TECHNICAL MEASUREMENT REPORT

Spectral irradiance ATP Pro 1500

LED light therapy panel, red and near-infrared

1. Report identification

Report number	IRR-ATP1500
Revision	2.0 (supersedes 1.1)
Test object	LED light therapy panel ATP Pro 1500
Configuration (specification)	300 LEDs, 8 wavelengths: 590, 630, 660, 810, 850, 940, 1060 and 1072 nm
Instrument	Everfine handheld spectroradiometer, measuring range 380 to 1050 nm
Quantity	Irradiance Ee (380 to 1050 nm) and peak wavelength Lp, read from the display
Measuring distances	Contact (0 cm), 7.5, 15, 20 and 30 cm
Number of readings	16 (red 5, near-infrared 5, combined 6)
Appendix	Appendix A in this document (from page 4): all 16 original display photos

2. Summary

This report gives the irradiance of the ATP Pro 1500 as read from the display of the spectroradiometer. A photo of the display for every reading is included in appendix A. Values in W/m² have been converted to mW/cm² (10 W/m² = 1 mW/cm²). No values have been added up or extrapolated.

At 15 cm: combined (all LEDs on) 78.5 and 87.6 mW/cm² (two readings, average 83.1 mW/cm²). Red: 67.4 mW/cm². Near-infrared: 74.6 mW/cm².

Mode	Contact (0 cm)	7.5 cm	15 cm	20 cm	30 cm
Red	289.6	138.7	67.4	45.0	36.6
Near-infrared	267.3	146.8	74.6	20.4	30.5
Combined	118.9	92.8	78.5 / 87.6	47.2	68.5

Table 1. Measured irradiance in mW/cm². Two readings were taken for combined at 15 cm.

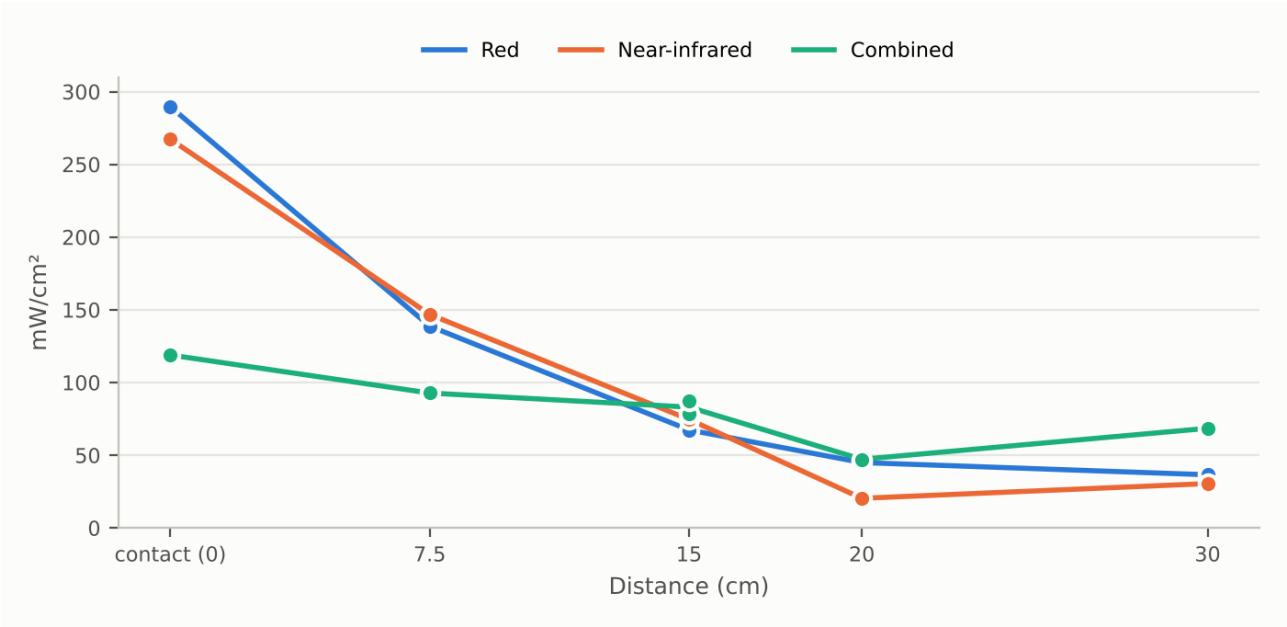


Figure 1. Measured irradiance per distance. At 15 cm both combined readings are shown; the line runs through the average.

