

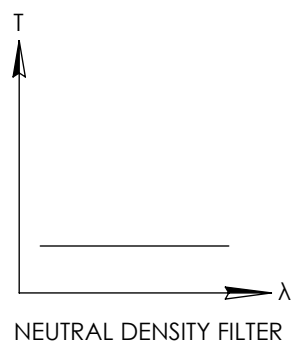
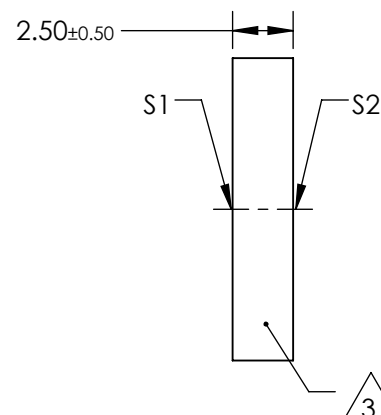
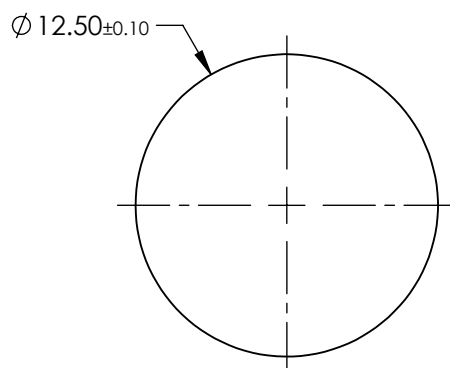
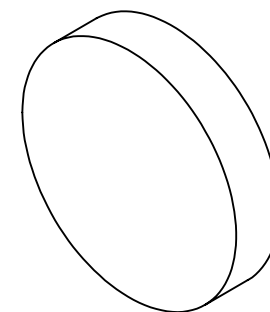
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-70
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 0.15 ±0.03
5. TRANSMISSION (%): 70 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

**FOR INFORMATION ONLY:  
DO NOT MANUFACTURE  
PARTS TO THIS DRAWING**



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DIMENSIONS ARE FOR REFERENCE ONLY



	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.15, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48523	SHEET 1 OF 1

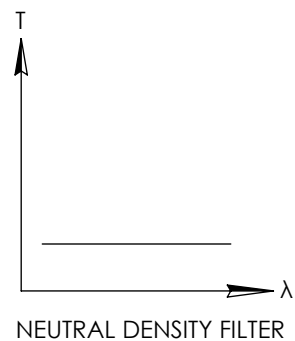
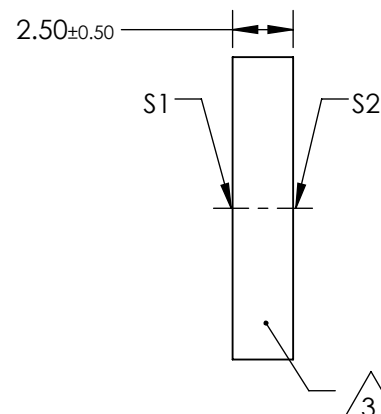
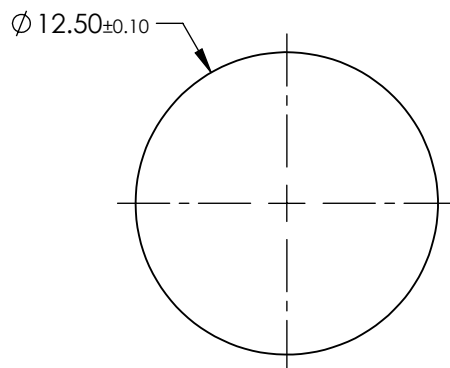
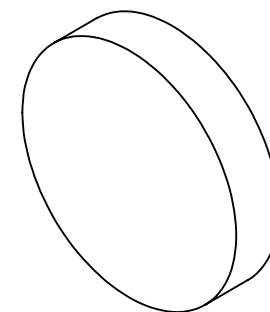
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-50
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 0.3 ±0.05
5. TRANSMISSION (%): 50 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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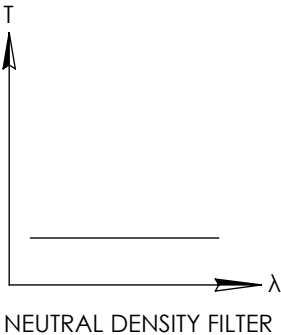
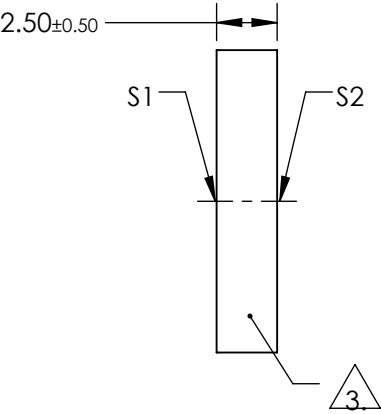
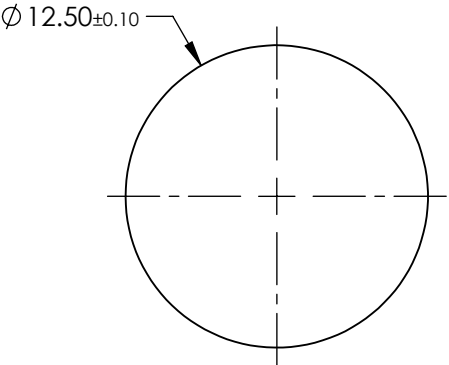
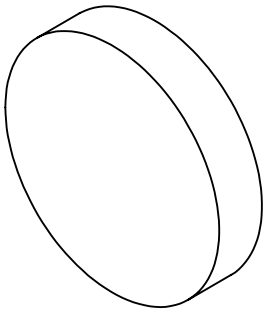


