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9L Portable Lighting

Hazardous and Non-Hazardous Locations Application and Selection Quick Selector Chart

Applications:

Portable luminaires and accessories can be used:

- in areas made hazardous by the abnormal presence of flammable gases and vapors, combustible dusts or easily ignitable fibers and flyings.
- in areas where combustible dusts and flammable gases are present simultaneously.
- in aircraft manufacturing and maintenance facilities, shipyards, paint spray booths, refueling depots, storage tank cleanings, railcar manufacturing and maintenance facilities, refineries, chemical and petrochemical plants, textile mills, grain elevators, pharmaceutical plants, sewage treatment plants and wastewater treatment plants.
- during plant 'shut downs' for maintenance and installation requirements.
- in any adverse environment where portable lighting is preferred or required.
- in locations where fixed lighting is not practical.
- for task oriented lighting.
- for emergency lighting applications.
- when inspecting aircraft wing tanks, vats, process vessels, fuel tanks, etc. (handlamps).

Considerations for Selection:

Environmental:

- What is the hazardous area classification (NEC/CEC) of the location in which the luminaires will be installed?
- What wattages and light source (ie. fluorescent) will provide the desired light levels?
- Type of luminaire required: handlamp, portable flood or other special requirements.

Table 500-3(d) Identification Numbers.

Deg. C	Maximum Temperature		Identification Number
	Deg. C	Deg. F	
450		842	T1
300		572	T2
280		536	T2A
260		500	T2B
230		446	T2C
215		419	T2D
200		392	T3
180		356	T3A
165		329	T3B
160		320	T3C
135		275	T4
120		248	T4A
100		212	T5
85		185	T6

Quick Selector Chart

Luminaire	NEC Hazardous Area Complies	Lamp Watts	Volts
EVH Handlamp (Incandescent)	Cl. I, Groups C and D Cl. II, Group G Cl. III	100 max.	250 vac
EVH Handlamp (Fluorescent)	Cl. I, Groups C and D Cl. II, Groups E, F, G Cl. III	13, 15	120, 220-50
EVP	Cl. I, Groups C and D Cl. II, Groups F and G Cl. III	35-150	120, 277, 347
RCDER	Cl. I, Groups C and D	150-500	
VS	Non-Hazardous areas	100 max.	

Incandescent Accessories

Application:

The incandescent VS portable hand lamps are used:

- in wet or corrosive locations to exclude moisture, dirt, corrosive chemicals, etc.
- where an incandescent lamp of up to 100 watts is required in a portable hand lamp

Features:

- Enclosed and gasketed
- Flexible cord or cable is attached through a watertight gland in the handle
- Is of rugged construction
- Clamp type guard available
- Provision is made in the lamp receptacle for a third conductor to ground all non-current-carrying metal parts

Standard Materials:

- Handle – molded rubber
- Globe – clear, plain glass
- Guard – cast aluminum or steel wire

Standard Finishes:

- Handle – Natural
- Guard – Zinc plated

Options:

- Materials: heat resistant glass globe; polycarbonate globe

Size Ranges:

- Up to 100 watt, A-23 lamp
- .250 to .625 cord O.D.

Certifications and Compliances:

- Weather resistant
- UL Standard: 298
(Note: CEC/CSA Certified VS handlamps - Cooper Crouse-Hinds Canada fixtures only.)



(No Cable Included)

Globe Length	Max Lamp Size	Cord Dia.	Rubber Cat. #
6 $\frac{7}{8}$ "	100 W A-23†	.125 to .625	VS30

Note: Furnished with clear globe, wire guard and 4 rubber bushings.

