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PROVISIONAL EPHEMERIDES OF 21 VARIABLE STARS IN A
FIELD CENTERED AT $\alpha = 13^{\text{h}}$ $\delta = -70^{\circ}$

The 21 variable stars discussed here were discovered in the blink microscope of the Astronomical Institute of Louvain on plates taken with the 10-inch Metcalf telescope of the Boyden Observatory at Bloemfontein.

Figure 1 shows the environment of each variable and the comparison stars used. The latter have their magnitudes in Table 2. They are derived from star-counts made on a $\frac{1}{4} \square^{\circ}$ around each variable, and compared with the tables in Groningen Publication no.43.

The main data on the variables are given in Table 1. The periods have been derived by least squares. Phases have been computed with the formula:

$$\text{phase} = P^{-1}(\text{J.D.Hel.} - 2436000).$$

The mean errors in the sixth column correspond to the last two decimals of the periods. The epoch given in column 7 corresponds to the mean J.D. of the plates used. The mean error of a single estimate (last column) has been computed by first taking the difference in magnitude between every two estimates following each other in phase and then using the formula:

$$\text{m.e.} = \pm \sqrt{\frac{\sum (\Delta m)^2}{2n}}$$

where n means the number of estimates used.

Table 3 shows the epochs used and the run of the (O - C) comparison for the finally adopted elements.

The estimates have been arranged according to phases and divided into groups for which mean values are given in Table 4.

The normal points of the light-curves are moreover represented graphically in the diagrams 1 to 21.

Remarks about individual variables

* 7 - The minima are sharper than the maxima and the period was determined by the aid of the 21 epochs of minimum given in table 3.

*13 - This star is very probably identical with ST Muscae. The variability of the star was discovered by Bailey (H.B.no.792,1923). A period was derived from the present observations.

*15 = DN Muscae

*16 = AG Muscae

*18 = AM Muscae

*19 = AT Muscae

*20 = AV Muscae

The periods of these 5 known variables have here been determined for the first time.

