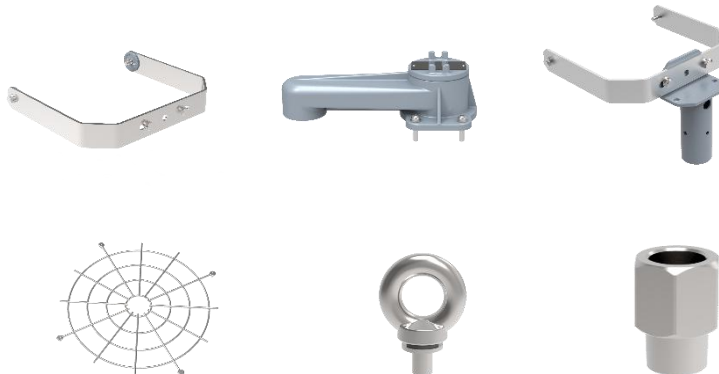
KSea Anemone Series



KVenus Series

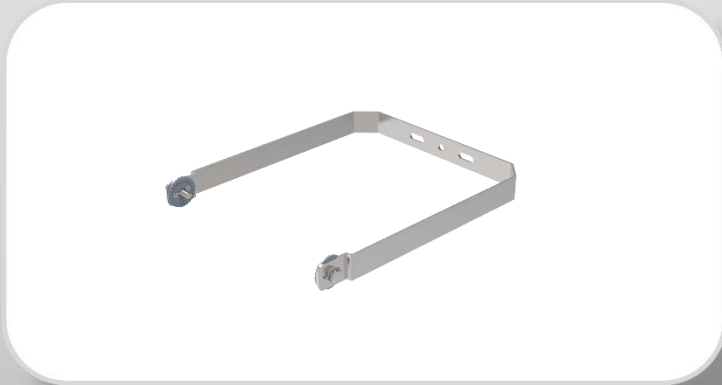
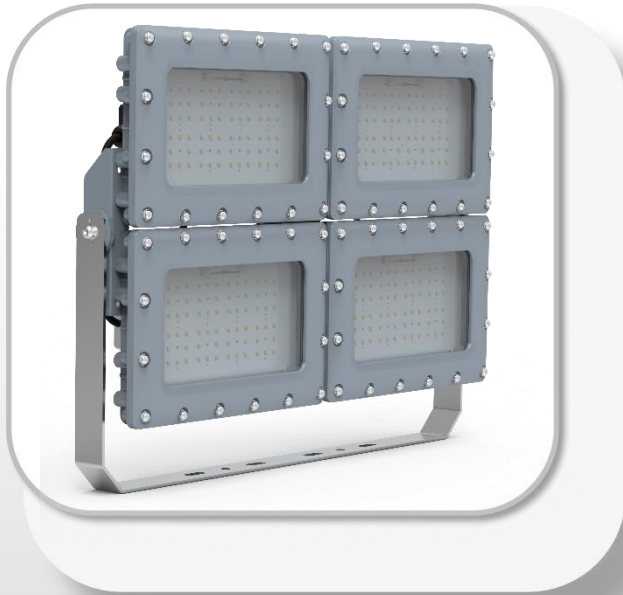
KSeaLion Series

45W,60W,80W,100W,120W,150W,200W,240W,300W optional LED light, IP66,3 candela distribution for different application requirements, used as wide-range floodlight and high bay light in warehouses, loading docks, factories and workshops etc. For replacing 70~1000W traditional lamps.
NI-MH battery, 500 cycles lifespan, back up 3 hours.



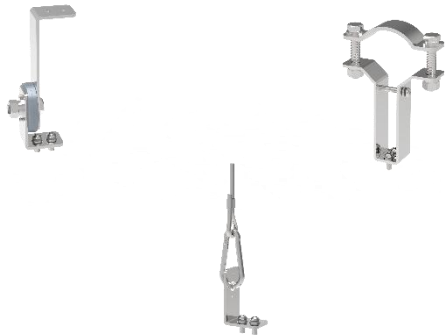
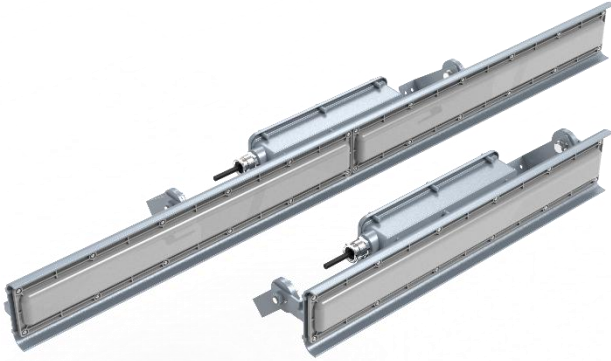
KTank Series

80W, 100W, 120W, 160W, 200W, 240W, 320W, 400W and 480W LED light, IP66, 3 candela distribution for different application requirements, specially carved heat sink, used as wide-range floodlight and high bay light in warehouses, loading docks, factories and workshops etc. For replacing over 175~2000W traditional lamps. NI-MH battery, back up 3 hours.



KKingfish Series

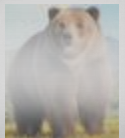
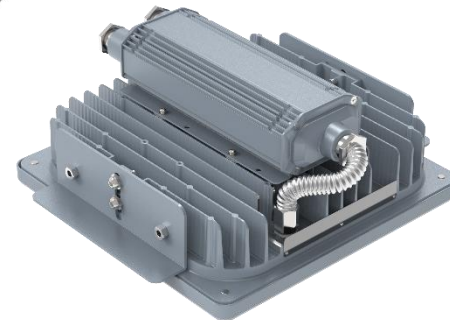
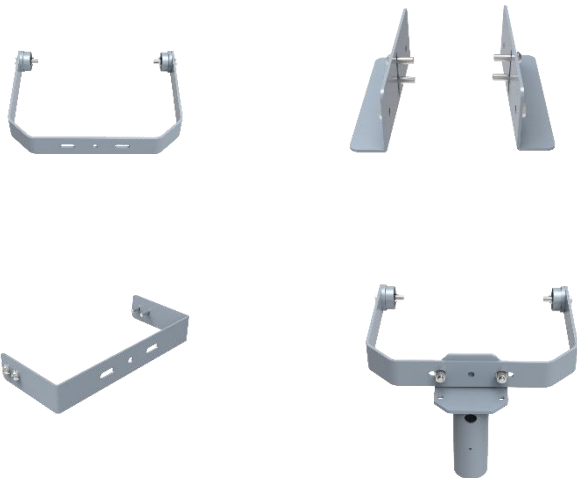
18W,36W,48W,64W floodlight, IP66,
candela distribution similar with fluorescent tube, 2ft and 4ft
Length for optional. Ideal to replace EX conventional
fluorescent tube 2X18, 2X36W,2X54W.



KBrown Bear Series

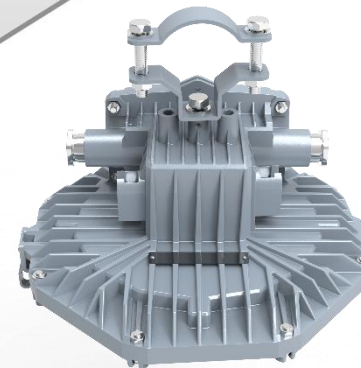
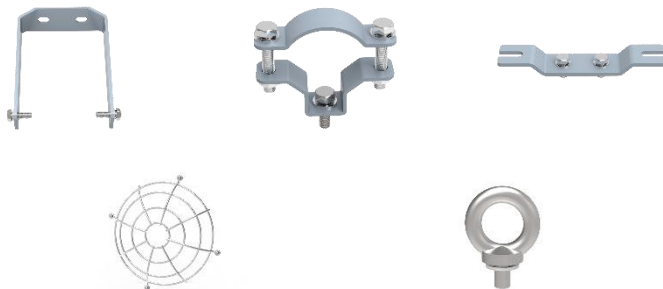
80W,100W,120W,150W for optional, IP66,
ambient Temp.-40~+55°C.

Square shape, built in mount, suitable for power generation
industry, factories, gymnasium etc.



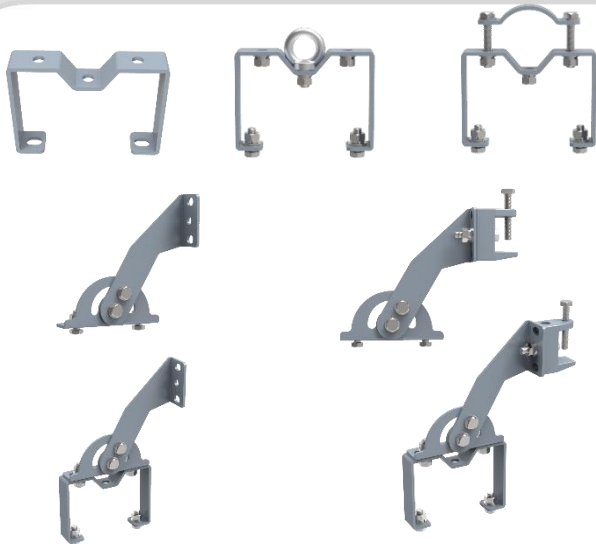
KGolden Frog Series

30W and 60W LED light, IP66, embedded with 28 LEDs, hexagon shape, small size with specially carved heat sink, suitable for warehouses, loading docks, factories and workshops etc to replace typical 60~150W traditional lamps.



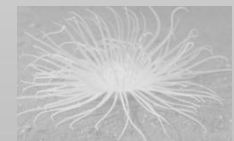
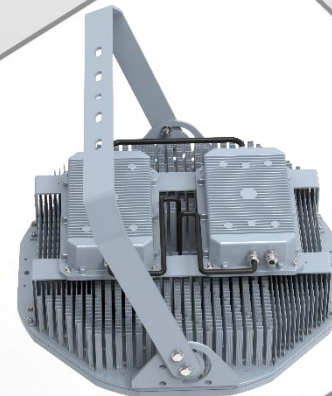
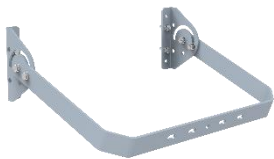
KSwordfish Series

18W,36W,48W,56W,72W floodlight, IP66, candela distribution similar with fluorescent tube, 2ft, 3ft and 4ft Length for optional. Ideal to replace EX conventional fluorescent tube 2X18, 2X36W,2X54W and 2*80W. Ni-Cd battery, 300 cycles lifespan, back up 3 hours.



KSea Anemone Series

360W , 480W and 720W LED light, IP66, light weight with 3 candela distribution to different application requirements. 480W can turn 1 for 1 replacement for 1000W-2000W MH lamp. High lumen output for installation in high mounting heights 10-50m.

