



Harsh & Hazardous

**KILLARK<sup>®</sup>**

# VM2L & VM4L Series

## STANDARD & EMERGENCY LIGHTING FIXTURES

*for Harsh and Hazardous Environments*





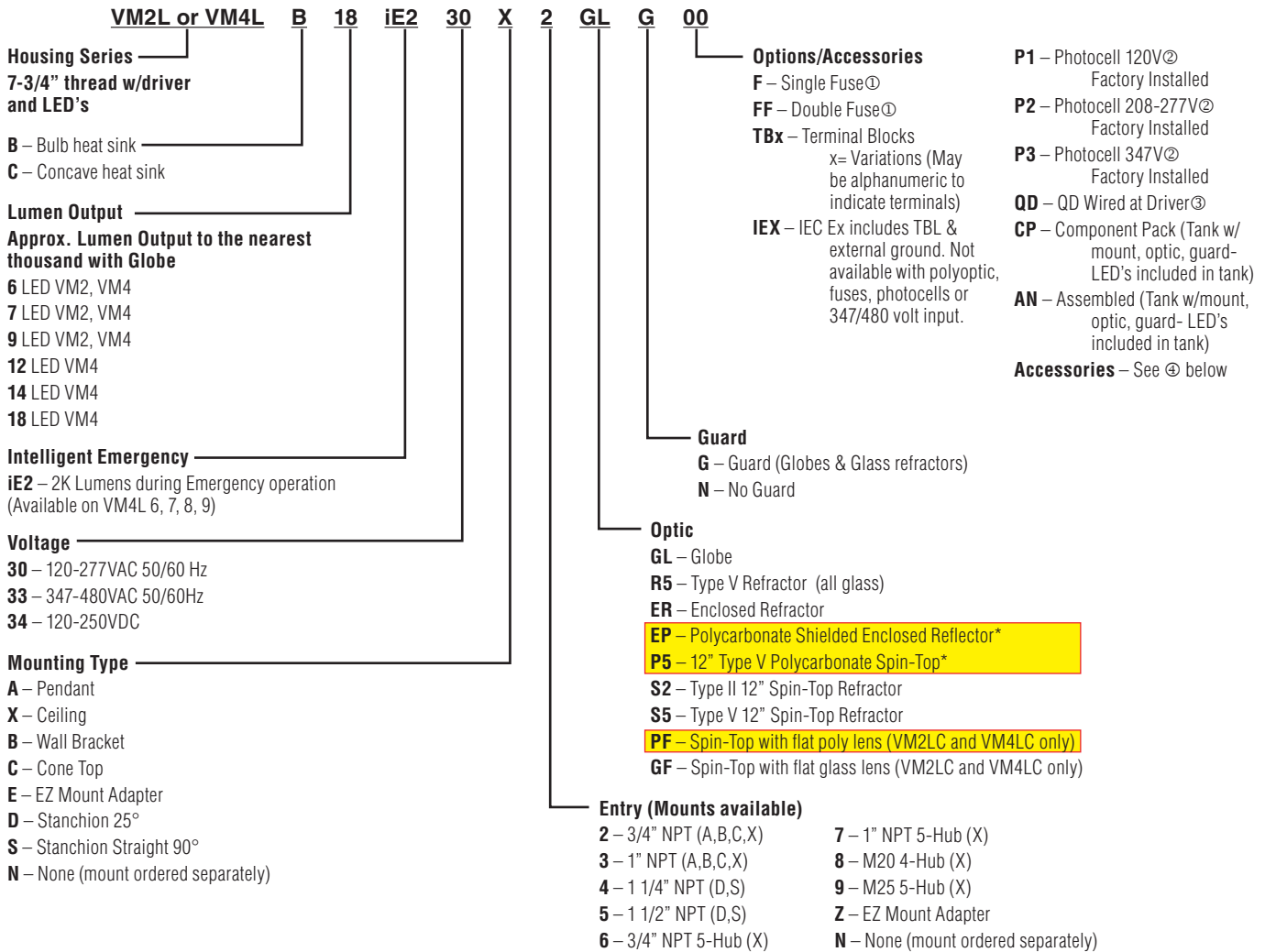
HIGH WATTAGE – CATALOG LOGIC

## CERTILITE<sup>®</sup>V LED

Killark high efficiency LED Luminaries require NO external heat sink which adds weight and collects dust and other contaminants



### CertiLite<sup>®</sup>V LED Catalog Number Logic



<sup>①</sup> Fusing not for Marine or Canadian installations.

