

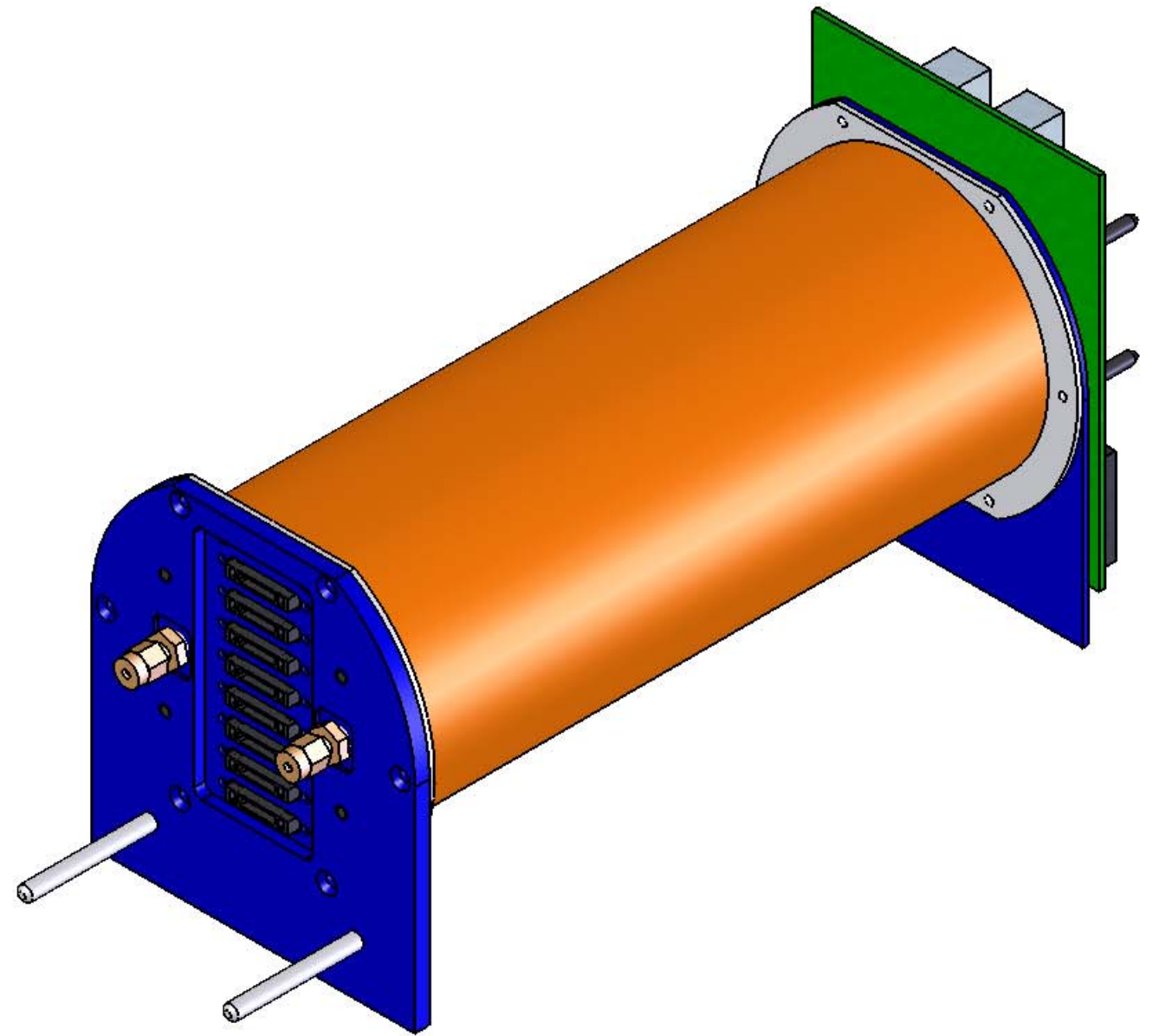
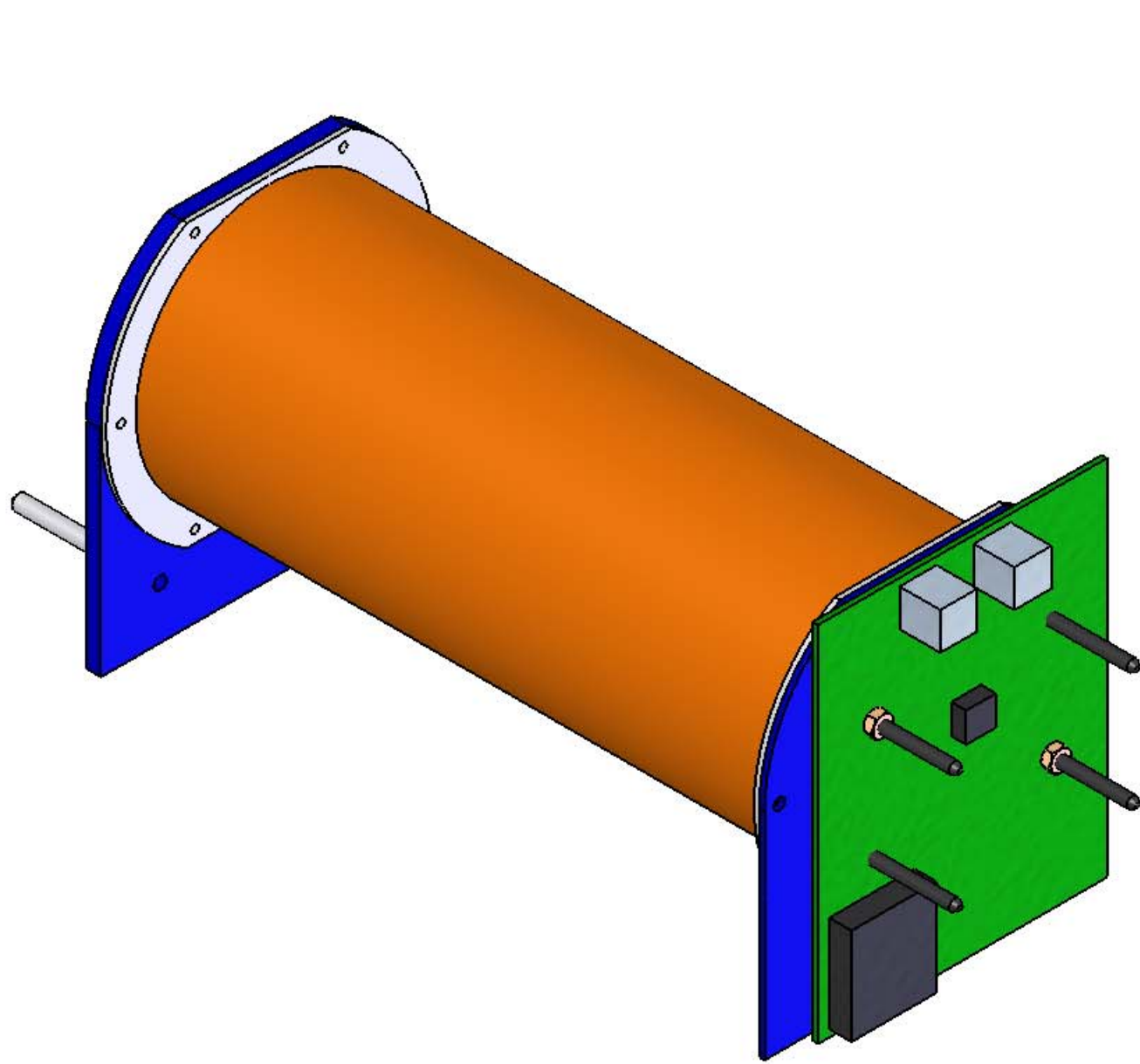
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1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



PMT BOX, TUFTS DESIGN

NOTE: DO NOT SCALE DRAWING !
ALL TOLERANCES UNLESS
OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]
 x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

UNIVERSITY OF ROCHESTER
DEPT. OF PHYSICS AND ASTRONOMY
SIDNEY W. BARNES RESEARCH LABORATORY

TITLE			
PMT BOX ASS'Y			
THIRD ANGLE PROJECTION	DRAWN	RSF	DATE -
	CHECKED	RSF	DATE -
	APPROVED	RSF	DATE -

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SIZE	DWG NO	REV
D	-	-
SCALE	1:1	SHEET 1 OF 13