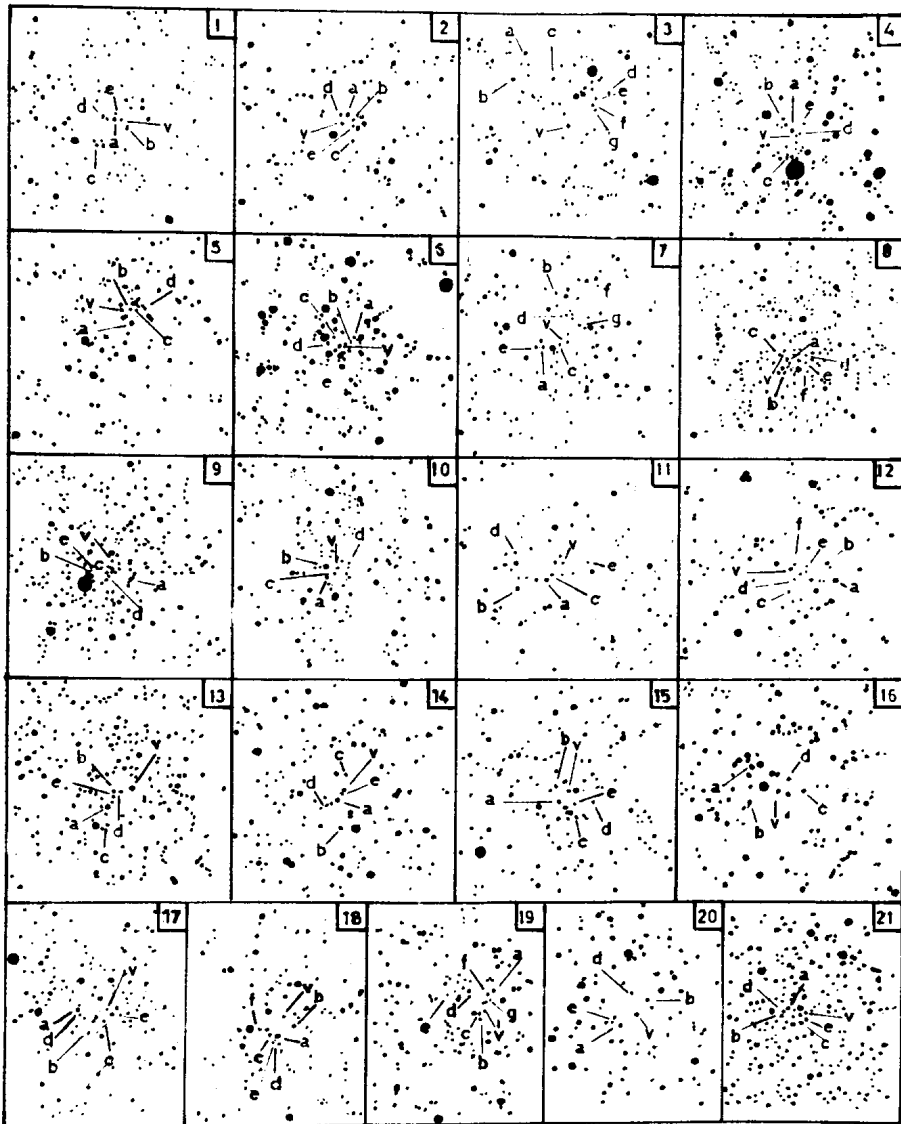
R. DEURINCK and B. VISSENBERG

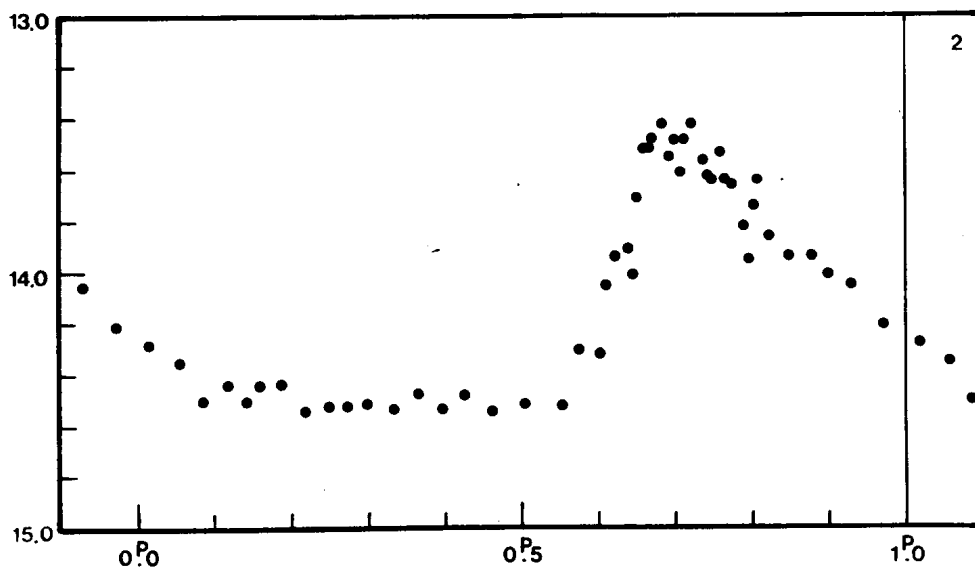
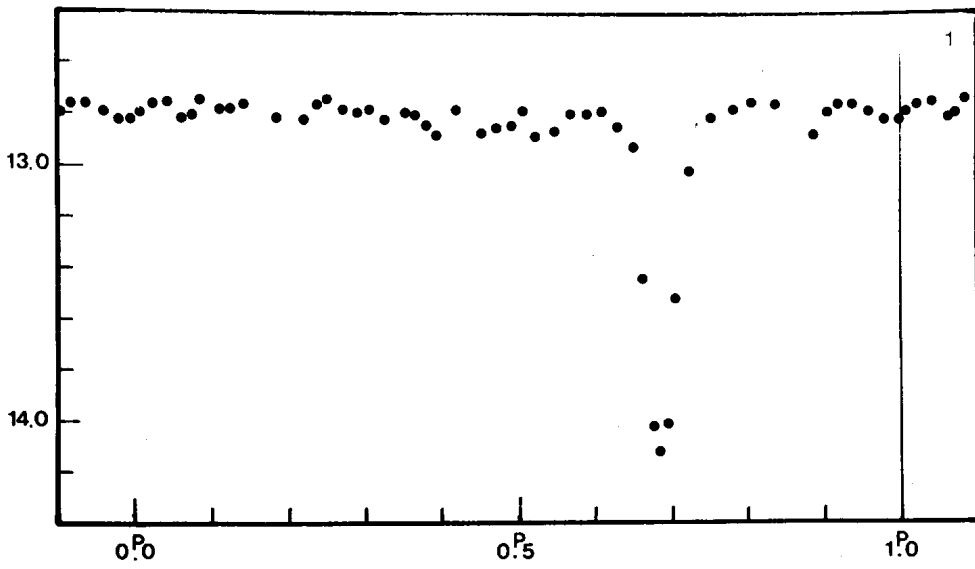
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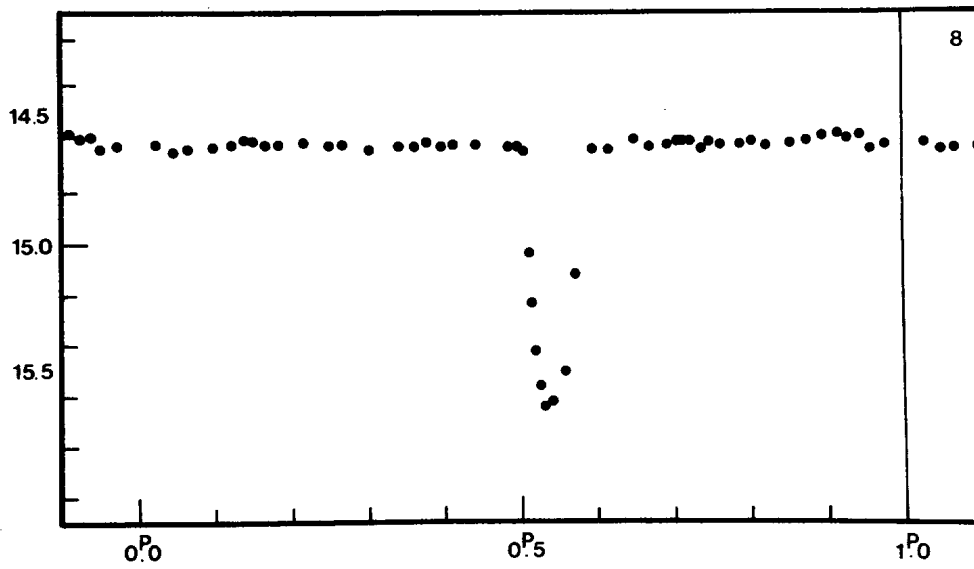
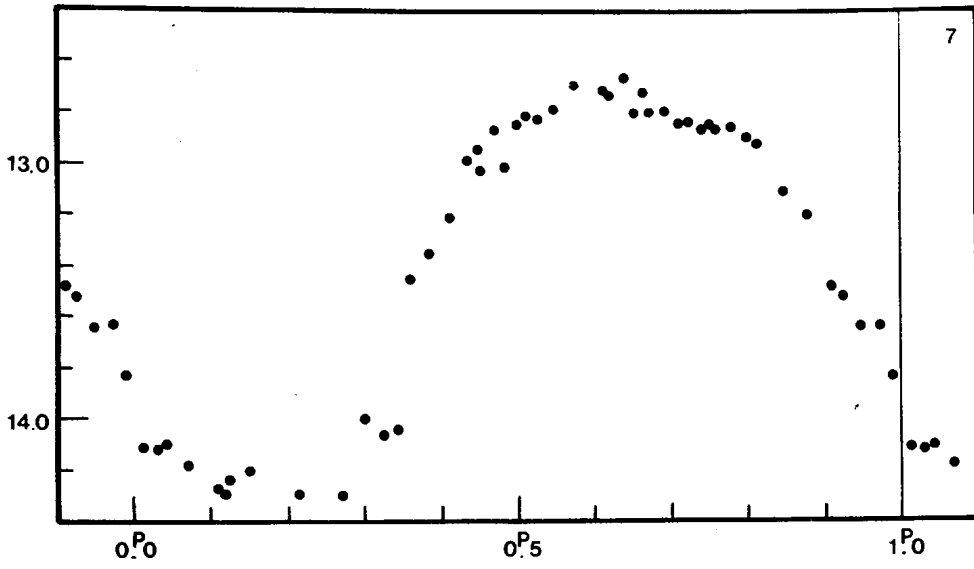
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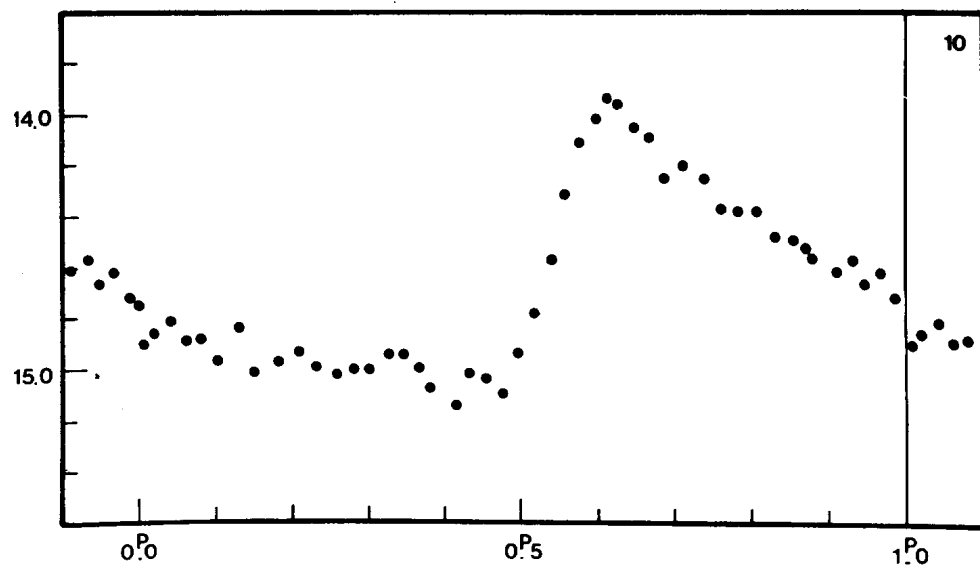
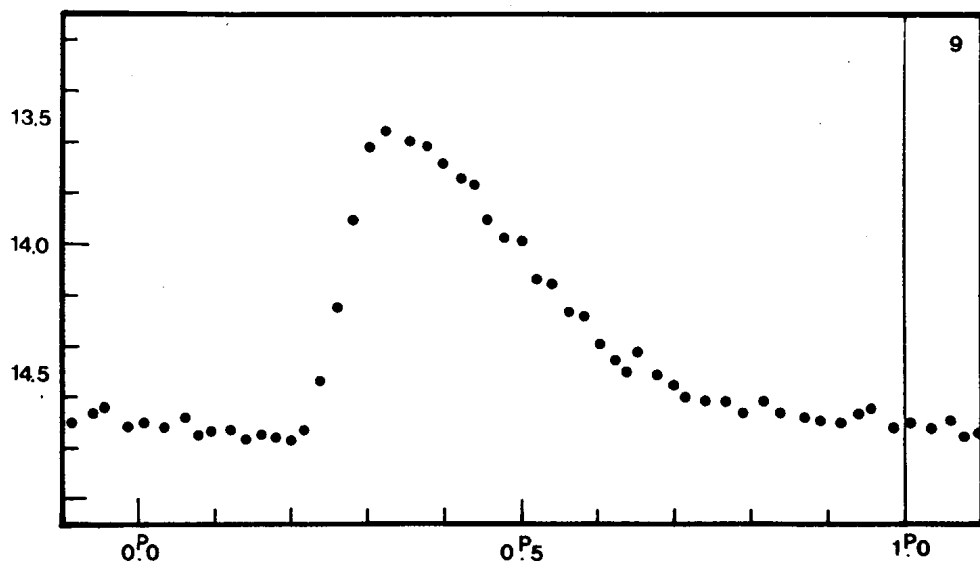
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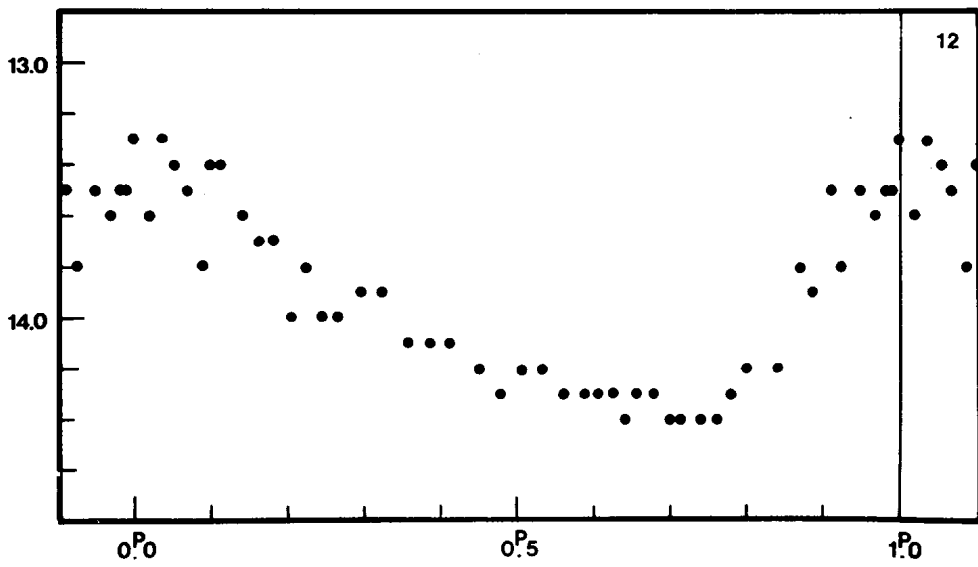
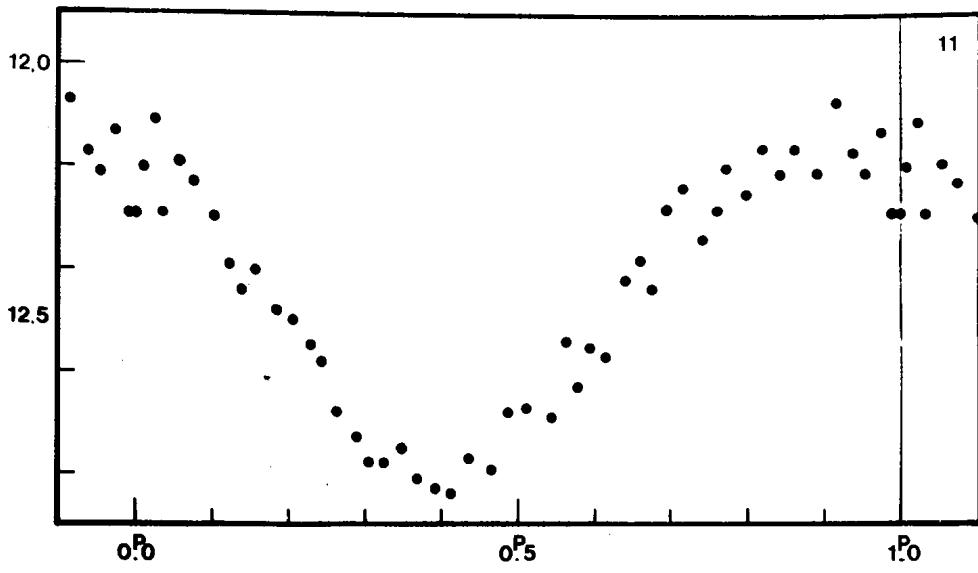
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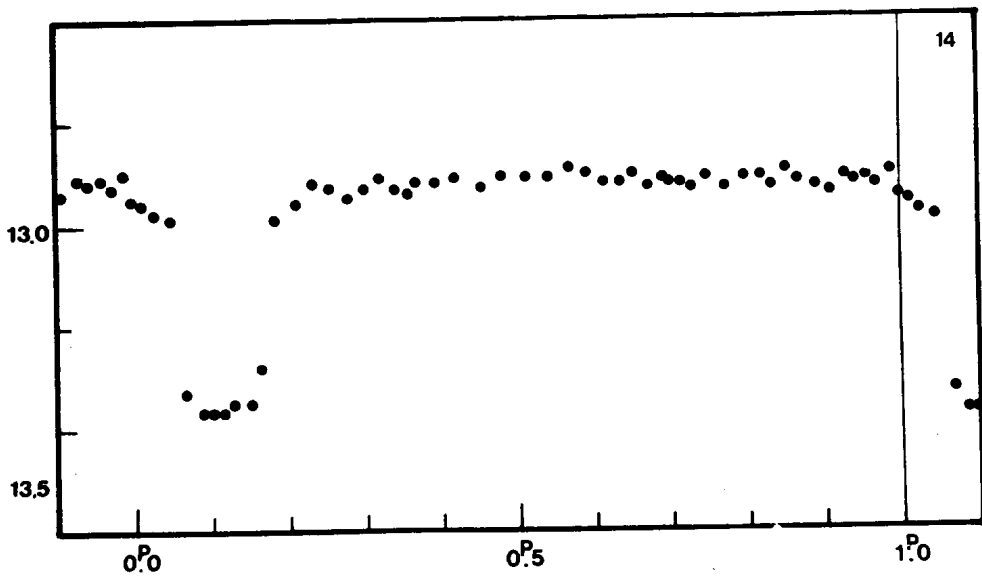
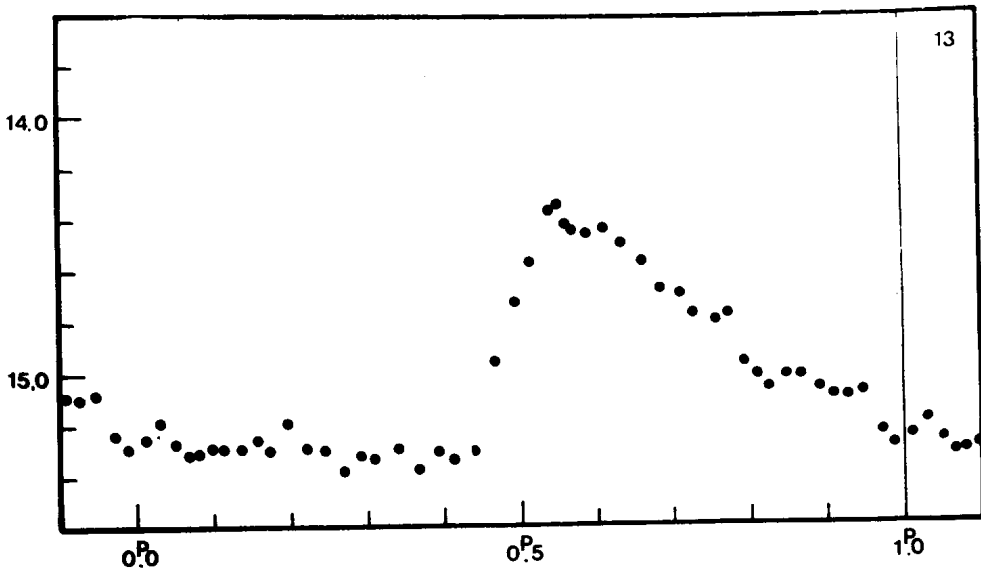


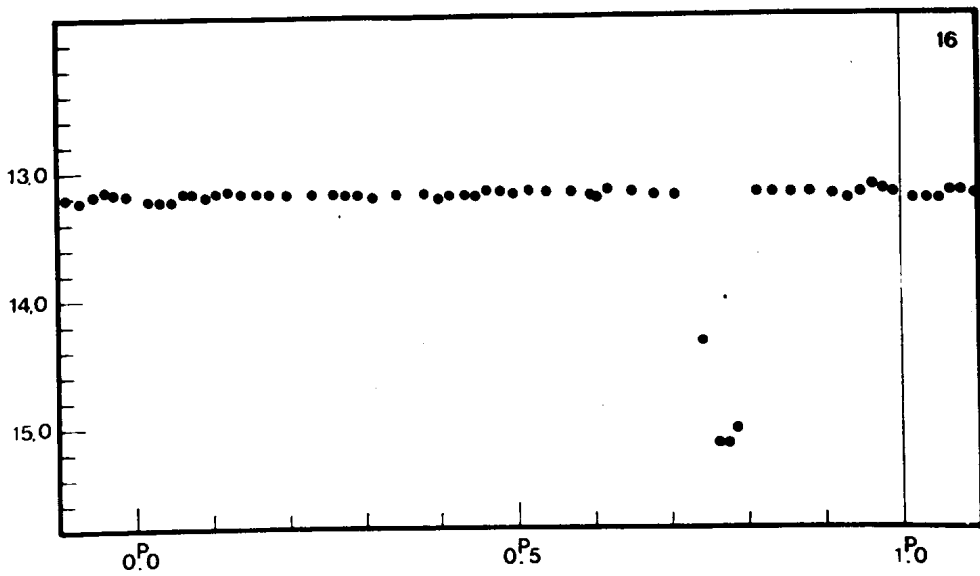
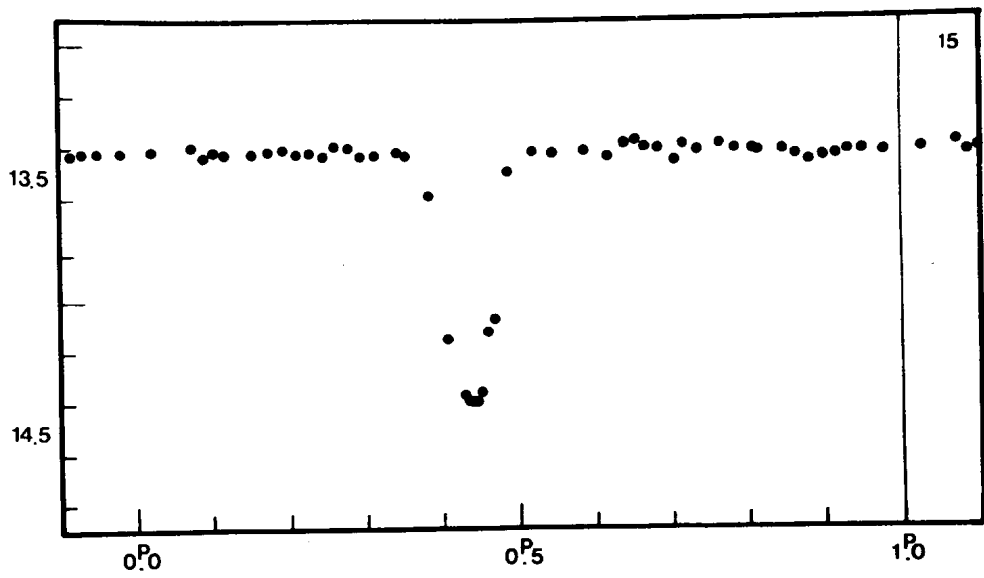


