

# STABILIZED LIGHT SOURCES FOR PHOTOMULTIPLIER TUBES



L 11494



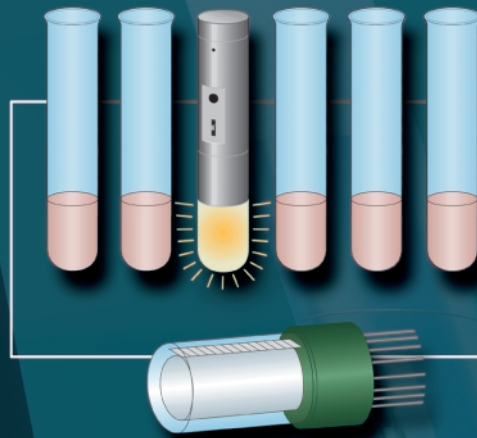
L 11416



L11494 Series  
Image during use

- ① L11494
- ② Photodetector

TACCC0150EB



L11416 Series  
Image during use

TACCC0149EA

# SPECIFICATIONS

## L11416 Series

(at +25 °C)

Parameter	L11416-470	L11416-525	L11416-555	L11416-590	Unit
Peak Emission Wavelength	465	522	555	592	nm
Spectral Half Width	26	35	30	18	nm
Light Emission Power	1 ± 0.5 *1				pW
Emission Stability (0 °C to +50 °C)	±2 Max.				%
Battery	Button battery SR41 or equivalent				—
Battery Service Life	Min.	24			h
Operating Ambient Temperature / Humidity *2	0 °C to +50 °C / below 85 %				—
Storage Temperature / Humidity *2	-20 °C to +60 °C / below 85 %				—
Weight	13				g

\*1: Adjusted by using a 22 mm effective diameter photon counting head placed at a position 5 mm away from the L11416.

\*2: No condensation

## L11494 Series

(at +25 °C)

Parameter	L11494-430	L11494-470	L11494-525	L11494-660	Unit
Peak Emission Wavelength	428	465	522	660	nm
Spectral Half Width	65	26	35	30	nm
Light Emission Power	High: 1 ± 0.5, Low: 0.01 ± 0.005 *3				pW
Emission Area	φ7.0				mm
Emission Stability (0 °C to +50 °C)	±2 Max.				%
Battery	Button battery SR41 or equivalent				—
Battery Service Life	Min.	10	24		h
Operating Ambient Temperature / Humidity *4	0 °C to +50 °C / below 85 %				—
Storage Temperature / Humidity *4	-20 °C to +60 °C / below 85 %				—
Weight	23				g

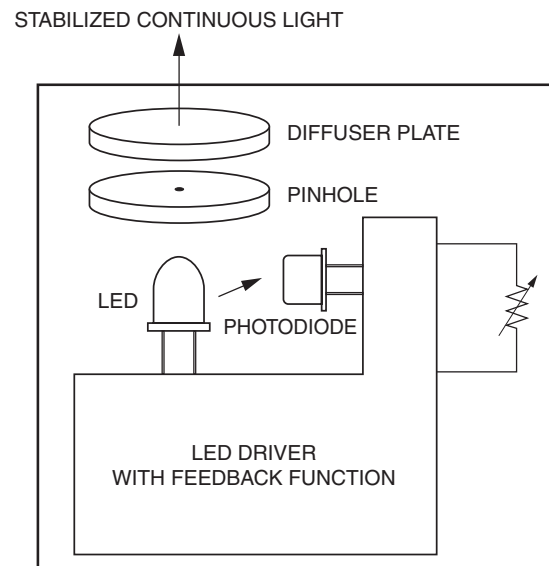
\*3: Adjusted by using an 8 mm effective diameter photon counting head placed in direct contact with the L11494.

\*4: No condensation

## OVERVIEW

The L11416 and L11494 series are LED light sources mainly designed for adjusting the sensitivity of PMT (photomultiplier tubes) and PMT modules. The L11416 series is a test tube type easily mounted in lab devices such as for blood sampling, while the L11494 series is a plate type designed to be placed on a sample stage. Stable continuous light of approximately 1 pW is always output because the LED emission power is controlled by monitoring with a photodiode.

