

# MAX-350 Xenon Light Source 300W Technical Information



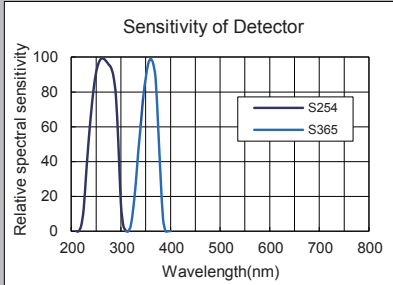
MAX-350

UV  
(250-385nm)

Light Guide  
(Quartz)

\*Measurement results are reference only.

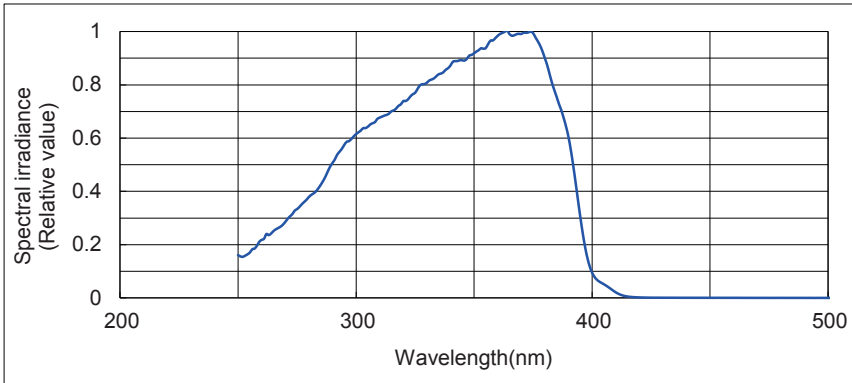
Measuring Condition



**Detector**  
 A. Accumulated UV Power Meter UIT-150 S254 (Ushio)  
 B. Accumulated UV Power Meter UIT-150 S365 (Ushio)  
 C. Power Meter 2636-R 818-UV+OD3 (Newport)

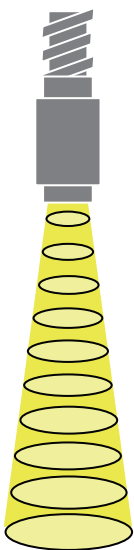
**Xenon Light Source MAX-350**  
 • UV Lamp  
 • \*160 hours of use  
 • UV Mirror Module

Spectral Distribution



This graph shows the spectral distribution of MAX-350 with UV lamp and UV mirror module measured by fiber spectrometer.

Illuminated Area & Center Illuminance at Different Distance



Distance	Detector Filter Illuminated area	Irradiance(mW/cm <sup>2</sup> )		Irradiance(mW/cm <sup>2</sup> )		
		A	B	C		
		---	---	XHQA254	XHQA320	XHQA380
10mm	φ9mm	380.35	845.87	-	-	-
20mm	φ13mm	128.49	238.64	-	-	-
30mm	φ18mm	56.88	100.58	3.93	14.04	21.02
40mm	φ24mm	30.45	54.99	2.52	9.05	13.49
50mm	φ30mm	19.63	35.65	1.59	5.69	8.37
60mm	φ35mm	13.50	24.74	1.12	4.02	5.92
70mm	φ40mm	9.93	18.15	0.81	2.89	4.24
80mm	φ45mm	7.62	13.72	0.61	2.18	3.21
90mm	φ50mm	6.01	10.91	0.48	1.70	2.49
100mm	φ53mm	4.97	8.85	0.38	1.34	1.98

Reference for XHQA (Bandpass Filter)

[http://www.asahi-spectra.com/opticalinstrument/bandpass\\_filters\\_ls.html](http://www.asahi-spectra.com/opticalinstrument/bandpass_filters_ls.html)

MAX-350

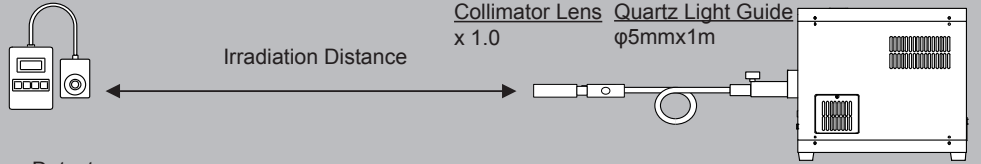
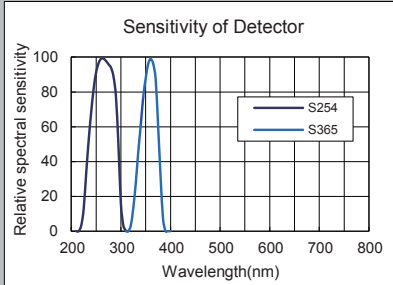
UV  
(250-385nm)

Light Guide  
(Quartz)

Collimator Lens  
(x 1.0)

\*Measurement results are reference only.

