

Review Form 3

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_128700
Title of the Manuscript:	Design of high precision dynamic star emulator by two-beam combination method
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	The manuscript is significant for the scientific community as it presents a systematic approach to designing a high-precision dynamic star emulator. The proposed method improves imaging quality, reduces distortion, and meets the technical demands for ground calibration of star sensors. This work will benefit future research on precision optical systems for spacecraft.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title is appropriate as it reflects the focus on high-precision design and the two-beam combination method. No changes are required.	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract is clear and comprehensive, providing essential details on the research objective, methodology, and results. However, consider briefly stating the practical implications or future applications of this design.	
Is the manuscript scientifically, correct? Please write here.	Yes, the manuscript is scientifically sound. The methodology is well-documented, and the use of CODE V software for optimization and analysis is appropriate. Results like distortion (<0.05%) and MTF (>0.3 @ 66lp/mm) validate the design's accuracy.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are sufficient, but some are slightly older. You may consider including more recent works on optical system optimization or star emulator technology (post-2019).	
Is the language/English quality of the article suitable for scholarly communications?	The language is generally clear and suitable. Minor corrections can be made for grammar and typographical consistency, such as explaining RMS radius and S.D more explicitly for non-expert readers.	
Optional/General comments	The manuscript provides solid theoretical and practical insights into designing precision star emulators. Consider expanding the discussion on challenges during implementation or lens alignment to strengthen real-world applicability. Additionally, future work could explore extending the field of view beyond 22° or optimizing lens manufacturing techniques.	

PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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