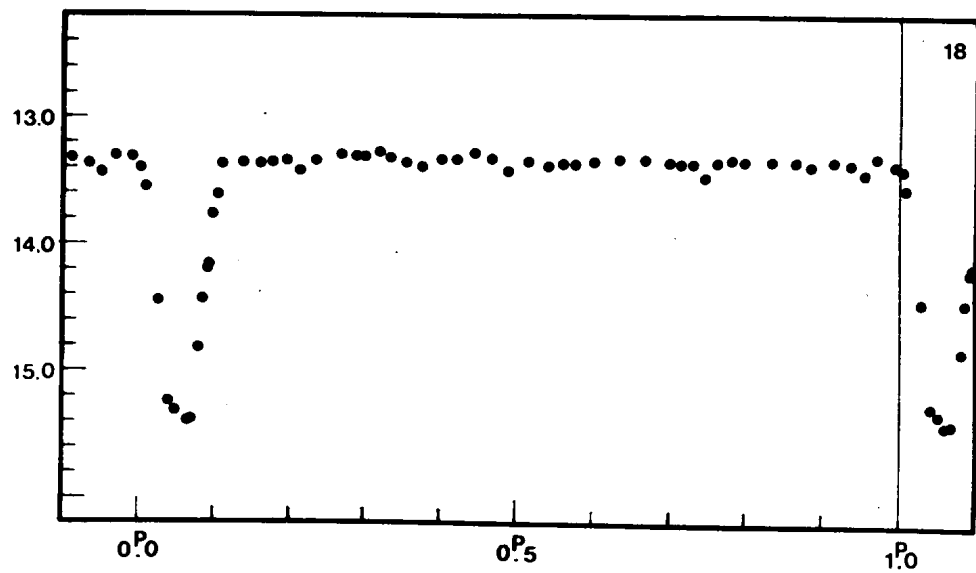
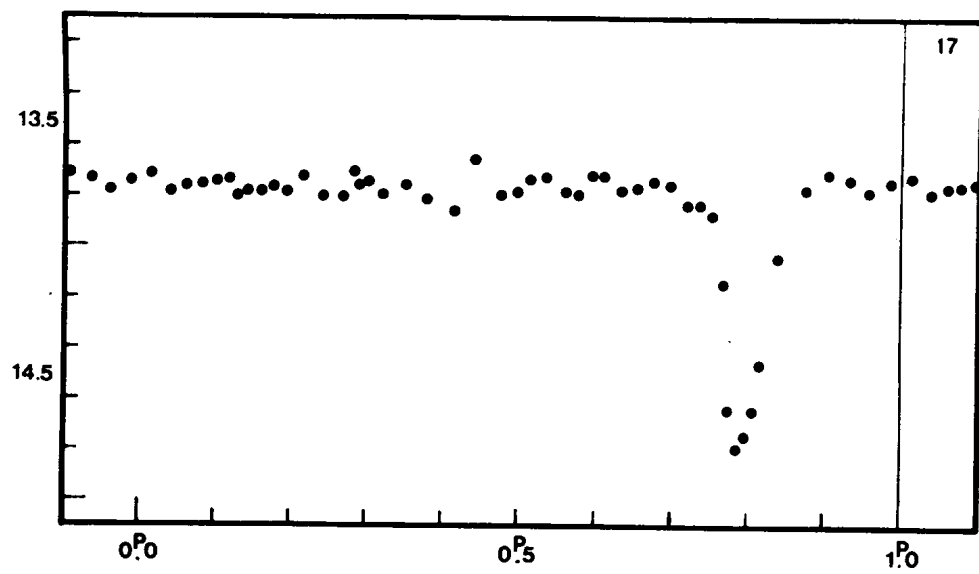


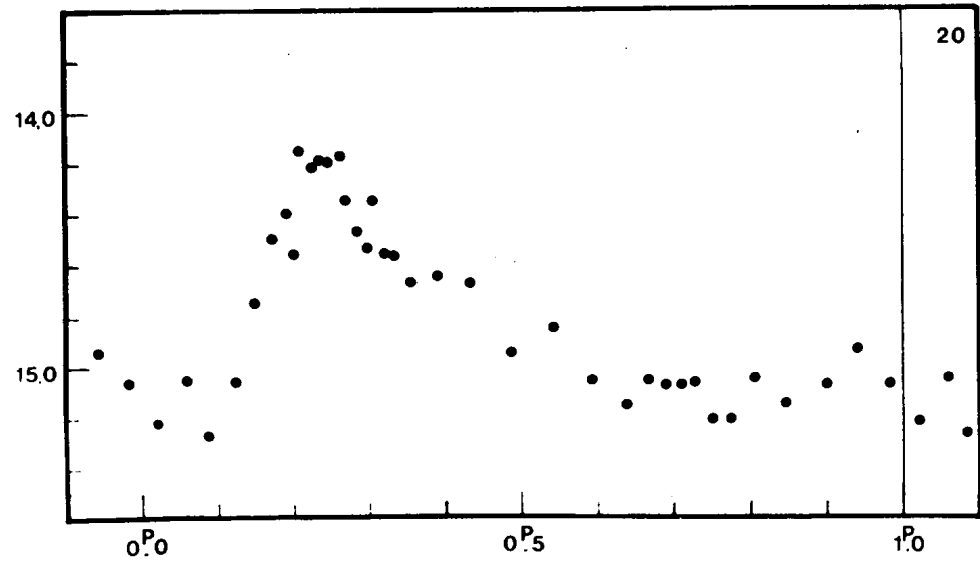
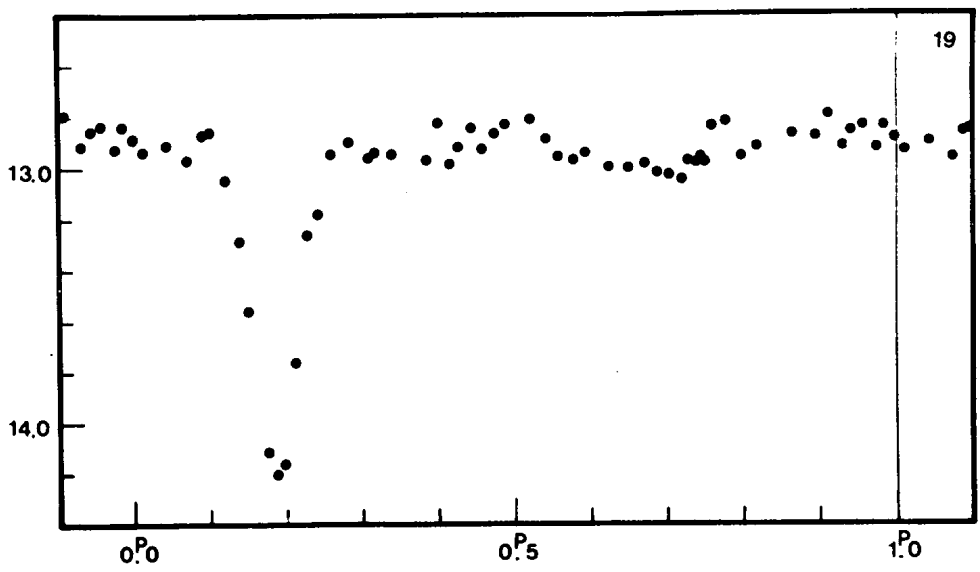












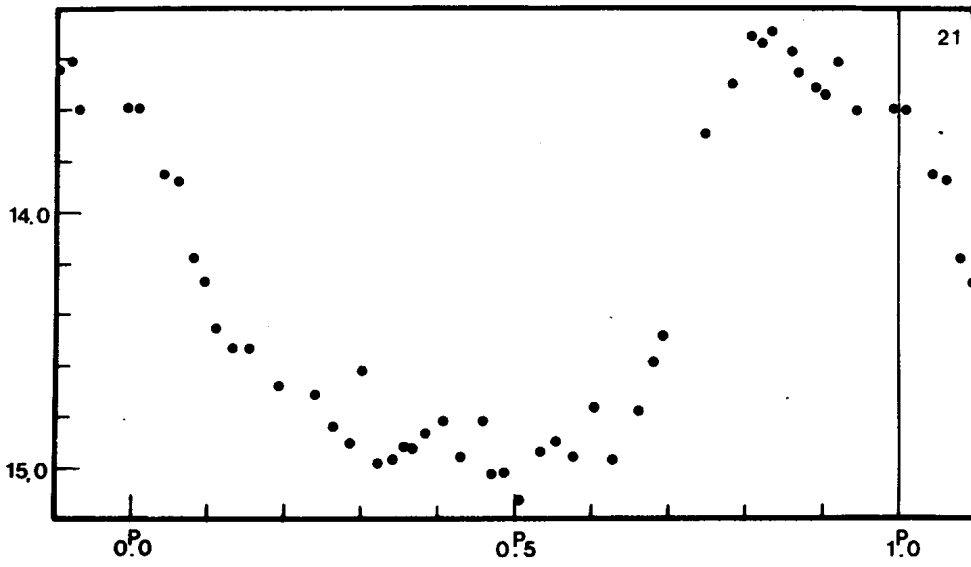


TABLE 1

| # | R.A. (1875) | Dec. (1875) | Type | Period | m.e. | Epoch J.D. 2438000 + | m.e. of single epoch | phase of epoch | n of epochs | Brightness max. min. | n of estim. | m.e. of single estimate |
|----|-------------|-------------|------|-----------|------|-------------------------|----------------------------|----------------------|-------------------|-------------------------|-------------------|-------------------------------|
| 1 | 12 19 51.9 | - 69 46.7 | EA | 2.1593303 | + 62 | 527.896 | + .009 | P .685 | 10 | 12.70 14.10 | 468 | + 0.12 |
| 2 | 12 26 08.9 | - 73 14.4 | RR | 0.4868672 | 23 | 529.131 | .016 | .703 | 23 | 13.40 14.55 | 380 | 0.11 |
| 3 | 12 28 20.0 | - 72 11.5 | RR | 0.4672966 | 15 | 536.202 | .024 | .392 | 48 | 11.95 12.83 | 476 | 0.13 |
| 4 | 12 31 39.5 | - 66 24.4 | EA | 14.91516 | 94 | 536.620 | .277 | .003 | 15 | 12.92 14.23 | 488 | 0.13 |
| 5 | 12 32 28.5 | - 73 26.5 | EA | 7.01634 | 92 | 532.108 | .551 | .887 | 18 | 13.13 13.60 | 462 | 0.09 |
| 6 | 12 35 30.9 | - 66 01.1 | EA | 2.90289 | 20 | 533.671 | .280 | .081 | 13 | 14.72 15.21 | 483 | 0.12 |
| 7 | 12 35 43.5 | - 68 22.2 | Cep | 21.3395 | 97 | 521.422 | 2.225 | .157 | 21 | 12.60 14.40 | 480 | 0.25 |
| 8 | 12 44 22.1 | - 67 06.4 | EA | 4.59701 | 15 | 535.440 | .078 | .541 | 11 | 14.60 15.70 | 475 | 0.05 |
| 9 | 12 44 56.7 | - 70 32.4 | RR | 0.3682337 | 11 | 536.155 | .015 | .351 | 32 | 13.55 14.80 | 460 | 0.13 |
| 10 | 12 47 18.3 | - 67 45.0 | RR | 0.4250001 | 11 | 536.241 | .013 | .625 | 37 | 13.90 15.20 | 480 | 0.15 |
| 11 | 12 48 29.8 | - 74 13.9 | RR | 0.2296741 | 08 | 536.277 | .020 | .938 | 42 | 12.07 12.84 | 482 | 0.17 |
| 12 | 12 59 16.3 | - 70 31.7 | RR | 0.3121445 | 23 | 529.306 | .021 | .999 | 20 | 13.30 14.40 | 400 | 0.14 |
| 13 | 13 00 02.2 | - 70 35.5 | RR | 0.4633682 | 13 | 536.278 | .015 | .569 | 21 | 14.30 15.40 | 465 | 0.17 |
| 14 | 13 05 54.2 | - 65 12.5 | EA | 0.7560984 | 42 | 529.231 | .022 | .109 | 16 | 12.85 13.40 | 477 | 0.05 |
| 15 | 13 13 48.0 | - 73 54.0 | EA | 3.636551 | 72 | 528.985 | .058 | .435 | 9 | 13.35 14.40 | 470 | 0.09 |
| 16 | 13 25 48.5 | - 66 40.4 | EA | 3.168478 | 31 | 527.719 | .028 | .770 | 9 | 13.10 15.15 | 480 | 0.06 |
| 17 | 13 28 22.5 | - 70 16.8 | EA | 2.184923 | 24 | 527.489 | .038 | .787 | 11 | 13.60 14.80 | 460 | 0.15 |
| 18 | 13 31 12.7 | - 69 06.2 | EA | 4.54675 | 13 | 528.298 | .115 | .067 | 18 | 13.25 15.40 | 470 | 0.11 |
| 19 | 13 36 58.3 | - 67 14.2 | EA | 4.67432 | 13 | 534.309 | .127 | .177 | 14 | 12.79 14.20 | 473 | 0.08 |
| 20 | 13 37 31.4 | - 70 00.3 | RR | 0.6846412 | 58 | 529.229 | .017 | .239 | 16 | 14.10 15.30 | 297 | 0.17 |
| 21 | 13 38 01.1 | - 67 37.5 | Cep | 4.52478 | 37 | 533.218 | .247 | .854 | 25 | 13.25 15.15 | 440 | 0.18 |

