Polarizations Table

There are a variety of polarizations that can be used in combination with each other. The ids in this table are arranged so that each bit represents one possible polarization, and the combined bits of the polarizations form the 'polarization code' used in some other tables.

Definition:

```
     Column      |       Type        | Collation | Nullable | Default
-----------------+-------------------+-----------+----------+---------
 polarization_id | integer           |           | not null |
 name            | character varying |           | not null |
 description     | character varying |           | not null |
Indexes:
    "polarization_id" PRIMARY KEY, btree (polarization_id)
Referenced by:
    TABLE "data_descriptions" CONSTRAINT "polarizations_data_descriptions_fk" FOREIGN KEY (polarization_id)
REFERENCES polarizations(polarization_id)
    TABLE "images" CONSTRAINT "polarizations_images_fk" FOREIGN KEY (polarization_id) REFERENCES polarizations
(polarization_id)
```

Columns:

polarization_id: this is where the bitwise trickiness happens. the base polarizations are:

```
 polarization_id |      name      |      description
-----------------+----------------+------------------------
               0 | NONE           | No polarization listed
               1 | YY             | YY
               2 | YX             | YX
               4 | XY             | XY
               8 | XX             | XX
              16 | LL             | LL
              32 | LR             | LR
              64 | RL             | RL
             128 | RR             | RR
             256 | V              | V
             512 | U              | U
            1024 | Q              | Q
            2048 | I              | I
```

Some of the more common combinations (eg. id 3840 for IQUV) are also listed in the table.

name: the name of the polarization.

description: a brief human-readable description of the polarization.   In practice, these are identical to the names.