

# Luminaires with Induction Lighting System

5L

Hazardous and Non-Hazardous

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Description	Page No.
<b>VMVIG Series</b>	802-808
<b>DMVIG Series</b>	802-808

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Note: Induction Lighting is also available with our Champ-Pak™ Wall Pack Luminaires. Please see page 867 in Section 7L for more details.

**5L**

# Luminaires with Induction Lighting System

**VMVIG and DMVIG Series**

Class I, Division 2, Groups A,B,C,D

Class I, Zone 2, Group IIC

Restricted Breathing Suffix S826 for Cl.I, Div 2 &amp; Zone 2

Enclosure Type 4X, IP66 • Marine Locations

Wet Locations • UL and cUL Listed

## Get uninterrupted light for up to 11 years, without changing a lamp.

Cooper Crouse-Hinds® Champ Luminaire with Induction Light Source delivers up to 100,000 hours of white light in a hazardous location, corrosion-resistant watertight package. That's 5 to 8 times the typical life of conventional fluorescent or HID lamps. And, with no maintenance required for up to 11 years, you'll reduce your maintenance and lamp replacement costs.

### Compelling reasons to choose the new Champ Induction luminaire as the light source for industrial and hazardous locations include:

- Crisp white light (80+ color rendering index) provides increased safety by clearly illuminating signs, instrument panels, equipment and more with vibrant natural colors.
- Up to 100,000 hours of lamp life minimizes routine maintenance costs. If you operate this luminaire for 24 hours, 7 days a week, you will not need to change the lamp for up to 11 years!
- Instant illumination — no waiting for lamp warm-up time. Increases productivity and safety.
- Delivers the best possible luminaire temperature rating — T6 (85°C) when used with the Champ restricted breathing option. Ideal for hazardous areas where a low ignition temperature is required.
- Starts in low temperatures — as low as -40°C.



**165W Champ Induction provides as much light as a 175W Metal Halide but lasts 7 times longer!**

## ADDITIONAL FEATURES & BENEFITS:

The Champ Induction luminaire is suitable for Class I, Division 2 and Zone 2 areas with the assurance of Cooper Crouse-Hinds quality and reliability. They are ideal for use in hard-to-reach applications and where process requirements demand continuous luminaire operation.

### Features:

- High lumens per watts (72 lpw for the 165W Champ) will save energy
- Retains strong light output (retains more than 70% output) throughout the life of the lamp
- Will not add electrical noise to the circuits — Total Harmonic Distortion is less than 10%
- Excellent power factor of .96 increases useable watts to an excellent level and reduces energy consumption
- Internal electronics are enclosed to ensure that there is no interference with external instrumentation

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 Class I, Zone 2, Group IIC  
 Restricted Breathing Suffix S826 for Cl.I, Div 2 & Zone 2  
 Enclosure Type 4X, IP66 • Marine Locations  
 Wet Locations • UL and cUL Listed

5L



### APPLICATIONS:

Champ Induction luminaires are ideal:

- Where an extra long life lamp source (up to 100,000 hrs) is required.
- In areas that require lamps to reach full illumination immediately.
- Where cool temperature ratings on the luminaire globe are needed to ensure safe operation in hazardous areas.
- In hard-to-reach applications where relamping is costly.
- Where luminaire maintenance is difficult due to continuous process operation requirements that restrict or prohibit shut down except in emergency situations.
- To provide a cost-effective lighting system (low installed/life cost) by minimizing or even eliminating routine luminaire maintenance.
- In cold environment applications.

### CERTIFICATIONS AND COMPLIANCES:

#### NEC & CEC:

- Class I, Division 2 and Zone 2
- Class I, Division 2 Groups A, B, C, D  
Class I, Zone 2 Group IIC
- Restricted Breathing Suffix S826 for Class I, Division 2 & Zone 2
- Marine Locations, Wet Locations, Enclosure Type 3, 3R, 4, 4X; IP66
- UL and cUL Listed

