

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.1232 2e-01	9.1402 7e-01	9.1655 3e-01	9.1806 2e-01	9.1912 4e-01	9.1990 8e-01	9.2032 7e-01	9.2060 3e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Type A Uncertainty ^(b)	3.2e-05	2.7e-05	2.5e-05	2.9e-05	4.2e-05	4.5e-05	3.4e-05	2.8e-05
Type B Uncertainty ^(c)	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Total Uncertainty ^(d)	1.2e-04	1.2e-04	1.0e-04	8.4e-05	8.0e-05	7.2e-05	7.0e-05	6.8e-05
Degrees of Freedom	24.2	22.9	22.7	25.6	34.3	41.7	32.3	28.6
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.8e-08	7.2e-08	4.8e-08	3.4e-08	2.4e-08	1.6e-08	1.2e-08	9.5e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.5e-05	1.2e-05	5.2e-06	4.0e-06	4.3e-06	5.0e-06	4.4e-06	5.3e-06
Total Type B Uncertainty	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Degrees of Freedom	20.8	20.5	20.1	20.2	20.2	20.4	20.3	20.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.10487e-01	6.09183e-01	6.22739e-01	6.10689e-01	6.38148e-01	5.77770e-01	5.02886e-01	4.54510e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.8e-05	2.0e-05	1.9e-05	1.9e-05	1.9e-05	2.1e-05
Type B Uncertainty ^(c)	5.2e-04	1.4e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.0	27.8	22.2	27.7	26.5	25.2	26.1	33.7
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.4e-06	2.0e-05	8.0e-06	2.1e-05	1.1e-05	5.2e-06	2.1e-06	6.7e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.5e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.0e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.7e-05	2.1e-05	9.1e-06	6.8e-06	7.7e-06	8.0e-06	6.2e-06	6.7e-06
Total Type B Uncertainty	5.2e-04	1.4e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Degrees of Freedom	28.1	23.9	20.5	24.4	22.8	23.7	23.8	25.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.19010e-02	9.63961e-02	9.28365e-02	7.78164e-02	1.62523e-01	1.51252e-01	1.03719e-01	7.72627e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	4.2e-06	5.6e-06	1.6e-05	5.5e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.3e-05	4.9e-05	1.8e-05	1.9e-05	5.4e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.6e-05	5.1e-05	1.9e-05	2.0e-05	5.6e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.3	52.8	60.7	103.0	26.0	42.4	36.6	45.8
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.9e-06	1.6e-05	1.3e-05	5.3e-06	1.6e-06	4.0e-06
Wavelength	8.7e-05	3.7e-05	1.3e-05	7.4e-06	5.2e-05	1.9e-05	1.4e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.0e-07	2.1e-06	2.1e-06	1.9e-06	2.8e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.1e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.2e-06	4.3e-06	1.8e-06	1.1e-06	2.5e-06	2.7e-06	1.6e-06	1.5e-06
Total Type B Uncertainty	9.3e-05	4.9e-05	1.8e-05	1.9e-05	5.4e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.5	46.3	55.0	89.8	22.1	40.2	34.6	39.5

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.61809e-04	5.15559e-03	8.37193e-03	8.27793e-03	2.63640e-02	3.20788e-02	2.24303e-02	1.65949e-02
Number of Measurements	3	3	2	3	3	3	3	3
Temperature	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Type A Uncertainty ^(b)	1.1e-06	1.9e-06	6.6e-07	1.0e-06	3.4e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.7e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.4e-06	6.6e-06	3.5e-06
Degrees of Freedom	28.9	45.8	58.0	103.8	38.6	32.1	51.6	67.0
Date	15-Mar-2014	15-Mar-2014	14-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	7.9e-08	2.1e-06	1.3e-06	3.2e-06	4.3e-06	2.1e-06	5.7e-07	1.4e-06
Wavelength	2.4e-06	5.6e-06	8.7e-07	1.7e-06	1.2e-05	2.7e-06	3.1e-06	9.8e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.9e-07	3.8e-07	9.2e-07	1.1e-06	8.2e-07	6.5e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.6e-07	6.9e-07	6.8e-07	1.6e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	4.1e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.5e-08	1.7e-07	1.2e-07	8.8e-08	3.0e-07	4.3e-07	2.6e-07	2.3e-07
Total Type B Uncertainty	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	20.2	40.2	51.9	93.7	34.5	30.0	39.4	53.8

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.2613 6e-05	3.3574 1e-04	9.3066 6e-04	9.9514 4e-04	5.0213 2e-03	9.6447 0e-03	8.4147 4e-03	7.1095 7e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
Type A Uncertainty ^(b)	8.0e-07	4.6e-07	2.7e-07	3.4e-07	1.3e-06	1.7e-06	2.0e-06	1.0e-06
Type B Uncertainty ^(c)	1.4e-07	6.7e-07	2.8e-07	6.6e-07	3.5e-06	1.3e-06	1.2e-06	1.5e-06
Total Uncertainty ^(d)	8.1e-07	8.1e-07	3.8e-07	7.4e-07	3.7e-06	2.2e-06	2.3e-06	1.8e-06
Degrees of Freedom	27.6	63.5	84.4	99.8	33.2	56.0	43.4	112.0
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NRC Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.0e-09	2.1e-07	2.1e-07	5.7e-07	1.2e-06	8.5e-07	2.7e-07	1.1e-06
Wavelength	1.4e-07	5.4e-07	1.2e-07	3.1e-07	3.2e-06	3.1e-07	7.6e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.7e-09	3.3e-08	7.9e-08	8.4e-08	3.2e-07	5.4e-07	4.9e-07	4.3e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.4e-09	4.6e-08	1.1e-07	1.2e-07	4.6e-07	7.7e-07	6.9e-07	6.0e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.3e-07	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	6.8e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	6.5e-10	1.4e-08	1.7e-08	1.4e-08	7.4e-08	1.6e-07	1.3e-07	1.3e-07
Total Type B Uncertainty	1.4e-07	6.7e-07	2.8e-07	6.6e-07	3.5e-06	1.3e-06	1.2e-06	1.5e-06
Degrees of Freedom	19.1	39.3	89.0	74.8	25.9	58.2	43.1	91.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.1288 9e-01	9.1452 7e-01	9.1691 8e-01	9.1832 5e-01	9.1931 4e-01	9.2005 7e-01	9.2046 0e-01	9.2067 0e-01
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Type A Uncertainty ^(b)	3.9e-05	3.3e-05	3.0e-05	3.6e-05	5.1e-05	5.5e-05	4.2e-05	3.4e-05
Type B Uncertainty ^(c)	1.6e-04	1.5e-04	1.1e-04	8.2e-05	7.0e-05	5.9e-05	6.5e-05	7.1e-05
Total Uncertainty ^(d)	1.6e-04	1.5e-04	1.1e-04	8.9e-05	8.6e-05	8.1e-05	7.8e-05	7.9e-05
Degrees of Freedom	48.3	45.3	31.1	35.9	54.4	65.0	54.3	51.6
Date	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.3e-08	6.7e-08	4.5e-08	3.1e-08	2.2e-08	1.5e-08	1.1e-08	8.9e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.2e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.7e-05	7.6e-05	6.1e-05	4.6e-05	5.6e-05	5.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.1e-04	9.5e-05	4.0e-05	3.0e-05	3.3e-05	3.8e-05	3.4e-05	4.0e-05
Total Type B Uncertainty	1.6e-04	1.5e-04	1.1e-04	8.2e-05	7.0e-05	5.9e-05	6.5e-05	7.1e-05
Degrees of Freedom	43.0	41.1	26.6	26.3	30.9	40.5	33.2	36.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0776 3e-01	6.0732 9e-01	6.2082 9e-01	6.0858 9e-01	6.3613 1e-01	5.7541 4e-01	5.0015 2e-01	4.5152 3e-01
Number of Measurements	3	3	2	2	2	2	3	2
Temperature	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	3.4e-05	2.4e-05	2.4e-05	2.3e-05	1.8e-05	2.5e-05
Type B Uncertainty ^(c)	5.1e-04	1.3e-04	1.3e-04	7.4e-05	6.6e-05	1.1e-04	8.6e-05	4.9e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.1	27.1	23.0	29.4	28.3	25.8	25.9	38.4
Date	16-Mar-2014	16-Mar-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	16-Mar-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.3e-06	2.0e-05	8.0e-06	2.1e-05	1.1e-05	5.1e-06	1.9e-06	6.6e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.4e-06	7.9e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.4e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.2e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.0e-05	6.4e-05	1.0e-04	8.2e-05	4.6e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.2e-05	1.5e-05	6.4e-06	4.7e-06	5.4e-06	5.6e-06	4.3e-06	4.6e-06
Total Type B Uncertainty	5.1e-04	1.3e-04	1.3e-04	7.4e-05	6.6e-05	1.1e-04	8.6e-05	4.9e-05
Degrees of Freedom	28.3	23.3	20.4	24.3	22.6	23.6	23.7	25.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.1365 3e-02	9.4794 4e-02	9.1210 8e-02	7.6371 8e-02	1.6027 9e-01	1.4924 5e-01	1.0218 6e-01	7.6008 5e-02
Number of Measurements	3	3	3	3	3	2	3	3
Temperature	23.0	23.0	23.0	23.0	23.0	22.9	23.0	23.0
Type A Uncertainty ^(b)	2.5e-05	1.3e-05	4.2e-06	5.5e-06	1.6e-05	6.6e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.5e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.8	53.1	60.8	103.4	26.0	43.3	36.2	44.7
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	14-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.2e-06	1.7e-05	6.8e-06	1.6e-05	1.3e-05	5.2e-06	1.4e-06	3.9e-06
Wavelength	8.5e-05	3.6e-05	1.3e-05	7.3e-06	5.1e-05	1.8e-05	1.3e-05	5.3e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.9e-07	2.1e-06	2.1e-06	1.9e-06	2.7e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.7e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.4e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.1e-06	4.2e-06	1.7e-06	1.1e-06	2.4e-06	2.6e-06	1.6e-06	1.4e-06
Total Type B Uncertainty	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.9	46.6	55.2	90.2	22.1	40.1	34.2	38.8