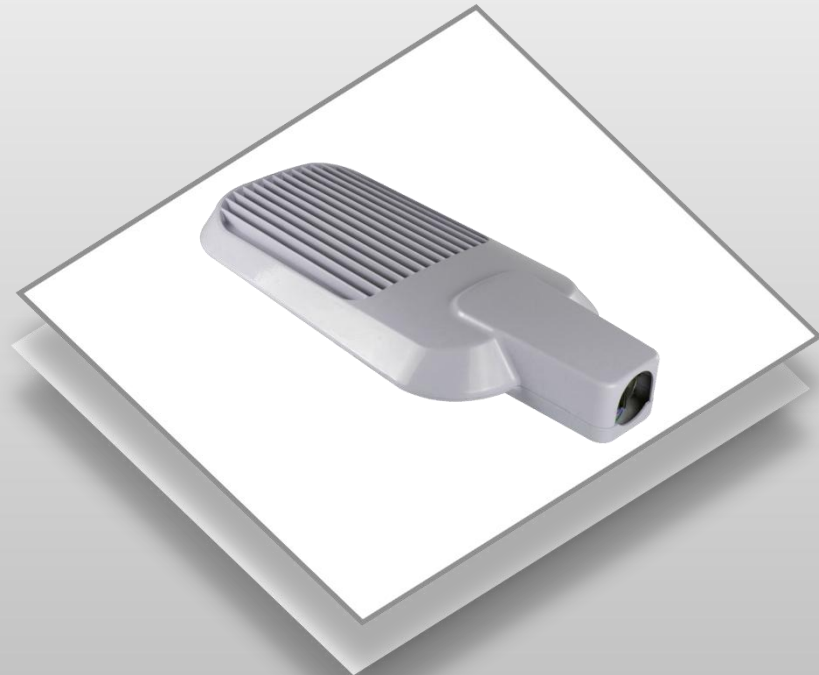


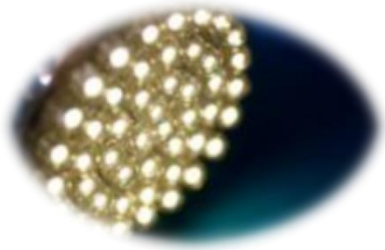
KVenus Series

80W,100W,120W,150W,200W,220W LED street light, IP66,
With 10KV surge protection device (SPD) being built in, 20KV
SPD optional.

Easy installation, suitable for pole with outer diameter of
 $\phi 50$ - $\phi 63$.

Ambient temperature from -40°C - $+55^{\circ}\text{C}$.





WHY and How

WHY? LEDs reach full brightness instantly, without re-strike delay for the purpose of safety and convenience, lifetime and lumens maintenance is not influenced by frequent switching. It delivers longer life with features of enhanced energy efficiency, higher resistance to vibration, eco-friendliness, lowered maintenance demands and equal or better quality of light.

- Significantly lower energy consumption, energy saving by 60-70%
- No UV&IR Radiation
- Anti-Vibration, and Shock proof, more reliable
- Extremely low maintenance
- Much longer lifetime, at least 50,000 hours or more, no more frequent bulb replacement and disposal program.

HOW? It took KHJ's R&D team over a year to complete the engineering and testing of explosion proof LED lights, and another 2 years to conduct delicate improvements on the functions and exterior appearances as per criticisms from our customers who have been active for years in the business of mining, metallurgy and Oil&Gas.



In all hazardous and harsh environments

Pharmaceutical Plant



Power Plant



Petrochemical Plant



Oil&Gas Exploration



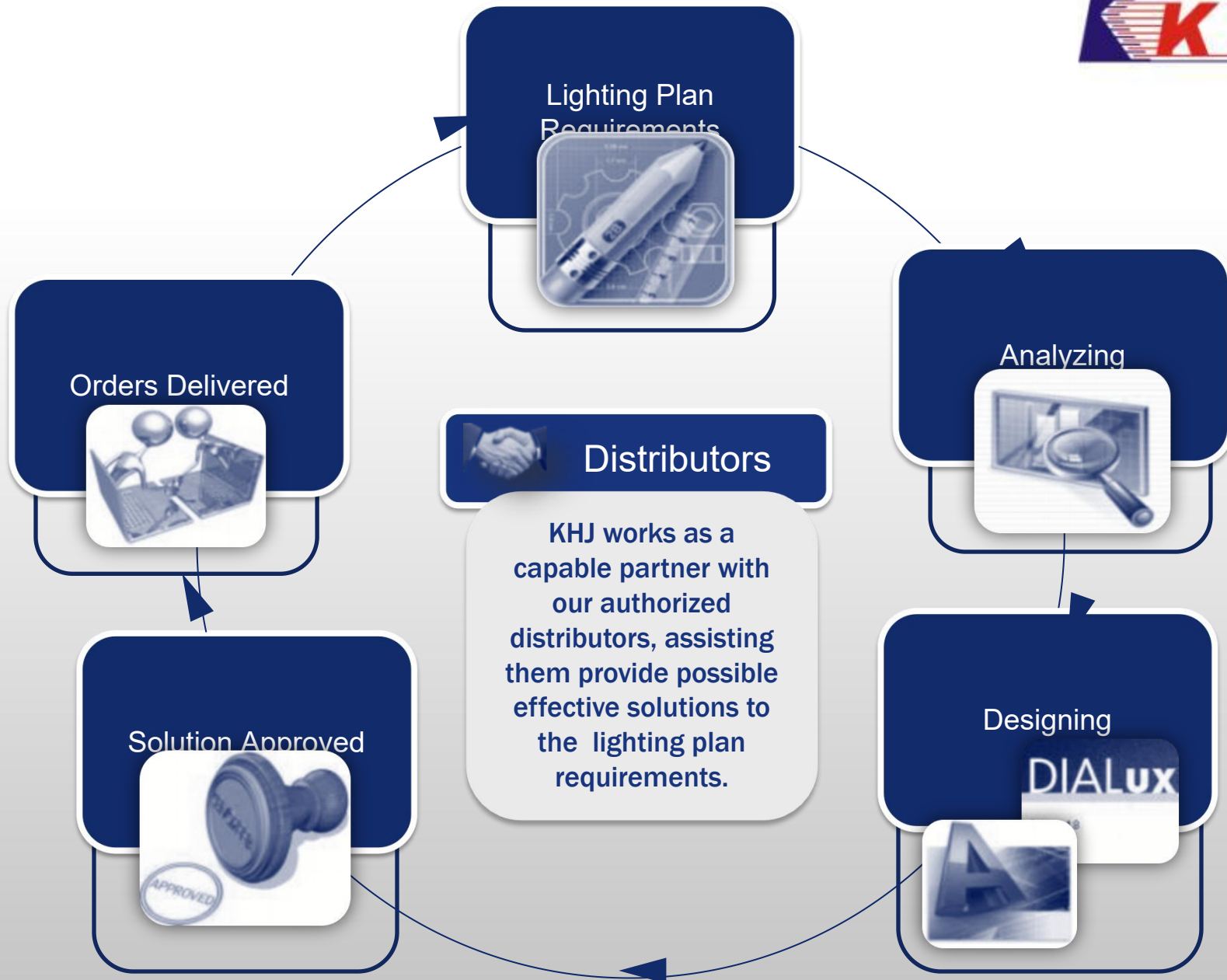
Drilling



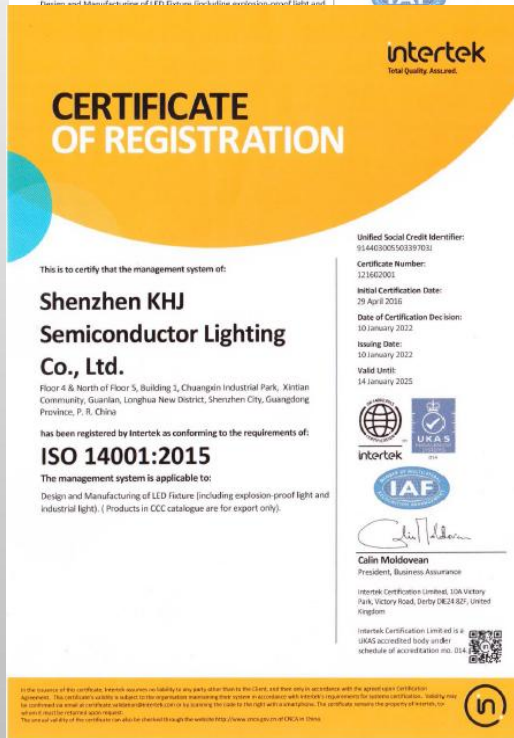
Oil Refinery



Explosion proof LED carries more than just lights



Certifications



ISO 9001:2015 & ISO 14001:2015 certifications by Intertek show our commitment to quality, customers, and a willingness to work towards improving efficiency.

Certifications



IECEX CQM 12.0034X;
IECEX CQM 12.0033X;
IECEX CQM 13.0044X;

LCIE 12 ATEX 3069 X;
LCIE 12 ATEX 3070 X;
LCIE 14 ATEX 1014 X;

IECEX CQM 15.0039X;
IECEX CQM 16.0005X;
IECEX TUR 16.0028X;
IECEX TUR 20.0086X;
IECEX TUR 21.0070X;

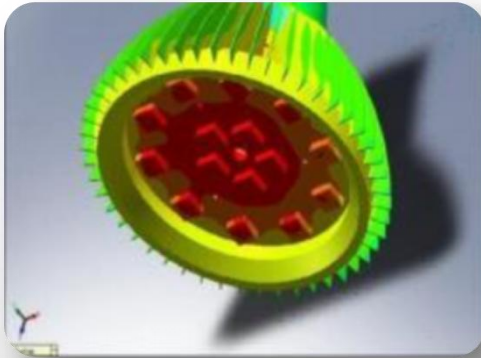
EPT 18 ATEX 2977 X;
TUV 15 ATEX 7673 X;
TUV 15 ATEX 7672 X;
TUV 15 ATEX 7713 X;
TÜV 20 ATEX 8608 X;
TÜV 21 ATEX 8775 X;

IECEX SEV 22.0013X;
IECEX_TPS_22.0024X;
IECEX CSAE 22.0005X;
IECEX SEV 22.0012X;
IECEX EUT 22.0002;
IECEX EUT 22.0003;
IECEX_TPS_22.0025X;
IECEX SEV 22.0011X

SEV 22 ATEX 0608 X;
TPS 22 ATEX 114950 0002 X;
CSANe 22ATEX1008X;
SEV 22 ATEX 0630 X;
EPT 22 ATEX 4938 X;
EPT 22 ATEX 4939;
TPS 22 ATEX 114950 0003 X;
SEV 22 ATEX 0606 X;

ATEX and IECEx certifications add more confidence in the quality of our products and services.





Product radiation stimulation



LED drivers designing and engineering



We have a team over 10 years experience in explosion proof lighting R&D

IP Test

Quality is not a statement we can just claim, it is a commitment and substantial element we shall retain, LED technology is concerned with proper utilities and manpower.



