

35-150W LMV Series

Champ® H.I.D. Luminaires Medium Base

- Cl. I, Div 2, Groups A, B, C, D
- Restricted Breathing Cl. I, Div 2 & Zone 2 (Suffix S826)
- Certified for IEC Zone 2 (Suffix S826TB)
- Cl. II Groups E, F, G, Cl. III & Simultaneous Presence (HPS 35, 50W)
- Marine & Wet Locations
- 3, 3R, 4, 4X; IP66

Application:

LMV series *Champ*® luminaires are used:

- in applications involving low luminaire mounting heights or restricted mounting space or where luminaire weight is a factor
- 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
- where combustible dusts and flammable vapors are present simultaneously
- in elevated ambient temperatures often found in industrial applications
- in marine applications where water spray and corrosive atmospheres are considerations
- wherever the damaging effects of wind, snow, sleet, or hot sun are found
- in manufacturing plants, chemical, petrochemical, and other industrial process facilities, waste or sewage treatment facilities, offshore or dockside installations, cold storage facilities, parking garages or wherever dust, dirt, water, vibration and rough usage are a problem

Features:

- Compact, lightweight design is ideal for 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, straight stanchion, angle stanchion, and quad-mount.
- Wide range of lamp wattages to meet specifiers needs: 35, 50, 70, 100 and 150 watt (HPS); 70 and 100 watt (MH) medium base lamps.
- Hinged ballast housing for ease of installation and maintenance.
- 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 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.
- Medium base lamp sockets.



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
- Guards – copper-free aluminum

Standard Finishes:

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

Electrical Ratings:

- 120 volts, dual-tap (120/277*), multi-tap*
- 35, 50, 70, 100, 150 watts HPS
- 70 and 100 watts MH

Certifications and Complies:

- NEC and CEC:
 - Class I, Division 2, Groups A,B,C,D
 - HPS 35W, 50W - Class II, Class III & Simultaneous Presence (Class 1, Division 2 and Class II)
 - Class I Zone 2
- IEC:
 - Zone 2 Ex nR IIC
- UL Standards:
 - 844, 2279 Hazardous (Classified) Locations
 - 1598 Luminaires
 - 1598A Marine Locations
- CSA Standards
 - C22.2 No. 137
- IEC Standards
 - 60079-15

Options:

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

Description	Suffix to be Added to Cat. No.
• Restricted Breathing Construction	S826
- Class I Division 2 & Zone 2 Suitability	
- Cooler Operating Temperatures (T-Numbers)	
• Certified for IEC Zone 2	S826TB
- 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*
(Not for use in Canada)	
• Ballast-Gard™ starter cut-out switch – prevents starter pulsing when lamp is cycling or inoperative; prolongs ballast and ignitor life. Available for use with 50-100W HPS only	BG
• Factory assembled with H.I.D. lamps installed for additional labor savings.	FA
• Stainless steel insert - top hat with stainless steel threaded insert to attach ballast housing	S806

Accessories:

- See document 125221 for complete listing

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







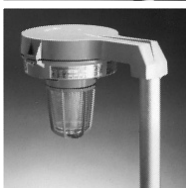
35-150W High Pressure Sodium

LMV Series Champ® H.I.D. Luminaires Medium Base

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- Cl. II Groups E, F, G; Cl. III & Simultaneous Presence (35W, 50W)
- Marine & Wet Locations
- 3, 3R, 4, 4X; IP66

See Note 1 (to specify voltage), 2 and 3. For guards and other optics see LMV Luminaires - Ordering by Components section.

