ISD 80

SELF-DIAGNOSTIC
AUTOMATIC TESTING OF LAMP,
BATTERY, AND CHARGER CIRCUIT

AC OUTPUT

MODEL NO: _____

TYPE: _____

PROJECT: _____

COMMENTS: _____

INITIAL LUMEN OUTPUT

1100 Lumens

LAMPS OPERATED*

(1) 2-4 ft. Bipin HO and VHO T8 and T12
(1) 2-4 ft. 14W-54W T5

(1) 18W-55W Long Compact

Select LED Retrofit Tubes

*Refer to Lumen Reference Chart and LED Retrofit Reference Chart for list of compatible lamps.

DESCRIPTION

The **ISD 80** from IOTA Engineering is a UL Listed self-diagnostic fluorescent emergency ballast that allows the same fixture to be used for both normal and emergency operation. In the event of a power failure, the **ISD 80** switches to the emergency mode and operates **one** of the existing lamps for **90 minutes**. The unit contains a battery, charger, and inverter circuit in a single can, and can be mounted in the wireway or on top of the fixture. The **ISD 80** will self-test for thirty seconds monthly and for ninety minutes annually and will diagnose potential problems within the light fixture. If problems are encountered, the unit will specify failure of the battery, charging circuit, lamp, or inverter by means of a flashing red indicator. The dual color LED indicator is lit red when charging and lit green when ready. The **ISD 80** can be used with 2′-4′ 2-pin fluorescent lamps, providing an initial output of up to **1100 lumens** for one lamp, and features lamp selector leads for optimizing light output for designated lamp types. The **ISD 80** is suitable for use in damp locations and enclosed and gasketed fixtures.
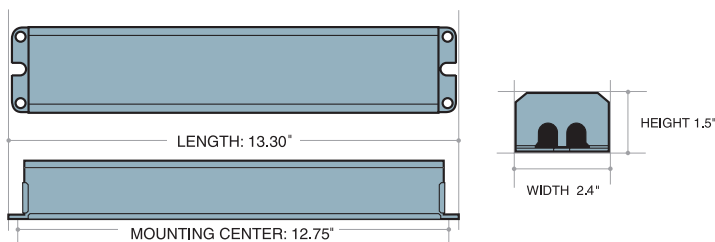
PRODUCT ADVANTAGES

- **Automatically conducts required monthly and annual testing**
- **Internal self-diagnostic circuitry tests lamp frequency, battery charge and discharge current**
- **AC output for compatibility with Low-Mercury Content Amalgam lamps**
- **Time Delay feature for compatibility with End-of-Lamp-Life circuitry**
- **Open Circuit Isolation protects unit when load is absent**
- **Universal Voltage 110-277V, 50/60Hz**

FEATURES

- Will cold start and operate all specified lamps
- Long life high temperature recyclable Ni-Cad battery
- Galvanized steel case
- Includes one-piece test switch and dual color charge indicator (LPTS)
- For use with switched or unswitched fixtures
- **5-Year Warranty**
- Lamp selector leads optimize light output for desired lamp type
- Rated for use in damp locations, plenum, and enclosed and gasketed fixtures
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting Requirements
- RoHS Compliant

SPECIFICATIONS

Input Voltage	110-277V, 50/60Hz
Input Wattage	5 Watts (max.)
Power Factor	≥ 0.9
Lamps Operated*	Most 2′-4′ bipin T8 & T12 HO or VHO fluorescent lamps, incl. long compact and 2′-4′ 14W to 54W T5 lamps *Not for use with single-pin lamps
Emergency Operation	(1) 2′-4′ 90 minutes
Initial Illumination	1100 lumens
Operating Temp	0° to 55° C
THD	< 20%
Battery	24 Hour Recharge 7-10 Year Life Expectancy
Weight	3.6 lbs.
Approval	UL and CUL Listed

DIMENSIONS

13.3″ x 2.4″ x 1.5″ (mounting center 12.75″)

