

Champ VMV high wattage HID luminaires

200-400W

For medium and high mounting heights

Cl. I, Div. 2, Groups A, B, C, D
Restricted Breathing Cl. I,
Div. 2 & Zone 2 (with suffix
S826)
Certified for IEC Zone 2 (with
suffix S826TB)

Cl. II, Groups E, F, G
Cl. III & Simultaneous Presence
(with glass refractor)
Marine (with globe or glass
refractor) & Wet Locations
3, 3R, 4, 4X; IP66

3L

Applications:

Champ® VMV high wattage HID luminaires are used:

- In manufacturing plants, refineries, chemical, petrochemical and other industrial process facilities, waste or sewage treatment facilities and other heavy industrial applications
- In applications where energy-efficient, high lumen output is required
- In areas in which ignitable concentrations of flammable gases or vapors will be present only due to abnormal, unusual or accidental conditions
- In marine applications where water spray and corrosive atmospheres are considerations
- In elevated ambient temperatures often found in industrial applications
- In installations where moisture, dirt, dust, vibration, corrosion and rough usage are problems
- Wherever the damaging effects of water, wind, snow, sleet, hot sun or any combination of these elements, are problematic

Features:

- Cast copper-free aluminum construction (less than 0.4 of 1% copper) and epoxy powder finish provide excellent resistance to corrosion
- Hinged ballast housing for ease of installation and maintenance
- Wide choice of photometric distributions; glass globes, glass refractors and reflector/lens are available
- All luminaires designed to perform in a 40°C ambient temperature; selected luminaires are suitable for ambient temperatures up to 65°C
- Superior gasketing seals between the mounting module, housing and optical assembly for optimum performance in wet and corrosive environments
- Hubs with integral conduit stop and bushing to help prevent damage to field wiring during installation
- Low ambient capability to (-40°C)
- Dome and 30° angle reflectors made of bright white Krydon material and etched Alzak® high bay reflectors provide superior reflectivity
- Grounding wire for safety
- High power factor ballasts (min. P. F. 90%) are available in a variety of voltages to meet local area requirements
- Mogul base lamp socket



Certifications and compliances:

NEC/CEC:

- Class I, Division 2, Groups A, B, C, D
- With glass refractor – Class II, Class III & Simultaneous Presence (Class I, Division 2 and Class II)
- Class I, Zone 2

IEC:

- Zone 2, Ex nR IIC

UL standards:

- UL844 – Hazardous (Classified) Locations
- UL1598 – Luminaires
- UL1598A – Marine Locations

CSA standard:

- C22.2 No. 137

IEC standard:

- 60079-15

Standard materials:

- Ballast housings and mountings – copper-free aluminum (less than 0.4 of 1%)
- Exterior hardware and guards – stainless steel
- Reflectors (dome and angle) – Krydon fiberglass-reinforced polyester
- Globes – heat- and impact-resistant internally fluted glass
- Refractors – glass
- Reflector lens – spun Alzak aluminum, tempered glass, stainless steel door frame

Standard finishes:

- Copper-free aluminum – epoxy powder coat
- Alzak aluminum – natural
- Krydon – high reflectance white
- Stainless steel – natural

Electrical ratings:

- 120-600 volts and multi-tap
- 200, 250, 400W HPS and MH

Options:

Description

Suffix

- Restricted breathing construction .. **S826^A**
*Class I, Division 2 & Zone 2 suitability
Cooler operating temperatures (T-codes)*
- Certified for IEC Zone 2..... **S826TB^A**
*Furnished with terminal block, crimp terminals
and dedicated voltage ballasts (no MT, DT or TT)*
- Fused – to protect ballast and capacitors
against abnormal line conditions **S658^B**
*Not available with MT ballast
Not for use in Canada
Not suitable for marine applications*
- Quick-Clip – holds weight of housing when
closed; no need to support luminaire while
screwing the housing to the cover.... **S890**
- Ballast-Gard starter cut-out switch –
prevents starter pulsing when lamp is
cycling or inoperative; prolongs ballast and
ignitor life..... **BG**
Available for use with 200-400W HPS only
- Quartz auxiliary lighting – comes to full
brightness immediately and remains lit
until the HID lamp attains 60-70% of full
illumination..... **QTZ**
*For non-hazardous locations only
QTZ lamp not included; use 100W single-ended
lamp – Q100DC, Q100CL/DC or 100Q/CL/DC
Consult factory for top hat limitations*
- Stainless steel insert – top hat with
stainless steel threaded insert to attach
ballast housing..... **S806**
- Factory assembled with HID lamps
installed for additional labor savings..... **FA**

Photometrics:

- Refer to www.eaton.com (under the
Resources tab of each product family) for
specific photometric IES files

^A Cannot be used with GRD4 reflector/lens.

