

Grant 2002-DT-CX-K001
 ID No. 065595
 MJO 118

Noise Flash Diversionary Device (NFDD)

DT 7001SC



DESCRIPTION:

Tactical Device	Vents axially from both ends	Pull Ring Safety
Reloadable	Exhaust ports on top & bottom	Avg. Assembly Wt
Steel Body	Small port top; single large port bottom	Pre Test: 25.08 oz
Body seals w/ reloads	Pull Ring Safety Lock	Post Test: 23.17 oz

PACKAGING:

6.5" H	10" W	14" L	14.52 lbs	24 Reloads	Cardboard tubes
7" H	9.25" W	12" L	12.06 lbs	8 Bodies	Cardboard boxes



DT 7001SC																				
TEST	PART S/N	GROSS WEIGHT		IGNITION DELAY sec.	BURN sec.	6 FEET				9 FEET					12 FEET					
		PRE-TEST oz	POST TEST* oz			PEAK		RADIANT FLUX J	PEAK		RADIANT FLUX J	PEAK		RADIANT FLUX J						
						ACOUSTIC NOISE psi	db		ILLUMINANCE			ACOUSTIC NOISE psi	db		ILLUMINANCE		ACOUSTIC NOISE psi	db	ILLUMINANCE	
									LUX	ft-candle					LUX	ft-candle			LUX	ft-candle
1	606624	4.83	3.50	1.43	0.0084	1.75	176	302695150	28120379	19.7	1.06	171	160875049	14945292	10.6	0.83	169	86041676	7993272	5.8
2	606625	4.83	3.50	1.39	0.0123	0.53	165	126395843	11742174	11.1	0.26	159	65229232	6059796	5.8	0.23	158	35670768	3313814	3.2
3	606626	4.83		1.39	0.0084	1.98	177	342873991	31852994	23.2	1.06	171	162300880	15077752	11.1	0.68	167	93736286	8708101	6.6
4	606627	4.83	3.25	1.47	0.0088	1.62	175	305206336	28353669	20.1	0.93	170	154981852	14397814	10.2	0.62	167	85674154	7959129	5.8
5	606628	4.83	3.50	1.41	0.0097	0.52	165	208895345	19406378	14.2	0.34	161	96881501	9000291	6.7	0.25	159	55860521	5189442	4.0
6	606629	4.83	3.50	1.57	0.0096	0.59	166	163029505	15145441	12.7	0.34	161	79748446	7408631	6.4	0.25	159	45248818	4203615	3.7
7	606630	4.88	3.50	1.30	0.0089	0.51	165	225267265	20927329	13.7	0.38	162	99210258	9216633	6.1	0.29	160	60017874	5575660	3.7
8	606631	4.77	3.45	1.51	0.0078	1.62	175	332287696	30869527	18.9	0.99	171	161920654	15042429	9.4	0.68	167	92105487	8556600	5.4
9	606632	4.83	3.50	1.39	0.0072	1.26	173	357300932	33193257	19.8	0.70	168	164320716	15265395	9.4	0.51	165	93805201	8714503	5.5
10	606633	4.83	3.50	1.52	0.0126	0.10	151	64133495	5958002	7.0	0.07	148	31628501	2938288	3.6	0.04	143	18030654	1675048	2.0
11	606634	4.88	3.50	1.43	0.0078	1.14	172	243190141	22592364	14.6	0.71	168	119076064	11062166	7.2	0.50	165	68906846	6401446	4.3
12	606635	4.83	3.50	1.41	0.0084	0.53	165	196733369	18276530	11.7	0.32	161	97214190	9031198	5.8	0.29	160	54528261	5065675	3.3
13	606636	4.88	3.50	1.39	0.0134	0.19	156	137203772	12746230	15.6	0.10	151	66892679	6214330	7.5	0.09	150	39139110	3636023	4.5
14	606637	4.88	3.45	1.28	0.0093	0.87	170	198185973	18411477	12.7	0.42	163	99091416	9205593	6.5	0.33	161	57353491	5328139	3.7
15	606638	4.88	3.55	1.31	0.0138	0.30	160	108620700	10090863	11.3	0.17	155	56318131	5231954	6.2	0.15	154	30479831	2831576	3.4
16	606639	4.83	3.50	1.47	0.0074	1.05	171	329160990	30579056	18.8	0.59	166	154720468	14373531	9.5	0.46	164	87304953	8110630	5.4
17	606640	4.83	3.50	1.31	0.0095	0.72	168	214040794	19884390	13.7	0.42	163	99424105	9236499	6.8	0.31	161	56319839	5232113	3.8
18	606641	4.88	3.50	1.39	0.0095	0.70	168	192794303	17910591	12.0	0.40	163	102798467	9549978	6.1	0.33	161	55010664	5110491	3.4
19	606642	4.83	3.50	1.43	0.0104	0.58	166	210077072	19516160	15.2	0.43	163	103962845	9658148	8.0	0.28	160	60385396	5609803	4.5
20	606643	4.88	3.50	1.39	0.0142	0.40	163	126297355	11733024	14.4	0.23	158	61498481	5713209	7.2	0.21	157	34637184	3217794	4.0