**UL Standards:** 844, 60079-15, 1598, 1598A

**CSA Standards:** C22.2 No.137, E79 Series

#### Compliances and approvals for the lamp system

- |                          |                      |
|--------------------------|----------------------|
| • RFI < 30 MHz           | EN 55015             |
| • RFI > 30 MHz           | EN 55022             |
| • Harmonics              | EN 61000-3-2         |
| • Immunity               | EN 61547             |
| • Safety                 | EN 61347-2-3 & UL935 |
|                          | EN 60928             |
| • Performance            | EN 60929             |
| • Vibration & bump tests | IEC 68-2-6-Fc        |
|                          | IEC 68-2-29-Eb       |
| • Quality standards      | ISO 9001             |
| • Environmental standard | ISO 14001            |

### 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 (55W), stainless steel (85W).

### STANDARD FINISHES:

- Copper-free aluminum — epoxy powder coat
- Krydon® material — high reflectance white
- Stainless steel — natural

### OPTIONS:

DESCRIPTION	SUFFIX TO ADD TO CATALOG NO.
Restricted Breathing Construction Class I, Division 2 & Zone 2 suitability Cooler operating temperatures (T-Codes)	<b>S826</b>

### ACCESSORIES:

MOUNTING MODULES	CAT. NO.
¾ NPT Pendant	<b>APM2</b>
1 NPT Pendant	<b>APM3</b>
¾ NPT Flexible Pendant	<b>HPM2</b>
¾ NPT Ceiling Mount	<b>CM2</b>
1 NPT Ceiling Mount	<b>CM3</b>
¾ NPT Wall Mount	<b>TWM2</b>
1 NPT Wall Mount	<b>TWM3</b>
¾ NPT Quad Mount	<b>QM25</b>
1 ½ NPT Stanchion Mount — 25 Degree Angle	<b>JM5</b>
1 ½ NPT Stanchion Mount — Straight	<b>PM5</b>

WATTAGE	DOME REFLECTOR CATALOG NO.	ANGLE REFLECTORS CATALOG NO.
55W	<b>RD70</b>	<b>RA70</b>
85W	<b>RD739</b>	<b>RA739</b>
165W	<b>RD739</b>	<b>RA739</b>

### DIMENSIONS:

See Catalog 6000 Section 3L for dimensional information on VMV and DMV Series

### AMPERAGE:

Power consumption for specific voltages as follows:

#### 55W LUMINAIRES

- a. 120VAC x .460mA = 55.70 watts
- b. 230VAC x .260mA = 59.80 watts

#### 85W LUMINAIRES

- c. 120VAC x .710mA = 85.20 watts
- d. 230VAC x .400mA = 92.00 watts

#### 165W LUMINAIRES

- e. 230VAC x .700mA = 161.00 watts

5L Champ Induction Lighting

5L

# Luminaires with Induction Lighting System

VMVIG and DMVIG Series



Class I, Division 2, Groups A,B,C,D  
 Class I, Zone 2, Group IIC  
 Restricted Breathing Suffix S826 for Cl.I, Div 2 & Zone 2  
 Enclosure Type 4X, IP66 • Marine Locations  
 Wet Locations • UL and cUL Listed

## LAMP DATA:

	SYSTEM Power (W)	LUMEN (LM)		EFFICACY (LM/W)		COLOR RENDERING INDEX*	LUMEN MAINTENANCE AFTER 60,000 HRS (%)
		INITIAL	MEAN	INITIAL	MEAN		
VMV	55	3500	2800	65	51	80	75
DMV	85	6000	4800	70	57	80	75
DMV	165	12000	9600	72	58	80	70

\* Lamp sources with 80+ CRI provide excellent color rendering. CRI scale is 0-100 with 100 considered as ideal.

## TEMPERATURE PERFORMANCE DATA:

CATALOG #	WATTS	AMBIENT TEMP °C	SUPPLY WIRE TEMP °C	CLASS I, DIV. 2 TEMP. RATING	CLASS II, DIV. 1, CLASS III TEMP. RATING	SIMULTANEOUS PRESENCE CLASS I, DIV. 2	RESTRICTED BREATHING (SUFFIX S826)
							Aex nR IIC, Ex nR IIC CLASS I, DIV. 2/Zone 2
VMVIG055	55	40	60	T2C	-	-	T6
VMVIG055	55	55	75	T2C	-	-	T5
DMVIG085	85	40	60	T2D	T2D	T2D	T6
DMVIG085	85	55	75	T2D	-	-	T6
DMVIG165	165	40	75	T3	-	-	T5

Champ Induction DMV 85-watt is now Class II Div.1 – suitable for dust environments

## ORDERING INFORMATION:

To complete Catalog Number, add Voltage and Option suffix(es).