	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.3, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48524	SHEET 1 OF 1

NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-40
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm
3. FINE GRIND SURFACE
4. OPTICAL DENSITY: 0.4 ±0.05
5. TRANSMISSION (%): 40 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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	S1	S2	THIRD ANGLE PROJECTION		TITLE	OD 0.4, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50	ALL DIMS IN	mm	DWG NO	48525	SHEET 1 OF 1
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED					

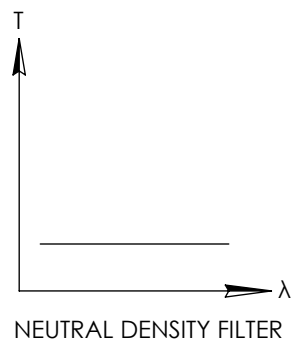
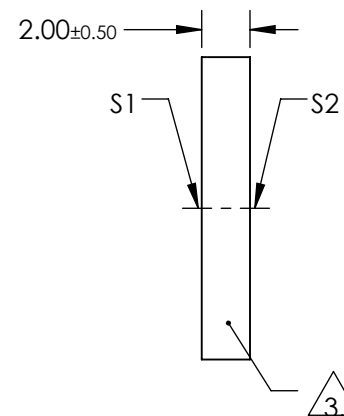
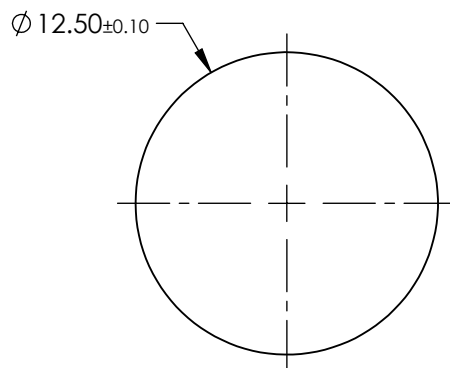
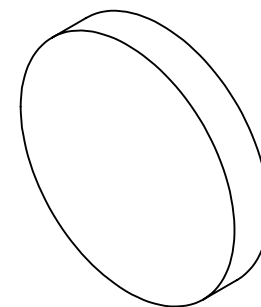
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-25
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY:  $0.5 \pm 0.05$
5. TRANSMISSION (%): 32 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.5, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48526	SHEET 1 OF 1

