

50-150W High Pressure Sodium VMV Series

Champ® H.I.D. Lighting Fixtures
Integral Ballast Enclosed & Gasketed







Cl. I, Div. 2, Groups A,B,C,D ♦
Cl. II, Groups E,F,G ♦* (HPS 50W, 70W)
Cl. III ♦* (HPS 50W, 70W)
Simultaneous Presence ♦* (HPS 50W, 70W)

Wet Locations
Marine Locations
NEMA 3,3R,4,4X

3L-3



High Pressure Sodium High Power Factor Ballast (Min. P.F. 90%) – See Notes 1 (to specify voltage) and 2

Mounting Style	Hub Size	Lamp Watts ²	With G24 Globe and P21 Guard Cat. No.†	With G241 Type I Compact Refractor Cat. No.**	With G245 Type V Compact Refractor Cat. No.**	With R5 Glass Refractor‡ Cat. No.***	
	Pendant Mount	3/4	50	VMVS2A050GP	VMVS2A050G241	VMVS2A050G245	VMVS2A050R5
		1	50	VMVS3A050GP	VMVS3A050G241	VMVS3A050G245	VMVS3A050R5
	Flexible Pendant Mount	3/4	70	VMVS2A070GP	VMVS2A070G241	VMVS2A070G245	VMVS2A070R5
		1	70	VMVS3A070GP	VMVS3A070G241	VMVS3A070G245	VMVS3A070R5
		3/4	100	VMVS2A100GP	VMVS2A100G241	VMVS2A100G245	VMVS2A100R5
		1	100	VMVS3A100GP	VMVS3A100G241	VMVS3A100G245	VMVS3A100R5
Pendant Mount	3/4	150	VMVS2A150GP	VMVS2A150G241	VMVS2A150G245	VMVS2A150R5	
	1	150	VMVS3A150GP	VMVS3A150G241	VMVS3A150G245	VMVS3A150R5	
	Flexible Pendant Mount	3/4	50	VMVS2HA050GP	VMVS2HA050G241	VMVS2HA050G245	VMVS2HA050R5
		3/4	70	VMVS2HA070GP	VMVS2HA070G241	VMVS2HA070G245	VMVS2HA070R5
		3/4	100	VMVS2HA100GP	VMVS2HA100G241	VMVS2HA100G245	VMVS2HA100R5
		3/4	150	VMVS2HA150GP	VMVS2HA150G241	VMVS2HA150G245	VMVS2HA150R5
	Ceiling Mount Thru-Feed	3/4	50	VMVS2C050GP	VMVS2C050G241	VMVS2C050G245	VMVS2C050R5
		1	50	VMVS3C050GP	VMVS3C050G241	VMVS3C050G245	VMVS3C050R5
		3/4	70	VMVS2C070GP	VMVS2C070G241	VMVS2C070G245	VMVS2C070R5
		1	70	VMVS3C070GP	VMVS3C070G241	VMVS3C070G245	VMVS3C070R5
		3/4	100	VMVS2C100GP	VMVS2C100G241	VMVS2C100G245	VMVS2C100R5
		1	100	VMVS3C100GP	VMVS3C100G241	VMVS3C100G245	VMVS3C100R5
	Wall Mount Thru-Feed	3/4	50	VMVS2TW050GP	VMVS2TW050G241	VMVS2TW050G245	VMVS2TW050R5
		1	50	VMVS3TW050GP	VMVS3TW050G241	VMVS3TW050G245	VMVS3TW050R5
		3/4	70	VMVS2TW070GP	VMVS2TW070G241	VMVS2TW070G245	VMVS2TW070R5
		1	70	VMVS3TW070GP	VMVS3TW070G241	VMVS3TW070G245	VMVS3TW070R5
Pendant, Adjustable Thru-Feed, 25° Angle, 12 1/2° Angle	Quad-Mount	3/4	50	VMVS25Q050GP	VMVS25Q050G241	VMVS25Q050G245	VMVS25Q050R5
		3/4	70	VMVS25Q070GP	VMVS25Q070G241	VMVS25Q070G245	VMVS25Q070R5
		3/4	100	VMVS25Q100GP	VMVS25Q100G241	VMVS25Q100G245	VMVS25Q100R5
		3/4	150	VMVS25Q150GP	VMVS25Q150G241	VMVS25Q150G245	VMVS25Q150R5
	Stanchion Mount	1 1/2	50	VMVSJ050GP	VMVSJ050G241	VMVSJ050G245	VMVSJ050R5
		1 1/2	70	VMVSJ070GP	VMVSJ070G241	VMVSJ070G245	VMVSJ070R5
		1 1/2	100	VMVSJ100GP	VMVSJ100G241	VMVSJ100G245	VMVSJ100R5
		1 1/2	150	VMVSJ150GP	VMVSJ150G241	VMVSJ150G245	VMVSJ150R5
	Stanchion Mount Straight	1 1/2	50	VMVSP050GP	VMVSP050G241	VMVSP050G245	VMVSP050R5
		1 1/2	70	VMVSP070GP	VMVSP070G241	VMVSP070G245	VMVSP070R5
		1 1/2	100	VMVSP100GP	VMVSP100G241	VMVSP100G245	VMVSP100R5
		1 1/2	150	VMVSP150GP	VMVSP150G241	VMVSP150G245	VMVSP150R5