MOUNTING STYLE	HUB SIZE (INCHES)	55W INDUCTION CATALOG NUMBER (WITH G24 GLOBE & P21 GUARD)	85W INDUCTION CATALOG NUMBER (WITH G303 GLOBE & P33 GUARD)	165W INDUCTION CATALOG NUMBER (WITH G303 GLOBE & P33 GUARD)
Pendant	3/4	VMVIG2A055GP	DMVIG2A085GP	*DMVIG2A165GP
	1	VMVIG3A055GP	DMVIG3A085GP	*DMVIG3A165GP
Flexible Pendant	3/4	VMVIG2HA055GP	DMVIG2HA085GP	*DMVIG2HA165GP
	1	VMVIG3C055GP	DMVIG3C085GP	*DMVIG3C165GP
Ceiling Mount	3/4	VMVIG2C055GP	DMVIG2C085GP	*DMVIG2C165GP
	1	VMVIG3C055GP	DMVIG3C085GP	*DMVIG3C165GP
Wall Mount	3/4	VMVIG2TW055GP	DMVIG2TW085GP	*DMVIG2TW165GP
	1	VMVIG3TW055GP	DMVIG3TW085GP	*DMVIG3TW165GP
Quad Mount	3/4	VMVIG25Q055GP	DMVIG25Q085GP	*DMVIG25Q165GP
Stanchion Mount 25° Angle	1 1/2	VMVIGJ055GP	DMVIGJ085GP	*DMVIGJ165GP
Stanchion Mount Straight	1 1/2	VMVIG2P055GP	DMVIG2P085GP	*DMVIG2P165GP
Luminaire with Globe and Guard less Mounting Module	—	VMVIG055GP	DMVIG085GP	*DMVIG165GP