Glass Globes



Description
Clear Glass,
(Heat
Resisting)

Maximum Lamp Size
100W,
A-23 – 6 $\frac{7}{8}$ "†

Cat. #
V63

Description
Clear,
Polycarbonate,
Plain

Maximum Lamp Size
75W,
A-21"†

Cat. #
V470

Polycarbonate Globes



Guards

Description
Steel Wire

Size
6 $\frac{7}{8}$ globe

Cat. #
VS97

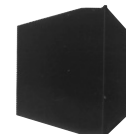


Lamp Receptacle (medium base)

Description
Composition
keyless

Size
660W,
600V

Cat. #
GS156



Cord Gland Bushings

Description
Rubber

Size
.125 to .250 Cord
.250 to .375 Cord
.375 to .500 Cord
.500 to .625 Cord

Cat. #
BUSH92
BUSH93
BUSH 94
BUSH05

† Will take lamps with maximum dimensions of 6 $\frac{1}{2}$ " long and 2 $\frac{1}{8}$ " diameter.

9L EVH Portable Handlamp

Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1 & 2, Group G
Cl. III
Cl. I, Zone 1 IIB

Application:

EVH106 is used:

- as a portable handlamp in hazardous areas
- in inspecting aircraft wing tanks, vats, process vessels, fuel tanks, etc.

Features:

- Pressure connector terminals for portable cord
- Light weight – 4¼ lbs.
- Designed for rough service – swivel hook, ease in relamping

Standard Materials:

- Guard and globe holder – copper-free aluminum
- Handle – molded phenolic composition
- Globe – glass, heat and impact resistant

Standard Finishes:

- Natural

Size Ranges:

- #16 – 3 type SO cord/cable is to be used (not supplied)

Capacity Ranges:

- 50 to 100 watt, A-21
- Max. volts – 250 VAC

Certifications and Complies:

- NEC/CEC:
 - Class I, Division 1 and 2, Groups C, D – 100 watts max.
 - Class I, Zone 1 IIB
 - Class II, Division 1 and 2, Group G – 75 watts max.
 - Class III – 75 watts max.
- UL Standard: 781
- CSA Standard: C22.2 No. 137

Temperature Performance

Data: (based on 40°C Ambient)

Class I, Groups C, D
Class II, Group G
Class III

} T3C



Cat. #	Cord Dia.
EVH106	.375 to .625
(Model M10)	

Replacement Parts

Description	Cat. #
Guard & globe assembly	EVH606
Handle assembly (including lampholder)	EVH607
Cord connector assembly	EVH605
Lampholder only	20V19-001

Note: See Section 2P of this catalog for suitable male plug.

Application:

RCDER portable incandescent luminaires provide general illumination in locations having hazardous atmospheres, such as:

- oil refineries
- oil and gasoline loading docks
- aircraft servicing docks and shelters
- distilleries
- paint manufacturing plants
- pumping stations
- other Class I, Groups C and D locations

Features:

- Wheel base
- Carrying handle
- Adjustment allows rotation of 75° vertically.
- Locking screws hold housing firmly in position
- Door which threads into housing includes heat and impact-resistant lens. Door has notches or projections for ease of removing or tightening
- Factory sealed

Standard Materials:

- Body – copper-free aluminum;
- Lens – glass, heat and impact resistant

Standard Finishes:

- Natural

Size Ranges:

- Take cable with O.D. of .375" to .500"

Capacity Ranges:

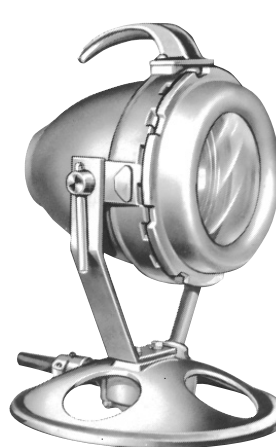
- RCDER-6 – 150 watt, PAR38 or R40; 300 watt, R40 (medium base)
- RCDER-10 – 500 watt, PAR64 (Ext. Mog End Prong)

Certifications and Compliances:

- NEC/CEC:
RCDER – Class I, Division 1 and 2, Groups (C), D Class I, Zone 1 II(B) A (see photometric data listing)
 - UL Standard: 844
 - CSA Standard: C22.2 No. 137 (RCDER-6 only)
- Note: CEC/CSA Certified RCDER6 - Cooper Crouse-Hinds Canada luminaires only.*

