Figure S1 – Analysis of sporulation

Strains were cultivated at 28°C in constant light or darkness for 3 days. A: Parental strain QM9414 and deletion mutants Δphlp1, Δgnb1 and Δgng1. B: Parental strain QM9414 and the respective complemented knock-out mutants phlp1-RE, gnb1-RE and gng1-RE, which regained behaviour of the parental strain by retransformation of the original gene.

Figure S2 – Analysis of hyphal extension rates

Comparison of hyphal extension rates of the deletion strains Δphlp1, Δgnb1 and Δgng1 with the parental strain QM9414 on malt extract agar plates (3 % w/v) in constant light or darkness.
Figure S3 – Biomass formation on glycerol

Strains were grown on Mandels-Andreotti minimal media with 1% (w/v) glycerol as carbon source in constant light or constant darkness and biomass was determined after 20 hours, 25 hours and 30 hours. A: Comparison of the biomass formation of the deletion strains Δphlp1, Δgnb1 and Δgng1 with the parental strain QM9414 in liquid media. B: Comparison of the respective complemented mutant strains phlp1-RE, gnb1-RE and gng1-RE with the parental strain QM4914.

Figure S4 – Phenotypes of complemented knockout strains

Strains were kept at 28°C in constant light or darkness on malt extract agar plates for 3 days.
**Figure S5 - Determination of copy numbers of deletion cassettes in deletion mutants**

Copy number was determined by quantitative PCR. *L6e* was taken as reference gene and the amount of integrated hph is relative to GNA3QLE (positive control, one deletion cassette integrated). The amount of integrated cbh2 terminator is given relative to the parental strain QM9414.

**Figure S6 – Crossings of complemented knockout strains with QF1**

Equal amounts of conidospores of QM9414, *phlp1*-RE, *gnb1*-RE or *gng1*-RE (all MAT1-2) and QF1 (MAT1-1, sexually competent strain derived from QM9414) were combined and inoculated on malt extract agar plates. Sexual development was monitored for 23 days and fruiting body formation is shown for 6 and 10 days after inoculation.