**Standard Voltage**  
 120V, 50/60 Hz  
 200V-277V, 50/60 Hz

**Suffix**  
 /120  
 /200 277

Operative range of 108-132 VAC  
 Operates on 208, 220, 230, 240, 277 VAC

**Add the voltage suffix to the above catalog number.**  
**Ex. - DMVIG2A085GP/120**

\* 165W Champ Induction Luminaires are only available in 200-277VAC

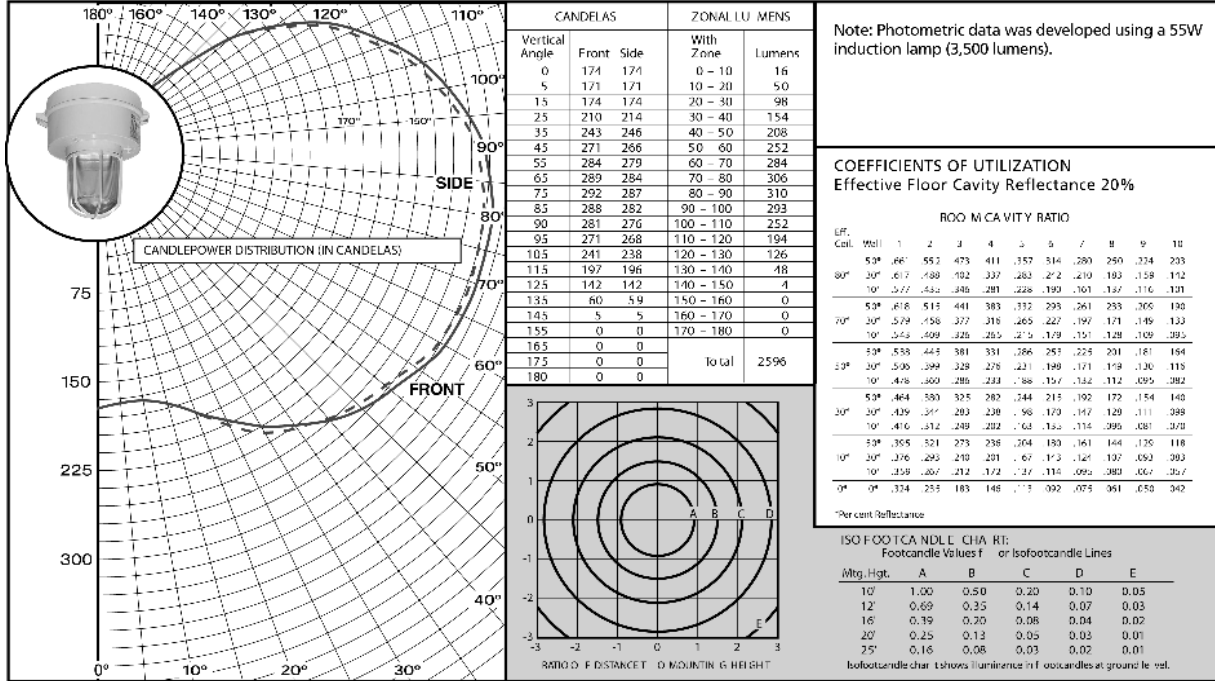
Champ Induction Lighting

# Luminaires with Induction Lighting System

## VMVIG and DMVIG Series

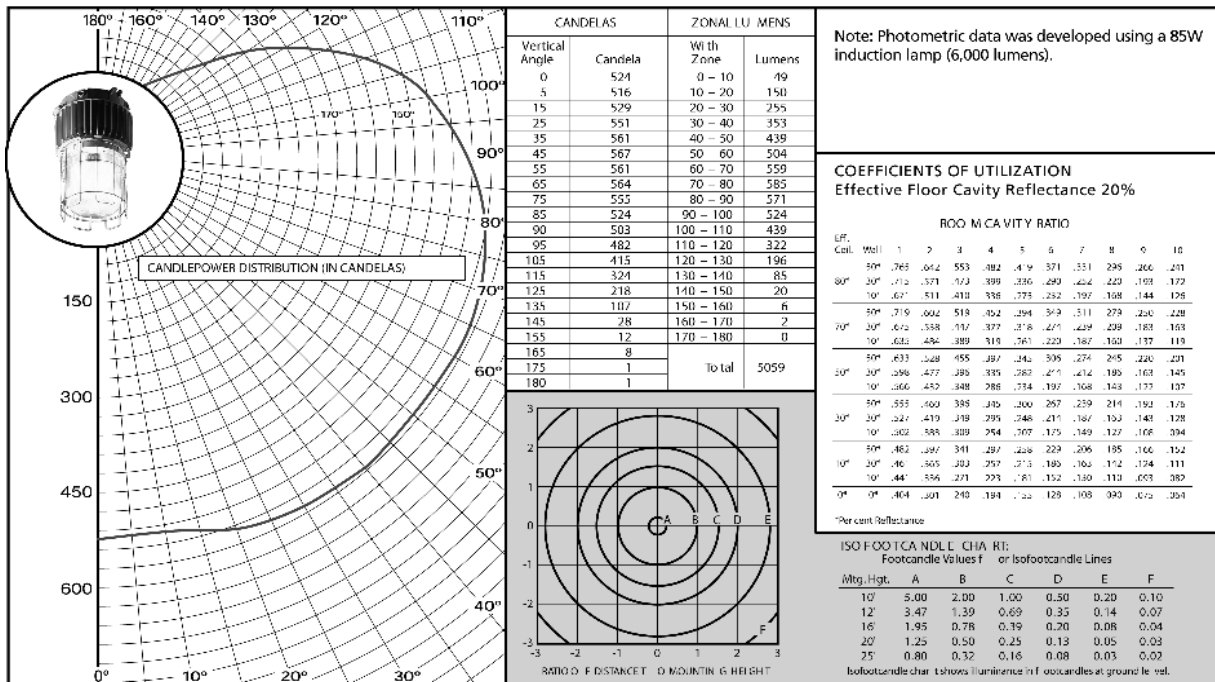
### 55 WATT INDUCTION

LUMINAIRE WITH GLOBE AND GUARD  
VMVIG055GP LAMP: 55W INDUCTION



### 85 WATT INDUCTION

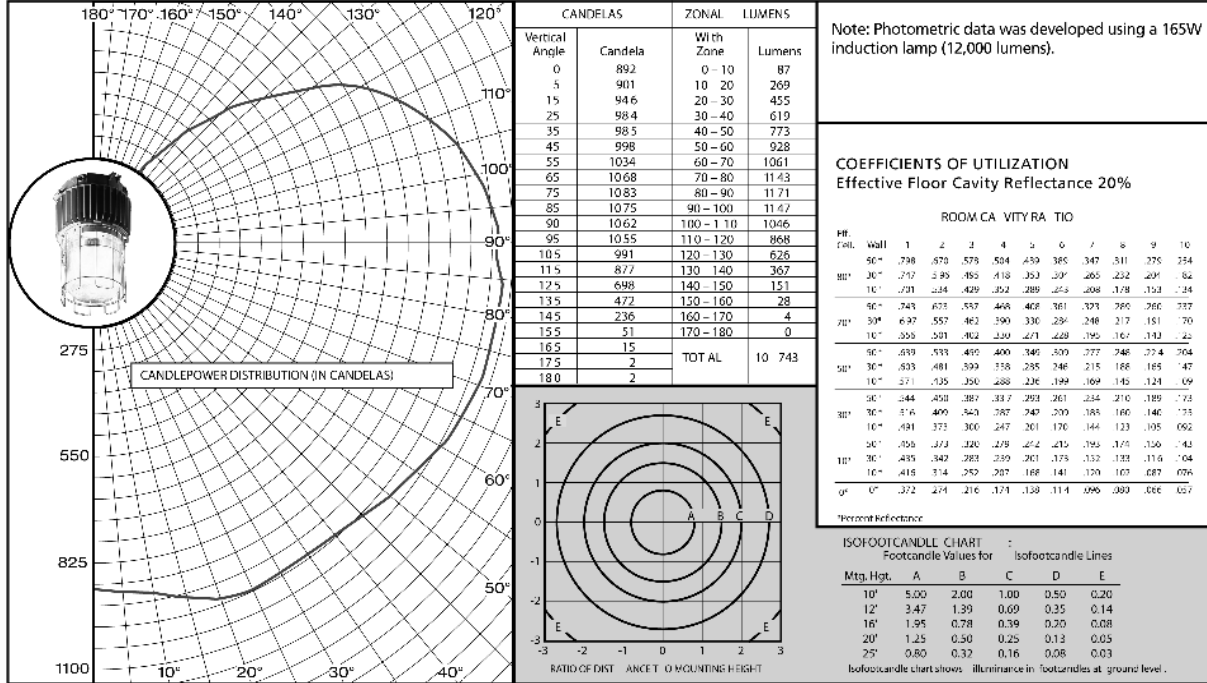
LUMINAIRE WITH GLOBE AND GUARD  
DMVIG085GP LAMP: 85W INDUCTION



Photometric Data: For additional photometric information, see the Resources area of our website. Photometric .ies files for use with our Luxicon Lighting Layout Software are available to download

### 165 WATT INDUCTION

LUMINAIRE WITH GLOBE  
DMVIG165G LAMP: 165W INDUCTION



Note: Photometric data was developed using a 165W induction lamp (12,000 lumens).

#### COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

		ROOM CA VITY RA TIO									