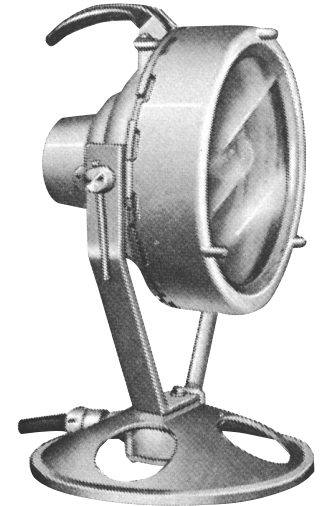
Ordering Information:

After identifying the hazardous area, select the model of luminaire required for that area. Then from the photometric data, select appropriate Cat. No. based on type of mounting desired. Example: RCDER-10 No. 47283A



RCDER-6

Cat. # 44655B



RCDER-10

Cat. # 47283A

Temperature Performance Data (based on 40°C Ambient)

	<u>150W</u>	<u>300W</u>	<u>500W</u>
RCDER-6	T3B	T2B	
RCDER-10			T3C

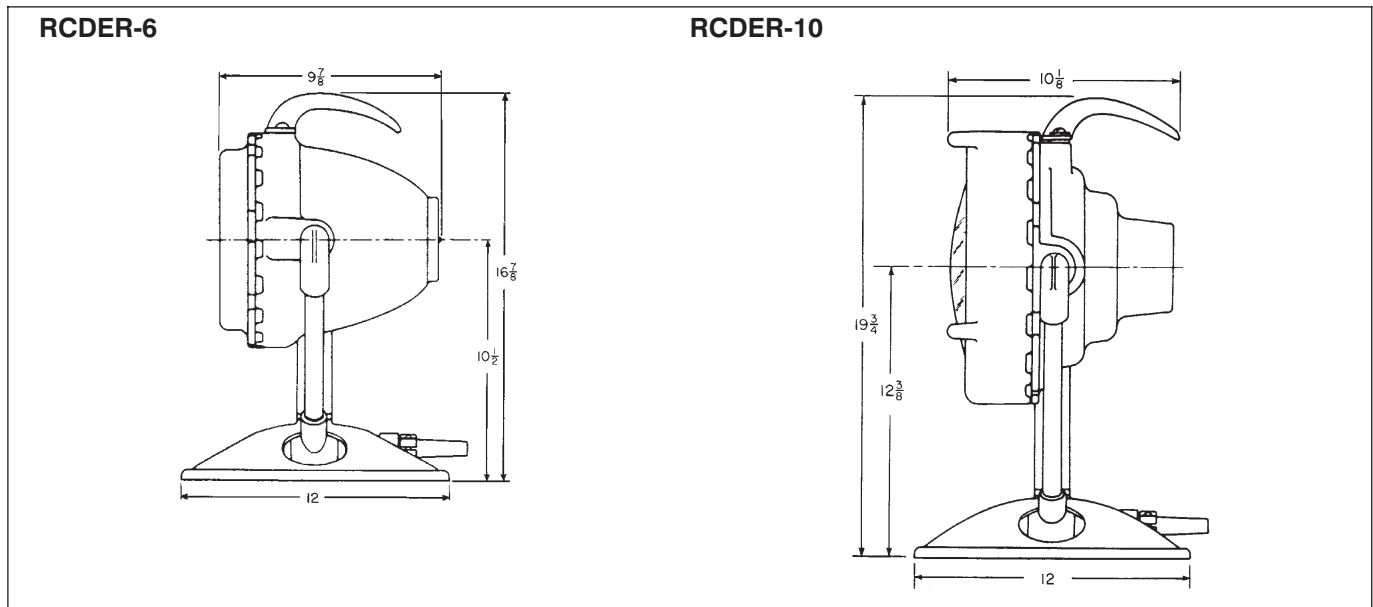
9L Portable Mounted Lights

Photometric Data Dimensions and Weights

RCDER Photometric Data

Lamp Watts and Type	Location	Beam Spread		Beam Lumens	Av. Max. Candle Power	Model
		Hor.	Vert.			
150 Watt PAR38 Flood	Class I Groups C, D (Zone 1 IIB)	60°	60°	1690	4000	RCDER-6
150 Watt PAR38 Spot		28°	28°	1200	11500	
300 Watt R40 Flood	Class I	123°	123°	3200	1950	
300 Watt R40 Spot	Group D (Zone 1 IIA)	60°	60°	3100	8900	
500 Watt, PAR64 (500 PAR64/NSP)		19°	14°	3000	110000	
500 Watt, PAR64 (500 PAR64/MFL)	Class I, Group D	35°	19°	3300	37000	
500 Watt, PAR64 (500 PAR64/WFL)	(Zone 1 IIA)	55°	32°	3400	13000	

Dimensions



Fixture Weights

RCDER-6		RCDER-10	
Cat. #	Lbs. (Net)	Cat. #	Lbs. (Net)
44655	26.0	47283	25.0



Features and Benefits:

Product Features

- Strong spun aluminum wheel base.
- Sturdy hand knob.
- Plastic rib covered handle.
- Aluminum specular reflector.
- Tempered, 3/4" thick cover glass.
- Nitrile rubber O-ring gasket.
- Strain-relief clamps.
- Pre-wired, factory-sealed 100' of 16/3 type SOW cord supplied.
- Light weight (25 lbs.).
- Fixture housing has a safety yellow finish.

User Benefits

- Provides stability, allows fixture to be hung on a wall or lowered in an inverted position.
- Tightens to hold position for steady illumination and easy aiming.