<sup>②</sup> Photocells for Class I, Div. 2 only.

<sup>③</sup> QD = Quick Disconnect. Allows easy tank removal for maintenance. Electrician unplugs tank from mount for fixture relocation or repair due to impact damage.

<sup>④</sup> Accessories - Shown for ordering convenience (shipped separately)

<b>S</b>	VMPSD40	Fiberglass White Reflector
<b>A</b>	VMPA40	Fiberglass ANGLE White Reflector
<b>D</b>	HRD400	Deep White Reflector
<b>Z</b>	HRD400ALZ	Deep Alzak Reflector

\*Non-glass Group G Food Processing Suitability

# LIGHTING

## VM2&4LB, VM2&4LC SERIES



### HIGH WATTAGE – INTRODUCTION



VM2LB with Globe/  
Guard



VM4LB with Globe/  
Guard



VM4LC with Flat Lens



Class I, Div. 2, Groups A,B,C,D  
Class I, Zone 2, Groups IIC, IIB, IIA  
Class II, Div. 1 & 2, Groups E,F,G  
Class III

Suitable for wet locations  
NEMA 3, 4X

IP66  
Marine Rated (US only)

CSA Certified - File LR11713

IECEx Rated Models (VM4L with IEx suffix)  
Ex nA IIC T4, Gc / Ex tb IIIC T83°C Db  
Tamp -40°C ≤Ta≤+65°C, IP66

IECEx Certificate  
QPS 15.0006

ATEX Certificate  
CML 15ATEX4101X(nA)  
&  
CML 15ATEX3102X(tb)

Contact Factory for other certification details

## CERTILITE<sup>®</sup> V LED

### FEATURES-SPECIFICATIONS

#### Applications

CERTILITE<sup>®</sup> V VM4L LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

Typical applications include manufacturing plants, food processing, certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

#### Compliances

- UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X
- IP66 & Marine
- Self-testing per NFPA 101<sup>®</sup> Life Safety Code

#### Materials

- Driver tank, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Reflectors – Polyester reinforced fiber glass or aluminum

### LED Luminaire Features and Standards

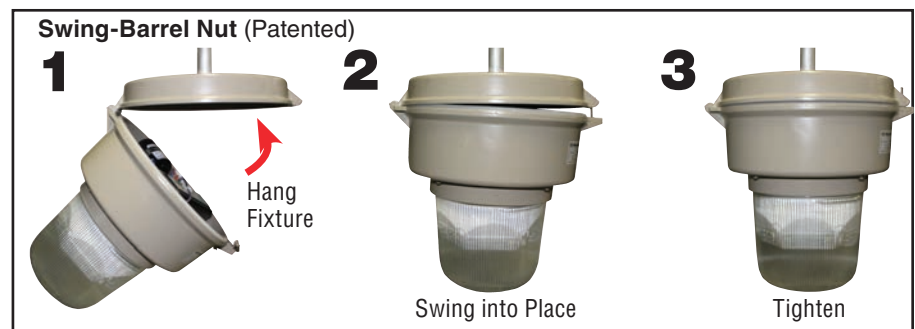
Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)  
**10KA/10KV Surge Protection** (for 347-480 VAC)

- Traditional Industrial Appearance, Suitability, and Photometric Performance
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, spin-top refractors and flat lens
- Swing-Barrel Nut patented tank mounting system
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and others
- VM4L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- **VM2Lx housing is 1.56" shallower for low ceilings**
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT range); approx. 70 CRI
- Energy Savings – less than 130 Watts of Power
- Long Life – 50,000 - 55,000 maintenance free hours to 70% initial lumens
- Ambient suitability -40°C to 65°C on select models
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz



Consult website for current list of approved luminaires

- Solder-LESS LED Board Connections – Vibration Resistant
- Dual Driver Option (DDR) – For additional energy savings, half of the fixture can be turned off.
- LM80-08 Measurement of lumen maintenance for LED light sources (including TM-21)
- LM79-08 Certified "Absolute" Photometry, including Chromaticity Color for Solid State Lighting
- L70 Values – Industry Nomenclature for Hours of use to 70% of Initial Lumens
- Two LED internal heat sink styles
  - » Bulb VM2LB/VM4LB
  - » Concave VM2LC/VM4LC





