QPS Evaluation Services Inc

Testing, Certification and Field Evaluation Body
Accredited in Canada, the USA, and Internationally

Certificate Number
QPS 22ATEX50002X

EU Type Examination Certificate

(1) **Equipment intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(2) EU Type Examination Certificate Number: QPS 22ATEX5002X Issue Number: 00

(3) Product: LED Luminaires Model:

1. Killark's WM4L/VM4L/VMLX/VMLX
2. Chalmit's EN2C / VMLX

See Annex for the detail of Models, and Temperature classification

(4) Manufacturer:

1. Killark - A Division of Hubbell Inc. (Delaware)
2. Chalmit-A Division of HUBBELL INCORPORATED (Delaware)

(5) Address:

1) 2112 Fenton Logistics Park Blvd.
Fenton, Missouri 63026, United States of America.

2) 388 HILLINGTON ROAD, GLASGOW, UK G52 4BL

(6) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(7) QPS Evaluation Services Inc. 81 Kelfield St., Units 7-9, Toronto, ON M9W 5A3, Canada, Notified Body Number 2900, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

(8) The examination and test results are recorded in confidential test report no. ATX35487-25
Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

Standard	Edition
EN IEC 60079-0:2018	2018
EN IEC 60079-31	2014

(9) If an 'X' suffix appears after the certificate number, it indicates [that the equipment is subject to conditions of safe use.

(10) This EU Type Examination certificate only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

(11) The marking of the product shall include the following:

II 2 D Ex tb IIIC T135 Db, IP66

(12) **SCHEDULE**

(13) **to EU Type Examination Certificate QPS 22ATEX5002X** Issue No. **0**

(14) **Description**

This certificate covers the VM4L /WM4L / VMLX Series LED luminaires are rated inputs are 100 thru 277 Volt, and 378-480 Vac 50/60Hz and 12-24 Vdc or 105 thru 250 VDC and The VMLX..iE series LED luminaires are rated inputs 100 thru 277 Volt, 50/60 Hz. The VM series luminaires is intended to install in the permanent location where moisture, dirt, duct, and hazardous condition atmospheres present.

The luminaire enclosure comprises of Mounting Splice Boxes, LED tank assembly, Reflector and Optic. An optional wired guard, Battery Backup and dome reflector can be attached to the LED Tank Assembly**.**

Type identification: LED Luminaires Models.

1. Killark's WM4L/VM4L/VMLX/VMLX
2. Chalmit's EC2N / VMLX

(15) **Electrical data**

Input voltage:

Standard Version: WM4L/VM4L/VMLX/VMLX Series
12-24 Vdc, 100-277 VAC; and 347-480Vac, 50/60 Hz, or 105-250 VDC
Battery Backup Version: VMLX..iE
100-277 VAC, 50/60 Hz

(16) **Installation instructions**

Document	Sheets	Rev	Title
K1462-IOM IECEx-ATEX VM4L	4	R0522	Installation Instructions (IOM) for VM4L
I-EC2N-04 IOM EC2N ECO-6-030-22 R0522	8	R0522	Installation Instructions (IOM) for EC2N
K1531 IOM IECEx-ATEX VMLX	4	R0522	Installation Instructions (IOM) for VMLX

(17) **Report Number: ATX35487-25**

(18) **Specific conditions of use**

- Read Installation, Operation and Maintenance Manual first.
- Do not open when energized.
- Do not open when an explosive atmosphere is present.
- The Luminaire shall only be installed where there is a low risk of mechanical damage.

(19) **Essential Health and Safety Requirements**

Covered by the standards listed at item (8).

(20) **Test documentation**

As listed in Report No. ATX35487-25

(21) **Certificate history**

Issue 0 - initial certificate

(22) The following documents describe the equipment or component defined in this certificate:
Issue 0.

Drawing No	Sheets	Rev	Date	**Title**
52428-2A	1	A	26-04-2022	Product Label (IECEx/ATX) VM4L/WM4L/VMLX (For Killark Series)
52428-4A	1	A	26-04-2022	Product Label (IECEx/ATX) VMLX. VM4L/WM4L/VMLX (For Chalmit Series)
52436	1	A	04-27-2022	Assembly, VMLX Luminaire

Issued By: Rob Kohuch

Signature: 

Date: April 30, 2022

Annex

I. Nomenclature for WM4L / V4ML / (for Killark) and EC2N (for Chalmit brands)

Item	Detail

Type identification

Series VM4L B 130 30 0 0 00 0 00 (Sample)

WM4L/V4ML/EC2N	B	130	_/E2	30	0	0	00	0	0
1	2	3	4	5	6	7	8	9	10

1: Housing Series Killark's Model: WM4L or VM4L. or Chalmit's Model: EC2N

2: Type of heat sink: **B**: Bulb, or C: Concave (Killlark's Only)