BASIC CATALOG NUMBER

Mounting Style	Hub Size	Lamp Watts	With G54 Globe and P50 Guard	
	Pendant Mount	3/4	35	LMVS2A035GP
		1		LMVS3A035GP
		3/4	50	LMVS2A050GP
		1		LMVS3A050GP
		3/4	70	LMVS2A070GP ✓
		1		LMVS3A070GP ✓
		3/4	100	LMVS2A100GP ✓
		1		LMVS3A100GP ✓
		3/4	150	LMVS2A150GP
		1		LMVS3A150GP
	Flexible Pendant Mount	3/4	35	LMVS2HA035GP
		3/4	50	LMVS2HA050GP
		3/4	70	LMVS2HA070GP ✓
		3/4	100	LMVS2HA100GP ✓
		3/4	150	LMVS2HA150GP
	Ceiling Mount Thru-Feed	3/4	35	LMVS2C035GP
		1		LMVS3C035GP
		3/4	50	LMVS2C050GP
		1		LMVS3C050GP
		3/4	70	LMVS2C070GP ✓
		1		LMVS3C070GP ✓
		3/4	100	LMVS2C100GP ✓
		1		LMVS3C100GP ✓
		3/4	150	LMVS2C150GP
		1		LMVS3C150GP
	Wall Mount Thru-Feed	3/4	35	LMVS2TW035GP
		1		LMVS3TW035GP
		3/4	50	LMVS2TW050GP
		1		LMVS3TW050GP
		3/4	70	LMVS2TW070GP ✓
		1		LMVS3TW070GP ✓
		3/4	100	LMVS2TW100GP ✓
		1		LMVS3TW100GP ✓
		3/4	150	LMVS2TW150GP
		1		LMVS3TW150GP
	Quad-Mount Pendant, Adjustable Thru-Feed, 25° Angle, 12 1/2° Angle	3/4	35	LMVS25Q035GP
		3/4	50	LMVS25Q050GP
		3/4	70	LMVS25Q070GP
		3/4	100	LMVS25Q100GP
		3/4	150	LMVS25Q150GP
	Stanchion Mount 25° Angle	1 1/2	35	LMVSJ035GP
		1 1/2	50	LMVSJ050GP
		1 1/2	70	LMVSJ070GP ✓
		1 1/2	100	LMVSJ100GP ✓
		1 1/2	150	LMVSJ150GP
	Stanchion Mount Straight	1 1/2	35	LMVSP035GP
		1 1/2	50	LMVSP050GP
		1 1/2	70	LMVSP070GP ✓
		1 1/2	100	LMVSP100GP ✓
		1 1/2	150	LMVSP150GP

1. Standard Voltage Ballasts - 60Hz								
NEC/UL				CEC/CSA (cUL)				
Voltage Suffix	Multi Tap /MT	Dual Tap /DT	120V /120	480V /480	Tri Tap /TT	Dual Tap /DT	120V /120	







2. 150W HPS Luminaires, 55V Lamps is Standard . 50W HPS luminaire is dual-tap only.
 3. Options - Add the Required Options Suffixes from page 735, In Alpha-numeric Order
 ✓ - available with Lightning Service™ delivery. See Section G for complete details

70-100W Metal Halide

LMV Series Champ® H.I.D. Luminaires Medium Base

- Cl. I, Div 2, Groups A, B, C, D
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- Marine & Wet Locations
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See Note 1 (to specify voltage), 2 and 3. For guards and other optics see LMV Luminaires - Ordering by Components section.

		BASIC CATALOG NUMBER			
Mounting Style	Hub Size	Lamp Watts	With G54 Globe and P50 Guard		
	Pendant Mount	3/4	70	LMVM2A070GP	
		1		LMVM3A070GP	
		3/4	100	LMVM2A100GP	
		1		LMVM3A100GP	
	Flexible Pendant Mount	3/4	70	LMVM2HA070GP	
		3/4	100	LMVM2HA100GP	
	Ceiling Mount Thru-Feed	3/4	70	LMVM2C070GP	
		1		LMVM3C070GP	
		3/4	100	LMVM2C100GP	
		1		LMVM3C100GP	
	Wall Mount Thru-Feed	3/4	70	LMVM2TW070GP	
		1		LMVM3TW070GP	
		3/4	100	LMVM2TW100GP	
		1		LMVM3TW100GP	
	Stanchion Mount 25° Angle	1 1/2	70	LMVMJ070GP	
		1 1/2	100	LMVMJ100GP	
	Stanchion Mount Straight	1 1/2	70	LMVMP070GP	
		1 1/2	100	LMVMP100GP	

Standard Voltage Ballasts - 60Hz				CEC/CSA (cUL)	
		NEC/UL			
Voltage Suffix	Multi Tap /MT	120V /120	480V /480	Tri Tap /TT	120V /120

- Options - Add the Required Options Suffixes from page 735 in Alpha-numeric Order
- 70W Ballast not available in 480V.