^B When ordering fuses for luminaires, you must specify the operating voltage. S658 cannot be ordered with /MT in the catalog number.

Alzak® is a registered trademark of ALCOA.

Champ VMV high wattage HID luminaires

200-400W high pressure sodium
For medium and high mounting heights

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(with glass refractor)
Marine (with globe or glass
refractor) & Wet Locations
3, 3R, 4, 4X; IP56 to IP66

3L

To complete the catalog number, include information in Notes 1 and 2 below. For guards and other optics, see VMV high wattage – ordering by components page.

BASIC CATALOG NUMBER

Mounting style	Hub size	Lamp watts	Cat. # With G303 globe and P33 guard	Cat. # With GR305 glass refractor [ⓐ]	Cat. # With GRD4 reflector / lens
Pendant mount (rigid or flexible)	3/4"	200	VMVS2A200GP	VMVS2A200GR305	VMVS2A200GRD4
	1"		VMVS3A200GP	VMVS3A200GR305	VMVS3A200GRD4
	3/4"	250	VMVS2A250GP	VMVS2A250GR305	VMVS2A250GRD4
	1"		VMVS3A250GP	VMVS3A250GR305	VMVS3A250GRD4
	3/4"	400	VMVS2A400GP	VMVS2A400GR305	VMVS2A400GRD4
	1"		VMVS3A400GP	VMVS3A400GR305	VMVS3A400GRD4
Ceiling mount through feed	3/4"	200	VMVS2C200GP	VMVS2C200GR305	VMVS2C200GRD4
	1"		VMVS3C200GP	VMVS3C200GR305	VMVS3C200GRD4
	3/4"	250	VMVS2C250GP	VMVS2C250GR305	VMVS2C250GRD4
	1"		VMVS3C250GP	VMVS3C250GR305	VMVS3C250GRD4
	3/4"	400	VMVS2C400GP	VMVS2C400GR305	VMVS2C400GRD4
	1"		VMVS3C400GP	VMVS3C400GR305	VMVS3C400GRD4
Wall mount through feed	3/4"	200	VMVS2TW200GP	VMVS2TW200GR305	
	1"		VMVS3TW200GP	VMVS3TW200GR305	
	3/4"	250	VMVS2TW250GP	VMVS2TW250GR305	
	1"		VMVS3TW250GP	VMVS3TW250GR305	
	3/4"	400	VMVS2TW400GP	VMVS2TW400GR305	
	1"		VMVS3TW400GP	VMVS3TW400GR305	
Quad mount Pendant, adjustable through feed, 25° angle, 12 1/2° angle	3/4"	200	VMVS25Q200GP	VMVS25Q200GR305	VMVS25Q200GRD4
	3/4"	250	VMVS25Q250GP	VMVS25Q250GR305	VMVS25Q250GRD4
	3/4"	400	VMVS25Q400GP	VMVS25Q400GR305	VMVS25Q400GRD4
Stanchion mount 25° angle	1 1/2"	200	VMVSJ200GP	VMVSJ200GR305	VMVSJ200GRD4
	1 1/2"	250	VMVSJ250GP	VMVSJ250GR305	VMVSJ250GRD4
	1 1/2"	400	VMVSJ400GP	VMVSJ400GR305	VMVSJ400GRD4
Stanchion mount Straight	1 1/2"	200	VMVSP200GP	VMVSP200GR305	
	1 1/2"	250	VMVSP250GP	VMVSP250GR305	
	1 1/2"	400	VMVSP400GP	VMVSP400GR305	

[ⓐ] For GR302 Type II refractor, change 'GR305' at end of catalog number to 'GR302.' Example: VMVS2A200GR302.
For GR303 Type III refractor, change 'GR305' at end of catalog number to 'GR303.' Example: VMVS2A200GR303.

