

input_catalog

| name | type | primary_key | autoincrement | comment |
|---------------------------|----------|-------------|---------------|--|
| input_catalog_id | INTEGER | True | False | Unique identifier for input catalogs |
| input_catalog_name | VARCHAR | False | False | Name of the input catalog (e.g., Gaia DR2, HSC-SSP PDR3, etc.) |
| input_catalog_description | VARCHAR | False | False | Description of the input catalog |
| created_at | DATETIME | False | False | |
| updated_at | DATETIME | False | False | |

proposal_category

| name | type | primary_key | autoincrement | comment |
|-------------------------------|----------|-------------|---------------|---|
| proposal_category_id | INTEGER | True | False | Unique identifier of proposal category |
| proposal_category_name | VARCHAR | False | False | Proposal category name (e.g., Openuse, Keck, Gemini, and UH) |
| proposal_category_description | VARCHAR | False | False | Proposal category description (e.g., Openuse, Time exchange, etc. |
| created_at | DATETIME | False | False | Creation time |
| updated_at | DATETIME | False | False | Update time |

target_type

| name | type | primary_key | autoincrement | comment |
|------------------|---------|-------------|---------------|------------------------------------|
| target_type_id | INTEGER | True | False | Unique identifier for target types |
| target_type_name | VARCHAR | False | False | Name for the target type. |

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|-------------------------|----------|-------|-------|--------------------------------|
| target_type_description | VARCHAR | False | False | Description of the target type |
| created_at | DATETIME | False | False | |
| updated_at | DATETIME | False | False | |

fluxstd

| name | type | primary_key | autoincrement | comment |
|------------------|---------|-------------|---------------|---|
| fluxstd_id | BIGINT | True | True | Unique identifier for each flux standard star |
| obj_id | BIGINT | False | False | Gaia EDR3 sourceid |
| ra | FLOAT | False | False | RA (ICRS, degree) |
| dec | FLOAT | False | False | Dec (ICRS, degree) |
| epoch | VARCHAR | False | False | Epoch (e.g., J2000.0, J2015.5, etc.) |
| parallax | FLOAT | False | False | Parallax (mas) |
| parallax_error | FLOAT | False | False | Standard error of parallax (mas) |
| pmra | FLOAT | False | False | Proper motion in right ascension direction (mas/yr) |
| pmra_error | FLOAT | False | False | Standard error of pmra (mas/yr) |
| pmdec | FLOAT | False | False | Proper motion in declination direction (mas/yr) |
| pmdec_error | FLOAT | False | False | Standard error of pmdec (mas/yr) |
| tract | INTEGER | False | False | same definition as HSC-SSP?; can be derived from the coordinate |
| patch | INTEGER | False | False | same definition as HSC-SSP?; can be derived from the coordinate; Note that it's defined as an integer |
| target_type_id | INTEGER | False | False | target_type_id from the target_type table (must be 3 for FLUXSTD) |
| input_catalog_id | INTEGER | False | False | input_catalog_id from the input_catalog table |
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|-------------|----------|-------|-------|---|
| psf_mag_g | FLOAT | False | False | g-band PSF magnitude (AB mag) |
| psf_mag_r | FLOAT | False | False | r-band PSF magnitude (AB mag) |
| psf_mag_i | FLOAT | False | False | i-band PSF magnitude (AB mag) |
| psf_mag_z | FLOAT | False | False | z-band PSF magnitude (AB mag) |
| psf_mag_y | FLOAT | False | False | y-band PSF magnitude (AB mag) |
| psf_mag_j | FLOAT | False | False | J band PSF magnitude (AB mag) |
| psf_flux_g | FLOAT | False | False | g-band PSF flux (nJy) |
| psf_flux_r | FLOAT | False | False | r-band PSF flux (nJy) |
| psf_flux_i | FLOAT | False | False | i-band PSF flux (nJy) |
| psf_flux_z | FLOAT | False | False | z-band PSF flux (nJy) |
| psf_flux_y | FLOAT | False | False | y-band PSF flux (nJy) |
| psf_flux_j | FLOAT | False | False | J band PSF flux (nJy) |
| prob_f_star | FLOAT | False | False | Probability of being an F-type star |
| flags_dist | BOOLEAN | False | False | Distance uncertainty flag, True if parallax_error/parallax > 0.2 |
| flags_ebv | BOOLEAN | False | False | E(B-V) uncertainty flag, True if E(B-V) uncertainty is greater than 20% |
| created_at | DATETIME | False | False | |
| updated_at | DATETIME | False | False | |

