# LET FLOWEX LIGHT YOUR WAY

**flowex**

**Discover the new frontier in explosion-proof lighting.**

CORTEM® GROUP

To be sure to be safe.

FlowEx is the latest technological revolution from Cortem, combining lighting efficiency, a lightweight build, ease of installation and an adaptability to any type of classified environment. **It uses heat-destroyer technology for optimal heat dissipation.**



Innovative design

Unique – 151 real l/w

Smart heat destroyer heat-dissipation system

Zone 1, 2, 21, 22

Available in three sizes

Lightweight and compact: ultra-thin die-cast aluminium
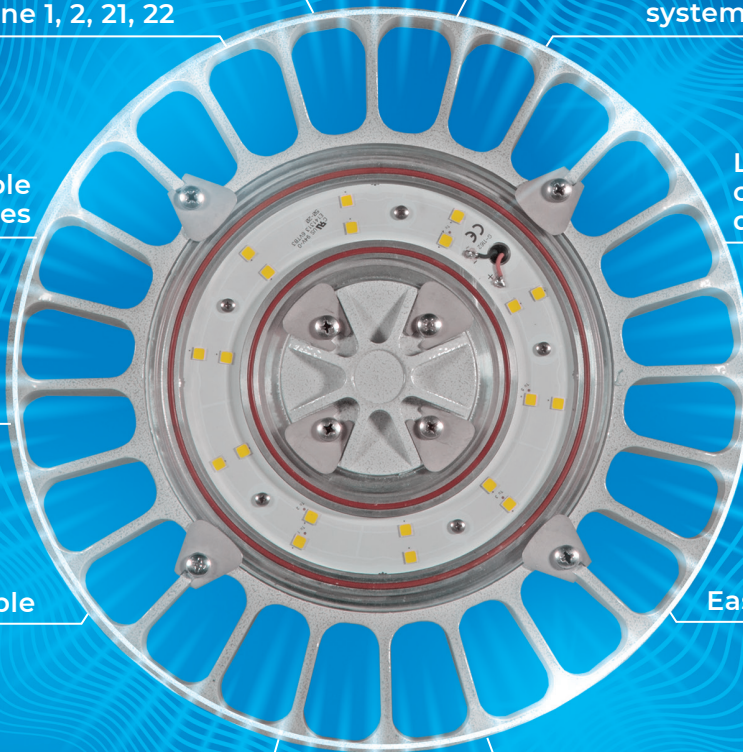
Power 30W to 220W

One light, multiple levels of protection
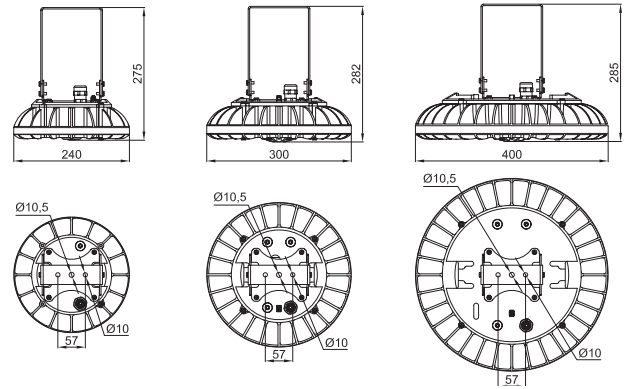
Recyclable

Easy installation

CRI > 70

Two patents filed

## COMPACT SIZES AND INSTALLATION ZONES

FlowEx comes in three different sizes and a wide range of voltages and powers. The FlowEx series has been optimally designed and certified according to installation requirements, combining the concept of an LED with protection levels Gb, Db and Gc suitable for use in classified zones 1, 2, 21 and 22.
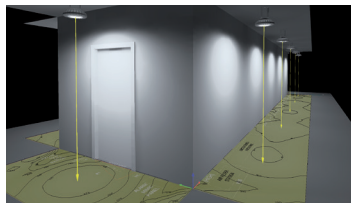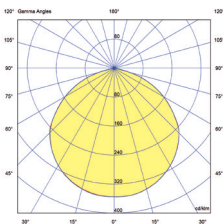
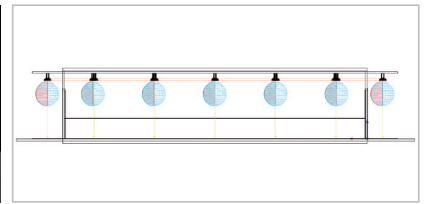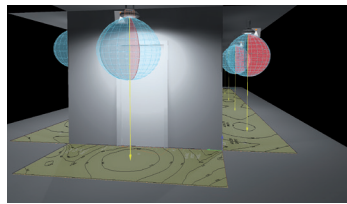## LIGHT OUTPUT OF UP TO 27,961 LUMENS

FlowEx offers a high light output in lumens ranging from 4,784 lm to 27,961 lm and a maximum overall efficacy of 151 lm/W (real and constant), thanks to its high-power LED boards.