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.4323 9e-04	4.9730 5e-03	8.1047 1e-03	8.0127 2e-03	2.5724 3e-02	3.1354 3e-02	2.1873 4e-02	1.6151 5e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Type A Uncertainty ^(b)	1.1e-06	1.8e-06	5.3e-07	9.9e-07	3.3e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.4e-06	6.9e-06	2.7e-06	4.1e-06	1.4e-05	9.2e-06	6.1e-06	3.2e-06
Total Uncertainty ^(d)	2.6e-06	7.2e-06	2.7e-06	4.2e-06	1.4e-05	9.3e-06	6.6e-06	3.5e-06
Degrees of Freedom	30.1	46.7	52.5	103.3	39.2	31.5	50.1	64.3
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	7.5e-08	2.0e-06	1.2e-06	3.1e-06	4.2e-06	2.0e-06	5.2e-07	1.3e-06
Wavelength	2.3e-06	5.4e-06	8.4e-07	1.6e-06	1.2e-05	2.6e-06	3.1e-06	9.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.7e-08	2.5e-07	3.8e-07	3.7e-07	9.0e-07	1.0e-06	8.0e-07	6.4e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.7e-08	4.5e-07	6.7e-07	6.6e-07	1.6e-06	1.9e-06	1.4e-06	1.1e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	5.5e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.5e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.7e-08	2.1e-07	1.4e-07	1.0e-07	3.6e-07	5.1e-07	3.2e-07	2.8e-07
Total Type B Uncertainty	2.4e-06	6.9e-06	2.7e-06	4.1e-06	1.4e-05	9.2e-06	6.1e-06	3.2e-06
Degrees of Freedom	21.2	41.1	48.9	93.4	35.1	29.6	38.5	51.9

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.3139 2e-05	3.4126 4e-04	9.4329 5e-04	1.0082 1e-03	5.0719 4e-03	9.7304 4e-03	8.4914 6e-03	7.1774 9e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Type A Uncertainty ^(b)	8.3e-07	4.6e-07	2.7e-07	3.5e-07	1.3e-06	1.8e-06	2.1e-06	1.0e-06
Type B Uncertainty ^(c)	1.4e-07	6.7e-07	2.8e-07	6.7e-07	3.5e-06	1.3e-06	1.2e-06	1.5e-06
Total Uncertainty ^(d)	8.4e-07	8.2e-07	3.9e-07	7.5e-07	3.8e-06	2.2e-06	2.4e-06	1.8e-06
Degrees of Freedom	27.6	62.5	83.9	99.6	33.2	55.5	43.1	110.9
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (PTB Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.2e-09	2.2e-07	2.1e-07	5.7e-07	1.2e-06	8.5e-07	2.6e-07	1.1e-06
Wavelength	1.4e-07	5.5e-07	1.2e-07	3.1e-07	3.3e-06	3.2e-07	7.7e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.8e-09	3.3e-08	8.0e-08	8.5e-08	3.3e-07	5.5e-07	4.9e-07	4.3e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.5e-09	4.7e-08	1.1e-07	1.2e-07	4.6e-07	7.7e-07	7.0e-07	6.1e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.2e-07	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	6.6e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	6.5e-10	1.4e-08	1.6e-08	1.3e-08	7.2e-08	1.6e-07	1.2e-07	1.2e-07
Total Type B Uncertainty	1.4e-07	6.7e-07	2.8e-07	6.7e-07	3.5e-06	1.3e-06	1.2e-06	1.5e-06
Degrees of Freedom	19.0	38.3	88.2	74.6	25.9	57.2	42.4	90.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12557e-01	9.14263e-01	9.16810e-01	9.18272e-01	9.19289e-01	9.20047e-01	9.20460e-01	9.20718e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	3.2e-05	2.7e-05	2.5e-05	2.9e-05	4.2e-05	4.5e-05	3.4e-05	2.8e-05
Type B Uncertainty ^(c)	1.5e-04	1.4e-04	1.0e-04	8.3e-05	7.4e-05	6.5e-05	6.8e-05	7.1e-05
Total Uncertainty ^(d)	1.5e-04	1.4e-04	1.1e-04	8.8e-05	8.5e-05	7.9e-05	7.6e-05	7.6e-05
Degrees of Freedom	45.7	41.0	27.8	30.5	42.5	56.2	42.5	41.8
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.6e-08	7.0e-08	4.6e-08	3.2e-08	2.2e-08	1.5e-08	1.1e-08	8.4e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.0e-04	8.3e-05	3.5e-05	2.6e-05	2.9e-05	3.3e-05	2.9e-05	3.5e-05
Total Type B Uncertainty	1.5e-04	1.4e-04	1.0e-04	8.3e-05	7.4e-05	6.5e-05	6.8e-05	7.1e-05
Degrees of Freedom	41.8	38.1	25.0	24.6	27.0	33.1	29.0	32.2

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0887 2e-01	6.0750 2e-01	6.2140 6e-01	6.0940 2e-01	6.3703 0e-01	5.7668 7e-01	5.0172 7e-01	4.5332 5e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.7e-05	2.0e-05	1.9e-05	1.9e-05	1.8e-05	2.1e-05
Type B Uncertainty ^(c)	5.1e-04	1.4e-04	1.3e-04	7.5e-05	6.8e-05	1.1e-04	8.6e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.1e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.1	28.8	22.4	28.0	27.0	25.4	26.3	34.4
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.4e-06	2.0e-05	8.0e-06	2.1e-05	1.1e-05	5.2e-06	2.2e-06	6.7e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.5e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	2.4e-05	2.9e-05	1.2e-05	9.2e-06	1.0e-05	1.1e-05	8.4e-06	9.1e-06
Total Type B Uncertainty	5.1e-04	1.4e-04	1.3e-04	7.5e-05	6.8e-05	1.1e-04	8.6e-05	5.1e-05
Degrees of Freedom	28.3	24.9	20.6	24.7	23.3	23.9	24.0	26.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.15928e-02	9.53383e-02	9.18558e-02	7.70126e-02	1.61033e-01	1.49920e-01	1.02744e-01	7.64905e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	4.2e-06	5.6e-06	1.6e-05	5.4e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.2e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.5e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.6	52.3	59.9	102.8	26.0	41.6	36.2	44.5
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.9e-06	1.6e-05	1.3e-05	5.3e-06	1.6e-06	4.0e-06
Wavelength	8.5e-05	3.6e-05	1.3e-05	7.3e-06	5.1e-05	1.9e-05	1.4e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.9e-07	2.1e-06	2.1e-06	1.9e-06	2.8e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.0e-07	3.8e-07	1.5e-07	9.6e-08	2.2e-07	2.3e-07	1.4e-07	1.3e-07
Total Type B Uncertainty	9.2e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.7	45.8	54.3	89.6	22.0	39.5	34.2	38.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.9827 6e-04	5.4792 7e-03	8.8506 8e-03	8.7513 7e-03	2.7479 7e-02	3.3357 6e-02	2.3415 9e-02	1.7384 2e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	1.3e-06	2.0e-06	5.7e-07	1.1e-06	3.6e-06	1.8e-06	2.6e-06	1.3e-06
Type B Uncertainty ^(c)	2.7e-06	7.4e-06	2.8e-06	4.4e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	3.0e-06	7.6e-06	2.8e-06	4.5e-06	1.5e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	27.6	44.2	59.2	103.9	37.7	33.1	54.3	72.0
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	8.8e-08	2.2e-06	1.3e-06	3.4e-06	4.5e-06	2.2e-06	6.3e-07	1.4e-06
Wavelength	2.7e-06	6.0e-06	9.2e-07	1.8e-06	1.2e-05	2.8e-06	3.3e-06	1.0e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	3.0e-08	2.8e-07	4.0e-07	4.0e-07	9.5e-07	1.1e-06	8.4e-07	6.8e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	5.3e-08	4.9e-07	7.2e-07	7.1e-07	1.7e-06	2.0e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.6e-06	2.1e-06	2.0e-06	5.6e-06	8.3e-06	4.9e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.1e-08	1.3e-07	8.6e-08	6.4e-08	2.2e-07	3.1e-07	1.9e-07	1.7e-07
Total Type B Uncertainty	2.7e-06	7.4e-06	2.8e-06	4.4e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	19.1	38.6	54.7	93.6	33.6	30.8	41.0	57.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.1672 8e-05	3.0963 3e-04	8.6604 3e-04	9.2677 8e-04	4.7558 3e-03	9.1959 4e-03	8.0097 3e-03	6.7556 3e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	7.4e-07	4.2e-07	2.5e-07	3.2e-07	1.3e-06	1.7e-06	1.9e-06	9.8e-07
Type B Uncertainty ^(c)	1.3e-07	6.6e-07	2.6e-07	6.3e-07	3.3e-06	1.3e-06	1.1e-06	1.5e-06
Total Uncertainty ^(d)	7.5e-07	7.8e-07	3.6e-07	7.1e-07	3.5e-06	2.1e-06	2.2e-06	1.8e-06
Degrees of Freedom	27.6	67.2	84.7	106.9	33.2	56.3	43.6	113.8
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (LNE-INM Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	3.7e-09	2.0e-07	2.0e-07	5.3e-07	1.2e-06	8.2e-07	2.8e-07	1.1e-06
Wavelength	1.3e-07	5.0e-07	1.1e-07	2.8e-07	3.1e-06	3.0e-07	7.2e-07	9.6e-08
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.6e-09	3.1e-08	7.4e-08	7.9e-08	3.1e-07	5.2e-07	4.7e-07	4.1e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.3e-09	4.3e-08	1.0e-07	1.1e-07	4.4e-07	7.4e-07	6.6e-07	5.8e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.7e-07	0.0e+00	1.3e-07	0.0e+00	0.0e+00	0.0e+00	7.5e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	5.5e-10	1.2e-08	1.4e-08	1.1e-08	6.4e-08	1.4e-07	1.1e-07	1.1e-07
Total Type B Uncertainty	1.3e-07	6.6e-07	2.6e-07	6.3e-07	3.3e-06	1.3e-06	1.1e-06	1.5e-06
Degrees of Freedom	19.1	43.3	89.2	81.6	25.9	57.9	43.3	91.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12620e-01	9.14323e-01	9.16841e-01	9.18320e-01	9.19322e-01	9.20107e-01	9.20519e-01	9.20633e-01
Number of Measurements	2	2	2	2	2	2	2	1
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.3
Type A Uncertainty ^(b)	3.9e-05	3.3e-05	3.0e-05	3.6e-05	5.1e-05	5.5e-05	4.2e-05	4.9e-05
Type B Uncertainty ^(c)	1.4e-04	1.3e-04	1.0e-04	8.0e-05	6.7e-05	5.5e-05	6.2e-05	5.7e-05
Total Uncertainty ^(d)	1.5e-04	1.4e-04	1.1e-04	8.7e-05	8.4e-05	7.8e-05	7.5e-05	7.5e-05
Degrees of Freedom	46.7	40.6	28.5	33.3	50.2	59.7	49.4	61.9
Date	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	24-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.5e-08	6.9e-08	4.5e-08	3.1e-08	2.2e-08	1.4e-08	1.0e-08	9.2e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.7e-05	7.6e-05	6.1e-05	4.6e-05	5.6e-05	4.7e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	9.0e-05	7.5e-05	3.2e-05	2.4e-05	2.6e-05	3.0e-05	2.7e-05	3.2e-05
Total Type B Uncertainty	1.4e-04	1.3e-04	1.0e-04	8.0e-05	6.7e-05	5.5e-05	6.2e-05	5.7e-05
Degrees of Freedom	40.6	36.2	24.2	24.0	27.1	35.4	28.8	35.9