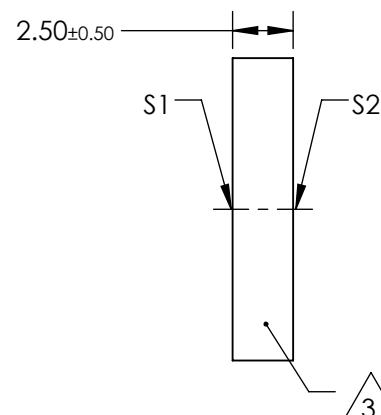
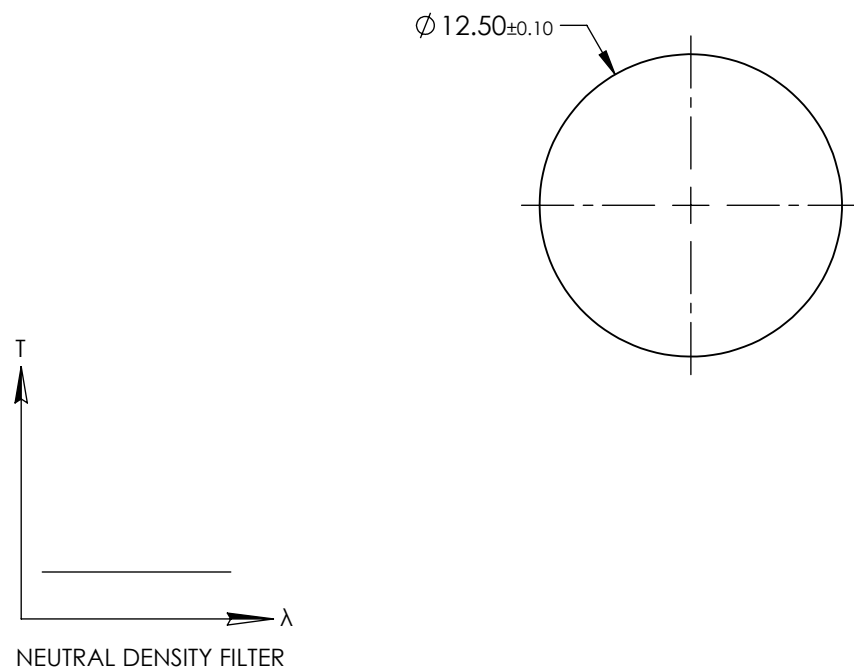
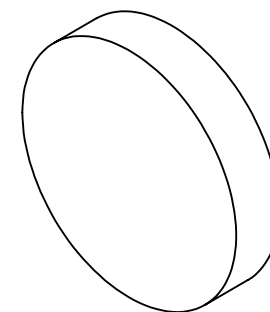
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-25
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 0.6 ±0.05
5. TRANSMISSION (%): 25 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

**FOR INFORMATION ONLY:  
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PARTS TO THIS DRAWING**



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	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.6, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48527	SHEET 1 OF 1

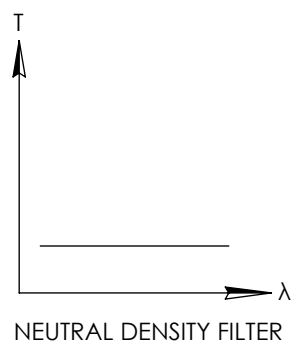
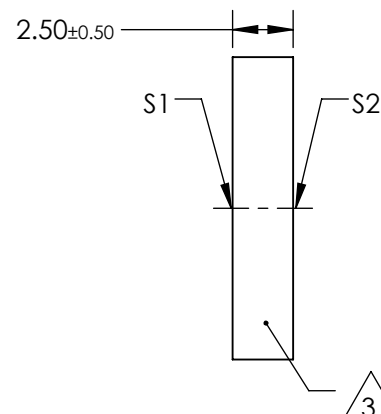
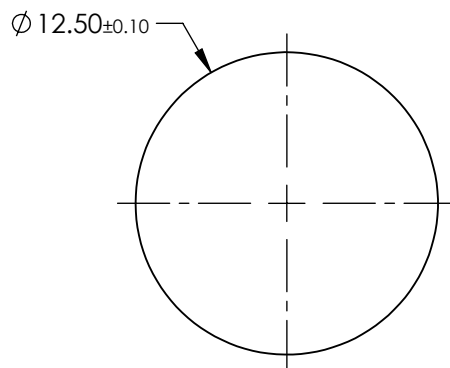
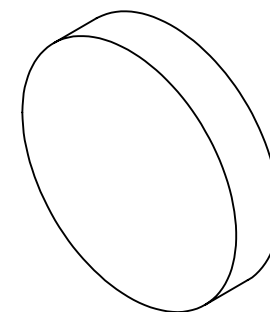
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-13
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY:  $0.9 \pm 0.1$
5. TRANSMISSION (%): 12.5 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.9, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48528	SHEET 1 OF 1