IP66



IP67

1 ST Digit		2 nd Digit	
Solid Object Protection		Water Protection	
5	Protected from the amount of dust	6	Protected against powerfully jetting water
6	Dust Tight	7	Protected against temporary immersion in water
IP: Ingress Protection		8	Protected against continuous immersion in water



High and Low Temperature Test

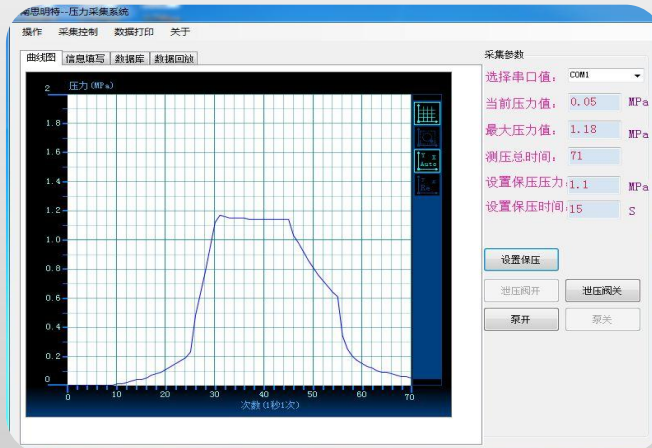
- In areas of Middle East, Asia and Siberia, temperature can be extremely high and low , which is a big challenge for the lights to survive and stay safe and sound. This utility is to create temperature of $-70 \sim +150$ degrees to test the lights durability.
- This test will last 1 month for each testing Sample



Fasten the enclosure on the shelf and connect it to the pressure with water pipe



1 MPa pressure lasts at least 12 seconds



Hydrostatic Pressure Test

- The “Ex d(e)” type LED light enclosure must be able to withstand the pressure from an explosion and quench the flame, so that a possible explosion remains restricted to the inside of the enclosure. Hydrostatic Pressure Test creates constant pressure of 1 MPa for over 10 seconds to test the strength and leaks of the enclosure.



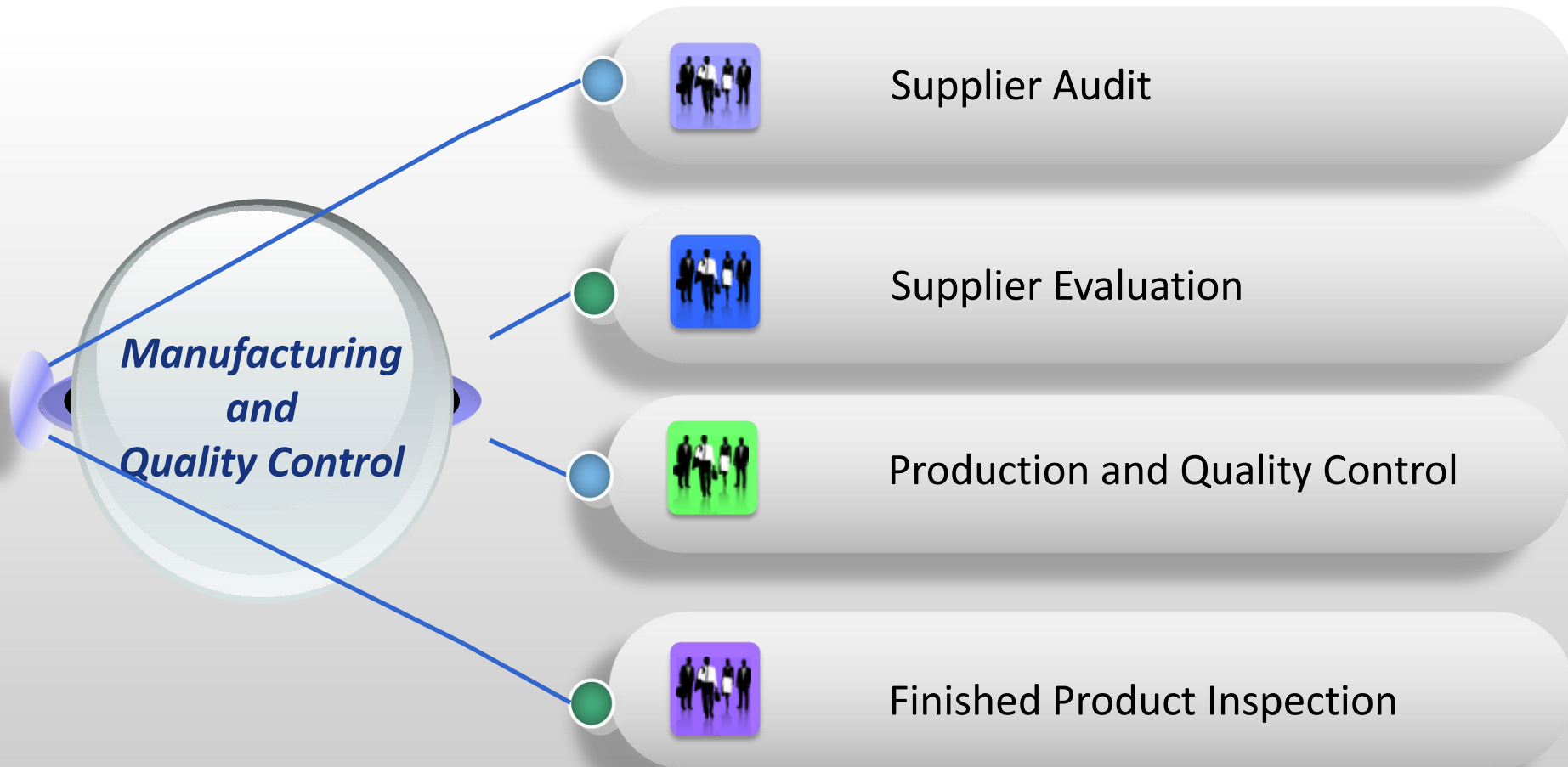
Aging Test

- Lumen Depreciation Value determines the lifespan of a light, LED luminaries must survive the most hazardous and harshest environment.
- R&D samples are put into Aging Test Room which keeps creating an environment of 50 degrees temp. and 90% humidity till LED loses its effective lighting performance, the process already last over 4 years or more, it is a great way to test the durability of LED against aging in severe environment.

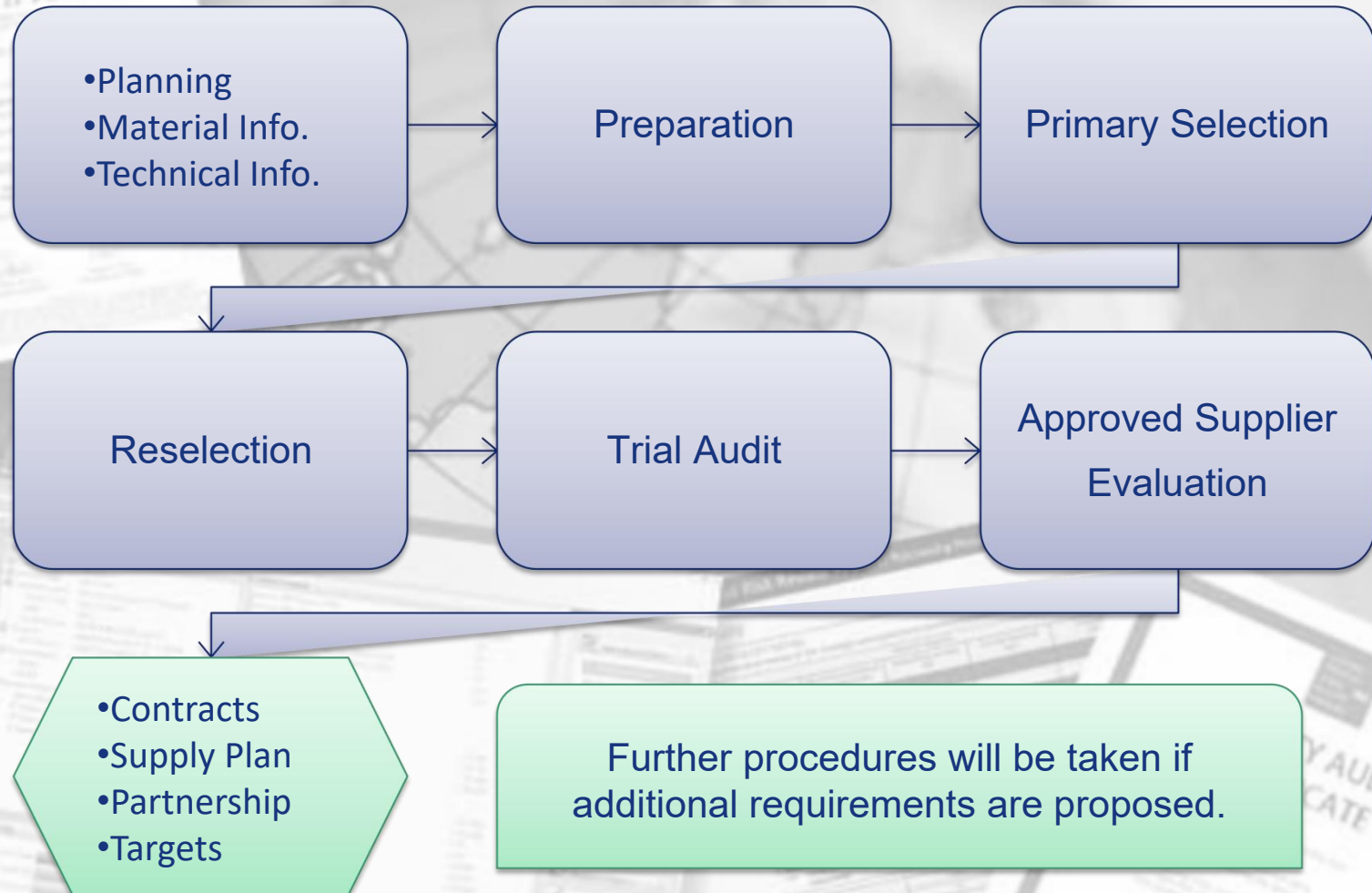


Additionally, the environment where LED luminaires are installed normally contains corrosive gas, vapors and dust or other mixtures, **Salt Spray Test** gives spray of salt solution of 5% onto the light to test the corrosion resistance ability of coatings and enclosure.

And **Integrating Sphere** is used to test and read out the data of lights like Electrical Parameters and Photometric Parameters.