FR. Feet.	Wall	1	2	3	4	5	6	7	8	9	10
80"	30"	.738	.670	.578	.504	.459	.385	.347	.311	.275	.254
80"	30"	.717	.649	.557	.483	.438	.364	.326	.290	.254	.233
80"	10"	.731	.663	.571	.497	.452	.378	.340	.304	.268	.247
70"	30"	.743	.675	.583	.509	.464	.390	.352	.316	.280	.259
70"	30"	.697	.629	.537	.463	.418	.344	.306	.270	.234	.213
70"	10"	.755	.687	.595	.521	.476	.402	.364	.328	.292	.271
60"	30"	.639	.571	.479	.405	.360	.286	.248	.212	.176	.155
60"	30"	.633	.565	.473	.399	.354	.280	.242	.206	.170	.149
60"	10"	.771	.703	.611	.537	.492	.418	.380	.344	.308	.287
50"	30"	.444	.408	.362	.316	.293	.261	.234	.210	.189	.173
50"	30"	.476	.440	.394	.348	.325	.293	.266	.240	.219	.203
50"	10"	.491	.455	.409	.363	.340	.308	.281	.254	.233	.217
40"	30"	.358	.343	.328	.293	.271	.245	.223	.201	.180	.164
40"	30"	.355	.340	.325	.290	.268	.242	.220	.198	.177	.161
40"	10"	.435	.420	.405	.370	.348	.322	.296	.274	.252	.236
40"	10"	.418	.403	.388	.353	.331	.305	.279	.257	.235	.219
30"	30"	.372	.357	.342	.307	.285	.259	.237	.215	.193	.177
30"	30"	.372	.357	.342	.307	.285	.259	.237	.215	.193	.177
30"	10"	.455	.440	.425	.390	.368	.342	.316	.294	.272	.256
30"	10"	.455	.440	.425	.390	.368	.342	.316	.294	.272	.256

