

# **TDE** Techno Design

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## **PRISM LIGHT PROJECT THERMAL TEST**

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### **TEST PROCEDURE**

- 1- A factory calibrated (brand new) OMEGA HH12A temperature read-out was used
- 2- Factory calibrated k-type thermocouples (OMEGA TT-K) were cut to length and attached to connectors (OMEGA SMPW-K-M).
- 3- Thermocouples were attached at the specified positions (as shown in Fig.1).
- 4- An additional thermocouple was left in the area to monitor ambient temperature. Values of ambient temperature were averaged as they were noticed to be stable.
- 5- Prism light unit was powered and put to function. Temperature readings were started to be recorded as soon as the shroud was observed to be at maximum height.
- 6- Temperature readings were recorded every fifteen (15) minutes. The same order was consistently used in recording the different temperature values of the different thermocouples.

# PRISM LIGHT PROJECT

Ambient Temperature: 21 C

| TIME (Min.) | Th1 | Th2 | Th3 | Th4 | Th5 | Th6 | Th7 | Th8 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 0           | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  |
| 15          | 136 | 98  | 101 | 185 | 62  | 33  | 95  | 29  |
| 30          | 149 | 108 | 115 | 197 | 65  | 35  | 103 | 34  |
| 45          | 153 | 111 | 117 | 200 | 65  | 32  | 104 | 38  |
| 60          | 153 | 110 | 116 | 205 | 68  | 31  | 105 | 42  |
| 75          | 153 | 111 | 118 | 205 | 67  | 34  | 105 | 43  |
| 90          | 153 | 110 | 120 | 207 | 67  | 33  | 105 | 46  |
| 105         | 151 | 109 | 119 | 207 | 67  | 35  | 105 | 47  |
| 120         | 152 | 111 | 117 | 207 | 66  | 35  | 105 | 50  |
| 135         | 154 | 112 | 117 | 207 | 66  | 34  | 105 | 53  |
| 150         | 155 | 113 | 118 | 204 | 66  | 34  | 105 | 54  |
| 165         | 154 | 113 | 120 | 205 | 67  | 34  | 105 | 57  |
| 180         | 153 | 113 | 121 | 207 | 66  | 35  | 105 | 57  |

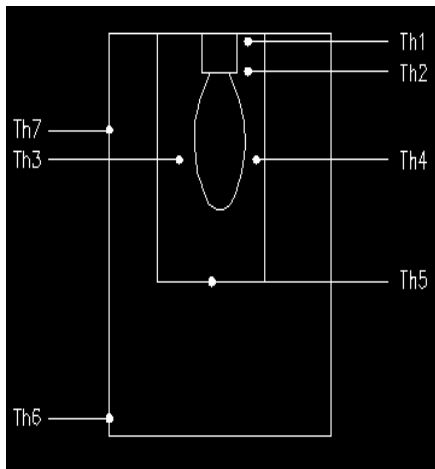


Fig. 1: Thermocouples Location

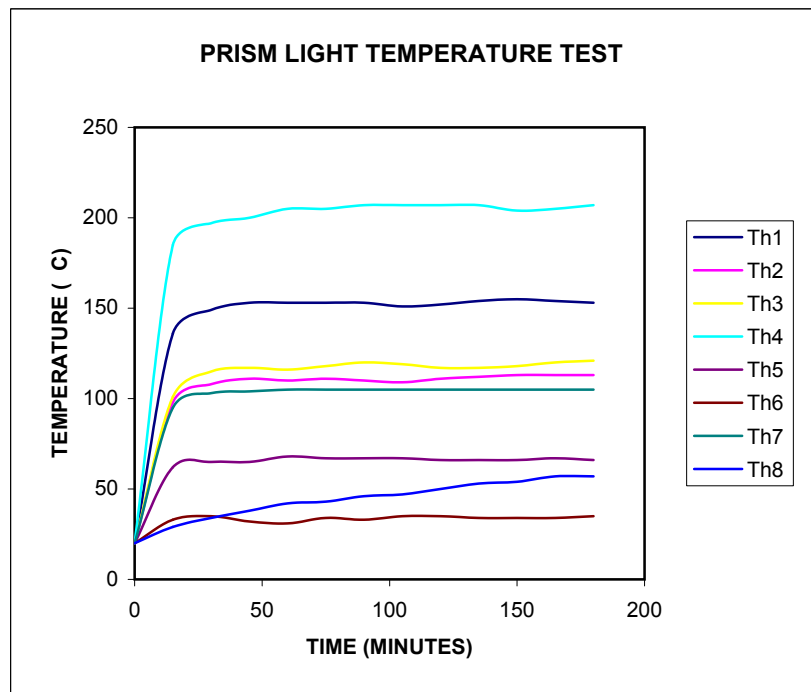


Fig. 2: Temperature values as a function of test time