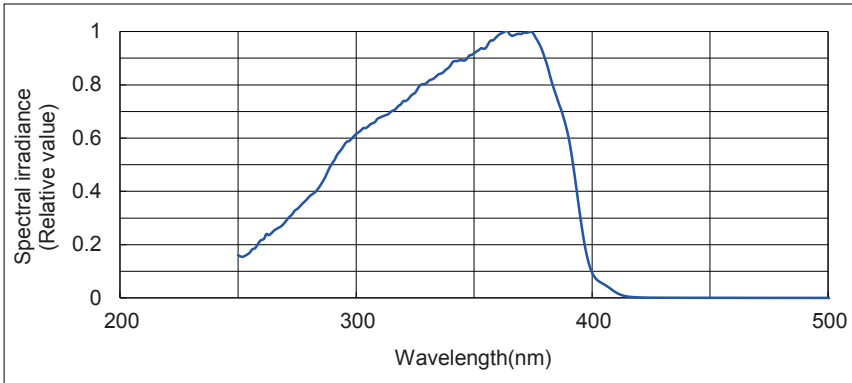
Measuring Condition



**Detector**  
 A. Accumulated UV Power Meter UIT-150 S254 (Ushio)  
 B. Accumulated UV Power Meter UIT-150 S365 (Ushio)  
 C. Power Meter 2636-R 818-UV+OD3 (Newport)

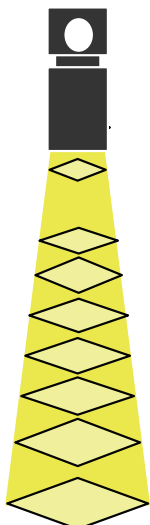
**Xenon Light Source MAX-350**  
 • UV Lamp  
 • \*160 hours of use  
 • UV Mirror Module

Spectral Distribution



This graph shows the spectral distribution of MAX-350 with UV lamp and UV mirror module measured by fiber spectrometer.

Illuminated Area & Center Illuminance at Different Distance



Distance	Filter Illuminated area	Irradiance(mW/cm <sup>2</sup> )		Irradiance(mW/cm <sup>2</sup> )		
		A	B	C		
		---	---	XHQA254	XHQA320	XHQA380
80mm	19 x 19mm	21.31	43.53	1.61	5.97	8.98
100mm	23 x 23mm	14.54	29.71	1.10	4.08	6.13
200mm	44 x 44mm	3.97	8.12	0.30	1.11	1.67
300mm	64 x 64mm	1.88	3.84	0.14	0.53	0.79
400mm	85 x 85mm	1.06	2.18	0.08	0.30	0.45
500mm	106 x 106mm	0.68	1.40	0.05	0.19	0.29
600mm	126 x 126mm	0.48	0.99	0.04	0.14	0.20
1000mm	208 x 208mm	0.18	0.36	0.01	0.05	0.07

Reference for XHQA (Bandpass Filter)

[http://www.asahi-spectra.com/opticalinstrument/bandpass\\_filters\\_ls.html](http://www.asahi-spectra.com/opticalinstrument/bandpass_filters_ls.html)

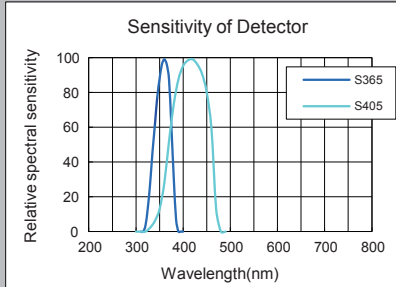
MAX-350

UV-VIS  
(300-600nm)

Light Guide  
(Quartz)

\*Measurement results are reference only.