LMV Luminaires - Ordering by Components

LMV luminaires are available in components

A complete luminaire consists of:

- I. Champ Cover (mounting module)
- II. LMV Ballast Housing - Include voltage and required option(s)
- III. Globe, Guard, Reflector

I. Champ Cover (Mounting Module):

Type	Conduit	Cat. No.
Pendant	¾	APM2
	1	APM3
Flexible Pendant	¾	HPM2
Ceiling	¾	CM2
	1	CM3
Wall	¾	TWM2
	1	TWM3
Stanchion - 25 Degree Angle	1½	JM5
Stanchion - Straight	1½	PM5
Quad-Mount	¾	QM25

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

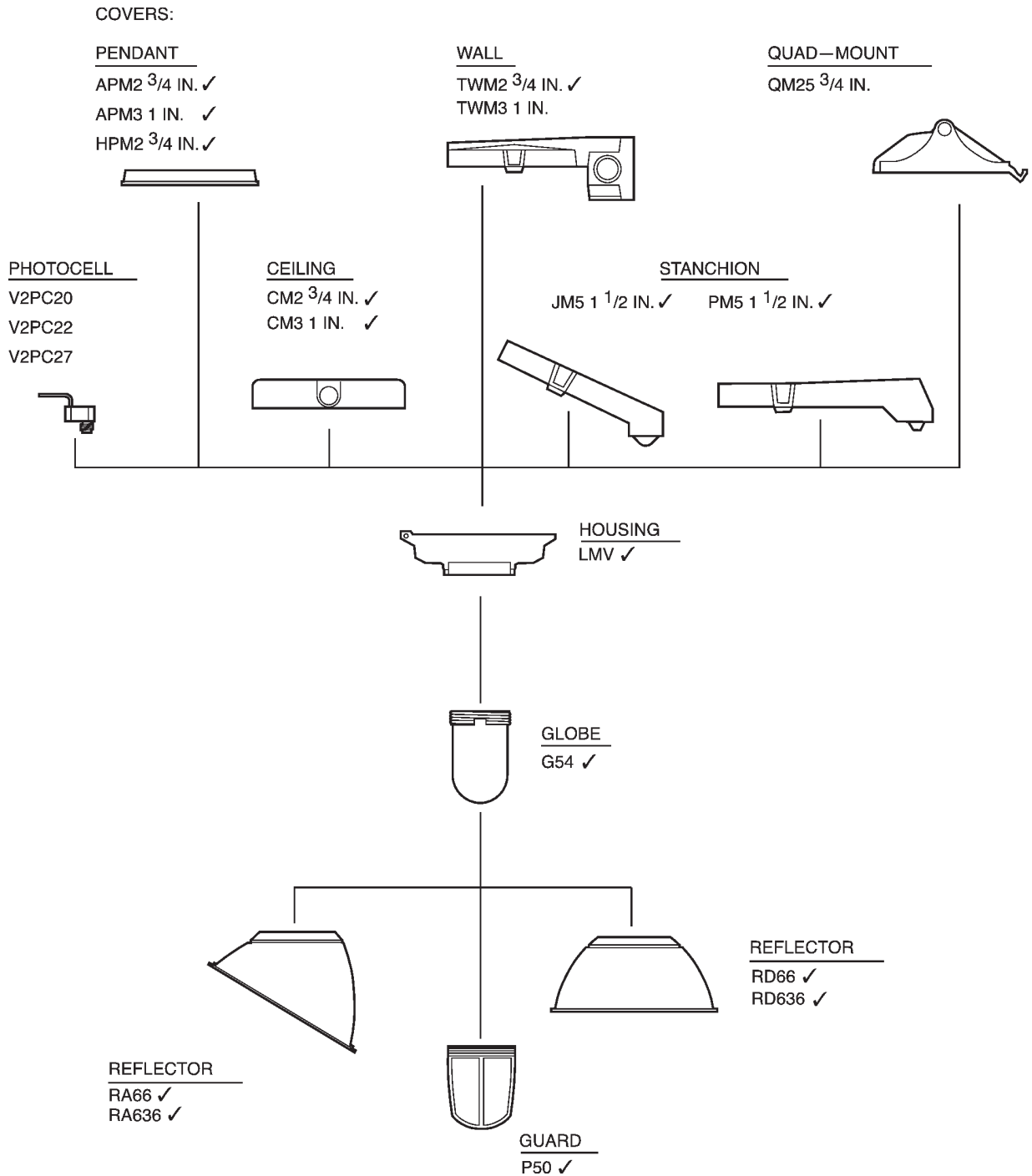
Lamp Type	Lamp Watts	Catalog Number
High Pressure Sodium	35	LMVS035/MT
	50	LMVS050/MT
	70	LMVS070/MT
	100	LMVS100/MT
	150	LMVS150/MT LX
Metal Halide	70	LMVM070/MT
	100	LMVM100/MT

