



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

**Noise Flash Diversionary Device (NFDD)**

**NICO S&F 1-Bang**



**DESCRIPTION:**

Tactical Device  
 Single Use  
 Steel Body

Vents radially from body  
 Ejects vent hole plugs

Pull Ring Safety  
 Avg. Assembly Wt  
 Pre Test: 10.09 oz  
 Post Test: 7.9 oz

**PACKAGING:**

8.5" H    13" W    12.5" L    17.3 lbs    20 rounds    Wood & Metal Shipping Box  
 10 rounds    Metal Ammunition Boxes



NICO S&F 1-Bang																				
TEST	PART S/N	GROSS WEIGHT		IGNITION DELAY	BURN	6 FEET				9 FEET					12 FEET					
		PRE-TEST	POST TEST*			PEAK		RADIANT FLUX	PEAK		RADIANT FLUX	PEAK		RADIANT FLUX						
		oz	oz	ACOUSTIC NOISE	ILLUMINANCE	ACOUSTIC NOISE	ILLUMINANCE		ACOUSTIC NOISE	ILLUMINANCE										
		psi	db	LUX	ft-candle	J	psi	db	LUX	ft-candle	J	psi	db	LUX	ft-candle	J				
1	None	10.10	8.90	1.76	0.0043	1.48	174	565100335	52497821	16.5	0.73	168	286421446	26608552	8.1	0.53	165	155328202	14429990	4.4
2	None	10.05	8.80	1.75	0.0034	1.61	175	654749754	60826252	14.1	0.96	170	354292385	32913763	7.5	0.58	166	194795288	18096482	4.1
3	None	10.05	8.85	1.90	0.0034	1.93	176	726057071	67450702	14.1	0.93	170	382363139	35521536	7.8	0.59	166	207592728	19285364	4.1
4	None	10.05	8.80	1.99	0.0037	1.61	175	759546747	70561893	17.5	0.89	170	456349455	42394864	10.2	0.59	166	237681473	22080609	5.3
5	None	10.05	8.85	1.72	0.0030	1.13	172	501727497	46610484	9.8	0.67	167	264967391	24615471	5.2	0.47	164	140869979	13086821	2.7
6	None	10.10	8.85	1.78	0.0032	1.51	174	559845060	52009606	12.7	0.64	167	282210819	26217385	6.4	0.48	164	157575135	14638730	3.5
7	None	10.10	8.80	1.49	0.0030	1.38	174	563142447	52315933	10.7	0.59	166	285418870	26515413	5.4	0.48	164	150052914	13939916	2.8
8	None	10.10	8.85	1.94	0.0028	1.29	173	658665461	61190021	11.8	0.79	169	332036352	30846177	6.3	0.60	166	185905429	17270614	3.4
9	None	10.10	8.85	2.02	0.0031	1.53	174	561390689	52153195	12.5	0.78	169	293940388	27307062	6.8	0.54	165	155132795	14411837	3.5
10	None	10.10	8.85	2.03	0.0030	1.30	173	616519922	57274701	12.2	0.69	168	319204011	29654053	6.2	0.57	166	171837951	15963746	3.3
11	None	10.10	8.85	1.54	0.0030	1.46	174	539132948	50085451	10.7	0.72	168	242711358	22547885	5.0	0.56	166	134422391	12487840	2.7
12	None	10.10	8.85	1.73	0.0033	1.54	175	486476790	45193694	10.8	0.58	166	245919409	22845913	5.5	0.46	164	134715466	12515067	2.9
13	None	10.10	8.85	1.88	0.0033	1.53	174	566439903	52622267	12.4	0.75	168	265769438	24689981	6.1	0.53	165	148880613	13831009	3.3
14	None	10.10	8.85	1.72	0.0030	1.24	173	607039745	56393992	11.8	0.62	167	285519203	26524734	5.6	0.46	164	160603489	14920064	3.2
15	None	10.10	8.90	2.01	0.0029	1.21	172	687312052	63851290	13.6	0.69	168	320407048	29765815	6.4	0.50	165	177992464	16535500	3.5
16	None	10.10	8.85	1.83	0.0034	1.15	172	581072290	53981616	13.9	0.73	168	268476235	24941442	6.3	0.53	165	152397517	14157729	3.6
17	None	10.10	8.90	2.00	0.0040	1.22	172	447834767	41603850	11.6	0.67	167	229076971	21281251	5.6	0.51	165	121917959	11326178	3.1
18	None	10.10	8.85	1.76	0.0039	1.14	172	485034158	45059673	11.9	0.65	167	233187333	21663103	5.9	0.47	164	129830924	12061293	3.2
19	None	10.10	8.85	1.73	0.0038	1.57	175	484003715	44963945	12.1	0.72	168	232886608	21635166	5.9	0.48	164	123774148	11498618	3.1
20	None	10.10	8.85	1.74	0.0037	1.30	173	424443520	39430803	9.4	0.59	166	223162122	20731761	5.1	0.41	163	123090260	11435085	2.7