WEIGHT: 9 LBS

1

FILE: PMT_BOX_TUFTS

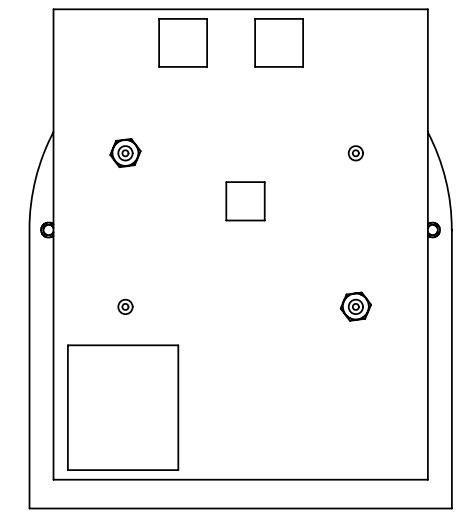
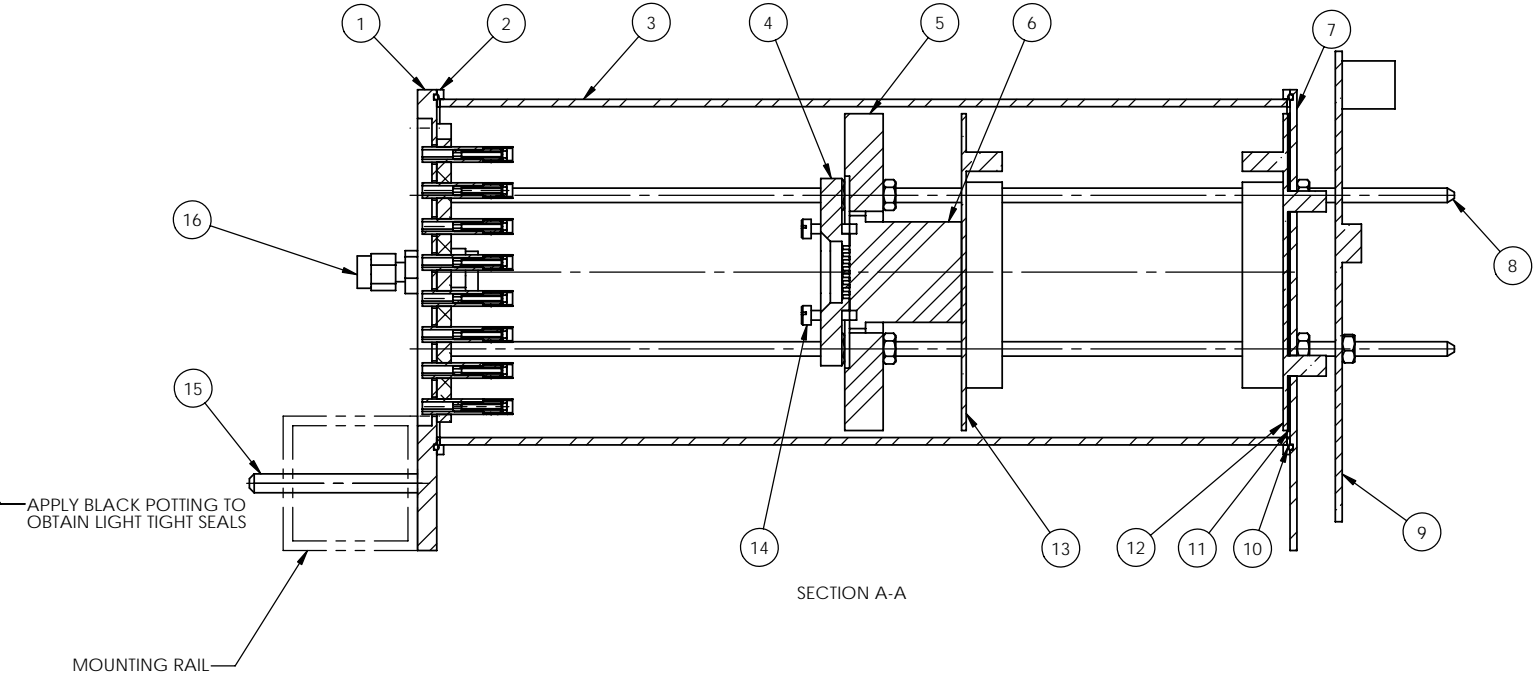
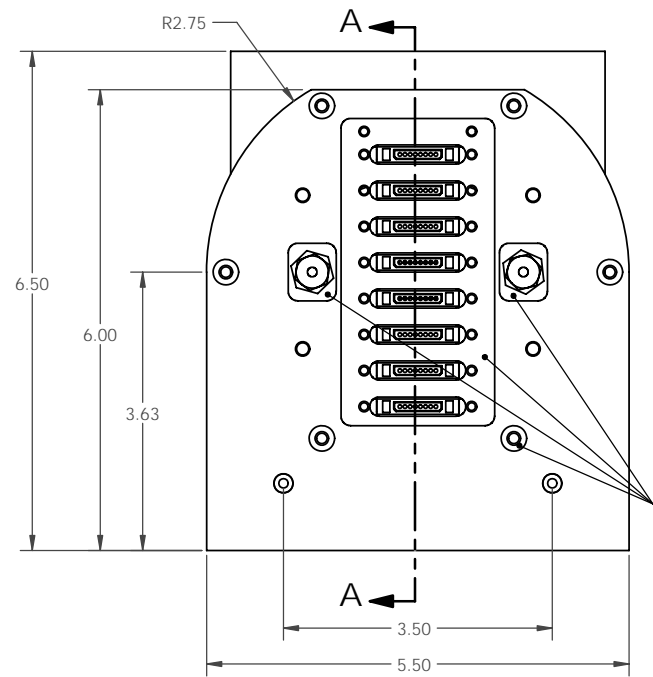
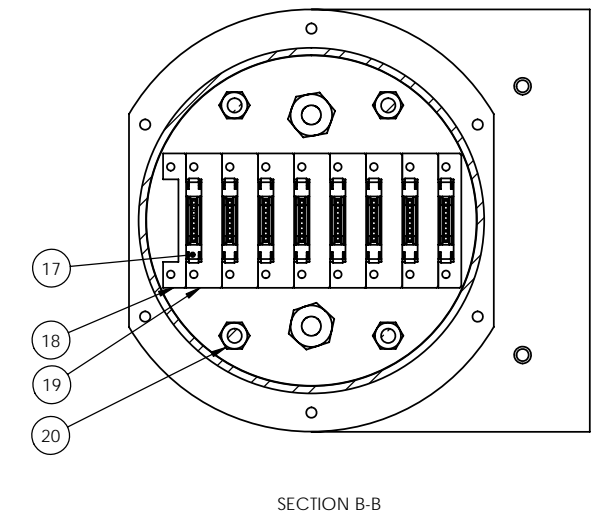
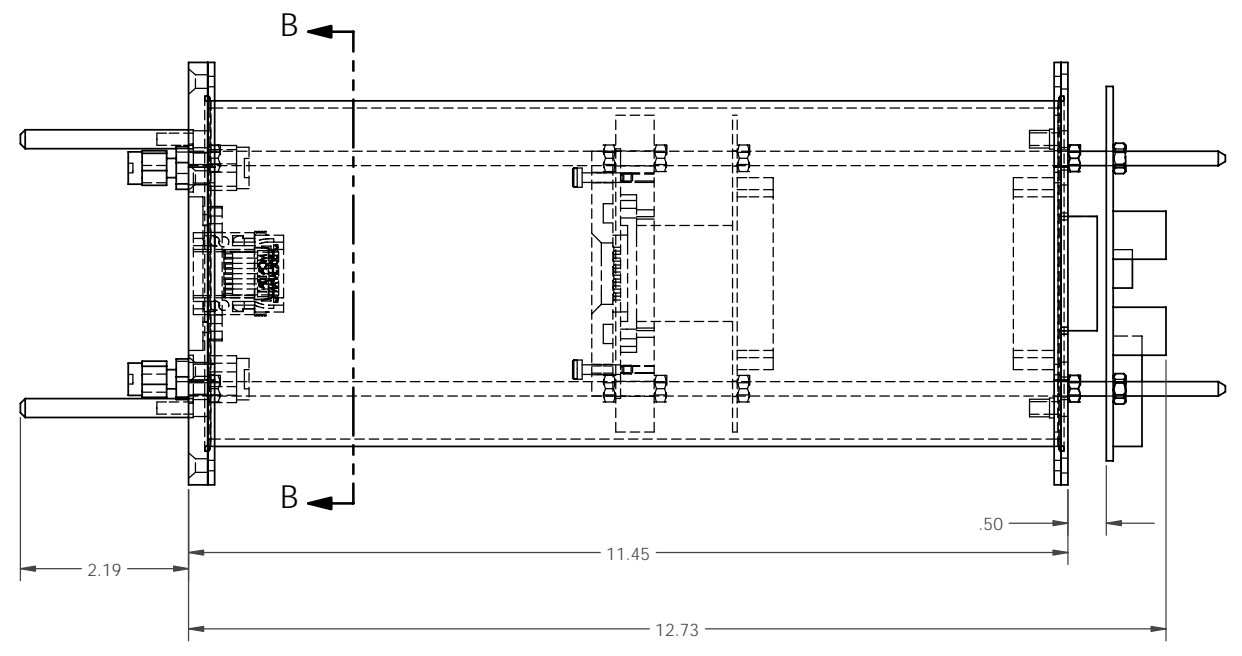
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



Parts List							
ITEM NO.	QTY	DET_SHT	ASSY_SHT	DESCRIPTION	MATERIAL	SIZE	WEIGHT
1	1	5	2	FIBER CONNECTOR ENDCAP	CRS	.25 x 5.50 x 6.00	1.657
2	2	13	2	WELDED TUBE ENDCAP	CRS	5.50 DIA x .09 LG (13 GA)	0.172
3	1	4	2	TUBE	STEEL	4.50 x .095 WALL (13 GA) x 11.03 LG	4.09
4	1	11	2	COOKIE	NORYL, BLACK	.38 x 2.44 x 3.19	0.077
5	1	10	2	COOKIE HOLDER	NORYL, BLACK	4.13 DIA x .50 THK	0.254
6	1	-	2	PMT	HAMAMATSU	M64	0.130
7	1	9	2	HIGH VOLTAGE ENDCAP	CRS	.09 (13 GA) x 5.50 x 6.00	0.746
8	4	3	2	RAIL	3/16 BRASS THD ROD	.19 x 13.50 LG	0.114
9	1	-	2	PC BOARD TOP	PC BOARD	.78 x 4.88 x 6.13	0.373
10	2	-	2	O-RING	MCMMASTER CARR	9452K312	0.002
11	1	12	2	CIRCUIT BOARD GASKET	RUBBER	4.12 DIA x .03 THK	0.013
12	1	-	2	HIGH VOLTAGE PC BOARD	PC BOARD	4.12 DIA x .59 TALL	0.198
13	1	-	2	PMT CIRCUIT BOARD	PC BOARD	4.12 DIA x .53 TALL	0.151
14	4	-	2	1/8 DIA x 0.500 LG SHSS, SS	MCMMASTER CARR	91829A522	0.004
15	2	7	2	MOUNTING STUD	CRS	.25 DIA x 2.75 LG	0.027
16	2	-	2	COMPRESSION FITTING w/ LENSES	PARKER, BRASS	1/4 to 1/8 ADAPTER	0.086
17	8	6	2	CONNECTOR ASSY	DDK	-	0.007
18	2	7	2	CONNECTOR SUPPORT BRACKET	ALUM	.19 x .30 x 1.75	0.005
19	7	8	2	CONNECTOR SUPPORT 02	ALUM	.19 x .47 x 1.75	0.010
20	20	-	2	3/16-32 HEX NUT	BRASS	3/16-32 HEX NUT	0.0042