VM2&4LB, VM2&4LC SERIES

# KILLARK

## HIGH WATTAGE – OPTICS AND ACCESSORIES

DELIVERED LUMENS									
CATALOG NUMBER	VMG25	VMR255	VMER40	VMPE40	VZRP175B	VZRG4020	VZRG4050	VZRPF	VZRGF
	GL	R5	ER	EP	P5	S2	S5	PF	GF
VM4LB6(XX)(YY)N	6278	5915	4575	4336	4692	4771	4879		
VM4LC6(XX)(YY)N	6223	5127	4645	4041	4880	4989	4914	5570	5644
VM4LB7(XX)(YY)N	7437	6996	5589	5210	5846	5968	5973		
VM4LC7(XX)(YY)N	7344	6026	5491	4776	5757	5892	5830	6563	6679
VM4LB9(XX)(YY)N	9692	9084	7465	6933	7928	8090	8078		
VM4LC9(XX)(YY)N	9453	7746	6973	6093	7420	7671	7482	8492	8647
VM4LB12(XX)(YY)N	12750	12020	9804	9168	10410	10550	9168		
VM4LC12(XX)(YY)N	12300	10380	9470	8165	9969	10190	10030	11370	11570
VM4LB14(XX)(YY)N	14760	13810	11240	10430	11890	12110	12010		
VM4LC14(XX)(YY)N	14120	11980	10910	9417	11460	11810	11520	13080	13300
VM4LB18(XX)(YY)N	17710	16700	14080	13050	14910	15050	15140		
VM4LC18(XX)(YY)N	17820	14530	13380	11480	13970	14390	14190	15940	16270

(XX) = VOLTAGE  
(YY) = MOUNT



VMG25



VMR255



VMER40



VMPE40



VZRP175B



VZRG4020



VZRG4050



VZRPF/VZRGF

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2			C2D1		
CATALOG NO.②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS①	40°C	55°C	65°C	40°C	55°C	65°C
VM4L(Y)630	18.90 / 8.57	40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG		
VM4L(Y)633		40	347-480VAC	0.12-0.09						
VM4L(Y)634		40	120-250VDC	0.33-0.16						
VM4L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG		
VM4L(Y)733		50	347-480VAC	0.15-0.12						
VM4L(Y)734		50	120-250VDC	0.42-0.20						
VM4L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG		
VM4L(Y)933		65	347-480VAC	0.19-0.14						
VM4L(Y)934		65	120-250VDC	0.54-0.26						
VM4L(Y)1230		90	120-277 VAC	0.77-0.33	T4A	T4	-	EFG	-	
VM4L(Y)1233		90	347-480VAC	0.27-0.19						
VM4L(Y)1234		90	120-250VDC	0.75-0.36	T4A	T4	-	EFG	-	
VM4L(Y)1430		105	120-277 VAC	0.89-0.39						
VM4L(Y)1433		105	347-480VAC	0.31-0.23						
VM4L(Y)14834		105	120-250VDC	0.88-0.42	T4A	T4	-	EFG	-	
VM4L(Y)1830		130	120-277 VAC	1.10-0.46						
VM4L(Y)1833		130	347-480 VAC	0.38-0.27	T4A	T4	-	EFG	-	

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2			C2D1		
CATALOG NO.③	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS②	40°C	55°C	65°C	40°C	55°C	65°C
VM2L(Y)630	17.65 / 8.00	40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG		
VM2L(Y)633		40	347-480VAC	0.12-0.09						
VM2L(Y)634		40	120-250VDC	0.33-0.16						
VM2L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG		
VM2L(Y)733		50	347-480VAC	0.15-0.12						
VM2L(Y)734		50	120-250VDC	0.42-0.20						
VM2L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG		
VM2L(Y)933		65	347-480VAC	0.19-0.14						
VM2L(Y)934		65	120-250VDC	0.54-0.26						

① For a given wattage current values are the same, regardless of tank type VM2LB/C or VM4LB/C.

② Replace (y) with heat sink style B or C.

