- CME heights (with respect to the disk center) are measured at the fastest segment of the leading edge.
- PA= Position Angle measured from Solar North in degrees (counter-clockwise)
- Halo CMEs are indicated in the "Central PA" column. The letters ("S", "BA", "OA") in the brackets show type of halo CMEs. See examples.
- Click on date to view Java script movie of the CME.
- Click on time to see height-time measurements as a text file.
- Click on speed to view height-time plots of the CME.
- Beware of data gaps. Check for LASCO/C2 data gaps here.
- A complete description of the catalog
- Click <u>here</u> to search the entire catalog.

First Appear Date Tim	rance	Central PA [deg]	Angular Width [deg]	Linear Speed [km/s]	2nd- order Speed at final height [km/s]	2nd- order Speed at 20 Rs [km/s]	Accel [m/s ²]	Mass [gram]	Kinetic Energy [erg]	MPA [deg]	Movies, plots, & links	Remarks
2024/08/01	00:12:05	228	12	500	325	0	-154.4*1			224	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/01	01:25:56	186	61	362	422	399	2.8			183	C2 C3 PHTX DST Java Movie	
2024/08/01	02:24:06	270	54	379	323	0	-10.1*1			286	C2 C3 PHTX DST Java Movie	
2024/08/01	02:48:05	60	25	295	359	417	5.1*1			60	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/01	05:24:05	292	24	309	441	1142	53.5*1			296	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/01	06:24:05	56	26	610	693	1115	39.6*1			50	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/01	07:24:05	Halo	360	1024	977	1010	-5.3			278	C2 C3 PHTX DST Java Movie	
2024/08/01	07:48:05	117	50	212	200	0	-2.5*1			119	C2 C3 PHTX DST Java Movie	Poor Event; Only C2

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2024/08/01	11:36:05	130	123	1803	<u>1574</u>	<u>1719</u>	-49.2	 	138	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/01	21:36:05	72	165	371	407	394	1.6	 	61	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/02	01:36:29	36	63	295	301	338	1.2*1	 	35	C2 C3 PHTX DST Java Movie	Only C2
2024/08/02	04:17:39	262	54	224	142	0	-51.7 ^{*1}	 	265	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/02	05:00:07	269	203	1141	1171	1155	3.8	 	268	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/02	18:12:05	66	14	336	390	458	5.6*1	 	71	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/02	23:36:05	198	22	418	<u>561</u>	1009	41.5*1	 	198	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/03	01:48:05	249	43	173	<u>159</u>	0	-4.2 ^{*1}	 	250	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/03	06:24:05	170	32	338	434	<u>461</u>	6.9*1	 	165	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/03	10:36:05	72	13	287	<u>261</u>	<u>175</u>	-2.9*1	 	76	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/04	02:48:05	16	14	264	294	549	10.3*1	 	17	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/04	07:36:06	297	86	434	411	415	-1.5	 	298	C2 C3 PHTX DST	
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5/07/2023, 13.00		I I	1 1			I I	I I		1 1	1	II -	11
											<u>Java</u> <u>Movie</u>	
2024/08/04	09:36:07	295	32	450	543	965	34.5*1			296	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/04	11:24:05	142	44	319	344	490	6.5*1			145	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/04	11:48:05	249	22	<u>655</u>	425	<u>276</u>	-29.0*1			250	C2 C3 PHTX DST Java Movie	
2024/08/04	13:36:32	108	46	218	221	249	0.7*1			102	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/04	14:36:05	160	28	434	425	419	-0.9*1			149	C2 C3 PHTX DST Java Movie	
2024/08/04	15:27:01	102	137	701	<u>674</u>	<u>646</u>	-4.7			103	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/04	17:00:05	27	33	107	<u>159</u>	428	7.4 ^{*1}			30	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/04	18:12:05	105	71	225	237	379	4.1 ^{*1}			105	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/04	19:00:05	67	49	<u>498</u>	<u>546</u>	<u>565</u>	4.6*1			70	C2 C3 PHTX DST Java Movie	
2024/08/04	22:36:06	115	104	302	279	0	-5.3*1			102	C2 C3 PHTX DST Java Movie	
2024/08/05	00:12:05	268	22	<u>479</u>	588	1016	38.8*1			272	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/05	01:36:34	107	64	200	152	0	-17.9 ^{*1}			104	C2 C3 PHTX	Poor Event;