Min	10.05	8.80	1.49	0.0028	1.13	172	424443520	39430803	9.4	0.58	166	223162122	20731761	5.0	0.41	163	121917959	11326178	2.7
Max	10.10	8.90	2.03	0.0043	1.93	176	759546747	70561893	17.5	0.96	170	456349455	42394864	10.2	0.60	166	237681473	22080609	5.3
Range	0.05	0.10	0.54	0.0015	0.80	5	335103227	31131090	8.2	0.38	4	233187333	21663103	5.2	0.19	3	115763514	10754430	2.7
Std. Dev	0.0	0.0	0.2	0.0	0.2	1.2	90622967	8418874	2.0	0.1	1.2	58280234	5414234	1.2	0.1	0.9	30442740	2828131	0.6
Average	10.09	8.85	1.82	0.0034	1.41	174	573776744	53303859	12.5	0.72	168	290215999	26961066	6.4	0.52	165	158219856	14698625	3.4

\* Includes pull ring and spoon

**FRAGMENTATION:**

TEST	PART S/N	PRE-TEST oz	POST TEST oz	IMPACTS	
				hits	perforations
21	None	10.10	8.85	5	2
22	None	10.10	8.85	5	1
23	None	10.05	8.90	6	2

Std. Dev	0.0	0.0	0.6	0.6
Average	10.08	8.87	5.33	1.67



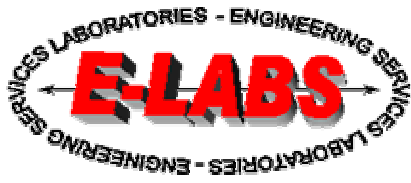
Expended body



Functioned devices showing ports



Fragmentation Test

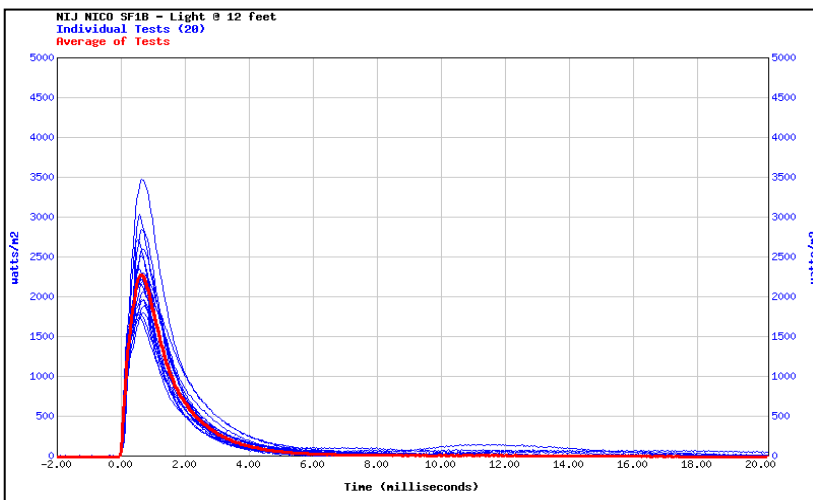
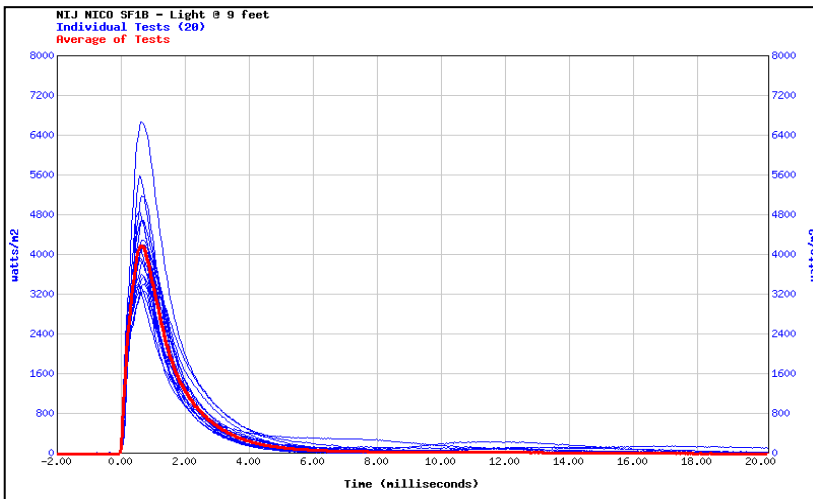
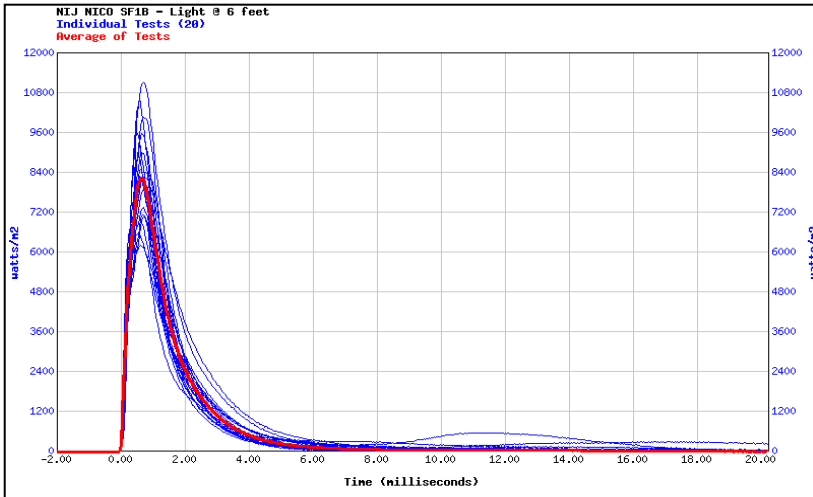


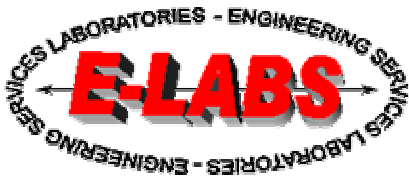
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**ILLUMINANCE  
MEASUREMENTS  
(W/m<sup>2</sup>)**