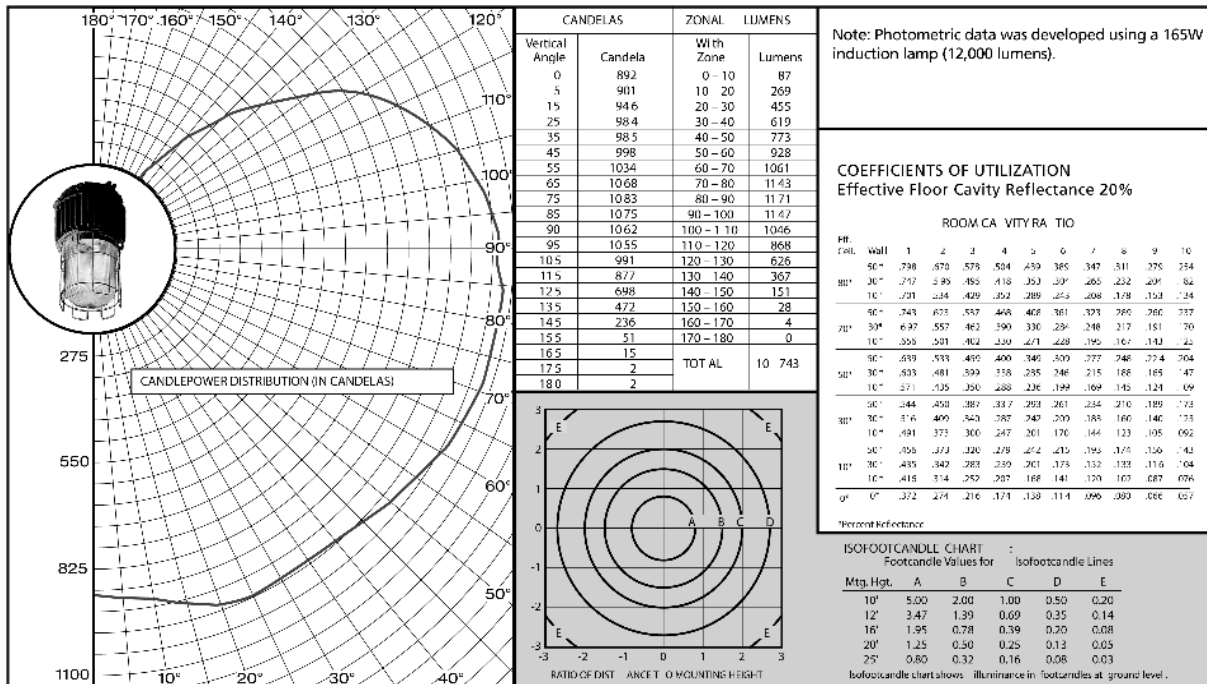
ISOFOOTCANDLE CHART  
Footcandle Values for Isofootcandle Lines

Mtg. Hgt.	A	B	C	D	E
10'	5.00	2.00	1.00	0.50	0.20
12'	3.47	1.39	0.69	0.35	0.14
16'	1.95	0.78	0.39	0.20	0.08
20'	1.25	0.50	0.25	0.13	0.05
25'	0.80	0.32	0.16	0.08	0.03

Isofootcandle chart shows illuminance in footcandles at ground level.