3. Measurement method

The spectroradiometer was held by hand in front of the panel, with the measuring head facing the LEDs. All readings were taken on the same panel.

The distance was measured with a steel ruler next to the meter, on the centimetre scale: 7.5, 15, 20 and 30 cm. At "contact" the measuring head rests against the panel.

Three modes were measured: red, near-infrared and combined (all LEDs on). Each mode was measured separately; the values of the modes have not been added up.

The meter shows the total irradiance Ee in W/m², integrated over 380 to 1050 nm, and the peak wavelength Lp.

4. Results per reading

No.	Mode	Distance	W/m²	mW/cm²	Lp (nm)
R1	Red	Contact (0 cm)	2,896.04	289.6	663.0
R2	Red	7.5 cm	1,387.37	138.7	664.0
R3	Red	15 cm	673.75	67.4	664.0
R4	Red	20 cm	449.58	45.0	664.0
R5	Red	30 cm	365.58	36.6	663.0
N1	Near-infrared	Contact (0 cm)	2,672.68	267.3	807.0
N2	Near-infrared	7.5 cm	1,468.14	146.8	947.0
N3	Near-infrared	15 cm	746.31	74.6	944.0
N4	Near-infrared	20 cm	203.74	20.4	857.0
N5	Near-infrared	30 cm	304.98	30.5	810.0
G1	Combined	Contact (0 cm)	1,189.01	118.9	1,050.0
G2	Combined	7.5 cm	927.55	92.8	867.0
G3	Combined	15 cm, reading 1	785.42	78.5	810.0
G4	Combined	15 cm, reading 2	876.02	87.6	666.0
G5	Combined	20 cm	472.04	47.2	663.0
G6	Combined	30 cm	685.08	68.5	666.0

Table 2. All 16 readings as read from the display. The numbers refer to the photos in appendix A.

5. Measuring range

The measuring range of the spectroradiometer extends to 1050 nm. The 1060 and 1072 nm wavelengths fall outside it and are not included in the measured values.

6. Dose calculation

Dose (J/cm²) = irradiance (mW/cm²) × time (seconds) ÷ 1000. Calculated with the combined readings at 15 cm.

Irradiance	Time for 10 J/cm²	Time for 20 J/cm²
83.1 mW/cm² (average)	120 s (2:00 min)	241 s (4:01 min)
78.5 mW/cm²	127 s	255 s
87.6 mW/cm²	114 s	228 s

Table 3. Treatment time per dose at 15 cm. Follow the user manual for the recommended treatment duration.

7. Changes compared with revision 1.1

- All values have been taken again one-to-one from the display photos.
- The readings at 20 and 30 cm have been added.
- The description of the measurement method has been brought in line with how it was actually done. The mention of a 5-minute warm-up has been removed.
- All 16 original display photos have been added to this report as appendix A.

This report describes the measured optical output. The panel is a wellness device and is not intended to diagnose, treat or cure any disease. This report may only be reproduced in full.

Appendix A. Original measurement photos

This appendix contains all 16 original photos of the spectroradiometer display (Everfine, handheld, measuring range 380 to 1050 nm) from the irradiance measurement of the ATP Pro 1500. The reading is given below each photo. Conversion: 10 W/m² = 1 mW/cm².

The photos have not been cropped or edited, only saved as JPEG. All readings are included, so the complete measurement series is verifiable.