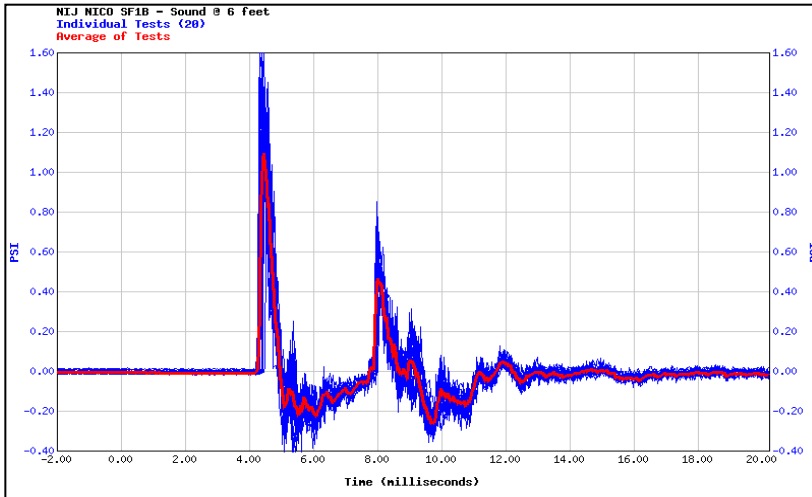




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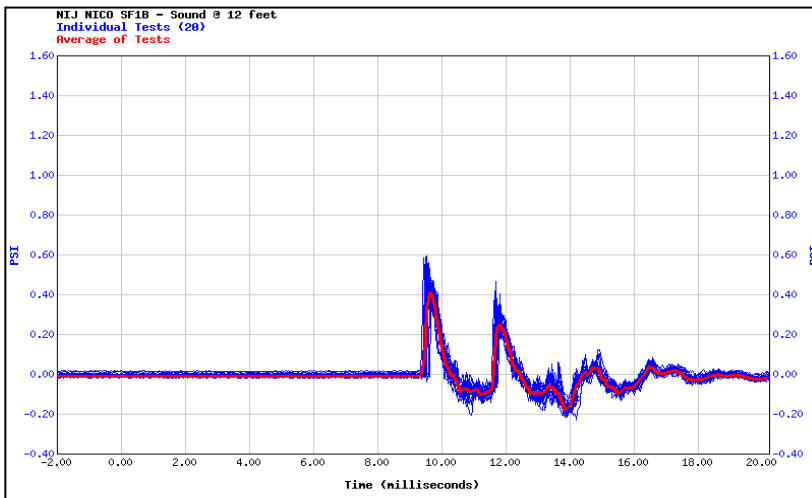
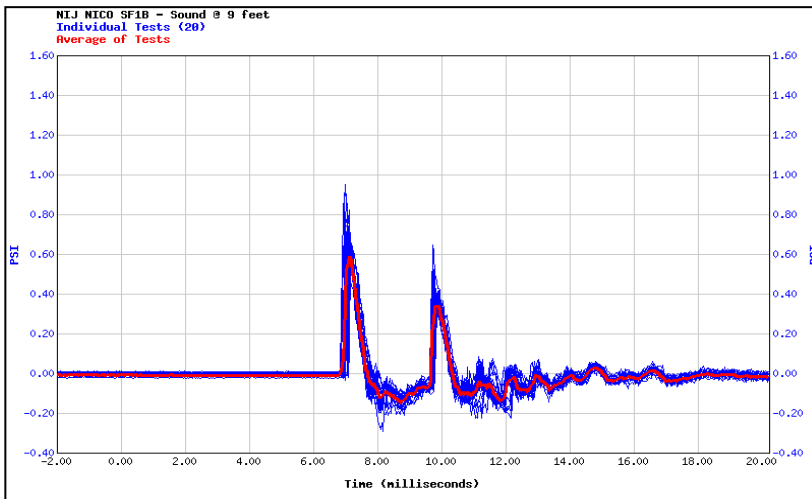
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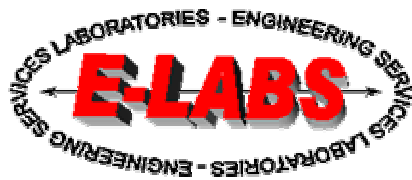
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**PRESSURE MEASUREMENTS  
(psi)**

*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	Minor	Yes
Cushion	No flames observed, charring of object	Yes (see note)	Yes
Objects	No flames observed, charring of object	≈ 18 - 24"	Yes



PILLOW TEST



CUSHION TEST

NFDD bounced between cushion & witness panel; confined blast



OBJECTS TEST

NFDD driven upwards by blast function