TABLE 2

| | | | |
|--|--|--|---|
| <p>Var 1</p> <p>c.s. mag.</p> <p>a 12.00^m</p> <p>b 12.71</p> <p>c 13.25</p> <p>d 13.86</p> <p>e 14.19</p> | <p>Var 2</p> <p>c.s. mag.</p> <p>a 12.70</p> <p>b 13.60</p> <p>c 14.00</p> <p>d 14.50</p> <p>e 14.80</p> | <p>Var 3</p> <p>c.s. mag.</p> <p>a 11.98</p> <p>b 12.11</p> <p>c 12.25</p> <p>d 12.41</p> <p>e 12.53</p> <p>f 12.87</p> <p>g 13.27</p> | <p>Var 4</p> <p>c.s. mag.</p> <p>a 12.50</p> <p>b 12.89</p> <p>c 13.24</p> <p>d 13.51</p> <p>e 14.11</p> |
| <p>Var 5</p> <p>c.s. mag.</p> <p>a 12.89</p> <p>b 13.33</p> <p>c 13.43</p> <p>d 13.65</p> | <p>Var 6</p> <p>c.s. mag.</p> <p>a 14.44</p> <p>b 14.66</p> <p>c 14.88</p> <p>d 15.10</p> <p>e 15.56</p> | <p>Var 7</p> <p>c.s. mag.</p> <p>a 12.47</p> <p>b 12.78</p> <p>c 12.92</p> <p>d 13.07</p> <p>e 13.52</p> <p>f 14.02</p> <p>g 14.20</p> | <p>Var 8</p> <p>c.s. mag.</p> <p>a 14.46</p> <p>b 14.80</p> <p>c 15.07</p> <p>d 15.32</p> <p>e 15.57</p> <p>f 15.75</p> |
| <p>Var 9</p> <p>c.s. mag.</p> <p>a 13.55</p> <p>b 13.86</p> <p>c 14.39</p> <p>d 14.76</p> <p>e 15.25</p> | <p>Var 10</p> <p>c.s. mag.</p> <p>a 13.45</p> <p>b 14.09</p> <p>c 14.50</p> <p>d 15.10</p> | <p>Var 11</p> <p>c.s. mag.</p> <p>a 11.72</p> <p>b 12.15</p> <p>c 12.70</p> <p>d 12.89</p> <p>e 13.08</p> | <p>Var 12</p> <p>c.s. mag.</p> <p>a 12.5</p> <p>b 13.4</p> <p>c 13.7</p> <p>d 14.1</p> <p>e 14.4</p> <p>f 14.9</p> |

TABLE 2 (continued)

| | | | |
|---|--|---|--|
| <p>Var 13</p> <p>c.s. mag.</p> <p>a 13.58</p> <p>b 14.46</p> <p>c 14.88</p> <p>d 15.44</p> <p>e 15.66</p> | <p>Var 14</p> <p>c.s. mag.</p> <p>a 12.61</p> <p>b 12.82</p> <p>c 13.05</p> <p>d 13.91</p> | <p>Var 15</p> <p>c.s. mag.</p> <p>a 13.21</p> <p>b 13.60</p> <p>c 13.86</p> <p>d 14.32</p> <p>e 14.53</p> | <p>Var 16</p> <p>c.s. mag.</p> <p>a 13.02</p> <p>b 13.35</p> <p>c 14.47</p> <p>d 15.13</p> |
| <p>Var 17</p> <p>c.s. mag.</p> <p>a 13.50</p> <p>b 13.73</p> <p>c 14.12</p> <p>d 14.44</p> <p>e 14.95</p> | <p>var 18</p> <p>c.s. mag.</p> <p>a 13.07</p> <p>b 13.37</p> <p>c 13.61</p> <p>d 14.16</p> <p>e 14.63</p> <p>f 15.16</p> | <p>Var 19</p> <p>c.s. mag.</p> <p>a 12.68</p> <p>b 13.05</p> <p>c 13.18</p> <p>d 13.32</p> <p>e 13.53</p> <p>f 13.93</p> <p>g 14.32</p> | <p>Var 20</p> <p>c.s. mag.</p> <p>a 14.06</p> <p>b 14.60</p> <p>c 14.85</p> <p>d 15.45</p> |
| <p>Var 21</p> <p>c.s. mag.</p> <p>a 12.82</p> <p>b 13.38</p> <p>c 13.82</p> <p>d 14.48</p> <p>e 15.38</p> | | | |

TABLE 3

| Var 1 | | | Var 3 | | |
|-----------------------------------|------|---------|----------------------|------|--------|
| J.D. min -2437000 ^d | E | O-C | J.D. max -2437000 | E | O-C |
| 735.430 ^d | 0 | +0.0077 | 164.212 | 0 | -0.007 |
| 761.334 | 12 | -0.0001 | 368.405 | 437 | -0.023 |
| 787.234 | 24 | -0.0118 | 397.398 | 499 | -0.002 |
| 1234.234 | 231 | +0.0068 | 404.381 | 514 | -0.029 |
| 2594.615 | 861 | +0.0091 | 422.210 | 552 | +0.043 |
| 2618.346 | 872 | -0.0119 | 456.262 | 625 | -0.018 |
| 2644.271 | 884 | +0.0003 | 464.227 | 642 | +0.003 |
| 2970.329 | 1035 | +0.0002 | 486.214 | 689 | +0.027 |
| 3050.214 | 1072 | -0.0106 | 492.269 | 702 | +0.007 |
| 3350.381 | 1211 | +0.0099 | 493.222 | 704 | +0.026 |
| | | | 499.259 | 717 | -0.012 |
| | | | 782.427 | 1323 | -0.026 |
| | | | 784.317 | 1327 | -0.005 |
| | | | 785.274 | 1329 | +0.018 |
| | | | 790.379 | 1340 | -0.017 |
| | | | 792.258 | 1344 | -0.008 |
| | | | 820.280 | 1404 | -0.024 |
| | | | 1178.314 | 2170 | +0.061 |
| | | | 1199.266 | 2215 | -0.015 |
| | | | 1206.258 | 2230 | -0.032 |
| | | | 1222.222 | 2264 | +0.044 |
| | | | 1228.236 | 2277 | -0.018 |
| | | | 1439.474 | 2729 | +0.002 |
| | | | 1440.456 | 2731 | +0.050 |
| | | | 1461.424 | 2776 | -0.011 |
| | | | 1475.450 | 2806 | -0.004 |
| | | | 1557.204 | 2981 | -0.027 |
| | | | 1884.338 | 3681 | +0.000 |
| | | | 1906.290 | 3728 | -0.011 |
| | | | 1914.262 | 3745 | +0.017 |
| | | | 1942.261 | 3805 | -0.022 |
| | | | 2233.422 | 4428 | +0.013 |
| | | | 2293.233 | 4556 | +0.010 |
| | | | 2593.249 | 5198 | +0.022 |
| | | | 2594.615 | 5201 | -0.014 |
| | | | 2612.359 | 5239 | -0.028 |
| | | | 2643.277 | 5305 | +0.050 |
| | | | 2923.605 | 5905 | -0.001 |
| | | | 2970.329 | 6005 | -0.006 |
| | | | 2975.451 | 6016 | -0.025 |
| | | | 2977.341 | 6020 | -0.004 |
| | | | 3006.306 | 6082 | -0.011 |
| | | | 3050.224 | 6176 | -0.019 |
| | | | 3326.424 | 6767 | +0.009 |
| | | | 3334.375 | 6784 | +0.015 |
| | | | 3385.305 | 6893 | +0.010 |
| | | | 3742.276 | 7657 | -0.033 |
| | | | 3743.266 | 7659 | +0.022 |

| Var 2 | | |
|----------------------|------|---------|
| J.D. max -2437000 | E | O-C |
| 407.382 | 0 | -0.0062 |
| 409.336 | 4 | -0.0002 |
| 429.284 | 45 | -0.0140 |
| 432.227 | 51 | +0.0084 |
| 465.317 | 119 | -0.0093 |
| 466.294 | 121 | -0.0059 |
| 467.280 | 123 | +0.0069 |
| 468.255 | 125 | +0.0079 |
| 487.231 | 164 | -0.0038 |
| 700.485 | 602 | +0.0026 |
| 755.494 | 715 | -0.0049 |
| 758.413 | 721 | -0.0069 |
| 759.398 | 723 | +0.0048 |
| 760.384 | 725 | +0.0162 |
| 761.334 | 727 | -0.0068 |
| 781.320 | 768 | +0.0177 |
| 1146.435 | 1518 | -0.0185 |
| 1229.204 | 1688 | -0.0169 |
| 1520.374 | 2286 | +0.0068 |
| 1915.267 | 3097 | +0.0506 |
| 2267.221 | 3820 | -0.0004 |
| 2613.359 | 4531 | -0.0252 |
| 2614.354 | 4533 | -0.0037 |

TABLE 3 (continued)

| Var 4 | | | Var 6 | | |
|----------|-----|--------|-----------|------|--------|
| J.D. min | E | 0-C | J.D. min | E | 0-C |
| -2437000 | | | -2437000 | | |
| 432.228 | 0 | +0.330 | 143.296 | 0 | +0.110 |
| 700.496 | 18 | +0.125 | 146.211 | 1 | +0.122 |
| 760.331 | 22 | +0.300 | 404.381 | 90 | -0.065 |
| 1192.237 | 51 | -0.334 | 465.338 | 111 | -0.069 |
| 1222.245 | 53 | -0.157 | 468.231 | 112 | -0.079 |
| 1461.413 | 69 | +0.369 | 497.232 | 122 | -0.107 |
| 1475.471 | 70 | -0.488 | 755.451 | 211 | -0.245 |
| 1520.355 | 73 | -0.350 | 787.352 | 222 | -0.276 |
| 2594.470 | 145 | -0.127 | 1473.451 | 458 | +0.741 |
| 3027.239 | 174 | +0.102 | 2593.373 | 844 | +0.147 |
| 3295.414 | 192 | -0.196 | 2622.337 | 854 | +0.082 |
| 3325.420 | 194 | -0.020 | 2912.482 | 954 | -0.062 |
| 3355.311 | 196 | +0.040 | 3295.424 | 1086 | -0.301 |
| 3385.305 | 198 | +0.204 | | | |
| 3743.266 | 222 | +0.201 | | | |
| Var 5 | | | Var 7 | | |
| J.D. min | E | 0-C | J.D. min. | E | 0-C |
| -2437000 | | | -2437000 | | |
| 143.318 | 0 | +0.447 | 368.0 | 0 | -1.086 |
| 409.293 | 38 | -0.199 | 411.0 | 2 | -0.765 |
| 430.263 | 41 | -0.278 | 433.0 | 3 | -0.105 |
| 437.269 | 42 | -0.288 | 456.0 | 4 | +1.556 |
| 465.252 | 46 | -0.371 | 498.0 | 6 | +0.877 |
| 486.278 | 49 | -0.394 | 693.0 | 15 | +3.821 |
| 493.265 | 50 | -0.423 | 755.0 | 18 | +1.802 |
| 1146.370 | 143 | +0.161 | 794.0 | 20 | -1.877 |
| 1167.315 | 146 | +0.057 | 1178.0 | 38 | -1.989 |
| 1196.259 | 150 | +0.936 | 1202.0 | 39 | +0.672 |
| 1230.242 | 155 | -0.163 | 1475.0 | 52 | -3.743 |
| 1441.448 | 185 | +0.553 | 1519.0 | 54 | -2.422 |
| 1883.344 | 248 | +0.419 | 1905.0 | 72 | -0.534 |
| 2254.255 | 301 | -0.537 | 2267.0 | 89 | -1.306 |
| 2613.359 | 352 | +0.733 | 2293.0 | 90 | +3.354 |
| 2620.383 | 353 | +0.741 | 2611.0 | 105 | +1.261 |
| 3033.249 | 412 | -0.358 | 2912.0 | 119 | +3.507 |
| 3355.322 | 458 | -1.037 | 2970.0 | 122 | -2.512 |
| | | | 3295.0 | 137 | +2.395 |
| | | | 3334.0 | 139 | -1.284 |
| | | | 3355.0 | 140 | -1.623 |

