

Source	EW W $\gamma\gamma$	QCD W $\gamma\gamma$	VV	t $\bar{t}\gamma$	QCD Z γ	Single t	MisID photon	MisID lepton	Double misID	e $\rightarrow \gamma$
JES	0.9–6.9	11–28	6.4–38	3.7–16	12–78	3.3–18	—	—	—	11–28
JER	0.7–2.2	0.7–4.1	6.9–21	1.3–4.9	6.5–15	2.9–7.1	—	—	—	0.7–4.1
Integrated luminosity	2.5	2.5	2.5	2.5	2.5	2.5	—	—	—	2.5
MisID photon	—	—	—	—	—	—	12–22	—	12–22	—
MisID lepton	—	—	—	—	—	—	—	30	30	—
μ_R/μ_F scales	1.5–11	6.1–20	—	—	—	—	—	—	—	—
PDF	3.2–5.6	1–2	—	—	—	—	—	—	—	—
Interference	1.8–2.8	—	—	—	—	—	—	—	—	—
Cross section for t $\bar{t}\gamma$	—	—	—	10	—	—	—	—	—	—
Cross section for VV	—	—	10	—	—	—	—	—	—	—
Modeling of pileup	0–0.6	0.3–1.4	4.8–13	2.6–3.9	6.2–19	1.0–3.9	—	—	—	0.3–1.4
Statistical uncertainty	7–11	6–36	45–100	13–56	16–100	17–55	7–36	43–72	30–100	54–100
L1 mistiming	1.7–2.4	0.8–1.6	0.5–1.6	1.4–2.5	0.6–3.6	1.0–2.1	—	—	—	1.1–2.8
Muon ID/Iso	0.3	0.3	0.3	0.3	0.3	0.3	—	—	—	0.3
Muon trigger	0.3	0.2	0.2	0.2	0.1	0.1	—	—	—	0.2
Electron reconstruction	0.5	0.6	0.5	0.6	0.6	0.5	—	—	—	0.5
Electron ID/Iso	1.3	1.3	1.3	1.3	1.3	1.3	—	—	—	1.3
Electron trigger	2.5	2.5	2.5	2.5	2.5	2.5	—	—	—	2.5
Photon ID	1.2	1.2	1.1	1.2	1.3	1.2	—	—	—	1.2