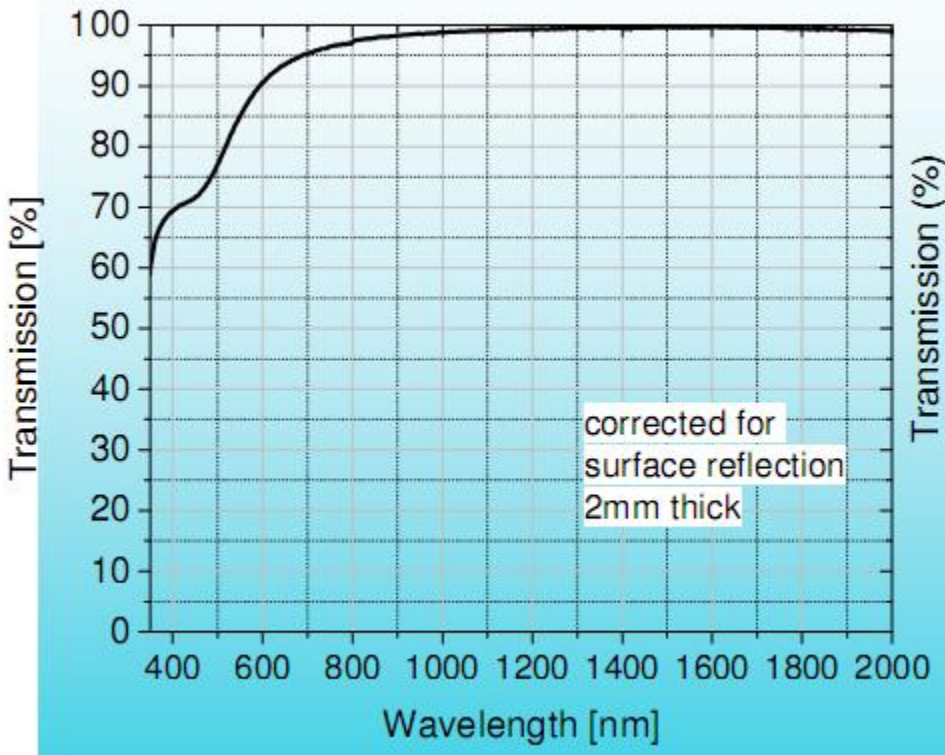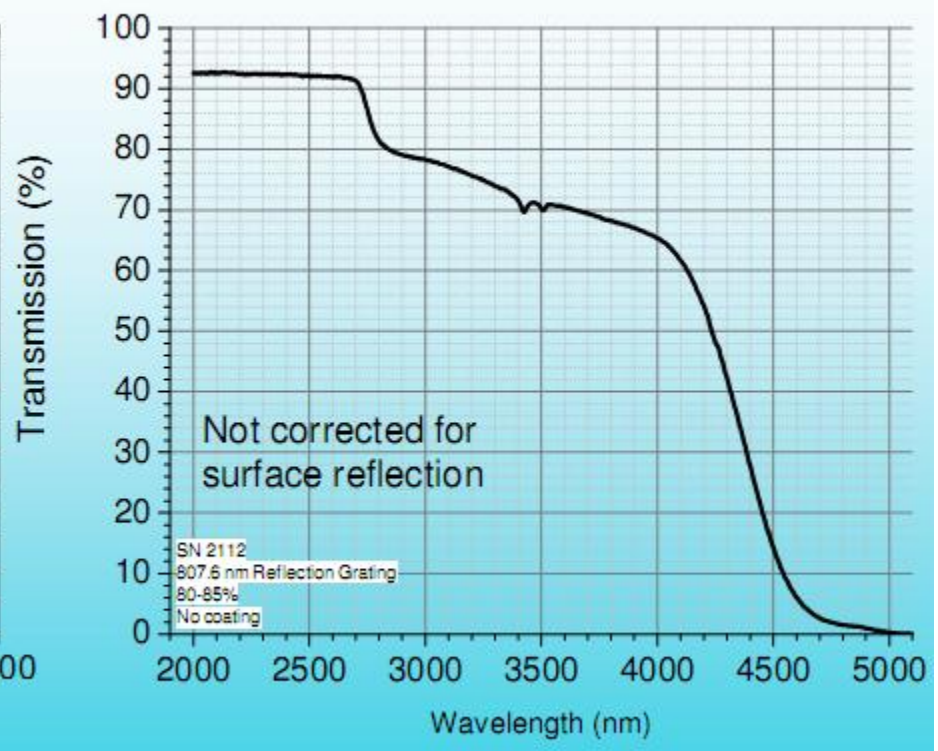High Efficiency VHG Transmission