1. Add voltage suffix to end of catalog number.

Standard voltage ballasts – 60 Hz

NEC/UL				CEC/CSA (cUL)	
Voltage	Multi-tap	120V	480V	Tri-tap	120V
Suffix	/MT	/120	/480	/TT	/120

Optional voltage ballasts – 50 or 60 Hz

CEC/CSA (cUL) – CWI isolated ballasts				Export			
Voltage	208V CWI	240V CWI	480V CWI	600V CWI	220V 60 Hz	220V 50 Hz	230V 50 Hz
Suffix	/208 CWI	/240 CWI	/480 CWI	/600 CWI	/220	/220 50	/230 50
							240V 50 Hz
							/240 50

2. Options: Add the required option suffixes in alphanumeric order.

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250-400W pulse start metal halide
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3, 3R, 4, 4X; IP56 to IP66

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To complete the catalog number, include information in Notes 1 and 2 below. For guards and other optics, see VMV high wattage – ordering by components page.

BASIC CATALOG NUMBER

Mounting style	Hub size	Lamp watts	Cat. # With G303 globe and P33 guard	Cat. # With GR305 glass refractor ^D	Cat. # With GRD4 reflector / lens
Pendant mount (rigid or flexible)	3/4"	250	VMVM2A250GP S828	VMVM2A250GR305 S828	VMVM2A250GRD4 S828
	1"		VMVM3A250GP S828	VMVM3A250GR305 S828	VMVM3A250GRD4 S828
	3/4"	320	VMVM2A320GP S828	VMVM2A320GR305 S828	VMVM2A320GRD4 S828
	1"		VMVM3A320GP S828	VMVM3A320GR305 S828	VMVM3A320GRD4 S828
	3/4"	400 ^E	VMVM2A400GP S828	VMVM2A400GR305 S828	VMVM2A400GRD4 S828
	1"		VMVM3A400GP S828	VMVM3A400GR305 S828	VMVM3A400GRD4 S828
Ceiling mount through feed	3/4"	250	VMVM2C250GP S828	VMVM2C250GR305 S828	VMVM2C250GRD4 S828
	1"		VMVM3C250GP S828	VMVM3C250GR305 S828	VMVM3C250GRD4 S828
	3/4"	320	VMVM2C320GP S828	VMVM2C320GR305 S828	VMVM2C320GRD4 S828
	1"		VMVM3C320GP S828	VMVM3C320GR305 S828	VMVM3C320GRD4 S828
	3/4"	400 ^E	VMVM2C400GP S828	VMVM2C400GR305 S828	VMVM2C400GRD4 S828
	1"		VMVM3C400GP S828	VMVM3C400GR305 S828	VMVM3C400GRD4 S828
Wall mount through feed	3/4"	250	VMVM2TW250GP S828	VMVM2TW250GR305 S828	
	1"		VMVM3TW250GP S828	VMVM3TW250GR305 S828	
	3/4"	320	VMVM2TW320GP S828	VMVM2TW320GR305 S828	
	1"		VMVM3TW320GP S828	VMVM3TW320GR305 S828	
	3/4"	400 ^E	VMVM2TW400GP S828	VMVM2TW400GR305 S828	
	1"		VMVM3TW400GP S828	VMVM3TW400GR305 S828	
Quad mount Pendant, adjustable through feed, 25° angle, 12 1/2° angle	3/4"	250	VMVM25Q250GP S828	VMVM25Q250GR305 S828	VMVM25Q250GRD4 S828
	3/4"	320	VMVM25Q320GP S828	VMVM25Q320GR305 S828	VMVM25Q320GRD4 S828
	3/4"	400 ^E	VMVM25Q400GP S828	VMVM25Q400GR305 S828	VMVM25Q400GRD4 S828
Stanchion mount 25° angle	1 1/2"	250	VMVMJ250GP S828	VMVMJ250GR305 S828	VMVMJ250GRD4 S828
	1 1/2"	320	VMVMJ320GP S828	VMVMJ320GR305 S828	VMVMJ320GRD4 S828
	1 1/2"	400 ^E	VMVMJ400GP S828	VMVMJ400GR305 S828	VMVMJ400GRD4 S828
Stanchion mount Straight	1 1/2"	250	VMVMP250GP S828	VMVMP250GR305 S828	
	1 1/2"	320	VMVMP320GP S828	VMVMP320GR305 S828	
	1 1/2"	400 ^E	VMVMP400GP S828	VMVMP400GR305 S828	

^D For GR302 Type II refractor, change 'GR305' at end of catalog number to 'GR302.' Example: VMVM2A250GR302 S828.

