REFLECTIVE LUTS V5.0.48.23 (Terra) / V5.0.43.21 (Aqua)

LUT NAME	DESCRIPTION	DIMENSIONS					Total Number of Elements	Terra (T) or Aqua (A) Only	TIME DEPENDENT LUTS ONLY		
									# of Table Pieces		
		B	D	S	M	Other			TERRA V5.0.48.23	AQUA V5.0.43.21	Type of Time Dependent LUT
B26_B5_Corr_Switch	Flag to turn on (1) or off (0) the Band 26 correction	1	1	1	1	1	1			1	Step Function LUT
B26_B5_Corr	Correction coefficients for the Band 26 correction	1	10	1	1	1	10		3	1	Step Function LUT
B26_B5_Frame_Offset	Frame offset to use for the Band 26 correction					1	1				
DN_obc_avg_first_frame_to_use	Index of 1st frame to use when computing average OBC DN.	1	1	1	1	1	1				
DN_obc_avg_number_of_frames_to_use	Number of frames to use to compute average OBC DN.	1	1	1	1	1	1				
dn_sat_ev	Value of EV pixel dn to treat as saturated					1340*	1340*		11	8	Step Function LUT
dn_star_Max	Maximum dn** value for scaling to the product scaled integer	22	1	1	1	1	22				
dn_star_Min	Minimum dn** value for scaling to the product scaled integer	22	1	1	1	1	22				
E_sun_over_pi	RSR-weighted solar irradiance/pi for RSB detectors	1	330	1	1	1	330				
K_FPA	Focal Plane Array Temperature Correction Factor					1340*	1340*				
K_inst	Instrument Temperature Correction Factor					1340*	1340*		3	1	Step Function LUT
m0	Reflectance Calibration offset					1340*	1340*				
m1	Reflectance Calibration linear terms					1340*	1340*		268	224	Piecewise Linear LUT
RSB_NEdL	RSB Noise equivalent delta radiances					1340*	1340*		3	1	Step Function LUT
RSB_specified_uncertainty	Factor used in computing uncertainty index	22	1	1	1	1	22				
RSB_SV_DN_moon_include_frames	Number of frames after sorting if moon in SVP	1	1	1	1	1	1				
RSB_UI_scaling_factor	Factor used in computing uncertainty index	22	1	1	1	1	22				
RVS_RefSB	Quadratic coefficients for calculating the EV RVS for RSB	22	40	1	2	3	5280		169	157	Piecewise Linear LUT
Serial Number of Reflective LUT	Version number of reflective calibration LUTs	1	1	1	1	1	1				
Sigma_K_inst	Uncertainty in the instrument temperature correction factor					1340*	1340*		3	1	Step Function LUT
Sigma_m1	Uncertainty in m1					1340*	1340*		268	224	Piecewise Linear LUT
Sigma_PV_Resid_Elec	Uncertainty related to electrical cross-talk	22	40	4	1	1	3520				
Sigma_R_Star_Lin_Resid_Ucoeff	Uncertainty related to deviations from linear behavior in R*	22	40	4	2	5	35200		3	1	Step Function LUT
Sigma_RSB_ADC	Uncertainty in the RSB ADCs	22	40	1	1	1	880				
Sigma_RVS_RSB	Uncertainty in RVS at nadir frame	22	1	1	2	1	44				
Sigma_T_inst	Uncertainty in the instrument temperature	1	1	1	1	1	1				
SWIR_OOB_correction_switch	Flag which turns on (1) or off (0) SWIR OOB leak correction.	1	1	1	1	1	1		6	1	Step Function LUT
SWIR_OOB_sending_band	Number of the "sending band" for the SWIR OOB leak correction	1	1	1	1	1	1			1	
SWIR_OOB_sending_detector	Numbers of the "sending detector" for the SWIR OOB leak	1	10	1	1	1	10		1	1	Step Function LUT
T_FPA_ref	Focal Plane temperature reference	1	1	1	1	4	4				
T_inst_ref	Instrument temperature reference	1	1	1	1	1	1		3	1	Step Function LUT
X_OOB_0	Coefficients of quadratic SWIR band correction formula	4	20	2	2	1	320				
X_OOB_1	Coefficients of quadratic SWIR band correction formula	4	20	2	2	1	320		6	1	Step Function LUT
X_OOB_2	Coefficients of quadratic SWIR band correction formula	4	20	2	2	1	320				

* 1340 is the total of the products of the Bands, detectors, number of samples, and number of mirror sides for the 250m Bands, the 500m Bands, and the 1KM RSBs. LUTs with this dimension were dimensioned as 22 x 40 x 4 x 2 (B, D, S, M respectively) in LUT HDF files created for L1B Versions 3.1.0 and lower.

