

Appendix

Appendix A - Standard Gratings

1/8 Meter CM Instruments

1/4 and 1/2 Meter DK Instruments

SM Spectrometers

Grating Efficiency Curves

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Purchasing, Order, and Delivery



Standard Gratings

Standard Ruled Gratings for CM 1/8 Meter Instruments (including SM300, AD300, and SM302)

Table 1. Standard Gratings for CM monochromators/spectrographs

Part Number	Density (g/mm)	Peak I (nm)	Range (nm) @ > 30% T	Peak %T
AG2400-00240-303	2400	240	180 - 680	70
AG1200-00200-303	1200	200	180 - 450	65
AG1200-00300-303	1200	300	200 - 750	72
AG1200-00500-303	1200	500	330-1500	82
AG1200-00600-303	1200	600	400 - 1500	80
AG1200-00750-303	1200	750	480 - 1500	85
AG0600-00500-303	600	500	350 - 1300	80
AG0600-01250-303	600	1250	800 - 3000	85
AG0300-00500-303	300	500	310 - 1100	80
AG0300-02500-303	300	2500	1500 - 6000	88
AG0150-00500-303	150	500	320 - 980	72
AG0150-04000-303	150	4000	2500 - 9000	93
AG0075-01700-303	75	1700	1200-2500	85
AG0075-08000-303	75	8000	5000 - 15000	82
AG0045-01750-303	45	1750	1200 - 2500	77

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Standard Ruled Gratings for DK 1/4 & 1/2 Meter Instruments

Table 2. Standard Gratings for DK monochromators/spectrographs

Part Number	Density (g/mm)	Peak I (nm)	Range (nm) @ > 30% T	Peak %T
AG2400-00240-686	2400	240	180 - 680	70
AG1800-00500-686	1800	500	300-625	82
AG1200-00200-686	1200	200	180 - 450	65
AG1200-00250-686	1200	250	180 - 460	70
AG1200-00300-686	1200	300	200 - 750	70
AG1200-00500-686	1200	500	330 - 1500	82
AG1200-00600-686	1200	600	400 - 1500	80
AG1200-00750-686	1200	750	480 - 1500	85
AG1200-01000-686	1200	1000	550 - 1500	75
AG0600-00500-686	600	500	350 - 1300	80
AG0600-01250-686	600	1250	800 - 3000	85
AG0600-01600-686	600	1600	950 - 3000	93
AG0300-00500-686	300	500	310 - 1100	80
AG0300-02000-686	300	2000	1200 - 4000	88
AG0300-02500-686	300	2500	1500 - 4500	88
AG0300-03000-686	300	3000	1800 - 6000	80
AG0150-00500-686	150	500	320 - 980	72
AG0150-04000-686	150	4000	2500 - 9000	93
AG0150-06000-686	150	6000	3400-7800	86
AG0100-00800-686	100	800	500-2500	81
AG0075-08000-686	75	8000	5000 - 15000	82
AG0050-00600-686	50	600	400 - 1200	78
AG0050-12000-686	50	12000	7500 - 20000	82

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Standard Gratings for SM Spectrometers

Table 3. Standard Gratings for SM spectrometers

Part Number	Density (g/mm)	Peak λ (nm)	Range (nm) @ > 30% T	Peak %T
AG0600-00300-163	600	300	200-650	71
AG0600-00400-163	600	400	250-1000	77
AG0600-00500-163	600	500	300-1100	77
AG0600-00750-163	600	750	500-1700	72
AG0600-01000-163	600	1000	600-3000	74
AG0600-01200-163	600	1200	800-3200	76
AG0600-01600-163	600	1600	950-3200	87
AG0830-00800-163	830	800	450-2350	76
AG0830-01200-163	830	1200	600-2350	75
AG1200-00250-163	1200	250	200-650	69
AG1200-00300-163	1200	300	200-700	70
AG1200-00400-163	1200	400	200-900	71
AG1200-00500-163	1200	500	300-1650	71
AG1200-00750-163	1200	750	460-1650	71
AG1200-01000-163	1200	1000	520-1650	69
AG1800-00500-163	1800	500	300-1075	67

References

M.V.R.K. Murty, Theory and Principles of Monochromators, Spectrometers, and Spectrographs, Optical Engineering, Vol. 13, No.1, Jan 1974

T.M. Niemczyk and G.W. Gobeli, Characteristics of a Direct Grating Drive, Applied Spectroscopy, Vol. 42, No. 5, 1988



Grating Efficiency Curves

AG1200-01000	127
AG1200-00750	127
AG1200-00500	127
AG1200-00400	127
AG1200-00300	127
AG1200-00250	127
AG0830-01200	128
AG0830-00800	128
AG0600-01600	128
AG0600-01250	128
AG0600-01000	128
AG0600-00750	128
AG0600-00500	128
AG0600-00400	128
AG0600-00300	129
AG0300-04000	129
AG0300-02000	129
AG0300-00750	129
AG0300-00500	129
AG0300-00300	129
AG0150-00500	129
AG0120-012000	129
AG1200-U (Holographic)	130
AG1200-V (Holographic)	130
AG1800-U (Holographic)	130
AG1800-V (Holographic)	130
AG2400-U (Holographic)	130
AG2400-V (Holographic)	130
AG3600-U (Holographic)	130