## LIGHT DISTRIBUTION CURVE AND LIGHTING SIMULATION

FlowEx ceiling-mounted lighting fixtures.
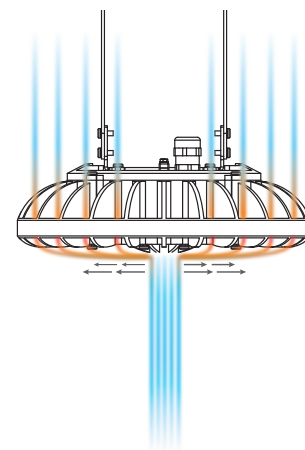
*Perimeter lighting on 13m and 3m lengths*

*Representation of external installation*

## INNOVATIVE, PATENTED DESIGN

FlowEx's patented finned body with heat-destroyer technology is made of high-quality die-cast aluminium and serves as an excellent heat sink for the circular crown-shaped LED board. The raised central element allows fresh outside air to disperse heat, creating an upward flow of air over the surfaces that exploits natural convection.

Furthermore, the geometric structure of the cooling fins reduces the deposits of combustible dust and allows air or water present in the surrounding area to self-clean the lighting fixture.
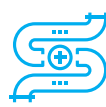
## SECTORS AND AREAS OF USE

Onshore facilities

Offshore facilities

Chemical and petrochemical facilities

Agribusiness facilities

Waste water treatment plants

Naval installations

Low temperatures

## MECHANICAL FEATURES

**Body:** Aluminium alloy die-cast with low copper content. With cooling fins for high levels of heat dissipation
**Front glass:** Tempered, resistant to high temperatures and shocks
**Seals:** Silicone resistant to acids, hydrocarbons and high temperatures
**Fastening bracket:** Galvanized steel
**Screws:** Stainless steel
**Entry point:** 1 ØM20. Fixture complete with a NAV20IB cable gland. Possibility of different holes for cable entry.
**Surface finishing:** Untreated aluminum or with paint in polyester RAL 7035 (Light grey)
**Corrosion resistance:** The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test)

## ELECTRICAL FEATURES

| | FLOWEX-..060.. | FLOWEX-..080.. | FLOWEX-..100.. |
|---|---|---|---|
| **Supply voltage:** | 100-277 V AC | 100-277 V AC | 100-277 V AC |
| **Rated frequency:** | 50-60 Hz ±5% | 50-60 Hz ±5% | 50-60 Hz ±5% |
| **Connection:** | Cable entry directly to the terminal board L, N, PE. Max. 4mm2 cross-section | | |
| **Power factor:** | >0.95 | >0.95 | >0.95 |
| **EMC (Electromagnetic Compatibility):** | EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3 | | |
| **THD (Total Harmonic Distortion):** | <10% | | |
| **Over-voltage protection:** | 4 kV | 4 kV | 4 kV |
| **Driver performance levels:** | Over-Voltage Protection, Over-Current Protection, Short-Circuit Protection | | |
| **Dimming (on request for -MN version only):** | (0-10 V) or PWM or resistor | (0-10 V) or PWM or resistor | (0-10 V) or PWM or resistor |

## PHOTOMETRIC FEATURES

| | | | |
|---|---|---|---|
| **Multichip LED:** | High power LED | High power LED | High power LED |
| **Viewing angle:** | 120° | 120° | 120° |
| **Colour temperature:** | 5000 K | 5000 K | 5000 K |
| **CRI:** | >70 | >70 | >70 |
| **Instant Restrike:** | YES | YES | YES |
| **L90:** | > 60000 h | > 60000 h | > 60000 h |

*\* Test performed at 230 V AC*

## CERTIFICATE DATA

| | | | |
|---|---|---|---|
| **Classification:** | Group II | Category 2GD/3G | |
| **Installation:** EN 60079.14 | **zone 1, 2, 21, 22** <br> FLOWEX-ME | **zone 2, 21, 22** <br> FLOWEX-MN | |
| **Marking:** | CE 0722 (Ex) II 2GD - Ex eb mb IIC T.. Gb - Ex tb IIIC T..°C Db IP66 | | FLOWEX-ME |
| | CE (Ex) II 3G - Ex nR IIC T.. Gc IP66 <br> CE (Ex) II 2D - Ex tb IIIC T..°C Db IP66 | | FLOWEX-MN |
| **Certificate:** | (ATEX) CML 21 ATEX 3606X | | FLOWEX-ME |
| | (ATEX) CML 21 ATEX 4607X <br> (ATEX) CML 21 ATEX 3610X | | FLOWEX-MN |
| | (IECEx) CML 21.0070X | For all IEC Ex certificate data, download the certificate from www.cortemgroup.com | |
| **Standards:** | CENELEC EN60079-0: 2018, EN60079-7: 2015, EN60079-15: 2019, EN60079-18: 2015, EN60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/EU <br> IEC60079-0: 2017, IEC60079-7: 2015, IEC60079-15: 2010, IEC 60079-18: 2014, IEC60079-31: 2013 | | |
| **Temperature class:** | Visit www.cortemgroup.com for the full catalogue | | |
| **Ambient temperature:** | -60°C +60°C <br> Visit www.cortemgroup.com for the full catalogue | | |
| **Degree of protection:** | IP66 | | |