



# TEST REPORT

## IEC62471 Photobiological Safety Assessment

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### 1. Product Details

Product VioSafe™ Dual Mode Troffer in  
White Light Disinfection Mode  
Model Number VS-22-41-S-N  
LED Manufacturer Vital Vio  
LED Part Numbers VLD-01-41 SMD and TLD-02 SMD  
Project Number 4788205725  
Order Number 12009932  
Applicable Standard IEC62471 1<sup>st</sup> Ed (2006)  
GLS/ non-GLS assessment: GLS

### 2. Measurement Conditions

Measurement System Scanning Spectroradiometer  
Operating Conditions 120Vac  
Measurement Distance 500 Lux Distance 1610 mm  
Reference Point Plane to Diffuser  
Apparent Source Location At Reference Point  
Source Dimensions 270.35 x 224.56 mm  
Average angular subtense Limited to maximum 100 mrad

### 3. Measurement Laboratory Details

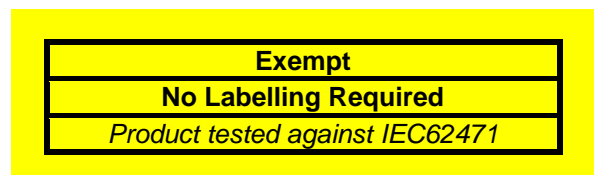
Company: UL LLC  
Address: 12 Laboratory Dr.  
Research Triangle Park, NC  
27709 United States

### 4. Client Details

Company: Vital Vio  
Address: 185 Jordan Rd.  
Troy, NY 12180 United States

### 5. Resulting IEC62471 Classification and Labelling

Hazard	Risk Group
Actinic UV	<b>Exempt</b>
Near UV	<b>Exempt</b>
Blue Light	<b>Exempt</b>
Retinal Thermal	<b>Exempt</b>
Infrared	<b>Exempt</b>
Thermal Skin	<b>Pass</b>

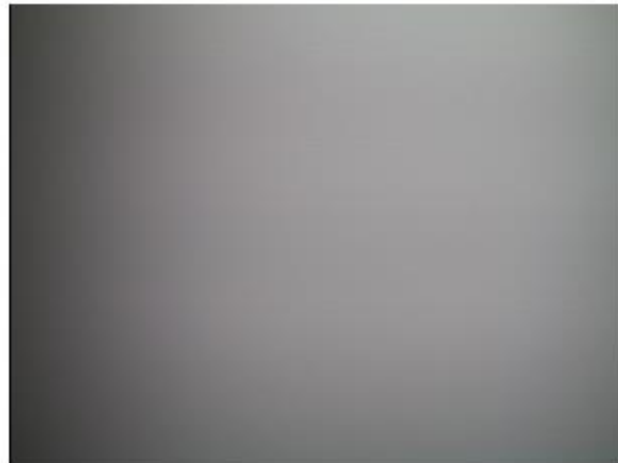


DATE OF TEST	TESTED BY	APPROVED BY
2017-12-05	Primus Kinlaw	Benjamin Cribb



## 6. Source Profile

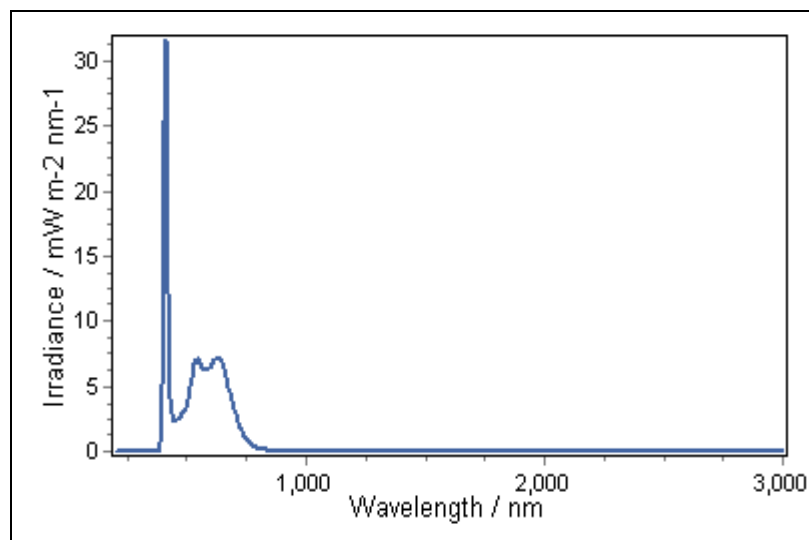
The source emission profile was measured using the PSL profiler, the resulting source size is calculated from 50% emission points