III. Globe, Guards and Reflectors:

Type	Catalog Number
Globe	G54
Globe Guard	P50
Globe Reflector-Dome	RD636
Globe Reflector-Angle	RA636

35-150W LMV Series Champ® H.I.D. Luminaires

Family Tree



✓ – available with Lightning Service™ delivery. See Section G for complete details.

35-150W LMV Series Champ® H.I.D Luminaires

Temperature Performance Data

Cat. No.	LAMP		RATED AMBIENT °C	CLASS I, DIVISION 2	CLASS II, DIVISION 1		CLASS I, ZONE 2			
	Wattage	Type		Globe (G54) w/ or w/o Reflector (RA636 or RD636)*	Group	Globe (G54) w/ or w/o Reflector (RA636 or RD636)	Simultaneous Presence Class I, Div. 2 Class II, Div. 1	Restricted Breathing Suffix S826 w/ Globe (G54)	Factory Sealed Suffix S865 AEx nA nR II	Supply Wire Suitable for °C
LMVS35	35	HPS	40	T3A	EFG	T4A	T2D	T6	T3	N/A
LMVS35	35	HPS	55	T3	EFG	T4	T2C	T5	T3	75
LMVS35	35	HPS	65	T3	EFG	T3C	T2C	T4	T3	85
LMVS50	50	HPS	40	T2D	EFG	T3C	T2B	T5	T3	N/A
LMVS50	50	HPS	55	T2C	—	—	—	T4	T3	75
LMVS50	50	HPS	65	T2C	—	—	—	T4	T3	85
LMVS70	70	HPS	40	T2B	—	—	—	T4	T3	75
LMVS70	70	HPS	55	T2B	—	—	—	T4	T3	85
LMVS100	100	HPS	40	T2	—	—	—	T4	T3	85
LMVS100	100	HPS	50	—	—	—	—	T3	T3	90
LMVM70	70	MH	40	T2B	—	—	—	T4	T3	75
LMVM70	70	MH	55	T2B	—	—	—	T4	T3	85
LMVM100	100	MH	40	—	—	—	—	T3	T3	85
LMVM150	150	HPS	40	T1 350°C	—	—	—	—	—	85