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.10259e-01	6.08768e-01	6.22440e-01	6.10392e-01	6.37883e-01	5.77579e-01	5.02585e-01	4.54334e-01
Number of Measurements	2	2	2	2	2	2	1	2
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.2
Type A Uncertainty ^(b)	1.7e-04	4.7e-05	3.4e-05	2.4e-05	2.4e-05	2.3e-05	3.2e-05	2.6e-05
Type B Uncertainty ^(c)	5.1e-04	1.3e-04	1.3e-04	7.4e-05	6.6e-05	1.1e-04	8.2e-05	4.9e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.4	30.4	23.2	29.8	28.9	26.1	31.7	39.5
Date	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	24-Mar-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.5e-06	2.0e-05	8.1e-06	2.1e-05	1.1e-05	5.4e-06	3.4e-06	6.9e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.5e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.0e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.1e-04	1.3e-04	1.3e-04	7.0e-05	6.4e-05	1.0e-04	7.8e-05	4.6e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.9e-05	2.4e-05	1.0e-05	7.5e-06	8.5e-06	8.9e-06	6.8e-06	7.4e-06
Total Type B Uncertainty	5.1e-04	1.3e-04	1.3e-04	7.4e-05	6.6e-05	1.1e-04	8.2e-05	4.9e-05
Degrees of Freedom	26.7	24.4	20.5	24.6	23.0	23.8	24.4	26.1

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.12260e-02	9.43226e-02	9.08265e-02	7.60790e-02	1.59735e-01	1.48688e-01	1.01743e-01	7.56558e-02
Number of Measurements	2	2	2	2	2	1	2	2
Temperature	23.2	23.2	23.2	23.2	23.2	23.1	23.2	23.2
Type A Uncertainty ^(b)	3.1e-05	1.6e-05	5.1e-06	6.8e-06	1.9e-05	9.3e-06	5.7e-06	4.8e-06
Type B Uncertainty ^(c)	8.9e-05	4.7e-05	1.8e-05	1.9e-05	5.3e-05	3.2e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.4e-05	5.0e-05	1.8e-05	2.0e-05	5.6e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	29.0	55.0	63.2	105.9	28.0	47.3	37.4	49.2
Date	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	10-Apr-2014	01-Apr-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.2e-06	1.7e-05	6.8e-06	1.6e-05	1.3e-05	5.1e-06	1.9e-06	4.0e-06
Wavelength	8.4e-05	3.6e-05	1.3e-05	7.3e-06	5.1e-05	1.8e-05	1.3e-05	5.3e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.8e-07	2.1e-06	2.1e-06	1.9e-06	2.7e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.7e-06	3.4e-06	5.0e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.9e-05	2.5e-05	9.3e-06	6.4e-06	0.0e+00	2.5e-05	2.3e-05	1.1e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	9.8e-07	3.6e-06	1.5e-06	9.2e-07	2.1e-06	2.3e-06	1.4e-06	1.2e-06
Total Type B Uncertainty	8.9e-05	4.7e-05	1.8e-05	1.9e-05	5.3e-05	3.2e-05	2.7e-05	1.4e-05
Degrees of Freedom	23.4	45.5	54.7	87.7	22.1	40.7	34.4	40.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.6012 6e-04	5.1380 7e-03	8.3465 6e-03	8.2516 7e-03	2.6283 7e-02	3.1977 5e-02	2.2346 7e-02	1.6526 7e-02
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.4e-06	2.3e-06	6.6e-07	1.2e-06	4.2e-06	2.1e-06	3.1e-06	1.5e-06
Type B Uncertainty ^(c)	2.4e-06	6.9e-06	2.7e-06	4.1e-06	1.4e-05	9.1e-06	5.9e-06	3.2e-06
Total Uncertainty ^(d)	2.8e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	31.4	47.2	58.2	108.6	39.1	33.5	60.3	78.6
Date	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	8.0e-08	2.1e-06	1.3e-06	3.2e-06	4.3e-06	2.1e-06	6.9e-07	1.4e-06
Wavelength	2.4e-06	5.6e-06	8.7e-07	1.7e-06	1.2e-05	2.6e-06	3.1e-06	9.8e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.8e-07	3.8e-07	9.2e-07	1.1e-06	8.1e-07	6.5e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.6e-07	6.8e-07	6.8e-07	1.6e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.5e-06	2.1e-06	1.8e-06	5.2e-06	8.2e-06	4.7e-06	2.3e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.4e-08	1.6e-07	1.1e-07	8.3e-08	2.9e-07	4.1e-07	2.5e-07	2.2e-07
Total Type B Uncertainty	2.4e-06	6.9e-06	2.7e-06	4.1e-06	1.4e-05	9.1e-06	5.9e-06	3.2e-06
Degrees of Freedom	19.1	38.9	52.2	94.0	33.1	30.3	41.7	58.6

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.31479e-05	3.46926e-04	9.56761e-04	1.02286e-03	5.12828e-03	9.82376e-03	8.57395e-03	7.25026e-03
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.0e-06	5.8e-07	3.3e-07	4.3e-07	1.7e-06	2.2e-06	2.5e-06	1.3e-06
Type B Uncertainty ^(c)	1.4e-07	6.0e-07	2.9e-07	6.8e-07	3.6e-06	1.4e-06	1.2e-06	1.4e-06
Total Uncertainty ^(d)	1.0e-06	8.4e-07	4.4e-07	8.0e-07	3.9e-06	2.6e-06	2.8e-06	1.9e-06
Degrees of Freedom	27.0	51.4	67.7	100.6	36.7	47.2	38.1	83.6
Date	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (MKEH Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.2e-09	2.2e-07	2.2e-07	5.8e-07	1.2e-06	8.9e-07	3.4e-07	1.2e-06
Wavelength	1.4e-07	5.6e-07	1.2e-07	3.1e-07	3.3e-06	3.2e-07	7.7e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.8e-09	3.4e-08	8.1e-08	8.6e-08	3.3e-07	5.5e-07	4.9e-07	4.3e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.5e-09	4.7e-08	1.1e-07	1.2e-07	4.6e-07	7.8e-07	7.0e-07	6.1e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.00E-20	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	7.7e-10	1.7e-08	1.9e-08	1.6e-08	8.5e-08	1.9e-07	1.5e-07	1.5e-07
Total Type B Uncertainty	1.4e-07	6.0e-07	2.9e-07	6.8e-07	3.6e-06	1.4e-06	1.2e-06	1.4e-06
Degrees of Freedom	19.1	25.6	90.8	75.1	25.9	61.5	45.4	74.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12636e-01	9.14340e-01	9.16807e-01	9.18242e-01	9.19290e-01	9.20020e-01	9.20414e-01	9.20748e-01
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	3.9e-05	3.3e-05	3.0e-05	3.6e-05	5.1e-05	5.5e-05	4.2e-05	3.4e-05
Type B Uncertainty ^(c)	1.3e-04	1.3e-04	1.0e-04	7.9e-05	6.6e-05	5.3e-05	6.1e-05	6.5e-05
Total Uncertainty ^(d)	1.4e-04	1.3e-04	1.1e-04	8.7e-05	8.3e-05	7.7e-05	7.4e-05	7.3e-05
Degrees of Freedom	44.4	37.9	27.5	32.4	48.5	57.2	47.4	43.9
Date	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.5e-08	6.9e-08	4.6e-08	3.2e-08	2.2e-08	1.5e-08	1.1e-08	8.1e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.7e-05	7.6e-05	6.1e-05	4.6e-05	5.6e-05	5.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	8.0e-05	6.7e-05	2.8e-05	2.1e-05	2.3e-05	2.7e-05	2.4e-05	2.8e-05
Total Type B Uncertainty	1.3e-04	1.3e-04	1.0e-04	7.9e-05	6.6e-05	5.3e-05	6.1e-05	6.5e-05
Degrees of Freedom	38.1	33.5	23.3	23.2	25.6	32.7	27.0	29.1

