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Let  $\mathfrak{g}$  be a simple Lie algebra and  $V[0] = V_1 \otimes \cdots \otimes V_n[0]$  the zero weight subspace of a tensor product of  $\mathfrak{g}$ -modules. The trigonometric KZB operators are commuting differential operators acting on  $V[0]$ -valued functions on the Cartan subalgebra of  $\mathfrak{g}$ . Eigenfunctions to the operators are constructed by the Bethe ansatz. We introduce a scalar product such that the operators become symmetric, and the square of the norm of a Bethe eigenfunction equals the Hessian of the master function at the corresponding critical point. (Received September 20, 2010)