

STAT

SHEET 1 OF 10

USED ON

MLT-1540

DATE

11 September 1970

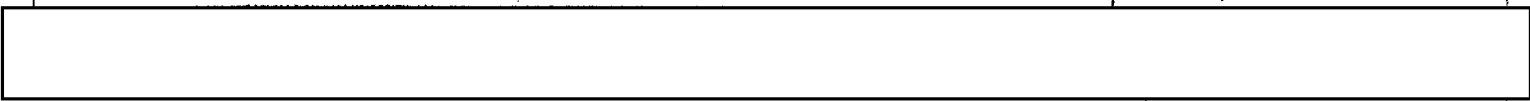
REVISION  
(See last sheet  
for details)

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FORM

(PRELIMINARY)

ACCEPTANCE TEST PROCEDURE FOR LIGHT TABLE MLT-1540



SERIAL NUMBER \_\_\_\_\_

TEST BY \_\_\_\_\_

DATE \_\_\_\_\_

TIME \_\_\_\_\_

**Declass review by NGA/DoD**

STAT

PREPARED BY

DATE

APPROVED BY

DATE



TABLE OF CONTENTS

- 1.0 PURPOSE
- 2.0 EQUIPMENT REQUIRED
  - 2.1 MLT-1540
  - 2.2 Test Film
  - 2.3 Empty Take-Up Spools
  - 2.4 Stop Watch
  - 2.5 Foot Lambert Meter
- 3.0 ACCEPTANCE TEST
  - 3.1 Mechanical and Visual
  - 3.2 Power Check
  - 3.3 Illumination
  - 3.4 Adjustable Stand
  - 3.5 Film Handling System
  - 3.6 Transport Speed and Operation
  - 3.7 Microscope Carriage and Mount

1.0 PURPOSE

The purpose of the Acceptance Test Procedure is to verify that the Medular Light Table, MEL-1540, meets its functional and performance requirements.

2.0 EQUIPMENT REQUIRED

2.1 MEL-1540 complete per  Drawing No.

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2.2 Test film as follows:

9.5 inch wide, 4 mil base, 1000 foot roll, 500 foot roll

6.6 inch film, 2 1000 ft. Rolls

5 inch film, 2 1000 ft. Rolls

70mm film, 2 1000 ft. rolls

2.3 Empty take-up spools

(This should be commensurate with the number of films required as listed above.)

2.4 Stop Watch

✓ 2.8. Square Level Meter

2.5 GFE foot lambert meter (Weston Model 759)

2.6. Force Gage ~~2.7. Dial Gage~~ 2.7. Dial Gage & Fixtures

3.0 ACCEPTANCE TEST

Completion and verification of each of the following items shall be noted by inspector's stamp in the space provided.

3.1 Mechanical and visual inspection

The MEL shall be carefull examined to determine conformance to the requirements of  Drawing ; Outline Drawing. Moving parts such as covers, latches and gear mechanisms shall be checked to assure proper fit and operation without sticking or binding. Quality of workmanship, proper materials and finishes, nameplate installation, etc. shall be verified.

Stamp \_\_\_\_\_

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Mechanical Check

Workmanship Stamp

Decals Stamp

Circuit Diagrams Stamp

3.2 Power Check

Power Indicator Lights Stamp

Elapsed Time Meter Operates Stamp

Fans Operate Stamp

Noise Within Acceptable Audible Level Stamp

Audible Level Stamp

Vibrations Within Acceptable Level Stamp

*Use Soundhead Meter if Possible*

3.3 Illumination

Warm up - all on maximum intensity for 30 minutes prior to proceeding with the next step. Stamp

Maximum intensity - 3000 ft. lamberts *minimum* within 2 inch radius of center Stamp

Minimum intensity - ~~75 ft.~~ *200 ft. lamberts maximum* within 2 inch radius of center Stamp

*left & right formats*  
Balance - two within 100 ft. lamberts at maximum intensity Stamp

Interaction - one at minimum or maximum does not change more than 100 ft. lamberts through full range of other Stamp

Uniformity -- record on the following sheets the foot lambert readings at points 1 through 17 with illumination level of ~~1000, 2000 and~~ 3000 ft. lamberts. Record similar readings for left light source.