QA LUTS V5.0.48.23 (Terra) / V5.0.43.21 (Aqua)

LUT NAME	DESCRIPTION	DIMENSIONS					Total Number of Elements	TIME DEPENDENT LUTS ONLY		
								# of Table Pieces		
		B	D	S	M	Other		TERRA V5.0.48.23	V5.0.43.21	Type of Time Dependent LUT
a1	Pre-launch averages of MODIS linear response term for each emissive detector.	16	10	1	1	1	160			
ALGORITHMPACKAGEACCEPTANCEDA	Algorithm package date; written to ECS archive metadata.	1	1	1	1	1	1			
ALGORITHMPACKAGEMATURITYCODE	Algorithm package maturity code; written to ECS archive metadata.	1	1	1	1	1	1			
ASSOCIATEDPLATFORMSHORTNAME	Platform (e.g., TERRA or AQUA).	1	1	1	1	1	1			
BB Average Temperature Variance	Pre-launch variance of the average BB temperature.	1	1	1	1	1	1			
Cavity Temperature Variance	Pre-launch variance of the cavity temperature.	1	1	1	1	1	1			
Control options	Miscellaneous code switches	1	1	1	1	2	2			
Detector Quality Flag Values	Integer array identifying noisy, dead and anomalous detectors.	1	490	1	1	8	3920	44	22	Step Function LUT
Instrument Temperature Variance	Pre-launch variance of the instrument temperature.	1	1	1	1	1	1			
LWIR FPA Temperature Variance	Pre-launch variance of the LWIR FPA temperature.	1	1	1	1	1	1			
Mirror Average Temperature Variance	Pre-launch variance of the average mirror side temperature.	1	1	1	1	1	1			
MirrorSide 1 Temperature Variance	Pre-launch variance of the mirror side 1 temperature.	1	1	1	1	1	1			
MirrorSide 2 Temperature Variance	Pre-launch variance of the mirror side 2 temperature.	1	1	1	1	1	1			
mission phase	Mission phase.	1	1	1	1	1	1			
Moon Offset Limits	Defines the limits of the "Keep-out" box relative to center of SVP. (This is not strictly a QA LUT because it is used in	38	1	1	1	4	152			
MWIR FPA Temperature Variance	Pre-launch variance of the MWIR FPA temperature.	1	1	1	1	1	1			
NEdL	Pre-launch noise equivalent difference in radiance for each emissive detector.	16	10	1	1	1	160			
NIR FPA base variance	Pre-launch variance of the NIR FPA temperature	1	1	1	1	1	1			
QA serial number	Version of the science content of the QA LUTs	1	1	1	1	21	21			
Spacecraft_Roll_Threshold_Angle	Upper limit of the absolute deviation from nominal allowed in the spacecraft roll angle	1	1	1	1	1	1			
Spacecraft_Pitch_Threshold_Angle	Upper limit of the absolute deviation from nominal allowed in the spacecraft pitch angle	1	1	1	1	1	1			
Spacecraft_Yaw_Threshold_Angle	Upper limit of the absolute deviation from nominal allowed in the spacecraft yaw angle	1	1	1	1	1	1			
T_BB_Variance	Pre-launch variance of each of the 12 BB temperatures.	1	1	1	1	12	12			
visual FPA base variance	Pre-launch variance of the VIS FPA temperature	1	1	1	1	1	1			

EMISSIVE LUTS V5.0.48.23 (Terra) / V5.0.43.21 (Aqua)

