A

M1 = 85.2 ± 6.4 μm   M2 = 155.5 ± 6.6 μm

M3 = 41.1 ± 2.7 μm

B

SO

SFGS

SGC

SAC

Dendrite
Glut+ Axon
GABA+ Axon

PVPN   bsPVIN   nsPVIN

C

	1. Arbor Depth	2. Arbor Width	3. Arbor Thickness
bsPVIN dendrite (n = 11)	13.02 ± 1.49	22.4 ± 1.5	5.49 ± 0.39
bsPVIN axon (n = 11)	39.24 ± 2.34	41.29 ± 2.14	6.81 ± 0.66
nsPVIN dendrite (n = 6)	26.53 ± 2.58	30.48 ± 1.66	28.87 ± 1.58
PVPN dendrite	29.23 ± 1.74	22.01 ± 1.7	25.55 ± 1.14

FIGURE 10 | Summary of cell types labeled by the *dg4ii* plasmid. (A) Schematic of tectal anatomy and the relative sizes of the neuropil and primary retinorecipient laminae in the 5-dpf larvae. Measurements: (1) the maximum length of the tectal neuropil in the plane of the synaptic layers. (2) The maximum thickness of the neuropil in the axis perpendicular to the synaptic layers. (3) The maximum thickness of the primary retinorecipient layers (SO + SFGS). Note that these are maximum measurements at the center of the neuropil and the neuropil thickness is reduced at the edges. **(B)** Schematic traces of the cell types labeled by the *dg4ii* expression system and relative position of tectal neurite arbors. Note that nsPVINs an PVPNs primarily arborize in laminae that are primarily non-retinorecipient, whereas bsPVIN dendrites specifically target the SFGS layer. Dendrites are color coded in blue, glutamatergic axons in green (including retinal afferents indicated by green shading), and GABAergic axons in red. **(C)** Summary of morphological features that distinguish the three cell types identified. Arbor depth indicates the most superficial extent of the arbor as measured from the dorsal surface of the SO. Arbor width is the maximum measured distance in the plane of the synaptic layers. Thickness is the maximum length measured in the axis perpendicular to the synaptic layers. Data expressed as mean ± SD.