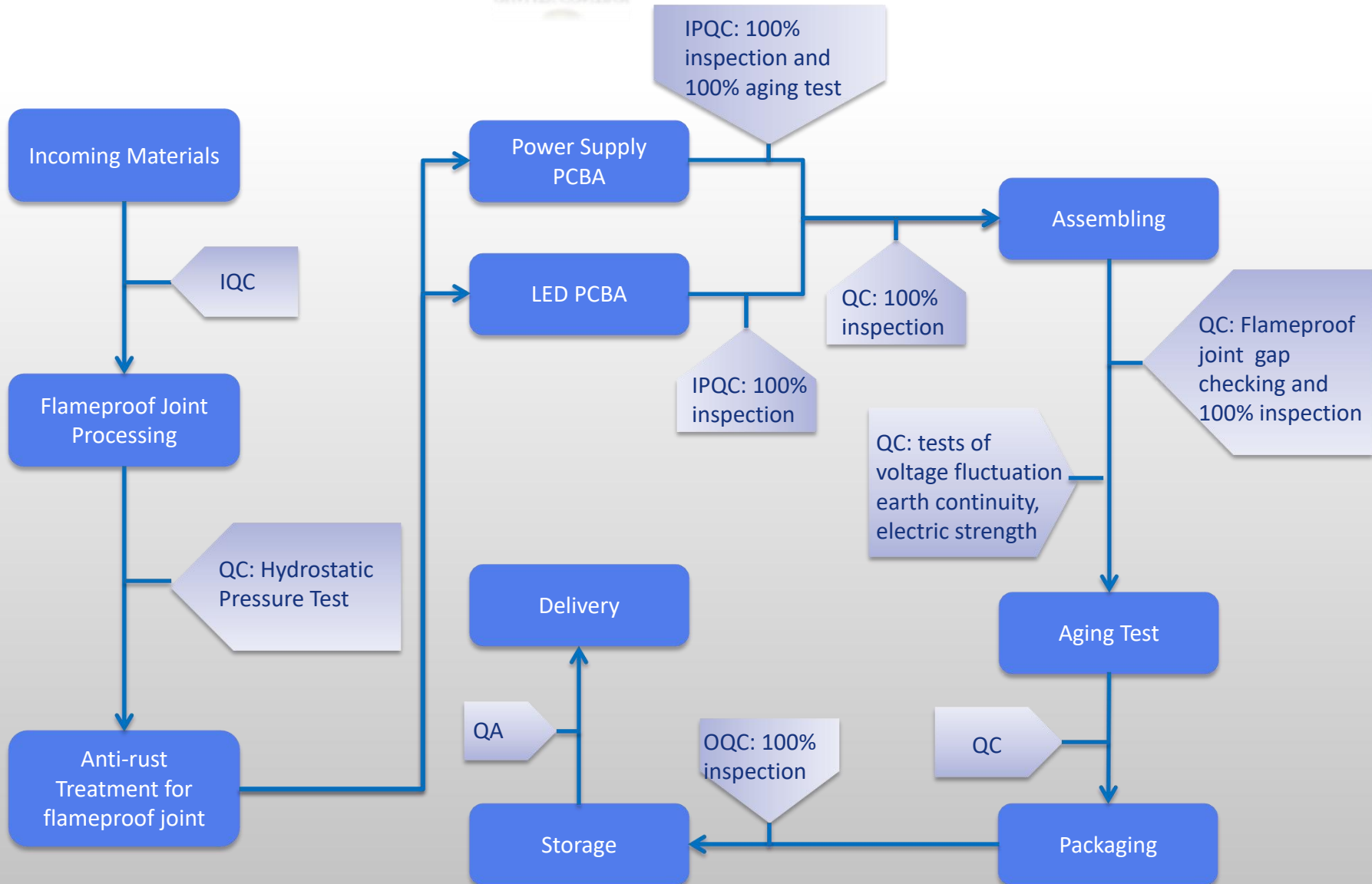
Supplier Audit



Supplier Evaluation



Production & Quality Control





Reflow Soldering Machine



Adept and organized staffs in KHJ Lighting hold a positive attitude towards the future, we are bold to take sincerity and responsibility to work as a unbreakable team with the innovative spirit, bring technology and hope to the times.



Wave Soldering Machine



6 Production Lines



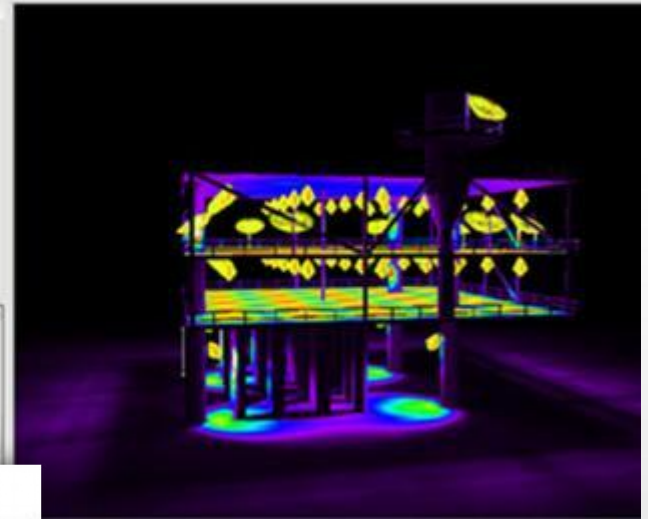
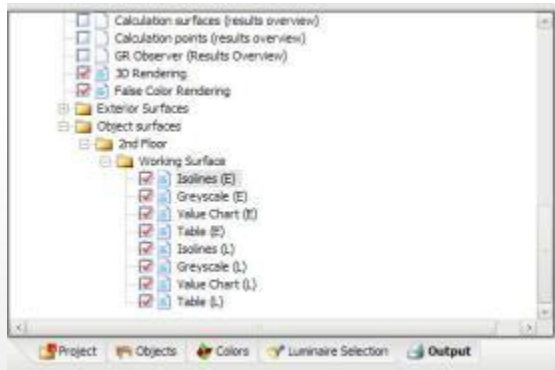


KHJ Office Block

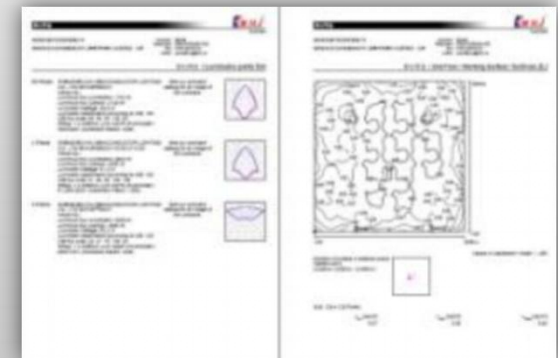
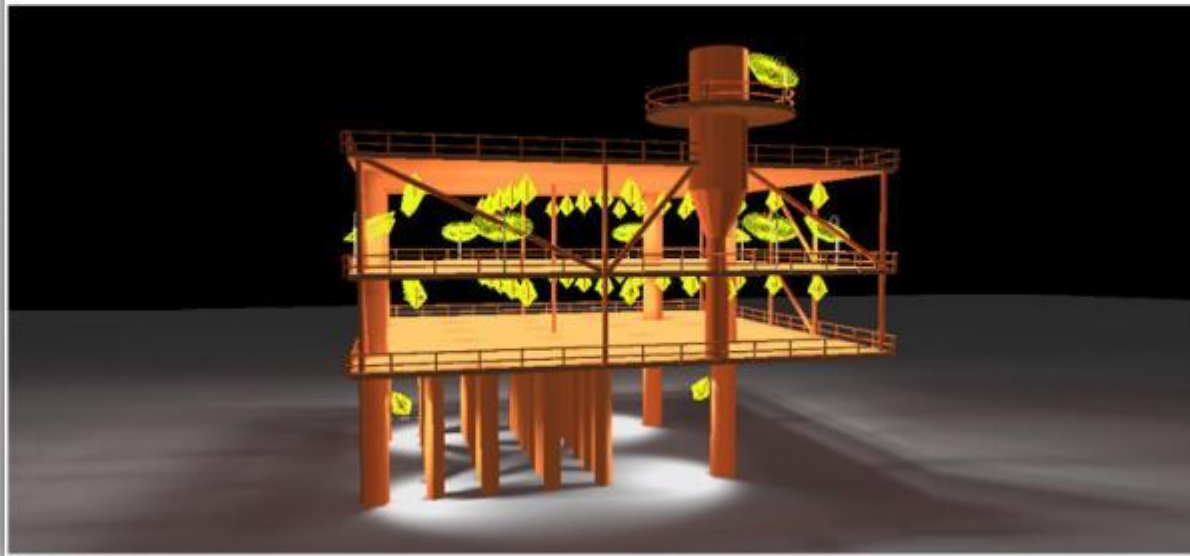




Solutions



Wellhead Platform - Golden Frog Series



[illegible]

Delivery the quotation

Solution Payback calculation

Solution is approved by customers

[illegible]

WU LED Road Light Ex. Application		Solution Through LED expt. Management Payback Analysis		2010-12-16
Safety Tower				
序	Payback Item	6.03 years	10.12 years	
1	Initial Investment	100,000	100,000	100,000
2	Operating Cost	10,000	10,000	10,000
3	Maintenance Cost	10,000	10,000	10,000
4	Residual Value	10,000	10,000	10,000
5	Payback Period	6.03 years	10.12 years	

Dear Wilson,
Thank you, for your reply. The solution is quite good and acceptable, please quote us on this solution.

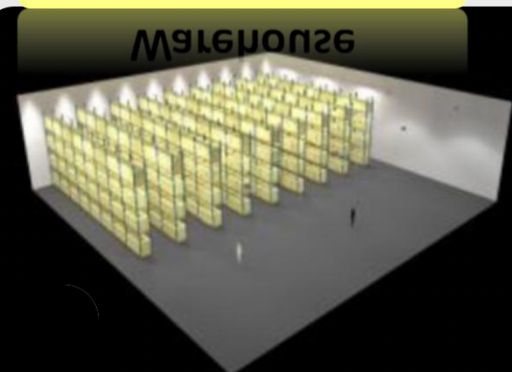
Robert Fries | Business Development Manager
Phone: +91 982 77 38 55 robert.fries@siemens.com www.siemens.com

Source: Wilson, Lynn [mailto:lynn@wilsn.org]
Sent: Tuesday, March 16, 2021 10:41 AM
To: National Archive

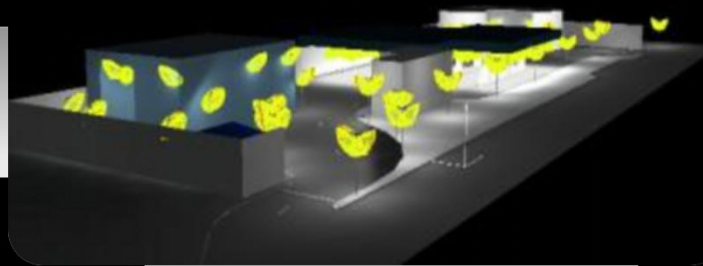
Drilling Site



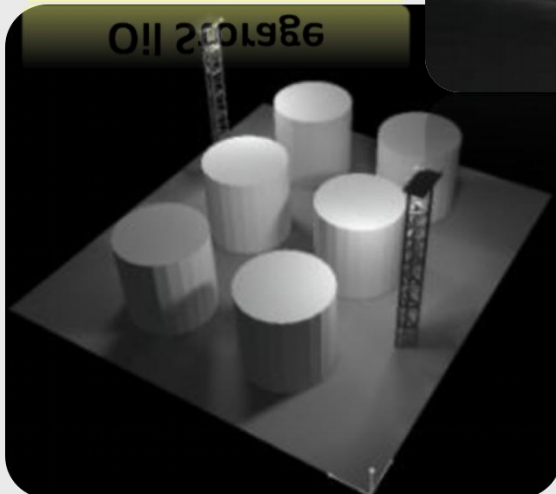
Warehouse



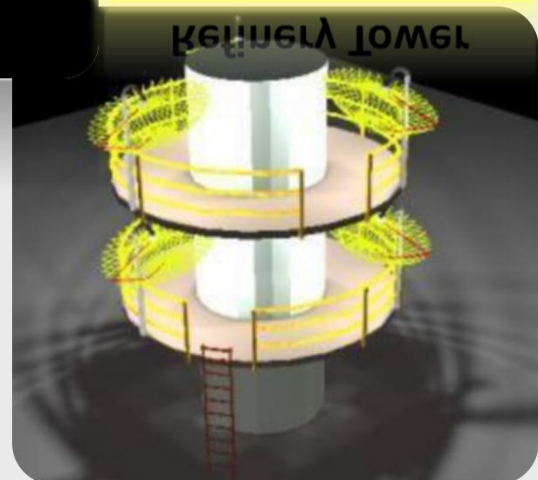
Gas Station



Oil Storage



Refinery Tower



Ship Project



Location: Dubai

- Grandweld

Project Time

- April. 2016

Lights Installed

- KSF18BC600H7V7CH-U-E 16pcs
- (with AC100-277V and 24-48V two inputs)





Project Name	Customer	Time	Technical Description
Ship Project	Grandweld	April, 2016	16PCS KSF18BC600H7V7CH-U-E to replace traditional fluorescents.