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Spectrometer Basics

Monochromators and Spectrographs

Spectrometers

Spectrum Analyzers

Detection Systems

Light Sources

Automatic Filter Wheels

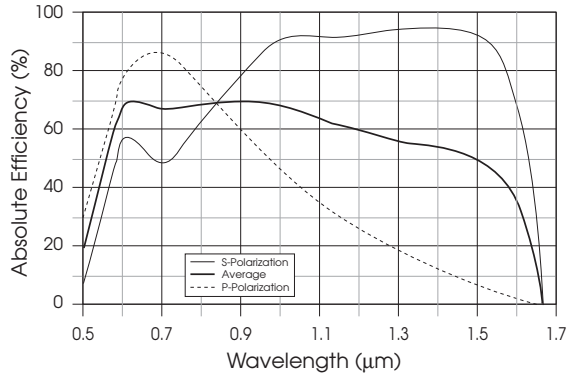
Sampling Accessories

Fibers & Couplers

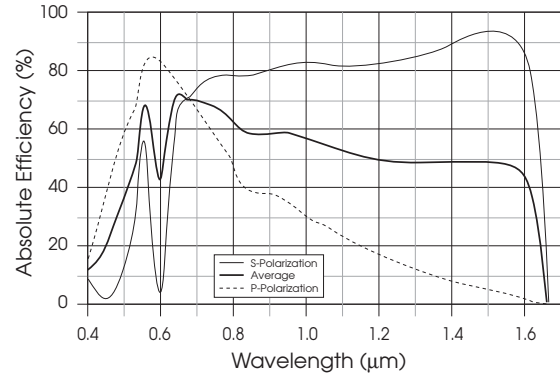
Application & Selection

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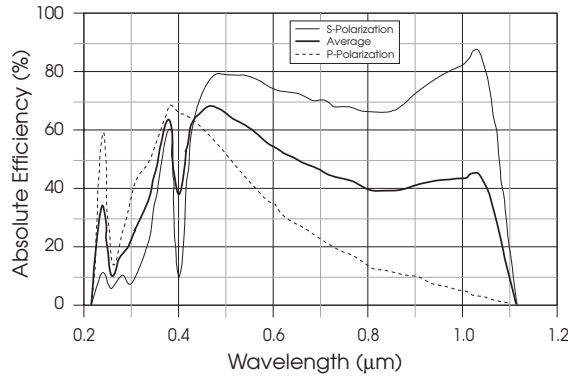
Grating Efficiency Curves