# LIGHTING

VM2&4LB, VM2&4LC SERIES



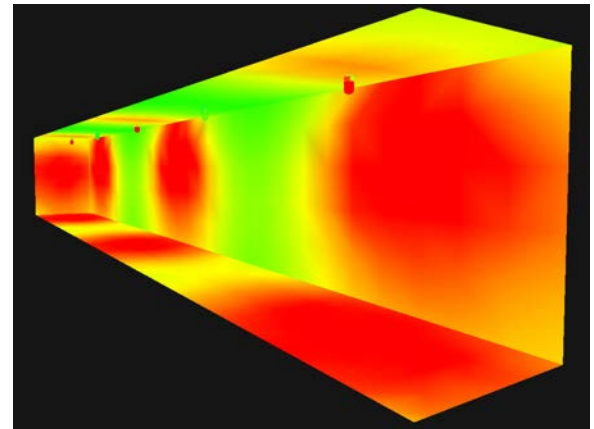
## HIGH WATTAGE SELF-TESTING EMERGENCY

### Electronics Includes:

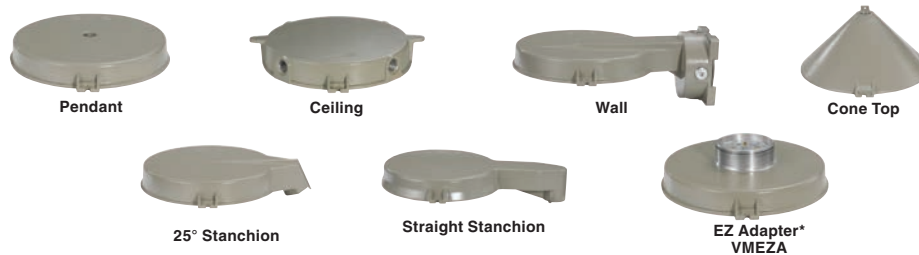
- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

INDICATOR STATUS SIGNAL	DESCRIPTION OF STATUS SIGNAL
0.5s ON and 0.5s OFF	Battery disconnected.
2.5s ON and 2.5s OFF	LED load disconnected.
4.5s ON and 0.5s OFF	Driver in self-diagnostic mode.
1.5s ON and 3.5s OFF	Battery needs to be replaced.
0.5s ON and 4.5s OFF	Damaged driver. Replace
ON	Normal/Charging.
OFF (LED Load ON)	Discharging / Emergency Operation

### LED Emergency Lighting Design



## HIGH WATTAGE – COMPONENTS



### CERTILITE® V VM MOUNTING SPLICE BOXES

HUB SIZE	CATALOG NUMBER						
	PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	90 DEGREE STANCHION
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	VMD5B	VMS5B
M-20	—	VMX8B	VMX9B	VMB8B	—	—	—
M-25	—	—	—	VMB10B	—	—	—



VM2&4LB, VM2&4LC SERIES

# KILLARK

## HIGH WATTAGE – COMPONENTS & RATINGS



**“EZ” Mount Adapter**  
For easy fixture relocation or to repair fixture on 'bench top'.



VMEZA adapter is used between a driver tank and EZ mount ordered separately.



Pendant



Ceiling



Wall Bracket



25° Stanchion

### Competitive Adapters

Designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.



Patented Design

MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB3	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4A	1-1/4" / 1/2"*

\*1-1/2" furnished with 1-1/2"-1-1/4" reducer and extension.

Tank adapter to Crouse-Hinds® VM Series mounts Tank adapter to CH (70's era wall mount with deep box) Tank adapter to Appleton® MERCMASTER II mounts Tank adapter to Appleton® MERCMASTER III mounts Tank adapter to Hazlux® mounts Tank adapter mount to Holophane® Petrolux™ Tank adapter H2 mount to GE® H2 Filtr-gard™	VMCHVM VMCHVM-DEEP VMM2LP VMM3KP VMHLDS VMHPP2 VMGEH2
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- Ⓒ Crouse-Hinds® is a registered trademark of EATON® corporation.
- Ⓒ Appleton® and MERCMASTER are registered trademarks of Emerson® Industrial Automation.
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- Ⓒ GE® and Filtr-gard™ are registered trademarks of General Electric®

VM2L/VM4L LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD®
Flat Lens (glass spin top) "C" tank only	VZRGF12 (GF)	VZRF12GRD
Flat Lens (polycarbonate spin top) "C" tank only*	VZRPF12 (PF)	VZRF12GRD
Globe (glass)	VMG25 (GL)	VMAG25S
Reflector (all glass) Type V	VMR255 (R5)	VMAG25S
Enclosed Reflector	VMER40 (ER)	VMERG
Enclosed Reflector with polycarbonate Lens*	VMEP40 (EP)Ⓒ	—
Reflector (polycarbonate spin top) 12" Type V*	VZRP175B (P5)	VMRWGS
Reflector (glass spin top) 12" Type V	VZRG4050 (S5)	VMRWGS

\* Non-glass over Food/Grain Class II Div 1 Group G Certified; VMEP40, VZRP175B, and VZRPF12