- Firm, non-slip grip for transporting fixture.
- Directs intense beam for better visibility.
- Heavy duty service.
- Excellent sealing for use in wet locations.
- Provides extra protection against cord damage.
- Saves on installation time and maintenance costs.
- Easy to handle when transporting.
- Highly visible for safety precautions.

Ordering Information:

Cl. I, Div. 1, Groups C, D
 Cl. II, Div. 1, Group F

	Cat. #
70 watts HPS, 120 volts	EVP4070
100 watts HPS, 120 volts	EVP4100
150 watts HPS, 120 volts	EVP4150*
70 watt MH, 120 volts	EVP9070
70 watt MH, 277 volts	EVP9070/277
70 watt MH, 347 volts	EVP9070/347

* Class II not available.

Cl. I, Div. 1, Groups C, D
 Cl. II, Div. 1, Groups F, G
 Cl. III

	Cat. #
100 watts HPS, 120 volts	EVPG4100
70 watt MH, 120 volts	EVPG9070
70 watt MH, 277 volts	EVPG9070/277
70 watt MH, 347 volts	EVPG9070/347

Fixtures for grain dust applications have a special limiting device to prevent the fixture head from being positioned in an upright position limiting dust buildup.

Applications:

The EVP portable H.I.D. floodlight† is suitable for maintenance or emergency lighting:

- in areas made hazardous by the presence of flammable gases and vapors, combustible dusts, or easily ignitable fibers and flyings.
- in aircraft manufacturing and maintenance facilities, shipyards, refueling depots, storage tank cleaning, railcar manufacturing and maintenance facilities, refineries, chemical and petrochemical plants, textile mills, grain elevators and pharmaceutical plants, printing operations, wastewater and sewage treatment plants.
- in any adverse environment where portable lighting is preferred or required.
- in locations where lighting is not practical.
- for task oriented lighting.

