

Result: Betelgeuse has lower surface temperature than Rigel.

Solution: In the photo of Orion Betelgeuse appears yellow or orange; Rigel appears blue. Using Fig. 7 as a guide, blackbody radiation that appears blue is emitted by an object at 6000 K or higher. Radiation that appears yellow or orange more closely corresponds to a temperature of 4000 K or below. Thus, Betelgeuse is at a lower temperature than Rigel.