0/07/2025, 15:00						30110/LF	SCO CIVIE (Catalog			
										DST Java Movie	Only C2
2024/08/05	03:12:10	121	84	<u>251</u>	235	119	-2.4*1		 107	C2 C3 PHTX DST Java Movie	
2024/08/05	05:36:06	173	45	973	1101	1039	14.9*1		 164	C2 C3 PHTX DST Java Movie	
2024/08/05	05:36:06	92	209	238	<u>57</u>	0	-11.9 ^{*1}		 109	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/05	07:24:05	279	10	236	214	0	-5.8 ^{*1}		 281	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/05	08:48:05	71	21	203	<u>198</u>	99	-1.3*1		 71	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/05	11:12:05	142	74	189	<u>170</u>	0	-2.5*1		 147	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/05	13:26:28	271	27	226	<u>466</u>	2274	231.9*1		 280	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/05	13:48:06	Halo	360	1155	1154	1154	-0.2		 272	C2 C3 PHTX DST Java Movie	
2024/08/05	15:48:06	97	160	<u>502</u>	<u>369</u>	417	-9.3		 108	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/06	11:24:05	295	11	289	326	766	21.6*1		 299	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/06	15:36:05	72	66	<u>265</u>	<u>265</u>	267	0.0*1		 56	C2 C3 PHTX DST Java Movie	Poor Event; Only C2

2024/08/06	18:24:05	292	39	497	<u>518</u>	708	11.6*1	 	303	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/06	19:36:05	141	36	190	192	203	0.2*1	 	150	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/06	21:48:05	70	59	262	240	0	-7.9 ^{*1}	 	70	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/06	23:24:05	80	34	256	211	0	-13.2*1	 	77	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/07	00:12:05	282	8	376	363	81	-6.1 ^{*1}	 	286	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/07	02:12:05	Halo	360	430	409	400	-1.8*1	 	335	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/07	03:24:05	102	162	472	327	0	-24.2*1	 	129	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/07	03:36:05	288	13	499	722	1477	88.8*1	 	289	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/07	06:36:05	157	28	<u>169</u>	<u>118</u>	0	-16.1 ^{*1}	 	160	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/07	08:12:05	79	13	251	368	<u>461</u>	8.9*1	 	78	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/07	14:12:05	Halo	360	658	516	439	-18.7*1	 	199	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/07	18:36:05	85	31	176	259	656	17.5*1	 	81	C2 C3 PHTX DST	Very Poor Event; Only C2

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										<u>Java</u> <u>Movie</u>	
2024/08/07	19:12:05	Halo	360	528	<u>177</u>	0	-74.9*1		 193	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/08	04:48:05	321	63	<u>279</u>	<u>275</u>	252	-0.7*1		 318	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/08	05:12:05	Halo	360	250	252	265	0.3*1		 166	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/08	14:00:05	297	35	<u>193</u>	249	580	13.1*1		 301	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/08	19:48:05	Halo	360	<u>789</u>	<u>616</u>	503	-27.3*1		 220	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/08	23:24:05	31	36	<u>249</u>	<u>267</u>	375	3.6*1		 28	C2 C3 PHTX DST Java Movie	Only C2
2024/08/09	01:25:56	54	107	393	311	0	-10.1*1		 53	C2 C3 PHTX DST Java Movie	
2024/08/09	05:00:16	263	24	378	<u>267</u>	0	-18.3*1		 261	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/09	21:36:05	Halo	360	<u>638</u>	<u>646</u>	642	0.7		 274	C2 C3 PHTX DST Java Movie	
2024/08/10	00:12:05	331	131	378	275	0	-12.9*1		 331	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/10	03:12:10	Halo	360	<u>475</u>	415	436	-4.2*1		 7	C2 C3 PHTX DST Java Movie	
2024/08/10	12:48:05	135	20	423	633	1546	95.7*1		 136	C2 C3 PHTX	Very Poor