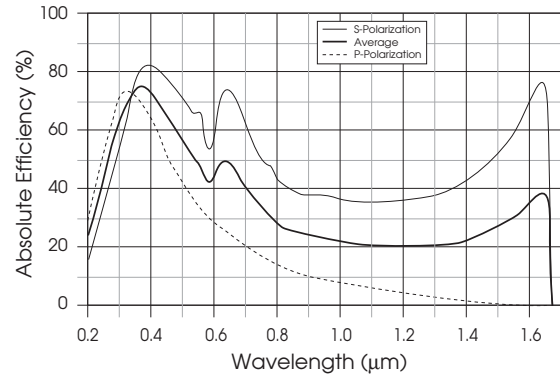
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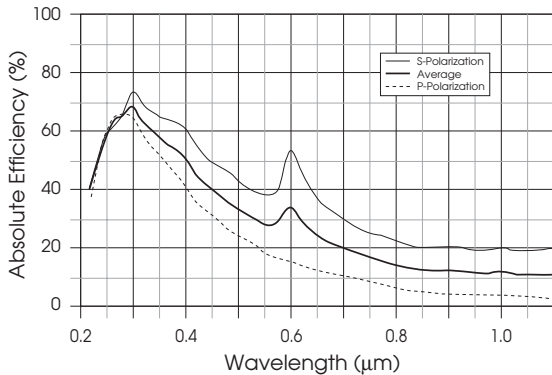
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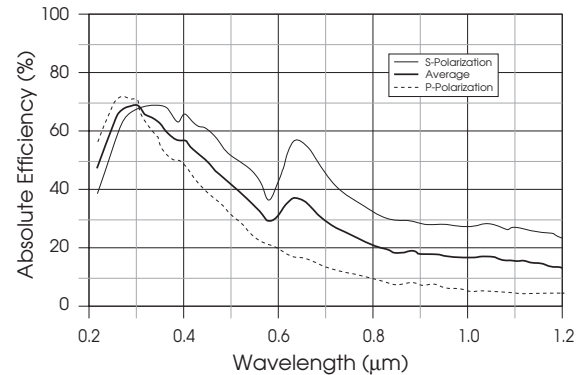
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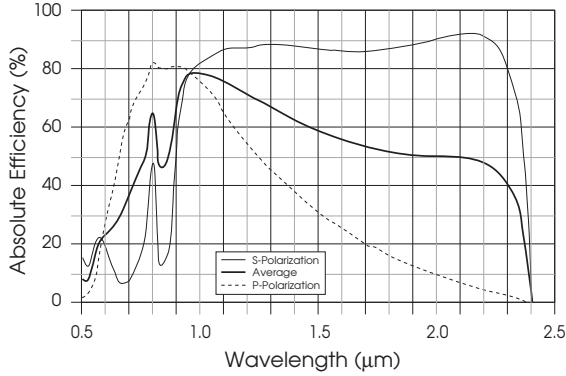
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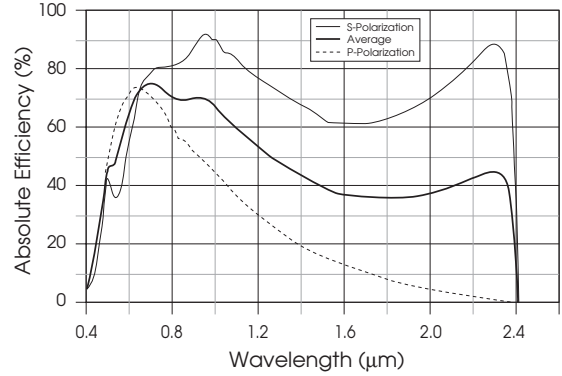
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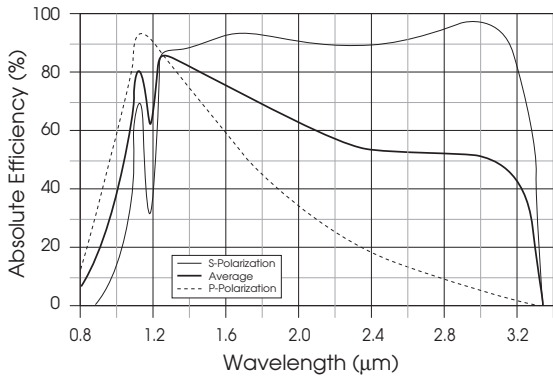
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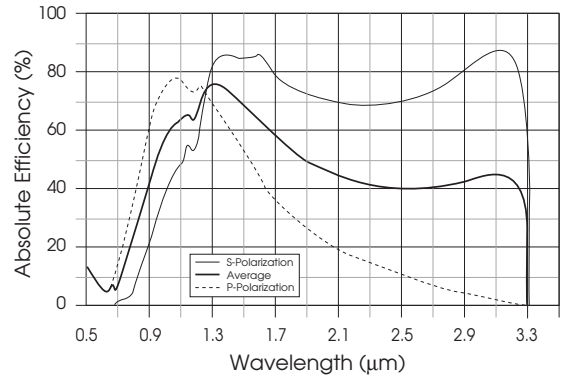
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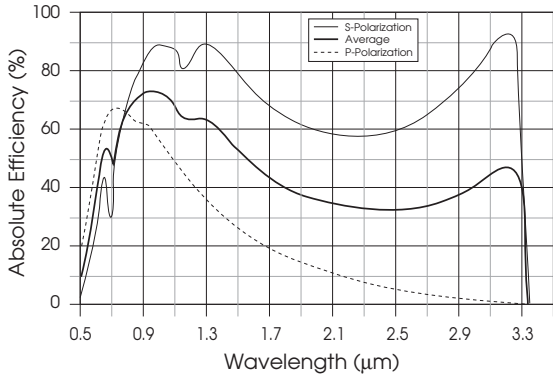
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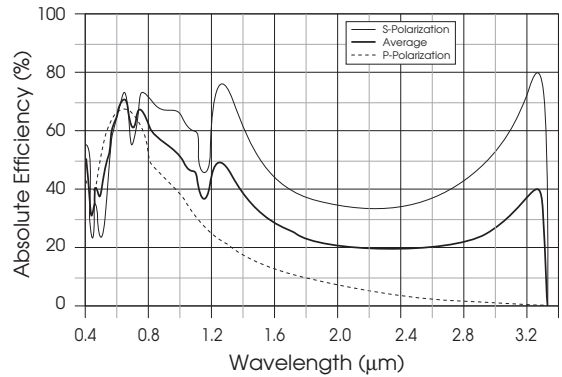
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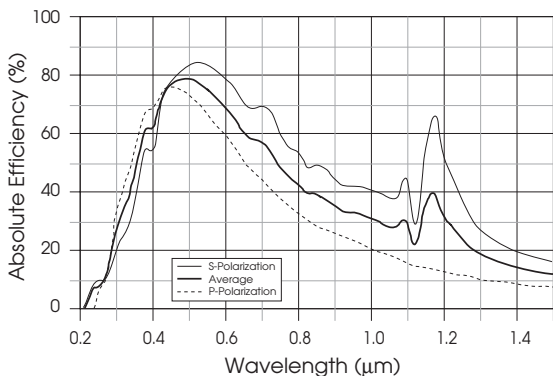
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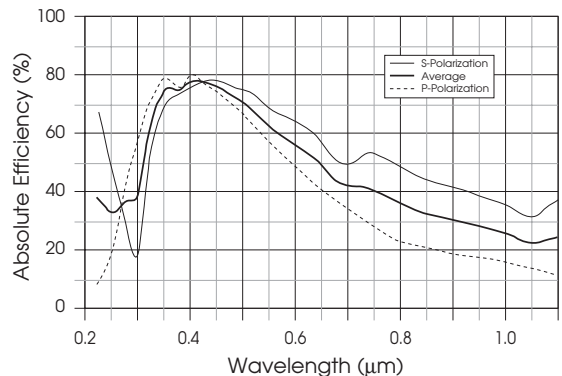
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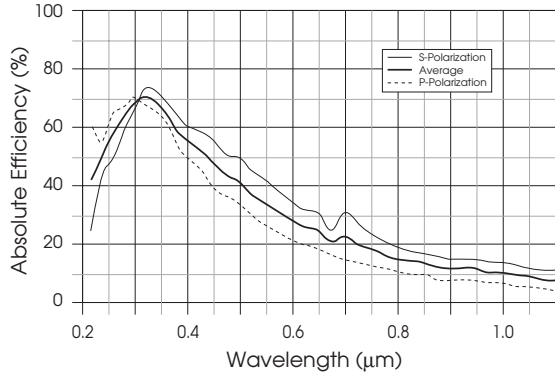