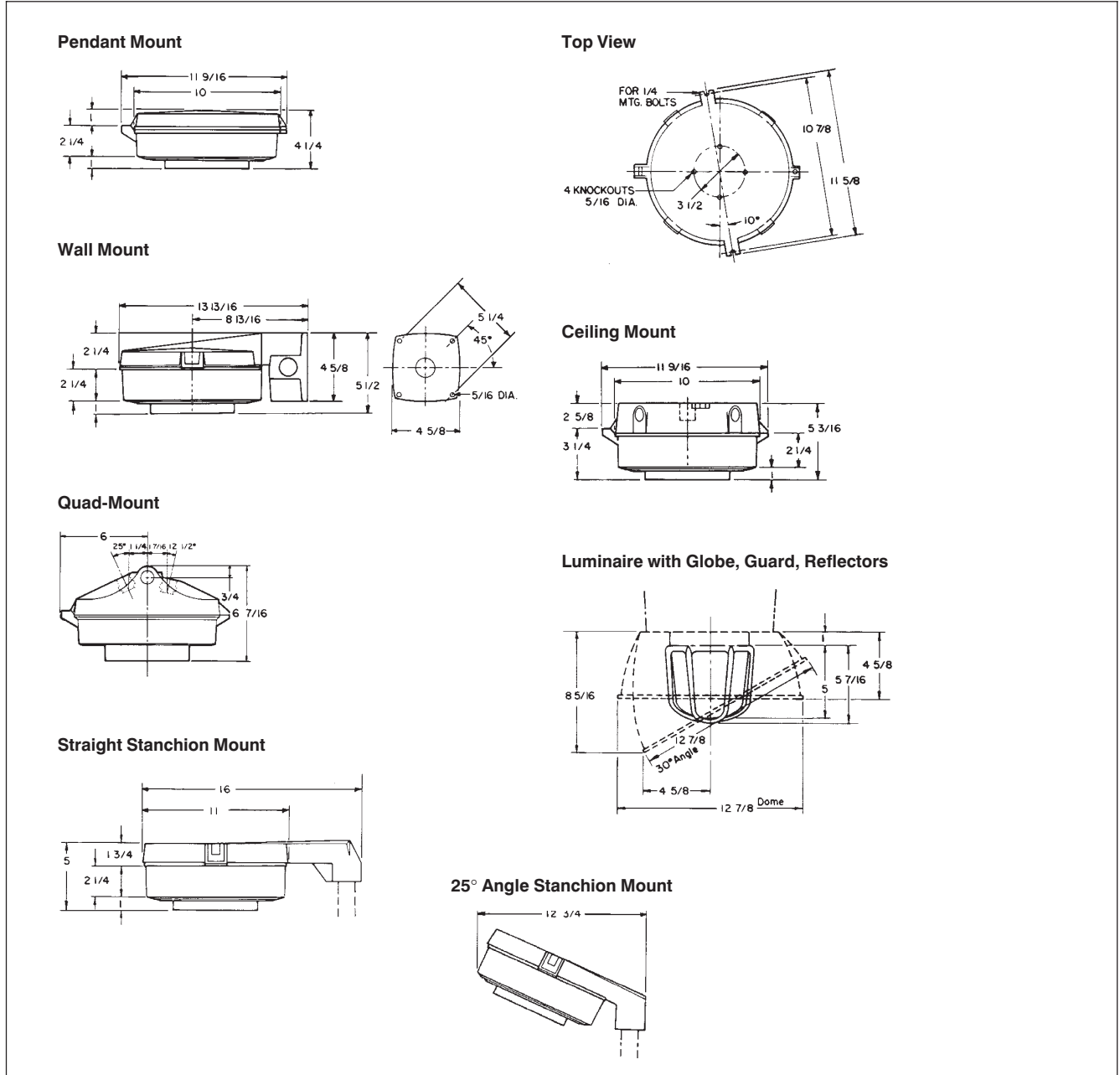
The Class I, Division 2 T-codes apply to luminaires without the restricted breathing (S826) or factory sealed (S865) options. These luminaires are listed to UL 844. UL 844 specifies how the temperatures are measured.

The Class I, Zone 2 T-codes are for luminaires that are additionally listed to UL 60079-15 that specify a different method for measuring temperatures. Since NEC® 501.1 states that equipment "...for use in Class I, Zone 0, 1 or 2 locations shall be permitted in Class I, Division 2 locations..." then these luminaires are suitable for Class I, Division 2 but with lower temperature ratings. They also have the advantage of meeting the more rigorous mechanical tests of UL 844.

35-150W LMV Series Champ® H.I.D. Luminaires

Dimensions and Weights

Dimensions



Luminaire Net Weights:

Luminaire Series	Lamp Watts	Luminaire with Globe, Guard (lbs.)
LMVS	35	7 1/4
	50	7 3/4
	70	8 1/4
	100	8 3/4
	150	9 1/4
LMVM	70	9
	100	9

Add for mounting modules (lbs.)

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

Add for reflectors (lbs.):

Dome	1.0	30° Angle	1.0
Deduct for luminaire without guard (lbs.):			
P50 Guard 1/2			

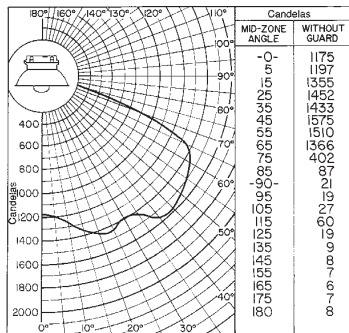
35-150W LMV Series Champ® H.I.D. Luminaires

Photometric Data

Lamp: 100W/E-17 high pressure sodium (HPS)
Total bare lamp lumens: 9500

To determine number and placement of luminaires, see Lighting Selector Guide, pages 665 to 689.
NOTE: All data provided is for high pressure sodium luminaires with 100W/E-17 clear lamps. Use conversion factors (multipliers) shown below for other lamp types and wattages.