TABLE 3 (continued)

| Var 8 | | | Var 10 | | |
|-----------|------|---------|----------|------|---------|
| J.D. min | E | O-C | J.D. max | E | |
| -2437000 | | | -2437000 | | |
| 409.2701 | 0 | +0.097 | 145.212 | 0 | -0.0039 |
| 432.2062 | 5 | +0.048 | 162.239 | 40 | +0.0231 |
| 464.3227 | 12 | -0.014 | 411.278 | 626 | +0.0120 |
| 487.2847 | 17 | -0.037 | 437.205 | 687 | +0.0140 |
| 735.4407 | 71 | -0.120 | 439.316 | 692 | 0.0 |
| 758.4773 | 76 | -0.068 | 465.238 | 753 | -0.0030 |
| 795.3127 | 84 | -0.009 | 467.355 | 758 | -0.0110 |
| 1172.3138 | 166 | +0.037 | 468.210 | 760 | -0.0060 |
| 1195.2547 | 171 | -0.007 | 488.208 | 807 | +0.0170 |
| 1880.3460 | 320 | +0.130 | 493.287 | 819 | -0.0040 |
| 2914.4850 | 545 | -0.058 | 496.252 | 826 | -0.0140 |
| | | | 499.237 | 833 | -0.0040 |
| | | | 755.494 | 1436 | -0.0221 |
| | | | 758.477 | 1443 | -0.0141 |
| | | | 759.333 | 1445 | -0.0081 |
| | | | 782.298 | 1499 | +0.0069 |
| | | | 785.253 | 1506 | -0.0131 |
| | | | 790.368 | 1518 | +0.0019 |
| | | | 793.345 | 1525 | +0.0039 |
| | | | 1167.336 | 2405 | -0.0052 |
| | | | 1196.259 | 2473 | +0.0177 |
| | | | 1205.192 | 2494 | +0.0257 |
| | | | 1230.241 | 2553 | -0.0003 |
| | | | 1233.210 | 2560 | -0.0063 |
| | | | 1441.448 | 3050 | -0.0183 |
| | | | 1461.435 | 3097 | -0.0063 |
| | | | 1467.390 | 3111 | -0.0013 |
| | | | 1475.450 | 3130 | -0.0163 |
| | | | 1521.368 | 3238 | +0.0016 |
| | | | 1530.325 | 3259 | +0.0336 |
| | | | 1881.343 | 4085 | +0.0015 |
| | | | 1901.309 | 4132 | -0.0075 |
| | | | 1904.294 | 4139 | +0.0025 |
| | | | 2267.242 | 4993 | +0.0004 |
| | | | 2594.487 | 5763 | -0.0047 |
| | | | 3052.228 | 6840 | +0.0112 |
| | | | 3386.262 | 7626 | -0.0050 |
| Var 9 | | | | | |
| J.D. max | E | O-C | | | |
| -2437000 | | | | | |
| 144.233 | 0 | +0.0017 | | | |
| 294.505 | 408 | +0.0344 | | | |
| 409.368 | 720 | +0.0084 | | | |
| 425.223 | 763 | +0.0294 | | | |
| 432.206 | 782 | +0.0159 | | | |
| 464.219 | 869 | -0.0074 | | | |
| 465.348 | 872 | +0.0169 | | | |
| 468.266 | 880 | -0.0110 | | | |
| 492.204 | 945 | -0.0082 | | | |
| 496.252 | 956 | -0.0107 | | | |
| 499.237 | 964 | +0.0284 | | | |
| 755.494 | 1660 | -0.0053 | | | |
| 758.434 | 1668 | -0.0111 | | | |
| 761.377 | 1676 | -0.0140 | | | |
| 764.340 | 1684 | +0.0031 | | | |
| 781.256 | 1730 | -0.0196 | | | |
| 782.373 | 1733 | -0.0073 | | | |
| 785.317 | 1741 | -0.0092 | | | |
| 792.322 | 1760 | -0.0006 | | | |
| 795.259 | 1768 | -0.0095 | | | |
| 812.208 | 1814 | +0.0007 | | | |
| 844.221 | 1901 | -0.0226 | | | |
| 1196.274 | 2857 | -0.0010 | | | |
| 1461.413 | 3577 | +0.0097 | | | |
| 1468.388 | 3596 | -0.0117 | | | |
| 1472.427 | 3607 | -0.0233 | | | |
| 1493.436 | 3664 | -0.0036 | | | |
| 1524.374 | 3748 | +0.0027 | | | |
| 2594.456 | 6654 | -0.0025 | | | |
| 2914.463 | 7523 | +0.0094 | | | |
| 3325.408 | 8639 | +0.0056 | | | |
| 3383.226 | 8796 | +0.0109 | | | |

TABLE 3 (continued)

| Var 11 | | | Var 12 | | |
|----------|-------|---------|----------|------|---------|
| J.D. min | E | O-C | J.D. max | E | O-C |
| -2437000 | | | -2437000 | | |
| 143.297 | 0 | -0.0063 | 379.363 | 0 | -0.0028 |
| 144.233 | 4 | +0.0110 | 403.377 | 77 | -0.0243 |
| 164.233 | 91 | +0.0293 | 404.338 | 80 | -0.0002 |
| 169.236 | 113 | -0.0205 | 408.406 | 93 | +0.0107 |
| 368.382 | 980 | -0.0019 | 409.314 | 96 | -0.0176 |
| 403.312 | 1132 | +0.0176 | 429.284 | 160 | -0.0256 |
| 408.342 | 1154 | -0.0052 | 430.220 | 163 | -0.0258 |
| 409.270 | 1158 | +0.0041 | 439.294 | 192 | -0.0035 |
| 432.206 | 1258 | -0.0273 | 464.280 | 272 | +0.0104 |
| 437.291 | 1280 | +0.0049 | 468.362 | 285 | +0.0349 |
| 439.316 | 1289 | -0.0372 | 494.263 | 368 | +0.0275 |
| 465.295 | 1402 | -0.0114 | 782.330 | 1291 | -0.0143 |
| 468.276 | 1415 | -0.0161 | 787.342 | 1307 | +0.0028 |
| 483.220 | 1480 | -0.0009 | 793.255 | 1326 | -0.0147 |
| 488.294 | 1502 | +0.0202 | 1145.402 | 2454 | +0.0332 |
| 494.252 | 1528 | +0.0067 | 1196.270 | 2617 | +0.0213 |
| 756.313 | 2669 | +0.0096 | 1473.428 | 3505 | -0.0043 |
| 758.392 | 2678 | +0.0215 | 1493.415 | 3569 | +0.0055 |
| 759.311 | 2682 | +0.0218 | 2230.399 | 5930 | +0.0166 |
| 761.356 | 2691 | -0.0002 | 2594.313 | 7096 | -0.0307 |
| 782.277 | 2782 | +0.0204 | | | |
| 784.306 | 2791 | -0.0177 | | | |
| 785.274 | 2795 | +0.0316 | | | |
| 787.267 | 2804 | -0.0424 | | | |
| 792.333 | 2826 | -0.0293 | | | |
| 1168.332 | 4463 | -0.0067 | | | |
| 1171.337 | 4476 | +0.0125 | | | |
| 1197.280 | 4589 | +0.0024 | | | |
| 1518.330 | 5987 | -0.0320 | | | |
| 1519.295 | 5991 | +0.0143 | | | |
| 1943.247 | 7837 | -0.0120 | | | |
| 2232.415 | 9096 | -0.0037 | | | |
| 2254.255 | 9191 | +0.0173 | | | |
| 2259.326 | 9213 | +0.0354 | | | |
| 2594.601 | 10673 | -0.0137 | | | |
| 2611.361 | 10746 | -0.0199 | | | |
| 2614.375 | 10759 | +0.0084 | | | |
| 2626.328 | 10811 | +0.0183 | | | |
| 2915.491 | 12070 | +0.0216 | | | |
| 2975.429 | 12331 | +0.0147 | | | |
| 3742.287 | 15670 | -0.0091 | | | |
| 3745.250 | 15683 | -0.0317 | | | |

| Var 13 | | |
|----------|------|---------|
| J.D. max | E | O-C |
| -2437000 | | |
| 145.234 | 0 | -0.0126 |
| 164.233 | 41 | -0.0116 |
| 397.345 | 544 | +0.0258 |
| 403.333 | 557 | -0.0094 |
| 409.357 | 570 | -0.0092 |
| 468.210 | 697 | -0.0044 |
| 493.244 | 751 | +0.0077 |
| 755.494 | 1317 | -0.0089 |
| 764.329 | 1336 | +0.0224 |
| 782.384 | 1375 | +0.0061 |
| 1168.353 | 2208 | -0.0104 |
| 1195.254 | 2266 | +0.0152 |
| 1915.309 | 3820 | -0.0046 |
| 2230.378 | 4500 | -0.0252 |
| 2594.628 | 5286 | +0.0173 |
| 2912.504 | 5972 | +0.0229 |
| 2923.605 | 5996 | +0.0022 |
| 2977.341 | 6112 | -0.0119 |
| 3324.405 | 6861 | -0.0108 |
| 3350.381 | 6917 | +0.0166 |
| 3357.297 | 6932 | -0.0181 |

TABLE 3 (continued)

| Var 14 | | | Var 17 | | |
|-----------|------|---------|-----------|------|---------|
| J.D. min | E | O-C | J.D. min | E | O-C |
| -2437000 | | | -2437000 | | |
| 143.3078 | 0 | +0.0047 | 437.2372 | 0 | +0.0243 |
| 162.2280 | 25 | +0.0224 | 496.2307 | 27 | +0.0249 |
| 294.5160 | 200 | -0.0068 | 758.4023 | 147 | +0.0058 |
| 397.3769 | 336 | +0.0247 | 782.4055 | 158 | -0.0252 |
| 400.3649 | 340 | -0.0117 | 793.3500 | 163 | -0.0053 |
| 700.5174 | 737 | -0.0302 | 1171.3478 | 336 | +0.0008 |
| 1219.2141 | 1423 | -0.0170 | 1206.2583 | 352 | -0.0474 |
| 1222.2446 | 1427 | -0.0109 | 1914.2622 | 676 | +0.0416 |
| 1557.2035 | 1870 | -0.0036 | 2613.3489 | 996 | -0.0471 |
| 1885.3415 | 2304 | -0.0122 | 3334.3853 | 1326 | -0.0351 |
| 1904.2937 | 2329 | +0.0375 | 3391.2914 | 1352 | +0.0630 |
| 2232.4152 | 2763 | +0.0123 | | | |
| 2594.5553 | 3242 | -0.0187 | Var 18 | | |
| 2626.3281 | 3284 | -0.0020 | J.D. min | E | O-C |
| 2923.5131 | 3677 | +0.0363 | -2437000 | | |
| 2970.3293 | 3739 | -0.0256 | 164.2116 | 0 | -0.0606 |
| | | | 464.2881 | 66 | -0.0698 |
| Var 15 | | | 487.2204 | 71 | +0.1288 |
| J.D. min | E | O-C | 496.2200 | 73 | +0.0349 |
| -2437000 | | | 755.4508 | 130 | +0.1007 |
| 456.2402 | 0 | +0.0379 | 764.3933 | 132 | -0.0503 |
| 496.2414 | 11 | +0.0370 | 782.4270 | 136 | -0.2036 |
| 1205.2136 | 206 | -0.1183 | 787.2237 | 137 | +0.0464 |
| 1474.4269 | 280 | -0.0098 | 1146.3809 | 216 | +0.0101 |
| 1885.3415 | 393 | -0.0255 | 1196.2697 | 227 | -0.1154 |
| 2267.2547 | 498 | +0.0498 | 1219.2141 | 232 | +0.0953 |
| 2594.5498 | 588 | +0.0552 | 1228.2244 | 234 | +0.0120 |
| 3027.2392 | 707 | -0.0050 | 1519.2954 | 298 | +0.0909 |
| 3325.4196 | 789 | -0.0218 | 1887.3381 | 379 | -0.1534 |
| | | | 1901.3089 | 382 | +0.1771 |
| | | | 3033.2378 | 631 | -0.0354 |
| | | | 3324.4051 | 695 | +0.1397 |
| | | | 3383.2256 | 708 | -0.1476 |
| Var 16 | | | Var 19 | | |
| J.D. min | E | O-C | J.D. min | E | O-C |
| -2437000 | | | -2437000 | | |
| 146.2219 | 0 | -0.0401 | 146.211 | 0 | +0.175 |
| 409.2815 | 83 | +0.0358 | 169.215 | 5 | -0.193 |
| 466.2822 | 101 | +0.0039 | 403.269 | 55 | +0.145 |
| 1502.4014 | 428 | +0.0307 | 487.274 | 73 | +0.012 |
| 1521.3679 | 434 | -0.0136 | 758.434 | 131 | +0.062 |
| 1914.2622 | 558 | -0.0107 | 1146.370 | 214 | +0.029 |
| 2595.4649 | 773 | -0.0308 | 1202.279 | 226 | -0.154 |
| 2611.3613 | 778 | +0.0232 | 1473.428 | 284 | -0.115 |
| 2915.5130 | 874 | +0.0010 | 1501.404 | 290 | -0.185 |
| | | | 1880.346 | 371 | +0.137 |
| | | | 2595.465 | 524 | +0.085 |

TABLE 3 (continued)

| Var 19 (cont.) | | | Var 21 (cont.) | | |
|----------------|------|---------|----------------|-----|---------|
| J.D. min | E | 0-C | J.D. max | E | 0-C |
| -2437000 | | | -2437000 | | |
| 3357.297 | 687 | +0.003 | 1171.347 | 227 | +0.1117 |
| 3385.305 | 693 | -0.035 | 1234.234 | 241 | -0.3483 |
| 3745.297 | 770 | +0.034 | 1474.450 | 294 | +0.0542 |
| | | | 1501.404 | 300 | -0.1405 |
| | | | 1519.295 | 304 | -0.3486 |
| | | | 3031.217 | 638 | +0.2959 |
| Var 20 | | | | | |
| J.D. max | E | 0-C | | | |
| -2437000 | | | | | |
| 400.2672 | 0 | +0.0119 | | | |
| 404.3590 | 6 | -0.0041 | | | |
| 437.2050 | 54 | -0.0209 | | | |
| 439.2944 | 57 | +0.0146 | | | |
| 465.2842 | 95 | -0.0120 | | | |
| 467.3338 | 98 | -0.0163 | | | |
| 487.2203 | 127 | +0.0156 | | | |
| 756.3130 | 520 | +0.0443 | | | |
| 760.3620 | 526 | -0.0145 | | | |
| 782.2875 | 558 | +0.0024 | | | |
| 784.3384 | 561 | -0.0006 | | | |
| 793.2336 | 574 | -0.0057 | | | |
| 795.2913 | 577 | -0.0019 | | | |
| 1461.4347 | 1550 | -0.0144 | | | |
| 1474.4498 | 1569 | -0.0075 | | | |
| 2267.2802 | 2727 | +0.0084 | | | |
| Var 21 | | | | | |
| J.D. max | E | 0-C | | | |
| -2437000 | | | | | |
| 144.233 | 0 | +0.1234 | | | |
| 162.227 | 4 | +0.0182 | | | |
| 379.352 | 52 | -0.0463 | | | |
| 397.377 | 56 | -0.1205 | | | |
| 411.278 | 59 | +0.2062 | | | |
| 425.223 | 62 | +0.5768 | | | |
| 429.284 | 63 | +0.1131 | | | |
| 438.265 | 65 | +0.0445 | | | |
| 456.217 | 69 | -0.1026 | | | |
| 465.202 | 71 | -0.1672 | | | |
| 483.241 | 75 | -0.2273 | | | |
| 488.207 | 76 | +0.2139 | | | |
| 492.215 | 77 | -0.3029 | | | |
| 497.232 | 78 | +0.1893 | | | |
| 700.480 | 123 | -0.1779 | | | |
| 759.333 | 136 | -0.1471 | | | |
| 764.317 | 137 | +0.3121 | | | |
| 782.351 | 141 | +0.2470 | | | |
| 795.300 | 144 | -0.3783 | | | |