Overview

R1	Red	Contact (0 cm)	289.6 mW/cm²	Lp 663.0 nm
R2	Red	7.5 cm	138.7 mW/cm²	Lp 664.0 nm
R3	Red	15 cm	67.4 mW/cm²	Lp 664.0 nm
R4	Red	20 cm	45.0 mW/cm²	Lp 664.0 nm
R5	Red	30 cm	36.6 mW/cm²	Lp 663.0 nm
N1	Near-infrared	Contact (0 cm)	267.3 mW/cm²	Lp 807.0 nm
N2	Near-infrared	7.5 cm	146.8 mW/cm²	Lp 947.0 nm
N3	Near-infrared	15 cm	74.6 mW/cm²	Lp 944.0 nm
N4	Near-infrared	20 cm	20.4 mW/cm²	Lp 857.0 nm
N5	Near-infrared	30 cm	30.5 mW/cm²	Lp 810.0 nm
G1	Combined	Contact (0 cm)	118.9 mW/cm²	Lp 1,050.0 nm
G2	Combined	7.5 cm	92.8 mW/cm²	Lp 867.0 nm
G3	Combined	15 cm, reading 1	78.5 mW/cm²	Lp 810.0 nm
G4	Combined	15 cm, reading 2	87.6 mW/cm²	Lp 666.0 nm
G5	Combined	20 cm	47.2 mW/cm²	Lp 663.0 nm
G6	Combined	30 cm	68.5 mW/cm²	Lp 666.0 nm



Photo R1. Red, Contact (0 cm)
Ee (380–1050 nm): 2,896.04 W/m² = 289.6 mW/cm²
Peak wavelength (Lp): 663.0 nm



Photo R2. Red, 7.5 cm
Ee (380–1050 nm): 1,387.37 W/m² = 138.7 mW/cm²
Peak wavelength (Lp): 664.0 nm



Photo R3. Red, 15 cm
Ee (380–1050 nm): 673.75 W/m² = 67.4 mW/cm²
Peak wavelength (Lp): 664.0 nm



Photo R4. Red, 20 cm
Ee (380–1050 nm): 449.58 W/m² = 45.0 mW/cm²
Peak wavelength (Lp): 664.0 nm



Photo R5. Red, 30 cm
Ee (380–1050 nm): 365.58 W/m² = 36.6 mW/cm²
Peak wavelength (Lp): 663.0 nm



Photo N1. Near-infrared, Contact (0 cm)
Ee (380–1050 nm): 2,672.68 W/m² = 267.3 mW/cm²
Peak wavelength (Lp): 807.0 nm