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0955 0e-01	6.0873 5e-01	6.2220 2e-01	6.0996 4e-01	6.3740 1e-01	5.7681 6e-01	5.0166 5e-01	4.5319 9e-01
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	1.6e-04	4.7e-05	3.4e-05	2.4e-05	2.4e-05	2.3e-05	2.3e-05	2.6e-05
Type B Uncertainty ^(c)	5.1e-04	1.3e-04	1.3e-04	7.4e-05	6.6e-05	1.1e-04	8.5e-05	4.9e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.4	30.2	23.2	29.8	28.8	26.0	27.4	39.3
Date	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.7e-06	2.0e-05	8.2e-06	2.1e-05	1.1e-05	5.6e-06	3.0e-06	7.1e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.5e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.1e-04	1.3e-04	1.3e-04	7.0e-05	6.4e-05	1.0e-04	8.1e-05	4.6e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.8e-05	2.2e-05	9.3e-06	6.9e-06	7.8e-06	8.2e-06	6.3e-06	6.8e-06
Total Type B Uncertainty	5.1e-04	1.3e-04	1.3e-04	7.4e-05	6.6e-05	1.1e-04	8.5e-05	4.9e-05
Degrees of Freedom	26.8	24.2	20.5	24.6	22.9	23.8	24.0	26.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.1766 3e-02	9.6036 7e-02	9.2438 8e-02	7.7427 4e-02	1.6202 1e-01	1.5078 0e-01	1.0331 5e-01	7.6926 1e-02
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	3.2e-05	1.6e-05	5.2e-06	6.9e-06	2.0e-05	6.7e-06	5.8e-06	4.9e-06
Type B Uncertainty ^(c)	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.6e-05	5.0e-05	1.9e-05	2.0e-05	5.7e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.5	54.6	63.3	105.7	28.0	43.8	38.0	50.8
Date	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.4e-06	1.7e-05	7.1e-06	1.6e-05	1.3e-05	5.6e-06	2.2e-06	4.2e-06
Wavelength	8.6e-05	3.7e-05	1.3e-05	7.4e-06	5.1e-05	1.9e-05	1.4e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.0e-07	2.1e-06	2.1e-06	1.9e-06	2.8e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.8e-05	2.4e-05	9.3e-06	6.2e-06	0.0e+00	2.6e-05	2.3e-05	1.1e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	9.9e-07	3.6e-06	1.5e-06	9.3e-07	2.1e-06	2.3e-06	1.4e-06	1.2e-06
Total Type B Uncertainty	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	22.9	45.0	54.8	87.4	22.1	40.6	34.9	41.1

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0152 4e-04	5.5118 4e-03	8.8958 9e-03	8.7941 6e-03	2.7578 8e-02	3.3466 8e-02	2.3500 1e-02	1.7452 3e-02
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	1.6e-06	2.5e-06	7.1e-07	1.3e-06	4.4e-06	2.2e-06	3.2e-06	1.6e-06
Type B Uncertainty ^(c)	2.7e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.2e-06	5.9e-06	3.2e-06
Total Uncertainty ^(d)	3.1e-06	7.7e-06	2.9e-06	4.5e-06	1.5e-05	9.5e-06	6.8e-06	3.6e-06
Degrees of Freedom	31.4	45.1	64.8	108.5	38.0	35.1	64.8	87.5
Date	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.1e-08	2.3e-06	1.4e-06	3.4e-06	4.6e-06	2.3e-06	8.6e-07	1.5e-06
Wavelength	2.7e-06	6.0e-06	9.2e-07	1.8e-06	1.2e-05	2.8e-06	3.3e-06	1.0e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	3.0e-08	2.8e-07	4.0e-07	4.0e-07	9.5e-07	1.1e-06	8.4e-07	6.8e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	5.4e-08	4.9e-07	7.2e-07	7.1e-07	1.7e-06	2.0e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.3e-06	2.1e-06	1.8e-06	5.0e-06	8.2e-06	4.5e-06	2.2e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.4e-08	1.6e-07	1.1e-07	8.2e-08	2.8e-07	3.9e-07	2.4e-07	2.2e-07
Total Type B Uncertainty	2.7e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.2e-06	5.9e-06	3.2e-06
Degrees of Freedom	19.1	36.9	57.6	93.6	32.1	31.6	44.3	65.2

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.2643 1e-05	3.3080 9e-04	9.1967 7e-04	9.8364 9e-04	4.9764 5e-03	9.5716 1e-03	8.3498 1e-03	7.0554 6e-03
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	9.8e-07	5.5e-07	3.2e-07	4.2e-07	1.6e-06	2.1e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	1.4e-07	5.9e-07	2.8e-07	6.5e-07	3.5e-06	1.3e-06	1.2e-06	1.4e-06
Total Uncertainty ^(d)	9.9e-07	8.1e-07	4.2e-07	7.7e-07	3.8e-06	2.5e-06	2.7e-06	1.9e-06
Degrees of Freedom	27.0	53.6	68.7	101.2	36.8	47.9	38.5	84.8
Date	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMIJ Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.2e-09	2.1e-07	2.1e-07	5.6e-07	1.2e-06	9.0e-07	3.9e-07	1.2e-06
Wavelength	1.4e-07	5.3e-07	1.2e-07	3.0e-07	3.2e-06	3.1e-07	7.5e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.7e-09	3.2e-08	7.8e-08	8.3e-08	3.2e-07	5.4e-07	4.8e-07	4.2e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.4e-09	4.5e-08	1.1e-07	1.2e-07	4.5e-07	7.6e-07	6.9e-07	6.0e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	1.2e-07	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	5.6e-10	1.2e-08	1.4e-08	1.1e-08	6.3e-08	1.4e-07	1.1e-07	1.1e-07
Total Type B Uncertainty	1.4e-07	5.9e-07	2.8e-07	6.5e-07	3.5e-06	1.3e-06	1.2e-06	1.4e-06
Degrees of Freedom	19.1	27.7	93.0	75.8	26.0	62.9	46.9	75.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12601e-01	9.14312e-01	9.16840e-01	9.18291e-01	9.19342e-01	9.20111e-01	9.20522e-01	9.20737e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	3.2e-05	2.7e-05	2.5e-05	2.9e-05	4.2e-05	4.5e-05	3.4e-05	2.8e-05
Type B Uncertainty ^(c)	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.9e-05	5.7e-05	6.2e-05	6.2e-05
Total Uncertainty ^(d)	1.2e-04	1.2e-04	1.0e-04	8.4e-05	8.0e-05	7.2e-05	7.0e-05	6.8e-05
Degrees of Freedom	26.3	24.3	23.0	25.9	34.9	42.7	33.0	29.5
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.6e-08	6.9e-08	4.5e-08	3.2e-08	2.2e-08	1.4e-08	1.0e-08	8.2e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	2.9e-05	2.4e-05	1.0e-05	7.6e-06	8.2e-06	9.5e-06	8.4e-06	1.0e-05
Total Type B Uncertainty	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.9e-05	5.7e-05	6.2e-05	6.2e-05
Degrees of Freedom	22.7	21.8	20.4	20.4	20.6	21.2	20.8	21.1

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0828 5e-01	6.0774 3e-01	6.2134 4e-01	6.0911 4e-01	6.3664 8e-01	5.7601 8e-01	5.0079 0e-01	4.5225 5e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.7e-05	2.0e-05	1.9e-05	1.9e-05	1.8e-05	2.1e-05
Type B Uncertainty ^(c)	5.1e-04	1.4e-04	1.3e-04	7.6e-05	6.8e-05	1.1e-04	8.6e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.1e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.2	29.0	22.4	28.1	27.1	25.4	26.3	34.5
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.3e-06	2.0e-05	8.0e-06	2.1e-05	1.1e-05	5.2e-06	2.0e-06	6.6e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.4e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	2.5e-05	3.0e-05	1.3e-05	9.7e-06	1.1e-05	1.1e-05	8.8e-06	9.5e-06
Total Type B Uncertainty	5.1e-04	1.4e-04	1.3e-04	7.6e-05	6.8e-05	1.1e-04	8.6e-05	5.1e-05
Degrees of Freedom	28.3	25.1	20.7	24.8	23.4	23.9	24.1	26.1

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.1685 4e-02	9.5644 1e-02	9.2109 1e-02	7.7209 8e-02	1.6145 7e-01	1.5040 4e-01	1.0313 9e-01	7.6821 5e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	4.2e-06	5.6e-06	1.6e-05	5.4e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.2e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.6e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.5	52.3	59.9	102.6	26.0	41.7	36.3	44.7
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.9e-06	1.6e-05	1.3e-05	5.2e-06	1.5e-06	3.9e-06
Wavelength	8.6e-05	3.7e-05	1.3e-05	7.4e-06	5.1e-05	1.9e-05	1.4e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.0e-07	2.1e-06	2.1e-06	1.9e-06	2.8e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	4.9e-07	1.8e-06	7.2e-07	4.6e-07	1.0e-06	1.1e-06	6.8e-07	6.0e-07
Total Type B Uncertainty	9.2e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.6	45.9	54.2	89.5	22.0	39.6	34.2	38.6

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.6323 3e-04	5.1686 4e-03	8.3998 6e-03	8.3078 2e-03	2.6432 9e-02	3.2183 9e-02	2.2520 7e-02	1.6672 6e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	1.2e-06	1.9e-06	5.4e-07	1.0e-06	3.4e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.7e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	28.8	45.8	55.1	103.7	38.5	32.2	51.8	67.5
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	7.9e-08	2.1e-06	1.3e-06	3.2e-06	4.3e-06	2.1e-06	5.5e-07	1.4e-06
Wavelength	2.4e-06	5.6e-06	8.7e-07	1.7e-06	1.2e-05	2.7e-06	3.2e-06	9.9e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.9e-07	3.8e-07	9.2e-07	1.1e-06	8.2e-07	6.6e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.7e-07	6.9e-07	6.8e-07	1.6e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	4.0e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.6e-08	1.9e-07	1.3e-07	9.7e-08	3.3e-07	4.7e-07	2.9e-07	2.6e-07
Total Type B Uncertainty	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	20.1	40.2	51.1	93.7	34.5	30.0	39.5	54.1