TABLE 4

| 1 | | | 2 | | | 3 | | |
|----|-------|-----------------|----|-------|-----------------|----|-------|-----------------|
| n | phase | bright- ness | n | phase | bright- ness | n | phase | bright- ness |
| | P | m | | | | | | |
| 10 | .006 | 12.79 | 10 | .015 | 14.28 | 10 | .009 | 12.72 |
| 10 | .024 | 12.76 | 10 | .055 | 14.35 | 10 | .031 | 12.74 |
| 10 | .044 | 12.75 | 10 | .085 | 14.50 | 10 | .047 | 12.80 |
| 10 | .060 | 12.81 | 10 | .117 | 14.44 | 10 | .065 | 12.78 |
| 10 | .072 | 12.80 | 10 | .140 | 14.50 | 10 | .088 | 12.73 |
| 10 | .086 | 12.74 | 10 | .158 | 14.44 | 10 | .103 | 12.76 |
| 10 | .108 | 12.78 | 10 | .187 | 14.43 | 10 | .124 | 12.69 |
| 10 | .127 | 12.78 | 10 | .217 | 14.54 | 10 | .142 | 12.72 |
| 10 | .143 | 12.76 | 10 | .248 | 14.52 | 10 | .158 | 12.71 |
| 10 | .186 | 12.81 | 10 | .274 | 14.52 | 10 | .183 | 12.76 |
| 10 | .220 | 12.82 | 10 | .297 | 14.51 | 10 | .197 | 12.71 |
| 10 | .236 | 12.76 | 10 | .334 | 14.53 | 10 | .217 | 12.75 |
| 10 | .251 | 12.74 | 10 | .365 | 14.47 | 10 | .240 | 12.82 |
| 10 | .271 | 12.78 | 10 | .395 | 14.53 | 10 | .258 | 12.71 |
| 10 | .290 | 12.79 | 10 | .424 | 14.48 | 5 | .278 | 12.51 |
| 10 | .306 | 12.78 | 10 | .459 | 14.54 | 5 | .289 | 12.28 |
| 10 | .327 | 12.82 | 10 | .503 | 14.51 | 5 | .301 | 12.27 |
| 10 | .353 | 12.79 | 10 | .550 | 14.52 | 5 | .314 | 12.20 |
| 10 | .367 | 12.80 | 10 | .574 | 14.30 | 5 | .325 | 12.02 |
| 10 | .379 | 12.84 | 10 | .599 | 14.32 | 5 | .333 | 12.00 |
| 10 | .397 | 12.88 | 5 | .609 | 14.05 | 5 | .337 | 11.97 |
| 10 | .419 | 12.78 | 5 | .623 | 13.94 | 5 | .345 | 11.95 |
| 10 | .452 | 12.87 | 5 | .636 | 13.91 | 5 | .354 | 12.00 |
| 10 | .473 | 12.85 | 5 | .643 | 14.01 | 5 | .366 | 11.95 |
| 10 | .492 | 12.84 | 5 | .648 | 13.71 | 5 | .386 | 11.96 |
| 10 | .507 | 12.78 | 5 | .658 | 13.52 | 5 | .391 | 11.96 |
| 10 | .525 | 12.88 | 5 | .666 | 13.52 | 10 | .407 | 11.98 |
| 10 | .549 | 12.86 | 5 | .672 | 13.48 | 10 | .431 | 12.01 |
| 10 | .570 | 12.79 | 5 | .683 | 13.42 | 10 | .452 | 12.07 |
| 10 | .592 | 12.79 | 5 | .691 | 13.55 | 10 | .478 | 12.09 |
| 10 | .611 | 12.78 | 5 | .698 | 13.48 | 10 | .500 | 12.12 |
| 10 | .633 | 12.84 | 5 | .705 | 13.61 | 10 | .520 | 12.18 |
| 5 | .652 | 12.92 | 5 | .713 | 13.48 | 10 | .541 | 12.17 |
| 5 | .664 | 13.44 | 5 | .722 | 13.42 | 10 | .570 | 12.25 |
| 5 | .677 | 14.02 | 5 | .735 | 13.56 | 10 | .597 | 12.24 |
| 5 | .684 | 14.12 | 5 | .741 | 13.62 | 10 | .615 | 12.36 |
| 5 | .696 | 14.01 | 5 | .748 | 13.64 | 10 | .633 | 12.35 |
| 5 | .705 | 13.52 | 5 | .758 | 13.53 | 10 | .651 | 12.42 |
| 10 | .726 | 13.02 | 5 | .763 | 13.64 | 10 | .671 | 12.50 |
| 10 | .756 | 12.81 | 5 | .776 | 13.65 | 10 | .693 | 12.43 |
| 10 | .782 | 12.78 | 5 | .788 | 13.82 | 10 | .714 | 12.57 |
| 10 | .807 | 12.75 | 5 | .796 | 13.95 | 10 | .733 | 12.57 |
| 10 | .837 | 12.76 | 5 | .802 | 13.74 | 10 | .754 | 12.64 |
| 10 | .887 | 12.88 | 5 | .807 | 13.64 | 10 | .779 | 12.62 |
| 10 | .904 | 12.79 | 10 | .823 | 13.86 | 10 | .799 | 12.58 |
| 10 | .917 | 12.76 | 10 | .848 | 13.94 | 10 | .819 | 12.69 |
| 10 | .936 | 12.76 | 10 | .877 | 13.94 | 10 | .842 | 12.67 |
| 10 | .959 | 12.79 | 10 | .899 | 14.01 | 10 | .862 | 12.83 |
| 10 | .979 | 12.82 | 10 | .931 | 14.05 | 10 | .888 | 12.72 |
| 8 | .995 | 12.82 | 10 | .972 | 14.21 | 10 | .913 | 12.79 |

TABLE 4 (continued)

| 3 (contin.) | | | | | | | | |
|-------------|-------|-------------|----|-------|-------------|----|-------|-------------|
| n | phase | bright-ness | n | phase | bright-ness | n | phase | bright-ness |
| 10 | .933 | 12.82 | 10 | .815 | 13.10 | 5 | .844 | 13.60 |
| 10 | .956 | 12.80 | 10 | .835 | 13.06 | 5 | .849 | 13.60 |
| 10 | .976 | 12.76 | 10 | .856 | 13.07 | 5 | .859 | 13.59 |
| 6 | .993 | 12.78 | 10 | .885 | 12.99 | 5 | .866 | 13.59 |
| | | | 10 | .896 | 13.09 | 5 | .872 | 13.58 |
| | | | 10 | .911 | 13.04 | 5 | .888 | 13.56 |
| | | | 10 | .928 | 13.05 | 10 | .909 | 13.25 |
| | | | 5 | .959 | 13.10 | 10 | .937 | 13.22 |
| | | | 5 | .966 | 13.21 | 10 | .968 | 13.20 |
| | | | 5 | .979 | 14.07 | 10 | .982 | 13.16 |
| | | | 5 | .989 | 14.23 | 7 | .995 | 13.21 |
| | | | 8 | .995 | 14.23 | | | |
| 4 | | | 5 | | | 6 | | |
| n | phase | bright-ness | n | phase | bright-ness | n | phase | bright-ness |
| 10 | .005 | 14.23 | 10 | .013 | 13.21 | 10 | .011 | 14.74 |
| 10 | .021 | 14.23 | 10 | .027 | 13.18 | 10 | .033 | 14.76 |
| 5 | .028 | 14.10 | 10 | .040 | 13.22 | 10 | .053 | 14.75 |
| 5 | .034 | 13.50 | 10 | .083 | 13.19 | 10 | .066 | 14.78 |
| 5 | .046 | 13.06 | 10 | .113 | 13.17 | 10 | .090 | 14.75 |
| 5 | .051 | 13.12 | 10 | .125 | 13.15 | 10 | .110 | 14.74 |
| 10 | .058 | 13.01 | 10 | .134 | 13.17 | 10 | .136 | 14.72 |
| 10 | .080 | 12.94 | 10 | .151 | 13.15 | 10 | .171 | 14.75 |
| 10 | .104 | 13.10 | 10 | .178 | 13.15 | 10 | .217 | 14.75 |
| 10 | .143 | 13.01 | 10 | .212 | 13.15 | 10 | .257 | 14.76 |
| 10 | .166 | 13.07 | 10 | .249 | 13.17 | 10 | .284 | 14.74 |
| 10 | .179 | 13.06 | 10 | .269 | 13.17 | 10 | .316 | 14.75 |
| 10 | .196 | 13.00 | 10 | .287 | 13.15 | 10 | .348 | 14.75 |
| 10 | .236 | 13.12 | 10 | .301 | 13.18 | 10 | .370 | 14.78 |
| 10 | .248 | 13.04 | 10 | .317 | 13.20 | 10 | .382 | 14.76 |
| 10 | .275 | 12.95 | 10 | .338 | 13.15 | 10 | .390 | 14.76 |
| 10 | .307 | 13.09 | 10 | .364 | 13.16 | 10 | .396 | 14.75 |
| 10 | .316 | 13.08 | 10 | .383 | 13.16 | 10 | .402 | 14.75 |
| 10 | .338 | 12.92 | 10 | .400 | 13.15 | 10 | .408 | 14.74 |
| 10 | .360 | 13.13 | 10 | .431 | 13.15 | 10 | .418 | 14.77 |
| 10 | .369 | 13.10 | 10 | .447 | 13.17 | 10 | .430 | 14.74 |
| 10 | .380 | 13.01 | 10 | .462 | 13.15 | 10 | .442 | 14.75 |
| 10 | .400 | 12.92 | 10 | .495 | 13.20 | 10 | .461 | 14.74 |
| 10 | .428 | 13.07 | 10 | .533 | 13.19 | 10 | .476 | 14.76 |
| 10 | .438 | 13.06 | 10 | .561 | 13.16 | 10 | .495 | 14.74 |
| 10 | .448 | 12.96 | 10 | .581 | 13.17 | 10 | .522 | 14.76 |
| 10 | .464 | 13.04 | 10 | .595 | 13.15 | 10 | .578 | 14.77 |
| 10 | .493 | 13.07 | 10 | .621 | 13.14 | 10 | .611 | 14.76 |
| 10 | .501 | 13.08 | 10 | .649 | 13.18 | 10 | .643 | 14.76 |
| 10 | .519 | 13.00 | 10 | .671 | 13.17 | 10 | .661 | 14.76 |
| 10 | .545 | 12.99 | 10 | .687 | 13.19 | 10 | .675 | 14.75 |
| 10 | .572 | 13.06 | 10 | .706 | 13.15 | 10 | .693 | 14.79 |
| 10 | .611 | 13.02 | 10 | .725 | 13.15 | 10 | .706 | 14.97 |
| 10 | .635 | 13.05 | 10 | .740 | 13.20 | 10 | .730 | 14.99 |
| 10 | .648 | 13.12 | 10 | .764 | 13.15 | 10 | .744 | 14.94 |
| 10 | .664 | 12.98 | 10 | .803 | 13.24 | 10 | .754 | 15.00 |
| 10 | .692 | 12.99 | 5 | .812 | 13.32 | 10 | .766 | 15.04 |
| 10 | .703 | 13.11 | 10 | .826 | 13.61 | 10 | .777 | 15.15 |
| 10 | .727 | 12.98 | 10 | .838 | 13.57 | 10 | .786 | 15.19 |
| 10 | .761 | 13.06 | | | | 10 | .797 | 15.21 |
| 10 | .785 | 13.08 | | | | | | |