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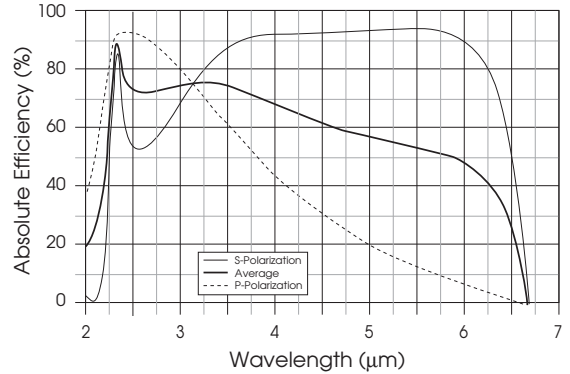


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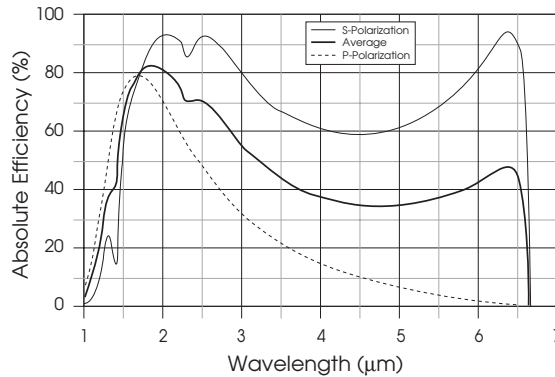
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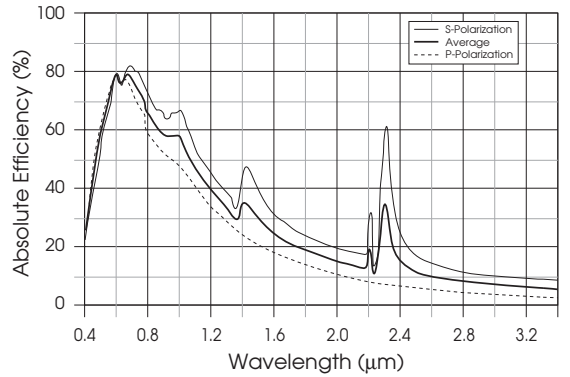
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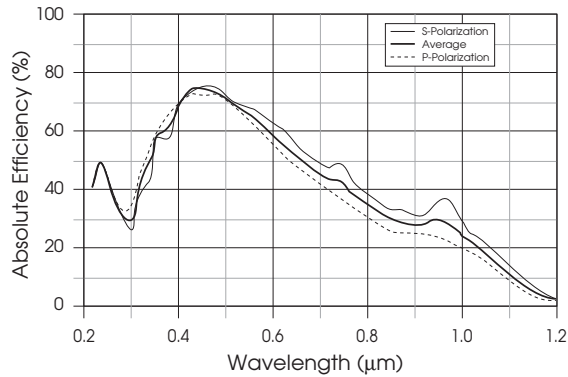
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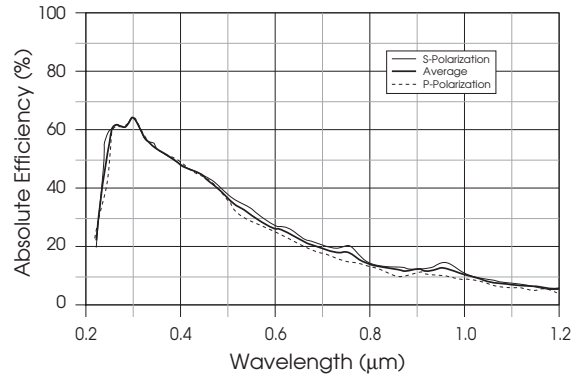
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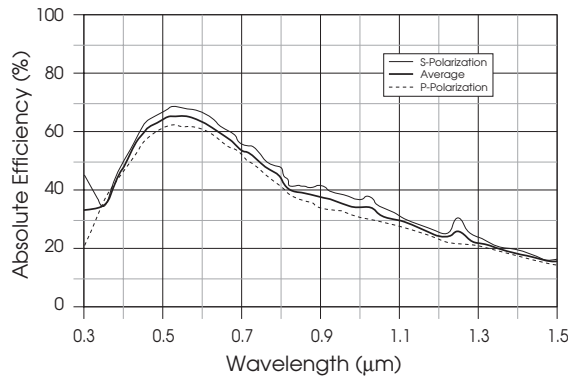