### 165 WATT INDUCTION

LUMINAIRE WITH GLOBE AND GUARD  
DMVIG165GP LAMP: 165W INDUCTION



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Effective Floor Cavity Reflectance 20%

		ROOM CA VITY RA TIO									
FR. Feet.	Wall	1	2	3	4	5	6	7	8	9	10
80"	30"	.738	.670	.578	.504	.459	.385	.347	.311	.275	.254
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ISOFOOTCANDLE CHART  
Footcandle Values for Isofootcandle Lines

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16'	1.95	0.78	0.39	0.20	0.08
20'	1.25	0.50	0.25	0.13	0.05
25'	0.80	0.32	0.16	0.08	0.03

Isofootcandle chart shows illuminance in footcandles at ground level.

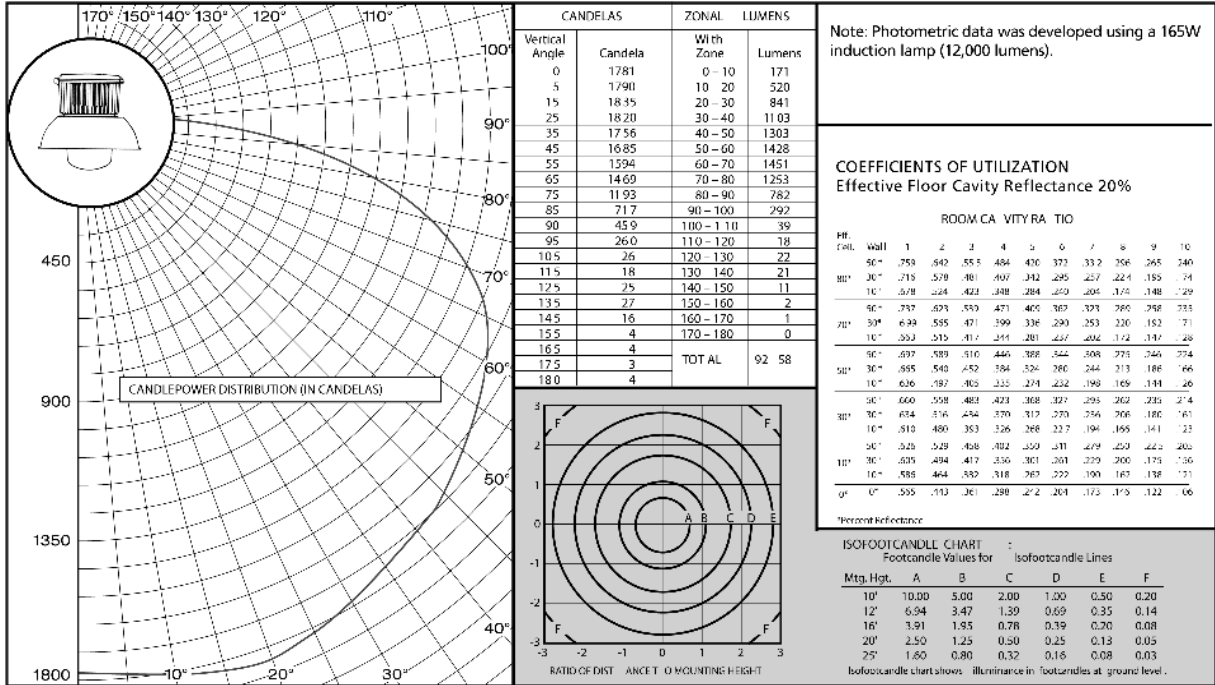
Photometric Data: For additional photometric information, see the Resources area of our website. Photometric .ies files for use with our Luxicon Lighting Layout Software are available to download