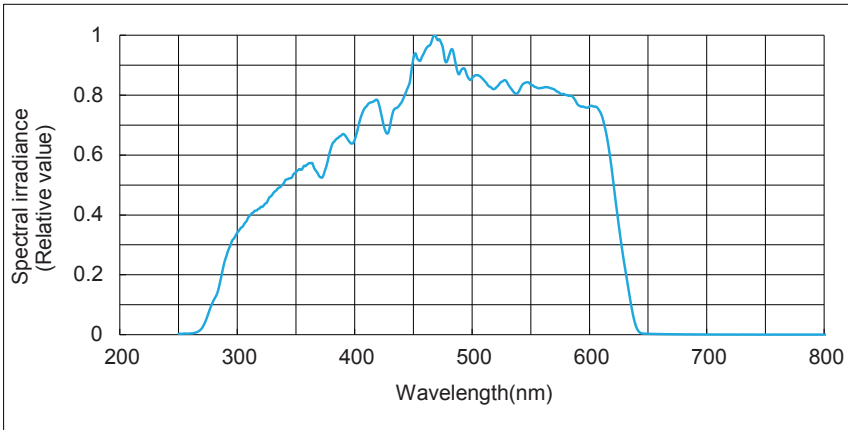
Measuring Condition



- Detector**
- A. Accumulated UV Power Meter UIT-150 S365 (Ushio)
  - B. Accumulated UV Power Meter UIT-150 S405 (Ushio)
  - C. Power Meter 2636-R 818-UV+OD3 (Newport)

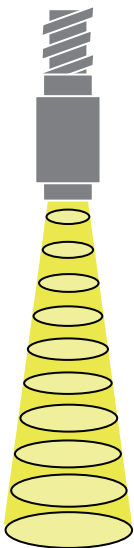
- Xenon Light Source MAX-350**
- UV Lamp
  - \*160 hours of use
  - UV-VIS Mirror Module

Spectral Distribution



This graph shows the spectral distribution of MAX-350 with UV lamp and UV-VIS mirror module measured by fiber spectrometer.

Illuminated Area & Center Illuminance at Different Distance



Distance	Detector Filter Illuminated area	Irradiance(mW/cm <sup>2</sup> )		Irradiance(mW/cm <sup>2</sup> )
		A	B	C
		---	---	XBPA500
10mm	φ9mm	743.83	2522.23	-
20mm	φ13mm	212.04	704.62	-
30mm	φ18mm	88.99	309.87	42.02
40mm	φ24mm	48.77	170.15	26.50
50mm	φ30mm	31.38	110.50	16.05
60mm	φ35mm	21.91	76.07	11.09
70mm	φ40mm	15.95	56.45	7.77
80mm	φ45mm	12.35	42.84	5.66
90mm	φ50mm	9.57	34.27	4.42
100mm	φ53mm	7.80	27.70	3.45

Reference for XBPA (Bandpass Filter)

[http://www.asahi-spectra.com/opticalinstrument/bandpass\\_filters\\_ls.html](http://www.asahi-spectra.com/opticalinstrument/bandpass_filters_ls.html)

MAX-350

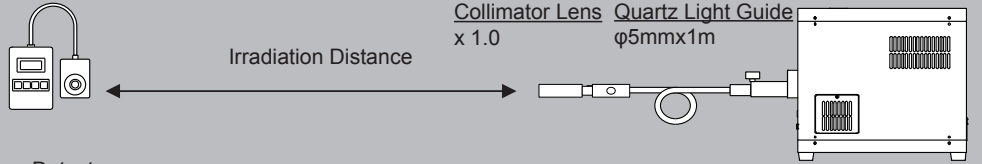
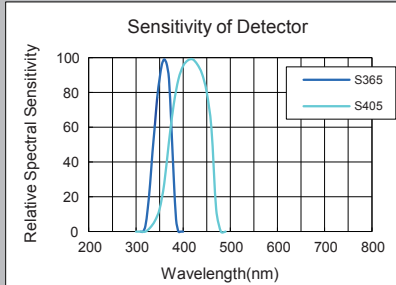
UV-VIS  
(300-600nm)

Light Guide  
(Quartz)

Collimator Lens  
(x 1.0)

\*Measurement results are reference only.