TABLE 4 (continued)

| 6 (contin.) | | | | | | | | |
|-------------|-------|-----------------|----|-------|-----------------|----|-------|-----------------|
| n | phase | bright- ness | | | | | | |
| 10 | .814 | 15.20 | 10 | .691 | 12.79 | 10 | .647 | 14.59 |
| 10 | .824 | 15.19 | 10 | .707 | 12.84 | 10 | .666 | 14.62 |
| 5 | .837 | 15.18 | 10 | .725 | 12.83 | 10 | .689 | 14.61 |
| 5 | .854 | 15.17 | 10 | .742 | 12.86 | 10 | .702 | 14.60 |
| 5 | .876 | 14.92 | 10 | .752 | 12.84 | 10 | .709 | 14.60 |
| 5 | .913 | 14.81 | 10 | .759 | 12.86 | 10 | .719 | 14.60 |
| 10 | .929 | 14.75 | 10 | .778 | 12.85 | 10 | .733 | 14.61 |
| 10 | .951 | 14.76 | 10 | .800 | 12.89 | 10 | .742 | 14.60 |
| 10 | .968 | 14.74 | 10 | .815 | 12.92 | 10 | .758 | 14.62 |
| 10 | .988 | 14.75 | 10 | .845 | 13.11 | 10 | .783 | 14.61 |
| 3 | .999 | 14.74 | 10 | .879 | 13.20 | 10 | .793 | 14.62 |
| | | | 10 | .912 | 13.48 | 10 | .849 | 14.61 |
| | | | 10 | .926 | 13.52 | 10 | .871 | 14.60 |
| | | | 10 | .947 | 13.64 | 10 | .891 | 14.58 |
| | | | 10 | .973 | 13.63 | 10 | .912 | 14.57 |
| | | | 10 | .990 | 13.83 | 10 | .924 | 14.59 |
| | | | | | | 10 | .940 | 14.58 |
| | | | | | | 10 | .954 | 14.63 |
| | | | | | | 10 | .974 | 14.62 |
| 7 | | | 8 | | | 9 | | |
| n | phase | bright- ness | n | phase | bright- ness | n | phase | bright- ness |
| 10 | .009 | 14.11 | 10 | .023 | 14.61 | 10 | .006 | 14.70 |
| 10 | .030 | 14.12 | 10 | .047 | 14.64 | 10 | .034 | 14.72 |
| 10 | .043 | 14.10 | 10 | .064 | 14.63 | 10 | .060 | 14.69 |
| 10 | .069 | 14.18 | 10 | .098 | 14.63 | 10 | .075 | 14.75 |
| 10 | .108 | 14.27 | 10 | .123 | 14.61 | 10 | .095 | 14.74 |
| 10 | .118 | 14.29 | 10 | .139 | 14.59 | 10 | .120 | 14.73 |
| 10 | .123 | 14.24 | 10 | .151 | 14.60 | 10 | .140 | 14.77 |
| 10 | .152 | 14.20 | 10 | .164 | 14.63 | 10 | .160 | 14.75 |
| 10 | .216 | 14.29 | 10 | .183 | 14.61 | 10 | .178 | 14.76 |
| 10 | .263 | 14.29 | 10 | .217 | 14.60 | 10 | .198 | 14.77 |
| 10 | .299 | 14.00 | 10 | .252 | 14.62 | 10 | .217 | 14.73 |
| 10 | .324 | 14.06 | 10 | .265 | 14.61 | 10 | .238 | 14.54 |
| 10 | .342 | 14.04 | 10 | .285 | 14.61 | 10 | .259 | 14.25 |
| 10 | .358 | 13.45 | 10 | .300 | 14.63 | 10 | .278 | 13.90 |
| 10 | .385 | 13.35 | 10 | .340 | 14.62 | 10 | .300 | 13.61 |
| 10 | .408 | 13.21 | 10 | .360 | 14.62 | 10 | .323 | 13.55 |
| 10 | .433 | 12.99 | 10 | .376 | 14.60 | 10 | .354 | 13.59 |
| 10 | .444 | 12.95 | 10 | .396 | 14.62 | 10 | .376 | 13.61 |
| 10 | .450 | 13.03 | 10 | .410 | 14.61 | 10 | .395 | 13.68 |
| 10 | .469 | 12.87 | 10 | .440 | 14.61 | 10 | .420 | 13.74 |
| 10 | .482 | 13.02 | 10 | .481 | 14.62 | 10 | .438 | 13.76 |
| 10 | .495 | 12.85 | 10 | .493 | 14.62 | 10 | .454 | 13.90 |
| 10 | .510 | 12.82 | 5 | .502 | 14.64 | 10 | .477 | 13.97 |
| 10 | .525 | 12.83 | 5 | .508 | 15.04 | 10 | .500 | 13.98 |
| 10 | .544 | 12.79 | 5 | .514 | 15.23 | 10 | .519 | 14.13 |
| 10 | .573 | 12.69 | 5 | .518 | 15.42 | 10 | .539 | 14.15 |
| 10 | .609 | 12.71 | 5 | .524 | 15.56 | 10 | .562 | 14.26 |
| 10 | .618 | 12.73 | 5 | .530 | 15.64 | 10 | .582 | 14.28 |
| 10 | .627 | 12.66 | 5 | .540 | 15.62 | 10 | .603 | 14.39 |
| 10 | .652 | 12.80 | 5 | .556 | 15.50 | | | |
| 10 | .663 | 12.72 | 5 | .568 | 15.12 | | | |
| 10 | .672 | 12.80 | 10 | .592 | 14.63 | | | |
| | | | 10 | .616 | 14.63 | | | |

TABLE 4 (continued)

| | | | | | | | | |
|-------------|-------|-----------------|----|-------|-----------------|----|-------|-----------------|
| 9 (contin.) | | | 10 | .575 | 14.11 | 10 | .561 | 12.54 |
| n | phase | bright- ness | 10 | .596 | 14.02 | 10 | .578 | 12.63 |
| | | | 10 | .612 | 13.94 | 10 | .594 | 12.55 |
| 10 | .623 | 14.45 | 10 | .625 | 13.96 | 10 | .617 | 12.57 |
| 10 | .636 | 14.50 | 10 | .648 | 14.05 | 10 | .639 | 12.42 |
| 10 | .653 | 14.42 | 10 | .666 | 14.09 | 10 | .658 | 12.38 |
| 10 | .678 | 14.51 | 10 | .687 | 14.25 | 10 | .673 | 12.44 |
| 10 | .698 | 14.55 | 10 | .709 | 14.20 | 10 | .692 | 12.28 |
| 10 | .714 | 14.60 | 10 | .739 | 14.25 | 10 | .716 | 12.24 |
| 10 | .740 | 14.61 | 10 | .760 | 14.37 | 10 | .741 | 12.34 |
| 10 | .768 | 14.61 | 10 | .782 | 14.38 | 10 | .759 | 12.28 |
| 10 | .791 | 14.66 | 10 | .804 | 14.38 | 10 | .772 | 12.20 |
| 10 | .817 | 14.61 | 10 | .830 | 14.48 | 10 | .798 | 12.25 |
| 10 | .838 | 14.66 | 10 | .854 | 14.49 | 10 | .820 | 12.16 |
| 10 | .871 | 14.68 | 10 | .869 | 14.52 | 10 | .843 | 12.21 |
| 10 | .892 | 14.69 | 10 | .876 | 14.56 | 10 | .860 | 12.16 |
| 10 | .916 | 14.70 | 10 | .910 | 14.61 | 10 | .891 | 12.21 |
| 10 | .940 | 14.66 | 10 | .932 | 14.57 | 10 | .915 | 12.07 |
| 10 | .955 | 14.64 | 10 | .947 | 14.66 | 10 | .936 | 12.17 |
| 10 | .986 | 14.72 | 10 | .966 | 14.62 | 10 | .952 | 12.21 |
| | | | 10 | .986 | 14.72 | 10 | .971 | 12.13 |
| | | | 10 | .997 | 14.85 | 10 | .989 | 12.29 |
| | | | | | | 2 | .999 | 12.29 |
| 10 | | | 11 | | | 12 | | |
| n | phase | bright- ness | n | phase | bright- ness | n | phase | bright- ness |
| 10 | .006 | 14.90 | 10 | .006 | 12.20 | 5 | .018 | 13.6 |
| 10 | .019 | 14.86 | 10 | .023 | 12.11 | 5 | .034 | 13.3 |
| 10 | .042 | 14.81 | 10 | .035 | 12.29 | 5 | .051 | 13.4 |
| 10 | .061 | 14.89 | 10 | .053 | 12.19 | 5 | .066 | 13.5 |
| 10 | .079 | 14.88 | 10 | .073 | 12.23 | 5 | .087 | 13.8 |
| 10 | .102 | 14.96 | 10 | .098 | 12.30 | 5 | .098 | 13.4 |
| 10 | .131 | 14.84 | 10 | .120 | 12.39 | 5 | .114 | 13.4 |
| 10 | .150 | 15.01 | 10 | .137 | 12.44 | 5 | .139 | 13.6 |
| 10 | .181 | 14.97 | 10 | .155 | 12.40 | 5 | .159 | 13.7 |
| 10 | .206 | 14.93 | 10 | .184 | 12.48 | 10 | .184 | 13.7 |
| 10 | .233 | 14.99 | 10 | .205 | 12.50 | 10 | .203 | 14.0 |
| 10 | .259 | 15.02 | 10 | .228 | 12.55 | 10 | .224 | 13.8 |
| 10 | .281 | 15.00 | 10 | .243 | 12.58 | 10 | .243 | 14.0 |
| 10 | .301 | 15.00 | 10 | .263 | 12.68 | 10 | .264 | 14.0 |
| 10 | .327 | 14.94 | 10 | .288 | 12.73 | 10 | .295 | 13.9 |
| 10 | .346 | 14.94 | 10 | .305 | 12.78 | 10 | .322 | 13.9 |
| 10 | .367 | 14.99 | 10 | .326 | 12.78 | 10 | .357 | 14.1 |
| 10 | .379 | 15.07 | 10 | .346 | 12.75 | 10 | .384 | 14.1 |
| 10 | .412 | 15.14 | 10 | .367 | 12.81 | 10 | .410 | 14.1 |
| 10 | .432 | 15.01 | 10 | .391 | 12.83 | 10 | .450 | 14.2 |
| 10 | .454 | 15.03 | 10 | .411 | 12.84 | 10 | .477 | 14.3 |
| 10 | .477 | 15.09 | 10 | .437 | 12.77 | 10 | .505 | 14.2 |
| 10 | .494 | 14.93 | 10 | .465 | 12.79 | 10 | .531 | 14.2 |
| 10 | .517 | 14.78 | 10 | .486 | 12.68 | 10 | .560 | 14.3 |
| 10 | .539 | 14.57 | 10 | .511 | 12.67 | 10 | .585 | 14.3 |
| 10 | .555 | 14.31 | 10 | .544 | 12.69 | | | |

TABLE 4 (continued)

| | | | | | | | | |
|--------------|-------|-----------------|----|-------|-----------------|----|-------|-----------------|
| 12 (contin.) | | | 10 | .493 | 14.72 | 10 | .454 | 12.93 |
| n | phase | bright- ness | 10 | .516 | 14.56 | 10 | .480 | 12.91 |
| 10 | .603 | 14.3 | 10 | .539 | 14.38 | 10 | .511 | 12.91 |
| 10 | .624 | 14.3 | 5 | .549 | 14.34 | 10 | .541 | 12.91 |
| 10 | .638 | 14.4 | 5 | .558 | 14.41 | 10 | .567 | 12.89 |
| 10 | .656 | 14.3 | 5 | .568 | 14.44 | 10 | .590 | 12.90 |
| 10 | .678 | 14.3 | 10 | .588 | 14.45 | 10 | .613 | 12.92 |
| 10 | .699 | 14.4 | 10 | .611 | 14.43 | 10 | .633 | 12.92 |
| 10 | .716 | 14.4 | 10 | .633 | 14.49 | 10 | .648 | 12.90 |
| 10 | .741 | 14.4 | 10 | .659 | 14.56 | 10 | .670 | 12.93 |
| 10 | .762 | 14.4 | 10 | .685 | 14.67 | 10 | .689 | 12.91 |
| 10 | .780 | 14.3 | 10 | .709 | 14.69 | 10 | .699 | 12.92 |
| 10 | .799 | 14.2 | 10 | .709 | 14.69 | 10 | .717 | 12.92 |
| 10 | .840 | 14.2 | 10 | .725 | 14.77 | 10 | .729 | 12.93 |
| 10 | .869 | 13.8 | 10 | .753 | 14.80 | 10 | .748 | 12.91 |
| 10 | .886 | 13.9 | 10 | .771 | 14.77 | 10 | .772 | 12.93 |
| 10 | .909 | 13.5 | 10 | .791 | 14.96 | 10 | .797 | 12.91 |
| 10 | .924 | 13.8 | 10 | .809 | 15.01 | 10 | .819 | 12.91 |
| 10 | .948 | 13.5 | 10 | .825 | 15.06 | 10 | .835 | 12.93 |
| 5 | .967 | 13.6 | 10 | .848 | 15.01 | 10 | .851 | 12.90 |
| 5 | .980 | 13.5 | 10 | .866 | 15.01 | 10 | .866 | 12.92 |
| 5 | .987 | 13.5 | 10 | .891 | 15.06 | 10 | .866 | 12.92 |
| 5 | .997 | 13.3 | 10 | .910 | 15.09 | 10 | .891 | 12.93 |
| | | | 10 | .926 | 15.10 | 10 | .909 | 12.94 |
| | | | 10 | .948 | 15.08 | 10 | .927 | 12.91 |
| | | | 10 | .970 | 15.24 | 10 | .941 | 12.92 |
| | | | 10 | .987 | 15.29 | 10 | .957 | 12.91 |
| | | | | | | 10 | .970 | 12.93 |
| | | | | | | 10 | .986 | 12.90 |
| | | | | | | 7 | .996 | 12.95 |
| 13 | | | 14 | | | 15 | | |
| n | phase | bright- ness | n | phase | bright- ness | n | phase | bright- ness |
| 10 | .012 | 15.25 | 10 | .010 | 12.96 | 10 | .028 | 13.41 |
| 10 | .032 | 15.19 | 10 | .025 | 12.98 | 10 | .072 | 13.39 |
| 10 | .050 | 15.27 | 10 | .047 | 12.99 | 10 | .087 | 13.43 |
| 10 | .066 | 15.32 | 10 | .064 | 13.33 | 10 | .098 | 13.41 |
| 10 | .080 | 15.31 | 5 | .085 | 13.37 | 10 | .119 | 13.42 |
| 10 | .096 | 15.29 | 5 | .100 | 13.37 | 10 | .151 | 13.42 |
| 10 | .114 | 15.29 | 5 | .113 | 13.37 | 10 | .172 | 13.41 |
| 10 | .135 | 15.29 | 5 | .127 | 13.35 | 10 | .189 | 13.40 |
| 10 | .158 | 15.26 | 5 | .150 | 13.35 | 10 | .208 | 13.42 |
| 10 | .172 | 15.30 | 5 | .164 | 13.28 | 10 | .226 | 13.41 |
| 10 | .196 | 15.19 | 10 | .184 | 12.99 | 10 | .246 | 13.43 |
| 10 | .221 | 15.29 | 10 | .210 | 12.96 | 10 | .263 | 13.39 |
| 10 | .244 | 15.30 | 10 | .235 | 12.92 | 10 | .276 | 13.40 |
| 10 | .271 | 15.38 | 10 | .257 | 12.93 | 10 | .292 | 13.43 |
| 10 | .291 | 15.32 | 10 | .279 | 12.95 | 10 | .315 | 13.43 |
| 10 | .309 | 15.33 | 10 | .298 | 12.93 | 10 | .339 | 13.42 |
| 10 | .341 | 15.29 | 10 | .321 | 12.91 | 10 | .352 | 13.43 |
| 10 | .366 | 15.37 | 10 | .338 | 12.93 | 10 | .382 | 13.59 |
| 10 | .393 | 15.30 | 10 | .355 | 12.94 | 5 | .405 | 14.16 |
| 10 | .414 | 15.35 | 10 | .368 | 12.92 | | | |
| 10 | .440 | 15.30 | 10 | .394 | 12.92 | | | |
| 10 | .466 | 14.95 | 10 | .421 | 12.91 | | | |