07/2025, 15:00						30110/LF	SCO CIVIE (Catalog			
										DST Java Movie	Event; Only C2
2024/08/11	00:12:07	13	139	303	517	434	7.3		 9	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/11	01:36:35	262	30	325	273	0	-9.8*1		 272	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/11	05:36:05	281	25	420	353	0	-21.3*1		 284	C2 C3 PHTX DST Java Movie	Only C2
2024/08/11	06:48:05	101	193	505	469	472	-2.7*1		 136	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/12	03:12:09	283	17	312	291	0	-6.7*1		 290	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/12	08:00:05	115	64	<u>509</u>	727	1138	49.8*1		 130	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/12	09:24:07	38	60	<u>569</u>	451	444	-11.1 ^{*1}		 41	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/12	11:12:05	194	16	272	377	1143	52.9*1		 192	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/12	12:12:06	190	39	707	<u>575</u>	0	-30.6*1		 192	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/12	14:00:05	253	7	987	743	0	-194.8*1		 252	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/12	15:24:05	199	49	751	462	0	-71.5 ^{*1}		 193	C2 C3 PHTX DST Java Movie	Very Poor Event

2024/08/12	16:00:05	253	13	845	874	1134	26.9*1	 	251	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/12	18:24:05	35	50	<u>179</u>	299	1048	45.2*1	 	29	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/12	18:48:05	178	98	<u>779</u>	412	370	-46.3*1	 	199	C2 C3 PHTX DST Java Movie	
2024/08/12	21:36:05	183	50	717	<u>568</u>	228	-28.0*1	 	192	C2 C3 PHTX DST Java Movie	
2024/08/13	00:12:05	193	45	<u>595</u>	490	426	-12.9*1	 	192	C2 C3 PHTX DST Java Movie	
2024/08/13	03:24:05	195	28	<u>283</u>	304	483	7.1*1	 	192	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/13	04:36:05	201	31	<u>346</u>	<u>451</u>	970	36.8*1	 	191	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/13	05:48:05	285	16	224	73	0	-78.7 ^{*1}	 	287	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/13	06:12:05	193	23	353	319	84	-5.8*1	 	189	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/13	08:48:05	274	5	<u>221</u>	<u>180</u>	0	-3.8*1	 	284	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/13	09:12:09	69	67	<u>241</u>	183	0	-10.0*1	 	93	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/13	09:24:06	206	38	316	253	0	-22.8*1	 	202	C2 C3 PHTX DST	Poor Event; Only C2
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										<u>Java</u> <u>Movie</u>	
2024/08/13	10:12:05	223	85	<u>199</u>	203	249	1.0*1		 217	C2 C3 PHTX DST Java Movie	Only C2
2024/08/13	11:00:07	221	95	<u>295</u>	348	396	4.1*1		 213	C2 C3 PHTX DST Java Movie	
2024/08/13	14:48:05	46	257	<u>504</u>	449	372	-8.4*1		 18	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/13	16:36:06	191	38	445	<u>466</u>	520	3.8*1		 188	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/13	17:24:05	289	55	163	<u>151</u>	0	-2.6*1		 297	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/13	17:36:05	42	43	<u>344</u>	<u>479</u>	645	16.2*1		 40	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/13	20:12:05	353	45	<u>505</u>	<u>574</u>	<u>599</u>	6.9*1		 354	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/13	22:36:05	229	65	351	388	<u>641</u>	13.3*1		 231	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/14	00:00:06	345	55	306	<u>364</u>	433	5.3*1		 0	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/14	03:12:09	280	23	<u>592</u>	636	781	13.1*1		 284	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/14	04:12:05	276	212	<u>546</u>	344	342	-16.5*1		 268	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/14	07:36:05	276	62	489	430	317	-8.3*1		 288	<u>C2 C3</u> <u>PHTX</u>	Poor Event