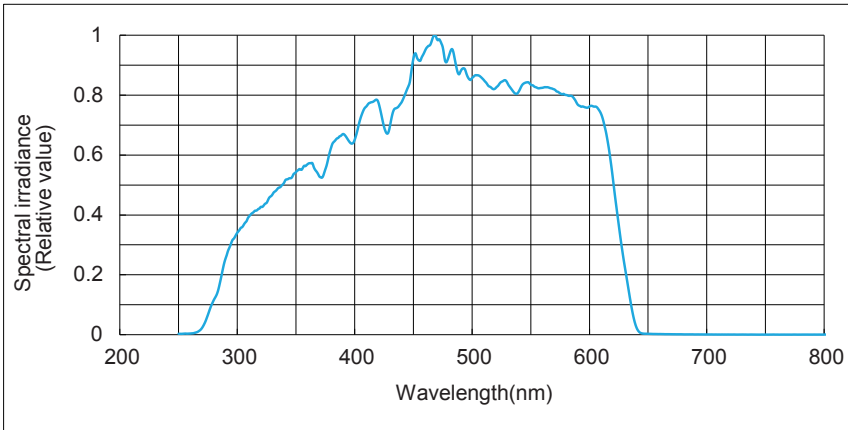
Measuring Condition



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 C. Power Meter 2636-R 818-UV+OD3 (Newport)

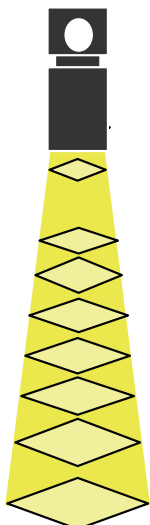
Xenon Light Source MAX-350  
 • UV Lamp  
 • \*160 hours of use  
 • UV-VIS Mirror Module

Spectral Distribution



This graph shows the spectral distribution of MAX-350 with UV lamp and UV-VIS mirror module measured by fiber spectrometer.

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Distance	Filter Illuminated area	Irradiance(mW/cm <sup>2</sup> )		Irradiance(mW/cm <sup>2</sup> )
		A	B	C
		---	---	XBPA500
80mm	19 x 19mm	39.99	141.82	14.65
100mm	23 x 23mm	27.29	96.78	10.00
200mm	44 x 44mm	7.46	26.45	2.73
300mm	64 x 64mm	3.52	12.50	1.29
400mm	85 x 85mm	2.00	7.09	0.73
500mm	106 x 106mm	1.28	4.56	0.47
600mm	126 x 126mm	0.91	3.22	0.33
1000mm	208 x 208mm	0.33	1.18	0.12

Reference for XBPA (Bandpass Filter)

[http://www.asahi-spectra.com/opticalinstrument/bandpass\\_filters\\_ls.html](http://www.asahi-spectra.com/opticalinstrument/bandpass_filters_ls.html)

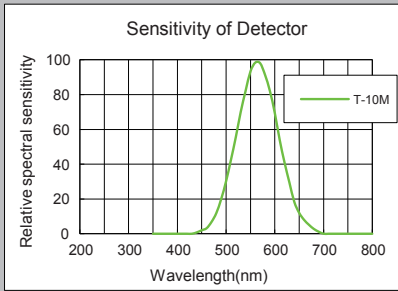
MAX-350

VIS  
(385-740nm)

Light Guide  
(Quartz)

\*Measurement results are reference only.

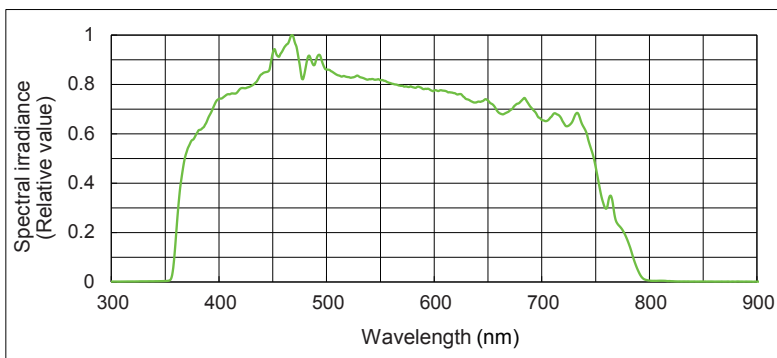
Measuring Condition



Detector  
A. Illuminance Meter T-10M (Konica Minolta)  
B. Power Meter 2636-R 818-UV+OD3 (Newport)

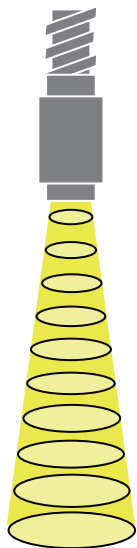
Xenon Light Source MAX-350  
• UV Lamp  
\*160 hours of use  
• VIS Mirror Module

Spectral Distribution



This graph shows the spectral distribution of MAX-350 with UV lamp and VIS mirror module measured by fiber spectrometer.