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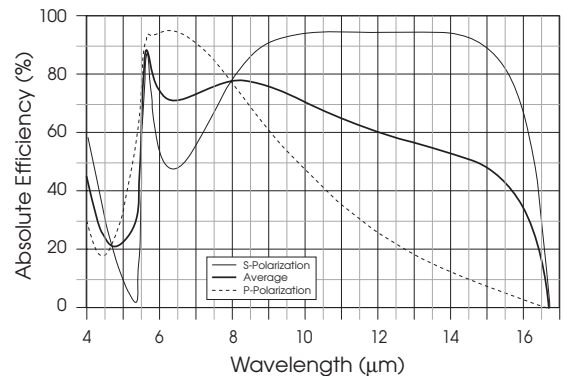
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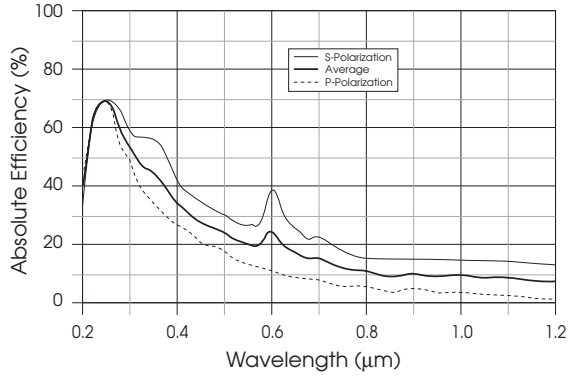
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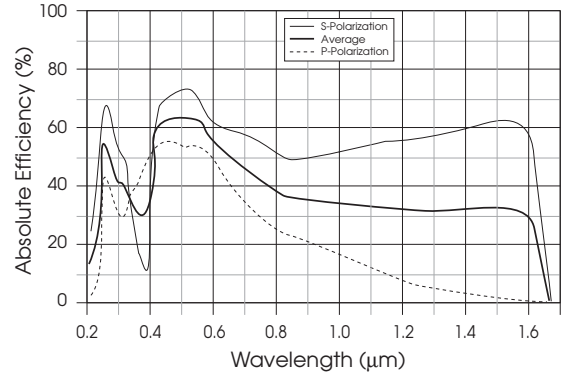
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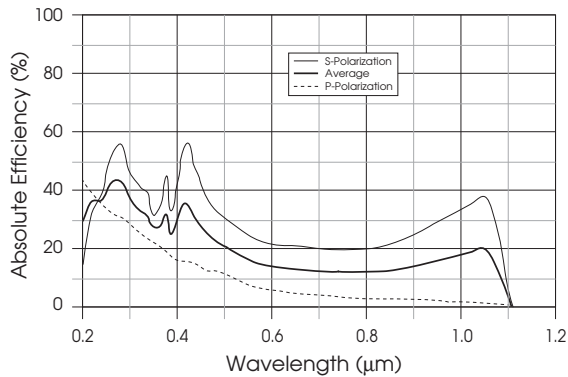
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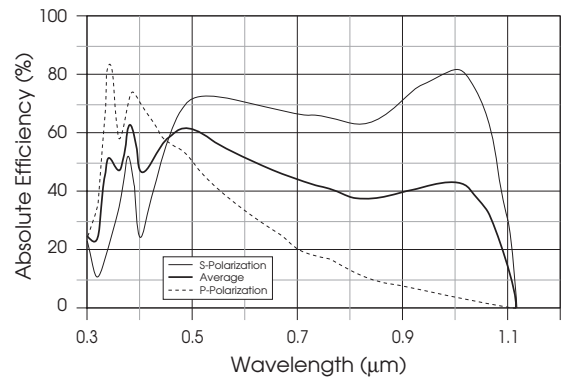
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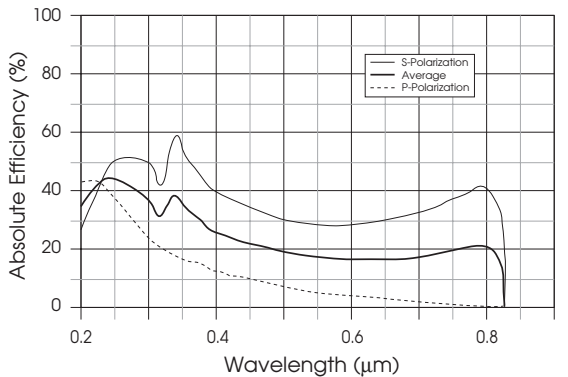
AG1200-V (Holographic)



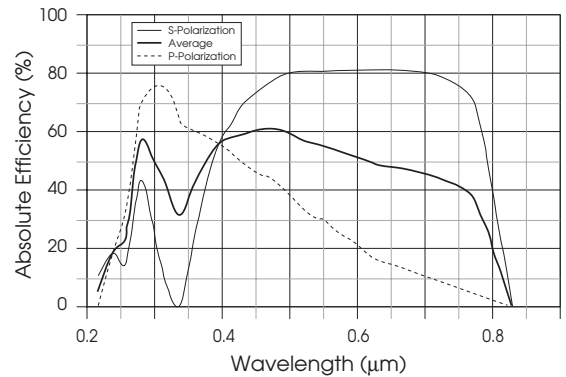
AG1800-U (Holographic)