Standard Materials:

- Housing – copper-free aluminum
- Wheel base – spun aluminum
- Handle – plastic rib covered aluminum
- Reflector – aluminum
- O-ring gasket – Nitrile rubber

Certifications and Compliances:

EVP and EVPG

- NEC/CEC:
 - Class I, Division 1 & 2, Groups C, D
 - Class I, Zone 1 IIB
 - Class II, Division 1 and 2, Groups F, G
 - Class III
 - Wet Locations
 - Marine Locations
- UL Standards: 781, 595, 1572
- CSA Standard: C22.2 No. 137, No. 12

Electrical Ratings

High pressure sodium – (medium base)

- 70, 100, & 150 watt
- 120 volt 60Hz

Metal Halide – (double end)

- 70 watt
- 120, 277 & 347 volt; 60Hz

† EVP fixtures are not supplied with plug.

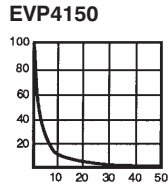
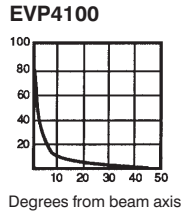
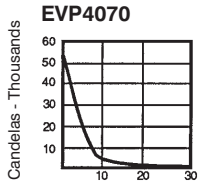
Temperature Performance Data:

Cat. #	Max. Ambient °C	Class I, Division 1		Class II, Division 1	
		T-Rating	Groups	T-Rating	Groups
EVP4070	40	T4A	C, D	T3	F
EVP4100	40	T4A	C, D	T3	F
EVP4150	25	T3C	C, D	—	—
EVP9070	40	T4	C, D	T3	F
EVPG4100	40	T4A	C, D	T3C	F, G
EVPG9070	40	T4	C, D	T4	F, G

Fixture Weight:

25.5 lbs.

Photometric Data:



Dimensions: 12¹/₂" D × 13¹/₈" W × 15⁷/₈" H

EVH Fluorescent Handlamps & Worklights

Cl. I, Div. 1 and 2, Groups C, D
 Cl. II, Div. 1, Groups E, F, G
 Cl. II, Div. 2, Groups F, G
 Cl. III
 Cl. I, Zone 1, IIB

9L

Application:

Portable handlamps and worklights can be used:

- in areas made hazardous by the presence of flammable gases and vapors, combustible dusts or easily ignitable fibers & flyings.
- in aircraft manufacturing and maintenance facilities, shipyards, refueling depots, storage tank cleaning, railcar manufacturing and maintenance facilities, refineries, chemical and petrochemical plants, textile mills, grain elevators, pharmaceutical plants, sewage treatment plants and wastewater treatment plants.
- during plant 'shut downs' for maintenance and installation requirements.
- in any adverse environment where portable lighting is preferred or required.
- in locations where fixed lighting is not practical.
- for task oriented lighting.
- for emergency lighting applications.
- when inspecting aircraft wing tanks, vats, process vessels, fuel tanks, etc.

Features:

- built in metal reflector which eliminates glare and blinding, focusing all light on subject.
- protected by patented shock absorbers to withstand rough usage.
- enclosed ballast, remote from light source for easier handling and maneuverability.
- special rubber compound bumper guards and end caps combined with cast guard and metal rods, protecting against damage from falling objects, bumping, or dropping.
- luminaires come complete with lamp(s) and cord.
- The New EVH2625E and EVH2650E incorporate an electronic ballast in the handle for efficiency, cool operation and easy handling.

Standard Materials:

- Body and In line Ballast Unit – aluminum
- Tubeshield – annealed glass
- Bumper guards – rubber

Standard Finishes:

- Aluminum Body – White epoxy (handlamps)
- Aluminum Body – Natural (worklights)
- In Line Ballast Unit – Natural
- Rubber bumper guards – safety yellow

Size Ranges:

- Supplied with 18/3 SOW cord (25 ft or 50 ft)

Electrical Ratings:

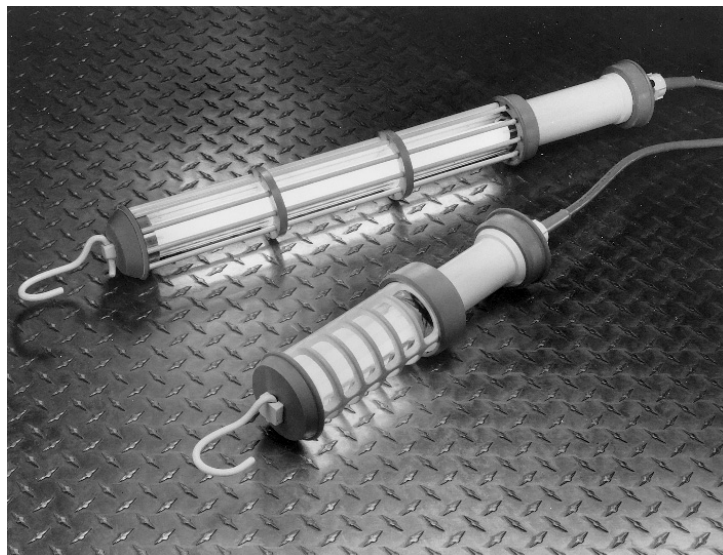
- 13 to 26 Watts
- Max. Volts 220VAC

Certifications and Compliances:

- NEC: Fluorescent Worklights (15 watt units)
 Class I, Div. 1 and 2, Group D
 Class I, Zone 1 IIB
 Class II, Div. 1, Groups E, F, G
 Class II, Div. 2, Groups F, G
 Class III
- NEC: Fluorescent Handlamps (13 and 26 watt units)
 Class I, Div. 1 and 2, Groups C, D
 Class II, Div. 1, Groups E, F, G
 Class II, Div. 2, Groups F, G
 Class III
- FM: Classification 3615
- CSA: C22.2

Options:

- An isolated ballast is available on the EVH 13 Watt handlamps for additional protection, use suffix IB.



Temperature Performance Data: (Based on 40°C Ambient Temperature)

Cat. No.	Class I, Div. 1		Class II, Div. 1	
	T-Rating	Groups	T-Rating	Groups
EVH1525	T5	D	T5	E, F, G
EVH1550	T5	D	T5	E, F, G
EVH1325	T5	C, D	T5	E, F, G
EVH1350	T5	C, D	T5	E, F, G
EVH2625	T3	C, D	T3	E, F, G
EVH2650	T3	C, D	T3	E, F, G
EVH1325 IB	T5	C, D	T5	E, F, G
EVH1350 IB	T5	C, D	T5	E, F, G
EVH2625E	T6	C, D	T6	E, F, G
EVH2650E	T6	C, D	T6	E, F, G

Ordering Information:

EVH Fluorescent Worklights

Line Voltage (60 Hz)	Watts	Cord Length (ft)	Lamp Type	Cat. No.
120	15	25 ft.	F15T8	EVH1525
120	15	50 ft.	F15T8	EVH1550

EVH Fluorescent Handlamps (With Magnetic Ballast in Cord)

Line Voltage (60 Hz)	Watts	Cord Length (ft)	Lamp Type	Cat. No.
120	13	25 ft.	F13TT	EVH1325
120	13	50 ft.	F13TT	EVH1350
120	26	25 ft.	F26DTT	EVH2625
120	26	50 ft.	F26DTT	EVH2650
(50 Hz)				
220	13	25 ft.	F13TT	EVH1325/220 50
220	13	50 ft.	F13TT	EVH1350/220 50
220	26	25 ft.	F26DTT	EVH2625/220 50
220	26	50 ft.	F26DTT	EVH2650/220 50

New – EVH Fluorescent Handlamps (With Electronic Ballast in Handle)

Line Voltage (60 Hz)	Watts	Cord Length (ft)	Lamp Type	Cat. No.
120	26	25 ft.	CF26DD/E/841	EVH2625E
120	26	50 ft.	CF26DD/E/841	EVH2650E

9L Portable Lighting

Dimensions (inches)