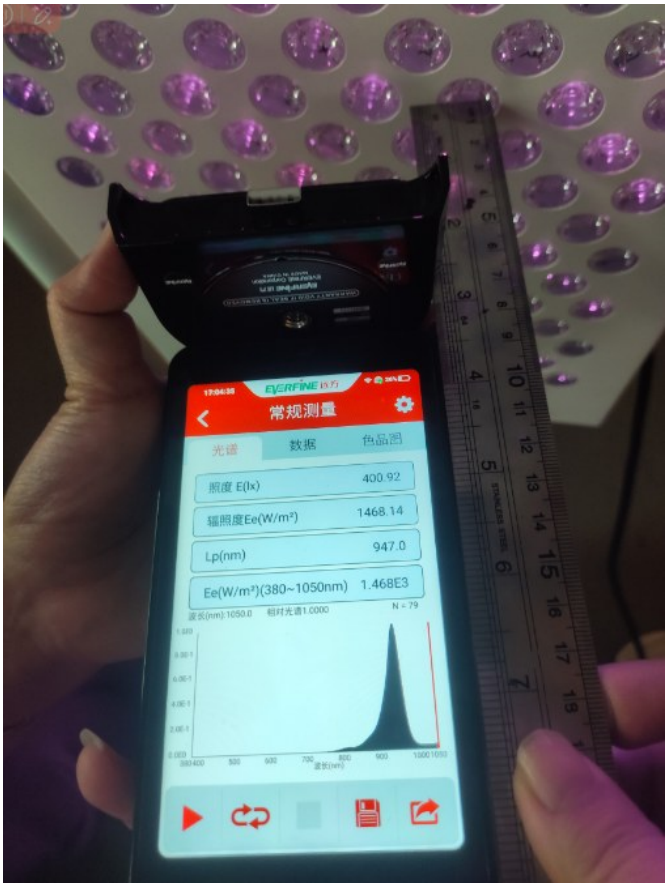


Photo N2. Near-infrared, 7.5 cm
Ee (380–1050 nm): 1,468.14 W/m² = 146.8 mW/cm²
Peak wavelength (Lp): 947.0 nm

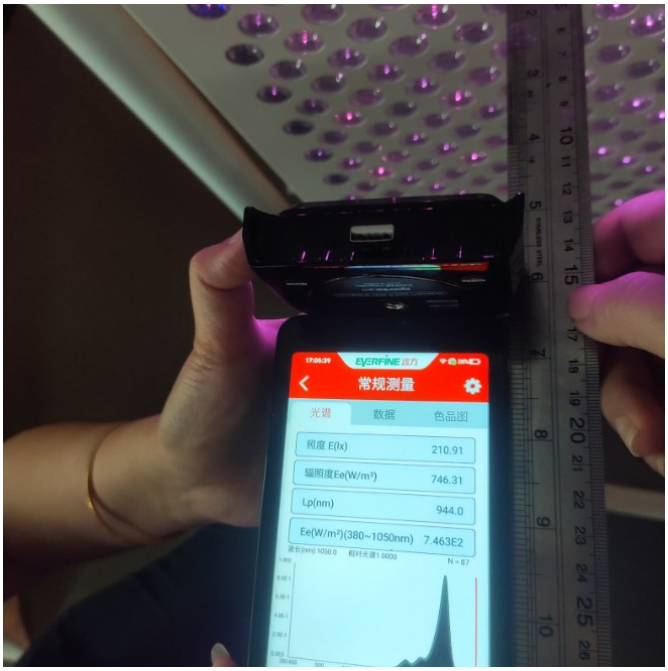


Photo N3. Near-infrared, 15 cm
Ee (380–1050 nm): 746.31 W/m² = 74.6 mW/cm²
Peak wavelength (Lp): 944.0 nm

