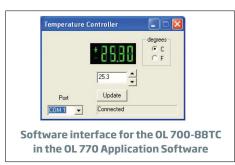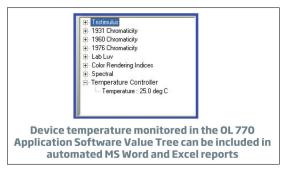# OPTRONIC®
LABORATORIES

OL 700-88TC
Liquid Cooled Temperature Controller

The advent of high brightness LEDs and other solid-state lighting sources has created challenges for thermal management for device developers and lighting designers who create or implement such devices. In response to this need, Optronic Laboratories has developed the OL Series 700-88 Temperature Controlled LED Holders, which utilize recirculating liquid to dissipate the heat from the more powerful new LED devices. The holders are used with the OL 700-88TC Liquid Cooled Temperature Controller, which maintains device temperature by recirculating chilled or warmed water through the holders. Changes can be made manually using the front panel display on the controller, which shows the set point temperature and the temperature of the portion of the holder in contact with the device under test (DUT). With the OL 770 Application Software, the temperature set point may be programmed and the device temperature can be displayed as part of the value tree. The data can then be easily exported to Microsoft Excel® and Word® for analysis or report generation. The OL 700-88 holders are compatible with the OL IS-670 and OL IS-1800 Integrating Spheres, and OL 15AB LED Receptor. Use with the OL 700-30 Goniometer is not recommended.

SPECIFICATIONS	
Input Voltage	90 to 240 VAC
Input Current	2.6 A @ 115 VAC / 1.3 A @ 230VAC
Input Frequency	50/60 Hz
Environment Temperature Range	4°C to 45°C *(40°F to 113°F)*
Control Temperature Range *(Maximum No Load Ratings Without LED Holder Connected)*	
With 100% Distilled H_2O as Coolant	2°C to 40°C *(35°F to 104°F)*
With 75% Distilled H_2O and 25% Glycol or Alcohol as Coolant[1]	-5°C to 40°C *(23° to 104°F)*
Thermal Capability *(Maximum No Load Ratings Without LED Holder Connected)*	
Cooling ΔT *(Coolant Temperature – Ambient Temperature)*[1]	-25°C
Heating ΔT *(Coolant Temperature – Ambient Temperature)*	5°C
Thermal Accuracy	± 0.5°C
Fluid Capacity	250 ml *(8.4 oz)*
Maximum Flow	2.8 LPM *(0.073 GPM)*
Dimensions	30.4" x 19.5" x 35.1" *(12.0 cm x 7.7 cm x 13.8 cm)*
Weight	10.9 kg *(24 lbs)*

[1] *For temperature settings below 2°C, an appropriate coolant must be used.*
Microsoft Excel and Word are registered trade names of the Microsoft Corporation.

Software interface for the OL 700-88TC in the OL 770 Application Software

Device temperature monitored in the OL 770 Application Software Value Tree can be included in automated MS Word and Excel reports

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