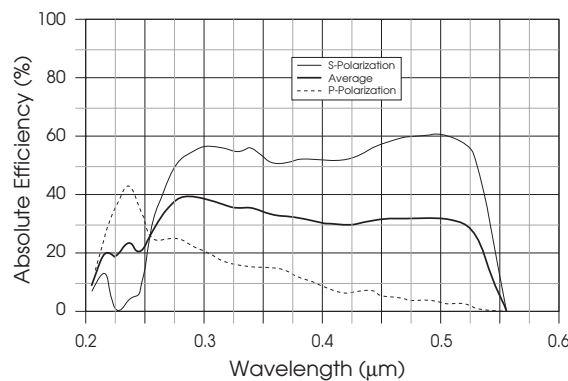
AG1800-V (Holographic)



AG2400-U (Holographic)



AG2400-V (Holographic)



AG3600-U (Holographic)



Appendix B Part # Cross Reference

Fiber Products

Past Part Numbers	Current Part Identifier	Description
AF600	AF0200-0200DPSM-U20B	Immersive fiber probe, 200µm, 2m
AF601	AF0400-1400SMSM-U20B	Fiber, Cable, Bifurcated, SMA-SMA/SMA, 2m
AF602	AF0200-2000SMCL-U20B	Fiber, Bifurcated, SMA-SMA/Line, 2m
AF603	AF0400-1500SMSM-U20B	Fiber, Bifurcated, SMA, six & one, 2m
AF610	AF0400-0400SMSM-U20S	Fiber, Single, .22 NA, 400µm, 2m
AF611	AF0200-0200SMSM-U20S	Fiber, Single, .2mm, 200µm.22NA
AF613	AF0100-0100SMSM-U20S	Fiber, Single, .2mm, 100µm.22NA
AF641	AF0200-3500SCSC-U20S	Fiber, Bundle, .38 NA, 3.5, 2m, Ferrule
AF642	AF0200-1000SMCS-U20S	Fiber, Bundle, Round-Line, .22NA, 2m
AF643	AF0200-2180SMSM-U20S	Fiber, Bundle, 2.18mm, .2mm, 200µm.22NA
AF644	AF0100-0625SMCL-U20S	Fiber, Bundle, Round-Line, .22NA, 2m
AF651	AF0035-3500SCSC-G20S	Fiber, Bundle, .55 NA, 3.5, 2mm, Ferrule
AF650	AF5000-50001111-S10S	Liquid, Round-Round, .59 NA, Ferrule, 1m, S Type
AF660	AF5000-50001111-V10S	Liquid, Round-Round, .60 NA, Ferrule, 1m, V Type

Grating Products

30mm x 30mm x 3mm			
Past Part Numbers	Current Part Identifier	Ruling (g/mm)	Peak (nm)
DK122424	AG2400-00240-303	2400	240
DK121220	AG1200-00200-303	1200	200
DK121230	AG1200-00300-303	1200	300
DK121260	AG1200-00600-303	1200	600
DK121275	AG1200-00750-303	1200	750
DK120605	AG0600-00500-303	600	500
DK120612	AG0600-01200-303	600	1200
DK120305	AG0300-00500-303	300	500
DK120325	AG0300-02500-303	300	2500
DK121505	AG0150-00500-303	150	500
DK121540	AG0150-04000-303	150	4000
DK127580	AG0075-08000-303	75	8000

Grating Products

68mm x 68mm x 6mm			
Past Part Numbers	Current Part Identifier	Ruling (g/mm)	Peak (nm)
DK242424	AG2400-00240-686	2400	240
DK241220	AG1200-00200-686	1200	200
DK241225	AG1200-00250-686	1200	250
DK241230	AG1200-00300-686	1200	300
DK241250	AG1200-00500-686	1200	500
DK241260	AG1200-00600-686	1200	600
DK241275	AG1200-00750-686	1200	750
DK241210	AG1200-01000-686	1200	1000
DK240605	AG0600-00500-686	600	500
DK240612	AG0600-01200-686	600	1200
DK240616	AG0600-01600-686	600	1600
DK240305	AG0300-00500-686	300	500
DK240320	AG0300-02000-686	300	2000
DK240325	AG0300-02500-686	300	2500
DK240330	AG0300-03000-686	300	3000
DK241505	AG0150-00500-686	150	500
DK241540	AG0150-04000-686	150	4000
DK247580	AG0075-08000-686	75	8000
DK245006	AG0050-00600-686	50	600
DK245012	AG0050-12000-686	50	12000