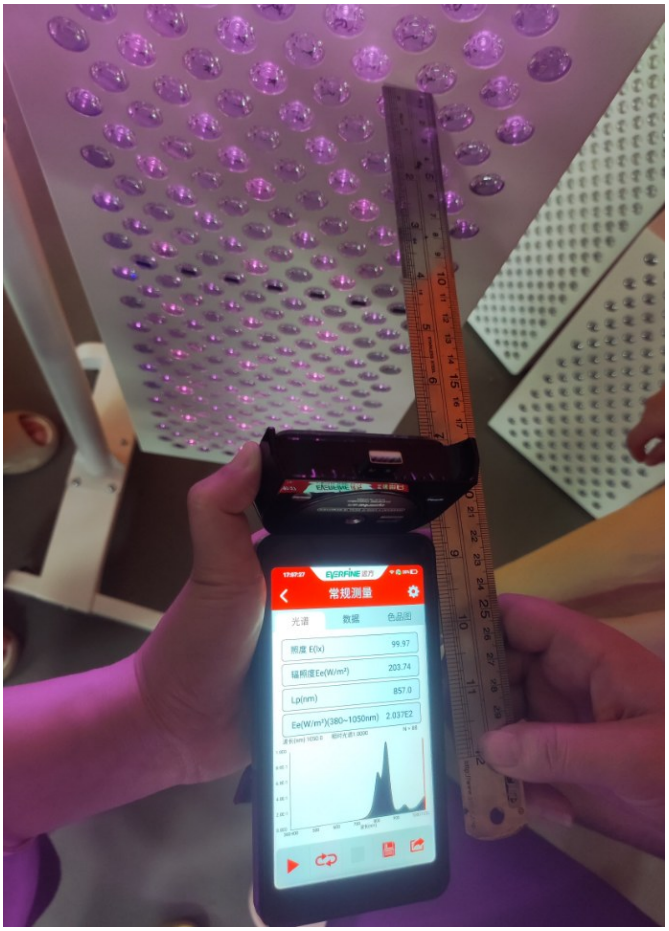


Photo N4. Near-infrared, 20 cm
Ee (380–1050 nm): 203.74 W/m² = 20.4 mW/cm²
Peak wavelength (Lp): 857.0 nm

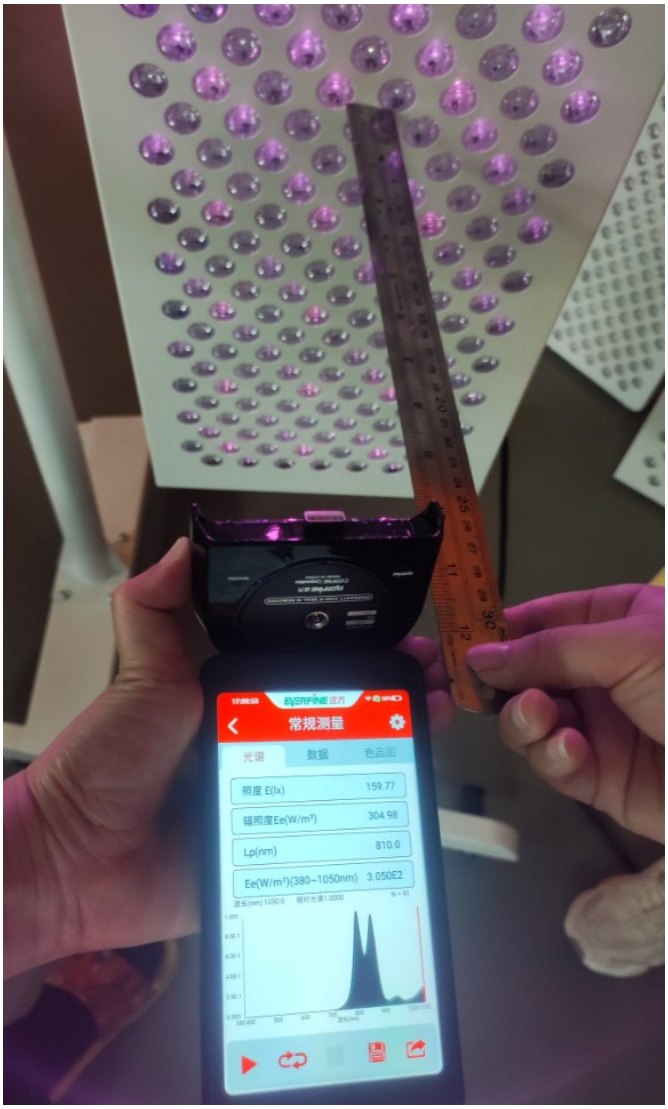


Photo N5. Near-infrared, 30 cm
Ee (380–1050 nm): 304.98 W/m² = 30.5 mW/cm²
Peak wavelength (Lp): 810.0 nm