LUT NAME	DESCRIPTION	DIMENSIONS					Total Number of Elements	Terra (T) or Aqua (A) Only	TIME DEPENDENT LUTS ONLY		
									# of Table Pieces		
		B	D	S	M	Other			TERRA V5.0.48.23	AQUA V5.0.43.21	Type of Time Dependent LUT
A0	Quadratic coefficients for calculating a0	16	10	1	2	3	960		25	5	Step Function LUT
A2	Quadratic coefficients for calculating a2.	16	10	1	2	3	960		25	5	Step Function LUT
Band_21_b1	The value of b1 for each Band 21 detector.	1	20	1	1	1	20		25	12	Step Function LUT
Band_21_Uncert_Lsat	Part of extra uncertainty term for Band 21.	1	1	1	1	1	1				
BB_DN_first_frame_to_use	Index of 1st frame for computing BB DN averages	1	1	1	1	1	1				
BB_DN_number_of_frames_to_use	Number of frames for computing BB DN averages	1	1	1	1	1	1				
BB_T_sat_aqua	Saturation temperature for bands 33, 35, and 36	3	1	1	1	1	3	A			
bb_t_sat_default_b1_baseline_aqua	Default b1 baseline	3	10	1	2	1	60	A		20	Step Function LUT
bb_t_sat_default_b1_c1_aqua	b1 vs T_Lwir rate	3	10	1	2	1	60	A		17	Step Function LUT
bb_t_sat_default_b1_Tlwir_baseline_aqua	T_lwir baseline	1	1	1	1	1	1	A		1	Step Function LUT
BB_T_sat_switch_aqua	Flag to switch to default b1 for bands 33, 35, 36 when BB temperature is above saturation temperature.	1	1	1	1	1	1	A			
BB_Weight	Weight factor used for computing average BB temperature.	1	1	1	1	12	12				
delta_T_bb_beta	The "b" term in the equation for calculating DT_bb.	16	10	1	1	1	160				
delta_T_bb_delta	The "D" term in the equation for calculating DT_bb.	16	10	1	1	1	160				
epsilon_bb	Black-body emissivity.	16	10	1	1	1	160				
epsilon_cav	Effective cavity emissivity.	16	10	1	1	1	160				
L_Max	Top end of radiance dynamic range	16	1	1	1	1	16				
L_Min	Bottom end of radiance dynamic range	16	1	1	1	1	16				
MCST_Version	4-digit ALGORITHMPACKAGEVERSION (e.g. "4.0.5.2_Terra")	1	1	1	1	1	1				
num_overlap_scans_b1	Number of scans in leading and trailing granules for cross-granule averaging of b1	1	1	1	1	1	1				
NWL	Number of values in RSR distribution.	16	10	1	1	1	160				
PC_XT	PC bands cross-talk correction parameters.	5	10	1	1	4	200				
PCX_correction_switch	Switch (0 = OFF, 1 = ON) for the Xtalk correction	1	1	1	1	1	1				
PGE_Version	3-digit PGE version number (e.g. "4.0.5")	1	1	1	1	1	1				
RSR*	Relative spectral responses	16 16	10 10	1 1	1 1	49 66	7840 10560	T A			
RVS_BB_SV_Frame_No	Frame number for calculating the BB and SV RVS	1	1	1	1	2	2				
RVS_TEB	Quadratic coefficients for calculating EV RVS for TEBs	16	10	1	2	3	960		3	1	Piecewise Linear LUT
Serial Number of Emissive LUT	Version number of emissive calibration LUTs	1	1	1	1	1	1				
Sigma_TEB_ADC	ADC uncertainty	16	10	1	1	1	160				
Sigma_TEB_PV_resid_elec	PV bands residual electronic cross-talk uncertainty	16	10	1	1	1	160				
SV_DN_first_frame_to_use	Index of 1st frame for computing SV DN averages	1	1	1	1	1	1				
SV_DN_moon_include_frames	Number of frames after sorting if Moon in SVP	1	1	1	1	1	1				
SV_DN_number_of_frames_to_use	Index of 1st frame for computing SV DN averages	1	1	1	1	1	1				
T_cav_default	Default value of cavity temperature in K	1	1	1	1	1	1				
T_cav_function_flag	Identifies suitable cavity temperature thermistors.	1	1	1	1	4	4				
T_ins_default	Default value of instrument temperature in K	1	1	1	1	4	4				
T_ins_function_flag	Identifies suitable instrument temperature thermistors.	1	1	1	1	4	4				
T_ins_offset	Instrument temperature offset in K.	1	1	1	1	4	4				
T_mir_default	Default value of mirror temperature in K	1	1	1	1	1	1				
T_mir_function_flag	Identifies suitable mirror temperature thermistors.	1	1	1	1	2	2				
TEB_specified_uncertainty	Factor used in computing uncertainty index	16	1	1	1	1	16				
TEB_UI_scaling_factor	Factor used in computing uncertainty index	16	1	1	1	1	16				
Ucoeff	Coefficients of polynomial fit of uncertainty weight vs.	16	10	1	1	80	12800		3		Step Function LUT
Ucoeff_Calibr_resid	Residual uncertainty to the calibration polynomial fit.	16	10	1	1	5	800				
WAVELENGTH*	Wavelengths at points of RSRs	16 16	10 10	1 1	1 1	49 66	7840 10560	T A			

* Note that Terra and Aqua have differing numbers of allowed wavelengths for these tables.