For GR303 Type III refractor, change 'GR305' at end of catalog number to 'GR303.' Example: VMVM2A250GR303 S828.

^E To be used with ED28 (bulb shaped lamp).

1. Add voltage suffix to end of catalog number.

Standard voltage ballasts – 60 Hz

NEC/UL				CEC/CSA (cUL)	
Voltage Suffix	Multi-tap /MT	120V /120	480V /480	Tri-tap /TT	120V /120

Optional voltage ballasts – 50 or 60 Hz

Export				
Voltage Suffix	220V 60 Hz /220	220V 50 Hz /220 50	230V 50 Hz /230 50	240V 50 Hz /240 50

2. Options: Add the required option suffixes in alphanumeric order.

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250-400W metal halide

For medium and high mounting heights

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To complete the catalog number, include information in Notes 1 and 2 below. For guards and other optics, see VMV high wattage – ordering by components page.

BASIC CATALOG NUMBER

Mounting style	Hub size	Lamp watts	Cat. # With G303 globe and P33 guard	Cat. # With GR305 glass refractor [Ⓐ]	Cat. # With GRD4 reflector / lens
Pendant mount (rigid or flexible)	3/4"	250	VMVM2A250GP	VMVM2A250GR305	VMVM2A250GRD4
	1"		VMVM3A250GP	VMVM3A250GR305	VMVM3A250GRD4
	3/4"	400	–	VMVM2A400GR305	VMVM2A400GRD4
	1"		–	VMVM3A400GR305	VMVM3A400GRD4
Ceiling mount through feed	3/4"	250	VMVM2C250GP	VMVM2C250GR305	VMVM2C250GRD4
	1"		VMVM3C250GP	VMVM3C250GR305	VMVM3C250GRD4
	3/4"	400	–	VMVM2C400GR305	VMVM2C400GRD4
	1"		–	VMVM3C400GR305	VMVM3C400GRD4
Wall mount through feed	3/4"	250	VMVM2TW250GP	VMVM2TW250GR305	
	1"		VMVM3TW250GP	VMVM3TW250GR305	
	3/4"	400	–	VMVM2TW400GR305	
	1"		–	VMVM3TW400GR305	
Quad mount Pendant, adjustable through feed, 25° angle, 12 1/2° angle	3/4"	250	VMVM25Q250GP	VMVM25Q250GR305	VMVM25Q250GRD4
	3/4"	400	–	VMVM25Q400GR305	VMVM25Q400GRD4
Stanchion mount 25° angle	1 1/2"	250	VMVMJ250GP	VMVMJ250GR305	VMVMJ250GRD4
	1 1/2"	400	–	VMVMJ400GR305	VMVMJ400GRD4
Stanchion mount Straight	1 1/2"	250	VMVMP250GP	VMVMP250GR305	
	1 1/2"	400	–	VMVMP400GR305	

[Ⓐ] For GR302 Type II refractor, change 'GR305' at end of catalog number to 'GR302.' Example: VMVM2A250GR302.
For GR303 Type III refractor, change 'GR305' at end of catalog number to 'GR303.' Example: VMVM2A250GR303.

1. Add voltage suffix to end of catalog number.

Standard voltage ballasts – 60 Hz

NEC/UL				CEC/CSA (cUL)	
Voltage	Multi-tap	120V	480V	Tri-tap	120V
Suffix	/MT	/120	/480	/TT	/120

Optional voltage ballasts – 50 or 60 Hz

CEC/CSA (cUL) – CWI isolated ballasts				Export			
Voltage	208V CWI	240V CWI	600V CWI	220V 60 Hz	220V 50 Hz	230V 50 Hz	240V 50 Hz
Suffix	/208 CWI	/240 CWI	/600 CWI	/220	/220 50	/230 50	/240 50

2. Options: Add the required option suffixes in alphanumeric order.

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Ordering by components

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VMV high wattage luminaires are available in components.