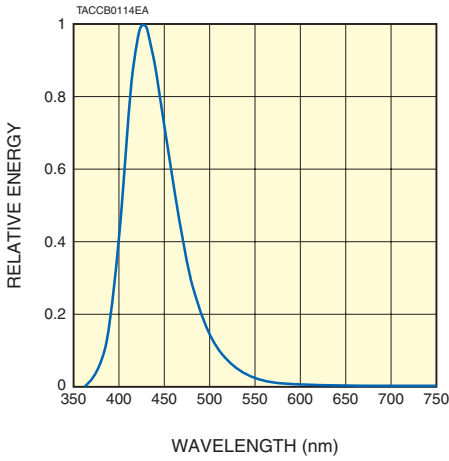
## INTERNAL DIAGRAM



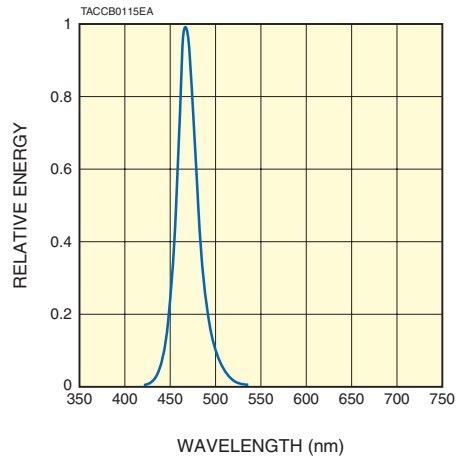
# CHARACTERISTICS

## EMISSION SPECTRUM CHARACTERISTICS

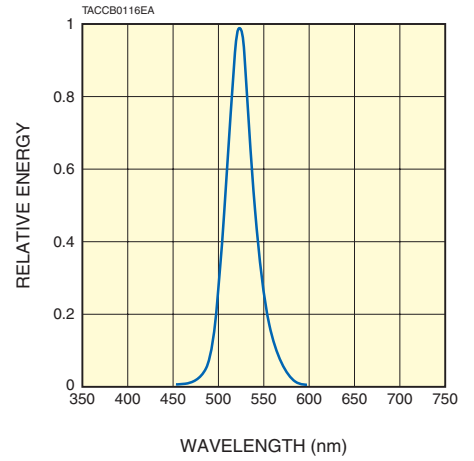
●L11494-430



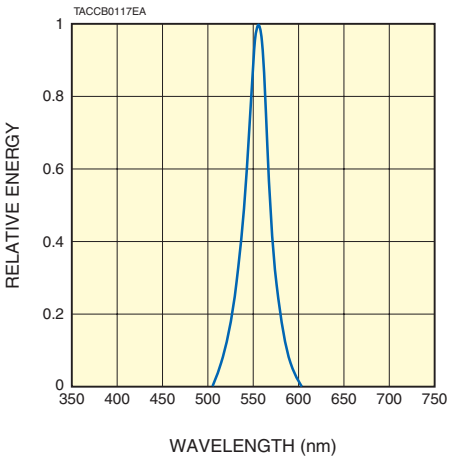
●L11416-470/L11494-470



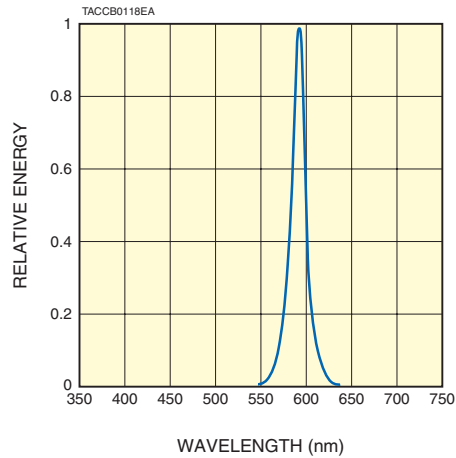
●L11416-525/L11494-525



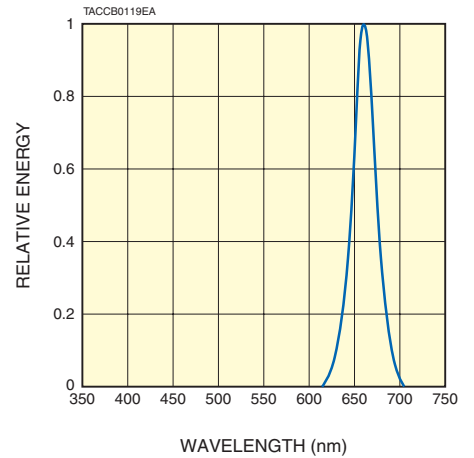
●L11416-555