<i>70112023</i> , 13.00							OCC CIVIL V	Julialog			
										DST Java Movie	
2024/08/14	08:24:05	Halo	360	<u>570</u>	882	748	20.5*1		 264	C2 C3 PHTX DST Java Movie	
2024/08/14	16:24:05	78	47	178	<u>150</u>	0	-8.8*1		 76	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/15	10:00:05	324	129	<u>506</u>	521	519	1.2		 315	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/15	12:24:07	221	10	323	338	490	6.1*1		 219	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/15	17:36:06	233	17	363	326	0	-12.6*1		 235	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/15	19:00:05	33	31	351	309	<u>150</u>	-5.3 ^{*1}		 34	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/15	23:36:06	280	51	302	271	0	-6.0*1		 280	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/16	01:25:56	237	8	262	<u>269</u>	362	2.8*1		 240	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/16	02:00:05	109	10	328	224	0	-29.7*1		 112	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/16	05:00:06	279	30	463	443	222	-7.6 ^{*1}		 289	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/16	05:36:05	63	38	<u>174</u>	203	650	16.3*1		 61	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2

0/01/2023, 13.00							NOCO CIVIL I				
2024/08/16	06:12:05	126	58	238	243	379	3.7*1	 	130	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/16	09:48:05	272	90	289	298	305	0.7*1	 	280	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/16	13:25:55	304	83	503	495	492	-0.7*1	 	298	C2 C3 PHTX DST Java Movie	
2024/08/16	13:48:05	229	93	243	304	543	10.7*1	 	236	C2 C3 PHTX DST Java Movie	Only C2
2024/08/16	14:48:05	9	46	324	291	204	-3.6*1	 	8	C2 C3 PHTX DST Java Movie	
2024/08/16	16:12:05	252	35	427	446	466	2.2*1	 	246	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/17	06:48:05	282	70	<u>504</u>	<u>528</u>	<u>581</u>	4.7*1	 	284	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/17	08:24:05	76	28	181	185	231	0.9*1	 	78	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/17	09:24:05	356	92	<u>284</u>	422	387	5.3*1	 	359	C2 C3 PHTX DST Java Movie	
2024/08/17	11:12:05	283	29	<u>188</u>	<u>177</u>	0	-1.7*1	 	292	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/17	15:12:10	3	83	303	<u>419</u>	475	7.9	 	359	C2 C3 PHTX DST Java Movie	
2024/08/17	19:12:05	272	98	1053	992	991	-11.2*1	 	271	C2 C3 PHTX DST	

0/07/2025, 15:00						30110/LP	SCO CME	Catalog .	_		
										<u>Java</u> <u>Movie</u>	
2024/08/18	00:24:05	335	50	<u>277</u>	327	<u>670</u>	17.7*1		 339	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/18	02:00:05	57	33	<u>149</u>	211	431	8.0*1		 58	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/18	12:00:05	285	48	<u>182</u>	248	<u>499</u>	10.1*1		 294	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/18	15:16:23	228	79	417	414	395	-0.8*1		 235	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/18	19:48:05	122	102	317	337	474	5.7*1		 108	C2 C3 PHTX DST Java Movie	Only C2
2024/08/18	22:36:05	124	88	<u>154</u>	<u>136</u>	0	-3.2*1		 113	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/18	23:36:06	346	49	250	284	483	7.8*1		 342	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/19	05:12:05	162	31	183	<u>255</u>	445	7.9 ^{*1}		 160	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/19	07:36:06	92	32	<u>181</u>	<u>165</u>	0	-4.8*1		 93	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/19	09:12:09	235	46	<u>622</u>	<u>631</u>	<u>648</u>	1.9*1		 235	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/19	12:36:05	306	224	<u>690</u>	<u>559</u>	<u>461</u>	-19.9 ^{*1}		 290	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/19	14:12:05	164	36	<u>195</u>	347	1072	47.9 ^{*1}		 165	C2 C3 PHTX	Very Poor