A complete luminaire consists of:

- I. Champ cover (mounting module)
- II. VMV ballast housing – include voltage and required option(s)
- III. Globe, guard, reflector, refractor

I. Champ cover (mounting module):

Type	Conduit size	Cat. #
Pendant mount	$\frac{3}{4}$ "	APM2
	1"	APM3
Ceiling mount [ⓐ]	$\frac{3}{4}$ "	CM2
	1"	CM3
Wall mount	$\frac{3}{4}$ "	TWM2
	1"	TWM3
Stanchion mount – 25° angle	1½"	JM5
Stanchion mount – straight	1½"	PM5
Quad mount	$\frac{3}{4}$ "	QM25

II. Ballast housings:

Complete catalog number must have the **voltage suffix** (MT shown) and any **options suffixes**.

Lamp type	Lamp watts	Cat. #
High pressure sodium	200	VMVS200/MT
	250	VMVS250/MT
	400	VMVS400/MT
Metal halide	250	VMVM250/MT
	400	VMVM400/MT

III. Globe, guards, reflectors, refractors:

Type	Cat. #
Globe	G303
Globe guard	P33
Reflector – dome	RD739
Reflector – angle	RA739
Refractor – Type II	GR302
Refractor – Type III	GR303
Refractor – Type V	GR305
Refractor guard	P23
High bay reflector/lens	GRD4

[ⓐ]Not available with V2PC photocell.

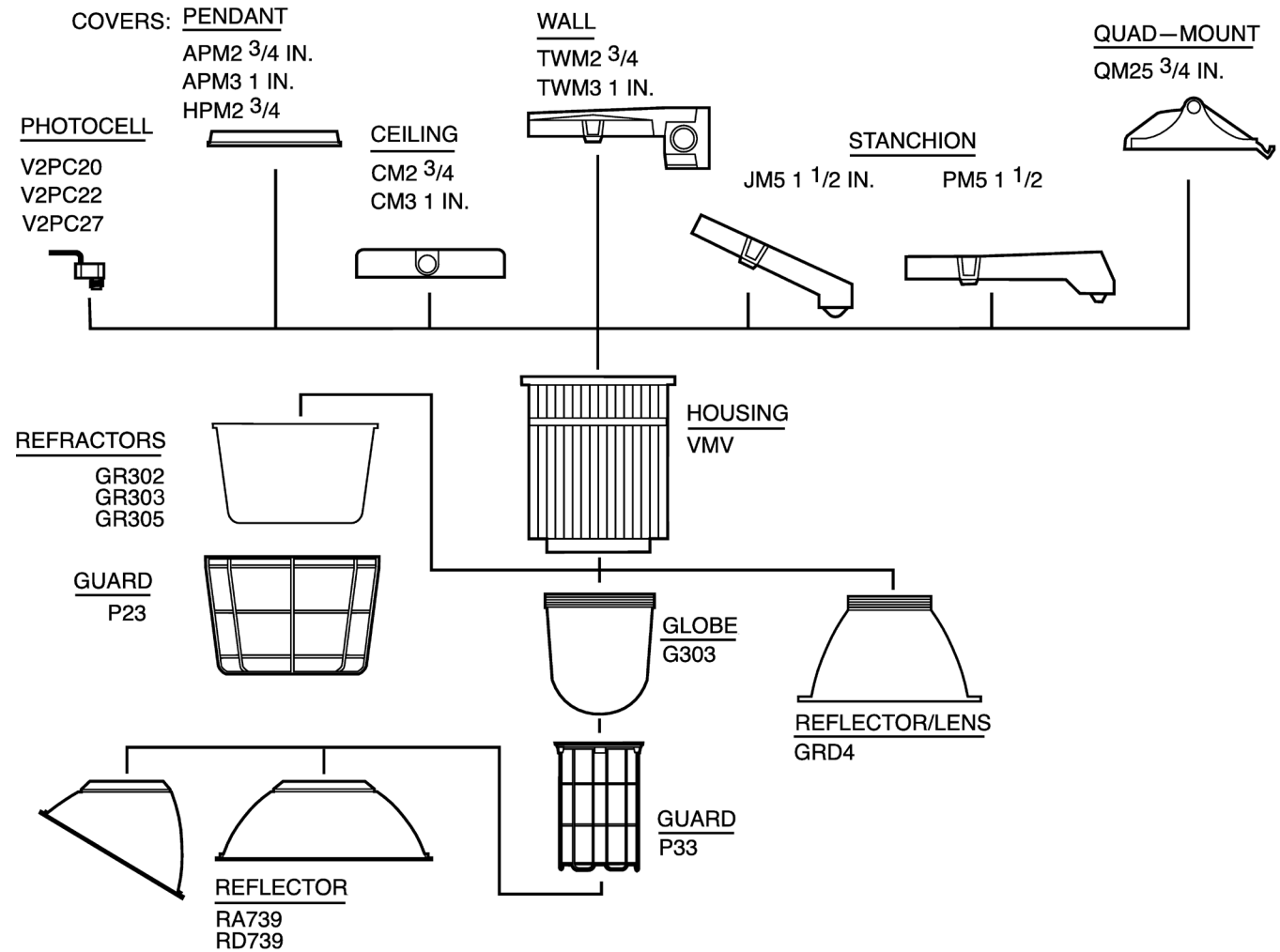
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Family tree:



