

5 CASE TEMPERATURE MEASUREMENT POINTS

The thermal management characteristics of the heat sink used with the CTM One should be validated by measuring its case temperature. This test should be done with the CTM One installed in the fixture at ambient temperature and air flow conditions similar to the end-use installation.

The power draw of the CTM One family varies by approximately one watt over the CCT range with peak power draw occurring at the CCT shown in the following table. The case temperature should be measured at the following CCT setting.

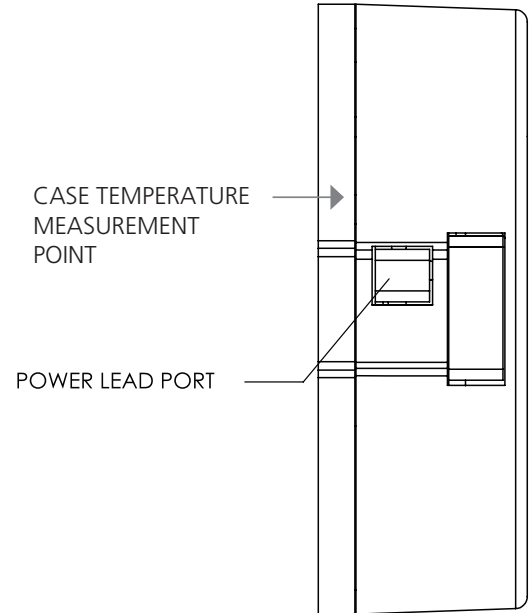
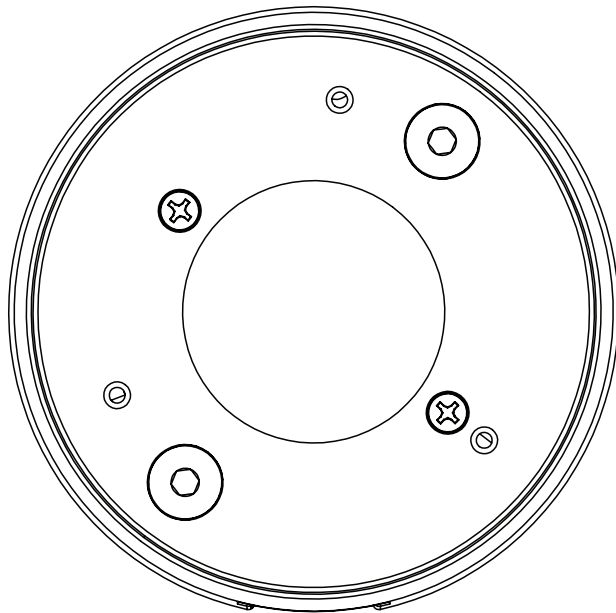
CCT Setting for Case Temperature (T_c) Measurement

CCT range	CCT Setting to Measure T _c
1650 – 8000K	3500K

The proper case temperature measurement location is on the narrow metal band, next to the power lead port; see figure below. The case temperature reading should be made after the unit has reached steady state, where the case temperature levels out. It is recommended to design the thermal management system for a case temperature of 80°C.

Maximum case temperature: 80°C

The Color Tuning Module has on-board thermal protection to reduce the current to the LEDs when the maximum case temperature is exceeded. This prevents unacceptably high LED junction temperatures by slightly dimming the module.



Case Temperature Measurement Point