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.1902 4e-05	3.1623 8e-04	8.8372 7e-04	9.4552 3e-04	4.8287 6e-03	9.3234 4e-03	8.1272 0e-03	6.8598 7e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	7.5e-07	4.3e-07	2.5e-07	3.3e-07	1.3e-06	1.7e-06	2.0e-06	9.9e-07
Type B Uncertainty ^(c)	1.3e-07	6.6e-07	2.6e-07	6.4e-07	3.4e-06	1.3e-06	1.1e-06	1.5e-06
Total Uncertainty ^(d)	7.6e-07	7.9e-07	3.6e-07	7.2e-07	3.6e-06	2.1e-06	2.3e-06	1.8e-06
Degrees of Freedom	27.6	66.5	84.4	105.0	33.2	56.1	43.4	113.2
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (KRISS Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	3.8e-09	2.0e-07	2.0e-07	5.4e-07	1.2e-06	8.2e-07	2.5e-07	1.1e-06
Wavelength	1.3e-07	5.1e-07	1.1e-07	2.9e-07	3.1e-06	3.0e-07	7.3e-07	9.7e-08
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.7e-09	3.1e-08	7.6e-08	8.0e-08	3.1e-07	5.3e-07	4.7e-07	4.1e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.3e-09	4.4e-08	1.1e-07	1.1e-07	4.4e-07	7.5e-07	6.7e-07	5.9e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.6e-07	0.0e+00	1.2e-07	0.0e+00	0.0e+00	0.0e+00	7.3e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	6.9e-10	1.5e-08	1.8e-08	1.4e-08	8.0e-08	1.8e-07	1.4e-07	1.4e-07
Total Type B Uncertainty	1.3e-07	6.6e-07	2.6e-07	6.4e-07	3.4e-06	1.3e-06	1.1e-06	1.5e-06
Degrees of Freedom	19.1	42.4	88.6	79.8	25.9	57.6	42.9	91.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12947e-01	9.14610e-01	9.17002e-01	9.18426e-01	9.19430e-01	9.20164e-01	9.20534e-01	9.20772e-01
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	3.9e-05	3.3e-05	3.0e-05	3.6e-05	5.1e-05	5.5e-05	4.2e-05	3.4e-05
Type B Uncertainty ^(c)	1.6e-04	1.4e-04	1.0e-04	8.2e-05	6.9e-05	5.9e-05	6.5e-05	7.0e-05
Total Uncertainty ^(d)	1.6e-04	1.5e-04	1.1e-04	8.9e-05	8.6e-05	8.1e-05	7.7e-05	7.8e-05
Degrees of Freedom	48.3	45.0	30.8	35.6	54.0	64.5	53.8	51.1
Date	31-Mar-2014	31-Mar-2014	31-Mar-2014	31-Mar-2014	31-Mar-2014	31-Mar-2014	31-Mar-2014	31-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.2e-08	6.6e-08	4.4e-08	3.0e-08	2.1e-08	1.4e-08	1.0e-08	7.9e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.2e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.7e-05	7.6e-05	6.1e-05	4.6e-05	5.6e-05	5.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.1e-04	9.3e-05	3.9e-05	3.0e-05	3.2e-05	3.7e-05	3.3e-05	3.9e-05
Total Type B Uncertainty	1.6e-04	1.4e-04	1.0e-04	8.2e-05	6.9e-05	5.9e-05	6.5e-05	7.0e-05
Degrees of Freedom	43.0	40.7	26.4	26.1	30.5	40.1	32.8	35.9

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0931 4e-01	6.0724 7e-01	6.2122 3e-01	6.0933 2e-01	6.3683 6e-01	5.7662 0e-01	5.0159 3e-01	4.5314 3e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.7e-05	2.0e-05	1.9e-05	1.9e-05	1.8e-05	2.1e-05
Type B Uncertainty ^(c)	5.1e-04	1.4e-04	1.3e-04	7.6e-05	6.8e-05	1.1e-04	8.6e-05	5.2e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.1e-05	1.1e-04	8.8e-05	5.6e-05
Degrees of Freedom	32.1	29.4	22.5	28.3	27.3	25.5	26.4	35.0
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.5e-06	2.0e-05	8.1e-06	2.1e-05	1.1e-05	5.4e-06	2.6e-06	6.9e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.4e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	2.7e-05	3.3e-05	1.4e-05	1.0e-05	1.2e-05	1.2e-05	9.5e-06	1.0e-05
Total Type B Uncertainty	5.1e-04	1.4e-04	1.3e-04	7.6e-05	6.8e-05	1.1e-04	8.6e-05	5.2e-05
Degrees of Freedom	28.3	25.5	20.7	24.9	23.6	24.0	24.2	26.5

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.11237e-02	9.41098e-02	9.05954e-02	7.58521e-02	1.59432e-01	1.48398e-01	1.01485e-01	7.54405e-02
Number of Measurements	3	3	2	3	3	2	2	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	2.5e-05	1.3e-05	5.1e-06	5.5e-06	1.6e-05	6.6e-06	5.7e-06	3.9e-06
Type B Uncertainty ^(c)	9.0e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.4e-05	5.0e-05	1.8e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	29.0	53.2	63.7	104.2	26.1	43.3	37.5	44.8
Date	15-Mar-2014	15-Mar-2014	31-Mar-2014	15-Mar-2014	15-Mar-2014	31-Mar-2014	31-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.9e-06	1.6e-05	1.3e-05	5.5e-06	2.1e-06	4.0e-06
Wavelength	8.4e-05	3.6e-05	1.3e-05	7.2e-06	5.1e-05	1.8e-05	1.3e-05	5.3e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.8e-07	2.1e-06	2.1e-06	1.9e-06	2.7e-06	2.7e-06	2.2e-06	1.8e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.7e-06	3.4e-06	5.0e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.4e-05	2.6e-05	9.3e-06	7.5e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.0e-06	3.9e-06	1.6e-06	9.8e-07	2.2e-06	2.4e-06	1.5e-06	1.3e-06
Total Type B Uncertainty	9.0e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	25.1	46.8	55.3	91.0	22.1	40.2	34.5	38.9

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.6525 5e-04	5.1874 5e-03	8.4177 4e-03	8.3212 9e-03	2.6463 0e-02	3.2182 1e-02	2.2505 7e-02	1.6655 0e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.2e-06	1.9e-06	5.5e-07	1.0e-06	3.4e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.7e-06	7.4e-06	2.8e-06	4.4e-06	1.4e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	28.7	45.7	55.9	104.3	38.6	32.4	52.3	68.8
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	8.1e-08	2.1e-06	1.3e-06	3.2e-06	4.3e-06	2.1e-06	7.2e-07	1.4e-06
Wavelength	2.4e-06	5.7e-06	8.7e-07	1.7e-06	1.2e-05	2.7e-06	3.2e-06	9.8e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.9e-07	3.8e-07	9.2e-07	1.1e-06	8.2e-07	6.5e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.7e-07	6.9e-07	6.8e-07	1.7e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.8e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.5e-08	1.8e-07	1.2e-07	9.2e-08	3.2e-07	4.5e-07	2.8e-07	2.4e-07
Total Type B Uncertainty	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	20.0	40.1	51.9	94.2	34.5	30.3	39.9	55.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.4641 8e-05	3.4545 1e-04	9.5527 8e-04	1.0211 3e-03	5.1215 9e-03	9.8133 0e-03	8.5651 0e-03	7.2424 3e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	9.3e-07	4.7e-07	2.7e-07	3.5e-07	1.4e-06	1.8e-06	2.1e-06	1.0e-06
Type B Uncertainty ^(c)	1.6e-07	6.8e-07	2.9e-07	6.8e-07	3.6e-06	1.4e-06	1.2e-06	1.5e-06
Total Uncertainty ^(d)	9.4e-07	8.2e-07	3.9e-07	7.6e-07	3.8e-06	2.2e-06	2.4e-06	1.9e-06
Degrees of Freedom	27.6	61.7	85.3	100.3	33.3	56.7	43.8	112.4
Date	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014	15-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (VNIIOFI Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.7e-09	2.2e-07	2.2e-07	5.8e-07	1.3e-06	9.0e-07	3.5e-07	1.2e-06
Wavelength	1.6e-07	5.6e-07	1.2e-07	3.1e-07	3.3e-06	3.2e-07	7.7e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.0e-09	3.4e-08	8.1e-08	8.6e-08	3.3e-07	5.5e-07	4.9e-07	4.3e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.8e-09	4.7e-08	1.1e-07	1.2e-07	4.6e-07	7.8e-07	7.0e-07	6.1e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.1e-07	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	6.5e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	4.2e-10	8.1e-09	9.4e-09	7.6e-09	4.2e-08	9.2e-08	7.1e-08	7.1e-08
Total Type B Uncertainty	1.6e-07	6.8e-07	2.9e-07	6.8e-07	3.6e-06	1.4e-06	1.2e-06	1.5e-06
Degrees of Freedom	19.1	37.6	91.0	75.3	25.9	60.4	44.8	92.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.1277 7e-01	9.1444 6e-01	9.1688 0e-01	9.1832 3e-01	9.1931 9e-01	9.2008 8e-01	9.2048 4e-01	9.2076 6e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	3.2e-05	2.7e-05	2.5e-05	2.9e-05	4.2e-05	4.5e-05	3.4e-05	2.8e-05
Type B Uncertainty ^(c)	1.4e-04	1.3e-04	1.0e-04	8.2e-05	7.3e-05	6.3e-05	6.7e-05	6.9e-05
Total Uncertainty ^(d)	1.5e-04	1.4e-04	1.1e-04	8.7e-05	8.4e-05	7.8e-05	7.5e-05	7.5e-05
Degrees of Freedom	44.1	38.7	26.8	29.6	41.1	54.0	40.7	39.7
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.4e-08	6.8e-08	4.5e-08	3.1e-08	2.2e-08	1.4e-08	1.1e-08	8.0e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	9.0e-05	7.5e-05	3.2e-05	2.4e-05	2.6e-05	3.0e-05	2.7e-05	3.2e-05
Total Type B Uncertainty	1.4e-04	1.3e-04	1.0e-04	8.2e-05	7.3e-05	6.3e-05	6.7e-05	6.9e-05
Degrees of Freedom	40.1	35.8	24.1	23.7	25.8	31.0	27.5	30.2

