Refractive index = 1.50000000

Beam 1 of 10: incident angle $\theta_1 = 8.00000000$, out angle $\theta_4 = 42.84516694$

Beam 2 of 10: incident angle $\theta_1 = 13.00000000$, out angle $\theta_4 = 39.58975279$

Beam 3 of 10: incident angle $\theta_1 = 18.00000000$, out angle $\theta_4 = 36.36741077$

Beam 4 of 10: incident angle $\theta_1 = 23.00000000$, out angle $\theta_4 = 33.19455253$

Beam 5 of 10: incident angle $\theta_1 = 28.00000000$, out angle $\theta_4 = 30.08861267$

Beam 6 of 10: incident angle $\theta_1 = 33.00000000$, out angle $\theta_4 = 27.06841973$

Beam 7 of 10: incident angle $\theta_1 = 38.00000000$, out angle $\theta_4 = 24.15454702$

Beam 8 of 10: incident angle $\theta_1 = 43.00000000$, out angle $\theta_4 = 21.36962170$

Beam 9 of 10: incident angle $\theta_1 = 48.00000000$, out angle $\theta_4 = 18.73855322$

Beam 10 of 10: incident angle $\theta_1 = 53.00000000$, out angle $\theta_4 = 16.28862058$