3: Rated light Wattage:

Killark's Rating option	Chalmit's rating option
18 or 130 = 130 Watts	16L
14 or 105 = 105 Watts	--
120 = 120 Watt	--
100 = 100 Watts	--
12 or 090 = 90 Watts	12L
080 = 80 Watts	--
070 = 70 Watts	--
9 or 065 = 65 Watts	09L
055 = 55 Watts	--
7 or 050 = 50 Watts	--
6 or 040 = 40 Watts	06L

4: Battery Backup model: (blank No backup Mode) / E2 – Battery Backup

5: Input Voltage: Killark: **30**: 100-277 Vac, or **34**: 105-250Vdc or
Chalmit's: 'LE'. 100-277 Vac

6: Mounting Type:

A—Pendant
B—Wall Bracket
C—Cone Top
D—Stanchion 25°
X—Ceiling
S—Stanchion Straight 90°

7: Conduit Entry:

2—3/4" NPT (A,B,C,X)
3—1" NPT (A,B,C,X)
4—1 1/4" NPT (D,S),
5—1 1/2" NPT (D,S)
6—3/4" NPT 5-Hub (X),
7 --1" NPT 5-Hub (X)
8—M20 4-Hub (X),
9 --M25 5-Hub (X)

8: Optic:

GL = Glass Globe (VMG25)
GG = Globe and Guard
R5 = Refractor type 5 (VMR255)
R3 = Refractor type 3 (VMR253)
R1 = Refractor type 1 (VMR251)
ER = Enclosed Reflector (VMER40)
S5 = 12" Spin top refractor type 5(VZRG4050)
S2 = 12" Spin top refractor type 2(VMRG4020)
GF – 12" Spin-top Flat Glass Optic (VZRGF12)

9– Guard

G = Guard, **N** = No Guard

10- Options

XXXX - Four digit number referring to correlated color temperature and the color rendering Index

TURTLE-Amber colored LEDs primarily used to protect wildlife
PCAMBER-Amber colored LEDs that provide the amber color through **P**hosphor **C**oating.

II. Temperature Classes (for Killark) and EC2N (for Chalmit brands)

Catalog Number	Rated Ambient Temp °C	LED Type	LED Watts	"ec" IIC	"td" IIIC	Supply Wire Temp Deg C
				Globe/Refractor w/ Reflector		
VM4L(B/C)13030	40	D/E/**G**	130	T4	83˚C	75
VM4L(B/C)13030	55	D/E/**G**	130	T140˚C	83˚C	90
VM4L(B/C)10530	40	C/F/**G**	105	T4	83˚C	75
VM4L(B/C)10530	55	C/F/**G**	105	T140˚C	83˚C	90
VM4L(B/C)10534	40	C	105	T4	83˚C	75
VM4L(B/C)10534	55	C	105	T140˚C	83˚C	90
VM4L(B/C)10030	40	D/E/**F/G**	100	T4	83˚C	75
VM4L(B/C)10030	55	D/E/**F/G**	100	T4	83˚C	90
VM4L(B/C)09030	40	D/E/**G/H/I**	90	T4	83˚C	75
VM4L(B/C)09030	55	D/E/**G/H/I**	90	T4	83˚C	90
VM4L(B/C)08030	40	C/**G/H/I**	80	T4	83˚C	75
VM4L(B/C)08030	55	C/**G/H/I**	80	T4	83˚C	90
VM4L(B/C)07030	40	D/E/**G/H/I**	70	T4	83˚C	75
VM4L(B/C)07030	55	D/E/**G/H/I**	70	T4	83˚C	90
VM4L(B/C)06530	40	D/E/**G/H/I**	65	T4	83˚C	75
VM4L(B/C)06530	55	D/E/**G/H/I**	65	T4	83˚C	90
VM4L(B/C)05530	40	C/D/**E/G/H/I**	55	T4	83˚C	75
VM4L(B/C)05530	55	C/D/**E/G/H/I**	55	T4	83˚C	90
VM4L(B/C)05030	40	D/E/**G/H/I**	50	T4	83˚C	75
VM4L(B/C)05030	55	D/E/ **G/H/I**	50	T4	83˚C	90
VM4L(B/C)04030	40	C/ **G/H/I**	40	T4	83˚C	75
VM4L(B/C)04030	55	C/ **G/H/I**	40	T4	83˚C	90

LED Types:

A) Nichia, white, LED Model: NS9W153MT - (W = 3.675 Watts) (Rjs = 10 °C/W)

B) Nichia, white, LED Model: NS9W153AMT - (W = 3.5 Watts) (Rjs = 10 °C/W)

C) Nichia, white, LED Model: Nichia NVSW219B – (W = 2.19 Watts) (Rjs = 6 °C/W)