PMT BOX, TUFTS UNIVERSITY

NOTE: DO NOT SCALE DRAWING !
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DIMENSIONS ARE IN:
 ☒ INCHES [mm] ☐ mm [IN]
 x.xxx [x.x] ± .010 [.3]
 x.xxxx [x.xxx] ± .005 [.13]
 x.xxxxx [x.xxxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

UNIVERSITY OF ROCHESTER
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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	-
CHECKED	RSF	DATE	-
APPROVED	RSF	DATE	-

SCALE: 1:1.25 SHEET: 2 OF 13

WEIGHT: 9 LBS

FILE: PMT_BOX_TUFTS

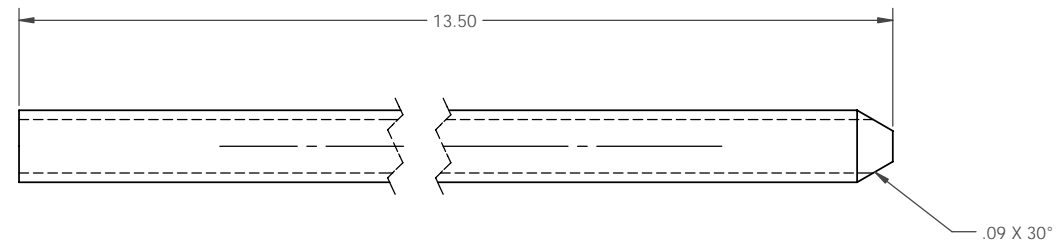
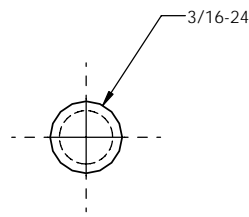
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



8

NAME: RAIL
 QTY: 4
 MAT'L: 3/16 BRASS THD ROD
 HARD'N: -
 FINISH: -
 SIZE/TYPE: .19 x 13.50 LG
 WEIGHT: 0.114

NOTE: DO NOT SCALE DRAWING !
 ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]

x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION	DRAWN RSF	DATE -
	CHECKED RSF	DATE -
	APPROVED RSF	DATE -

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SCALE	1:1	SHEET	3	OF	13
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WEIGHT: 0.114 LBS

1

FILE: PMT_BOX_TUFTS

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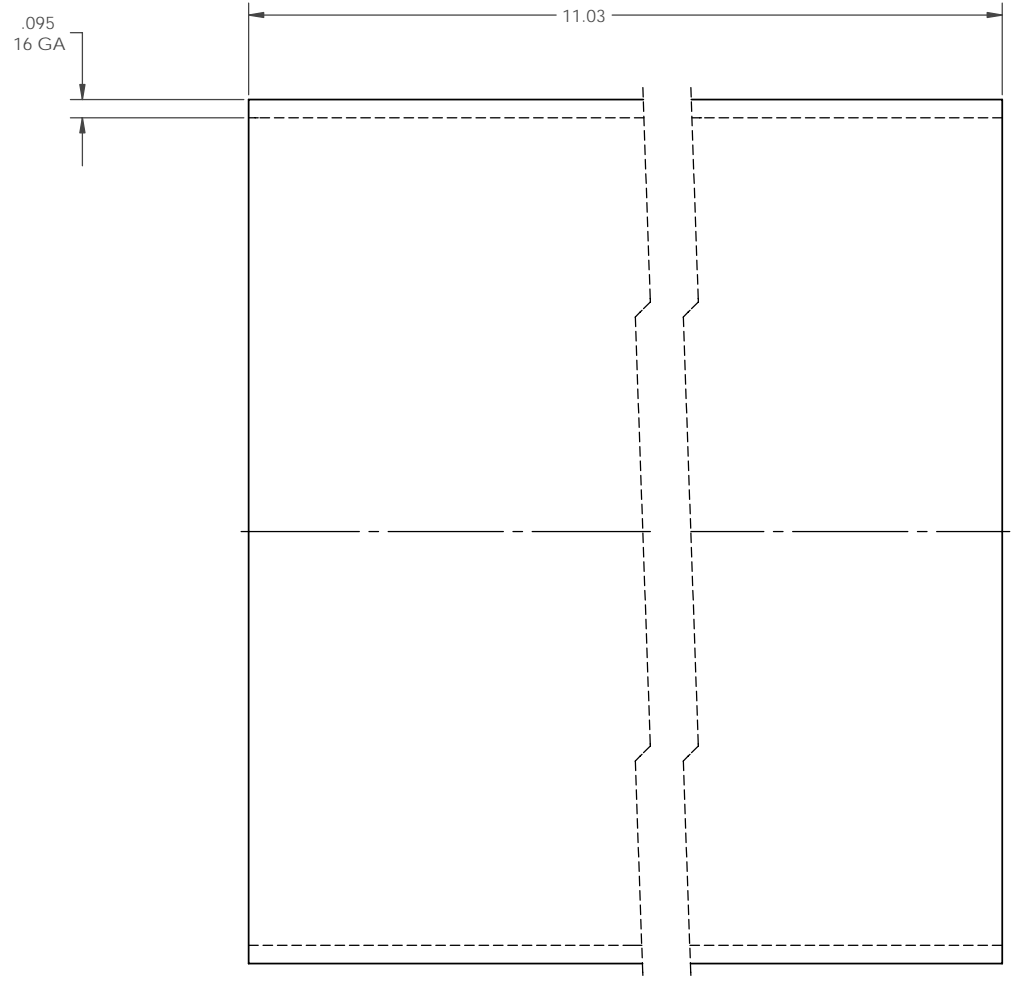
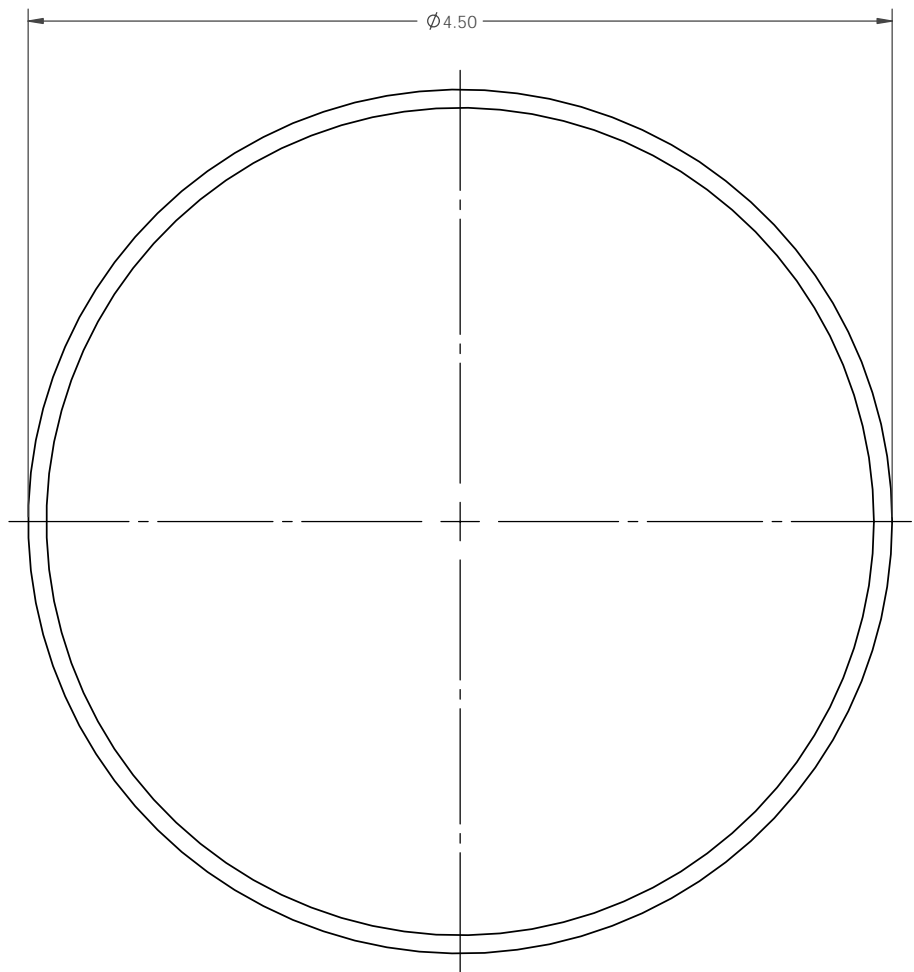
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1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



3 NAME: TUBE
 QTY: 1
 MAT'L: STEEL
 HARD'N: -
 FINISH: -
 SIZE/TYPE: 4.50 x .095 WALL (16 GA) x 11.03 LG
 WEIGHT: 4.09

NOTE: DO NOT SCALE DRAWING !
 ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]

x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE		PMT BOX ASS'Y	
THIRD ANGLE PROJECTION	DRAWN	RSF	DATE -
	CHECKED	RSF	DATE -
	APPROVED	RSF	DATE -

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SIZE	DWG NO	REV
D	-	-
SCALE	1:1	SHEET 4 OF 13