Min	4.77	3.25	1.28	0.0072	0.10	151	64133495	5958002	7.0	0.07	148	31628501	2938288	3.6	0.04	143	18030654	1675048	2.0
Max	4.88	3.55	1.57	0.0142	1.98	177	357300932	33193257	23.2	1.06	171	164320716	15265395	11.1	0.83	169	93805201	8714503	6.6
Range	0.11	0.30	0.28	0.0070	1.88	26	293167437	27235255	16.2	0.99	23	132692216	12327107	7.5	0.79	26	75774547	7039455	4.6
Std. Dev	0.0	0.1	0.1	0.0	0.5	6.6	85680951	7959760	3.9	0.3	6.4	40916725	3801164	1.9	0.2	6.3	23035606	2140008	1.1
Average	4.84	3.48	1.41	0.0099	0.85	167	219219501	20365492	15.0	0.50	163	106904697	9931446	7.5	0.37	160	60512851	5621644	4.3

* All post weights w/o pull ring, body, or spoon

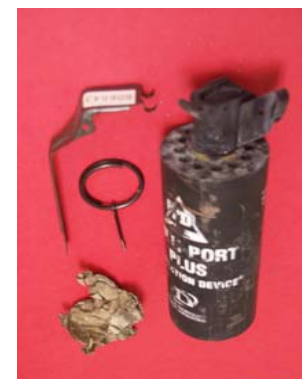
- Test: 2 Could not be disassembled
3 New Body Used
8 New Body Used
10 Gas Leakage at Brass to Fuze interface
11 New Body Used
13 Cooled Used Body
15 Cooled Used Body
17 Cooled Used Body

Had to use small amount of anti-sieze on body threads to disassemble units
Units hot to touch after test
Must remove spent cardboard from expended unit to reload

FRAGMENTATION:

TEST	PART S/N	PRE-TEST* oz	POST TEST oz	IMPACTS	
				hits	perforations
21	606602	4.85	3.50	0	0
22	606603	4.85	3.50	0	0
23	606604	4.85	3.50	0	0

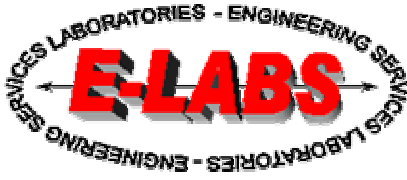
Std. Dev	0.0	0.0	0.0	0.0
Average	4.85	3.50	0.00	0.00



