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**Updating Himawari-8 AHI Albedo Conversion LUTs to Reflect New Calibration Coefficients**

The current LUTs posted at CEReS, Chiba University (count2tbb\_v101.tgz, <ftp://hmwr829gr.cr.chiba-u.ac.jp/gridded/FD/support/>) are based on the original calibration coefficients. Due to degradation, JMA’s Meteorological Satellite Center updates AHI calibration coefficients annually. New LUTs were created to reflect these new calibration coefficients. Described below are the procedures used to obtain the new LUTs.

CEReS LUTs convert DN to albedo, *α*, or , where *L* is the at-sensor radiance and *E*0 is the exo-atmospheric solar irradiance. The conversion equation is of the form

[1]

[2]

where *ai* and *bi* are the calibration coefficients for the year *i*. Since *E*0 values were not provided, they were obtained by first computing the slope for the year 2015 (*A*2015) and then solving it for *E*0

Using these *E*0 and equation 1, new LUTs were generated for every band for every year.