NOTES:

1. Catalog numbers are basic numbers. **Voltage must be specified.**
Voltage 120 208 240 277 347 480 600 Multi-Tap* Tri-Tap
Suffix /120 /208 /240 /277 /347 /480 /600 /MT* /TT
50W HPS fixtures are only available with a 120/277 volt dual-tap ballast. To specify voltage, add suffix DT. (Multi-tap ballasts are pre-wired for 277V.)
2. For 150W HPS fixtures, "LX" or "CE" must be specified. To specify for use with 55V lamp, add suffix "LX." To specify for use with 100V lamp, add suffix "CE." ONLY LX suffix available from Crouse-Hinds Canada.
* CSA certified fixtures are not available with multi-tap ballasts.

† To obtain fixture without guard, omit suffix "P" from Cat. No.

** Available with optional wire guard. Order "P241" wire guard separately.

*** Available with optional wire guard. Order "P23" wire guard separately.

Accessories – see pages 3L-35 and 36 for complete listing.

Ballast Data – see pages 3L-39 to 42 for replacement ballasts.

♦ See page 3L-0.

* NEC – US Fixtures (UL) – Class II, Class III, Simultaneous Presence – 50 & 70 watt HPS only.

• CEC – Canada Fixtures (CSA) – Class II, Class III – All wattages.

‡ To substitute IES Type II refractor in place of Type V, change "R5" to "R2" in catalog number. R2 & R5 refractors not suitable for marine applications.

3L H.I.D. Lighting

3L-2**50-175W VMV Series ♦**

Champ®
H.I.D. Lighting Fixtures
Enclosed & Gasketed

Cl. I, Div. 2, Groups A,B,C,D
 Cl. II, Groups E,F,G (HPS 50W, 70W)
 Cl. III (HPS 50W, 70W)
 Simultaneous Presence (HPS 50W, 70W)
 3,3R,4,4X

Wet Locations
 Marine
 Locations
 NEMA

Application:

- VMV series *Champ* lighting fixtures are used:
- in manufacturing plants, refineries, chemical, petrochemical, and other industrial process facilities, waste or sewage treatment facilities, offshore, dockside, and harbor installations, and other heavy industrial applications
 - in areas in which ignitable concentrations of flammable gases or vapors will be present only due to abnormal, unusual, or accidental conditions ♦
 - where combustible dusts are present ♦ *
 - 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 found

Features:

- Compact, lightweight design is ideal for medium and low mounting heights
- Cast copper-free aluminum construction (less than 0.4 of 1% copper) and epoxy powder finish provide excellent resistance to corrosion
- Seven mounting arrangements to suit any lighting layout – pendant, flexible pendant, ceiling, wall bracket, angle stanchion, straight stanchion, and quad-mount
- Wide range of light sources and wattages to meet specifiers' needs: 50, 70, 100, and 150 watt high pressure sodium (HPS); 100, and 175 watt mercury vapor (MV); 70, 100, 175 watt metal halide (MH)
- Hinged ballast housing for ease of installation and maintenance
- Wide choice of photometric distributions. Glass globes, refractors and compact refractors available for all wattage fixtures; plastic refractors (for non-hazardous applications only) for 50-100 watt fixtures
- All fixtures are designed to perform in a 40° C ambient temperature. Selected fixtures 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 an 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 provide superior reflectivity, with twist-on feature requiring no tools or additional hardware. Will not chip, peel, dent, rust, or corrode
- Grounding wire for safety
- Ballasts available in voltages of 120, 208, 240, 277, 347, 480, 600 multi-tap* (dual-tap* for 50W HPS) and tri-tap
- Mogul base porcelain lamp socket



Standard Materials:

- Ballast housings and mountings – copper free aluminum (less than 0.4 of 1%)
- Exterior hardware – stainless steel
- Reflectors (dome and angle) – *Krydon* fiberglass-reinforced polyester material
- Globes – heat and impact resistant internally fluted glass
- Refractors – glass (50-175 watts); plastic (50-100 watts), for non-hazardous applications.
- Guards: globe – copper-free aluminum refractor – stainless steel

Standard Finishes:

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

Electrical Ratings:

- 120, 208, 240, 277, 347, 480, 600, Multi-tap* (120, 208, 240 and 277)
- 50 to 150W HPS; 100 to 175W MV; 70 to 175W MH

Certifications and Compliances:

- NEC: Class I, Division 2, Groups A,B,C,D – All; Class II, Division 1, Groups E,F,G; 50-70W HPS only. Simultaneous Presence (Class I, Division 2/Class II, Division 1) – 50-70W HPS only. Class III 50-70W HPS only.
- CEC: Class I, Division 2, Groups A,B,C,D -All Class II, Groups E,F,G – All Class III – All
- UL Standards: 595 Marine Locations; 844 Hazardous (Classified) Locations: 1572 Ordinary and Wet Locations
- CSA Standard: C22.2 No. 137

(Note: CEC/CSA Certified VMV Champ® HID lighting - Crouse-Hinds Canada fixtures only.)

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Options:

The following special options are available from the factory by adding suffix to fixture Cat. No.:

- | Description | Suffix to be added to Cat. No. |
|--|--|
| • Fused – to protect ballast and capacitors against abnormal line conditions. | S658 Ⓞ |
| • Ballast-Gard™ starter cut-out switch – prevents starter pulsing when lamp is cycling or inoperative; prolongs ballast and ignitor life. Available for use with 50-150W LX HPS only | BG |
| • Instant restrike – enables a hot HPS lamp to immediately restrike after a momentary loss of arc due to voltage fluctuation or power outage. It has no effect on the warm-up period of cold lamps. Available for use with 50-150W LX HPS only | IR |
| • Quartz auxiliary lighting for use with R2 & R5 large glass refractors only! – comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. For <i>non-hazardous</i> locations only | QTZ† |
| • Stainless steel insert - top hat with stainless steel threaded insert to attach ballast housing | S806 |
| • TEFLON coating on globe for increased shatter protection. | S808
(VMV T#S do not change) |
| • Factory assembled with H.I.D. lamps installed for additional labor savings. | FA |
- (Note: BG and IR options cannot be used together. IR and QTZ options cannot be used together.)
- Restricted Breathing Construction
 - Class I Zone 2 suitability
 - Cooler T-Ratings for Class I Div 2 **S826**

Accessories:

- See pages 3L-35 and 36 for complete listing.
- See page L-18 for family trees.

♦ See page 3L-0.

- NEC – US Fixtures (UL) – Class II, Class III, Simultaneous Presence – 50 & 70 watt HPS only.
- CEC – Canada Fixtures (CSA) – Class II, Class III – All lamp types and wattages.

† Quartz lamp not included use 100W single ended lamp – Q100DC, Q100CL/DC or 100Q/CL/DC. Consult factory for top-hat limitations.

Ⓞ CSA certified fixtures are not available with fusing.

* CSA certified fixtures are not available with multi-tap or dual-tap ballast. CSA certified fixtures available with tri-tap ballasts.