Illuminated Area & Center Illuminance at Different Distance

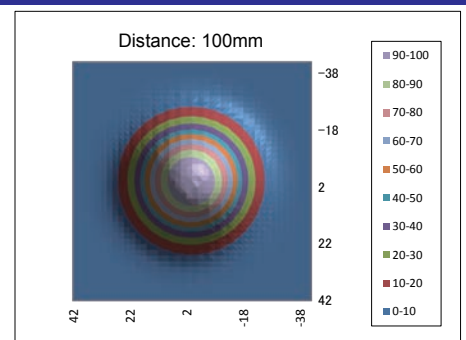
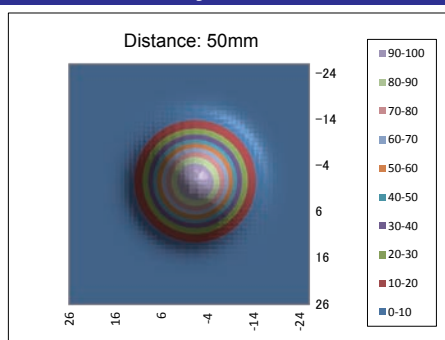
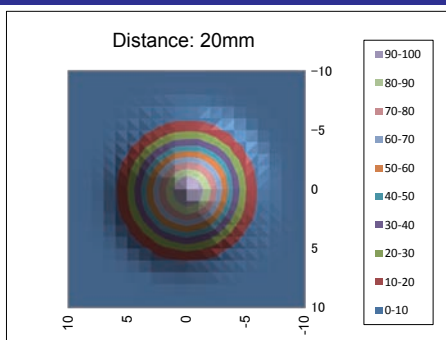


Distance	Detector Filter Illuminated area	Irradiance(mW/cm <sup>2</sup> )		Irradiance(mW/cm <sup>2</sup> )		
		A	B	XBPA500	XBPA600	XBPA700
10mm	φ9mm	5,650,000	-	-	-	-
20mm	φ13mm	4,490,000	-	-	-	-
30mm	φ18mm	2,864,000	41.88	42.99	41.55	
40mm	φ24mm	1,607,000	26.66	27.40	26.61	
50mm	φ30mm	955,000	15.95	16.37	15.97	
60mm	φ35mm	650,000	11.02	11.25	10.92	
70mm	φ40mm	477,000	7.79	7.87	7.61	
80mm	φ45mm	360,000	5.68	5.71	5.51	
90mm	φ50mm	275,000	4.46	4.45	4.29	
100mm	φ53mm	226,000	3.50	3.49	3.36	

Reference for XBPA (Bandpass Filter)

[http://www.asahi-spectra.com/opticalinstrument/bandpass\\_filters\\_ls.html](http://www.asahi-spectra.com/opticalinstrument/bandpass_filters_ls.html)

Uniformity of Irradiation



MAX-350

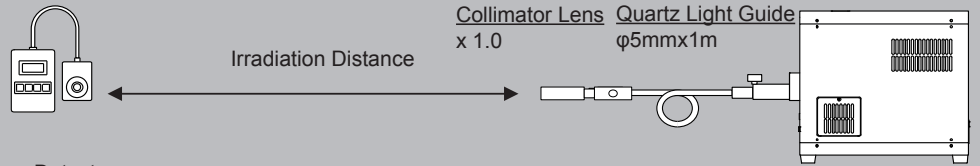
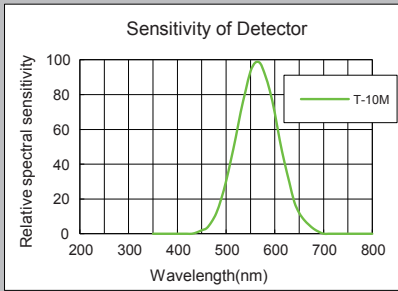
VIS  
(385-740nm)

Light Guide  
(Quartz)

Collimator Lens  
(x 1.0)