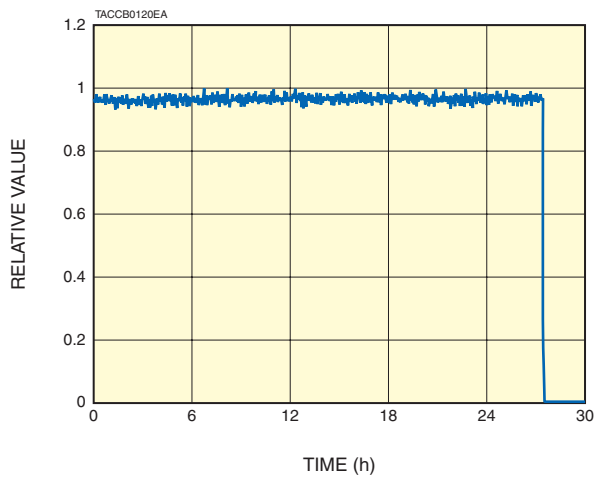
●L11416-590



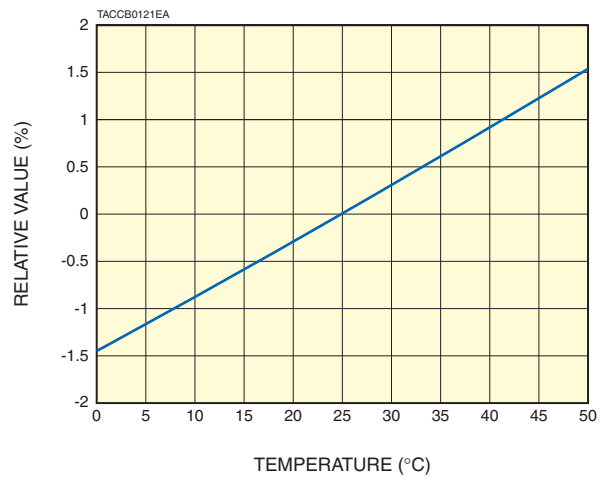
●L11494-660



## BATTERY SERVICE LIFE CHARACTERISTICS (Typical example)

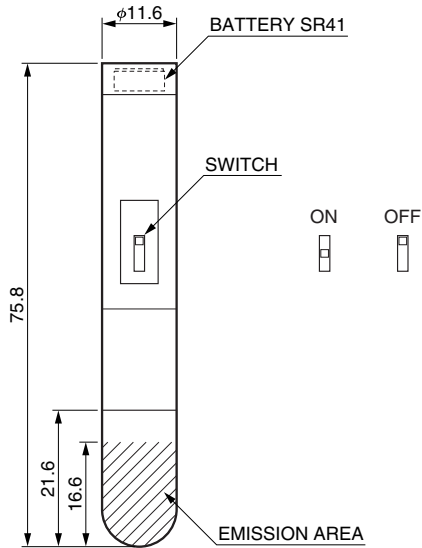


## TEMPERATURE STABILITY



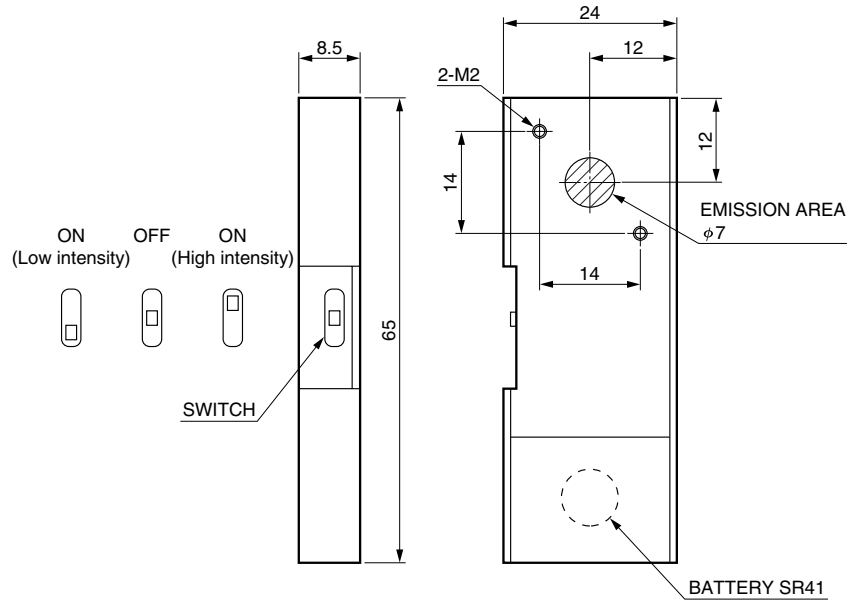
# DIMENSIONAL OUTLINES (Unit: mm)

## L11416 Series



TACCA0310EA

## L11494 Series



TACCA0311EA

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