(a) $\Delta \phi = 4.13\pi \ V_{dark} = 0.87 \, \text{V} \ V_{bright} = 4.67 \, \text{V} \ \lambda = 532 \, \text{nm}$

(b) $\Delta \varphi = 3.51\pi \ V_{dark} = 1.23 \ V_{bright} = 3.34 \ V \ \lambda = 532 \ nm$