Functioned devices showing ports



Fragmentation Test

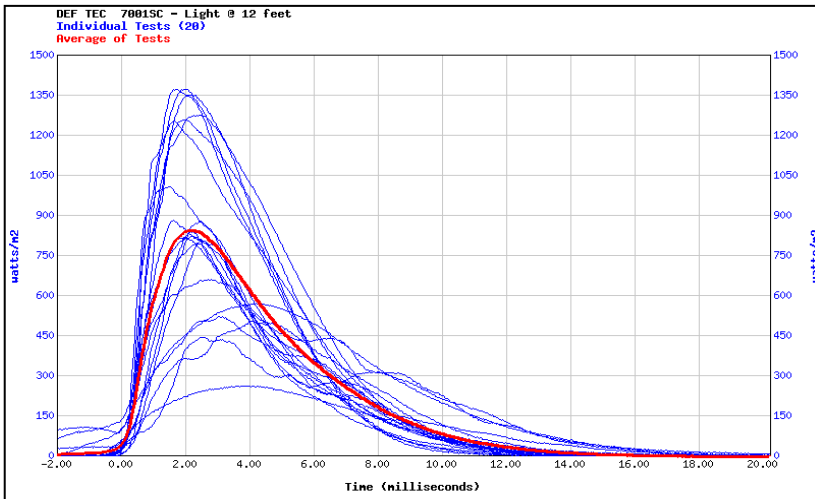
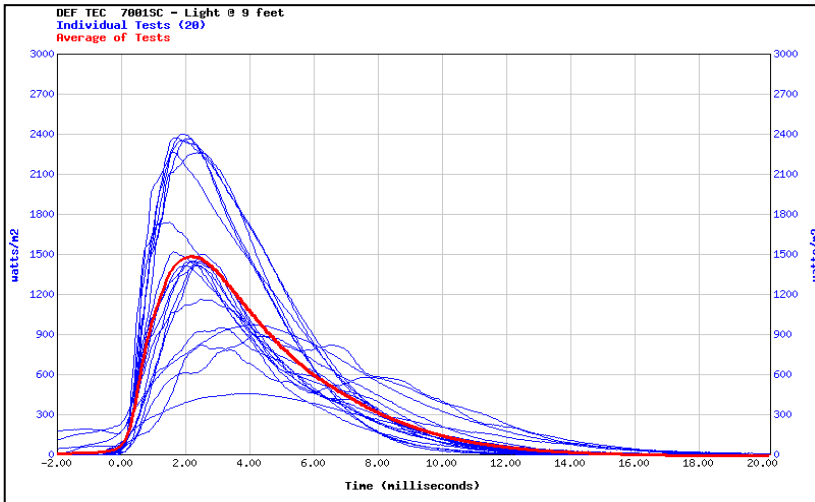
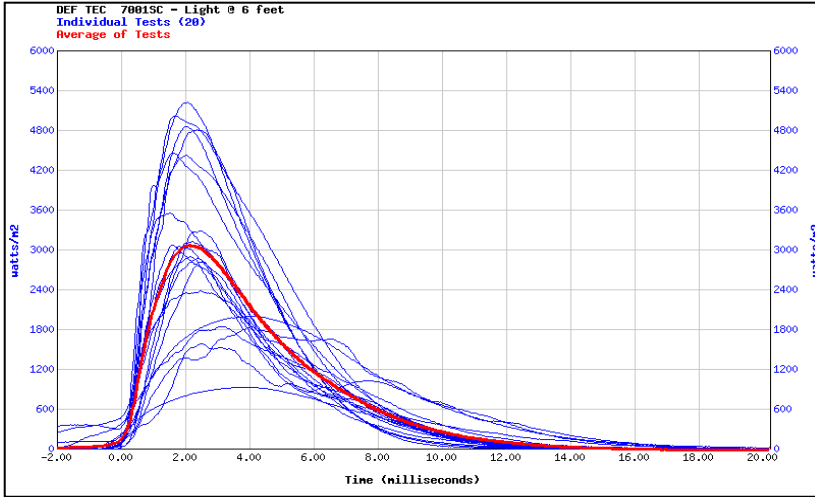


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**ILLUMINANCE
MEASUREMENTS
(W/m2)**