Gulfcraft Plant



Location:UAE

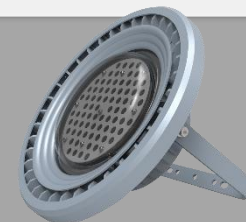
- Gulfcraft

Project Time

- April. 2015

Lights Installed

- KJF100H6V6CH-E





Project Name	Customer	Time	Technical Description
Gulfcraft Plant	Gulfcraft	April, 2015	44 pcs Jellyfish series KJF100H6V6CH-E

Petrochemical plant



Location: Jordan

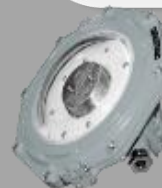
- Arab Potash

Project Time

- Dec. 2018

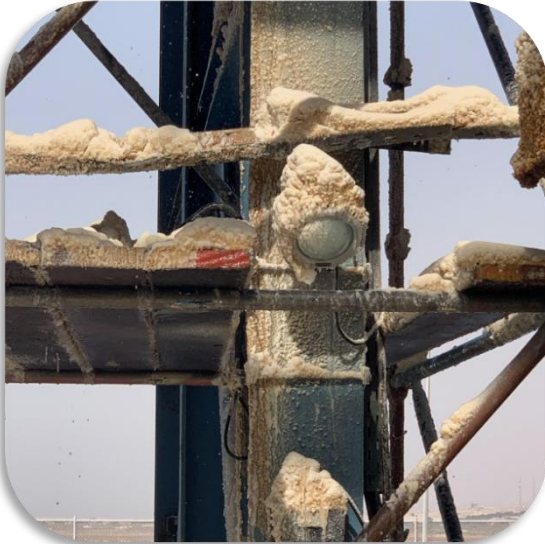
Lights Installed

- KFF60H6V6CH-J-H-E 1080pcs
- KFF45H6V6CH-J-H-E 325pcs
- KGFB30CH-H-E 140pcs
- KVN100SLCH-SPD-E 50pcs
- Ex-KFF60H6V6CH-J-H-E 120pcs

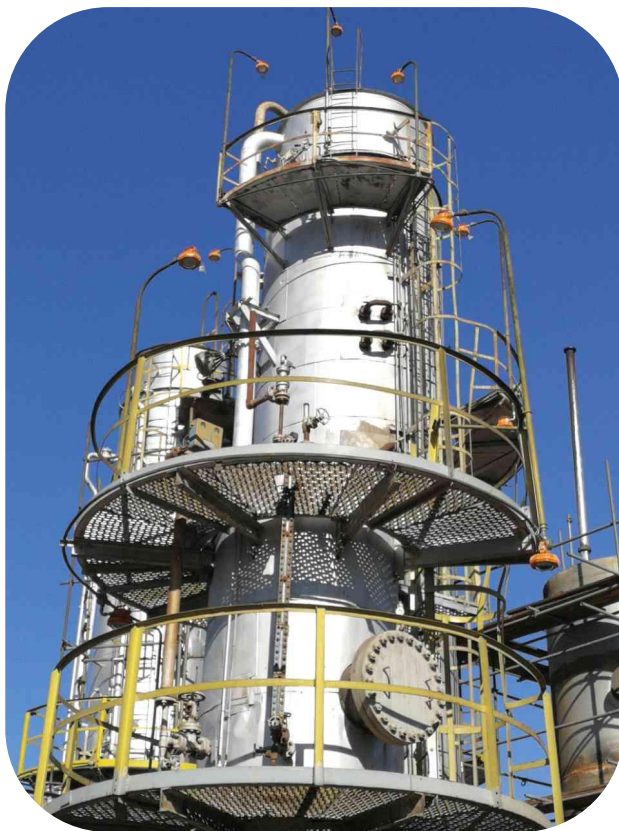




Project Name	Customer	Time	Technical Description
Petrochemical plant	Arab Potash	Dec. 2018	800 pcs KFF60H6V6CH-J-H-E 140pcs KFF45H6V6CH-J-H-E 280pcs KFF60H6V6CH-J-H-E 140pcs KGFB30CH-H-E 185PCS KFF45H6V6CH-J-H-E 50PCS KVN100SLCH-SPD-E 120PCS Ex-KFF60H6V6CH-J-H-E



Jordan petroleum refinery



Location: Jordan

Project Time

- Nov. 2017

Lights Installed

- Ex-KFF45H6V6NH-H-E 200pcs





Project Name	Time	Technical Description
Jordan petroleum refinery	Nov. 2017	200 pcs Ex-KFF45H6V6NH-H-E

Zinc&Lead Mine



Location: Mexico

- PENOLES

Project Time

- March. 2014

Lights Installed

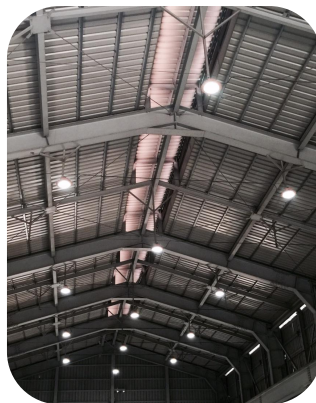
- Ex-KPLB120H6V6NH-E





Project Name	Customer	Time	Technical Description
Zinc&Lead Mine	PENOLES	Mar, 2014	200 pcs Polar bear explosion proof light

Orlen



Location: Poland

- Orlen

Project Time

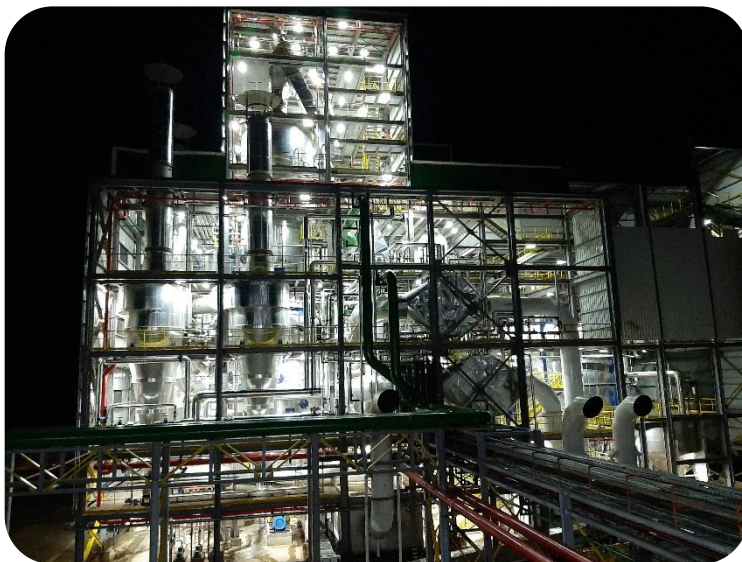
- January. 2015

Lights Installed

- Ex-KA30NH-E
- Ex-KPLB120H5V5NH-E
- Ex-KF120H5V5NH-E



SIM Refinery



Location: Algeria

Project Time

• SIM

Lights Installed

• Oct. 2019

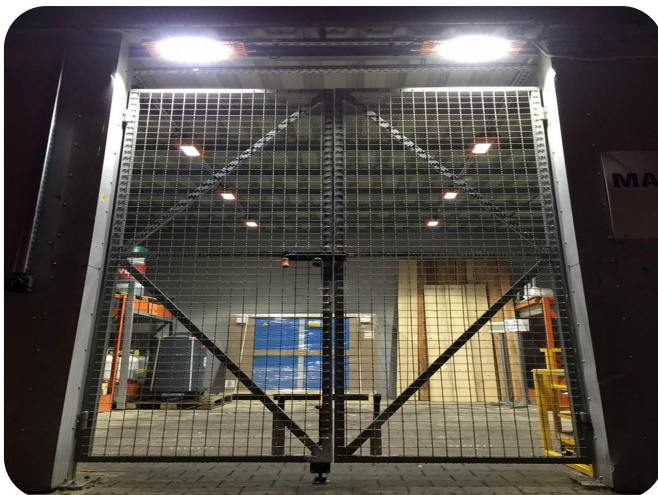
- Ex-KSF18600H7V7CH-U-E
298pcs
- Ex-KSF18600H7V7CH-DL-U-E
125pcs
- Ex-KSF721200H7V7CH-DL-U-E
12pcs





Project Name	Time	Technical Description
SIM Refinery	Oct, 2019	<p>Ex-KSF18600H7V7CH-U-E 298pcs</p> <p>Ex-KSF18600H7V7CH-DL-U-E 125pcs</p> <p>Ex-KSF721200H7V7CH-DL-U-E 12pcs</p> <p>Ex-KF150H6V6CH-E 24pcs</p>