4

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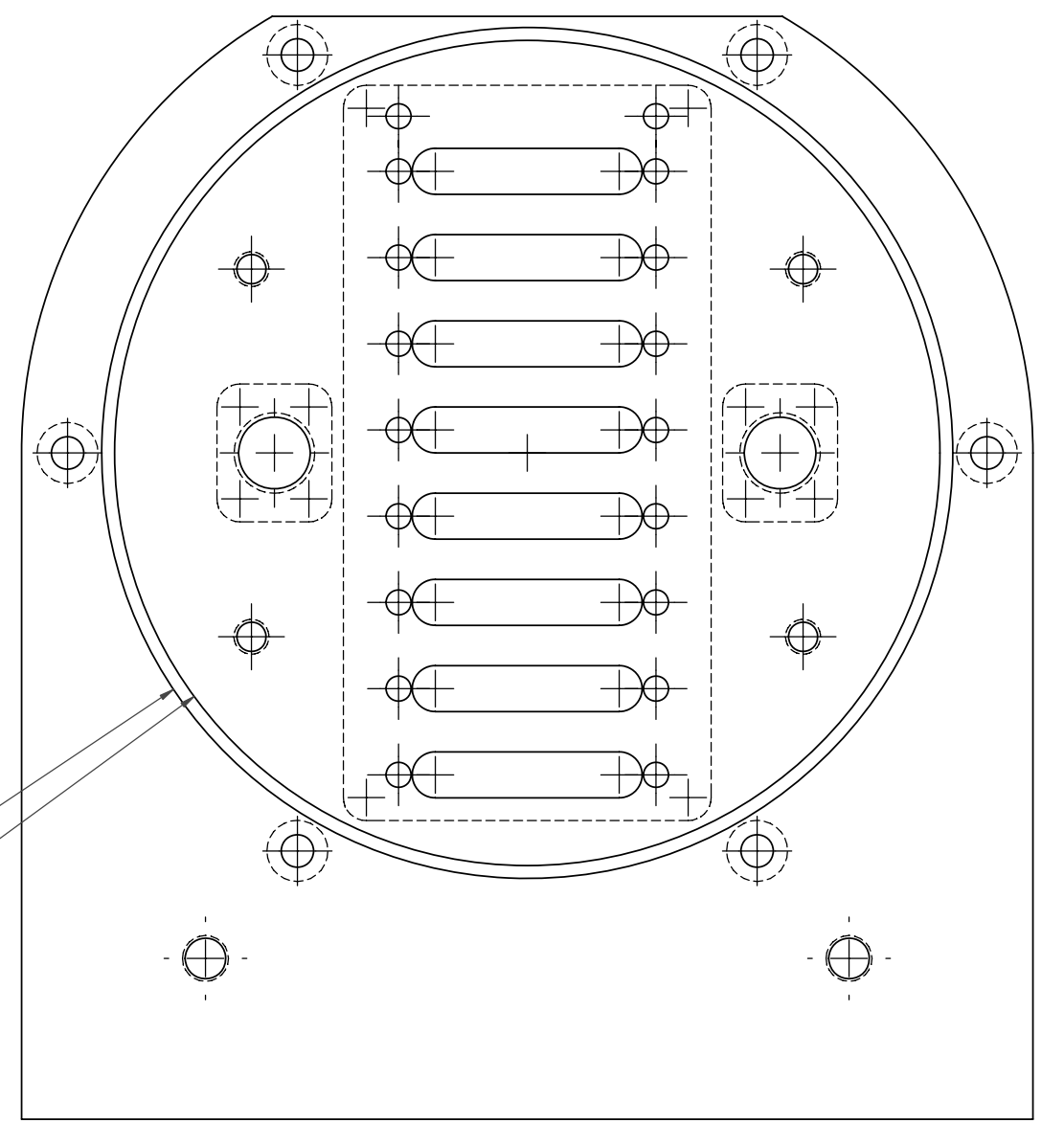
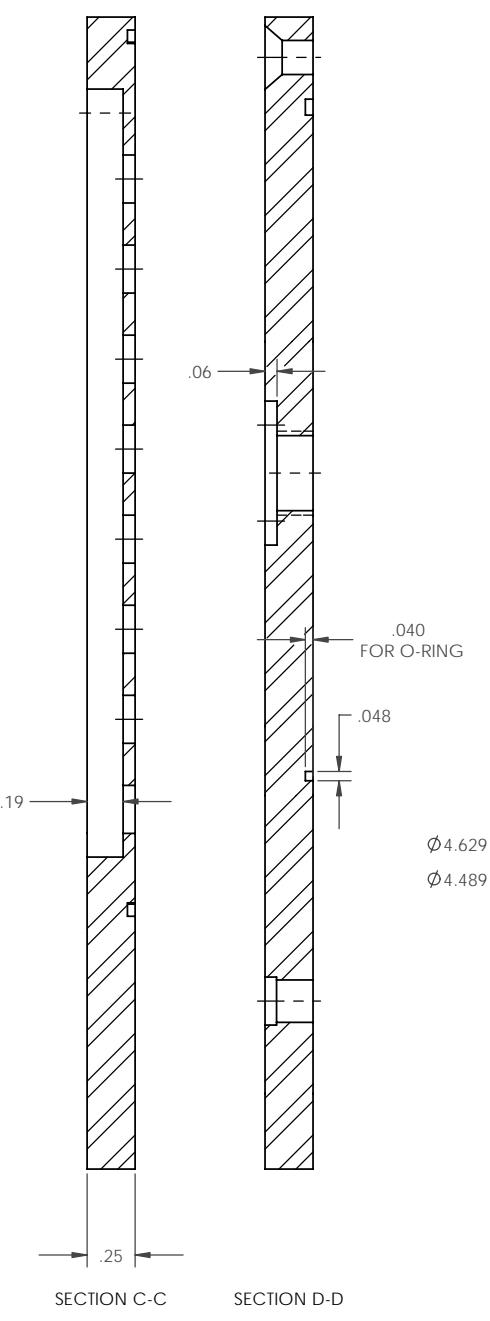
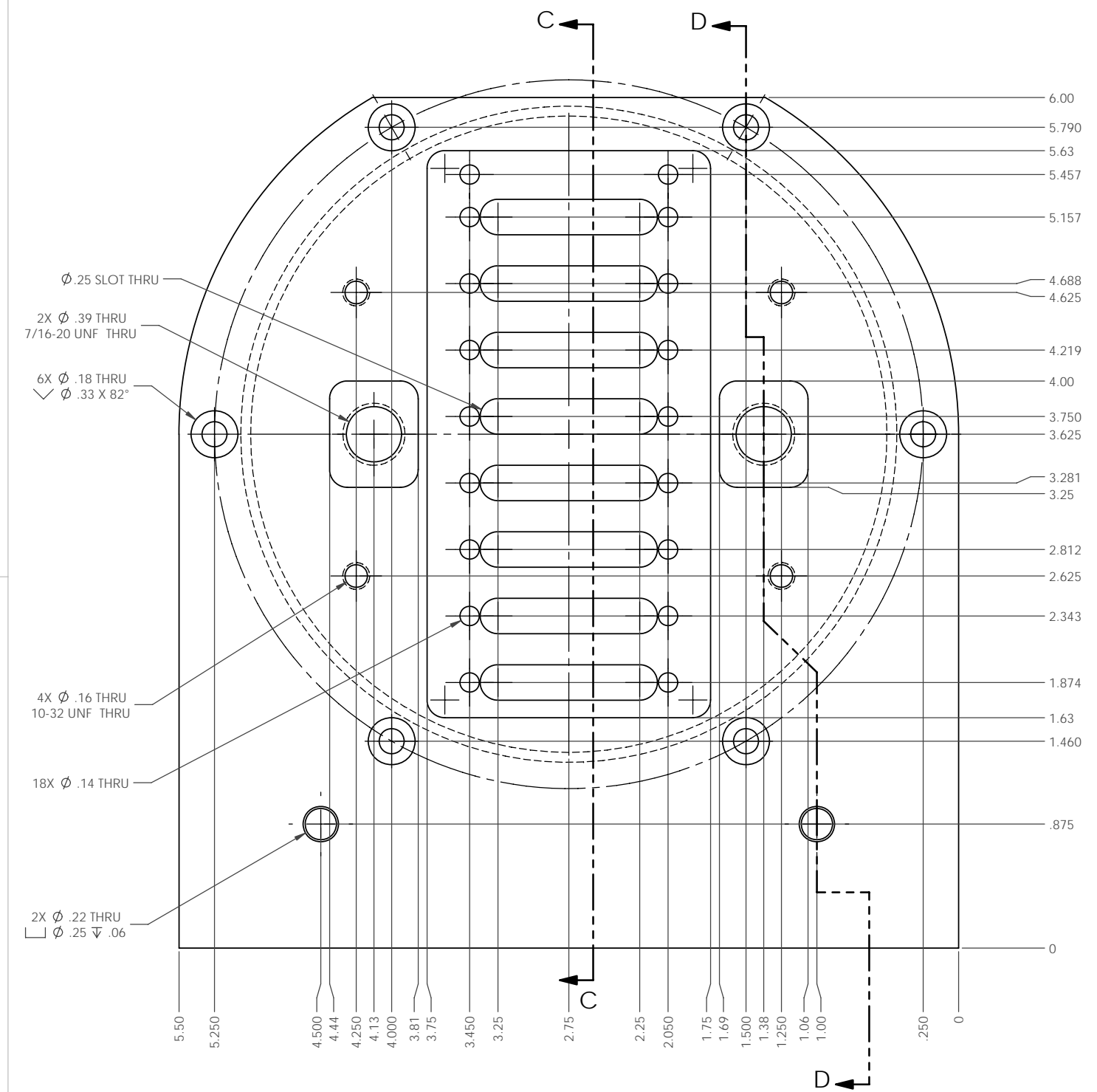
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



1 NAME: FIBER CONNECTOR ENDCAP
 QTY: 1
 MATL: CRS
 HARD'N: -
 FINISH: -
 SIZE/TYPE: .25 x 5.50 x 6.00
 WEIGHT: 1.657

NOTE: DO NOT SCALE DRAWING ! ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]

x.xxx [x.x] ± .010 [.3]
 x.xxxx [x.xxx] ± .005 [.13]
 x.xxxxx [x.xxxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	-
CHECKED	RSF	DATE	-
APPROVED	RSF	DATE	-