Luminaire with Globe and Dome Reflector



Multipliers (for use with candlepower curves only).

Luminaire Series	Lamp Watts	Conversion Factors
LMVS	35	0.24
	50	0.42
	70	0.67
	150	1.68

Luminaire spacing ratio: 2.0

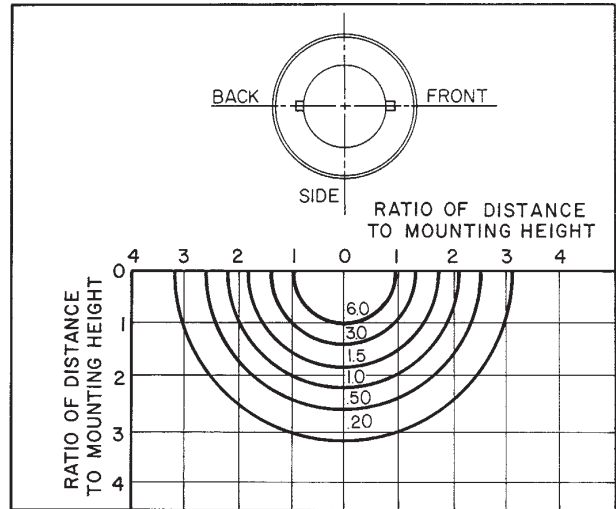
Coefficient of Utilization

Effective Floor Cavity Reflection 20%

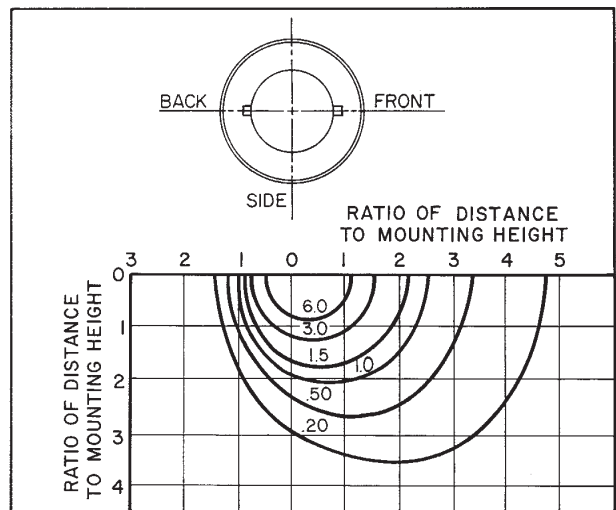
% Reflectance Eff. Cell	Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.722	.628	.545	.473	.413
	30	.691	.579	.487	.408	.346
	10	.663	.537	.441	.358	.296
70	50	.705	.613	.534	.463	.403
	30	.676	.568	.479	.403	.340
	10	.650	.531	.436	.355	.293
50	50	.671	.585	.511	.442	.387
	30	.647	.548	.464	.390	.332
	10	.627	.514	.426	.349	.289
30	50	.641	.560	.489	.424	.371
	30	.623	.529	.450	.379	.322
	10	.605	.501	.416	.342	.284
10	50	.614	.537	.470	.407	.356
	30	.598	.510	.436	.367	.311
	10	.584	.488	.407	.335	.279
0	0	.568	.471	.391	.319	.263

% Reflectance Eff. Cell	Wall	Room Cavity Ratio				
		6	7	8	9	10
80	50	.366	.324	.288	.261	.226
	30	.300	.259	.225	.199	.165
	10	.253	.215	.180	.156	.127
70	50	.358	.318	.282	.256	.221
	30	.295	.255	.223	.196	.165
	10	.249	.212	.179	.156	.126
50	50	.343	.305	.271	.246	.214
	30	.288	.248	.217	.192	.161
	10	.246	.209	.177	.154	.124
30	50	.330	.292	.261	.237	.206
	30	.280	.243	.210	.186	.157
	10	.242	.205	.175	.152	.122
10	50	.317	.282	.251	.228	.199
	30	.272	.237	.206	.182	.152
	10	.238	.202	.172	.149	.120
0	0	.223	.187	.158	.136	.107

Isofootcandle Chart: Luminaire with Globe and Dome Reflector



Isofootcandle Chart: Luminaire 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		