VM2L/VM4L LED REFLECTORS AND ACCESSORIES	
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPSD40
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40
DEEP DOME REFLECTOR (White Painted Aluminum)	HRD400
DEEP DOME REFLECTOR (Anodized Aluminum)	HRD400ALZ
120VAC Photocell with FS Style CoverⒹ	VMFSPC1
208-277VAC Photocell with FS Style CoverⒹ	VMFSPC2
Bottom Closure for VMAG25SⒺ	VMAGBC
4-sided EXIT Accessory (use without guard)Ⓔ	VEXA400

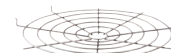
- Ⓓ Order single-gang FS box separately. For photocell factory installed in tank, see logic.
- Ⓓ For use with Generator or UPS powered fixtures
- Ⓓ For wall applications mount must be spaced out for bottom hub
- Ⓓ Guards are 316 Stainless Steel. Bottom closure for VMAG25S pt. no. VMAGBC



VMAG25S



VMRWGS



VMERG



VMAGBC



VMPSD40  
Standard Dome, Fiberglass  
White Reflector, Dia: 16"



VMPA40  
30° Angle, Fiberglass  
White Reflector, Dia:16"



HRD400  
Deep Aluminum, White  
Reflector, Dia: 21"



HRD400ALZ  
Deep Aluminum, Anodized  
Reflector, Dia: 21"



