

**TABLE III**

**RATIO OF BRIGHTNESS FOR A KNOWN DIFFERENCE IN MAGNITUDE**

Mag.Diff.	Ratio	Mag.Diff.	Ratio	Mag.Diff.	Ratio	Mag.Diff.	Ratio
0.1	1.10	1.6	4.37	3.2	19.0	8.5	2511.9
0.2	1.20	1.7	4.79	3.3	20.9	9.0	3981.1
0.25	1.26	1.8	5.25	3.4	23.0	9.5	6309.6
0.3	1.32	1.9	5.75	3.5	25.1	10.0	10,000
0.4	1.45	2.0	6.31	3.6	27.6	10.5	15,849
0.5	1.58	2.1	6.94	3.7	30.1	11.0	25,119
0.6	1.74	2.2	7.57	3.8	33.2	11.5	39,811
0.7	1.91	2.3	8.33	3.9	36.4	12.0	63,096
0.8	2.09	2.4	9.15	4.0	39.8	12.5	100,000
0.9	2.29	2.5	10.00	4.5	63.1	13.0	158,490
1.0	2.51	2.6	11.00	5.0	100.0	13.5	251,190
1.1	2.75	2.7	12.0	5.5	158.5	14.0	398,110
1.2	3.02	2.8	13.2	6.0	251.2	14.5	630,960
1.3	3.31	2.9	14.5	6.5	398.1	15.0	1,000,000
1.4	3.63	3.0	15.85	7.0	630.96	15.5	1,580,000
1.5	3.98	3.1	17.44	7.5	1000.00	16.0	2,511,900
1.6	4.37	3.2	19.02	8.0	1584.90	16.5	3,980,000

Ratios may be multiplied together to obtain figures not given in the table. For example: For a magnitude difference of 4.7 mags, we have the result shown here:

$4.5^m = \text{ratio } 63.1$   
 $0.2^m = \text{ratio } 1.2$   
 Then  $63.1 \times 1.2 = 75.7$