## 7. Irradiance Results

Measurement distance: 1610 mm  
Spectral Range 200 - 3000 nm

Hazard	Measured value	Resulting risk group	Risk group limit value	Time to exposure limit (s)
Actinic UV ( $mW m^{-2}$ )	4.43E-03	<b>Exempt</b>	1	> 30000
Near UVA ( $W m^{-2}$ )	5.38E-02	<b>Exempt</b>	10	> 30000
Blue Light Small Source ( $W m^{-2}$ )	n/a	n/a	n/a	n/a
IR Eye ( $W m^{-2}$ )	1.18E-02	<b>Exempt</b>	100	> 1000
Thermal Skin ( $W m^{-2}$ )	2.12E+00	<b>Pass</b>	3.56E+03	> 10

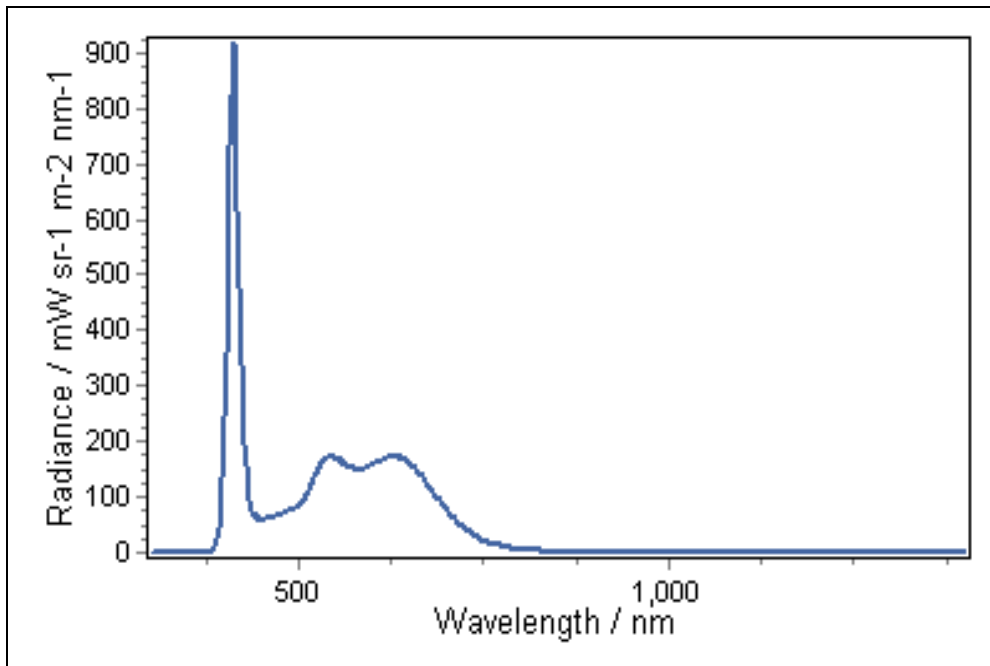




## 8. Radiance Results

Measurement distance: 1610 mm  
 Spectral Range 200 - 3000 nm  
 Luminance in 11 mrad 10963.9 cd m<sup>-2</sup>

Hazard	Measured value (W sr <sup>-1</sup> m <sup>-2</sup> )	Risk group limit value (W sr <sup>-1</sup> m <sup>-2</sup> )	Risk group tested	Pass/Fail
Blue light hazard 100mrad FOV	1.06E+01	100	Exempt	<b>Pass</b>
Blue light hazard 11mrad FOV	n/a	n/a	Group 1	n/a
Blue light hazard 1.7mrad FOV	n/a	n/a	Group 2	n/a
Retinal Thermal 11mrad FOV	1.44E+02	2.81E+05	Exempt	<b>Pass</b>
Retinal Thermal 1.7mrad FOV	n/a	n/a	Group 2	n/a
Retinal Thermal Weak Visual 35mrad FOV	n/a	n/a	Exempt	n/a
Retinal Thermal Weak Visual 11mrad FOV	n/a	n/a	Group 1	n/a





**9. Photo**