TEFLON is a registered trademark of E.I. duPont Co.

Champ® H.I.D. Lighting Fixtures

Accessories

3L-35

VMV, LMV, DMV, VMV High Wattage & N2MV Series



Globes



G54



G24



G303

Lamp Watts	Fixture Series	Type	Cat. #
35-150	LMVS, LMVM	Heat/impact resistant	G54
50-175	VMVC, VMVM, VMVS	Heat/impact resistant	G24
50-250	DMVC, DMVM, DMVS	Heat/impact resistant	G303
200-400	VMVS	Heat/impact resistant	G303
250	VMVC, VMVM	Heat/impact resistant	G303
50-175	N2MVC, N2MVM, N2MVS	Heat/impact resistant	G303

Guards



P50 – use with G54 globe



P21 – use with G24 globe



P33 – use with G303 globe



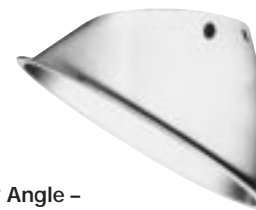
P23 – use with refractors

Lamp Watts	Fixture Series	Type	Cat. #
35-150	LMVS, LMVM	Copper-free aluminum	P50
50-175	VMVC, VMVM, VMVS	Copper-free aluminum	P21
50-250	DMVC, DMVM, DMVS	Stainless steel	P33
200-400	VMVS	Stainless steel	P33
250	VMVC, VMVM	Stainless steel	P33
Refractors	All	Stainless steel	P23
50-175	N2MVC, N2MVM, N2MVS	Stainless steel	P33

Reflectors



Dome – Krydon® material



30° Angle – Krydon material

Lamp Watts	Fixture Series	Dome Cat. #	Angle Cat. #
35-150	LMVS, LMVM	RD636 (RD66)	RA636 (RA66)
50-175	VMVC, VMVM, VMVS	RD70	RA70
50-250	DMVC, DMVM, DMVS	RD739 (RD79)	RA739 (RA79)
200-400	VMVS	RD739 (RD79)	RA739 (RA79)
250	VMVC, VMVM	RD739 (RD79)	RA739 (RA79)
50-175	N2MV, N2MVF(B)	RD739	RA740



Reflector/Lens – Etched Alzak aluminum reflector/tempered glass lens

Lamp Watts	Fixture Series	Type	Cat. #
200-400	VMVC, VMVM, VMVS	Reflector/Lens	GRD4
70-250	DMVS, DMVC, DMVM	Reflector/Lens	GRD4

Globes – Teflon Coated

Teflon coated for increased shatter protection

Lamp Watts	Fixture Series	Cat. #
50-175	VMVC, VMVM, VMVS	G24-S808
50-175	DMVC, DMVM, DMVS	G303-S808

Alzak is a registered trademark of Alcoa.
Teflon is a registered trademark of E.I. DuPont Co.

3L H.I.D. Lighting

3L-36 Champ® H.I.D. Lighting Fixtures

VMV, DMV & VMV High Wattage Series

Accessories



Refractors



R2, R5, PR2, PR3, PR5



GR302, GR305

Lamp Watts	Fixture Series	I.E.S. Type	Glass Cat. #	Plastic (100W max. non hazardous) Cat. #
50-175	VMVC,	II	R2	PR2
	VMVM,	III		PR3
	VMVS	V	R5	PR5
200-400	VMVC,	II	GR302	
	VMVM,	V	GR305	
	VMVS			
50-250	DMVC,	II	GR302	PGR302
	DMVS,	III		PGR303
	DMVM	V	GR305	PGR305
50-175	N2MV			

Safety Lighting Options

Quartz Auxiliary Lamp



The quartz auxiliary lamp comes to full brightness instantly and remains lit until the H.I.D. lamp attains 60-70% of full illumination. Quartz auxiliary lamps can be used with all DMV, VMV and VMV high wattage series *Champ*® fixtures. Use for non-hazardous applications ONLY.

(NOTE: VMV fixtures (50-175W) ordered with this option must use large glass refractor optics, not compact refractors).