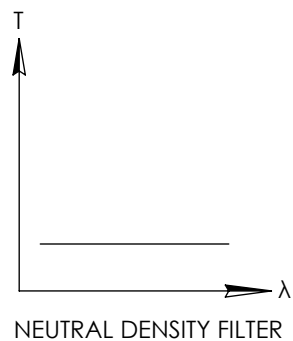
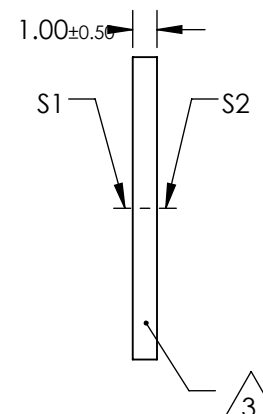
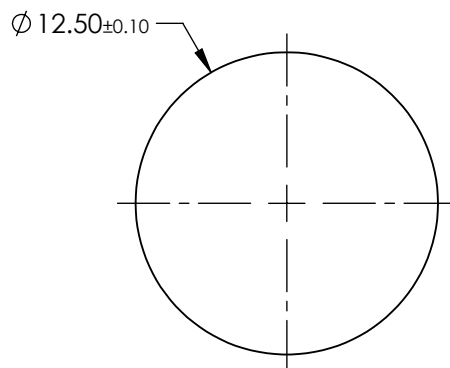
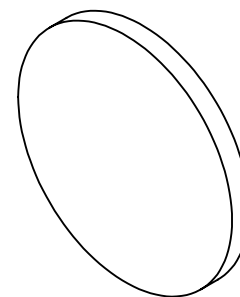
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-0.3
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 1.0 ±0.1
5. TRANSMISSION (%): 10 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 1, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48529	SHEET 1 OF 1

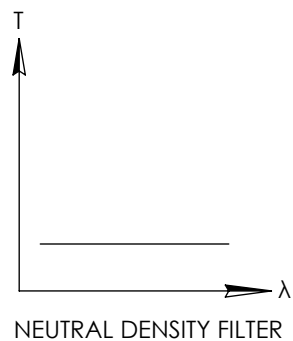
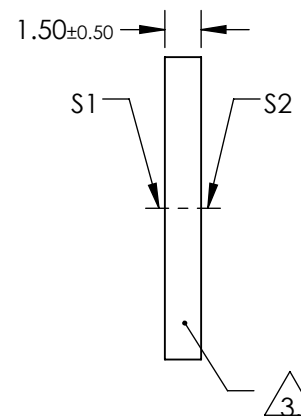
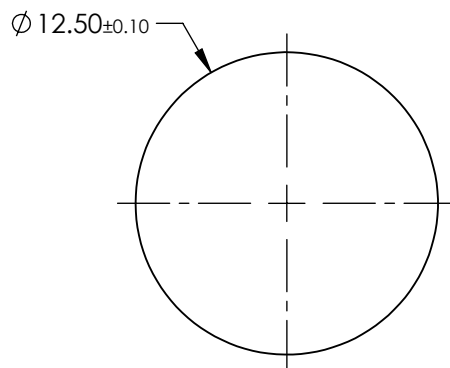
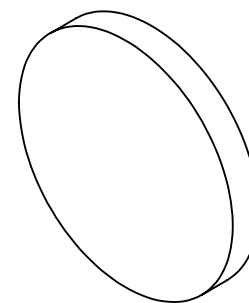
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-0.3
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

3. FINE GRIND SURFACE


4. OPTICAL DENSITY:  $1.5 \pm 0.1$
5. TRANSMISSION (%): 3 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 1.5, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48530	SHEET 1 OF 1