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0705 6e-01	6.0643 3e-01	6.2017 9e-01	6.0805 3e-01	6.3569 2e-01	5.7512 7e-01	4.9986 1e-01	4.5133 9e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.7e-05	2.0e-05	1.9e-05	1.9e-05	1.8e-05	2.1e-05
Type B Uncertainty ^(c)	5.1e-04	1.3e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.1	27.3	22.1	27.5	26.2	25.0	25.9	33.2
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.5e-06	2.0e-05	8.1e-06	2.1e-05	1.1e-05	5.4e-06	2.8e-06	7.0e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.4e-06	7.9e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.4e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.2e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.4e-05	1.7e-05	7.2e-06	5.3e-06	6.1e-06	6.3e-06	4.9e-06	5.2e-06
Total Type B Uncertainty	5.1e-04	1.3e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Degrees of Freedom	28.3	23.5	20.4	24.2	22.6	23.6	23.7	25.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.1418 7e-02	9.4879 1e-02	9.1406 3e-02	7.6593 4e-02	1.6048 6e-01	1.4946 0e-01	1.0238 2e-01	7.6191 3e-02
Number of Measurements	3	3	3	3	3	2	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	4.2e-06	5.6e-06	1.6e-05	6.6e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.5e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.7	52.5	60.6	103.6	26.0	43.0	36.2	44.8
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	01-Apr-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.9e-06	1.6e-05	1.3e-05	5.3e-06	2.1e-06	4.1e-06
Wavelength	8.5e-05	3.6e-05	1.3e-05	7.3e-06	5.1e-05	1.9e-05	1.3e-05	5.3e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.9e-07	2.1e-06	2.1e-06	1.9e-06	2.7e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.7e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	2.6e-07	9.4e-07	3.8e-07	2.4e-07	5.5e-07	5.9e-07	3.6e-07	3.2e-07
Total Type B Uncertainty	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.9	46.0	54.9	90.4	22.0	39.8	34.2	38.7

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.6429 3e-04	5.1833 9e-03	8.4134 9e-03	8.3182 1e-03	2.6456 6e-02	3.2195 3e-02	2.2522 1e-02	1.6670 1e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.2e-06	1.9e-06	5.5e-07	1.0e-06	3.4e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.7e-06	7.4e-06	2.8e-06	4.4e-06	1.4e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	28.7	45.7	56.0	104.4	38.6	32.4	52.4	69.0
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	8.2e-08	2.1e-06	1.3e-06	3.2e-06	4.3e-06	2.2e-06	7.6e-07	1.4e-06
Wavelength	2.4e-06	5.7e-06	8.7e-07	1.7e-06	1.2e-05	2.7e-06	3.2e-06	9.9e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.9e-07	3.8e-07	9.2e-07	1.1e-06	8.2e-07	6.6e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.7e-07	6.9e-07	6.8e-07	1.7e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.9e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.1e-08	1.3e-07	8.8e-08	6.6e-08	2.3e-07	3.2e-07	2.0e-07	1.7e-07
Total Type B Uncertainty	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	20.0	40.1	52.0	94.3	34.6	30.3	40.0	55.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.2258 5e-05	3.2530 9e-04	9.0530 7e-04	9.6843 3e-04	4.9181 6e-03	9.4733 5e-03	8.2602 9e-03	6.9757 3e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	7.8e-07	4.4e-07	2.6e-07	3.3e-07	1.3e-06	1.7e-06	2.0e-06	1.0e-06
Type B Uncertainty ^(c)	1.3e-07	6.7e-07	2.7e-07	6.5e-07	3.4e-06	1.3e-06	1.2e-06	1.5e-06
Total Uncertainty ^(d)	7.9e-07	8.0e-07	3.8e-07	7.3e-07	3.7e-06	2.2e-06	2.3e-06	1.8e-06
Degrees of Freedom	27.6	65.3	86.3	103.7	33.3	57.9	44.4	116.0
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMC-A*STAR Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.0e-09	2.1e-07	2.1e-07	5.5e-07	1.2e-06	8.8e-07	3.6e-07	1.1e-06
Wavelength	1.3e-07	5.2e-07	1.1e-07	3.0e-07	3.2e-06	3.1e-07	7.5e-07	9.9e-08
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.7e-09	3.2e-08	7.7e-08	8.2e-08	3.2e-07	5.3e-07	4.8e-07	4.2e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.4e-09	4.5e-08	1.1e-07	1.2e-07	4.5e-07	7.6e-07	6.8e-07	6.0e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.5e-07	0.0e+00	9.2e-08	0.0e+00	0.0e+00	0.0e+00	7.0e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	7.5e-10	1.7e-08	1.9e-08	1.6e-08	8.6e-08	1.9e-07	1.5e-07	1.5e-07
Total Type B Uncertainty	1.3e-07	6.7e-07	2.7e-07	6.5e-07	3.4e-06	1.3e-06	1.2e-06	1.5e-06
Degrees of Freedom	19.1	41.1	92.3	78.6	26.0	62.7	46.6	95.2

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12835e-01	9.14484e-01	9.16981e-01	9.18402e-01	9.19434e-01	9.20182e-01	9.20587e-01	9.20807e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	3.2e-05	2.7e-05	2.5e-05	2.9e-05	4.2e-05	4.5e-05	3.4e-05	2.8e-05
Type B Uncertainty ^(c)	1.2e-04	1.2e-04	1.0e-04	7.9e-05	6.9e-05	5.7e-05	6.2e-05	6.3e-05
Total Uncertainty ^(d)	1.2e-04	1.2e-04	1.0e-04	8.5e-05	8.1e-05	7.3e-05	7.1e-05	6.9e-05
Degrees of Freedom	28.4	25.7	23.3	26.2	35.4	43.8	33.6	30.4
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.3e-08	6.8e-08	4.4e-08	3.0e-08	2.1e-08	1.4e-08	9.7e-09	7.6e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.2e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.9e-05	7.9e-05	6.8e-05	5.6e-05	6.1e-05	6.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	3.8e-05	3.1e-05	1.3e-05	1.0e-05	1.1e-05	1.3e-05	1.1e-05	1.3e-05
Total Type B Uncertainty	1.2e-04	1.2e-04	1.0e-04	7.9e-05	6.9e-05	5.7e-05	6.2e-05	6.3e-05
Degrees of Freedom	24.7	23.2	20.7	20.7	21.0	22.1	21.4	21.9

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.07478e-01	6.07139e-01	6.20647e-01	6.08439e-01	6.36000e-01	5.75148e-01	4.99849e-01	4.51292e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.7e-05	2.0e-05	1.9e-05	1.9e-05	1.8e-05	2.1e-05
Type B Uncertainty ^(c)	5.1e-04	1.3e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.7e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.1	26.6	22.0	27.3	25.9	24.9	25.8	32.6
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.4e-06	2.0e-05	8.1e-06	2.1e-05	1.1e-05	5.3e-06	2.5e-06	6.8e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.4e-06	7.9e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.4e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.2e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	5.5e-06	6.8e-06	2.9e-06	2.1e-06	2.4e-06	2.5e-06	2.0e-06	2.1e-06
Total Type B Uncertainty	5.1e-04	1.3e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Degrees of Freedom	28.2	22.9	20.3	24.0	22.2	23.4	23.6	24.5

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.1638 8e-02	9.5687 2e-02	9.2072 1e-02	7.7117 1e-02	1.6141 0e-01	1.5019 7e-01	1.0287 8e-01	7.6572 9e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	4.2e-06	5.6e-06	1.6e-05	5.4e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.2e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.5e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.6	52.4	60.3	103.2	26.0	41.8	36.3	44.9
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.9e-06	1.6e-05	1.3e-05	5.4e-06	1.9e-06	4.0e-06
Wavelength	8.6e-05	3.7e-05	1.3e-05	7.4e-06	5.1e-05	1.9e-05	1.4e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.0e-07	2.1e-06	2.1e-06	1.9e-06	2.8e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	5.3e-07	1.9e-06	7.9e-07	5.0e-07	1.1e-06	1.2e-06	7.4e-07	6.5e-07
Total Type B Uncertainty	9.2e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.7	45.9	54.6	90.0	22.0	39.7	34.3	38.9

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.85330e-04	5.38155e-03	8.70478e-03	8.60781e-03	2.71526e-02	3.29797e-02	2.31258e-02	1.71519e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	1.2e-06	2.0e-06	5.6e-07	1.1e-06	3.5e-06	1.8e-06	2.6e-06	1.3e-06
Type B Uncertainty ^(c)	2.6e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.3e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.9e-06	7.6e-06	2.8e-06	4.5e-06	1.5e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	27.6	44.8	58.4	104.3	38.0	33.0	54.0	71.9
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	8.5e-08	2.2e-06	1.3e-06	3.3e-06	4.4e-06	2.2e-06	7.1e-07	1.5e-06
Wavelength	2.6e-06	5.9e-06	9.0e-07	1.8e-06	1.2e-05	2.7e-06	3.2e-06	1.0e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.9e-08	2.7e-07	4.0e-07	3.9e-07	9.4e-07	1.1e-06	8.3e-07	6.7e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	5.2e-08	4.8e-07	7.1e-07	7.0e-07	1.7e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.7e-06	2.1e-06	2.0e-06	5.6e-06	8.3e-06	4.9e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.8e-08	2.1e-07	1.4e-07	1.1e-07	3.6e-07	5.1e-07	3.2e-07	2.8e-07
Total Type B Uncertainty	2.6e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.3e-06	6.2e-06	3.3e-06
Degrees of Freedom	19.1	39.2	54.1	94.0	33.9	30.8	40.9	57.5

