

Supplementary Figures

Figure S1. Light apparatus with variable light intensity. (A) Light setup 1 consists of a high-power mounted 470 nm LED and an aspheric condenser lens (\varnothing 75mm) to create a uniform distribution of light across a circular area of 7 cm in diameter. (B) A T-cube LED Driver (LEDD1B, ThorLabs) was used to adjust the current available to the LED. (C) An irradiance map was created using an optical power sensor (Thorlabs, model PM121D). This setup produced 1.5-2.0 mW cm⁻², which was used for growth inhibition experiments while higher settings were used for survival experiments.

Figure S2. Light apparatus for 96- well microtitre plates. (A) Light setup 2 consists of 80 blue LEDs arranged in a 10 x 8 array. The measurements of the array were 16 x 13.5 cm. A diffuser membrane was added below the array to help achieve a uniform distribution of light across the area of a 96 – well plate which was placed 16 cm below the lights. (B) This map shows the irradiance achieved across the area of a 96well plate with Light setup 2.

Figure S3. *L. monocytogenes* isolated from food environments has inhibited growth in the presence of blue light. Overnight cultures were standardised to OD_{600nm} = 1.0 and diluted to 10⁻⁸. 4 μ l of each dilution was spotted in triplicate onto BHI agar and grown at 30°C for 24 h in the presence or absence of blue light illumination (470 nm, 1.5-2 mW cm⁻²).

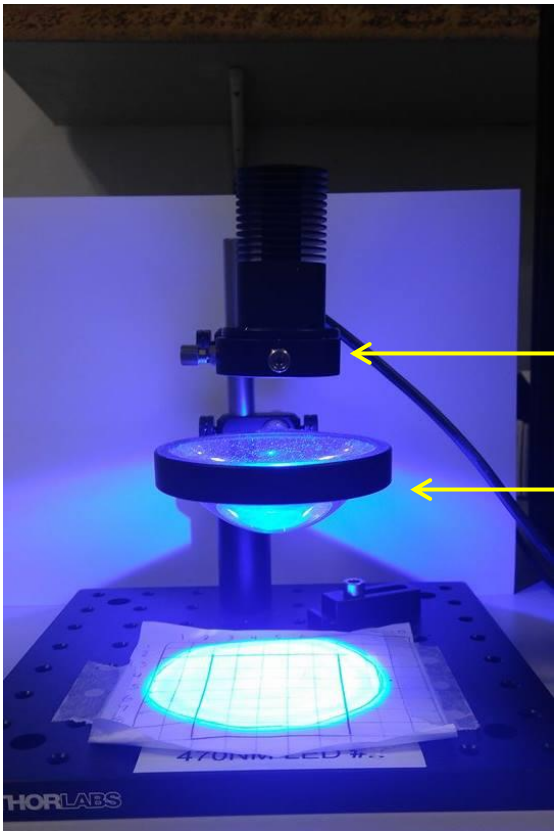
Figure S4. Cells of 10403S lacking SigB have decreased sensitivity to low intensity blue light. The influence of blue light (470nm, 1.5-2 mW cm⁻²) on the growth of *L.monocytogenes* 10403s compared to its isogenic mutant $\Delta sigB$ on BHI agar. Overnight cultures were standardised to OD_{600nm} = 1.0 and diluted to 10⁻⁸. 4 μ l of each dilution was spotted in triplicate onto BHI agar and grown at 30°C for 24 h.

Figure S5. The presence of Lm0799 negatively affects growth in low intensity blue light. Overnight cultures were standardised to an OD_{600nm} = 1 and diluted, first tenfold followed by 1 in 5 dilutions in PBS. Dilutions were spotted on BHI agar and incubated in the presence or absence of light (470nm, 1.5-2.0 mW cm⁻²).

O' Donoghue *et al.* Table S1

Primer No.	Description	Sequence (5'-3')
COB 736	FOR <i>Imo0799</i> Cys-Ala mutant	<u>cgcacattttt</u> tacaaggagac
COB737	REV <i>Imo0799</i> Cys-Ala mutant	ccggtgatgataagttctacg
COB 699	FOR <i>Imo0799</i> Flanking primer	acaaatgtagccgcccttc
COB 700	REV <i>Imo0799</i> Flanking primer	catctcgcaacctctacctc

O'Donoghue *et al.* Fig. S1A



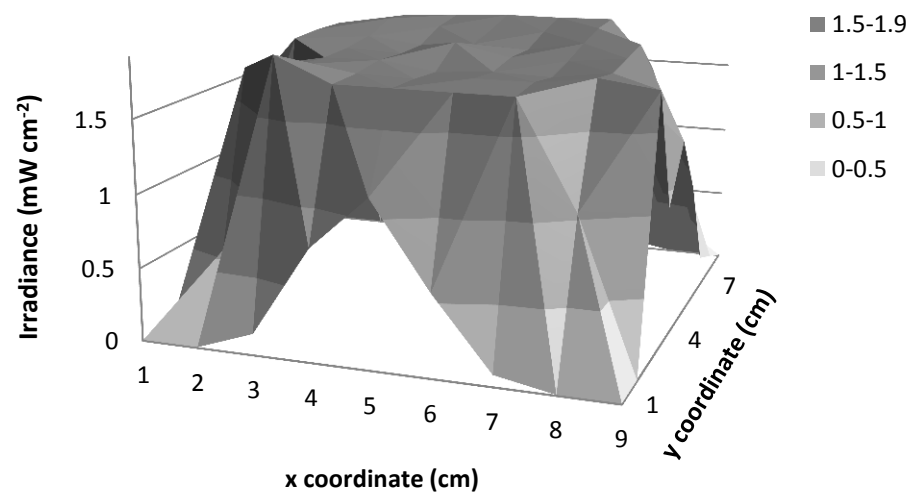
High-power mounted blue LED (470nm)

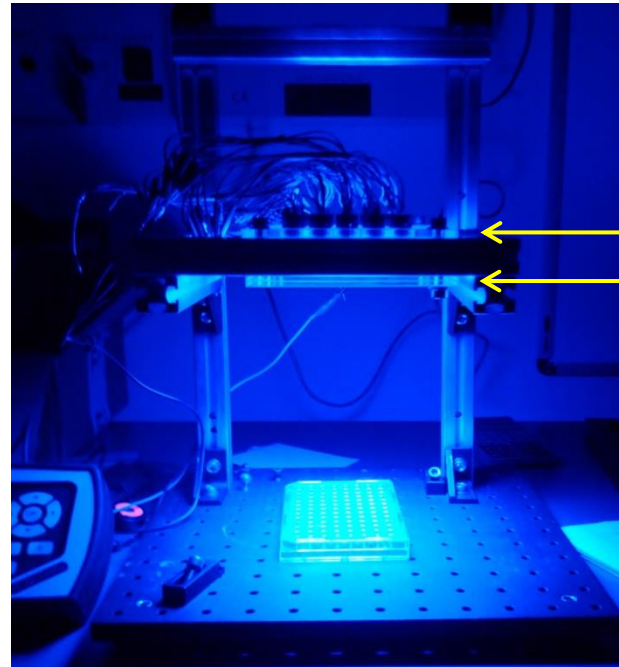
Aspheric condenser lens (Ø 75mm)



↑
T-cube LED driver 1200mA with trigger mode

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80 prewired blue LEDs (460nm)
Diffuser

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