Illumination does not exceed <sup>3%</sup> 15% difference between any two measurements taken within frame area indicated and no greater than ~~30%~~ 5% over the entire surface.

<sup>55</sup> Right Light Source

Stamp \_\_\_\_\_

Left Light Source

Stamp \_\_\_\_\_

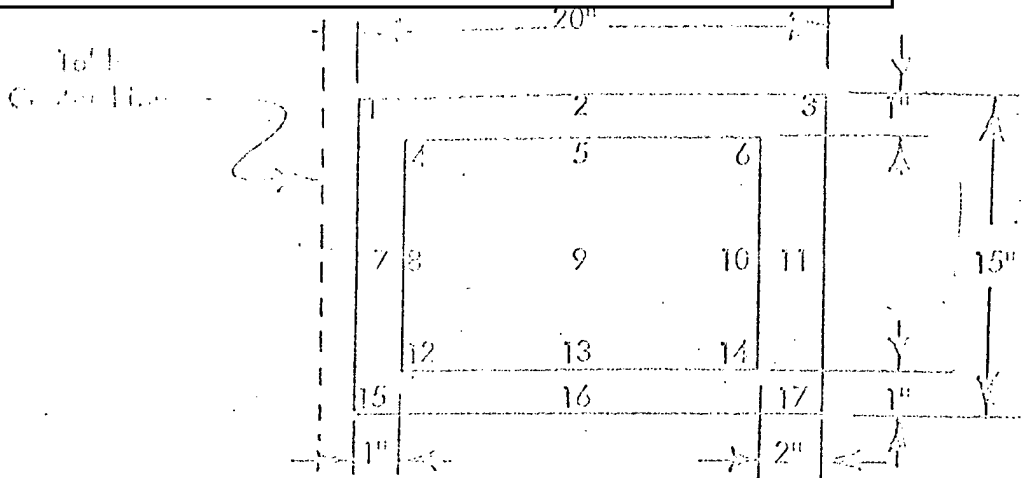
Flicker - none visible - *check*  
at max & min illumination.