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.3417 6e-05	3.5067 9e-04	9.6465 6e-04	1.0313 7e-03	5.1612 3e-03	9.8771 7e-03	8.6225 5e-03	7.2921 9e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Type A Uncertainty ^(b)	8.5e-07	4.8e-07	2.7e-07	3.6e-07	1.4e-06	1.8e-06	2.1e-06	1.1e-06
Type B Uncertainty ^(c)	1.5e-07	6.8e-07	2.9e-07	6.8e-07	3.6e-06	1.4e-06	1.2e-06	1.5e-06
Total Uncertainty ^(d)	8.6e-07	8.3e-07	4.0e-07	7.7e-07	3.9e-06	2.2e-06	2.4e-06	1.9e-06
Degrees of Freedom	27.6	60.7	85.0	100.1	33.2	56.4	43.7	111.6
Date	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014	16-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NPL Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.3e-09	2.2e-07	2.2e-07	5.9e-07	1.3e-06	9.0e-07	3.4e-07	1.2e-06
Wavelength	1.5e-07	5.7e-07	1.2e-07	3.2e-07	3.3e-06	3.2e-07	7.8e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.8e-09	3.4e-08	8.2e-08	8.6e-08	3.3e-07	5.5e-07	5.0e-07	4.3e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.6e-09	4.8e-08	1.1e-07	1.2e-07	4.7e-07	7.8e-07	7.0e-07	6.2e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.0e-07	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	6.3e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	4.6e-10	9.9e-09	1.1e-08	9.3e-09	5.0e-08	1.1e-07	8.6e-08	8.7e-08
Total Type B Uncertainty	1.5e-07	6.8e-07	2.9e-07	6.8e-07	3.6e-06	1.4e-06	1.2e-06	1.5e-06
Degrees of Freedom	19.1	36.6	90.4	75.1	25.9	59.9	44.5	91.6

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.1263 2e-01	9.1436 6e-01	9.1687 5e-01	9.1833 8e-01	9.1937 1e-01	9.2008 2e-01	9.2051 9e-01	9.2080 3e-01
Number of Measurements	2	2	2	2	2	2	2	2
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	3.9e-05	3.3e-05	3.0e-05	3.6e-05	5.1e-05	5.5e-05	4.2e-05	3.4e-05
Type B Uncertainty ^(c)	1.6e-04	1.5e-04	1.1e-04	8.2e-05	7.0e-05	6.0e-05	6.6e-05	7.2e-05
Total Uncertainty ^(d)	1.7e-04	1.5e-04	1.1e-04	9.0e-05	8.7e-05	8.2e-05	7.8e-05	8.0e-05
Degrees of Freedom	48.0	45.9	31.7	36.5	55.3	65.9	55.3	52.5
Date	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014	02-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.5e-08	6.9e-08	4.5e-08	3.1e-08	2.1e-08	1.4e-08	1.0e-08	7.6e-09
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.7e-05	7.6e-05	6.1e-05	4.6e-05	5.6e-05	5.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.2e-04	9.9e-05	4.2e-05	3.2e-05	3.4e-05	4.0e-05	3.5e-05	4.2e-05
Total Type B Uncertainty	1.6e-04	1.5e-04	1.1e-04	8.2e-05	7.0e-05	6.0e-05	6.6e-05	7.2e-05
Degrees of Freedom	43.0	41.7	27.2	26.9	31.8	41.2	34.2	37.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.0846 4e-01	6.0785 3e-01	6.2145 1e-01	6.0918 9e-01	6.3674 9e-01	5.7611 9e-01	5.0092 6e-01	4.5241 6e-01
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	1.3e-04	3.8e-05	2.7e-05	2.0e-05	1.9e-05	1.9e-05	1.8e-05	2.1e-05
Type B Uncertainty ^(c)	5.1e-04	1.3e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	32.1	27.0	22.1	27.5	26.2	25.0	25.9	33.2
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.8e-06	2.0e-05	8.3e-06	2.1e-05	1.1e-05	5.8e-06	3.5e-06	7.3e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.4e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.1e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.2e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.1e-05	1.4e-05	5.9e-06	4.4e-06	5.0e-06	5.2e-06	4.0e-06	4.3e-06
Total Type B Uncertainty	5.1e-04	1.3e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.6e-05	5.1e-05
Degrees of Freedom	28.2	23.3	20.4	24.2	22.5	23.5	23.7	25.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.14746e-02	9.50419e-02	9.15791e-02	7.67670e-02	1.60718e-01	1.49670e-01	1.02554e-01	7.63312e-02
Number of Measurements	3	3	2	3	3	2	3	3
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	5.1e-06	5.6e-06	1.6e-05	6.6e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.5e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.7	52.5	63.2	104.4	26.1	43.3	36.5	45.5
Date	17-Mar-2014	17-Mar-2014	02-Apr-2014	17-Mar-2014	17-Mar-2014	02-Apr-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.4e-06	1.7e-05	7.1e-06	1.6e-05	1.3e-05	5.8e-06	2.6e-06	4.3e-06
Wavelength	8.5e-05	3.6e-05	1.3e-05	7.3e-06	5.1e-05	1.9e-05	1.3e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.9e-07	2.1e-06	2.1e-06	1.9e-06	2.7e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.3e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.00E-20	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Total Type B Uncertainty	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.8	46.1	54.7	91.2	22.1	40.1	34.5	39.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.6129 3e-04	5.1574 2e-03	8.3803 4e-03	8.2876 7e-03	2.6386 6e-02	3.2119 2e-02	2.2465 1e-02	1.6625 5e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	1.1e-06	1.9e-06	5.4e-07	1.0e-06	3.4e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.7e-06	7.3e-06	2.8e-06	4.4e-06	1.4e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	28.9	45.9	56.6	105.2	38.9	32.7	52.9	70.5
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	8.3e-08	2.1e-06	1.3e-06	3.2e-06	4.4e-06	2.3e-06	9.5e-07	1.5e-06
Wavelength	2.4e-06	5.6e-06	8.7e-07	1.7e-06	1.2e-05	2.7e-06	3.1e-06	9.8e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.9e-07	3.8e-07	9.2e-07	1.1e-06	8.2e-07	6.5e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.6e-07	6.9e-07	6.8e-07	1.6e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	4.2e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	9.9e-09	1.2e-07	8.0e-08	5.9e-08	2.1e-07	2.9e-07	1.8e-07	1.6e-07
Total Type B Uncertainty	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	20.2	40.3	52.5	95.1	34.8	30.6	40.6	57.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.39117e-05	3.57286e-04	9.82729e-04	1.05045e-03	5.23304e-03	9.99980e-03	8.73303e-03	7.38924e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Type A Uncertainty ^(b)	8.8e-07	4.8e-07	2.8e-07	3.6e-07	1.4e-06	1.8e-06	2.1e-06	1.1e-06
Type B Uncertainty ^(c)	1.5e-07	6.8e-07	3.0e-07	7.0e-07	3.7e-06	1.4e-06	1.3e-06	1.6e-06
Total Uncertainty ^(d)	8.9e-07	8.4e-07	4.1e-07	7.9e-07	3.9e-06	2.3e-06	2.5e-06	1.9e-06
Degrees of Freedom	27.6	59.6	88.0	101.4	33.5	59.8	45.4	116.0
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NIST Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	4.6e-09	2.3e-07	2.3e-07	6.0e-07	1.3e-06	9.8e-07	4.7e-07	1.2e-06
Wavelength	1.5e-07	5.8e-07	1.2e-07	3.2e-07	3.4e-06	3.2e-07	7.9e-07	1.0e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.9e-09	3.5e-08	8.3e-08	8.8e-08	3.3e-07	5.6e-07	5.0e-07	4.4e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.7e-09	4.9e-08	1.2e-07	1.2e-07	4.7e-07	7.9e-07	7.1e-07	6.2e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	2.8e-07	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	6.1e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	9.7e-10	2.1e-08	2.4e-08	1.9e-08	1.0e-07	2.3e-07	1.8e-07	1.8e-07
Total Type B Uncertainty	1.5e-07	6.8e-07	3.0e-07	7.0e-07	3.7e-06	1.4e-06	1.3e-06	1.6e-06
Degrees of Freedom	19.1	35.5	95.6	76.3	26.1	67.4	50.1	97.0

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --A

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	9.12524e-01	9.14216e-01	9.16590e-01	9.18144e-01	9.19175e-01	9.19894e-01	9.20307e-01	9.20524e-01
Number of Measurements	2	2	1	2	2	2	2	2
Temperature	23.0	23.0	22.9	23.0	23.0	23.0	23.0	23.0
Type A Uncertainty ^(b)	3.9e-05	3.3e-05	4.3e-05	3.6e-05	5.1e-05	5.5e-05	4.2e-05	3.4e-05
Type B Uncertainty ^(c)	1.2e-04	1.1e-04	9.3e-05	7.7e-05	6.2e-05	4.8e-05	5.7e-05	6.0e-05
Total Uncertainty ^(d)	1.2e-04	1.2e-04	1.0e-04	8.5e-05	8.1e-05	7.3e-05	7.1e-05	6.9e-05
Degrees of Freedom	31.3	27.6	29.7	29.6	43.6	48.9	41.2	36.1
Date	01-Apr-2014	01-Apr-2014	13-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014	01-Apr-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --A