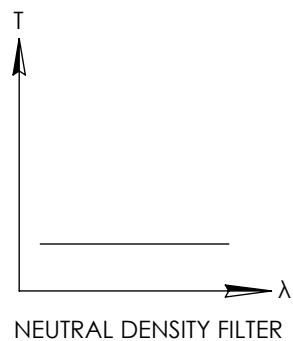
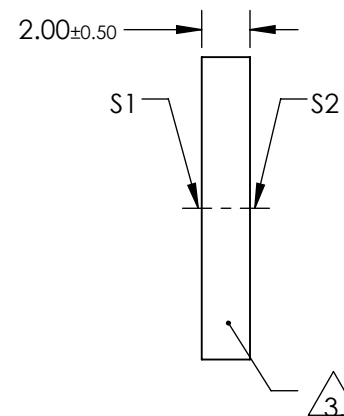
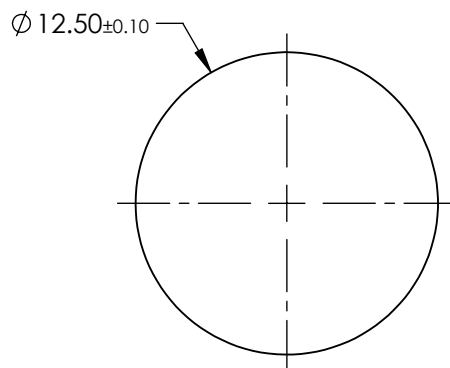
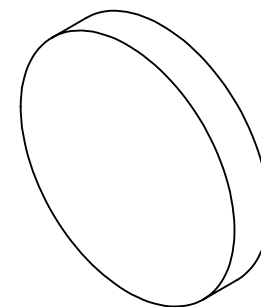
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-0.3
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 2.0 ±0.3
5. TRANSMISSION (%): 1 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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DIMENSIONS ARE FOR REFERENCE ONLY



	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 2, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48531	SHEET 1 OF 1

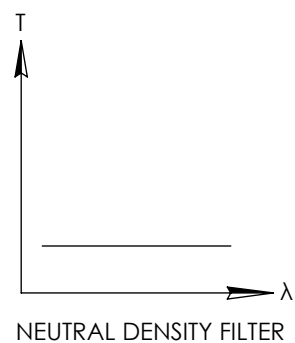
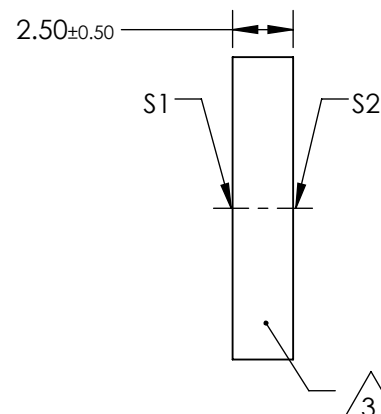
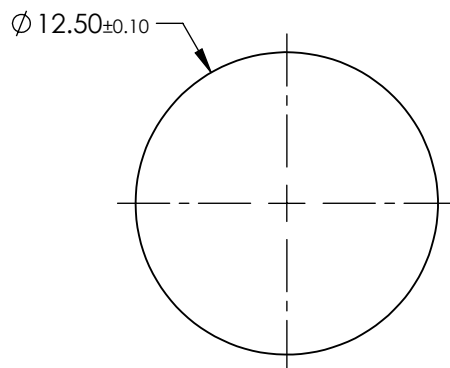
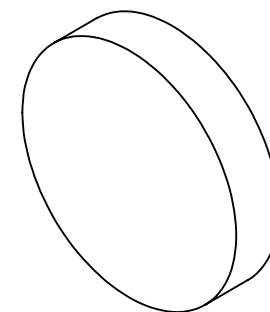
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-0.3
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm

3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 2.5 ±0.1
5. TRANSMISSION (%): 0.3 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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	S1	S2	THIRD ANGLE PROJECTION 		TITLE	OD 2.5, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	48532	SHEET 1 OF 1

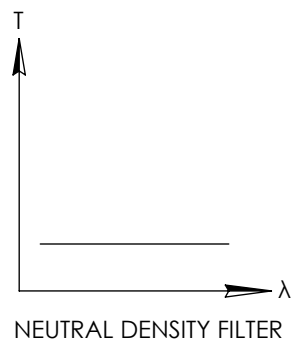
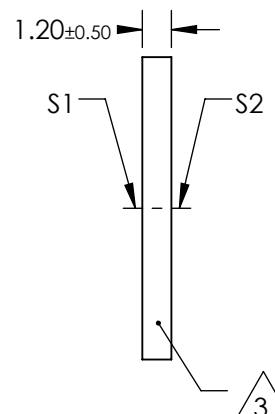
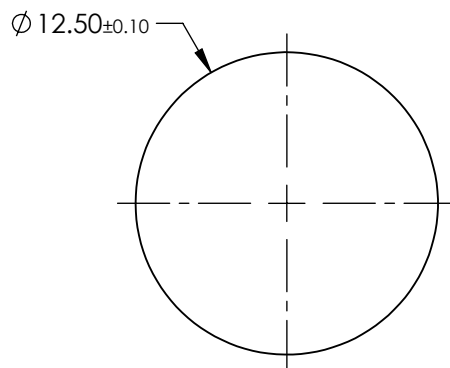
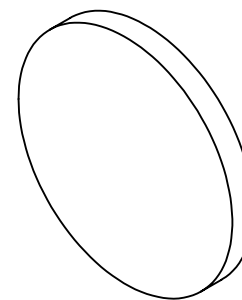
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-70
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN  $<0.02$  mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 0.1 ±0.03
5. TRANSMISSION (%): 79 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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PARTS TO THIS DRAWING**



