

Vera C. Rubin Observatory Systems Engineering

An Interim Report on the ComCam On-Sky Campaign

Robert Lupton

SITCOMTN-149

Latest Revision: 2024-11-17

DRAFT



Abstract

A summary of what we have learned from the initial period of ComCam observing





Change Record

Version	Date	Description	Owner name
1	YYYY-MM-	Unreleased.	Robert Lupton
	DD		

Document source location: https://github.com/lsst-sitcom/sitcomtn-149



Contents

1	System Performance Analysis	1
2	Active Optics System Commissioning	1
3	Image Quality	1
4	Data Production	1
5	Calibration Data	1
6	Science Pipelines Commissioning Observations	1
7	Throughput for Focused Light	1
8	Delivered Image Quality and PSF	1
9	Istrument Signature Removal	1
10	Low Surface Brightness	1
11	Astrometric Calibration	1
12	Photometric Calibration	1
13	Survey Performance	1
14	Sample Production	2
15	Difference Image Analysis: Transience and Variable Objects	2
16	Difference Image Analysis: Solar System Objects	2
17	Galaxy Photometry	2
18	Weak Lensing Shear	2
19	Crowded Stellar Fields	2



20	Image Inspection	2
Α	References	2
В	Acronyms	2





An Interim Report on the ComCam On-Sky Campaign

- **1** System Performance Analysis
- 2 Active Optics System Commissioning
- 3 Image Quality
- 4 Data Production
- 5 Calibration Data
- 6 Science Pipelines Commissioning Observations
- 7 Throughput for Focused Light
- 8 Delivered Image Quality and PSF
- 9 Istrument Signature Removal
- **10 Low Surface Brightness**
- **11** Astrometric Calibration
- **12 Photometric Calibration**
- **13 Survey Performance**



- **14** Sample Production
- **15** Difference Image Analysis: Transience and Variable Objects
- **16 Difference Image Analysis: Solar System Objects**
- **17 Galaxy Photometry**
- 18 Weak Lensing Shear
- **19 Crowded Stellar Fields**
- 20 Image Inspection
- **A** References

B Acronyms

Acronym	Description
ComCam	The commissioning camera is a single-raft, 9-CCD camera that will be in-
	stalled in LSST during commissioning, before the final camera is ready.
PSF	Point Spread Function
SE	System Engineering