VEXA400  
Fixture not included



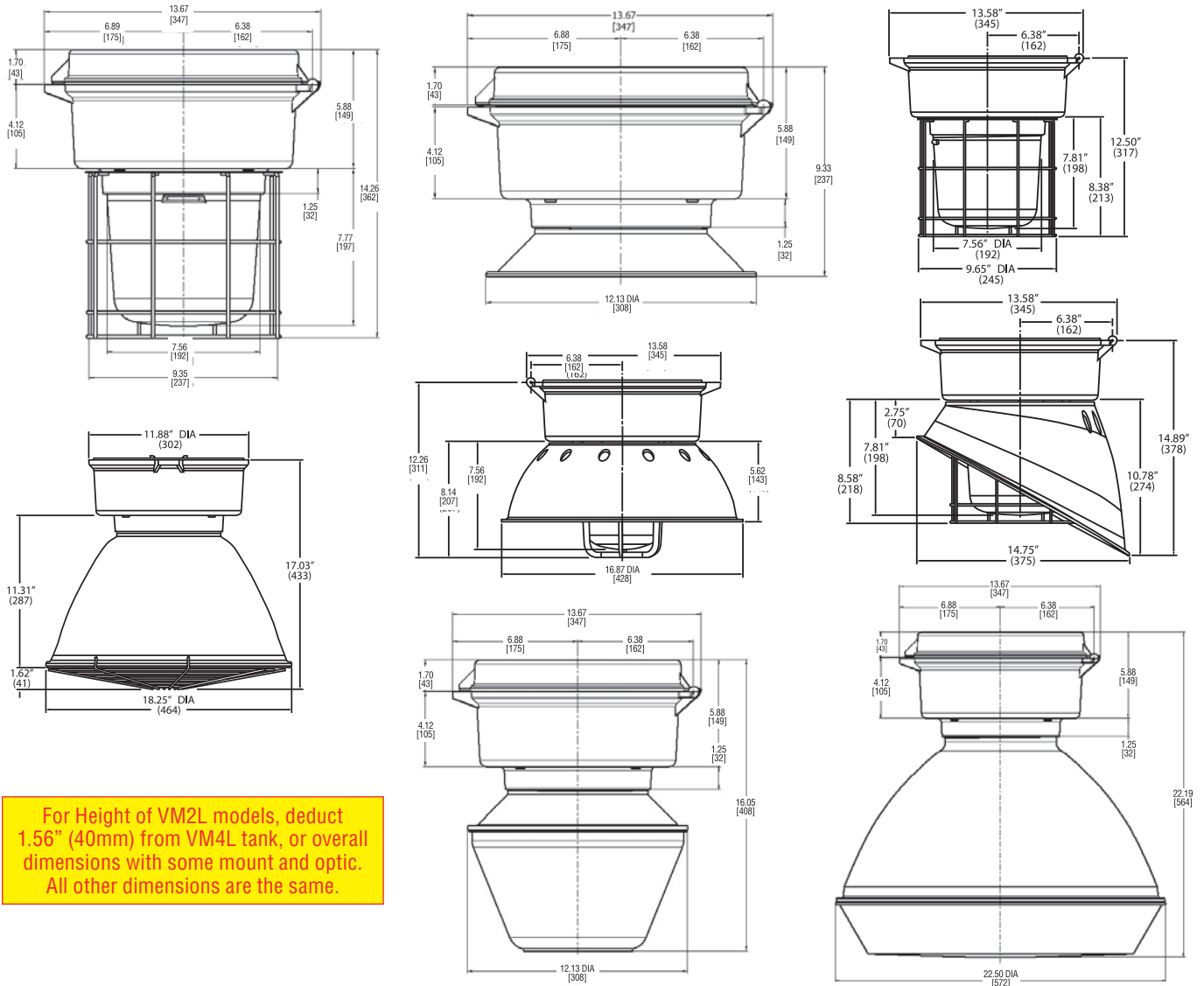
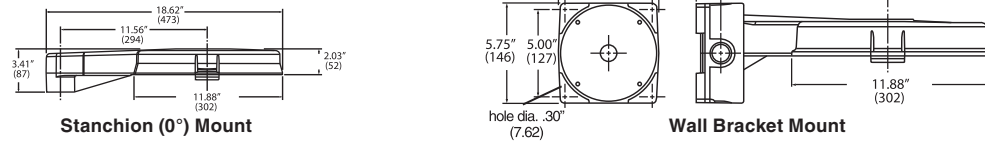
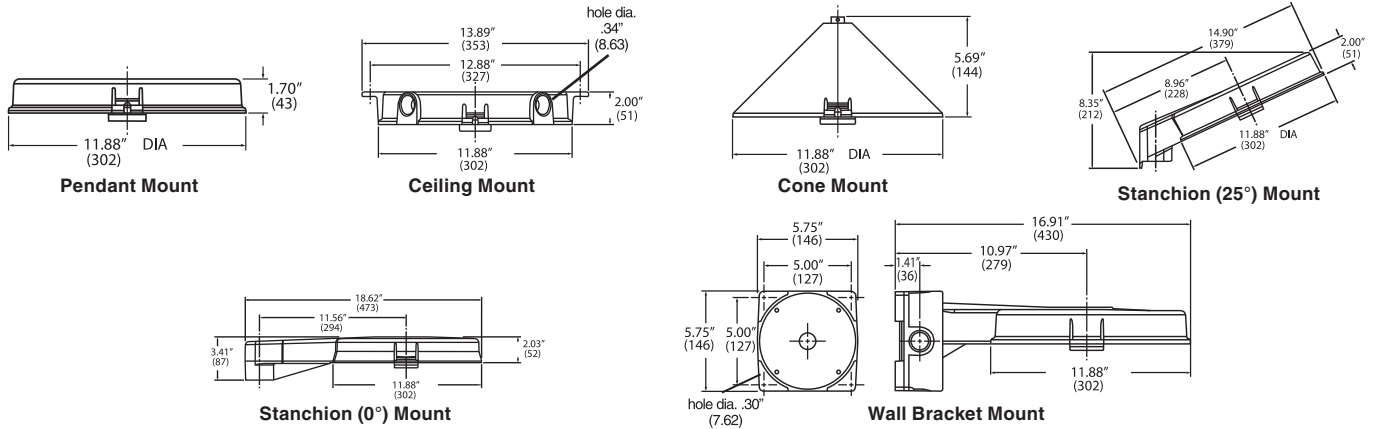
VMFSPC

# LIGHTING

VM2&4LB, VM2&4LC SERIES



## HIGH WATTAGE – DIMENSIONS & WEIGHTS



For Height of VM2L models, deduct 1.56" (40mm) from VM4L tank, or overall dimensions with some mount and optic. All other dimensions are the same.

TYPICAL WEIGHTS (LBS./KG) W/STANDARD GLOBE AND GUARD - VM4LB/C SERIES			
Pendant 33.4/15.2	Ceiling 33.0/15.0	Wall 37.9/17.2	Stanchion 34.3/15.6



# CERTILITE<sup>®</sup> DESIGN

## LIGHTING DESIGN SOFTWARE

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- Modern "Ribbon" Windows Interface with "Real Time" Calculations
- **Easily import/export of CAD files (DWG/DXF/PDF)**
- Enhanced photometric database with luminaire images and wireframes
- Ability to draw round or complex rooms and grids
- **False Colors to indicate "Relative Brightness"**

See "Lighting Software link" at [www.hubbell-killark.com](http://www.hubbell-killark.com) to download

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**KILLARK<sup>®</sup>**

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**Harsh & Hazardous**