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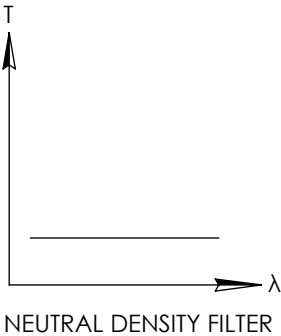
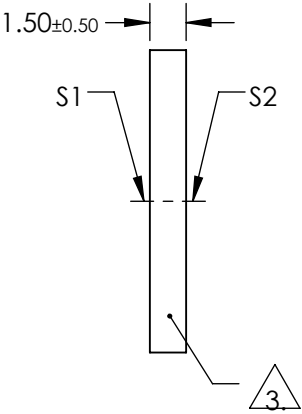
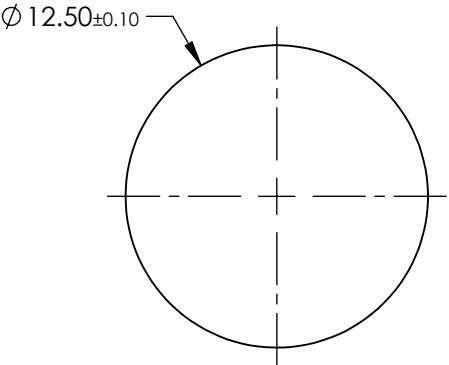
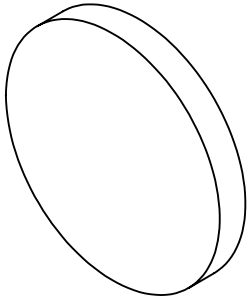


	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.1, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	63456	SHEET 1 OF 1

NOTES:

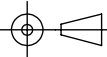
1. SUBSTRATE:  
HOYA GLASS: ND-50
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm
3. FINE GRIND SURFACE
4. OPTICAL DENSITY: 0.2 ±0.04
5. TRANSMISSION (%): 63 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

**FOR INFORMATION ONLY:  
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PARTS TO THIS DRAWING**



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	S1	S2	THIRD ANGLE PROJECTION 		TITLE	OD 0.2, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50	ALL DIMS IN	mm	DWG NO	63457	SHEET 1 OF 1
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED					

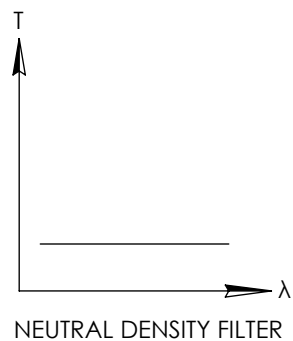
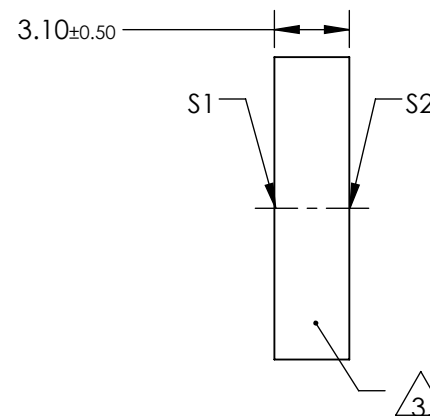
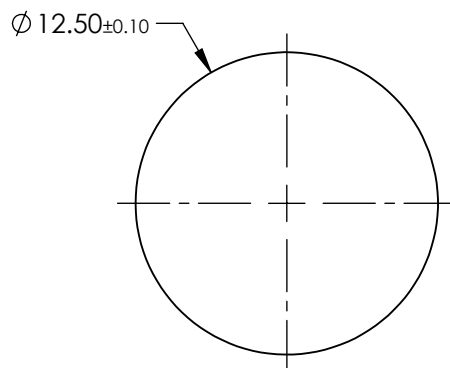
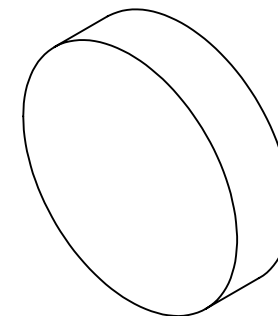
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-25
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY: 0.7 ±0.05
5. TRANSMISSION (%): 20 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