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Temperature performance data:

Lamp Watts	Ambient Temp C	Optics	Class I (Gas/Vapors)				Class II (Dust) and Class III	Simultaneous Presence Gas and Dust Present in the Same Area			Supply Wire Temp C
			Non Restricted Breathing		Restricted Breathing			Non Restricted Breathing		Restricted Breathing	
					Ex nR					Ex nR	
			Standard Product		Option S826(TB)			Standard Product		Option S826	
			Division 2		Zone 2 or Division 2			Standard Product		Class I, Division 2 and Class II	
		G303		X	-	-	X	-	-	-	
		GR305		-	X	-	-	X	X	X	
		GRD4		-	-	X	-	-	-	-	

High pressure sodium

200	40	325°C 350°C T2	T3 T4	T3C	T1 / T3C	T3C	75
	55	325°C 350°C T2	T3 T4	-	-	-	75
	65	325°C 350°C T2	T3 -	-	-	-	85
250	40	350°C 350°C 325°C	T3 T4	T3C	T1 / T3C	T3C	75
	55	350°C 350°C 350°C	T3 T4	-	-	-	85
	65	350°C 350°C -	T3 -	-	-	-	-
400	40	350°C 350°C T1	T3 T4	T3C	T1 / T3C	T3C	85
	55	350°C 350°C T1	T3 T4	-	-	-	90

Metal halide

200	40	350°C 325°C 350°C	T3 T4	T3B	350°C / T3B	T3B	85
	55	350°C 350°C 350°C	T3 T4	-	-	-	90
250	40	350°C 325°C 350°C	T3 T4	T3B	350°C / T3B	T3B	85
	55	350°C 350°C 350°C	T3 T4	-	-	-	90
400	40	- 325°C T1	- T4	T3B	350°C / T3B	T3B	85
	55	- 350°C T1	- -	-	-	-	-

Pulse start metal halide (S828)

250	40	350°C 350°C 325°C	T3 T4	T3B	350°C / T3B	T3B	85
	55	350°C 350°C 350°C	T3 T4	-	-	-	90
320	40	T1 325°C T2A	T3 -	-	-	-	90
400	40	T1 T1 T1	T3 T4	-	-	-	90

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Pendant mount

Ceiling mount

Wall mount

**Luminaire with
glass refractor, guard**

Quad mount

Stanchion mount 25° angle

Technical drawing of a wire mesh cage. The drawing shows a perspective view of a rectangular cage with a lid. The lid is hinged on the left side. The cage is made of wire mesh. Dimensions are indicated: the height of the cage is 10 1/2, and the width of the cage is 12 1/2.

Stanchion mount straight

Luminaire with etched Alzak reflector/lens

**Luminaire with globe,
guard, reflectors**

Net luminaire weights:

Luminaire series	Lamp watts	Luminaire with globe, guard (lbs.)	Luminaire with reflector / lens (lbs.)	Luminaire with glass refractor (lbs.)
VMVS	200	29.50	30.00	32.50
	250	29.50	30.00	32.50
	400	38.50	39.00	41.50
VMVM	250	32.50	33.00	35.75
	320	33.00	34.00	35.50
	400	—	34.00	35.50

Type	Weight (lbs.)	Type	Weight (lbs.)
Add mounting modules:			
Pendant	1.25	Quad	3.50
Ceiling	2.75	Stanchion 25° angle	3.50
Wall	4.50	Stanchion straight	4.50
Add reflectors:			
Dome	1.50	30° angle	1.50
High bay	1.75		

Deduct: 1.50 lbs. for fixture without P33 guard