Stamp \_\_\_\_\_

*check operation of st  
masking system.*

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Sheet No. 6

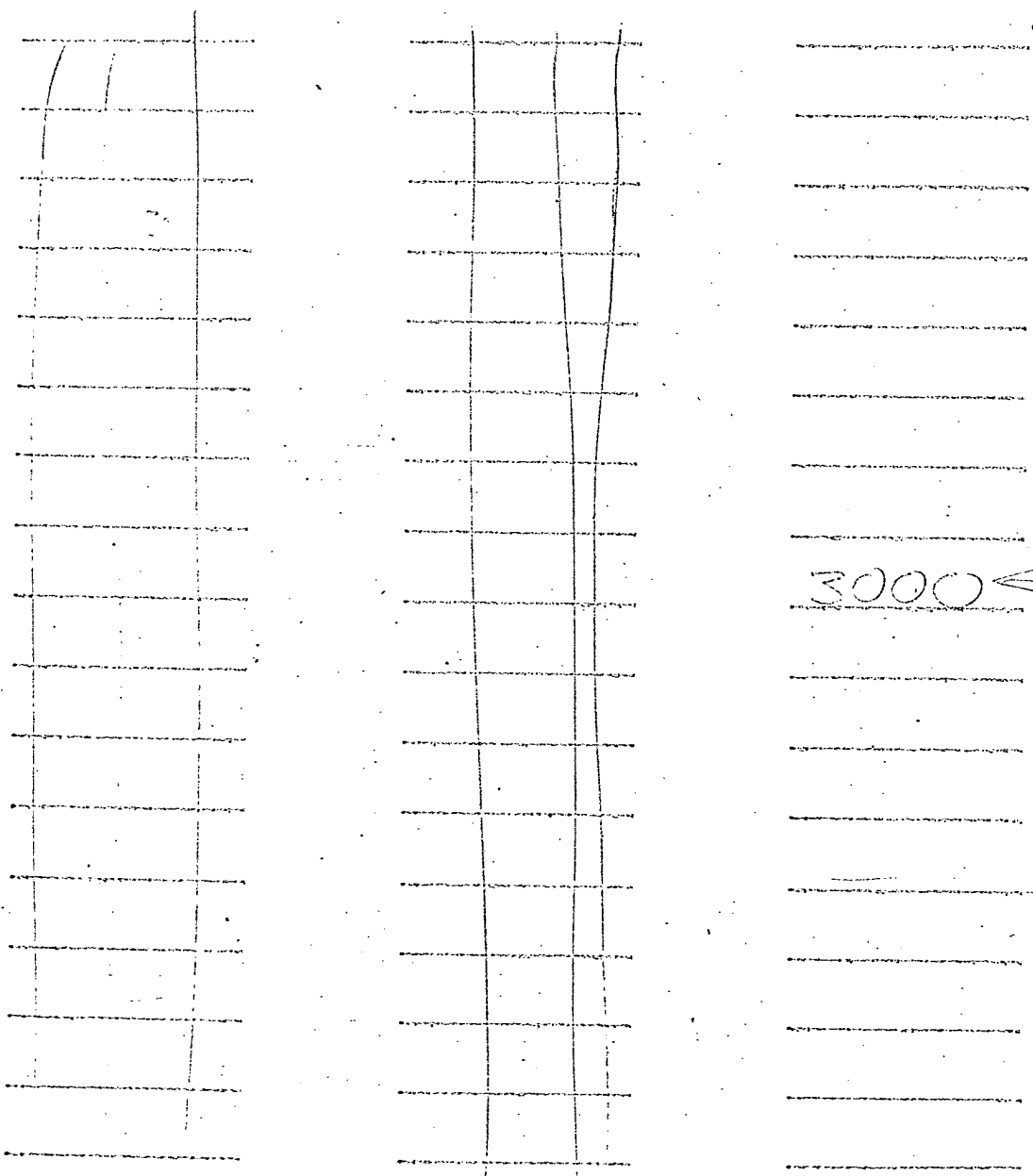


1000 Ft. Lamberts

2000 Ft. Lamberts

3000 Ft. Lamberts

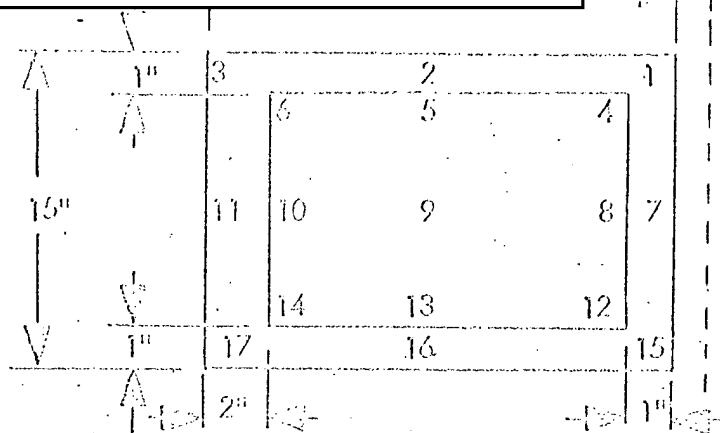
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.



3000 ←

STAT

Table  
Center Line



	1000 Ft. Lamberts	2000 Ft. Lamberts	3000 Ft. Lamberts
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			3000
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.

