

Geometry Factor (cm<sup>2</sup>sr unit) of all combination of L1 vs. L2.

12/20/2006 AJD

	L1A0			L1A1			L1A2			L1A3			L1A4		
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
L2A0	0.0328	0.0164	0.0275	0.0244	0.0114	0.0158	0.0157	0.0074	0.0128	0.0096	0.0044	0.0081	0.0056	0.0025	0.0044
L2A1	0.0267	0.0136	0.0264	0.0240	0.0116	0.0214	0.0173	0.0082	0.0150	0.0113	0.0053	0.0096	0.0067	0.0031	0.0055
L2A2	0.0212	0.0111	0.0224	0.0225	0.0111	0.0216	0.0186	0.0090	0.0168	0.0131	0.0062	0.0115	0.0081	0.0038	0.0068
L2A3	0.0168	0.0090	0.0185	0.0206	0.0103	0.0207	0.0193	0.0095	0.0183	0.0152	0.0073	0.0137	0.0100	0.0046	0.0084
L2A4	0.0133	0.0072	0.0151	0.0184	0.0095	0.0191	0.0196	0.0098	0.0193	0.0172	0.0083	0.0159	0.0124	0.0058	0.0106
L2A5	0.0106	0.0058	0.0124	0.0159	0.0083	0.0172	0.0193	0.0098	0.0196	0.0191	0.0095	0.0184	0.0151	0.0072	0.0133
L2A6	0.0084	0.0046	0.0100	0.0137	0.0073	0.0152	0.0183	0.0095	0.0193	0.0207	0.0103	0.0206	0.0185	0.0090	0.0168
L2A7	0.0068	0.0038	0.0081	0.0115	0.0062	0.0131	0.0168	0.0090	0.0186	0.0216	0.0111	0.0225	0.0224	0.0111	0.0212
L2A8	0.0055	0.0031	0.0067	0.0096	0.0053	0.0113	0.0150	0.0082	0.0173	0.0214	0.0116	0.0240	0.0264	0.0136	0.0267
L2A9	0.0044	0.0025	0.0056	0.0081	0.0044	0.0096	0.0128	0.0074	0.0157	0.0158	0.0114	0.0244	0.0275	0.0164	0.0328
Totals	0.1464	0.0770	0.1527	0.1687	0.0854	0.1650	0.1728	0.0876	0.1728	0.1650	0.0854	0.1687	0.1527	0.0770	0.1464

Dynamic Threshold State Geometry Factors (A-side and B-side combined)

State			
0	1	2	3
4.0473	0.8249	0.1752	0.0392

These factors do NOT take into account the detector combinations that are excluded in LET onboard processing for all range

State			
0	1	2	3
3.9972	0.8148	0.1752	0.0392

These factors DO take into account the detector combinations that are excluded in LET onboard processing for all Ranges

- Notes:
- State 0: High-gain response fully enabled
  - State 1: High-gain response of all 20 L1 outer segments disabled
  - State 2: State 1 + disable high-gain response of 8 of 10 L1 center bulls-eyes (leaving only L1A2b and L1B2b enabled)
  - State 3: State 1 + State 2 + disable high-gain response of all L2s except L2A4, L2A5, L2B4, L2B5
- Also disable L3 outer regions
- These geometry factors apply only to H and He. Heavy ions trigger the low-gain PHAs, so they always have full geom factor.

Note: Geometry Factors for Sectorized data are on Page 2

Geometry Factor (cm<sup>2</sup>sr unit) of all combination of L1 vs. L2.

	L1A0			L1A1			L1A2			L1A3			L1A4		
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
L2A0	0.0328	0.0164	0.0275	0.0244	0.0114	0.0158	0.0157	0.0074	0.0128	0.0096	0.0044	0.0081	0.0000	0.0000	0.0000
L2A1	0.0267	0.0136	0.0264	0.0240	0.0116	0.0214	0.0173	0.0082	0.0150	0.0113	0.0053	0.0096	0.0067	0.0031	0.0055
L2A2	0.0212	0.0111	0.0224	0.0225	0.0111	0.0216	0.0186	0.0090	0.0168	0.0131	0.0062	0.0115	0.0081	0.0038	0.0068
L2A3	0.0168	0.0090	0.0185	0.0206	0.0103	0.0207	0.0193	0.0095	0.0183	0.0152	0.0073	0.0137	0.0100	0.0046	0.0084
L2A4	0.0133	0.0072	0.0151	0.0184	0.0095	0.0191	0.0196	0.0098	0.0193	0.0172	0.0083	0.0159	0.0124	0.0058	0.0106
L2A5	0.0106	0.0058	0.0124	0.0159	0.0083	0.0172	0.0193	0.0098	0.0196	0.0191	0.0095	0.0184	0.0151	0.0072	0.0133
L2A6	0.0084	0.0046	0.0100	0.0137	0.0073	0.0152	0.0183	0.0095	0.0193	0.0207	0.0103	0.0206	0.0185	0.0090	0.0168
L2A7	0.0068	0.0038	0.0081	0.0115	0.0062	0.0131	0.0168	0.0090	0.0186	0.0216	0.0111	0.0225	0.0224	0.0111	0.0212
L2A8	0.0055	0.0031	0.0067	0.0096	0.0053	0.0113	0.0150	0.0082	0.0173	0.0214	0.0116	0.0240	0.0264	0.0136	0.0267
L2A9	0.0000	0.0000	0.0000	0.0081	0.0044	0.0096	0.0128	0.0074	0.0157	0.0158	0.0114	0.0244	0.0275	0.0164	0.0328
Totals	0.1420	0.0745	0.1471	0.1687	0.0854	0.1650	0.1728	0.0876	0.1728	0.1650	0.0854	0.1687	0.1471	0.0745	0.1420

These factors DO take into account the detector combinations that are excluded in LET onboard processing for all Ranges  
 For B-side events, add 8 to the A-side sector numbers to get the corresponding B-side sector number assigned by the onboard software.

Sector Geom Factors for Dynamic Threshold State 0

Sector #							
0	1	2	3	4	5	6	7
0.2167	0.2627	0.2435	0.2765	0.2765	0.2435	0.2627	0.2167

Sector Geom Factors for Dynamic Threshold State 1: High-gain response of all 20 L1 outer segments disabled

Sector #							
0	1	2	3	4	5	6	7
0.0432	0.0539	0.0533	0.0534	0.0534	0.0533	0.0539	0.0432

Sector Geom Factors for Dynamic Threshold State 2: State 2: State 1 + disable high-gain response of 8 of 10 L1 center bulls-eyes (leaving only L1A2b and L1B2b enabled)

Sector #							
0	1	2	3	4	5	6	7
0.0000	0.0074	0.0171	0.0193	0.0193	0.0171	0.0074	0.0000

Sector Geom Factors for Dynamic Threshold State 3: State 2 + disable high-gain response of all L2s except L2A4, L2A5, L2B4, L2B5. Also outside L3A and L3B segments.

Sector #							
0	1	2	3	4	5	6	7
0.0000	0.0000	0.0000	0.0098	0.0098	0.0000	0.0000	0.0000

These geometry factors apply only to H and He. Heavy ions trigger the low-gain PHAs, so they always have full geom factor (As in State 0)