Quartz auxiliary lamp (100W single ended lamp – Q100CL/DC, Q100DC or 100Q/CL/DC NOT furnished)

Add suffix **QTZ** to Cat. No.

Instant Restrike

Factory installed instant restrike device will restart a hot high pressure sodium lamp (50-150W LX) after a momentary power interruption, without the typical delay for cooling.

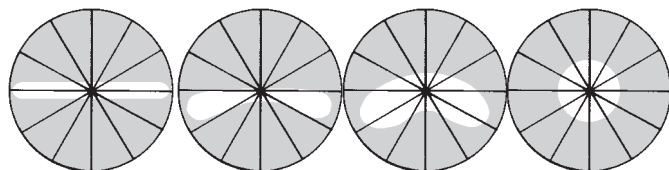
Instant restrike for use in 50-150W "LX" HPS fixtures.

Add suffix **IR** to Cat. No.

Ballast-gard™

Ballast-gard starter cut-out switch prevents starter pulsing after a time delay of approximately two minutes if the lamp fails to start. For use in 50-400 watt HPS fixtures only. Add suffix **BG** to Cat. No.

I.E.S. Distribution Curves



Type I

Type II

Type III

Type V

Compact Refractors



G241, G245



With optional P241 wire guard.

Lamp Watts	Fixture Series	IES Type	Glass Cat. #
50-175	VMVC,	I	G241
	VMVM,	V	G245
	VMVS		

Optional stainless steel wire guard

P241

April 1999

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The only UL recognized photocell for Class I, Division 2 areas eliminates the need for an explosionproof box.

Crouse-Hinds V2PC factory-sealed, field installed photocell offers reliable, dusk-to-dawn lighting control in Class I, Division 2 locations. The V2PC is ideal for walkways, security lighting, and any other outdoor lighting application that utilizes Champ® H.I.D. lighting fixtures.

Applications:

The V2PC is designed:

- to provide control for automatic dusk-to-dawn lighting.
- for use with LMV, DMV, VMV, VMV High Wattage, N2MV and FMV Series Champ® lighting fixtures.
- for use on 35-400 watt H.I.D., incandescent, or fluorescent lighting fixtures.
- to save energy by operating fixtures only when necessary.
- for safety by turning on outdoor fixtures in critical passageways at night.
- for walkways, parking areas, outdoor process areas, security lighting, or any outdoor lighting application in Class I, Division 2 locations and corrosive environments.
- for remote mounting in FS boxes (D2S Series).
- for mounting in EIH enclosures for Class I, Division 1 applications (EV2IH Series).

Features:

- Field-installable.
- Solid-state design for performance and dependability.
- Factory sealed components.
- Explosionproof enclosure not required for Class I, Division 2 locations.
- Fixtures turn on at 3 footcandles, off at 8 footcandles insuring that the fixtures are operating only when needed.
- Built-in 10 second time delay to eliminate nuisance tripping.
- Eight-year operating life.
- Furnished with 6" stranded 600 volt color coded wire leads.
- Constructed from corrosion-resistant thermoplastic polyester.
- Available on a DS cover for use with any FS/FD box (D2S Series).
- Available in an EIH enclosure for use in Class I, Division 1, Groups B†, C, and D locations (EV2IH Series).

Electrical Rating Ranges:

- 120, 208, 220, 240, 277 VAC
- 50/60 Hz
- 35-400 watt H.I.D., incandescent, or fluorescent
- V2PC20 – 3.3A max. current rating
- V2PC22 – 1.8A max. current rating
- V2PC27 – 1.4A max. current rating



Certifications and Compliances:

V2PC and D2S

- NEC/CEC: Class I, Division 2, Groups A, B, C, D
- UL Standard: 844 – Hazardous (Classified) Locations
- CSA: C22.2 No. 55

EV2IH

- NEC/CEC:
 - Class I, Division 1 and 2, Groups B, C, D
 - Class II, Division 1, Groups E, F, G
 - Class II, Division 2, Groups F, G
 - Class III
- NEMA: 3, 4, 7BCD, 9EFG
- UL Standard: 844 – Hazardous (Classified) Locations
- CSA: C22.2 No. 30, 55

Options:

To order fixture with **photocell factory installed**, add photocell Cat. No. to fixture Cat. No. as follows:

V2PC20
V2PC22
V2PC27

Example: VMVSJ070GP/120-V2PC20 is a 120V 60Hz light fixture with a factory installed photocell.

