## Recommended Operating Conditions

| Parameter | Symbol | Min. | Max. | Units | Conditions |
|---|---|---|---|---|---|
| Operating Temperature | $T_A$ | -40 | 85 | °C | |
| Supply Voltage | $V_{CC}$ | 2.4 | 5.5 | V | |

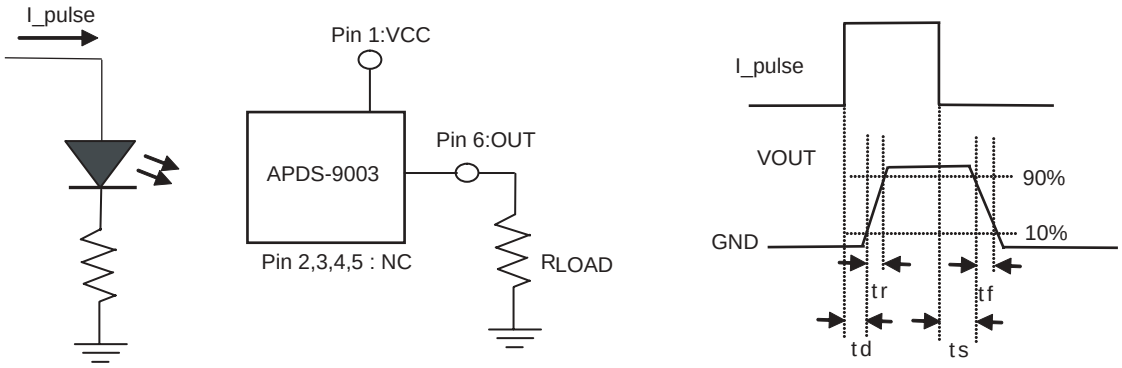
## Electrical & Optical Specifications (Ta=25°C)

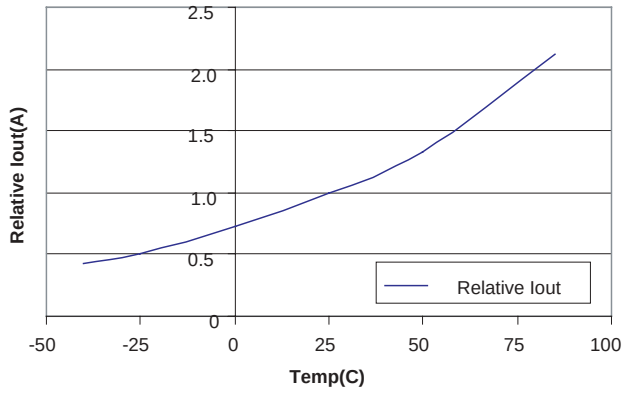
| Parameter | Symbol | Min. | Typ. | Max. | Units | Conditions |
|---|---|---|---|---|---|---|
| Output Current [4] | I_OUT1 | 6.3 | 19 | 31 | uA | Vcc=3.0V,Lux=10 [Note 2] |
| Output Current [4] | I_OUT2 | 90 | 230 | 370 | uA | Vcc=3.0V,Lux=100 [Note 2] |
| Output Current [4] | I_OUT3 | - | 276 | - | uA | Vcc=3.0V,Lux=100 [Note 1] |
| Dark Current | I_DARK | - | 50 | 160 | nA | Vcc=3.0V,Lux=0 |
| Light Current Ratio | I_OUT3 / I_OUT2 | - | 1.2 | - | - | - |
| Rise Time | Tr | - | 0.95 | 2 | ms | Vcc=3.0V,Lux=100,Rload=1k [Note 3] |
| Fall Time | Tf | - | 0.8 | 2 | ms | Vcc=3.0V,Lux=100,Rload=1k [Note 3] |
| Supply Current | Icc | - | 2.5 | - | mA | Vcc=3.0V, LUX=1K [Note 3] |
| Saturation Output Voltage | Vo | 2.2 | 2.32 | - | V | Vcc=3.0V, LUX=100, Rload=1M |
| Peak Sensitivity Wavelength | | - | 620 | - | nm | |
| Propagation Delay time | td | - | 600 | - | us | Vcc=3.0V, LUX=100,Rload=1k |
| Storage Delay time | ts | - | 200 | - | us | Vcc=3.0V, LUX=100,Rload=1k |

Note:

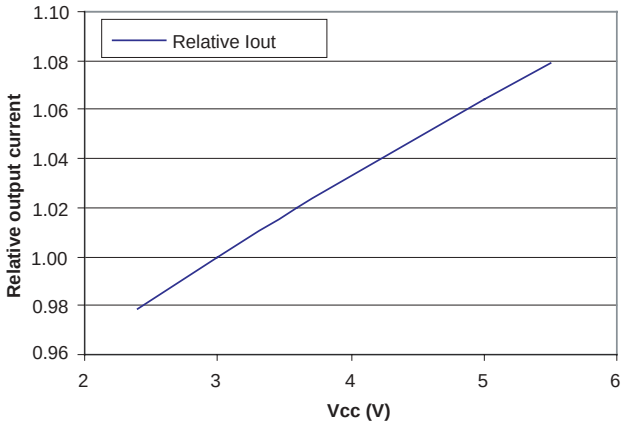
1. Illuminance by CIE standard light source (Incandescent lamp)
2. Fluorescent light is used as light source. White LED is substituted in mass production.
3. White LED is used as light source.
4. Other binning options are available. Please contact your Avago Technologies representative for information on current available bins

## Light Measurement Circuit and Waveforms

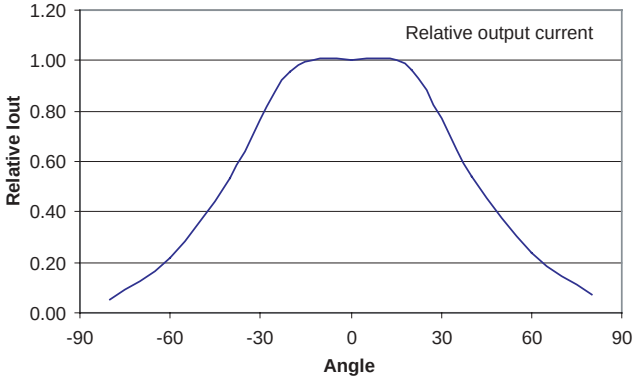




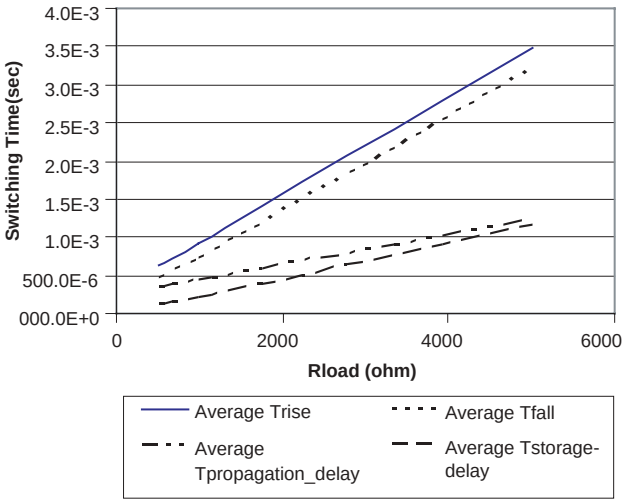

**Relative Output Current Vs Temp (Vcc = 3.0V, 100 Lux)**



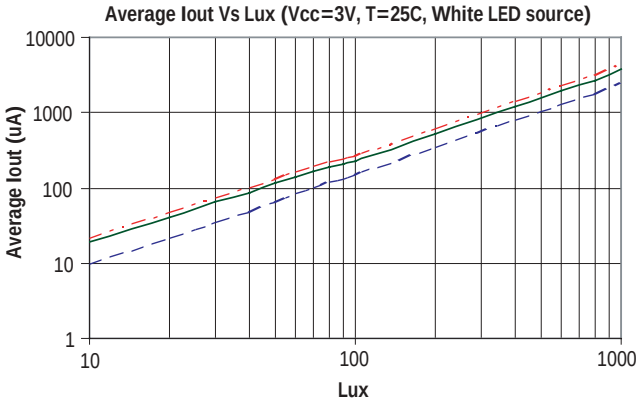

**Relative Output Current Vs Vcc (Ta =25C, 100 Lux)**

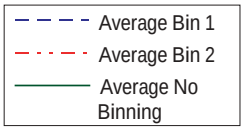



**Relative Iout Vs Angle (Vcc=3V, Ta=25C)**




**Switching Charecteristics (TA = 25C, Vcc = 3V)**




**Average Iout Vs Lux (Vcc = 3V, T = 25C, White LED source)**