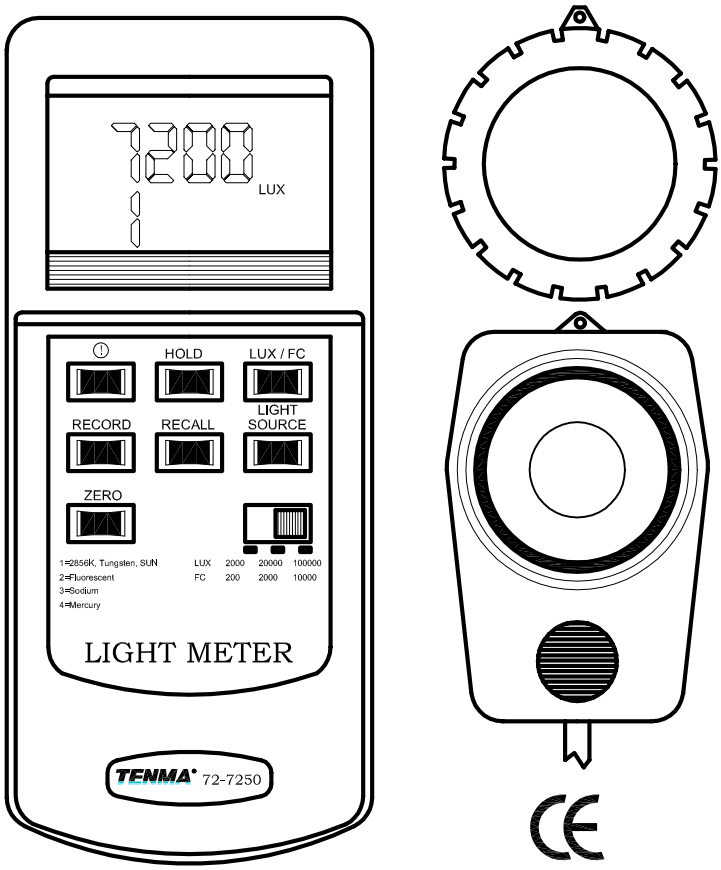
TENMA®	REVISIONS			DOC. NO. SPC-F004 * Effective: 7/8/02 * DCP No: 1398					
	DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
	1491	A	RELEASED	JWM	8/29/03	JC	8/29/03	DJC	8/29/03



FEATURES

* Microprocessor circuit ensure high accuracy.
* Super large LCD display with contrast adjustment for best viewing angle.
* Dual function display.
* Heavy duty & compact case.
* Records Maximum, Minimum and Average readings.
* Data hold.
* Auto power off.
* Operates from 9V battery.
* RS 232 PC serial interface.
* Spectrum of photo sensor meets C.I.E..
* Wide range measurement both for LUX & Foot Candle units.
* Relative % light measurement.
* User selectable lighting type (Tungsten, Fluorescent, Sodium or Mercury).
* Zero adjustment by push button.

SPC-F004.DWG

TOLERANCES:	DRAWN BY:	DATE:	DRAWING TITLE: Digital Light Meter with RS-232 Capability			
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	Jeff McVicker	8/29/03	SIZE	DWG. NO.	ELECTRONIC FILE	REV
	CHECKED BY:	DATE:	A	72-7250	16H5082.dwg	A
	John Cole	8/29/03				
	APPROVED BY:	DATE:	SCALE: NTS	U.O.M.: Millimeters [Inches]	SHEET: 1 OF 4	
	Daniel Carey	8/29/03				

General Specifications

Circuit	Custom one–chip microprocessor LSI circuit.
Display	13 mm(0.5") Super large LCD.
	Dual function display.
Lighting Type Selection	Daylight, Tungsten, Fluorescent, Mercury lamp.

Measurement & ranges	LUX	0–50,000 LUX, 3 ranges.
	Foot–candle	0–5,000 Ft–cd, 3 ranges.
	Relativity	0 to 1999 %. (Relative to the range selected and the measured value)
Sensor	Exclusive photo diode & color correction filter, spectrum designed to meet C.I.E.	
Memory Recall	Records Maximum, Minimum and Average readings with RECALL facility.	
Sample Time	Approx. 0.4 sec.	
Zero Adj.	By push button.	
Power off	Manual off by push button, or Auto shut off after 10 minutes.	
Data Output	RS 232 PC serial interface.	
Over Load Indication	"– – – –"	
Operating Temperature	0 to 50 (32to 122)	
Operating Humidity	Max. 80% RH.	
Power Supply	DC 9V battery(heavy duty) or equivalent.	
Power Current	Approx. DC 5.3 mA.	
Weight	335 g/0.77 LB (included batteries)	
Size	Main instrument: 185 x 78 x 38 mm (7.3 x 3.1 x 1.5 inch)	
	Sensor probe: 85x55x12 mm(3.2x2.2x0.5 inch).	
Accessories Included	Instruction manual. Sensor with protective cover.	
Optional Accessories	* Software (Windows version), 72–6701 * RS232 cable, 72–6702	

Electrical Specifications (23°C ±5°)

Measurement	Range	Max. In-range Display
LUX	2,000 Lux	0 – 1,999 Lux
	20,000 Lux	1,800 – 19,990 Lux
	50,000 Lux	18,000 – 50,000 Lux
Foot-candle	200 Ft-cd	0 – 186.0 Ft-cd
	2,000 Ft-cd	167 – 1,860 Ft-cd
	5,000 Ft-cd	1,670 – 5,000 Ft-cd

Range	Resolution	Accuracy
2,000 LUX	1 Lux	±(4%+2 dgt)
20,000 LUX	10 Lux	
50,000 LUX	100 Lux	
200 Ft-cd	0.1 Ft-cd	
2,000 Ft-cd	1 Ft-cd	
5,000 Ft-cd	10 Ft-cd	

Note : Accuracy tested by a standard parallel light tungsten lamp of 2856K temperature.

RS232 PC INTERFACE

The instrument features an RS232 output via 3.5 mm Terminal (3-15, Fig. 1).
The connector output is a 16 digit data stream which can be utilized to the user's specific application.

An RS232 lead with the following connection will be required to link the instrument with the PC serial input.

Optional Accessories	Software (Windows version), 72-6701 RS232 cable, 72-6702

Meter (3.5 mm jack plug)	PC (9W 'D" Connector)
Center Pin	Pin 2
Ground/shield	Pin 5

RS232 PC INTERFACE (Continued)

The 16 digit data stream will be displayed in the following format :

D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0

Each digit indicate the following status :

D0	End Word
D1 to D4	Upper Display reading, D1=LSD, D4=MSD
D5 to D8	Lower Display reading, D5=LSD, D8=MSD

D9	Decimal Point(DP) for Upper display. 0 = No DP, 1= 1 DP, 2 = 2 DP, 3 = 3 DP	
D10	Decimal Point (DP) for lower display 0 = No DP, 1= 1 DP, 2 = 2 DP, 3 = 3 DP	
D11 & D12	Anunuciator for Upper Display	
	15 = Lux	03 = %
	16 = Ft-cd	00 = No Symbol
D13	Anunuciator for Lower Display	
	0 = No Symbol	
D14	Reading Polarity for the Display 0 =Both upper & lower display value are "+" 1 =Upper "−", Lower "+". 2 =Upper "+", Lower "−". 3 =Both upper & lower display value are "−"	
D15	Start Word	