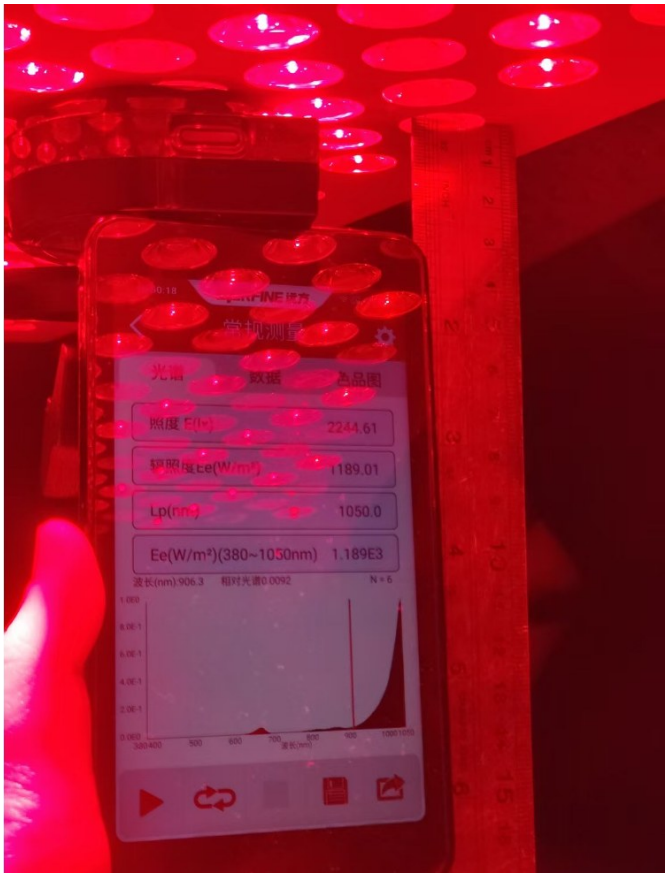


Photo G1. Combined, Contact (0 cm)
Ee (380–1050 nm): 1,189.01 W/m² = 118.9 mW/cm²
Peak wavelength (Lp): 1,050.0 nm

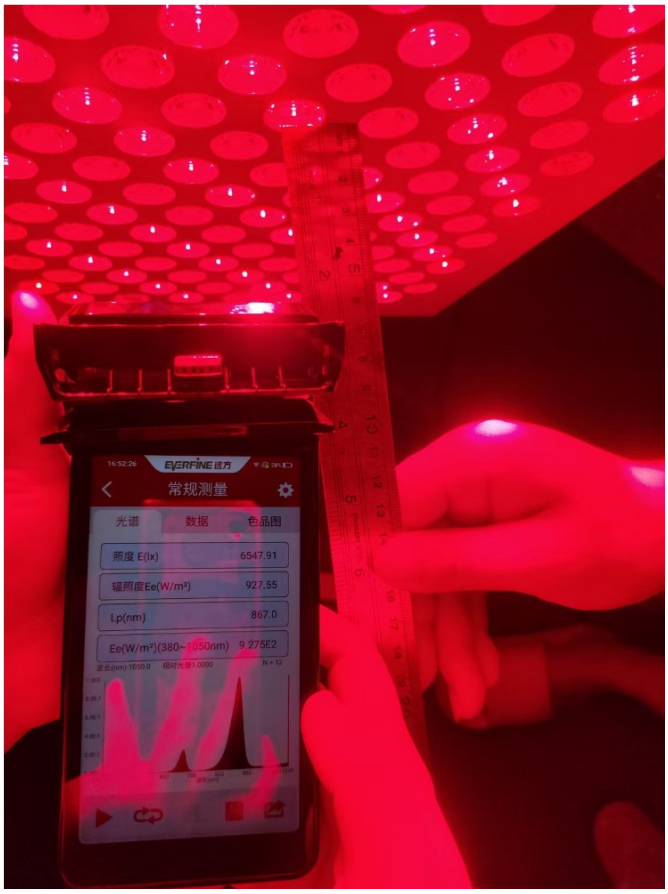


Photo G2. Combined, 7.5 cm
Ee (380–1050 nm): 927.55 W/m² = 92.8 mW/cm²
Peak wavelength (Lp): 867.0 nm