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00	0.0e+00
Wavelength	3.3e-06	1.2e-06	4.2e-07	2.6e-06	3.9e-07	3.7e-07	1.4e-06	4.5e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	8.6e-08	7.0e-08	4.8e-08	3.3e-08	2.3e-08	1.6e-08	1.2e-08	1.0e-08
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.3e-06	1.3e-06	1.4e-06	1.4e-06	1.5e-06	1.5e-06	1.5e-06	1.6e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	1.1e-04	1.1e-04	9.2e-05	7.6e-05	6.1e-05	4.6e-05	5.6e-05	5.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	4.0e-05	3.3e-05	1.4e-05	1.0e-05	1.1e-05	1.3e-05	1.2e-05	1.4e-05
Total Type B Uncertainty	1.2e-04	1.1e-04	9.3e-05	7.7e-05	6.2e-05	4.8e-05	5.7e-05	6.0e-05
Degrees of Freedom	25.4	23.6	20.9	20.8	21.4	23.4	21.8	22.3

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --B

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	4.10895e-01	6.08697e-01	6.22456e-01	6.10560e-01	6.37923e-01	5.77803e-01	5.02877e-01	4.54540e-01
Number of Measurements	3	3	3	3	3	3	2	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.0	23.1
Type A Uncertainty ^(b)	1.4e-04	3.8e-05	2.8e-05	2.0e-05	1.9e-05	1.9e-05	2.3e-05	2.1e-05
Type B Uncertainty ^(c)	5.2e-04	1.4e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.5e-05	5.1e-05
Total Uncertainty ^(d)	5.3e-04	1.4e-04	1.4e-04	7.8e-05	7.0e-05	1.1e-04	8.8e-05	5.5e-05
Degrees of Freedom	31.9	27.7	22.2	27.7	26.4	25.2	27.3	33.6
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	01-Apr-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --B

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	9.4e-06	2.0e-05	8.0e-06	2.1e-05	1.1e-05	5.2e-06	2.0e-06	6.7e-06
Wavelength	4.6e-04	2.6e-05	3.9e-06	1.5e-06	8.0e-06	2.8e-05	2.3e-05	1.1e-05
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	6.3e-06	4.8e-06	4.7e-06	4.8e-06	4.5e-06	5.2e-06	5.8e-06	6.1e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	6.2e-06	5.1e-06	5.1e-06	5.2e-06	5.0e-06	5.6e-06	6.0e-06	6.3e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	2.3e-04	1.3e-04	1.3e-04	7.2e-05	6.5e-05	1.0e-04	8.1e-05	4.8e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.7e-05	2.0e-05	8.7e-06	6.5e-06	7.3e-06	7.7e-06	5.9e-06	6.4e-06
Total Type B Uncertainty	5.2e-04	1.4e-04	1.3e-04	7.5e-05	6.7e-05	1.1e-04	8.5e-05	5.1e-05
Degrees of Freedom	28.1	23.8	20.5	24.3	22.7	23.7	23.9	25.2

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --C

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	2.15009e-02	9.51056e-02	9.16410e-02	7.68121e-02	1.60816e-01	1.49784e-01	1.02653e-01	7.64189e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	2.6e-05	1.3e-05	4.2e-06	5.6e-06	1.6e-05	5.4e-06	4.7e-06	4.0e-06
Type B Uncertainty ^(c)	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Total Uncertainty ^(d)	9.5e-05	5.0e-05	1.9e-05	2.0e-05	5.5e-05	3.4e-05	2.8e-05	1.5e-05
Degrees of Freedom	28.7	52.5	60.1	102.9	26.0	41.7	36.2	44.5
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --C

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	2.3e-06	1.7e-05	6.8e-06	1.6e-05	1.3e-05	5.2e-06	1.5e-06	3.9e-06
Wavelength	8.5e-05	3.6e-05	1.3e-05	7.3e-06	5.1e-05	1.9e-05	1.4e-05	5.4e-06
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	7.9e-07	2.1e-06	2.1e-06	1.9e-06	2.7e-06	2.7e-06	2.2e-06	1.9e-06
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	1.4e-06	3.8e-06	3.8e-06	3.4e-06	5.1e-06	4.9e-06	4.0e-06	3.4e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	3.3e-05	2.6e-05	9.7e-06	7.4e-06	0.0e+00	2.6e-05	2.3e-05	1.2e-05
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	5.4e-07	2.0e-06	8.0e-07	5.0e-07	1.1e-06	1.2e-06	7.5e-07	6.6e-07
Total Type B Uncertainty	9.1e-05	4.8e-05	1.8e-05	1.9e-05	5.3e-05	3.3e-05	2.7e-05	1.4e-05
Degrees of Freedom	24.8	46.0	54.4	89.7	22.0	39.6	34.2	38.5

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --D

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	3.61845e-04	5.15916e-03	8.38416e-03	8.29278e-03	2.63972e-02	3.21489e-02	2.24999e-02	1.66581e-02
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	1.1e-06	1.9e-06	5.4e-07	1.0e-06	3.4e-06	1.7e-06	2.5e-06	1.2e-06
Type B Uncertainty ^(c)	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Total Uncertainty ^(d)	2.7e-06	7.3e-06	2.8e-06	4.3e-06	1.4e-05	9.4e-06	6.7e-06	3.5e-06
Degrees of Freedom	28.9	45.8	55.1	103.8	38.6	32.2	51.9	67.8
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --D

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	7.9e-08	2.1e-06	1.3e-06	3.2e-06	4.3e-06	2.1e-06	5.7e-07	1.4e-06
Wavelength	2.4e-06	5.6e-06	8.7e-07	1.7e-06	1.2e-05	2.7e-06	3.2e-06	9.8e-07
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	2.8e-08	2.6e-07	3.9e-07	3.8e-07	9.2e-07	1.1e-06	8.2e-07	6.5e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	4.9e-08	4.6e-07	6.9e-07	6.8e-07	1.6e-06	1.9e-06	1.5e-06	1.2e-06
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	4.1e-07	3.7e-06	2.1e-06	2.0e-06	5.7e-06	8.3e-06	5.0e-06	2.4e-06
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	1.8e-08	2.2e-07	1.5e-07	1.1e-07	3.8e-07	5.4e-07	3.3e-07	2.9e-07
Total Type B Uncertainty	2.5e-06	7.1e-06	2.7e-06	4.2e-06	1.4e-05	9.2e-06	6.2e-06	3.3e-06
Degrees of Freedom	20.2	40.2	51.1	93.7	34.5	30.1	39.6	54.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :

Measurement Results

Results of Step 3 of the comparison. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --E

Measurement Results

Wavelength (nm)	380	400	500	600	700	800	900	1000
Spectral Transmittance ^(a)	1.2174 6e-05	3.2458 9e-04	9.0505 6e-04	9.6796 6e-04	4.9161 1e-03	9.4711 7e-03	8.2597 1e-03	6.9757 7e-03
Number of Measurements	3	3	3	3	3	3	3	3
Temperature	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1
Type A Uncertainty ^(b)	7.7e-07	4.4e-07	2.6e-07	3.3e-07	1.3e-06	1.7e-06	2.0e-06	1.0e-06
Type B Uncertainty ^(c)	1.3e-07	6.6e-07	2.7e-07	6.5e-07	3.4e-06	1.3e-06	1.2e-06	1.5e-06
Total Uncertainty ^(d)	7.8e-07	8.0e-07	3.7e-07	7.3e-07	3.7e-06	2.1e-06	2.3e-06	1.8e-06
Degrees of Freedom	27.6	65.3	84.3	103.0	33.2	55.9	43.4	112.7
Date	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014	17-Mar-2014

^(a)**Spectral transmittance.** The value of the spectral transmittance of the central 17 mm diameter of the filter as measured by the participant laboratory. ^(b)**Type A Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to reproducibility of the measurement. ^(c)**Type B Uncertainty.** The uncertainties associated with the spectral transmittance values attributed to all type B sources. ^(d)**Total Uncertainty.** The total uncertainty of the measurement of spectral transmittance for a coverage factor of k=1.

Type B Uncertainty Budget^(a)

Measurement results for Step 3. All uncertainties should be reported as absolute uncertainties.

Laboratory: MSL (NMISA Set)

Filter Identifier: --E

Wavelength (nm)	380	400	500	600	700	800	900	1000
Nonlinearity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temperature	3.9e-09	2.1e-07	2.0e-07	5.5e-07	1.2e-06	8.3e-07	2.7e-07	1.1e-06
Wavelength	1.3e-07	5.2e-07	1.1e-07	3.0e-07	3.2e-06	3.1e-07	7.5e-07	9.9e-08
Stray Light	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beam Size & Position	1.7e-09	3.2e-08	7.7e-08	8.2e-08	3.2e-07	5.3e-07	4.8e-07	4.2e-07
Inter-reflection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obliquity	2.4e-09	4.5e-08	1.1e-07	1.2e-07	4.5e-07	7.6e-07	6.8e-07	6.0e-07
Polarization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filter Drift & Instability	0.0e+00	3.5e-07	0.0e+00	9.3e-08	0.0e+00	0.0e+00	0.0e+00	7.0e-07
Bandwidth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Parallel Filter Surfaces	5.8e-10	1.3e-08	1.5e-08	1.2e-08	6.7e-08	1.5e-07	1.1e-07	1.2e-07
Total Type B Uncertainty	1.3e-07	6.6e-07	2.7e-07	6.5e-07	3.4e-06	1.3e-06	1.2e-06	1.5e-06
Degrees of Freedom	19.1	41.1	88.7	77.8	25.9	57.6	42.9	91.4

^(a) Please record any uncertainties considered negligible as zero (rather than e.g. < some value) ^(b) Add lines to the table as necessary, itemising other components of uncertainty considered

Signature :

Date :