BOSCH Depots



BOSCH

Location: Poland

- BOSCH Depots

Project Time

- 2015

Lights Installed

- Ex-KArowana
- Ex-KPolar Bear
- Ex-KFrog



Painting room lighting replacement project



Location:Germany

- ACC BEKU

Project Time

- Oct.,2016

Lights Installed

- Ex-KSF56 1200H7V7CH-U-E 15pcs



Fuel truck maintenance depot project



Location:UK

Project Time

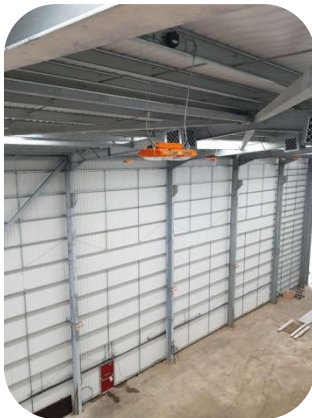
- Jan.,2018

Lights Installed

- Ex-KF120H6V6NH-E 5pcs



Offshore project



Location: UK

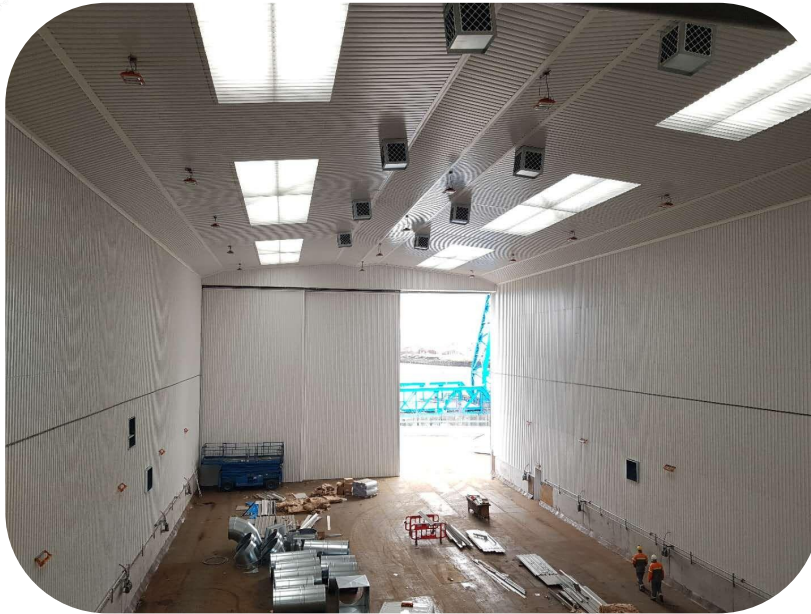
Project Time

- Dec, 2017

Lights Installed

- Ex-KPLB200H6V6NH-H-DA-E 42pcs
- Ex-KSF18600H7V7CH-ED-ON-E 10pcs
- Ex-KSF481200H7V7CH-D-E 4pcs
- Ex-KSF18 600H7V7CH-OFF-U-E 20pcs





Project Name	Time	Technical Description
Offshore project	Dec, 2017	<p>Ex-KPLB200H6V6NH-H-DA-E 42pcs</p> <p>Ex-KSF18600H7V7CH-ED-ON-E 10pcs</p> <p>Ex-KSF481200H7V7CH-D-E 4pcs</p> <p>Ex-KSF18 600H7V7CH-OFF-U-E 20pcs</p>

William Grant & Sons



Location: UK

Project Time

- June, 2015

Lights Installed

- Swordfish
- Brown Bear
- Polar Bear
- Forest Frog
- Golden Frog





Project Name	Time	Technical Description
Distillery project	June, 2015	<p>Swordfish 229pcs</p> <p>Brown Bear 60 pcs</p> <p>Polar Bear 52pcs</p> <p>Forest Frog 36 pcs</p> <p>Frog 24pcs</p> <p>Golden Frog 4pcs</p>

Dead sea works petrochemical plant



Location: Israel

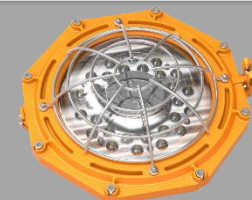
- Dead sea works

Project Time

- July 20, 2014

Lights Installed

- Ex-Golden Frog 30W 200pcs



ATM



Location: Netherlands

- ATM

Project Time

- 2014

Lights Installed

- Ex-KPolar Bear 240W





Oil tank storage lighting replacement project



Location: Netherlands

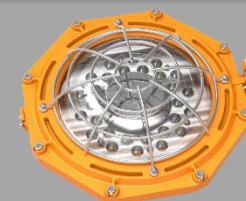
- ETT
- Oil tank storage

Project Time

- 2014

Lights Installed

- Ex-KGloden Frog



Shell refinery project



Location: Argentina

- Shell
- Refinery

Project Time

- Sep, 2017

Lights Installed

- Ex-KSF48600H7V7CH-ON-U-E
100pcs





Project Name	Time	Technical Description
Shell refinery project	Sep, 2017	100pcs Ex-KSF48600H7V7CH-ON-U-E

Ship Project



Location: Canada

Project Time

- Nov 2017

Lights Installed

- KSA720H1V1CH-MW-E
- KSA480H3V3CH-MW-E





Project Name	Country	Time	Technical Description
Ship Project	Canada	Nov.2017	KSA720H1V1CH-MW-E KSA480H3V3CH-MW-E

Sano petrochemical plant



Location: Israel

- Sano

Project Time

- Otc, 2016

Lights Installed

- Ex-KF150H6V6WM-H-E



Projects Reference



National Paints lighting replacement project



Location: Jordan

- Lighting replacement in paint factory
- National Paints

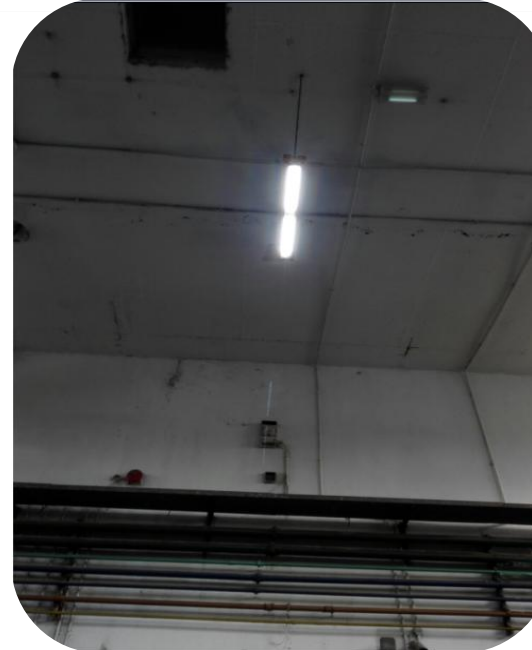
Project Time

- Mar, 2016

Lights Installed

- Ex-KSwordfish 36W
- Ex-KGolden frog 60W





Project Name	Customer	Time	Technical Description
National Paints lighting replacement project	National Paints	Mar.2016	Ex-KSwordfish 36W Ex-KGolden Frog 60W 36W Swordfish for replacing 2*36W fluorecence

Singapore Refining Company



Location: Singapore

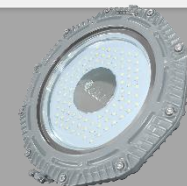
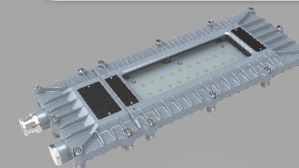
- SRC

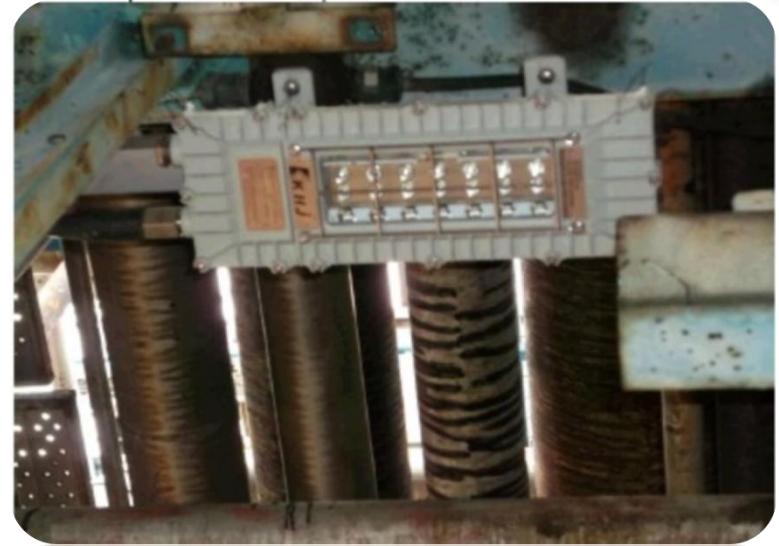
Project Time

- March. 20, 2013

Lights Installed

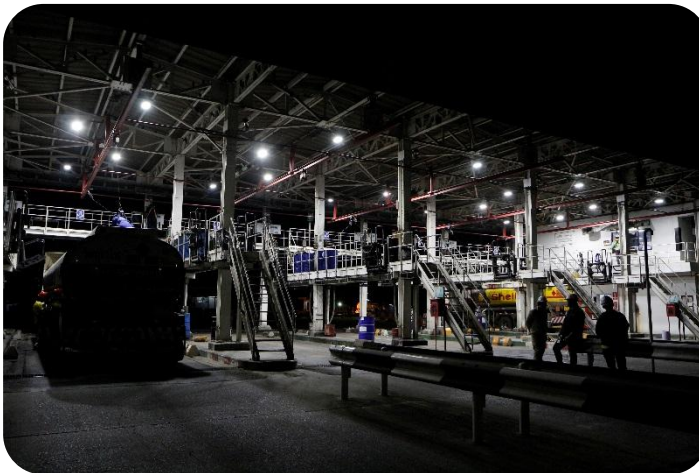
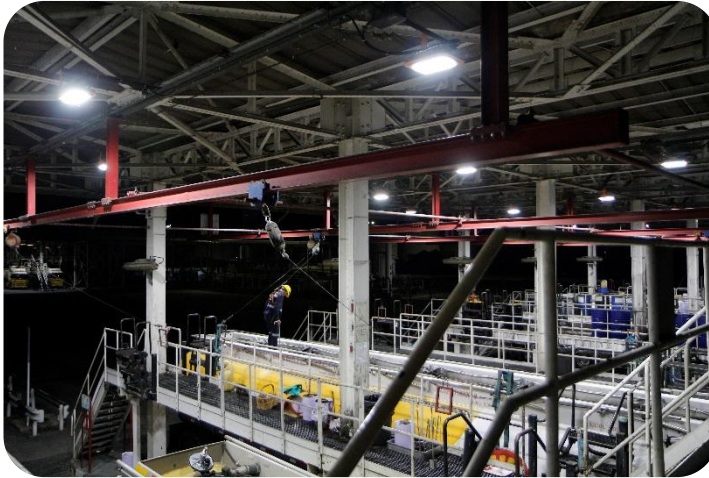
- Ex-KArowana
- Ex-KFrog





Project Name	Customer	Time	Technical Description
Replacement Traditional explosion proof light	Singapore Refining Company	Mar.20, 2013	20pcs Arowana and Frog used to replace the tradittional explosion proof light.