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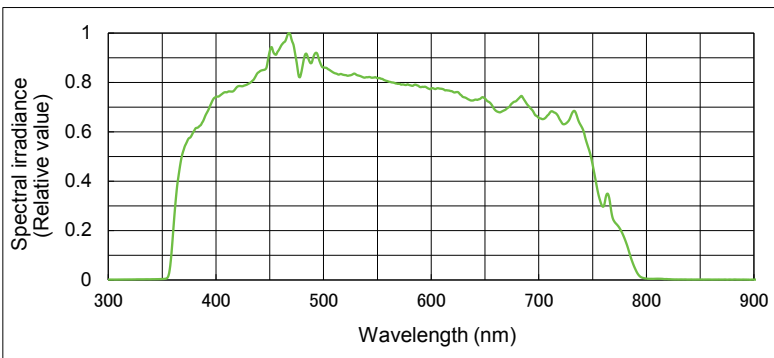
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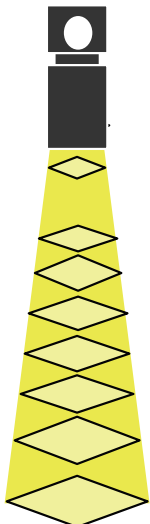
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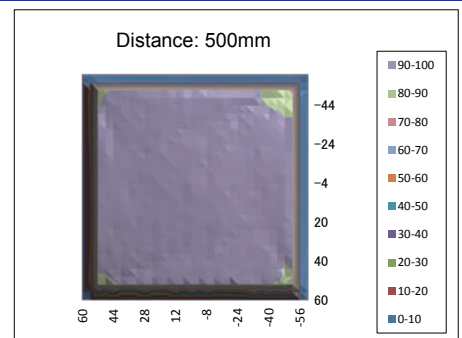
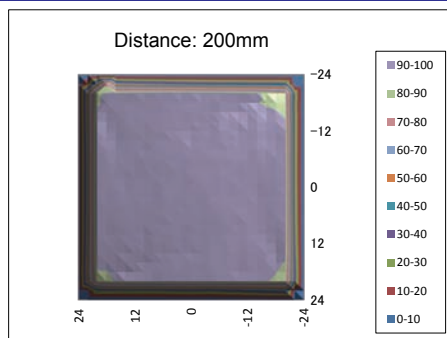
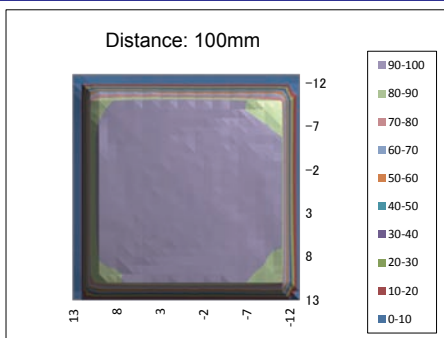


Distance	Detector Filter Illuminated area	Irradiance(mW/cm <sup>2</sup> )	
		A	B
		---	XBPA500 XBPA600 XBPA700
80mm	19 x 19mm	1,083,000	14.62 13.92 12.95
100mm	23 x 23mm	739,000	9.98 9.50 8.84
200mm	44 x 44mm	202,000	2.73 2.60 2.41
300mm	64 x 64mm	95,500	1.29 1.23 1.14
400mm	85 x 85mm	54,100	0.73 0.70 0.65
500mm	106 x 106mm	34,800	0.47 0.45 0.42
600mm	126 x 126mm	24,600	0.33 0.32 0.29
1000mm	208 x 208mm	9,000	0.12 0.12 0.11

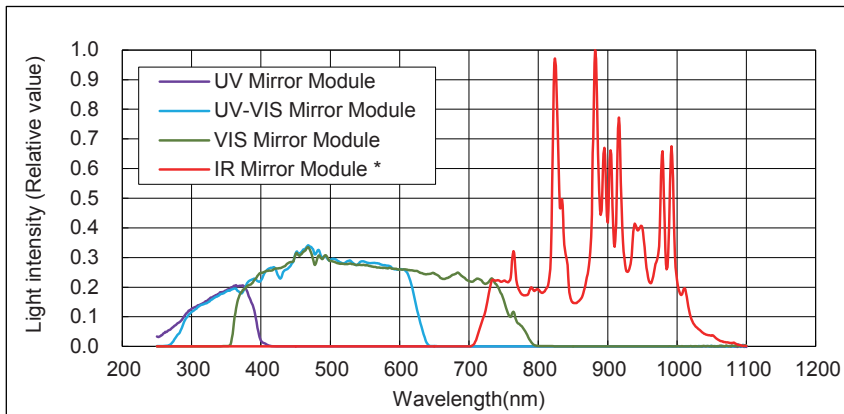
Reference for XBPA (Bandpass Filter)