07/2023, 13:00										DST Java Movie	Event; Only C2
2024/08/19	16:24:05	180	39	875	732	<u>761</u>	-19.7*1	 	190	C2 C3 PHTX DST Java Movie	
2024/08/19	18:00:05	280	37	361	480	800	25.8*1	 	296	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/19	21:12:09	57	92	363	370	375	0.6*1	 	70	C2 C3 PHTX DST Java Movie	
2024/08/19	22:00:05	258	197	517	221	0	-32.0*1	 	261	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/20	00:12:05	304	52	222	112	0	-22.9*1	 	311	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/20	01:36:33	23	86	187	356	305	4.2*1	 	35	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/20	02:00:06	155	91	354	<u>549</u>	469	8.0	 	154	C2 C3 PHTX DST Java Movie	
2024/08/20	06:36:05	96	48	249	247	245	-0.2*1	 	75	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/20	07:36:05	253	12	270	278	429	4.8*1	 	251	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/20	07:48:05	109	33	637	310	0	-79.7*1	 	111	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/20	11:36:06	260	184	535	385	413	-12.0*1	 	265	C2 C3 PHTX DST Java Movie	Partial Halo

2024/08/20	16:43:31	320	83	235	<u>246</u>	323	2.2*1	 	316	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/20	18:24:05	327	93	361	361	361	-0.0*1	 	312	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/20	21:24:05	171	17	435	475	622	10.0*1	 	178	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/21	01:25:54	118	12	775	<u>494</u>	0	-81.0 ^{*1}	 	122	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/21	01:25:54	147	16	416	<u>548</u>	634	15.2*1	 	140	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/21	02:12:05	310	59	<u>266</u>	318	<u>598</u>	12.8*1	 	307	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/21	03:12:10	243	30	655	668	724	4.8*1	 	253	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/21	03:24:05	289	34	375	458	994	37.3*1	 	295	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/21	05:12:05	93	72	440	<u>580</u>	683	15.9 ^{*1}	 	86	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/21	09:24:05	103	11	431	437	524	3.8*1	 	107	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/21	09:36:05	189	57	183	148	0	-10.0*1	 	190	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/21	09:48:05	286	32	220	208	0	-3.7*1	 	291	C2 C3 PHTX DST	Poor Event; Only C2

/07/2023, 13.00		II I	1 11		I I	1	I	u i	1 1	ı	II -	11 1
											<u>Java</u> <u>Movie</u>	
2024/08/21	09:48:05	3	32	347	389	470	5.7*1			8	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/21	13:36:28	13	36	<u>157</u>	<u>76</u>	0	-31.3*1			13	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/21	15:05:48	321	27	<u>189</u>	<u>176</u>	138	-0.9*1			327	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/21	19:12:05	308	81	<u>546</u>	497	0	-21.6*1			318	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/21	19:36:05	66	72	363	344	47	-6.0*1			52	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/21	23:12:11	328	34	<u>183</u>	<u>162</u>	0	-1.9 ^{*1}			332	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/22	06:00:05	64	42	<u>166</u>	118	0	-38.3*1			69	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/22	06:36:05	350	171	<u>578</u>	<u>659</u>	633	6.0			325	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/22	08:48:05	281	66	221	<u>253</u>	306	2.5*1			288	C2 C3 PHTX DST Java Movie	
2024/08/22	10:00:05	81	100	408	371	359	-2.9*1			82	C2 C3 PHTX DST Java Movie	
2024/08/22	15:37:10	Halo	360	630	529	557	-11.2*1			334	C2 C3 PHTX DST Java Movie	
2024/08/22	16:12:05	107	12	<u>699</u>	1039	2372	232.1*1			109	C2 C3 PHTX	Very Poor