Thappline Project



Location: Thailand

- Refuel station
- Thappline

Project Time

- Feb, 2019

Lights Installed

- Ex-KPLB120H6V6CH-E 82pcs
- Ex-KFF60H5V5CH-J-E 36pcs





Project Name	Customer	Time	Technical Description
Thapline Project	Thapline	2019. Feb	Ex-KPLB120H6V6CH-E 82pcs Ex-KFF60H5V5CH-J-E 36pcs

Chemical Ethylene Project



Location: Malaysia

Project Time

- Nov., 2021

Lights Installed

- Ex-KSL150H6V6NH-E 117 pcs





Project Name	Time	Technical Description
Chemical Ethylene Project	Nov, 2021	117pcs Ex-KSL150H6V6NH-E

Petronas Chemical Polyethylene Sdn Bhd



Location: Malaysia

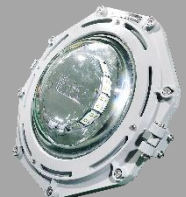
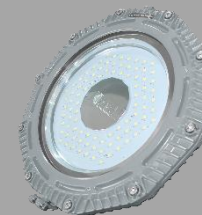
- Train 2 of Refinery

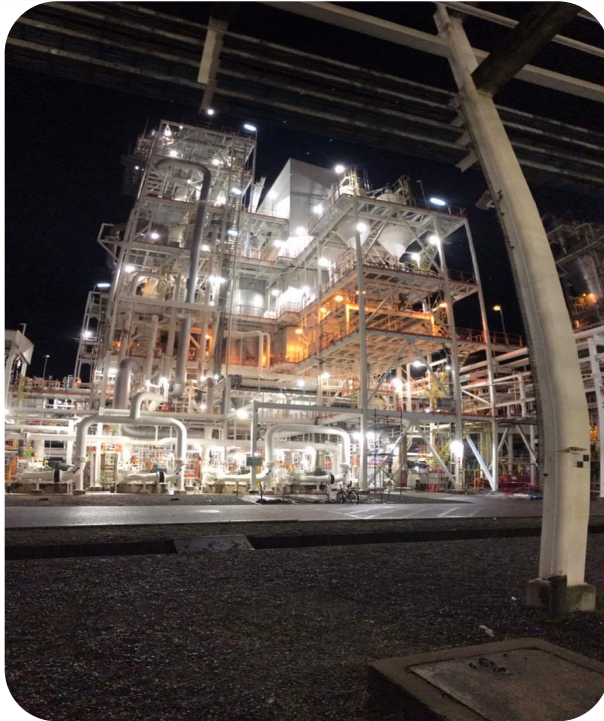
Project Time

- Dec., 2021

Lights Installed

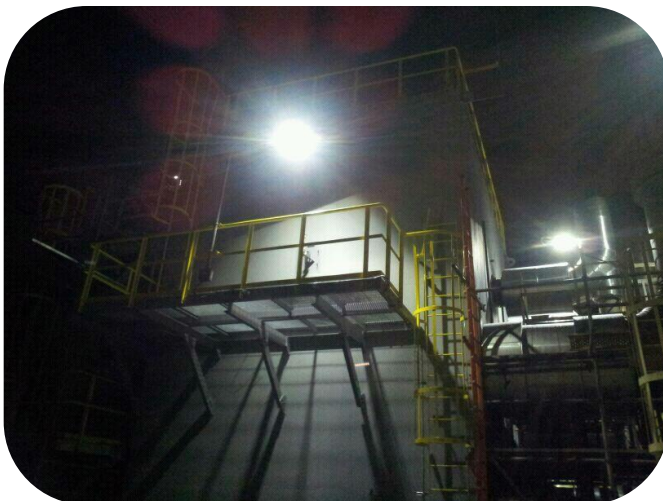
- Ex-KGFF60NH-E-G 200 pcs
- Ex-KF120H6V6NH-E-G 10 pcs





Project Name	Time	Technical Description
Petronas Chemical Polyethylene Sdn Bhd	Dec, 2021	200 pcs Ex-KGFF60NH-E-G 10 pcs Ex-KF120H6V6NH-E-G

GPPB Petronas Gas Berhad



Location: Malaysia

- GPPB Petronas Gas Berhad

Project Time

- Sep. 20, 2013

Lights Installed

- Ex-KArowana 280 pcs
- Ex-KPolar Bear 10 pcs





Project Name	Customer	Time	Technical Description
GPPB Petronas Gas Berhad lighting	Petronas Gas Berhad	Sep.20, 2013	280pcs Arowana and 10pcs Polar Bear at GPPB Petronas Gas Berhad for lighting

Petronas Polyethylene lighting upgrade Project



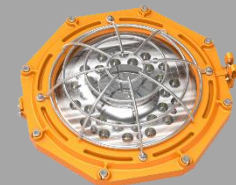
Location: Malaysia

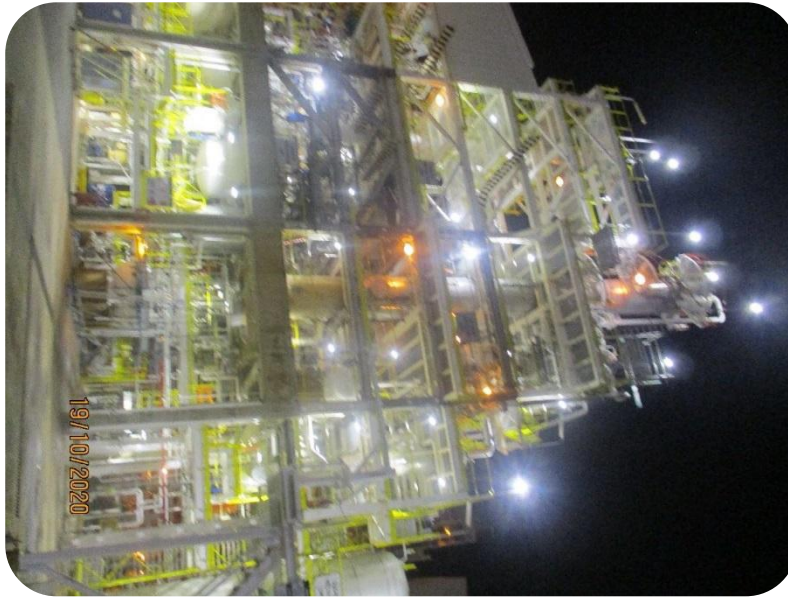
Project Time

- Sep., 2020

Lights Installed

- Ex-KF120H6V6NH-E-G 13 pcs
- Ex-KF150H6V6NH-E-G 27 pcs
- Ex-KGFB60NH-E-G 58pcs





Project Name	Customer	Time	Technical Description
Petronas Polyethylene lighting upgrade Project	PGB	Sep, 2020	Ex-KF120H6V6NH-E-G 13 pcs Ex-KF150H6V6NH-E-G 27 pcs Ex-KGFB60NH-E-G 58pcs

**Pertamina E&P
Lighting Replacement project**



Location: Indonesia

- Pertamina E&P

Project Time

- Sep, 2014

Lights Installed

- Ex-KFrog 120W 60Pcs
- Ex-KFrog 150W 43Pcs





Oil tank terminal –Lighting replacement



Location: Indonesia

- Pertamina UPMS 3

Project Time

- Oct, 2014

Lights Installed

- Ex-Polar Bear 200W
replace the conventional
HPS 400W



**Baker Hughes(Brunei)
Warehouse Lighting Replacement
project**



Location: Brunei

- Lighting replacement in warehouse

Project Time

- Sep, 2014

Lights Installed

- KPLB240H5V5CH-E 240W



Tsim Sha Tsui Wastewater Treatment Plant project



Location: Hong Kong

-
- DSD
- Tsim Sha Tsui Wastewater treatment plant

Project Time

- March, 2016

Lights Installed

- EX-KPLB200H4V4WM-E





Project Name	Customer	Time	Technical Description
Tsim Sha Tsui Wastewater Treatment Plant project	DSD	March, 2016	78Pcs of LED Explosion proof Polarbear 200W to replace their conventional 400W HPS lights.

Bangchak lighting replacement project



Location: Thailand

- Bangchak

Project Time

- Otc, 2016

Lights Installed

- EX-KF150H6V6CH-H-E 38pcs
- EX-KAF30CH-H-E 10pcs





Project Name	Customer	Time	Technical Description
Bangchak lighting replacement project	Bangchak	Otc,2016	EX-KF150H6V6CH-H-E 38pcs EX-KAF30CH-H-E 10pcs

Oil Tank



Location: USA

- Oil Tank

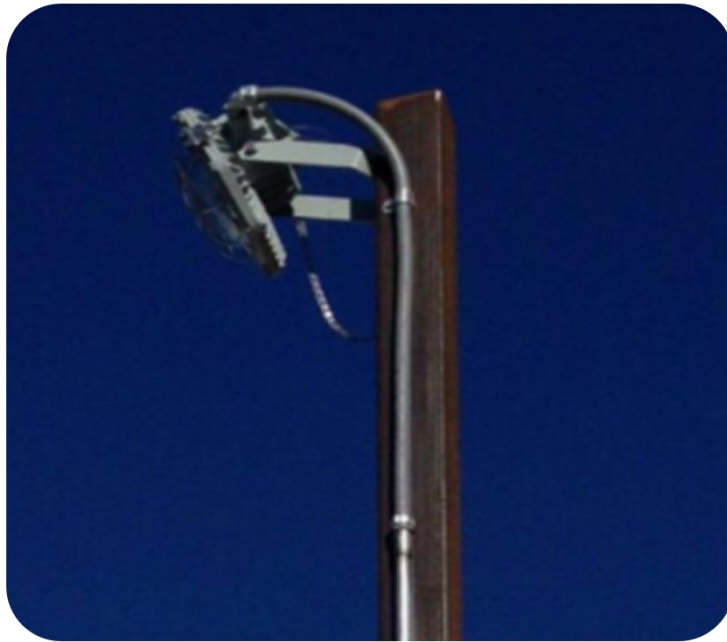
Project Time

- Oct. 10, 2013

Lights Installed

- Ex-KGolden Frog





Project Name	Customer	Time	Technical Description
Oil Tank	west durable lighting	Otc.10. 2013	12pcs explosion proof Golden Frog to replace 150W halogen lamp

Projects Reference



PT.Pertamina (Persero) DPPU Depot Sepinggan



Location: Indonesia

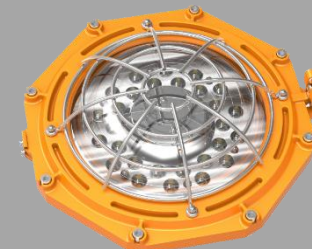
- PT.Pertamina (Persero) DPPU Depot Sepinggan

Project Time

- Jan.2014

Lights Installed

- Ex-Golden Frog 60W





Project Name	Customer	Time	Technical Description
PT.Pertamina (Persero) DPPU Depot Sepinggan	PT Pertamina	Jan,2014	Ex-Golden Frog 60W to replace the conventional Ex Fluorescent tube light fixture