D) Cree, white, LED Model: Cree XML – (W = 2.03 Watts) (Rjs = 2.5 °C/W)

E) Cree, white, LED Model: Cree XML2– (W= 2.03 Watts) (Rjs = 2.5°C/W)

F) Cree, white, LED Model: Cree XP-L- (W=2.03W) (Rjs = 2.1°C/W)

G) Cree, white, LED Model: Cree XP-G3–(W = 2.0 W)(Rjs=3 °C/W)

H) Cree, amber, LED Model: Cree XP-E2–(W = 1.8 W)(Rjs=7 °C/W) (TURTLE)

I) Cree, PC Amber, LED Model: Cree XP-E2–(W = 2.3 W)(Rjs=9 °C/W) (PCAMBER)

III. Compatible Adapter for WM4L/VM4L/VMLX Series LED Luminaire.

Accessories

Adapters for Ex ec IIC T140˚C or T4 Gc , Ex tb IIIC T83˚C Db . IP66

The KILLARK's VM series is the compatible adapters that use with the WM4L/VM4L Series Luminaire. The VM Series fixture mount adapter model number VMCHVM, VMCHVM-DEEP, VMGEH2, VMHLDS, VMHPP2, VMM2LP, VMM3KP, SPL26748 and VMRS6470-12/13 for use with specified fixture fitting in conjunction with WM4L/VM4L series luminaire.

- KILLARK Series VMCHVM fixture mount adaptors, model number VMCHVM and VMCHVM-deep for use with specified fixture fitting in conjunction with KILLARKS Series WM4L /VM4L series LED Luminaire. Rated input: 100-277 Vac or 105-250Vdc, with optional Backup mode. Output up to: 130 W max. May supplied with either Globe, Enclosed Reflector, or Refractor. For use with power supply wiring rated up to 90℃ Max.

  The VMCHVM fixture adaptors are for use on listed Crouse Hinds Fixtures Cat. Nos. CM2, CM3, TWM2 and TWM3 Mounting Covers.
- KILLARK Series VM Fixture Mount adaptors, Model Numbers. VMGEH2, VMHLLDS, VMHPP2, VMM2LP, VMM3KP, and SPL26748, for use with specified fixture fitting in conjunction with KILLARK Series VM fixtures, Rated input: 100-277 Vac or 105-250Vdc, with optional Backup mode. Output up to: 130 W max. May supplied with either Globe, Enclosed Reflector, or Refractor. For use with supply wiring rated up to 90℃ Max.

- The VM Series fixture Adaptor are for use on listed Crouse Hinds and Appleton Fixture Mounting Covers (See table below) in conjunction with Series VM fixture fitting.
- The KILLARK's VMGEH2 fixture adaptors are for use with General Electric Series H2 Fixtures Mounting Covers (See table below) in conjunction with Series VM fixture fitting.
- The KILLARK's VMHPP2 fixture adaptors are for use with Holophane Series P2 (Petrolux II) Fixtures Mounting Covers (See table below) in conjunction with Series VM fixture fitting.
- The VM to STAHL adapter (Cat. VMRS6470-12/13) adapter is to be used with R. Stahl® 6470 Series.

Killark VM Adaptor Model	For Use with
VMGEH2	GE® filtr-gard® H2; Using fixture mounts H2000-3C, H2000-4C, H2000-3F, H2000-4F, H2000-5J, H2000-6J, H2000-3P, H2000-4P, H2000-5S, H2000-6S, H2000-3W, H2000-4W, H2000-6P
VMHLDS	Thomas and Betts® Hazlite® M2, M3; Hazbatt® 2, 3; Using fixture mounts HV1, VP2, VF2, VA2, VC2. Vb2, VS5 and VL5
VMHPP2	Holophane® Petrolux® II or Petrolux®
VMM2LP	Appleton® MercMaster® II Series; Using fixture mounts LPA-75/100, LPC-75/100, LPWB-75/100, LPS-125/150.
VMM3KP	Appleton® MercMaster® III or MercMaster® LED Series; Using fixture mounts KPA-75/100/M20, KPCH-75-75/100/M20, KPC-75/100/M20, KPWB-75/100/M20, KPS-125/150, KPST-125/150.
SPL26748	Holophane® Petrolux® II-Using Ceiling mounting cover(PETLCE)
VMRS6470-12/13	Adapters are to be used with R. Stahl® 6470 Series. (VM to STAHL adapter)

The adapter VM series has no effect on the temperature classification of the WM4L/VM4L series LED luminaire when used together.