LENGTH: 13.30″

MOUNTING CENTER: 12.75″

HEIGHT 1.5″

WIDTH 2.4″

FLUORESCENT

SELF-DIAGNOSTICS

ISD 80
SELF-DIAGNOSTIC FLUORESCENT EMERGENCY BALLAST

OPTIONS

TEST KIT CONFIGURATION
- LPTS

VOLTAGE RATINGS
- UNIVERSAL VOLTAGE 110-277V, 50/60HZ

INITIAL LUMEN RATINGS

LAMP*	1 LAMP
F14 T8	550
F15 T8	600
F17 T8	780
F25 T8 (3 ft)	980
F25 T8 (4 ft)	1080
F28 T8	1090
F32 T8	1140
F20 T12	650
F34 T12	940
F40 T12	1030
14W T5	740
21W T5	990
28W T5	970
35W T5	1100
39W T5	960
54W T5	1190
18W Long Compact	710
24W Long Compact	860
28W Long Compact	1160
36W Long Compact	1120
40W Long Compact	1120
50W Long Compact	1120
55W Long Compact	1100
9W Circline T5	970
12W Circline T5	1100
22W Circline T9	730
55W Circline T5	980

LED Retrofit Tube Options

This IOTA Emergency Ballast is UL Listed for emergency operation of select LED retrofit tube applications. For a complete list of acceptable LED retrofit tube options, refer to the **IOTA LED Retrofit Tube Reference Chart** at www.iotaengineering.com/IOTA-LED-Retrofit.pdf

*Not for use with single-pin fluorescent lamps

DIAGNOSTIC CODES

LED IS RED WHEN CHARGING, GREEN WHEN READY		FAILURE CODES OCCUR ONCE EVERY 15 SECONDS WITH 1 SECOND DELAY BETWEEN CODES IN INSTANCES OF MULTIPLE FAILURE
CHARGE FAILURE	1 FLASH	
BATTERY FAILURE	2 FLASHES	
LAMP FAILURE**	3 FLASHES	
INVERTER FAILURE**	4 FLASHES	

**IF FAILURE, REPLACE LAMP AND RESET UNIT BY DEPRESSING THE TEST SWITCH FOR 3 SECONDS, THEN RETEST.

REMOTE MOUNTING
When battery packs are remote mounted, consult Customer Service for the maximum allowable distance between the battery pack and lamp(s).

Warranty: 5-Year Limited Warranty
Complete warranty terms located at *www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx*

IOTA REV 091619

ISD 80 SAMPLE SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with an **IOTA ISD 80** self-diagnostic fluorescent emergency battery pack. The **ISD 80** shall be designed to automatically test the emergency lighting capability for no less than 30 seconds monthly and 90 minutes annually, and shall monitor lamp frequency, battery charge and battery discharge current. A light-emitting LED shall be provided to indicate test results and charge status. The **ISD 80** shall consist of a high temperature, maintenance-free nickel cadmium battery, charger board and an electronic circuit enclosed in a 13.3″ x 2.4″ x 1.5″ vandal-resistant galvanized steel case for installation either inside the wireway or on top of the fixture. A combination one piece test switch and long-life LED charge indicator light for monitoring charger, inverter, battery, and fault conditions shall be included. The fluorescent EM pack shall operate one bipin (2′-4′) T8 - T12, (2′-4′) T5, or long compact lamp, and **will operate the lamp with AC output.** The **ISD 80** shall provide reduced illumination for a minimum of 90 minutes in the emergency mode with a total initial output of 1100 lumens and feature lamp selector leads for optimizing the light output for the designated lamp type. The **ISD 80** shall have 5 watts maximum of input power and a battery capacity of 24 watt hours. The **ISD 80** is UL Listed and meets or exceeds all NEC and Life Safety Code Emergency Lighting Requirements, and rated for use in damp locations. The **ISD 80** is warranted for a full five (5) years from the date of purchase.

FILAMENT HEATERS

The ISD 80 utilizes filament heaters to ensure wider lamp compatibility. The filament heater leads connect to the lamp pins **indendepently** of one another, therefore with Instant Start applications, rapid start sockets must be used for proper emergency lamp connection.