† For Group B applications, seal within 1½" of enclosure in accordance with Section 501-5 of the National Electric Code®.

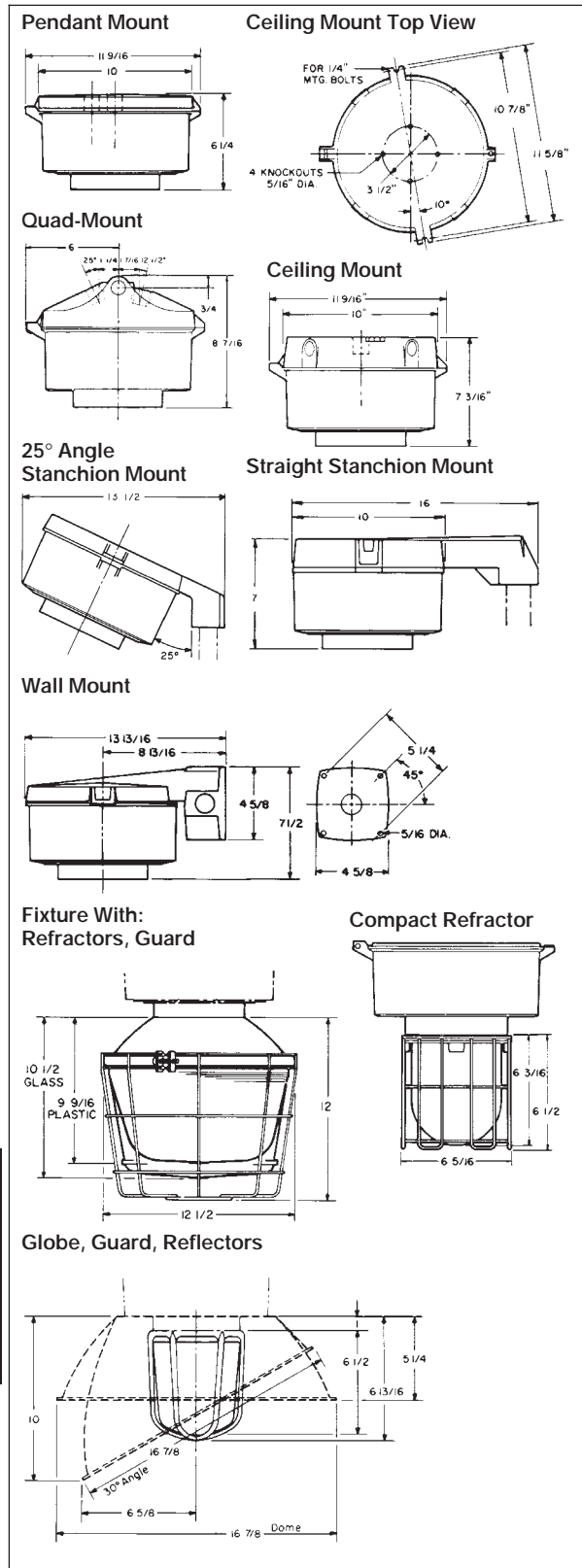


3L-6

50-175W VMV Series



Champ® H.I.D. Lighting Fixtures
Integral Ballast Enclosed &
Gasketed



Temperature Performance Data

Lamp Watts	Ambient Temp °C	Class I Division 2		*Class II Division 1 and 2		Simultaneous Presence Class I, Division 2/Class II	Supply Wire °C	
		Globe, S80&&Guard/R5 Series Refractor	Globe&Guard	Globe&Guard	Globe&Guard			
High Pressure Sodium:								
50	40	T3A	T3C	T3B	T4	T4A	T3/T4A	75
	55	T3A	—	T3A	—	T4	T3/T4	75
	65	T3	—	T3	—	—	—	75
70	40	T3	T3A	T3B	T3C	T3C	T2D/T3C	75
	55	T3	—	T3	—	T3C	T2C/T3C	90
	65	—	—	—	—	—	—	—
100	40	T2C	T2C	T2D	T2D	—	—	90
	55	—	—	—	—	—	—	—
	65	—	—	—	—	—	—	—
150	40	T2A	T2B	T2B	T2C	—	—	90
	55	—	—	—	—	—	—	—
	65	—	—	—	—	—	—	—
Mercury Vapor:								
100	40	T2B	T2B	T2C	T2B	—	—	75
	55	—	—	—	—	—	—	—
	65	—	—	—	—	—	—	—
175	40	T2	T2A	T2B	T2B	—	—	90
	55	—	—	—	—	—	—	—
	65	—	—	—	—	—	—	—
Metal Halide:								
70	40	T3A	T3A	T3A	—	—	—	75
	55	T3	T3	T3	—	—	—	90
	65	—	T3	—	—	—	—	—
100	40	T2D	T2D	T2D	—	—	—	75
	55	T2D	T2D	T2D	—	—	—	85
	65	—	—	—	—	—	—	—
175	40	T2A	T2A	T2B	T2B	—	—	90
	55	—	—	T2A	—	—	—	—
	65	—	—	—	—	—	—	—

(Data not applicable with QTZ suffix)

Net Fixture Weights (lbs.):

Fixture Series	Lamp Watts 50	70	100	150	175
Fixture with Globe, Guards (lbs):					
VMVS	13 1/2	14 1/2	14 1/2	14 1/2	—