TABLE 4 (continued)

| 15 (contin.) | | | 10 | | | 10 | | |
|--------------|-------|-----------------|----|------|-------|----|------|-------|
| n | phase | bright- ness | | | | | | |
| 5 | .424 | 14.38 | 10 | .262 | 13.18 | 10 | .269 | 13.80 |
| 5 | .431 | 14.40 | 10 | .281 | 13.19 | 10 | .278 | 13.70 |
| 5 | .436 | 14.40 | 10 | .293 | 13.19 | 10 | .287 | 13.75 |
| 5 | .443 | 14.40 | 10 | .314 | 13.21 | 10 | .301 | 13.74 |
| 5 | .451 | 14.36 | 10 | .345 | 13.18 | 10 | .320 | 13.79 |
| 5 | .458 | 14.13 | 10 | .381 | 13.18 | 10 | .351 | 13.75 |
| 5 | .468 | 14.08 | 10 | .398 | 13.22 | 10 | .376 | 13.81 |
| 10 | .487 | 13.49 | 10 | .416 | 13.19 | 10 | .419 | 13.86 |
| 10 | .518 | 13.41 | 10 | .435 | 13.19 | 10 | .440 | 13.65 |
| 10 | .547 | 13.42 | 10 | .449 | 13.21 | 10 | .476 | 13.79 |
| 10 | .588 | 13.41 | 10 | .462 | 13.16 | 10 | .498 | 13.78 |
| 10 | .612 | 13.43 | 10 | .480 | 13.17 | 10 | .513 | 13.73 |
| 10 | .639 | 13.39 | 10 | .498 | 13.18 | 10 | .535 | 13.72 |
| 10 | .654 | 13.37 | 10 | .520 | 13.16 | 10 | .561 | 13.78 |
| 10 | .668 | 13.40 | 10 | .549 | 13.17 | 10 | .577 | 13.79 |
| 10 | .684 | 13.40 | 10 | .577 | 13.17 | 10 | .593 | 13.72 |
| 10 | .700 | 13.47 | 10 | .596 | 13.19 | 10 | .613 | 13.72 |
| 10 | .714 | 13.39 | 10 | .606 | 13.21 | 10 | .634 | 13.77 |
| 10 | .733 | 13.41 | 10 | .620 | 13.15 | 10 | .656 | 13.76 |
| 10 | .763 | 13.39 | 10 | .650 | 13.17 | 10 | .676 | 13.74 |
| 10 | .784 | 13.41 | 10 | .680 | 13.19 | 10 | .697 | 13.75 |
| 10 | .806 | 13.41 | 10 | .707 | 13.20 | 10 | .718 | 13.83 |
| 10 | .810 | 13.42 | 5 | .742 | 14.38 | 10 | .737 | 13.83 |
| 10 | .848 | 13.41 | 5 | .761 | 15.13 | 10 | .751 | 13.87 |
| 10 | .862 | 13.43 | 5 | .773 | 15.13 | 5 | .764 | 14.14 |
| 10 | .879 | 13.45 | 5 | .785 | 15.02 | 5 | .774 | 14.64 |
| 10 | .899 | 13.43 | 10 | .814 | 13.18 | 5 | .785 | 14.79 |
| 10 | .917 | 13.43 | 10 | .835 | 13.18 | 5 | .796 | 14.74 |
| 10 | .930 | 13.42 | 10 | .858 | 13.18 | 5 | .807 | 14.64 |
| 10 | .952 | 13.42 | 10 | .883 | 13.17 | 5 | .817 | 14.46 |
| 10 | .979 | 13.42 | 10 | .912 | 13.20 | 10 | .839 | 14.04 |
| | | | 10 | .929 | 13.23 | 10 | .877 | 13.77 |
| | | | 10 | .949 | 13.18 | 10 | .906 | 13.71 |
| | | | 10 | .962 | 13.14 | 10 | .935 | 13.73 |
| | | | 10 | .975 | 13.17 | 10 | .960 | 13.78 |
| | | | 10 | .991 | 13.18 | 10 | .989 | 13.74 |

| 16 | | | 17 | | | 18 | | |
|----|-------|-----------------|----|-------|-----------------|----|-------|-----------------|
| n | phase | bright- ness | n | phase | bright- ness | n | phase | bright- ness |
| 10 | .017 | 13.23 | 10 | .013 | 13.71 | 5 | .003 | 13.40 |
| 10 | .033 | 13.23 | 10 | .038 | 13.78 | 5 | .008 | 13.56 |
| 10 | .049 | 13.23 | 10 | .059 | 13.76 | 5 | .030 | 14.45 |
| 10 | .064 | 13.17 | 10 | .080 | 13.75 | 5 | .040 | 15.24 |
| 10 | .076 | 13.17 | 10 | .099 | 13.74 | 5 | .049 | 15.31 |
| 10 | .093 | 13.20 | 10 | .116 | 13.73 | 5 | .058 | 15.40 |
| 10 | .107 | 13.17 | 10 | .128 | 13.80 | 5 | .070 | 15.38 |
| 10 | .125 | 13.15 | 10 | .142 | 13.78 | 5 | .078 | 14.82 |
| 10 | .143 | 13.17 | 10 | .156 | 13.78 | 5 | .085 | 14.45 |
| 10 | .162 | 13.17 | 10 | .174 | 13.76 | 5 | .091 | 14.20 |
| 10 | .178 | 13.17 | 10 | .194 | 13.78 | 5 | .095 | 14.16 |
| 10 | .202 | 13.18 | 10 | .216 | 13.72 | 5 | .100 | 13.77 |
| 10 | .236 | 13.19 | 10 | .243 | 13.80 | 5 | .104 | 13.61 |

TABLE 4 (continued)

| 18 (contin.) | | | 19 | | | 20 | | |
|--------------|-------|-----------------|----|-------|-----------------|----|-------|-----------------|
| n | phase | bright- ness | n | phase | bright- ness | n | phase | bright- ness |
| 5 | .111 | 13.37 | 10 | .011 | 12.93 | 10 | .895 | 12.87 |
| 5 | .138 | 13.36 | 10 | .042 | 12.90 | 10 | .909 | 12.79 |
| 10 | .160 | 13.36 | 10 | .073 | 12.96 | 10 | .930 | 12.91 |
| 10 | .178 | 13.35 | 10 | .088 | 12.86 | 10 | .942 | 12.85 |
| 10 | .194 | 13.34 | 10 | .097 | 12.85 | 10 | .956 | 12.83 |
| 10 | .213 | 13.42 | 10 | .119 | 13.04 | 10 | .974 | 12.92 |
| 10 | .236 | 13.34 | 5 | .136 | 13.28 | 10 | .984 | 12.82 |
| 10 | .269 | 13.29 | 5 | .149 | 13.56 | 3 | .996 | 12.88 |
| 10 | .286 | 13.31 | 5 | .176 | 14.11 | | | |
| 10 | .298 | 13.32 | 5 | .186 | 14.20 | | | |
| 10 | .318 | 13.28 | 5 | .196 | 14.16 | 10 | .020 | 15.22 |
| 10 | .332 | 13.33 | 5 | .212 | 13.76 | 10 | .059 | 15.05 |
| 10 | .351 | 13.37 | 5 | .227 | 13.25 | 10 | .086 | 15.27 |
| 10 | .375 | 13.40 | 5 | .240 | 13.17 | 10 | .124 | 15.06 |
| 10 | .400 | 13.33 | 10 | .258 | 12.94 | 5 | .149 | 14.75 |
| 10 | .422 | 13.35 | 10 | .283 | 12.89 | 5 | .174 | 14.50 |
| 10 | .443 | 13.27 | 10 | .306 | 12.95 | 5 | .192 | 14.40 |
| 10 | .465 | 13.33 | 10 | .316 | 12.93 | 5 | .202 | 14.56 |
| 10 | .488 | 13.42 | 10 | .339 | 12.94 | 5 | .210 | 14.15 |
| 10 | .511 | 13.34 | 10 | .367 | 12.93 | 5 | .228 | 14.22 |
| 10 | .542 | 13.38 | 10 | .367 | 12.93 | 5 | .236 | 14.19 |
| 10 | .560 | 13.36 | 10 | .384 | 12.96 | 5 | .246 | 14.20 |
| 10 | .577 | 13.36 | 10 | .398 | 12.82 | 5 | .263 | 14.17 |
| 10 | .601 | 13.34 | 10 | .414 | 12.98 | 5 | .269 | 14.35 |
| 10 | .634 | 13.32 | 10 | .426 | 12.91 | 5 | .284 | 14.47 |
| 10 | .669 | 13.33 | 10 | .442 | 12.84 | 5 | .297 | 14.54 |
| 10 | .698 | 13.34 | 10 | .456 | 12.92 | 5 | .305 | 14.35 |
| 10 | .713 | 13.35 | 10 | .473 | 12.86 | 5 | .321 | 14.56 |
| 10 | .730 | 13.35 | 10 | .488 | 12.82 | 5 | .334 | 14.57 |
| 10 | .747 | 13.33 | 10 | .520 | 12.80 | 10 | .355 | 14.67 |
| 10 | .763 | 13.34 | 10 | .541 | 12.88 | 10 | .390 | 14.65 |
| 10 | .779 | 13.33 | 10 | .557 | 12.95 | 10 | .434 | 14.68 |
| 10 | .798 | 13.35 | 10 | .577 | 12.96 | 10 | .488 | 14.95 |
| 10 | .836 | 13.33 | 10 | .592 | 12.93 | 10 | .542 | 14.85 |
| 10 | .863 | 13.35 | 10 | .624 | 12.99 | 10 | .593 | 15.06 |
| 10 | .885 | 13.37 | 10 | .649 | 12.99 | 10 | .639 | 15.16 |
| 10 | .913 | 13.32 | 10 | .670 | 12.98 | 10 | .665 | 15.06 |
| 10 | .938 | 13.37 | 10 | .689 | 13.01 | 10 | .690 | 15.08 |
| 10 | .953 | 13.43 | 10 | .702 | 13.02 | 10 | .711 | 15.08 |
| 10 | .971 | 13.30 | 5 | .720 | 13.04 | 10 | .728 | 15.07 |
| 10 | .992 | 13.36 | 5 | .728 | 12.96 | 10 | .750 | 15.21 |
| | | | 5 | .738 | 12.97 | 10 | .775 | 15.21 |
| | | | 5 | .742 | 12.95 | 10 | .807 | 15.05 |
| | | | 5 | .749 | 12.97 | 10 | .847 | 15.15 |
| | | | 5 | .759 | 12.83 | 10 | .900 | 15.08 |
| | | | 5 | .776 | 12.81 | 10 | .944 | 14.94 |
| | | | 5 | .796 | 12.95 | 12 | .984 | 15.08 |
| | | | 10 | .819 | 12.91 | | | |
| | | | 10 | .870 | 12.86 | | | |

TABLE 4 (continued)

| 21 | | |
|----|-------|-----------------|
| n | phase | bright- ness |
| 10 | .011 | 13.60 |
| 10 | .043 | 13.85 |
| 10 | .061 | 13.87 |
| 10 | .082 | 14.18 |
| 10 | .094 | 14.27 |
| 10 | .112 | 14.45 |
| 10 | .133 | 14.54 |
| 10 | .153 | 14.54 |
| 10 | .192 | 14.68 |
| 10 | .242 | 14.71 |
| 10 | .265 | 14.84 |
| 10 | .284 | 14.90 |
| 10 | .302 | 14.62 |
| 10 | .322 | 14.98 |
| 10 | .342 | 14.96 |
| 10 | .356 | 14.91 |
| 10 | .366 | 14.92 |
| 10 | .383 | 14.86 |
| 10 | .407 | 14.81 |
| 10 | .430 | 14.97 |
| 10 | .458 | 14.81 |
| 10 | .470 | 15.02 |
| 10 | .486 | 15.02 |
| 10 | .507 | 15.12 |
| 10 | .533 | 14.93 |
| 10 | .553 | 14.89 |
| 10 | .575 | 14.95 |
| 10 | .603 | 14.76 |
| 10 | .628 | 14.96 |
| 10 | .662 | 14.77 |
| 10 | .678 | 14.58 |
| 10 | .691 | 14.48 |
| 10 | .748 | 13.69 |
| 10 | .785 | 13.50 |
| 10 | .807 | 13.31 |
| 10 | .821 | 13.34 |
| 10 | .833 | 13.29 |
| 10 | .860 | 13.37 |
| 10 | .867 | 13.45 |
| 10 | .890 | 13.51 |
| 10 | .904 | 13.54 |
| 10 | .920 | 13.41 |
| 10 | .944 | 13.60 |
| 10 | .994 | 13.59 |