Recommended operating range for Core temperature

Coolers with 92mm fans are low-end to mid-range, which may be somewhat inadequate, since your processor's Thermal Design Power (TDP) is 120 Watts.

What is your ambient temperature? Normal or "Standard" room temperature is 22°C or 72°F, so high ambient temperature will adversely affect Core temperatures.

Although your Xeon X5460 has Thermal Specifications of Tcase 63°C and Tj Max 100°C, Tcase is *not* the limiting Thermal Specification; Tj Max *is*, which is the temperature that your processor will "Throttle" or reduce Core speed to prevent thermal damage.

Tcase is a misleading Specification because it's a *factory only* measurements on the surface of the Integrated Heat Spreader, so Tcase is *not* Core temperature, which is considerably higher. Further, Tcase is only relevant to the stock cooler.

Although 90°C Core temperature isn't quite hot enough to cause Throttling, it's not advisable to push your CPU to the thermal limit, just as you wouldn't operate a vehicle with the temperature gauge pegged in the red "hot" zone.

If your hottest Core is within a few degrees of Throttle temperature, your CPU is already too hot. The consensus among highly experienced and well informed system builders and overclockers, is that cooler is better for ultimate stability, performance and longevity.

As such, all agree it's wise to observe a reasonable thermal limit below Tj Max. So regardless of your rig's environmental conditions, system configuration, workloads or any other variables, _sustained_ Core temperatures above 80°C aren't recommended.

Here's the recommended operating range for Core temperature:

80°C Hot (100% Load)
75°C Warm
70°C Warm (Heavy Load)
60°C Norm
50°C Norm (Medium Load)
40°C Norm

30°C Cool (Idle)

Also, you might want to read this Sticky: **Intel Temperature Guide** - http://www.tomshardware.com/forum/id-1800828/intel-temperature-guide.html

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