VMVC	—	—	13 3/4	—	15 1/2
VMVM	—	13	13 3/4	—	15 1/2
Fixture with Glass Refractor (lbs):					
VMVS	21 3/4	22 3/4	22 3/4	22 3/4	—
VMVC	—	—	21 1/2	—	23 3/4
VMVM	—	21	21 1/2	—	23 3/4

Add for mounting modules (lbs):

Pendant	1 1/4	Quad-Mount	3 1/2
Flexible Pendant	1 1/2	Angle Stanchion	3 1/2
Ceiling	2 3/4	Straight Stanchion	4 1/2
Wall	4 1/2		

Add for reflectors (lbs):

Dome	1 1/2	30° Angle	1 1/2
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Deduct: 1/2 lb. for fixture without P21 Guard

* • NEC – US Fixtures (UL) – Class II, Class III, Simultaneous Presence – 50 & 70 watt HPS only.
• CEC – Canada Fixtures (CSA) – Class II, Class III – All lamp types and wattages.

CSA T-Rating CSA testing for T #'s is to different standards than UL.

50-175W VMV Series

Champ® H.I.D. Lighting Fixtures
Integral Ballast Enclosed & Gasketed
Photometric Data

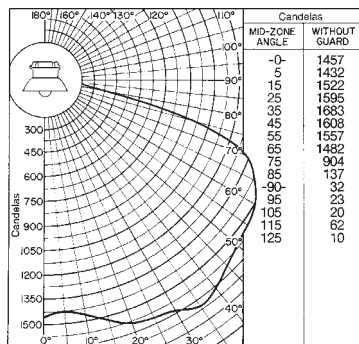
3L-7



Lamp: 100W/E-23½ high pressure sodium (HPS)
Total bare lamp lumens: 9500

To determine number and placement of fixtures, see Lighting Selector Guide, pages L-7 to L-12.
NOTE: All data provided is for high pressure sodium fixtures with 100W/E-23½ clear lamps. Use conversion factors (multipliers) shown below for other clear lamp types and wattages. Consult Crouse-Hinds for additional photometric data on any Champ Series fixture.

Fixture with Globe and Dome Reflector



Multipliers (for use with candela curve only).