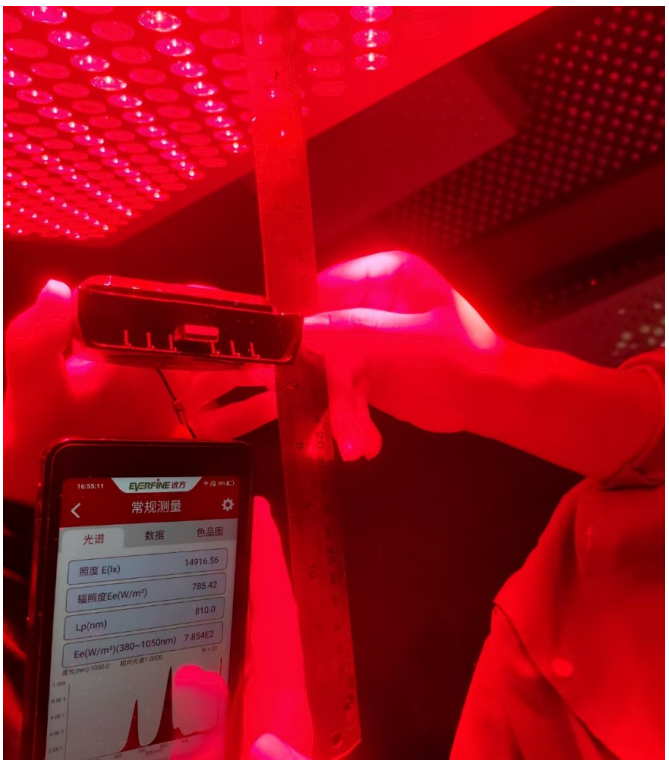


Photo G3. Combined, 15 cm, reading 1
Ee (380–1050 nm): 785.42 W/m² = 78.5 mW/cm²
Peak wavelength (Lp): 810.0 nm

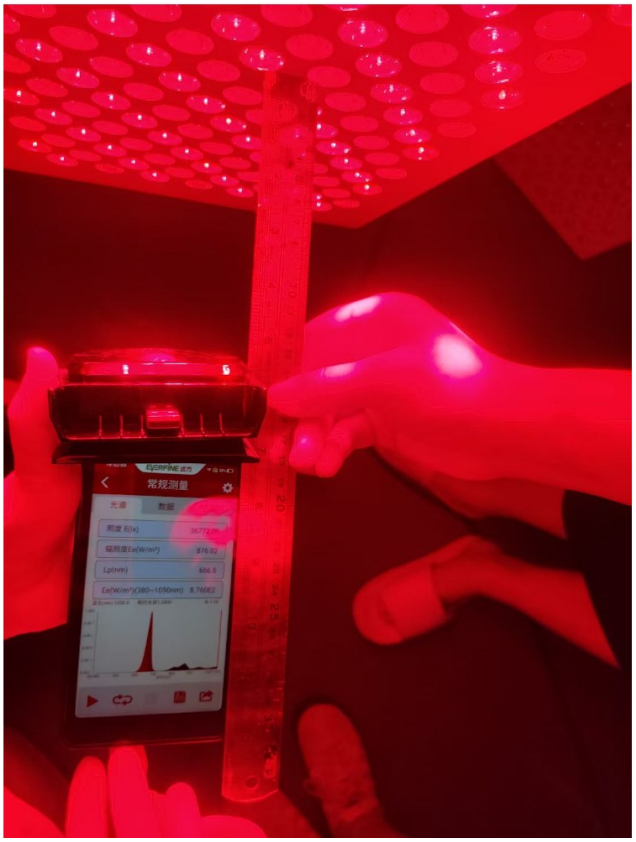


Photo G4. Combined, 15 cm, reading 2
Ee (380–1050 nm): 876.02 W/m² = 87.6 mW/cm²
Peak wavelength (Lp): 666.0 nm