1000 Ft. Lamberts

2000 Ft. Lamberts

3000 Ft. Lamberts

3000

3.4 Adjustable Stand

*Verify that casters lock, 2 motion.*

Verify that table elevation operates through full available travel and will lock at any height. Stamp

*Max 2-2", Max 90" ± 1" each*

Emergency hand crank operation - smooth, easy, and will lock at any range. Stamp

~~Observe operation of tilt~~

Tilt free travel through entire range. Stamp

*(0-15°)*

3.5 Film Handling System - each film station

Check operation of drive housing and center support positioning and detenting Stamp

Check operation of spindle retraction Stamp

Check rollers for freedom, nicks, scratches, etc. Stamp

3.6 Transport Speed and Operation

9.5 inch film (4 mil base) Normal Mode

Minimum speed < 1 inch/sec. Stamp

Maximum speed  
1000 ft. < 3 min. Stamp

500 ft. < 1 min. Stamp

Check operation on <sup>5"</sup>~~9.5"~~ film in split mode. Stamp

*20 min 56.6"*  
Parallel mode - two ~~9.5"~~ films loaded parallel will drive individually or simultaneously in same or opposite directions. Stamp

*Tracking OK at max speed.*  
Check transport operation with three ~~9.5"~~ <sup>5"</sup> films on table. Stamp

*Minimum 70 min < 1"/sec.*  
Check for excess tension and/or loop throwing when full reversal occurs, Stamp

*all sizes*



9 1/2"

Looping mechanism - load film in normal mode

Check mechanical operations by looping film. *Check 76" main take up capabil. by.*

Stamp

Operate transport  
*check for on cover*

Stamp

3.7 Microscope Carriage and Mount

Full travel - in any direction.

Stamp

No binding or rough spots

Stamp

Check locks - hold against 10 lbs. of force.

Stamp

*X & Y horizontal & tilted with Simulated Optics*  
Check motor drives in X and Y directions

Stamp

Speed - 0 to 0.5" per sec.

Stamp

Vibration *within* acceptable level

Stamp

*Focus?*

Microscope mount operation adjust - free and lock condition

Stamp

Parallelism within .015" *between* carriage & viewing surface as measured according to chart and recorded on the following sheet.

Left Source

Stamp

Right Source

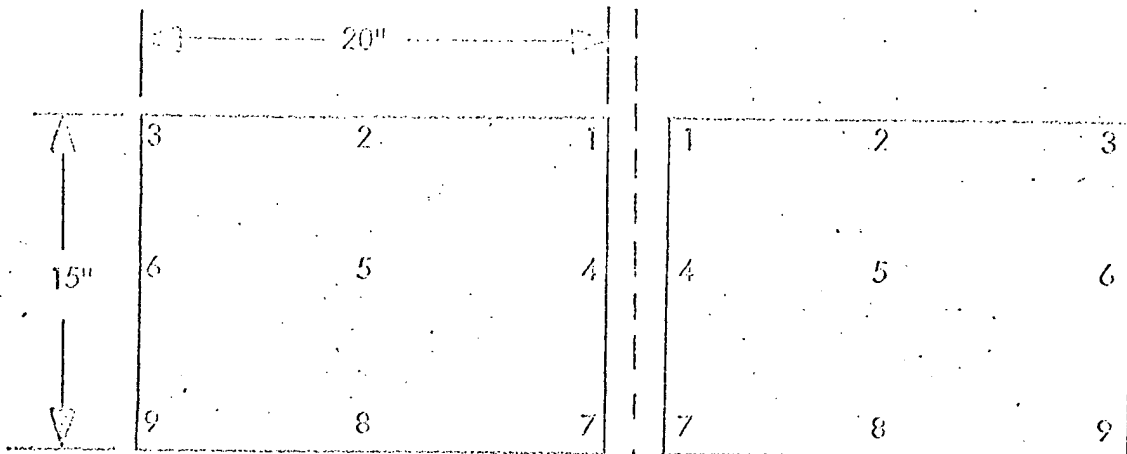
Stamp

*check action of friction locks.*

Collimation

*check action of "safe" motion*

Table



	Left Source	Right Source
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____
7.	_____	_____
8.	_____	_____
9.	_____	_____

*BEST COPY*

*AVAILABLE*