IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx QPS 15.0006X**	Page 1 of 4
Status:	**Current**	Issue No: 9

Date of Issue: 2021-05-05

Applicant:
Killark - A Division of Hubbell Inc.
(Delaware)
2112 Fenton Logistics Park Blvd.
Fenton
MO 63026
United States of America

Equipment: **Killarks' model WM4L/VM4L Series and Chalmit;s model EC2N LED Luminaires and Accessories**

Optional accessory:

Type of Protection: **'n' 't'**

Marking:
IECEx 15.0006

Ex nA IIC T4 Gc / Ex tb III C T83°C Db

Killark's WM4L /VM4L Series and Chalmit's EC2N seriesLED Luminaires

100-277 VAC; 50/60 Hz or 105-250 VDC

Approved for issue on behalf of the IECEx
Certification Body:

D. Adams, P. Eng.

Position:

Manager, Hazardous Locations Department

Signature:
(for printed version)

Date:

2021-05-05

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

QPS
Evaluation Services Inc.
81 Kelfield St
Unit 8
Toronto, Ontario M9W 5A3
Canada

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| Manufacturer: | **Killark - A Division of Hubbell Inc.**
(Delaware)
2112 Fenton Logistics Park Blvd.
Fenton
MO 63026
United States of America |
| Additional manufacturing locations: | **Hubbell Inc. trading as Chalmit Lighting, Victor Products and Transtar**
388 Hillington Road
Glasgow
G52 4BL
United Kingdom |

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-15:2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

This Certificate **does not** indicate compliance with safety and performance requirements
other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

CA/QPS/ExTR15.0006/02	CA/QPS/ExTR15.0006/03	CA/QPS/ExTR15.0006/04
CA/QPS/ExTR15.0006/05	CA/QPS/ExTR15.0006/06	CA/QPS/ExTR15.0006/07
CA/QPS/ExTR15.0006/08		

Quality Assessment Reports:

| GB/BAS/QAR06.0027/07 | GB/SIR/QAR16.0021/04 |

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

WM4L / VM4L /EC2N Series LED Luminaires, with heat sink: Bulb or Concave, follow by: light source output: 40 - 130 Watts or 6-18(thousand) lumens. Rated input voltage 100-277 V, 50/60 Hz, or 105-250 VDC, Optional battery backup up to 90 Min, Mounting Splice Boxes: A, B, X, C, D, S followed by: 2, 3, 4, 5, 6, 7, 8, 9. Optics – (GL)VMG25, (R5) VMR255, (R1)VMR251, (R3) VMR253, (S5)VZRG4050, (S2)VMRG4020, (ER)VMER40, (GF)VZRGF 12, Followed by G or N, and options of color temperature, TURTLE-Amber colored LEDs , or PCAMBER-Amber colored through **P**hosphor **C**oating.

Accessories: Adapter for use with WM4L/VM4L Series LED Liminaires Models: VMCHVM, VMCHVM-DEEP, VMGEH2, VMHLDS, VMHPP2, VMM2LP, VMM3KP, SPL26748 and VMRS6470-12/13.

Note:

1. The KILLARK's fixture mount adaptor VM series has no affected on the temperature classification of the the WM4L/VM4L series LED luminaire when used together.

2. Refer to the Annex page for detail on VM fixture mount adaptor compatibility with the luminaires.

SPECIFIC CONDITIONS OF USE: YES as shown below:
- Read Installation, Operation and Maintenance Manual first;
- Do not open when energised;
- Do not open when an explosive atmosphere is present;
- The Luminaire shall only be installed where there is a low risk of mechanical damage.
- No modification to the flame-path joints allowed without contacting the manufacturer.

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

00 - Original

01 - addition of trademark name "Victor Lighting" to marking label.

02 - Re-issue the ExTR and addition of the following:

1. Add the WM4L series.
2. Add the option going from 2 drivers to 1 driver.
3. Add an alternate concave dish and bullet heat sink design.
4. Add a battery backup option.

5. Add an alternate LED option - Cree XP-L.
6. Add a new wiring scheme and LED board scheme (one board with up to 24 LEDs and 5 smaller boards with up to 8 LEDs instead of up to 16 boards with up to 4 LEDs each).

03 - revised markings and installation manuals

04 - Add Fixture mount adapter VM series for used with WM4l/VM4L series LED luminaires.

05 - Add alternate LEDs and updated the Annex page.

1. Cree's XP-G3 Series: XPGDWT-01-0000-00KE7 -- 5000K, and XPGDWT-01-000-00K7E -- 3000K
2. Cree's XP-E2 Series: XPEBPA-L1-0000-00D01 --PC Amber and XPEBAM-L1-0000-00901 -- Amber Turtle.

Detail of Changes.

Add on alternate LED's to the existing LED WM4L/VM4L series. The newly LEDs that added to the WM4L/VM4L series are models Cree XP-G3, XP-E2 Amber and XP-E2 Phosphor Coated Amber. The nomenclature of the WM4L/VM4L also add two new suffix to address the new Amber (TURTLE) and Phosphor Coated Amber (PCAMBER).

The additional LEDs are manufactured by CREE. The physical (footprint) of the all the LEDs have not changed. Therefore, the new LEDs still can use the same printed Circuit Board.

06 – Address change for the Applicant and Manufacture location.

07 - Add on alternate Soda lime Glass Globe. All the dimensions of the VMG25 glass globe remains the same.

08 – Add on VM to STAHL adapter (Cat. VMRS6470-12/13) to the compatible adapter for use with WM4L/VM4L series luminaire.

09- Add on the Chalmit Nomenclature "EC2N Series" to the Annex page of the Certificate's Annex pages.

Annex:

IECEx QPS 15.0006-9 Annex.pdf

ANNEX to IECEx QPS 15.0006 Issue No. 9,   **Date: 2021-05-05**

1. Nomenclature

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 <u>Killark's Model</u>: WM4L or VM4L. or <u>Chalmit's Model</u>: 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.

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81 Kelfield Street, Units 7-9, Toronto, ON M9W 5A3, Canada, Ph: 416-241-8857 Fax: 416-241-0682
6600 TransCanada Highway, Suite 750, Pointe Claire, QC H9R 4S2, Canada Ph: 514-693-2808
7700 Hub Parkway, Unit 1, Cleveland, OH 44125 Ph. 216-377-3191 Fax: 216-377-3192
Web Site www.qps.ca and www.qpscertification.com
Toll Free: 1- 877-746-4777

2. **Temperature Classes**

Catalog Number	Rated Ambient Temp °C	LED Type	LED Watts	"nA" 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)

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Accessories	Adapters for Ex nA 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.

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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.

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