



# ASTROPHILE EDUCATION SERVICES

## **Contact Timings for various location in India within the belt of Annularity for ASE 2019 on Dec 26th.**

S. No.	Location Name	First contact	Second Contact	Maximum Eclipse	Third Contact	Fourth Contact	Obscuration percentage
<b>1</b>	<b><u>Karnataka</u></b>						
a	Mangalore	2h 34m 25s	3h 54m 15s 500ms	3h 55m 16s 400ms	3h 56m 17s 200ms	5h 33m 38s 200ms	93.038
b	Puttur	2h 34m 38s 700ms	3h 54m 58s	3h 55m 49s 700ms	3h 56m 41s 200ms	5h 34m 38s 300ms	93.058
c	Kalladka	2h 34m 32s 900ms	3h 54m 44s 700ms	3h 55m 35s 800ms	3h 56m 26s 700ms	5h 34m 13s 100ms	93.049
d	Sullia	2h 34m 47s 500ms	3h 55m 2s 500ms	3h 56m 10s 600ms	3h 57m 18s 600ms	5h 35m 16s 700ms	93.072
e	Madikeri	2h 35m 2s 800ms	3h 55m 46s 600ms	3h 56m 46s 900ms	3h 57m 47s 100ms	5h 36m 21s 200ms	93.093
f	Sargur	2h 35m 33s 500ms	3h 56m 52s	3h 57m 58s 200ms	3h 59m 5s 200ms	5h 38m 28s 600ms	93.135
<b>2</b>	<b><u>Kerala</u></b>						
a	Kanhangad	2h 34m 38s	3h 54m 11s 100ms	3h 55m 46s 500ms	3h 57m 21s 900ms	3h 34m 33s 600ms	93.066
b	Kasaragod	2h 34m 32s	3h 54m 0s 900ms	3h 55m 32s 700ms	3h 57m 4s 600ms	5h 34m 8s 600ms	93.055
c	Payyanur	2h 34m 43s 500ms	3h 54m 23s 100ms	3h 55m 58s 700ms	3h 57m 34s 300ms	5h 34m 55s 500ms	93.076
d	Kannur	2h 34m 53s 700ms	3h 54m 51s	3h 56m 21s 600ms	3h 57m 52s 100ms	5h 35m 36s 300ms	93.093
e	Thalassery	2h 34m 59s 200ms	3h 55m 6s 200ms	3h 56m 6s 200ms	3h 56m 33s 900ms	3h 58m 1s 500ms	93.101
f	Vadkara	2h 35m 4s 700ms	3h 55m 25s 400ms	3h 56m 45s 900ms	3h 58m 6s 300ms	5h 36m 19s 300ms	93.110
g	Koyilandy	2h 35m 11s 500ms	3h 55m 52s	3h 57m 0s 500ms	3h 58m 8s 900ms	5h 36m 44s 900ms	93.121
h	Kozhikode	2h 35m 16s 800ms	3h 56m 30s 600ms	3h 57m 11s 100ms	3h 57m 51s 200ms	5h 37m 3s	93.129
l	Malappuram	2h 35m 31s 900ms	3h 57m 28s 700ms	3h 57m 45s 100ms	3h 58m 1s 200ms	5h 38m 2s 700ms	93.150
j	Thamarassery	2h 35m 21s 800ms	3h 56m 5s 500ms	3h 57m 25s 400ms	3h 58m 45s 200ms	5h 37m 29s 300ms	93.133
k	Wayanad	2h 55m 23s 500ms	3h 55m 56s 600ms	3h 57m 33s	3h 59m 9s 400ms	5h 37m 43s 600ms	93.130
l	Palakkad	2h 35m 59s 900ms	3h 58m 5s 900ms	3h 58m 49s 400ms	3h 59m 32s 700ms	5h 39m 55s 500ms	93.184



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<b>3</b>	<b>Tamil Nadu</b>						
a	Ooty	2h 35m 52s 800ms	3h 57m 3s 900ms	3h 58m 40s 400ms	4h 0m 16s 900ms	5h 39m 42s	93.167
b	Coimbatore	<u>2h 36m 9s 800ms</u>	3h 57m 44s 800ms	3h 59m 16s 400ms	4h 0m 47s 900ms	5h 40m 44s	<u>93.191</u>
c	Madurai	<u>2h 37m 20s 400ms</u>	4h 1m 41s 400ms	4h 1m 45s 800ms	4h 1m 49s 800ms	5h 44m 57s	<u>93.276</u>
d	Tiruchirappalli	<u>2h 37m 35s 600ms</u>	4h 1m 35s 100ms	4h 2m 31s 200ms	4h 3m 27s 200ms	5h 46m 17s 900ms	<u>93.276</u>
e	Pollachi	2h 36m 17s 400ms	3h 58m 34s 100ms	3h 59m 29s 300ms	4h 0m 24s 200ms	5h 41m 4s 800ms	93.204
f	Tiruppur	2h 36m 25s 500ms	3h 58m 18s 900ms	3h 59m 54s 600ms	4h 1m 30s 300ms	5h 41m 50s 800ms	93.205
g	Erode	2h 36m 40s 200ms	3h 59m 39s 900ms	4h 0m 29s 800ms	4h 1m 19s 500ms	4h 52m 51s 500ms	93.215
h	Dindigul	2h 37m 5s 800ms	3h 59m 51s 300ms	4h 1m 19s 400ms	4h 2m 47s 500ms	5h 44m 14s 700ms	93.256
i	Madurai	2h 37m 20s 900ms	4h 1m 22s 100ms	4h 1m 47s 300ms	4h 2m 12s 300ms	5h 44m 59s 800ms	93.277
j	Karur	2h 37m 1s 900ms	3h 59m 55s 800ms	4h 1m 16s 900ms	4h 2m 37s 900ms	5h 44m 12s	93.243
k	Rameshwaram	2h 38m 31s 300ms	4h 4m 0s 100ms	4h 4m 17s 200ms	4h 4m 34s 100ms	5h 49m 9s 300ms	93.348