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Uniformity of Irradiation

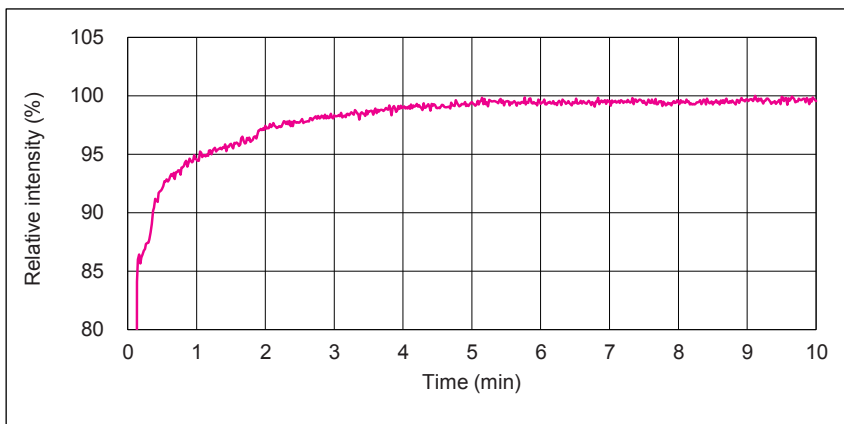


Comparison of Spectrum



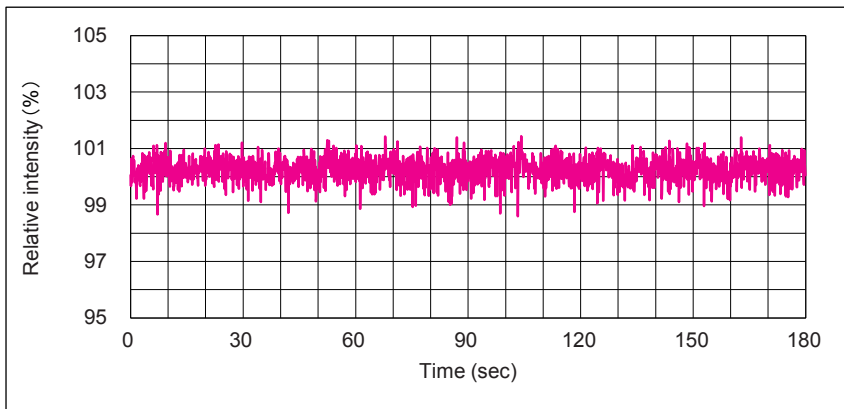
\*Designed value

Lamp Start-Up Characteristics



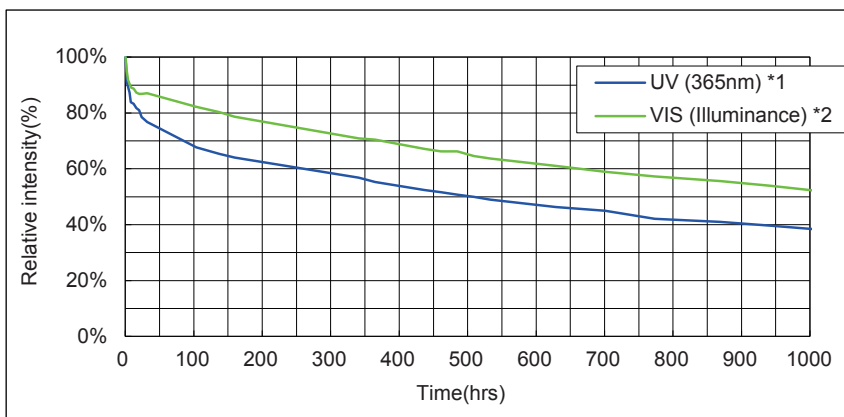
\*VIS mirror module is used

Lamp Fluctuation



\*VIS mirror module is used.  
\*After 2 hours turning on the lamp.  
\*Measured with a regulated power supply.

Lamp Life



\*1 UV-VIS mirror module is used.  
\*2 VIS mirror module is used.



\*Product specifications are subject to change without notice.

**ASAHI SPECTRA**

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