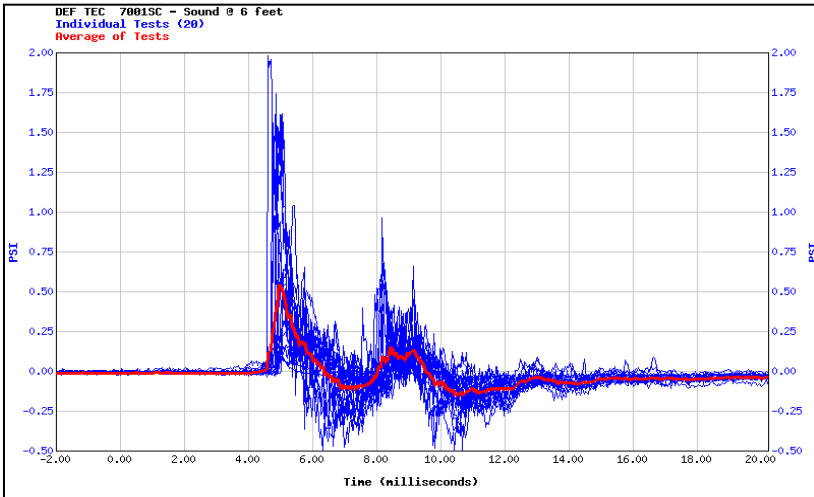




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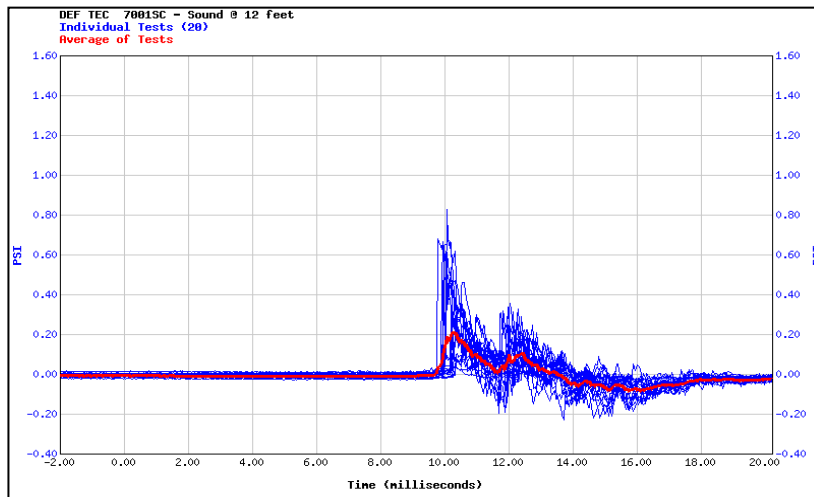
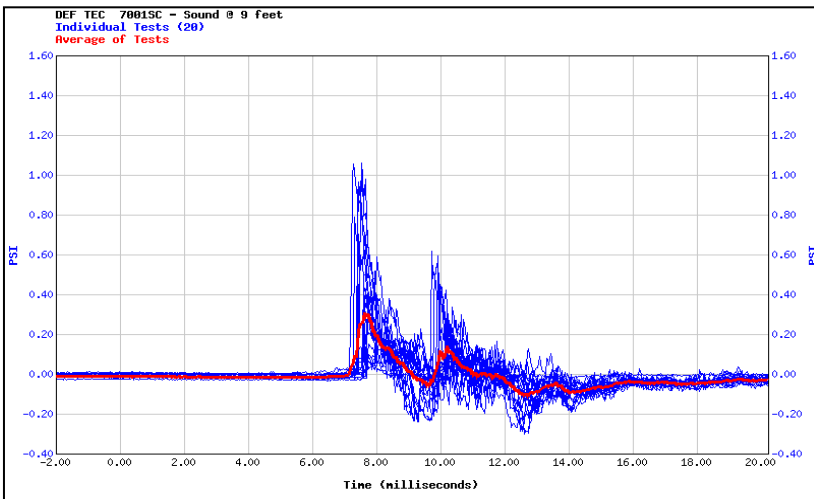
Noise Flash Diversionary Device (NFDD)

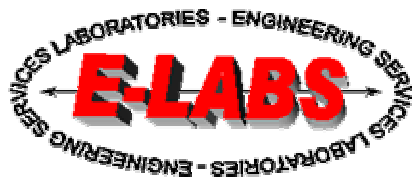
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**PRESSURE MEASUREMENTS
(psi)**

*Secondary Peaks are Reflections
and not Included in Data Analysis*





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COLLATERAL EFFECTS:

ITEM	FIRE START	PROPULSION	DISRUPTION OF ELEMENTS
Pillow	No flames observed, charring of object	< 12 in	Yes
Cushion	No flames observed, charring of object	Rolled ≈12 in	No
Objects	No flames observed, charring of object	None Observed	Yes



PILLOW TEST



CUSHION TEST



OBJECTS TEST