IV. NOMENCLATURE for VMLX Series (for Killark and Chalmit brands)

Example: Cat. No. VML 2 X 28 iE 30 F

VML	2	X	28	__/ iE	30	F	00	0	0	F
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**

1: Series Designation-VML-X (Series Constant)

2: Tank Size:

1	Small	80W max Approx. 5000, 7000, 9000lm
2	Medium	140W max Approx. 12000, 15000, 18000lm
3	Large	250W max Approx. 23000, 28000lm

3: Fixture Lumen Output in 1000s of Lumens

28- Maximum 28,000 lumens which corresponds to 250 watts. Other lower wattage fixtures are follows.

'X--'	28	23	18	15	12	9	7	5	3
Watts	250	200	140	120	100	75	55	40	25
Lumens	28000	23000	18000	15000	12000	900	7000	5000	3000

4: Battery Backup model: (blank No backup Mode) / (80W) Size 1 and Size 2 tanks

iE05 500 Lumen
iE1 1000 Lumen

5: Voltage- Input Supply:

27 - 12-24 Vdc
30 - 120 thru 277 Vac, 50/60 Hz
33 - 347 thru 480 Vac, 50/60 Hz
34 - 105 thru 250 Vdc

6: Mounting Splice Box:

Blank - No Splice Box provided
A - Pendant (VMA2B, VMA3B)
B - Wall Bracket (VMB2B, VMB3B)
C - Cone Top (VMC2B, VMC3B)
D - Stanchion 25° (VMD4B, VMD5B)
X - Ceiling (VMX2B, VMX3B, VMX6B, VMX7B, VMX8B, VMX9B)
S - Stanchion Straight 90° (Straight) (VMS4B, VMS5B)

7: Conduit Entry:

2—3/4" NPT (A,B,C,X) 3—1" NPT (A,B,C,X)
4—1 1/4" NPT (D,S), 5—1 1/2" NPT (D,S)
6—3/4" NPT 5-Hub (5 hubs) 7 --1" NPT 5-Hub (5 hubs)
8—M20 (Metric-4 hubs) 9 --M20 (Metric 5-Hubs)

8: Optic:

Blank	Type 5-No optics
5W	Type 5 wide (140W max)
T1	Type 1 (80W max)
T3	Type III (80W max)

9– Guard

G = Guard, **N** = No Guard

10- Globe

Blank	Glass
PC	Polycarbonate Lens Clear (Glass Globe standard) (140W Max)

11- Options

F	Single Fuse
FF -	Double Fuse
SP -	Added Surge Protector
Px -	Photocell factory installed (x = Factory Wired Voltage)
xH -	Optional Paint (i.e. RH = Red Housing)
YYZZ -	White LED Chromaticity where YY= correlated color temperature (CCT) minimum 3000K; ZZ = Color Rendering Index (CRI) maximum 95 (No value=Standard 5000K CCT 70 CRI minimum
AMBER -	Amber colored LEDs primarily used to help protect marine wildlife
CISPR -	CE Marked driver
GREEN -	Green colored LEDS. Primarily used to help protect migratory birds.
HA -	High Ambient: bigger tank with lower wattage fixture for use in higher Ambient.
AR -	Angled Reflector
DR -	Dome Reflector

V. Operating Temperatures for VMLX Series (for Killark and Chalmit brands) .

Maximum temperature for battery backup fixtures is 50°C

		40 ° C Ambient			55 ° C Ambient			65 ° C Ambient		
Catalog Number	Wattage	"ec" IIC	"tb" IIIC	Supply Wire Temp ° C	"ec" IIC	"tb" IIIC	Supply Wire Temp ° C	"ec" IIC	"tb" IIIC	Supply Wire Temp ° C
VML3X2830/33/34	250	T4	T135	90	T3	T135	90	--	--	--
VML3X2330/33/34	200	T4	T135	90	T3	T135	90	--	--	--
VML2X1830/33/34	140	T4	T135	90	T4	T135	90	--	--	--
VML2X1530/33/34	120	T4	T135	90	T4	T135	90	--	--	--
VML2X1230/33/34	100	T4	T135	90	T4	T135	90	--	--	--
VML3X1830/33/34 HA	140	T4	T135	90	T4	T135	90	T4	T135	90
VML3X1530/33/34 HA	120	T4	T135	90	T4	T135	90	T4	T135	90
VML3X1230/33/34 HA	100	T4	T135	90	T4	T135	90	T4	T135	90
VML1X930/33/34	75	T4	T135	90	T4	T135	90	--	--	--
VML1X730/33/34	55	T4	T135	90	T4	T135	90	--	--	--
VML1X530/33/34	40	T4	T135	90	T4	T135	90	--	--	--
VML1X327/30/33/34	25	T4	T135	90	T4	T135	90	--	--	--
VML2X930/33/34 HA	75	T4	T135	90	T4	T135	90	T4	T135	90
VML2X730/33/34 HA	55	T4	T135	90	T4	T135	90	T4	T135	90
VML2X530/33/34 HA	40	T4	T135	90	T4	T135	90	T4	T135	90