07/2025, 15:00						30110/LF	SCO CIVIE	Catalog			
										DST Java Movie	Event; Only C2
2024/08/23	02:00:06	249	124	283	233	174	-3.5*1		 264	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/23	08:48:25	0	187	512	428	370	-9.1 ^{*1}		 354	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/23	10:48:05	169	21	183	139	0	-11.7*1		 169	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/23	11:36:05	348	35	376	464	471	5.8*1		 348	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/23	14:48:05	208	97	426	405	406	-1.5*1		 202	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/24	04:36:05	217	76	130	99	0	-10.1*1		 211	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/24	18:48:05	53	43	319	231	0	-9.5*1		 49	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/24	18:48:05	354	72	228	210	186	-1.1*1		 4	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/24	21:12:09	81	36	400	395	393	-0.4*1		 73	C2 C3 PHTX DST Java Movie	
2024/08/25	00:12:05	278	7	800	717	0	-69.6 ^{*1}		 280	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/25	00:24:05	272	58	343	267	0	-20.4*1		 273	C2 C3 PHTX DST Java Movie	Poor Event

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2024/08/25	04:12:05	286	44	330	467	493	9.0*1			285	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/25	05:00:05	26	131	237	185	143	-2.6*1			22	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/25	09:24:05	134	51	125	<u>85</u>	0	-7.6*1			142	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/26	10:48:06	176	148	378	887	739	24.2			170	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/28	04:12:05	81	176	1140	1757	1564	87.2			82	C2 C3 PHTX DST Java Movie	Partial Halo
2024/08/28	13:25:52	312	94	216	350	<u>294</u>	3.3*1			333	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/28	17:24:05	118	83	317	217	270	-3.3*1			118	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/28	22:36:05	280	23	209	110	0	-30.9*1			281	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/29	04:35:42	76	27	204	228	331	3.1*1			72	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/29	19:36:05	61	87	484	<u>476</u>	476	-0.7*1			49	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/30	00:00:05	246	55	176	191	320	3.2*1			239	C2 C3 PHTX DST Java Movie	Poor Event; Only C2
2024/08/30	00:36:05	34	111	350	301	212	-5.1 ^{*1}			24	C2 C3 PHTX DST	Poor Event
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10772025, 15.00						SOHOLL	SCO CIVIE (Catalog			
										<u>Java</u> <u>Movie</u>	
2024/08/30	10:00:05	281	21	<u>151</u>	<u>175</u>	415	6.7*1		 282	C2 C3 PHTX DST Java Movie	Very Poor Event; Only C2
2024/08/30	13:37:18	118	186	539	494	525	-3.1*1		 95	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/30	21:24:05	261	26	332	135	0	-41.1 ^{*1}		 262	C2 C3 PHTX DST Java Movie	Very Poor Event
2024/08/31	00:24:05	272	41	621	327	0	-42.1 ^{*1}		 274	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/31	00:36:05	38	91	302	358	386	3.7*1		 53	C2 C3 PHTX DST Java Movie	Poor Event
2024/08/31	01:06:05	270	145	413	306	173	-10.1*1		 295	C2 C3 PHTX DST Java Movie	Poor Event; Partial Halo
2024/08/31	12:19:23	46	142	617	683	633	4.3		 56	C2 C3 PHTX DST Java Movie	Only C3; Partial Halo
2024/08/31	19:55:23	255	54	355	260	286	-6.2*1		 239	C2 C3 PHTX DST Java Movie	Poor Event; Only C3

^{*1} Acceleration is uncertain due to either poor height measurement or a small number of height-time measurements (See Section 3.4 of Yashiro et al. 2004 for details).

^{*2} Mass and Kinetic Energy are uncertain due to poor mass estimate. Mass measurement assumes that the CME material is in the sky-plane. Kinetic Energy is obtained from the mass and linear speed (see <u>Vourlidas et al. 2000</u> for details).