

1 Appendix

The tables in this appendix show the values used for the corrections in equations (5) and (6). Here, we use the notation $f_4 = Y_2/Y_1$, $f_3 = Y_3/Y_2$, and $f_5 = C \cdot Y_3/Y_2$, with $C = 1.8 \pm 0.4$. The triggers are T1: proportional to the total energy deposited in the electromagnetic calorimeter, T2: coincidence between gas Cherenkov and calorimeter energy deposited, T6: same as T1 but with higher discriminator threshold. The data from the three triggers were corrected for background and combined. Here, Y_1 , Y_2 , Y_3 are yields (events normalized by accumulated charge and detector livetime). The unit is events/ μC .

Bin no.	T1	T1 stat. rel.	T1 sys. rel.	T2	T2 stat. rel.	T2 sys. rel.	T6	T6 stat. rel.	T6 sys. rel.
1	0.0071	0.069	1	0.0034	0.14	1	0.0038	0.031	1
2	0.019	0.031	0.6	0.008	0.053	0.6	0.0076	0.016	0.6
3	0.044	0.013	0.35	0.014	0.027	0.35	0.013	0.0082	0.35
4	0.084	0.008	0.35	0.016	0.021	0.35	0.016	0.0062	0.35
5	0.11	0.006	0.35	0.020	0.018	0.35	0.023	0.0047	0.35

Table 1: Tabulated f_1 and its errors.

Bin no.	T1	T1 stat. rel.	T1 sys. rel.	T2	T2 stat. rel.	T2 sys. rel.	T6	T6 stat. rel.	T6 sys. rel.
1	3.90	0.0208	0	2.74	0.00894	0	3.76	0.00698	0
2	6.13	0.0166	0	4.31	0.00712	0	5.89	0.00557	0
3	12.8	0.0115	0	8.73	0.00500	0	12.0	0.00389	0
4	16.3	0.0102	0	9.65	0.00475	0	13.3	0.00370	0
5	32.5	0.00721	0	11.2	0.00440	0	15.7	0.00340	0

Table 2: Tabulated Y_1 and its errors.

Bin no.	T1	T1 stat. rel.	T1 sys. rel.	T2	T2 stat. rel.	T2 sys. rel.	T6	T6 stat. rel.	T6 sys. rel.
1	0.0310	1.00	0.15	0.065	0.123	0.15	0.0645	0.151	0.15
2	0.232	0.378	0.15	0.191	0.0718	0.15	0.259	0.0756	0.15
3	2.29	0.119	0.15	1.00	0.0313	0.15	1.43	0.0321	0.15
4	5.64	0.0761	0.15	2.32	0.0206	0.15	3.37	0.0209	0.15
5	20.9	0.0394	0.15	5.82	0.0130	0.15	8.24	0.0134	0.15

Table 3: Tabulated Y_2 and its errors.

Bin no.	T1	T1 stat. rel.	T1 sys. rel.	T2	T2 stat. rel.	T2 sys. rel.	T6	T6 stat. rel.	T6 sys. rel.
1	0.0310	0.185	1	0.0154	0.0734	1	0.0239	0.0718	1
2	0.173	0.125	0.6	0.0569	0.0394	0.6	0.0736	0.0390	0.6
3	0.945	0.0506	0.35	0.224	0.0191	0.35	0.291	0.0185	0.35
4	2.42	0.0298	0.35	0.312	0.0143	0.35	0.403	0.0141	0.35
5	7.03	0.0166	0.35	0.530	0.00937	0.35	0.905	0.00858	0.35

Table 4: Tabulated Y_3 and its errors.

Setup	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
T1 electron	0.0132	0.00930	-0.000216	0.0163	-0.00392
T1 electron abs. err.	0.0104	0.00837	0.00578	0.00515	0.00369
T2 electron	-0.00429	0.00161	0.00723	0.0000208	-0.00200
T2 electron abs. err.	0.00778	0.00619	0.00434	0.00412	0.00381
T6 electron	0.000968	0.00524	0.00309	-0.00343	-0.00574
T6 electron abs. err.	0.00259	0.00211	0.00149	0.00145	0.00141
T1 positron	-0.0198	-0.0742	-0.0449	-0.0160	-0.0281
T1 positron abs. err.	0.0841	0.0405	0.0171	0.0110	0.0064
T2 positron	0.00812	0.0239	-0.0372	-0.0103	-0.0218
T2 positron abs. err.	0.0674	0.0343	0.0154	0.0103	0.00709
T6 positron	0.0329	-0.00966	-0.0229	-0.0217	-0.0188
T6 positron abs. err.	0.0228	0.01182	0.00537	0.00364	0.00258
T1 π^-	-0.0402	-0.0204	-0.00313	0.0251	0.0201
T1 π^- abs. err.	0.01688	0.00921	0.00427	0.00293	0.00189
T2 π^-	-0.0495	-0.0479	0.0138	0.0394	0.0237
T2 π^- abs. err.	0.0305	0.0175	0.00886	0.00672	0.00490
T6 π^-	-0.0735	-0.0391	-0.00061	0.0255	0.0185
T6 π^- abs. err.	0.00979	0.00565	0.00287	0.00216	0.00157
T1 π^+	-0.00313	0.0148	-0.00276	-0.0185	-0.00876
T1 π^+ abs. err.	0.0364	0.0165	0.00709	0.00480	0.00341
T2 π^+	0.0576	-0.00439	0.00625	-0.0020	-0.0181
T2 π^+ abs. err.	0.0401	0.0218	0.0123	0.0125	0.0150
T6 π^+	0.00939	-0.00534	-0.0156	-0.0189	-0.0165
T6 π^+ abs. err.	0.0131	0.00716	0.0042	0.00428	0.00566

Table 5: Raw asymmetries for each type of particle, corrected for beam charge and livetime.