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SCALE: 2:1 SHEET: 5 OF 13

WEIGHT: 1.657 LBS

1 FILE: PMT_BOX_TUFTS

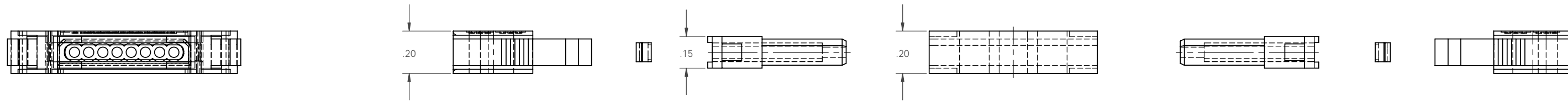
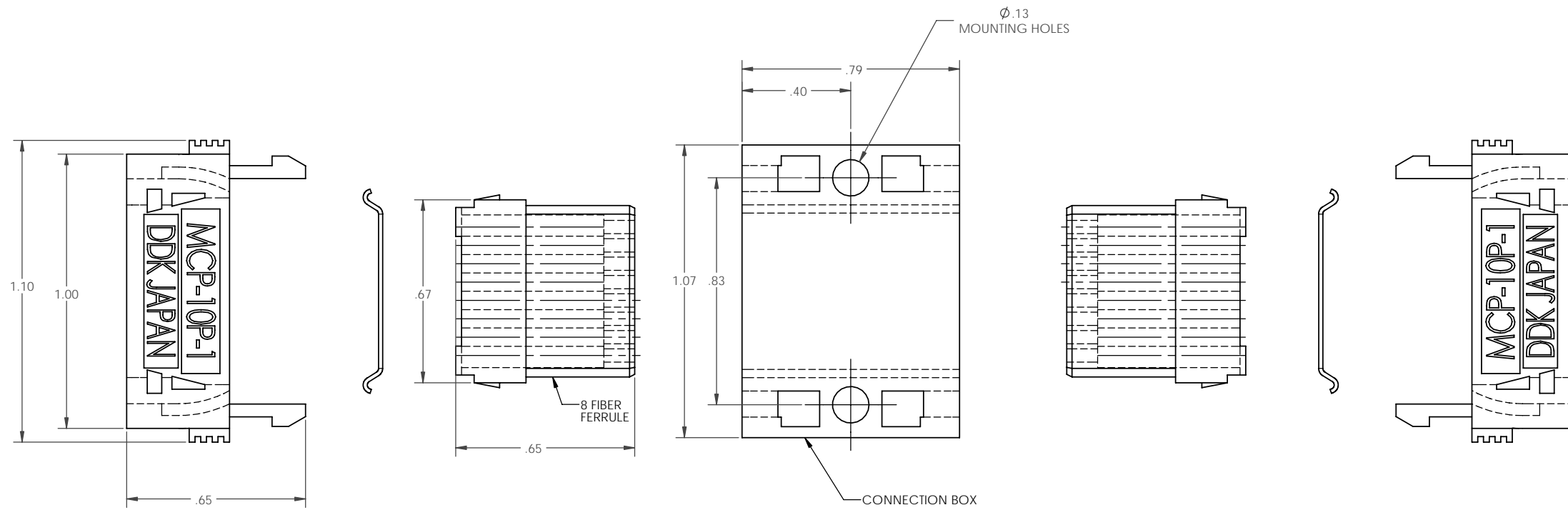
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



17 NAME: FIBER CONNECTOR ASS'Y
 QTY: A/R
 MAT'L: DDK, JAPAN
 HARD'N: -
 FINISH: -
 SIZE/TYPE: .200 x .793 x 1.067
 WEIGHT: 0.010

NOTE: DO NOT SCALE DRAWING!
 ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE
 DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]
 x.xxx [x,x] ± .010 [.3]
 x.xxxx [x,xxx] ± .005 [.13]
 x.xxxxx [x,xxxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE
 PMT BOX ASS'Y

THIRD ANGLE PROJECTION	DRAWN RSF	DATE -
	CHECKED RSF	DATE -
	APPROVED RSF	DATE -

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SIZE DWG NO	D	-	REV	-
SCALE	1:1	SHEET	6 OF 13	

WEIGHT: 0.007 LBS

1

FILE: PMT_BOX_TUFTS

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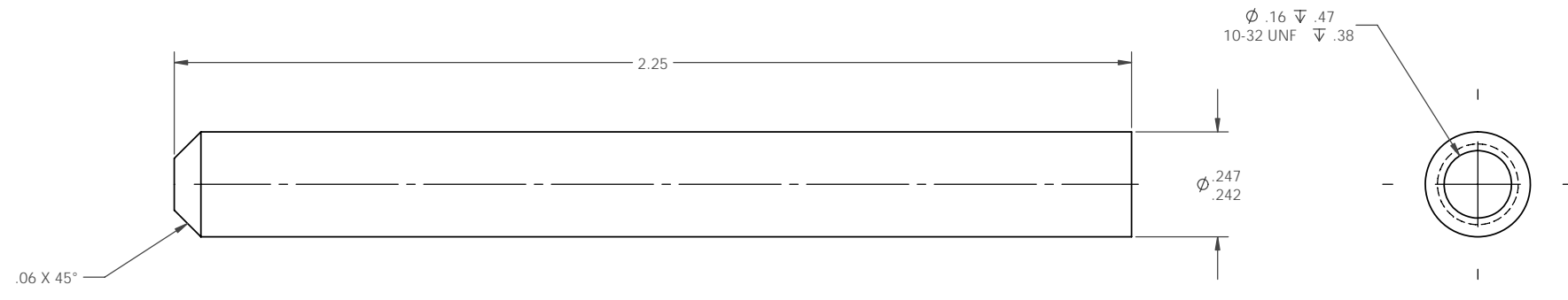
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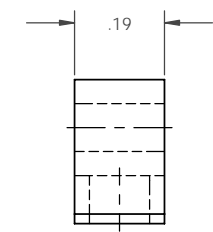
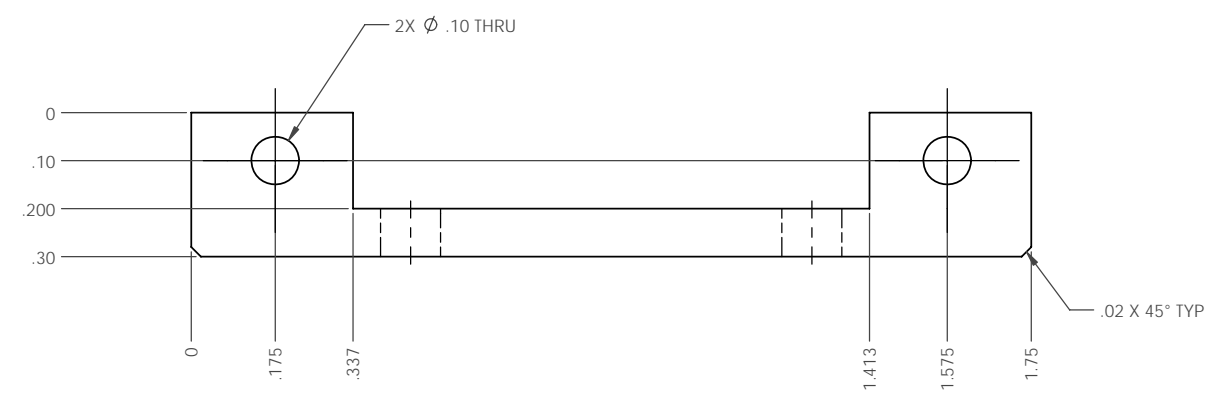
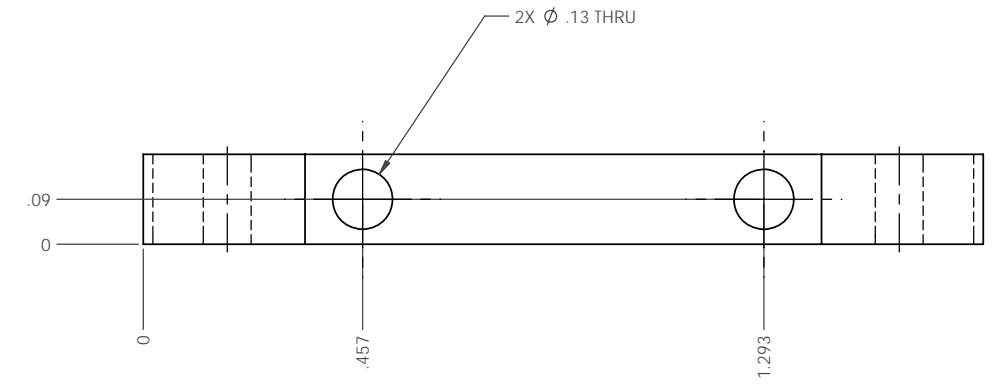
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



15 NAME: STUD MOUNTING
 QTY: 2
 MAT'L: CRS
 HARD'N: -
 FINISH: -
 SIZE/TYPE: .25 DIA x 2.75 LG
 WEIGHT: 0.027



18 NAME: CONNECTOR SUPPORT BRACKET
 QTY: 2
 MAT'L: ALUM
 HARD'N: -
 FINISH: -
 SIZE/TYPE: .19 x .30 x 1.75
 WEIGHT: 0.005

NOTE: DO NOT SCALE DRAWING !
 ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]

x.xxx [x,x] ± .010 [.3]
 x.xxxx [x,xxx] ± .005 [.13]
 x.xxxxx [x,xxxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	-
CHECKED	RSF	DATE	-
APPROVED	RSF	DATE	-