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Light Source Products

Past Part Numbers	Current Part Identifier	Description
AS201 AS201-S AS202	ASB-XE-175EX merge w AS201 ASB-XE-175	Light Source, Xenon, 175W, Extended Light Source, Xenon, w/Fiber Light Source, Xenon, 175W, Ozone Blocking
AS202-V AS203 AS220	merge w AS202 ASB-XE-175B ASB-W-030	Light Source, Xenon, Type V Replacement Lamp, Xenon 175W Light Source, Tungsten-Halogen, 30W
AS220-220V AS220-B AS220-F	ASB-W-030CE ASB-W-020RB ASB-W-020R	Light Source, Tungsten-Halogen, 30W, 220V Replacement Lamp, 20W Light Source, Tungsten-Halogen, 20W, Regulated
AS220F AS222 AS240	ASB-W-030F ASB-W-020U ASB-D-030	Light Source, Tungsten-Halogen, 30W, Fiber Coupled Light Source, Tungsten-Halogen, 20W, Unregulated Light Source, Deuterium, 30W, IST
AS240-220V AS240F AS240-F	ASB-D-030CE ASB-D-030F ASB-D-030R	Light Source, Deuterium, 30W, 220V Light Source, Deuterium, 30W, IST, Fiber Coupled Light Source, Deuterium, 30W, Regulated
AS250 AS260 AS260-CE	ASB-W-150U ASC-AC ASC-ACCE	Light Source, Tungsten-Halogen, 150W Lamp Assembly, Spectral Calibration, 110V Lamp Assembly, Spectral Calibration, 220V
AS320 AS321 AS322	ASB-W-030B same as ASB-W-020RB ASB-W-150B	Replacement Lamp, Tungsten-Halogen, 30W Replacement Lamp, Tungsten-Halogen, 20W Replacement Lamp, Tungsten-Halogen, 150W
AS340 AS240-B AS361	ASB-D-030B ASB-D-030RB ASC-HG	Lamp Assembly, Deuterium, 30W Lamp Assembly, Deuterium, 30W Lamp, Spectral Calibration, Hg
AS362 AS363 AS364	ASC-NE ASC-XE ASC-AR	Lamp, Spectral Calibration, Ne Lamp, Spectral Calibration, Xe Lamp, Spectral Calibration, Ar
AS365 AS90 AS95 AS95-B	ASC-KR discontinued ASB-W-005R ASB-W-005RB	Lamp, Spectral Calibration, Kr Visible Light Source Light Source, Regulated Replacement Lamp, Tungsten-Halogen, 5W

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Spectrometer Basics

Monochromators and Spectrographs

Spectrometers

Spectrum Analyzers

Detection Systems

Light Sources

Automatic Filter Wheels

Sampling Accessories

Fibers & Couplers

Application & Selection

Appendix Product Index



Spectrum Analyzers conversion from Melles Griot model numbers

Past Part Numbers	Current Part Identifier	Description
13SAE001 13SAE002 13 SAE003	SA300-04 SA300-08 SA300-12	Spectrum Analyzer, 450-550nm, 300 MHz FSR Spectrum Analyzer, 550-680nm, 300 MHz FSR Spectrum Analyzer, 700-860nm, 300 MHz FSR
13SAE006 13SAE007 13SAE008	SA300-14 SA300-16 SA300-18	Spectrum Analyzer, 860-1100nm, 300 MHz FSR Spectrum Analyzer, 1050-1250nm, 300 MHz FSR Spectrum Analyzer, 1300-1550nm, 300 MHz FSR
13 SAE009 13 SAE 104 13 SAE 105	SA300-20 SA300-06 SA300-10	Spectrum Analyzer, 1500-1650nm, 300 MHz FSR Spectrum Analyzer, 480-640nm, 300 MHz FSR Spectrum Analyzer, 630-860nm, 300 MHz FSR
13SAE106 13SAF001 13SAF002	SA300-02 SA300-04-F SA300-08-F	Spectrum Analyzer, 390-425nm, 300 MHz FSR Spectrum Analyzer, 450-550nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 550-680nm, 300 MHz FSR, Fiber input
13 SAF003 13SAF006 13SAF007	SA300-12-F SA300-14-F SA300-16-F	Spectrum Analyzer, 700-860nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 860-1100nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 1050-1250nm, 300 MHz FSR, Fiber input
13SAF008 13 SAF009 13 SAF 104	SA300-18-F SA300-20-F SA300-06-F	Spectrum Analyzer, 1300-1550nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 1500-1650nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 480-640nm, 300 MHz FSR, Fiber input
13 SAF 105 13SAF106 13SAE021	SA300-10-F SA300-02-F SA2-04	Spectrum Analyzer, 630-860nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 390-425nm, 300 MHz FSR, Fiber input Spectrum Analyzer, 450-550nm, 2 GHz FSR
13SAE022 13 SAE023 13SAE026	SA2-08 SA2-12 SA2-14	Spectrum Analyzer, 550-680nm, 2 GHz FSR Spectrum Analyzer, 700-860nm, 2 GHz FSR Spectrum Analyzer, 860-1100nm, 2 GHz FSR
13SAE027 13SAE028 13SAE029	SA2-16 SA2-18 SA2-20	Spectrum Analyzer, 1050-1250nm, 2 GHz FSR Spectrum Analyzer, 1300-1550nm, 2 GHz FSR Spectrum Analyzer, 1500-1650nm, 2 GHz FSR
13 SAE 124 13 SAE 125 13 SAE 126	SA2-06 SA2-10 SA2-02	Spectrum Analyzer, 480-640nm, 2 GHz FSR Spectrum Analyzer, 630-860nm, 2 GHz FSR Spectrum Analyzer, 390-425nm, 2 GHz FSR
13SAF021 13SAF022 13 SAF023	SA2-04-F SA2-08-F SA2-12-F	Spectrum Analyzer, 450-550nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 550-680nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 700-860nm, 2 GHz FSR, Fiber input
13SAF026 13SAF027 13SAF028	SA2-14-F SA2-16-F SA2-18-F	Spectrum Analyzer, 860-1100nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 1050-1250nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 1300-1550nm, 2 GHz FSR, Fiber input
13SAF029 13 SAF124 13 SAF125	SA2-20-F SA2-06-F SA2-10-F	Spectrum Analyzer, 1500-1650nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 480-640nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 630-860nm, 2 GHz FSR, Fiber input
13 SAF126 13SAE031 13SAE032	SA2-02-F SA7.5-04 SA7.5-08	Spectrum Analyzer, 390-425nm, 2 GHz FSR, Fiber input Spectrum Analyzer, 450-550nm, 7.5 GHz FSR Spectrum Analyzer, 550-680nm, 7.5 GHz FSR
13 SAE033 13SAE036 13SAE037	SA7.5-12 SA7.5-14 SA7.5-16	Spectrum Analyzer, 700-860nm, 7.5 GHz FSR Spectrum Analyzer, 860-1100nm, 7.5 GHz FSR Spectrum Analyzer, 1050-1250nm, 7.5 GHz FSR
13SAE038 13SAE039 13 SAE 134	SA7.5-18 SA7.5-20 SA7.5-06	Spectrum Analyzer, 1300-1550nm, 7.5 GHz FSR Spectrum Analyzer, 1500-1650nm, 7.5 GHz FSR Spectrum Analyzer, 480-640nm, 7.5 GHz FSR

