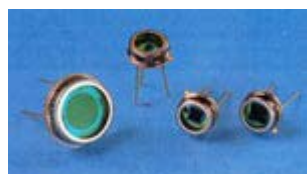


Eye Response Detectors (series -E)



Centronic Series E photodetectors use the successful Series 5T chip together with high quality glass colour correcting filters. The resulting spectral response approximates to that of the human eye making this device ideal for use in general photometric applications.

Electrical / Optical Specifications

Characteristics measured at 22°C (±2) ambient, and a reverse bias of 12 volts, unless otherwise stated.

Single Elements

Type No.	Active Area		Responsivity nA Lux-1		Dark Current nA		NEP WHz ^{-1/2} λ = 550 nm Typ.	Capacitance PF Typ.		Shunt Resistance Megohms		Spectral Curve	Risetime ns λ = 630 nm Ri= 50Ω Typ.	Package
	mm ²	mm	Typ.	Min.	Max.	Typ.		Vr=0V Max.	Vr=12V Max.	Min.	Typ.			
OSD1-E	1	1.13 dia	1.5	2	2	0.5	1.510e-14	30	6	100	1000	1	7	1
OSD3-E	3	2.16 x 1.4	4	5	5	1	1.810e-14	80	20	60	700	1	9	1
OSD5-E	5	2.52 dia	6	7.5	10	2	1.910e-14	130	35	40	600	1	9	3
OSD7.5-E	7.5	2.75 x 2.75	8	11	10	2	2.710e-14	150	40	30	300	1	10	3
OSD15-E	15	3.8 x 3.8	16	22	10	3	5.210e-14	390	80	5	80	1	12	3
OSD50-E	50	7.98 dia	22	30	40	5	9.310e-14	1300	270	1.5	25	2	26	9
OSD60-E	62	7.9 x 7.9	26	35	50	9	1.310e-13	1800	310	1	12	2	30	9
OSD100-E	100	11.3 dia	45	60	100	20	1.210e-13	2500	520	1	15	2	45	13 *

Notes: * BNC Package also available.

In addition to the Series E listed above, Centronic can provide any other detector in this catalogue with optical filters. Contact Sales Department for more information.

Unit Conversion Table for Illuminance

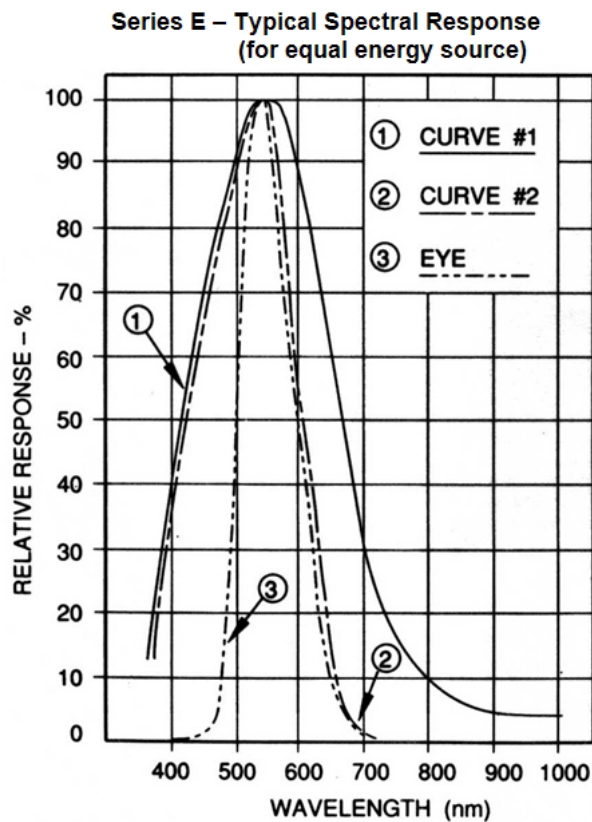
The Series E photodiodes have been colour corrected to provide a photopic response. They can be used as low cost illuminance monitors for many instrument and industrial applications. The following table provides useful conversion factors for various illuminance units.

Lux Lx(1m/m ²)	phot ph(1m/cm ²)	foot-candle fc(1m/ft ²)	watt per square centimetre* W/cm ²
1	1.000 x 10 ⁻⁴	9.290 x 10 ⁻²	5.0 x 10 ⁻⁶
1.000 x 10 ⁴	1	9.290 x 10 ²	5.0 x 10 ⁻²
1.076 x 10 ³	1.076 x 10 ⁻³	1	5.4 x 10 ⁻⁵
2.0 x 10 ⁵	2.90 x 10 ¹	1.9 x 10 ⁴	1

* Total irradiance (measured value) by the CIE standard light source "A".

Highlighted items are Centronic standard products generally available from stock

Series E Spectral Response Graph



Capacitance versus Bias Voltage

