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# Large Synoptic Survey Telescope (LSST)

Observatory System Specifications

Charles F. Claver and the Systems Engineering Integrated Project Team

LSE-30

Latest Revision: February 10, 2017

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Change Record

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| --- | --- | --- | --- |
| **Version** | **Date** | **Description** | **Owner name** |
| 1 | 5/23/2011 | Initial draft for configuration control. Review comments and actions taken in this draft are found in Document-­‐11071. | Chuck Claver |
| 2 | 5/26/2011 | Updated type and clarifications per May 25, 2011 CCB meeting. Affected requirements: OSS-REQ-0010, 0014, 0051, 0064, 0314, 0083, 0084, 0092, 0108, 0239, 0253, and 0259. | C. Claver |
|  | 10/15/2012 | * LCR-88; changes OSS-REQ-0267 (page 95), the system pixel noise from 10e- to 1.7e- per pixel visit. * LCR-103; Establishes new requirements for crosstalk amplitudes and correction OSS-REQ-0327-0330, 0346-0349 (pg 91-94) * LCR-86; Complete refactoring of photometric requirements (pg 97-102, 104) * LCR-84; Updates filling in TBDs in level 1 (pg 46-48) and level 2 (pg50-54) data quality metrics * LCR-113; Updates to EMI/Rfi requirements (pg 32) | C. Claver |
| 3 | 2/14/2013 | LCR-85; Redefinition of the seismic design criteria (pg 3, 9-10, 33) | George Angeli |
| 4 | 10/8/2013 | Incorporates all changes approved via LCRs 133, 145, 146, 148, and 153 and all amendments made to those LCRs by the CCB during the meetings held 10/2/2013 and 10/8/2013 | Brian Selvy |
| 4.1 | 2/12/2014 | Incorporates changes approved in LCR-166 regarding changing the reference to Document-8123 to LSE-180 in the Discussion of OSS-REQ-0194.  Incorporates all changes approved in LCR-168 regarding barometric pressures in OSS-REQ-0010. | B. Selvy |
| 5.0 | 1/27/2015 | Incorporates changes approved in the following LCRs – 131: Change Camera Interfaces to DM and TCS to 18-bits; 141: SRD text refinement for photometry; 176: Revised OSS Timing Requirements; 182: Exposure time in LSR and OSS; 183: Revised Filter Definitions; 188: OSS Omnibus Change Request; 189: Camera Crosstalk Requirements Update; 195: Addition of optics second surface clear aperture; 199: Add Collimated Beam Projector to Project Baseline; 253: SRD Spatial Variation Requirements Flowdown to LSR, OSS & Camera | B. Selvy & C. Claver |
| 5.1 | 4/10/2015 | Fixed several typos. Moved several misplaced tables (Constraint Blocks in the SysML model) to their proper locations. | B. Selvy |
| 6 | 2/1/2016 | Incorporates LCRs 378 (Consistent use of the LSST image quality metric), 480 (Define LSST Beam for Lens BBAR Coating and Filters), and 490 (Updated Filter Ripple Specification). | B. Selvy |
| 7 | 8/4/2016 | Implementation of  LCR-359: corrects the flow down from m5 limiting magnitude to system hardware integrals and makes subsystem allocations for throughput.  LCR-581: removal of OSS-REQ-0070 and modification to OSS-REQ-0068 deleting "Atmospheric Turbulence Structure"  LCR-582: add non-sidereal tracking to section 3.6.3.7  LCR-584: add two requirements under section 2.1 Survey Scheduling and Management regarding to provide flow down logic for advanced publication of the expected scheduler  LCR-646: OSS-REQ-0209 and OSS-REQ-0207 changed to reflect move of the filter first surface apex in the z-direction away from the focal plane by 3 mm | C. Claver, Patrick Ingraham, S. Thomas, Pat Hascall (LCRs), B. Selvy (SysML), Robert McKercher (DocuShare) |
|  | 9/1/2016 | Removed two requirements that should have been removed as part of release 7. | Kathryn Wesson |
| 8 | 1/4/2017 | Implemented LCR-745 and LCR-746 by adding requirements for Avoidance Regions and Targets of Opportunity to complete flow down of requirements to the Scheduler Specification. | Francisco Delgado (LCRs), K. Wesson (SysML), R. McKercher (DocuShare) |
|  | 2/10/2017 | Added Missing Beam Projector Coordinate Relationships Requirement that should have been included in the LCR-581 implementation (release 7). | K. Wesson |

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