Liquigas LPG bottling facility project



LIQUIGAS

Location: Italy

- Liquigas

Project Time

- Oct. 2013

Lights Installed

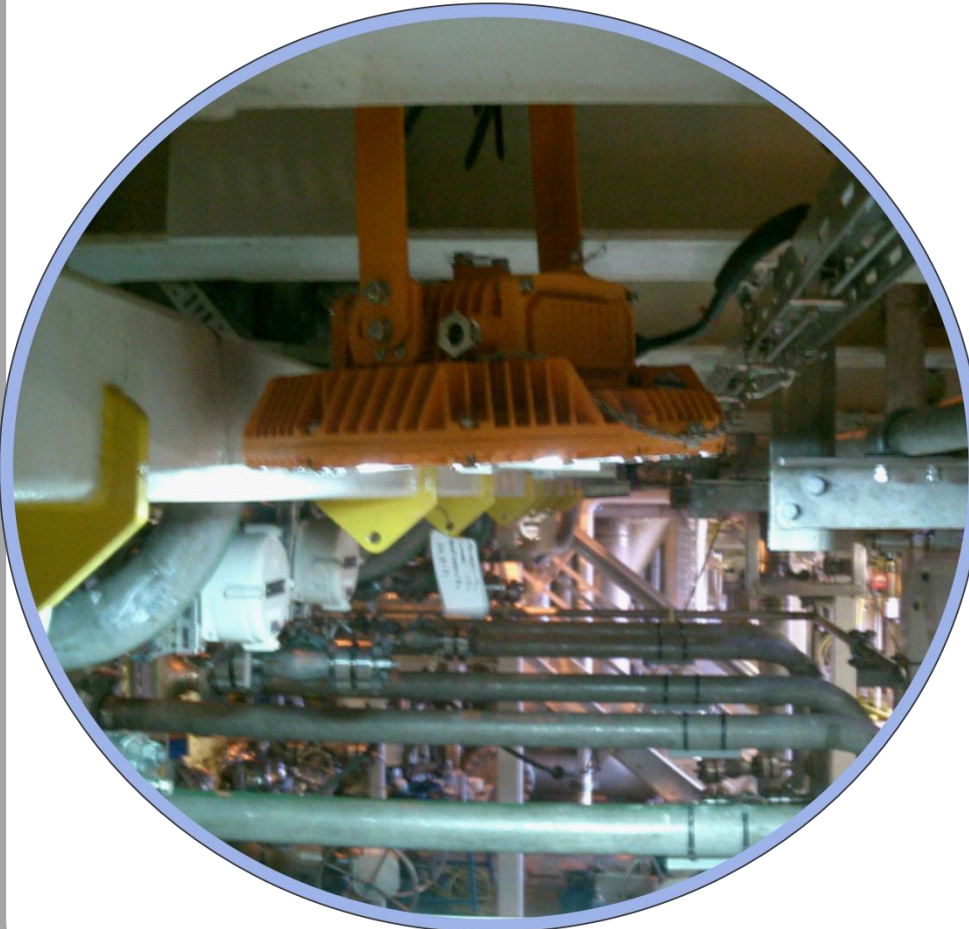
- Ex-KF120H5V5CH-E 120W
- Ex-KF120FWCH-E 120W





Project Name	Customer	Time	Technical Description
Liquigas LPG bottling facility project	Liquigas	Otc, 2013	<p>To replace the Copper 2*36W fluorescent lamp</p> <p>Installed KHJ's Explosion proof light</p> <p>Ex-KF120H5V5CH-E 120W 12Pcs</p> <p>Ex-KF120FWCH-E 120W 2Pcs</p>

ConocoPhillips



ConocoPhillips

Location: Norway

- ConocoPhillips

Project Time

- Nov. 2013

Lights Installed

- Ex-KF150
150W





Project Name	Customer	Time	Technical Description
ConocoPhillips' Project	ConocoPhillips	Nov,2013	150W to instead of 400W traditional lamp

Shell Jetty pot update project



Location: Philippines

- Shell Philippines

Project Time

- Dec. 2013

Lights Installed

- Ex-KPolar Bear 200W
- Ex-KPolar Bear 80W





Project Name	Customer	Time	Technical Description
Shell Jetty pot update project	Shell Philippines	Dec, 2013	<p>To replace the Conventional HPS 400W Light fixture</p> <p>Installed KHJ's Explosion proof light</p> <p>Ex-KPolar Bear 200W 10Pcs</p> <p>Ex-KPolar Bear 80W 6Pcs</p>

Exxonmobil warehouse lighting replacement project



ExxonMobil

Location: Malaysia

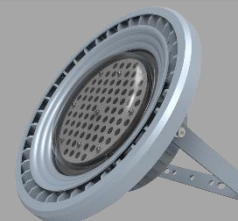
- Exxonmobil warehouse in Kemaman

Project Time

- Jan .8th, 2014

Lights Installed

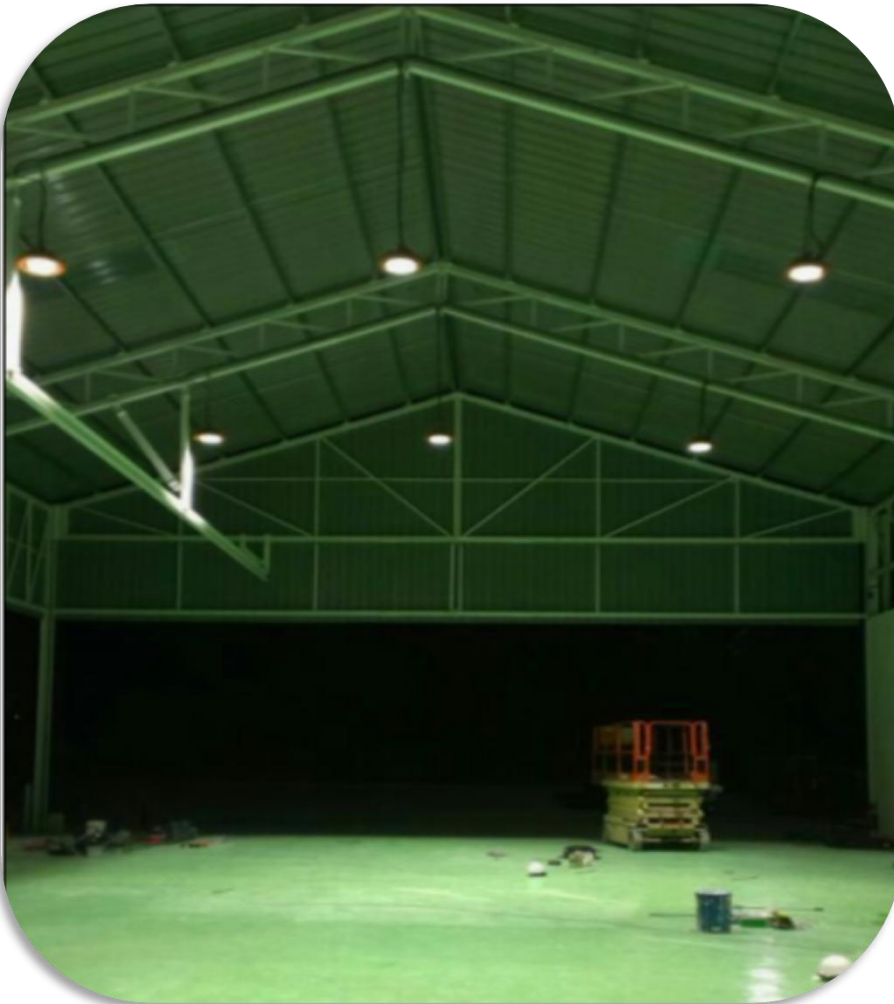
- K Frog series 150W
- K Jellyfish: 100W





Project Name	Customer	Time	Technical Description
Exxonmobil warehouse lighting replacement project	Exxonmobil Malaysia	Jan.08,2014	<p>To replace the Conventional HPS 400W Light fixture</p> <p>Installed KHJ's</p> <p>Frog series 150w 80Pcs</p> <p>Jellyfish series 100W 30Pcs</p> <p>Installation height is :7.5m</p> <p>Average lux level is 100lx</p>

Petronas Dagangan



Location: Malaysia

- Petronas

Project Time

- Feb.. 2014

Lights Installed

- EX-KF150 150W



Project Name	Customer	Time	Technical Description
Petronas Dagangan	Petronas Dagangan Dagangan	Feb, 2014	Petronas Methanol production area Replace the Conventional HPS 400W Light fixture

Yanchang Drilling Site



Location: Shaanxi, China

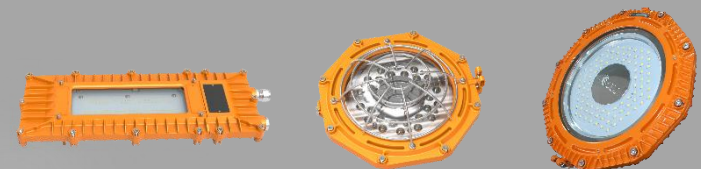
- 30525 Drilling Crew,
- Yanchang Drilling Company

Project Time

- May.13-Jun.01, 2012

Lights Installed

- Ex-KGolden Frog
- Ex-KArowana and Ex-KFrog series





Project Name	Customer	Time	Technical Description
Drilling Crew No. 30525, 2nd Project Dept.	ChuangQing Drilling Co., Ltd ChangQing Drilling CNPC	May,2012	Retrofit lighting plan, existing 53 sets of ex-proof Fluorescent lamps breaking down 5 times a week, which was replaced by 31 sets of KHJ LED ex-proof light, better luminance and better shock resistance, Ex-KGF60 LED Ex-KA30 LED Ex-KF150 LED

Oil Pumpjack Monitoring



Location: Shaanxi, China

- Changqing Oilfield Company – Petro China

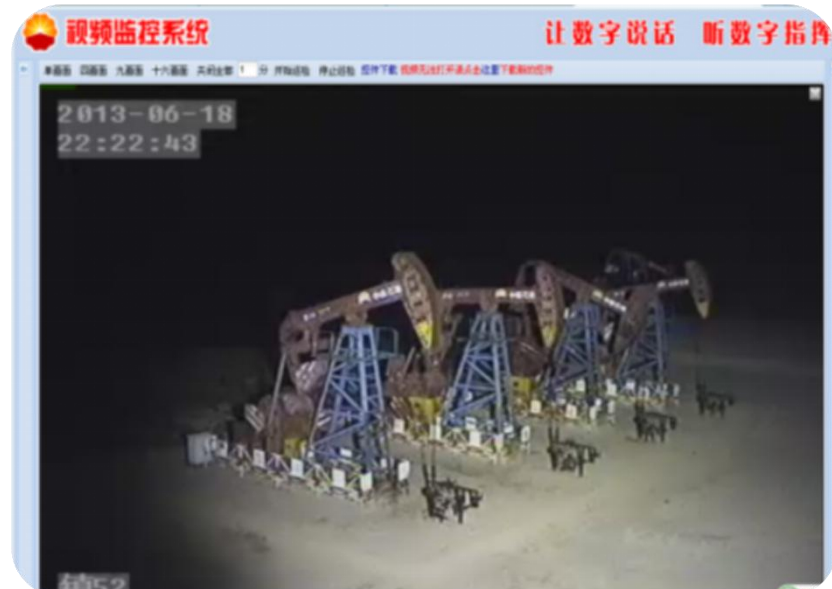
Project Time

- Jun 18th, 2013

Lights Installed

- Ex-KPolar Bear 240W





Project Name	Customer	Time	Technical Description
Oil Pumpjack Monitoring	Changqing Oilfield Company – Petro China	June, 2013	<p>For the purpose of realizing digitalization of oilfields located in Shaanxi, PetroChina installed CCTV system to monitor their thousands of pumpjacks with cameras 24/7.</p> <p>1 set of Ex-KPolar Bear 240W installed on the pole with camera and siren to provide full illumination for 4 sets of pumpjacks area.</p>

Innovation

**Focus on Security and
Energy-saving**

Sincerity

Teamwork

**Carry Brightness and
Sustainable Future**

Responsibility



Thank you!