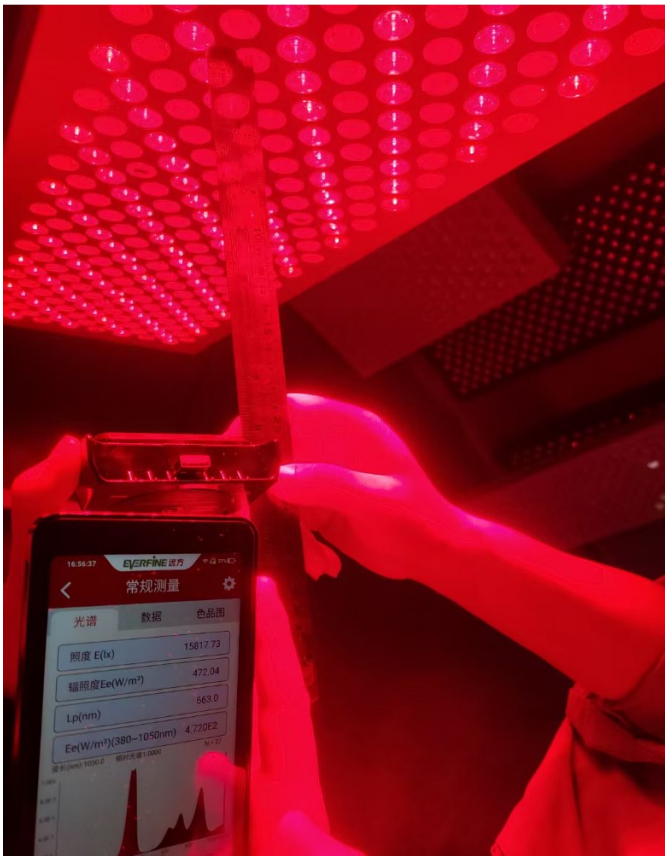


Photo G5. Combined, 20 cm
Ee (380–1050 nm): 472.04 W/m² = 47.2 mW/cm²
Peak wavelength (Lp): 663.0 nm

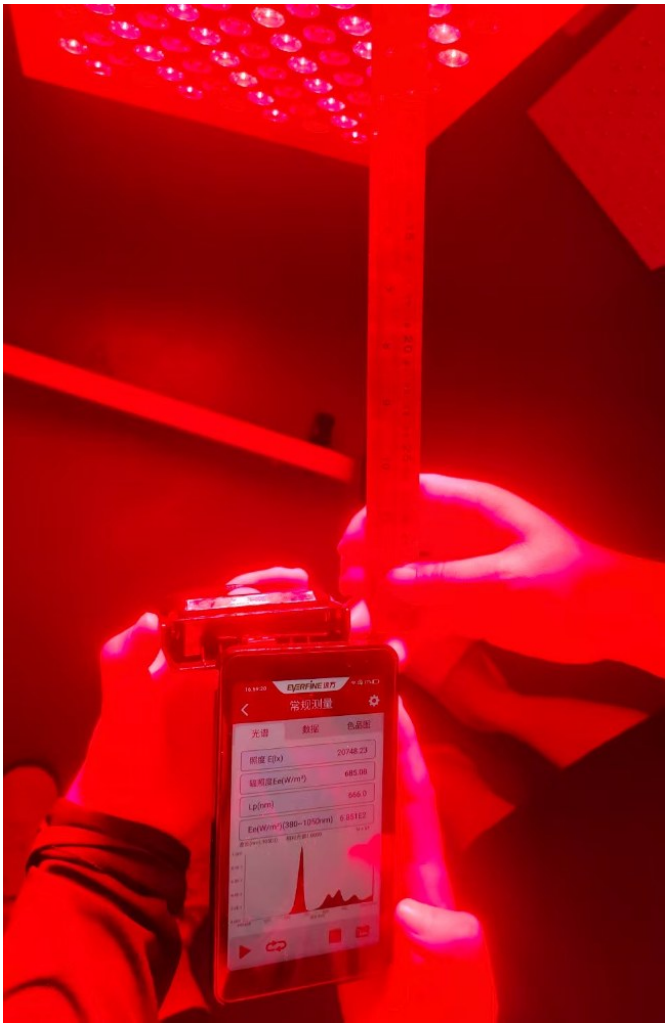


Photo G6. Combined, 30 cm
Ee (380–1050 nm): 685.08 W/m² = 68.5 mW/cm²
Peak wavelength (Lp): 666.0 nm