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Spectrum Analyzers conversion from Melles Griot model numbers (cont'd.)

Past Part Numbers	Current Part Identifier	Description
13 SAE 135 13 SAE 136 13SAF031	SA7.5-10 SA7.5-02 SA7.5-04-F	Spectrum Analyzer, 630-860nm, 7.5 GHz FSR Spectrum Analyzer, 390-425nm, 7.5 GHz FSR Spectrum Analyzer, 450-550nm, 7.5 GHz FSR, Fiber input
13SAF032 13 SAF033 13SAF036	SA7.5-08-F SA7.5-12-F SA7.5-14-F	Spectrum Analyzer, 550-680nm, 7.5 GHz FSR, Fiber input Spectrum Analyzer, 700-860nm, 7.5 GHz FSR, Fiber input Spectrum Analyzer, 860-1100nm, 7.5 GHz FSR, Fiber input
13SAF037 13SAF038 13SAF039	SA7.5-16-F SA7.5-18-F SA7.5-20-F	Spectrum Analyzer, 1050-1250nm, 7.5 GHz FSR, Fiber input Spectrum Analyzer, 1300-1550nm, 7.5 GHz FSR, Fiber input Spectrum Analyzer, 1500-1650nm, 7.5 GHz FSR, Fiber input
13 SAF134 13 SAF135 13 SAF136	SA7.5-06-F SA7.5-10-F SA7.5-02-F	Spectrum Analyzer, 480-640nm, 7.5 GHz FSR, Fiber input Spectrum Analyzer, 630-860nm, 7.5 GHz FSR, Fiber input Spectrum Analyzer, 390-425nm, 7.5 GHz FSR, Fiber input
13 SAE 041 13 SAE 042 13 SAE 043	SA10-04 SA10-08 SA10-12	Spectrum Analyzer, 450-550nm, 10 GHz FSR Spectrum Analyzer, 550-680nm, 10 GHz FSR Spectrum Analyzer, 700-860nm, 10 GHz FSR
13 SAE 046 13 SAE 047 13 SAE 048	SA10-14 SA10-16 SA10-18	Spectrum Analyzer, 860-1100nm, 10 GHz FSR Spectrum Analyzer, 1050-1250nm, 10 GHz FSR Spectrum Analyzer, 1300-1550nm, 10 GHz FSR
13 SAE 049 13 SAE 144 13 SAE 145	SA10-20 SA10-06 SA10-10	Spectrum Analyzer, 1500-1600nm, 10 GHz FSR Spectrum Analyzer, 480-640nm, 10 GHz FSR Spectrum Analyzer, 630-860nm, 10 GHz FSR
13 SAE 146 13 SAF 041 13 SAF 042	SA10-02 SA10-04-F SA10-08-F	Spectrum Analyzer, 395-425nm, 10 GHz FSR Spectrum Analyzer, 450-550nm, 10 GHz FSR, Fiber input Spectrum Analyzer, 550-680nm, 10 GHz FSR, Fiber input
13 SAF 043 13 SAF 046 13 SAF 047	SA10-12-F SA10-14-F SA10-16-F	Spectrum Analyzer, 700-860nm, 10 GHz FSR, Fiber input Spectrum Analyzer, 860-1100nm, 10 GHz FSR, Fiber input Spectrum Analyzer, 1050-1250nm, 10 GHz FSR, Fiber input
13 SAF 048 13 SAF 049 13 SAF 144	SA10-18-F SA10-20-F SA10-06-F	Spectrum Analyzer, 1300-1550nm, 10 GHz FSR, Fiber input Spectrum Analyzer, 1500-1600nm, 10 GHz FSR, Fiber input Spectrum Analyzer, 480-640nm, 10 GHz FSR, Fiber input
13 SAF 145 13 SAF 146	SA10-10-F SA10-02-F	Spectrum Analyzer, 630-860nm, 10 GHz FSR, Fiber input Spectrum Analyzer, 395-425nm, 10 GHz FSR, Fiber input

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