Fixture Series	Lamp Watts	Conversion Factor
VMVS	50	0.42
	70	0.67
	150	1.68

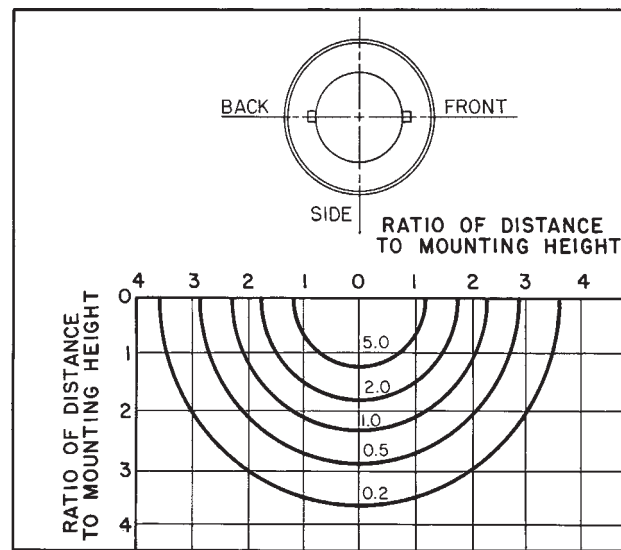
Luminaire spacing ratio: 1.85

Coefficient of Utilization

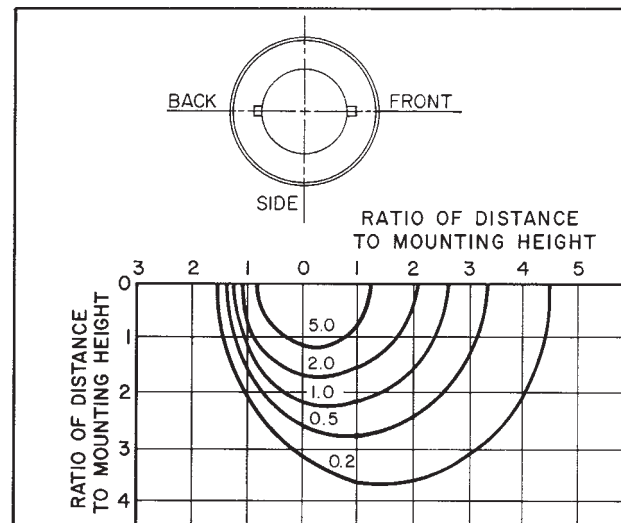
Effective Floor Cavity Reflectance 20%

% Reflectance Eff. Cell	Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.823	.707	.610	.529	.464
	30	.784	.646	.538	.451	.384
	10	.749	.594	.482	.391	.324
70	50	.804	.690	.597	.517	.452
	30	.767	.633	.530	.445	.377
	10	.734	.587	.477	.388	.321
50	50	.765	.658	.571	.494	.434
	30	.735	.611	.513	.431	.368
	10	.709	.569	.466	.381	.318
30	50	.731	.629	.546	.473	.416
	30	.708	.591	.497	.419	.357
	10	.685	.555	.456	.375	.312
10	50	.701	.603	.524	.454	.399
	30	.681	.569	.482	.406	.348
	10	.662	.541	.446	.367	.307
0	0	.644	.521	.427	.348	.288
% Reflectance Eff. Cell	Wall	Room Cavity Ratio				
		6	7	8	9	10
80	50	.412	.366	.326	.296	.258
	30	.334	.290	.253	.224	.187
	10	.278	.239	.201	.175	.142
70	50	.403	.359	.320	.291	.252
	30	.329	.285	.250	.221	.187
	10	.274	.235	.200	.174	.142
50	50	.386	.344	.307	.279	.244
	30	.320	.277	.244	.216	.182
	10	.271	.231	.197	.172	.140
30	50	.371	.329	.296	.269	.235
	30	.312	.272	.237	.210	.178
	10	.267	.227	.195	.170	.137
10	50	.357	.319	.285	.260	.227
	30	.304	.266	.232	.206	.173
	10	.263	.224	.192	.167	.135
0	0	.245	.207	.176	.152	.120

Isofootcandle Chart: Fixture with Globe and Dome Reflector



Isofootcandle Chart: Fixture with Globe and 30° Angle Reflector



Isofootcandle charts show illumination in footcandles on work plane 10 feet below light center. Multiply by factor shown to convert to other mounting heights.

Height (Ft.)	Factor	Height (Ft.)	Factor
6	2.78	14	0.51
8	1.56	16	0.39
12	0.70		