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SCALE: 5:1 SHEET: 7 OF 13

WEIGHT: 0.005 LBS

1 FILE: PMT_BOX_TUFTS

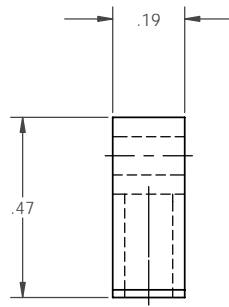
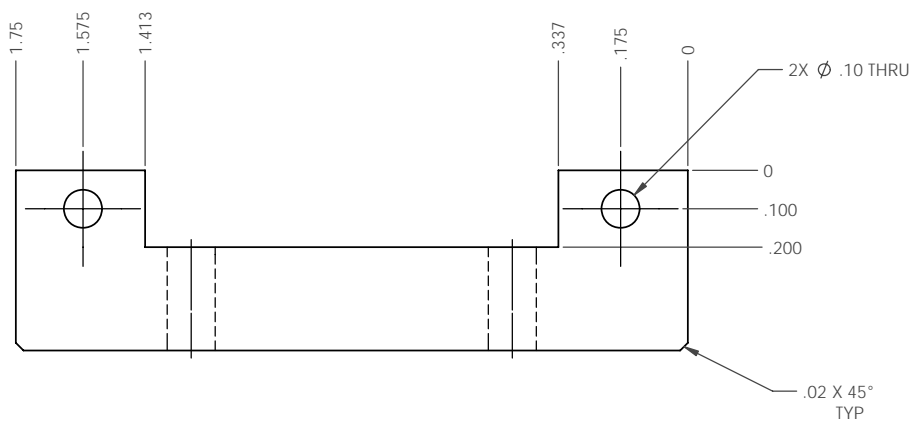
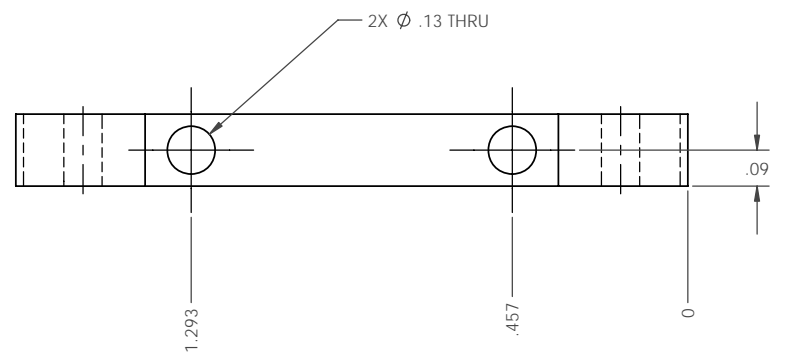
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



19

NAME: CONNECTOR SUPPORT 02
 QTY: 7
 MATL: ALUM
 HARDN: -
 FINISH: -
 SIZE/TYPE: .19 x .47 x 1.75
 WEIGHT: 0.010

NOTE: DO NOT SCALE DRAWING !
 ALL TOLERANCES UNLESS OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]

x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE		PMT BOX ASS'Y	
THIRD ANGLE PROJECTION	DRAWN	RSF	DATE -
	CHECKED	RSF	DATE -
	APPROVED	RSF	DATE -

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SCALE	4:1	SHEET	8	OF	13	REV	-
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WEIGHT: 0.010 LBS

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FILE: PMT_BOX_TUFTS

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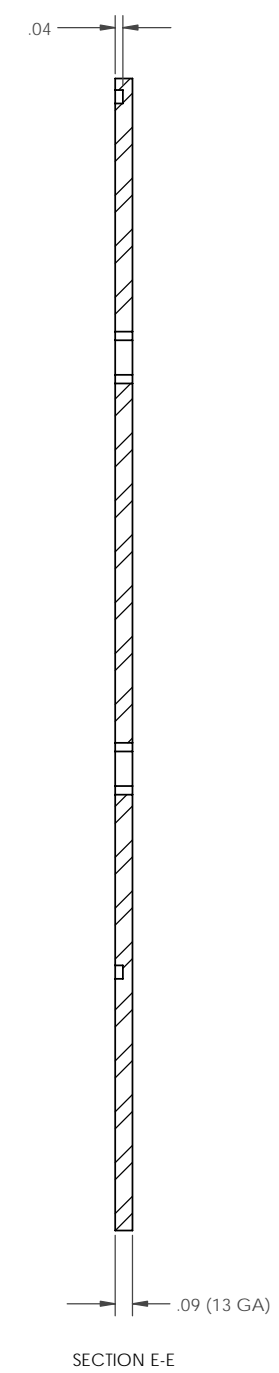
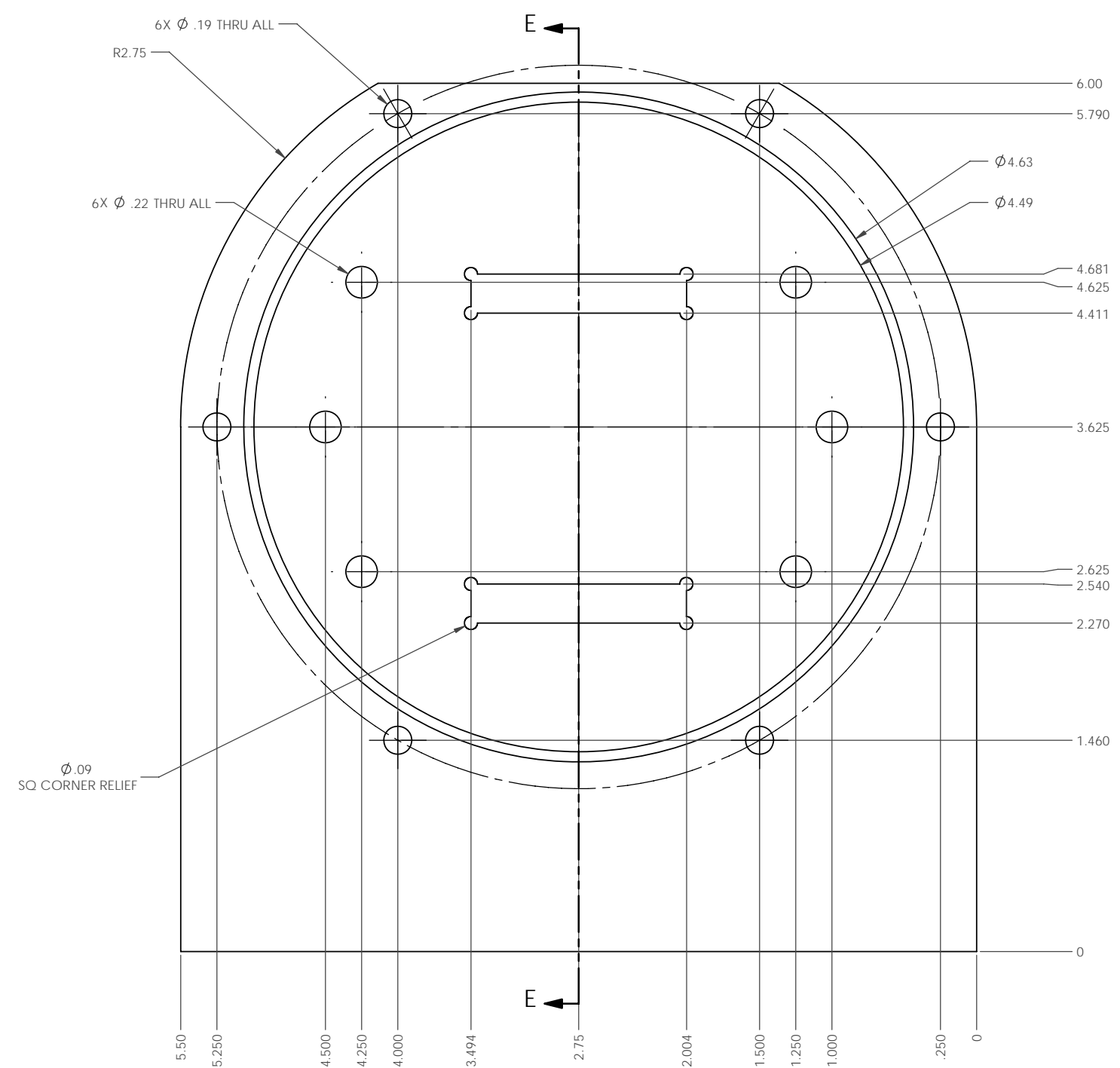
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



7 NAME: HIGH VOLTAGE ENDCAP
QTY: 1
MAT'L: CRS
HARD'N: -
FINISH: -
SIZE/TYPE: .09 (13 GA) x 5.50 x 6.00
WEIGHT: 0.746

NOTE: DO NOT SCALE DRAWING !
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DIMENSIONS ARE IN:
☒ INCHES [mm] ☐ mm [IN]

x.xxx [x.x] ± .010 [.3]
x.xxxx [x.xxx] ± .005 [.13]
x.xxxxx [x.xxxx] ± .0005 [.013]
xx/xx ± 1/32
x' ± 1"

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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION

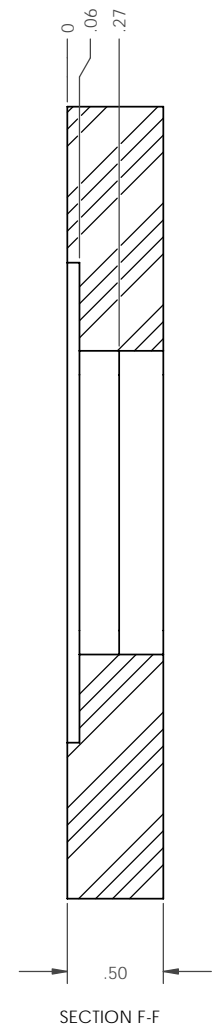
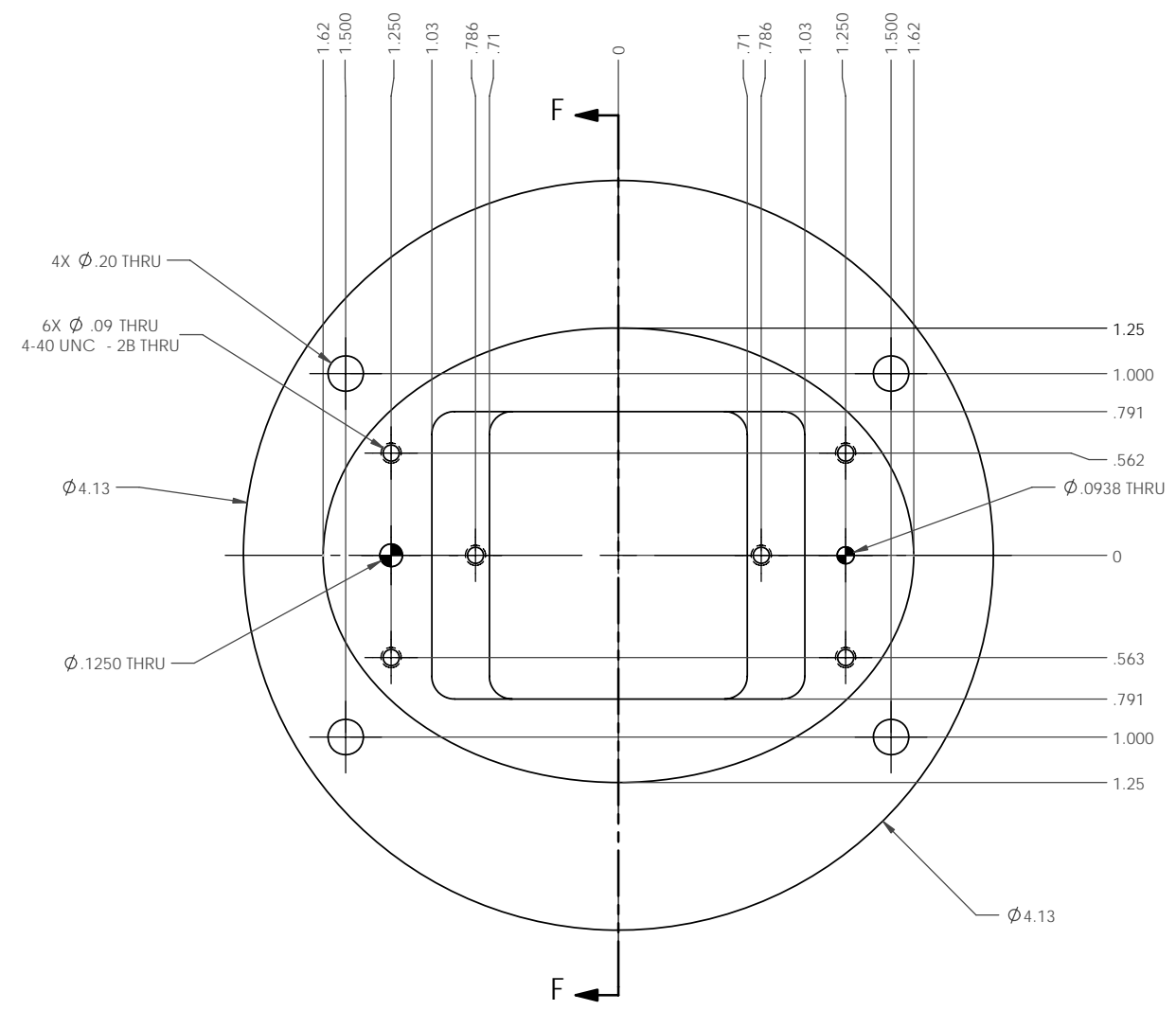
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CHECKED	RSF	DATE	-
APPROVED	RSF	DATE	-

SCALE: 2:1 SHEET 9 OF 13

WEIGHT: 0.746 LBS

1 FILE: PMT_BOX_TUFTS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



5 NAME: COOKIE HOLDER
QTY: 1
MAT'L: NORYL, BLACK
HARD'N: -
FINISH: -
SIZE/TYPE: 4.13 DIA x .50 THK
WEIGHT: 0.254

NOTE: DO NOT SCALE DRAWING !
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DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]
 x.xx [x,x] \pm .010 [.3]
 x.xxx [x,xx] \pm .005 [.13]
 x.xxxx [x,xxx] \pm .0005 [.013]
 xx/xx \pm 1/32
 x' \pm 1"

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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	-
CHECKED	RSF	DATE	-
APPROVED	RSF	DATE	-

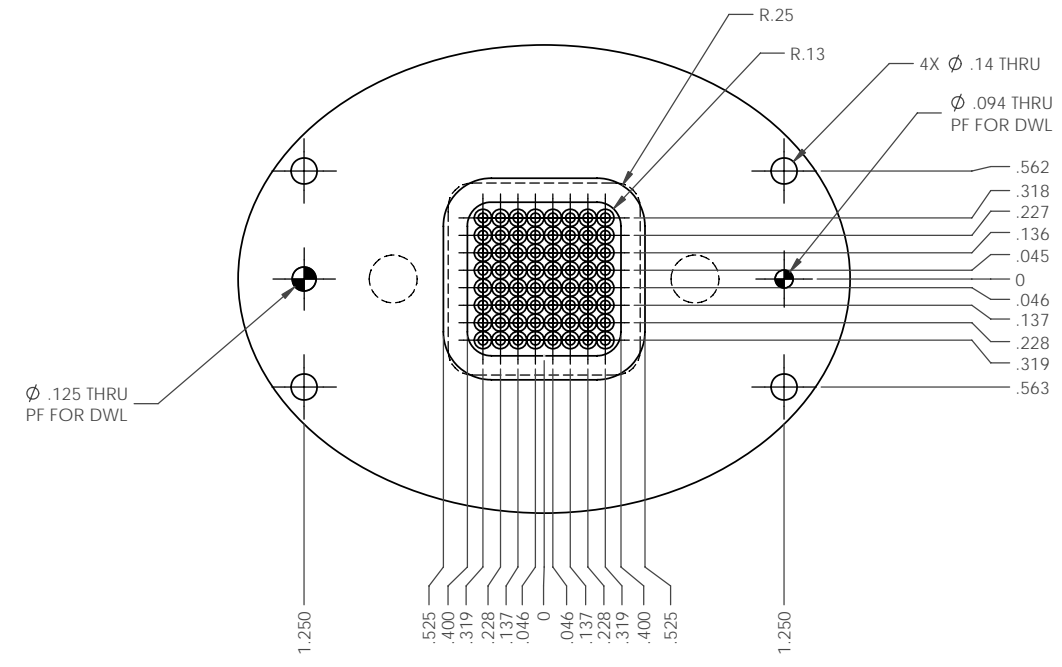
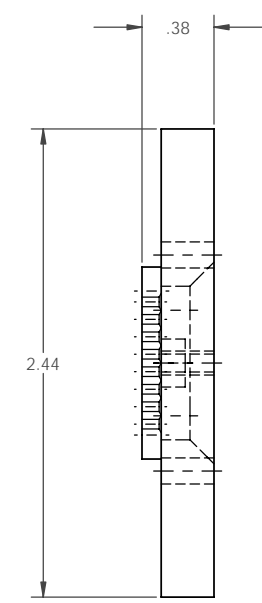
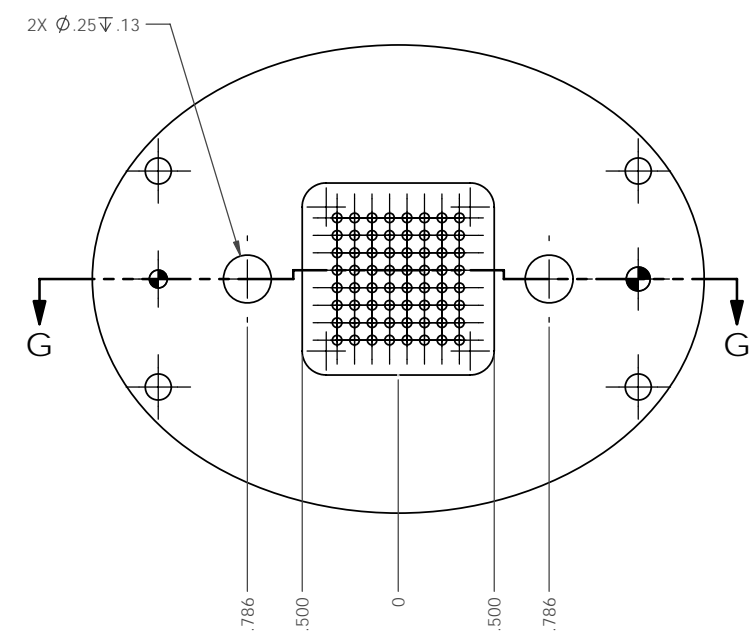
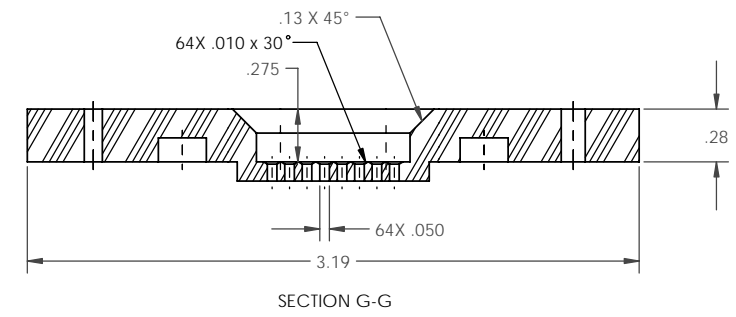
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SCALE: 2:1 SHEET 10 OF 13

WEIGHT: 0.254 LBS

1 FILE: PMT_BOX_TUFTS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



4 NAME: COOKIE
 QTY: 1
 MAT'L: NORYL, BLACK
 HARD'N: -
 FINISH: -
 SIZE/TYPE: .38 x 2.44 x 3.19
 WEIGHT: 0.077

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 INCHES [mm] mm [IN]

x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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 SIDNEY W. BARNES RESEARCH LABORATORY

TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION

DRAWN	RSF	DATE	-
CHECKED	RSF	DATE	-
APPROVED	RSF	DATE	-

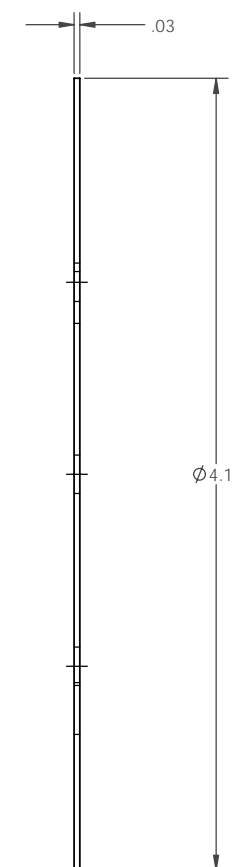
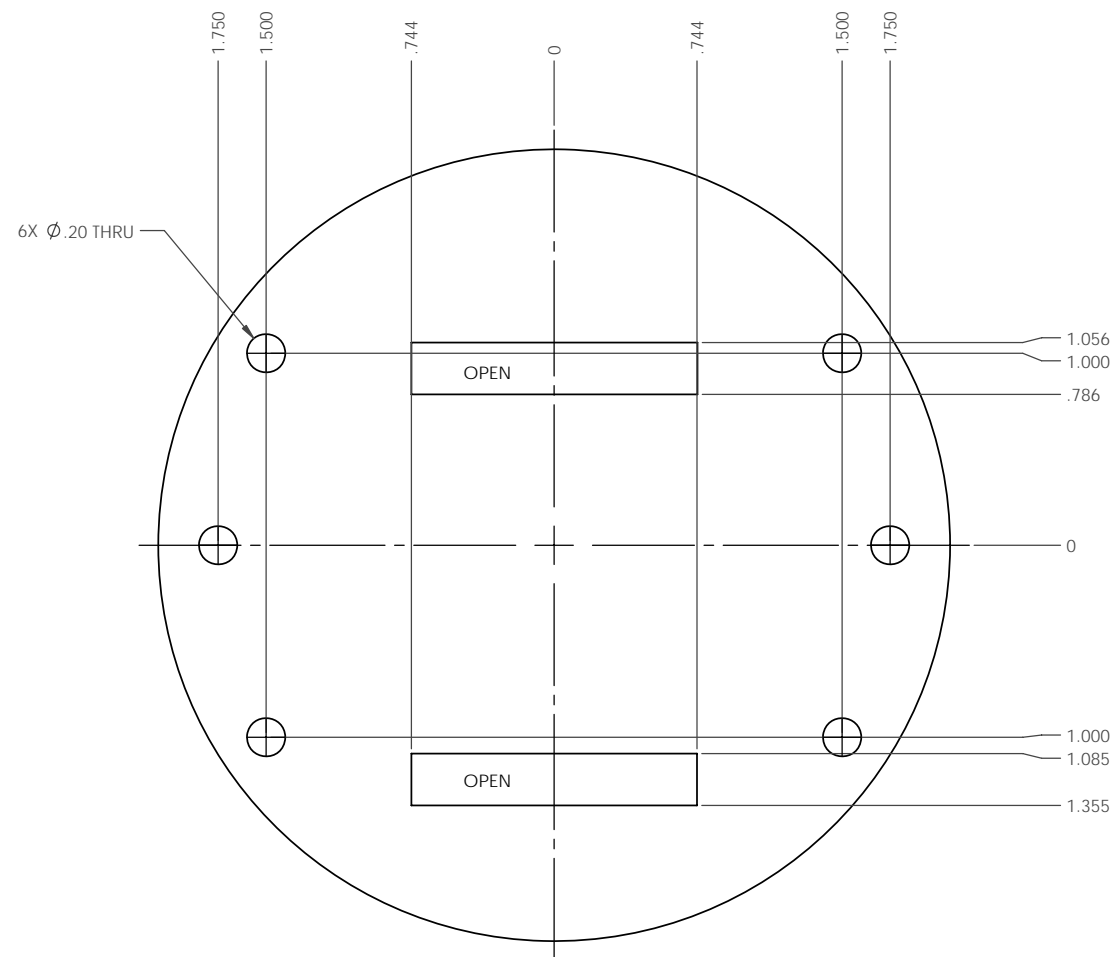
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SCALE: 2:1 SHEET: 11 OF 13

WEIGHT: 0.077 LBS

1 FILE: PMT_BOX_TUFTS

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



11 NAME: CIRCUIT BOARD GASKET
 QTY: 1
 MAT'L: RUBBER
 HARD'N: -
 FINISH: -
 SIZE/TYPE: 4.12 DIA x .03 THK
 WEIGHT: 0.013

NOTE: DO NOT SCALE DRAWING!
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 DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]
 x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

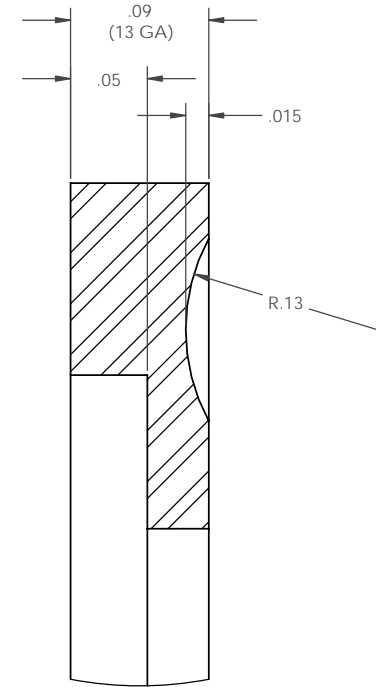
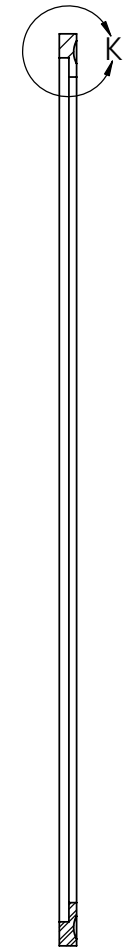
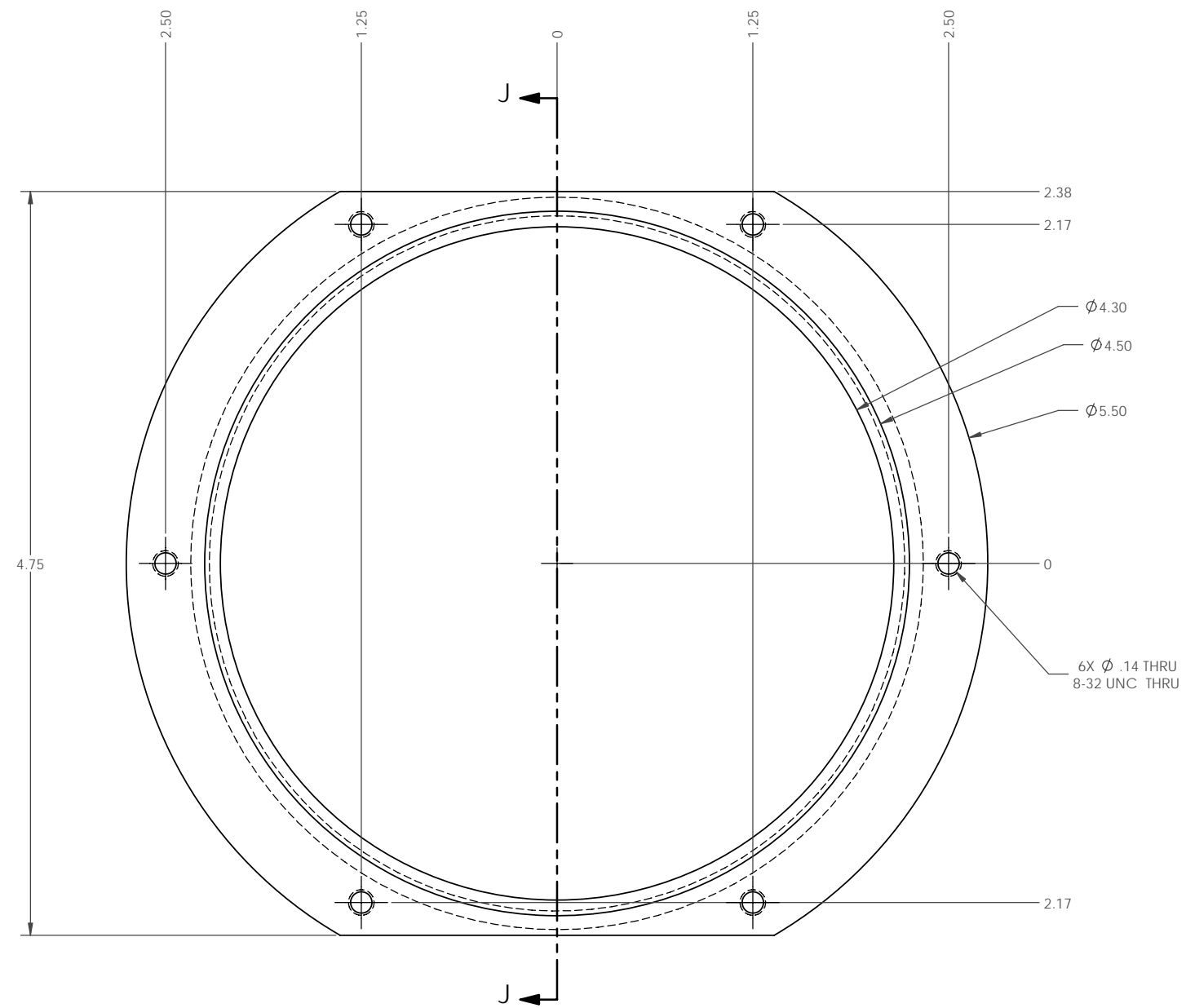
UNIVERSITY OF ROCHESTER
 DEPT. OF PHYSICS AND ASTRONOMY
 SIDNEY W. BARNES RESEARCH LABORATORY

TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION	DRAWN: RSF	DATE: -
	CHECKED: RSF	DATE: -
	APPROVED: RSF	DATE: -

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPRV
-	-	INITIAL ISSUE	-	-



DETAIL K
SCALE 16 : 1

SECTION J-J

2 NAME: WELDED TUBE ENDCAP
 QTY: 2
 MAT'L: CRS
 HARD'N: -
 FINISH: -
 SIZE/TYPE: 5.50 DIA x .09 LG (13 GA)
 WEIGHT: 0.172

NOTE: DO NOT SCALE DRAWING !
 ALL TOLERANCES UNLESS
 OTHERWISE SPECIFIED ARE

DIMENSIONS ARE IN:
 INCHES [mm] mm [IN]

x.xx [x,x] ± .010 [.3]
 x.xxx [x,xx] ± .005 [.13]
 x.xxxx [x,xxx] ± .0005 [.013]
 xx/xx ± 1/32
 x' ± 1"

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TITLE: PMT BOX ASS'Y

THIRD ANGLE PROJECTION	DRAWN RSF	DATE -
	CHECKED RSF	DATE -
	APPROVED RSF	DATE -

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WEIGHT: 0.172 LBS

SCALE: 2:1 SHEET: 13 OF 13

SIZE: D DWG NO: -

1

FILE: PMT_BOX_TUFTS