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DO NOT MANUFACTURE  
PARTS TO THIS DRAWING**



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	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 0.7, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	63458	SHEET 1 OF 1

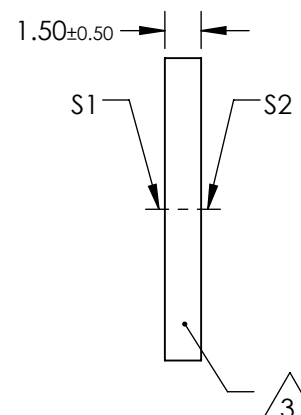
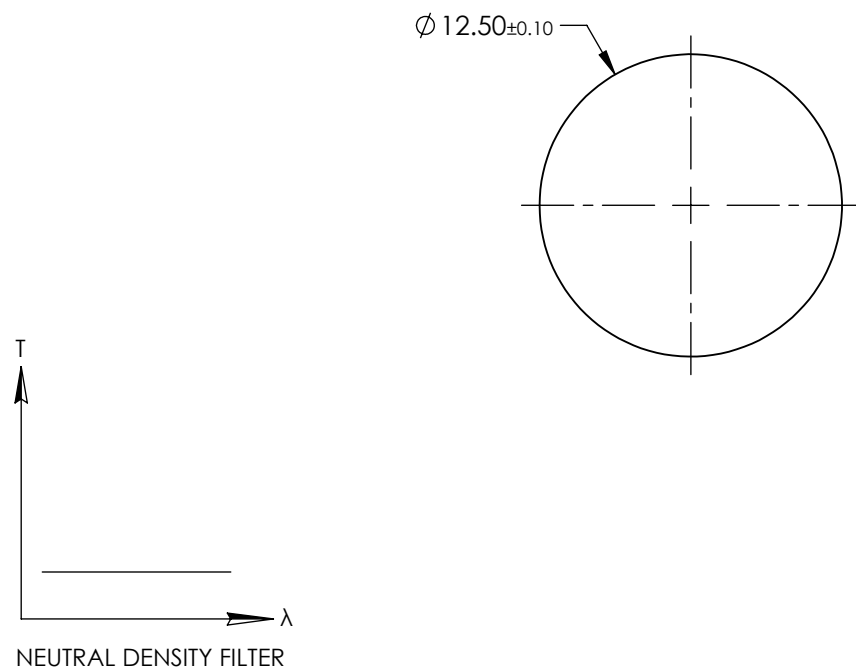
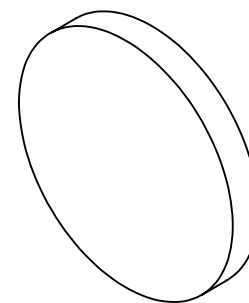
NOTES:

1. SUBSTRATE:  
HOYA GLASS: ND-0.3
2. SURFACE S2 TO BE PARALLEL WITH SURFACE S1 TO WITHIN <0.02 mm

### 3. FINE GRIND SURFACE


4. OPTICAL DENSITY:  $1.3 \pm 0.1$
5. TRANSMISSION (%): 5 % AVERAGE FROM 400-700nm
6. ROHS COMPLIANT

**FOR INFORMATION ONLY:  
DO NOT MANUFACTURE  
PARTS TO THIS DRAWING**



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE  
DIMENSIONS ARE FOR REFERENCE ONLY



	S1	S2	<div>THIRD ANGLE PROJECTION</div> 		TITLE	OD 1.3, Ø12.5mm ABSORPTIVE ND FILTER	
SHAPE	PLANO	PLANO					
SURFACE QUALITY	80-50	80-50					
BEVEL	PROTECTIVE AS NEEDED	PROTECTIVE AS NEEDED	ALL DIMS IN	mm	DWG NO	63459	SHEET 1 OF 1