proposal

| name | type | primary_key | autoincrement | comment |
|---------------|---------|-------------|---------------|--|
| proposal_id | VARCHAR | True | False | Unique identifier for proposal (e.g, S21B-OT06?) |
| group_id | VARCHAR | False | False | Group ID in STARS (e.g., o21195?) |
| pi_first_name | VARCHAR | False | False | PI's first name |
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|----------------------|----------|-------|-------|---|
| pi_last_name | VARCHAR | False | False | PI's last name |
| pi_middle_name | VARCHAR | False | False | PI's middle name |
| rank | FLOAT | False | False | TAC score |
| grade | VARCHAR | False | False | TAC grade (A/B/C/F in the case of HSC queue) |
| allocated_time | FLOAT | False | False | Total fiberhours allocated by TAC (hour) |
| proposal_category_id | INTEGER | False | False | |
| created_at | DATETIME | False | False | Creation time [YYYY-MM-DDThh:mm:ss] (UTC or HST?) |
| updated_at | DATETIME | False | False | Update time [YYYY-MM-DDThh:mm:ss] (UTC or HST?) |

target

| name | type | primary_key | autoincrement | comment |
|------------------|---------|-------------|---------------|---|
| target_id | BIGINT | True | True | Unique identifier for each target |
| proposal_id | VARCHAR | False | False | |
| obj_id | BIGINT | False | False | Object ID as specified by the observer at Phase 2 (can be same as the input_catalog_object_id) |
| ra | FLOAT | False | False | RA (ICRS, degree) |
| dec | FLOAT | False | False | Dec (ICRS, degree) |
| epoch | VARCHAR | False | False | Epoch |
| tract | INTEGER | False | False | same definition as HSC-SSP?; can be derived from the coordinate |
| patch | INTEGER | False | False | same definition as HSC-SSP?; can be derived from the coordinate; Note that it's defined as an integer |
| target_type_id | INTEGER | False | False | |
| input_catalog_id | INTEGER | False | False | Input catalog ID from the input_catalog table |

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| fiber_mag_g | FLOAT | False | False | g-band magnitude within a fiber (AB mag) |
| fiber_mag_r | FLOAT | False | False | r-band magnitude within a fiber (AB mag) |
| fiber_mag_i | FLOAT | False | False | i-band magnitude within a fiber (AB mag) |
| fiber_mag_z | FLOAT | False | False | z-band magnitude within a fiber (AB mag) |
| fiber_mag_y | FLOAT | False | False | y-band magnitude within a fiber (AB mag) |
| fiber_mag_j | FLOAT | False | False | J band magnitude within a fiber (AB mag) |
| psf_mag_g | FLOAT | False | False | g-band PSF magnitude (AB mag) |
| psf_mag_r | FLOAT | False | False | r-band PSF magnitude (AB mag) |
| psf_mag_i | FLOAT | False | False | i-band PSF magnitude (AB mag) |
| psf_mag_z | FLOAT | False | False | z-band PSF magnitude (AB mag) |
| psf_mag_y | FLOAT | False | False | y-band PSF magnitude (AB mag) |
| psf_mag_j | FLOAT | False | False | J band PSF magnitude (AB mag) |
| psf_flux_g | FLOAT | False | False | g-band PSF flux (nJy) |
| psf_flux_r | FLOAT | False | False | r-band PSF flux (nJy) |
| psf_flux_i | FLOAT | False | False | i-band PSF flux (nJy) |
| psf_flux_z | FLOAT | False | False | z-band PSF flux (nJy) |
| psf_flux_y | FLOAT | False | False | y-band PSF flux (nJy) |
| psf_flux_j | FLOAT | False | False | J band PSF flux (nJy) |
| priority | FLOAT | False | False | Priority of the target specified by the observer within the proposal |
| effective_exptime | FLOAT | False | False | Requested effective exposure time (s) |
| is_medium_resolution | BOOLEAN | False | False | True if the medium resolution mode is |

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| | | | | requested |
| qa_relative_throughput | FLOAT | False | False | Relative throughput to the reference value requested by the observer |
| qa_relative_noise | FLOAT | False | False | Relative noise to the reference value requested by the observer |
| qa_reference_lambda | FLOAT | False | False | Reference wavelength to evaluate effective exposure time (angstrom or nm?) |
| is_cluster | BOOLEAN | False | False | True if it is a cluster of multiple targets. |
| created_at | DATETIME | False | False | |
| updated_at | DATETIME | False | False | |

cluster

| name | type | primary_key | autoincrement | comment |
|------------------|----------|-------------|---------------|---|
| cluster_id | INTEGER | True | False | Unique identifier of clusters found at duplication checking |
| target_id | INTEGER | False | False | |
| n_targets | INTEGER | False | False | Number of targets in the cluster |
| ra_cluster | FLOAT | False | False | Mean RA of targets in the cluster (ICRS, degree) |
| dec_cluster | FLOAT | False | False | Mean Dec of targets in the cluster (ICRS, degree) |
| d_ra | FLOAT | False | False | RA(target) - RA(cluster) (degree) |
| d_dec | FLOAT | False | False | Dec(target) - Dec(cluster) (degree) |
| input_catalog_id | INTEGER | False | False | Input catalog ID from the input_catalog table |
| created_at | DATETIME | False | False | UTC |
| updated_at | DATETIME | False | False | UTC |