

Errata, Introduction to Fourier Optics, 3rd Edition

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Corrected in Second Printing

1. Page 405, Eq. (10-10) Should read

$$\eta = \left[1 + \left(1 - \frac{4x^2}{\delta n^2} \right) \operatorname{csch}^2 \left(\frac{\pi \delta n N}{2} \sqrt{1 - \frac{4x^2}{\delta n^2}} \right) \right]^{-1}$$

2. Page 405, one line below Eq. (10-10), $N = \ell/\tilde{\lambda}_B$ should read $N = \ell/\Lambda$.

3. Page 405, Eq. (10-11) should read

$$\eta = \tanh^2 \left(\frac{\pi \delta n N}{2} \right)$$

4. Page 405, one line after Eq. (10-11), $\pi \delta n N$ should read $\pi \delta n N/2$.

5. Page 405, Eq. (10-12), top equation should read

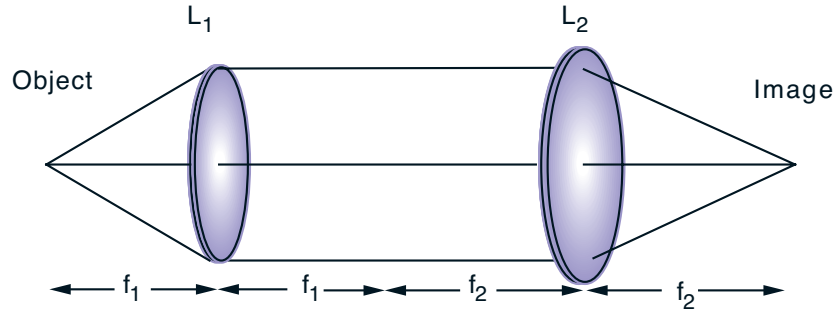
$$N_0 \approx \frac{6}{\pi \delta n}$$

Corrected in Third Printing

1. Page 94, Problem 4-12, the exponential in the expression for c_k should have a negative argument. Replace j by $-j$.
2. Page 148, line below Eq. (6-35), the reference to Eq. (6-35) should instead refer to Eq. (6-28).
3. Page 79, first line below second figure, (3-68) should read (3-70).

Not Corrected in the Third Printing

1. Page 204, line 2, change “silicon” to “semiconductor”.
2. Page 273, second line of second paragraph, the reference to Prob. 5-3 should be to Prob. 5-4.



3. Page 275, Figure 8.29 should be changed to what is shown below:
4. Page 276, figure 8.31, caption for part (a) should read “Side view (range direction is inclined to the vertical)”
5. Page 276, second paragraph of new section, change “Considering part (a) of the image, . . . in the output aperture.” to “Considering the first part (a) of the figure, the only lenses with power in the range direction are the spherical lenses L_1 and L_3 , which form a unity-magnification telescope with $f_1 = f_3$. The input film is seen to be tilted through angle α in the input plane, and due to the unity magnification of the system, is tilted by the same angle in the output plane. Thus the system images in the range dimension from a tilted input plane to a tilted output plane. The output film is tilted to coincide with this tilted plane. Considering next part (b) of the figure, all four of the lenses have power in the azimuth direction and they form a system that images (for fixed range) any azimuthal focal point (remember such points do not lie in the film plane) onto the tilted recording film. By properly choosing the parameters of the system (i.e., f_1, f_2, f_3, f_4 , and the tilts of the input and output films [195]), it is possible to achieve equal magnifications in the range and azimuth dimensions at all points in the output aperture.”
6. Page 423, line 4 below Fig. 10.17, “two-dimensional” should read “one-dimensional”.
7. Page 452, change Fig. B.6 to the following (caption remains the same):