# Luminaires with Induction Lighting System

## VMVIG and DMVIG Series

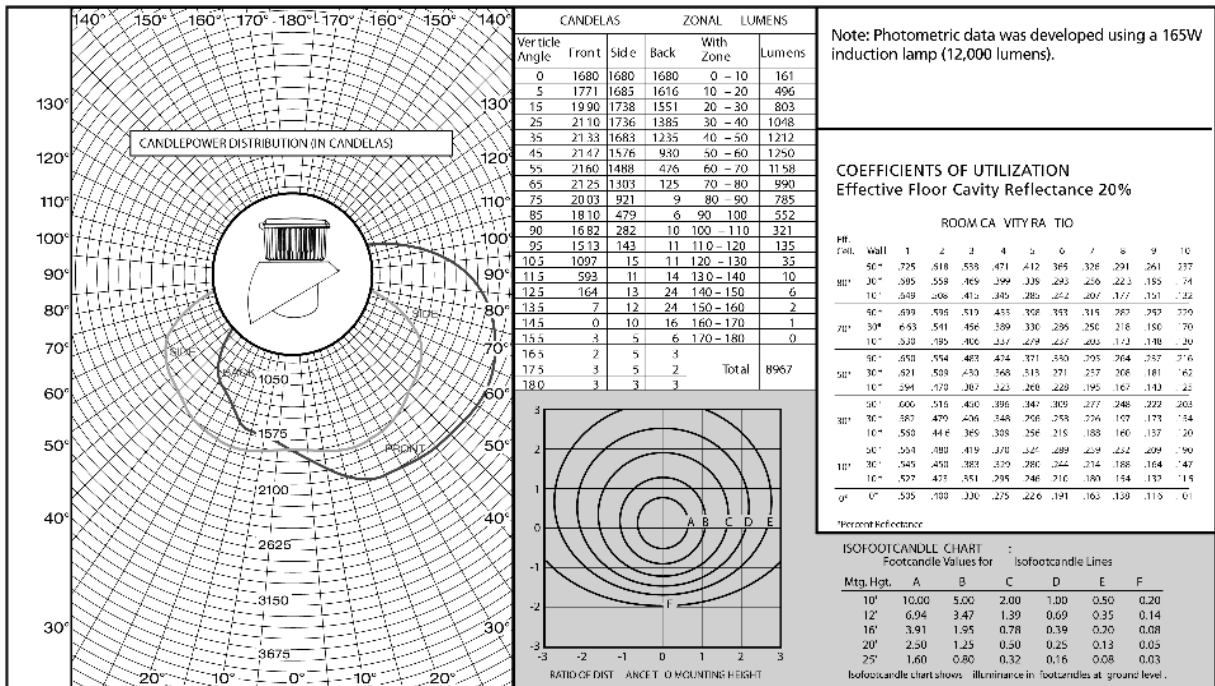
### 165 WATT INDUCTION

LUMINAIRE WITH GLOBE AND RD739 DOME REFLECTOR  
DMVIG165G LAMP: 165W INDUCTION



### 165 WATT INDUCTION

LUMINAIRE WITH GLOBE AND RA739 (30° ANGLE) REFLECTOR  
DMVIG165G LAMP: 165W INDUCTION

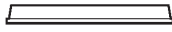


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COVERS:

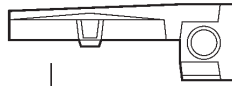
PENDANT

- APM2 3/4 IN.
- APM3 1 IN.
- HPM2 3/4 IN.



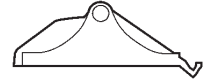
WALL

- TWM2 3/4 IN.
- TWM3 1 IN.



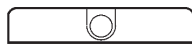
QUAD—MOUNT

- QM25 3/4 IN.



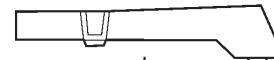
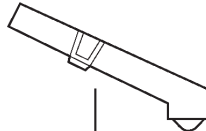
CEILING

- CM2 3/4 IN.
- CM3 1 IN.



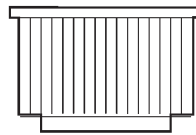
STANCHION

- JM5 1 1/2 IN.
- PM5 1 1/2 IN.



HOUSING

- DMV

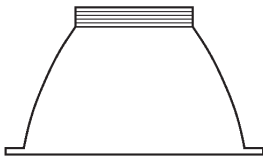


GLOBE

- G303
- G303 S808

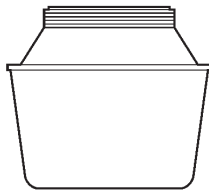


REFLECTOR/LENS  
GRD4



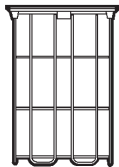
REFRACTOR

- GR302
- GR305
- PGR302
- PGR305



GUARD

- P33



REFLECTOR

- RA79 RA739
- RD79 RD739

