### **VOLTAGE DROP TABLE**

Total Watts on Wire	6 Volt System Wire Gauge				Total Watts on Wire	12 Volt System Wire Gauge			
Run	#12	#10	#8	#6	Run	#12	#10	#8	#6
	Max. Length of Wire Run (Feet)					Max. Length of Wire Run (Feet)			
6	94	150	238	379	6	378	600	955	1518
7	81	129	204	325	7	324	515	818	1301
8	70	112	179	284	8	283	450	716	1138
10	56	90	143	227	10	226	360	570	910
12	44	70	112	178	12	178	283	450	715
14	40	64	102	162	14	162	257	409	650
16	33	53	84	134	16	133	212	338	538
18	30	47	75	119	18	119	189	300	477
20	28	45	71	114	20	113	180	286	455
21	27	43	68	108	21	108	171	273	434
24	24	38	60	95	24	89	141	225	357
25	21	34	54	86	25	86	136	216	344
30	19	30	48	76	30	75	120	190	303
35	15	25	39	63	35	65	103	164	260
40	13	21	33	53	40	53	85	135	214
48	11	17	28	44	48	44	70	112	178
50	11	17	27	43	50	43	68	108	172
75	7	11	18	29	75	28	45	72	115
100	5	8	14	21	100	21	34	54	86
125	4	7	11	17	125	17	27	43	69
150	3	5	9	14	150	14	23	36	57
175	3	5	8	12	175	12	19	31	49
200	2	4	6	10	200	10	16	27	42
225	2	4	6	10	225	10	16	25	40
250	2	3	5	9	250	9	14	22	36



When using electrical equipment, basic safety precautions should always be followed including the following.

# **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**

- **1.** Do not use outdoors.
- 2. Do not mount near heaters or hot surfaces.
- tampering by unauthorized personnel.
- 4. condition.

*Caution:* Halogen cycle lamps may be used in this equipment. Halogen cycle lamps operate at high temperatures. Do not store or place flammable materials near lamp. To avoid shattering: Do not operate lamp in excess of rated voltage. Protect lamp against abrasion and scratches and against liquids when operating. Dispose of lamp with care. Do not use this equipment for other than its intended purpose.

- 5.
- Servicing of this equipment should be performed by qualified service personnel. 6.

# SAVE THESE INSTRUCTIONS

WARNING - This product contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm. Thoroughly wash hands after installing, handling, cleaning, or otherwise touching this product.

93020395



Installation Instructions

# **IMPORTANT SAFEGUARDS**

3. Equipment should be mounted in locations and at heights where it will not readily be subject to

The use of accessory equipment not authorized by the manufacturer may cause an unsafe



Hubbell Lighting, Inc

## **GENERAL INSTRUCTIONS**

This unit is designed for surface mounting on a wall or other sold surface (building support structure, column, etc.) using the four holes provided on the housing mounting flnges. Unit must be mounted high enough to maximize illuminated area under anticipated conditions of use. Be sure to allow ample clearance for mounting and aiming the lighting heads. Provide each unit with a single unswitched power supply from a 120, 277, or 480VAC branch circuit used for normal lighting in the same area. The wiring should be permanent installation, using appropriate size wire.

Note: De-energize AC circuit to unit during initial installation, and during servicing or relamping operations.

### PLACING THE UNIT IN SERVICE

- 1. Fasten enclosure to wall surface using appropriate hardware (not provided).
- 2. Remove the five (5) cover retaining screws and open unit.
- 3. Connect remote lamps (if used) to blue (+, fused) and yellow (-) leads (Fig. 1).
- 4. Connect 120, 277, or 480VAC input connections to transformer (Fig. 1). Connect green wire to building ground.

Note: insulate the unused transformer lead to prevent potential shock hazard.

## UNITS SUPPLIED WITH LEAD-CALCIUM BATTERIES

- 5. Determine proper battery and wiring configuration (See inside cover label for battery and wire configurations).
- 6. Connect positive (+, red) and negative (-, yellow) battery harness leads from printed circuit board to corresponding battery terminals (See inside cover label for battery and wire configurations).
- 7. Check all wiring for loose or missing connections.
- 8. Replace cover. Tighten retaining screws. Adjust lighting heads to desired position.

Fig.2

- 9. Energize unit with AC power. Press and hold the "TEST" button (see Fig. 1 for "TEST" button location) to confirm illumination and proper aiming of emergency lamps. ("AC ON" indicator LED should go off). Release the "TEST" button: emergency lamps should extinguish. Normal operation begins.
- 10. Normal Operation: with power supplied, "AC ON" LED indicator is illuminated and emergency lamps are off.

## **ROUTINE TEST CYCLING**

- 1. Every three (3) months: If there has been no power failure, press and hold the "TEST" button for at least thirty (30) seconds to confirm emergency lamp operation. Release "TEST" button to return to battery charging mode.
- 2. Once a year: Perform a full battery conditioning cycle by de-energizing the AC circuit to which the unit is connected, and allow the unit to operate for ninety (90) minutes on battery power. Following successful test, energize AC circuit to begin

battery charging cycle.

#### **REPLACING EMERGENCY LAMPS AND BATTERIES** General

- 1. De-energize the AC power supply to the unit.
- 2. Remove cover screws and open unit.
- 3. Disconnect positive (+, red) battery lead.

#### Replacing Unit Emergency Lamp

- **1.** Remove diffuser lens from lamp housing by prying lens adjacent to tab slot (see Fig.2)
- 2. Remove and replace lamp. (refer to unit product label for specific lamp type)

#### Replacing Unit Battery

- 1. Remove defective battery. Recycle responsibly. Replace with genuine Dual-Lite battery.
- 2. Place new battery in enclosure. Make connections following steps outlined above.
- 3. Test unit.



TRANSFORMER PRIMARY WIRING FOR 480V **BLUE WIRES-480VAC GREEN WIRE-GROUND** 



Instruction Label **Battery Location and Wire Connections** 





