USHIO Applying Light to Life

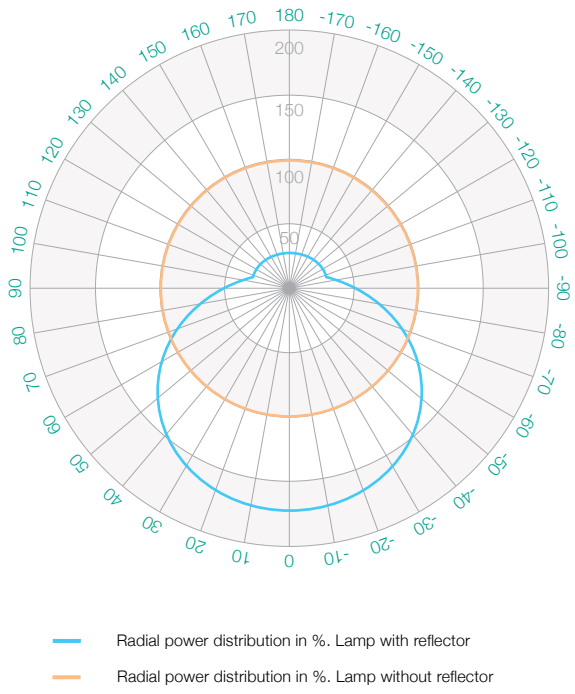
Infrared Lamps for PET Blow Moulding Equipment

Integrated reflectors guarantee high quality, easy handling, and heat protection of the lamphouse.

Due to the longitudinal dimensions of most IR lamps, the emitted radiation is radial. By using a reflector, the radiation can easily be directed, increasing usable IR power by up to 180%. Integrated or external reflectors can be used depending on the application. Integrated reflectors guarantee high quality, easy handling, and heat protection for the lamp housing.

Integrated reflectors are flame-sprayed directly on to the quartz tube. In most cases, the reflector is made from alumina ceramic (Al_2O_3), which has a radiance efficiency of approximately 80%. The temperature resistance of the alumina ceramic reflector is higher than that of the quartz tube. This guarantees the reflector's functionality over its intended lifetime, even in applications lacking the benefits of forced air cooling.

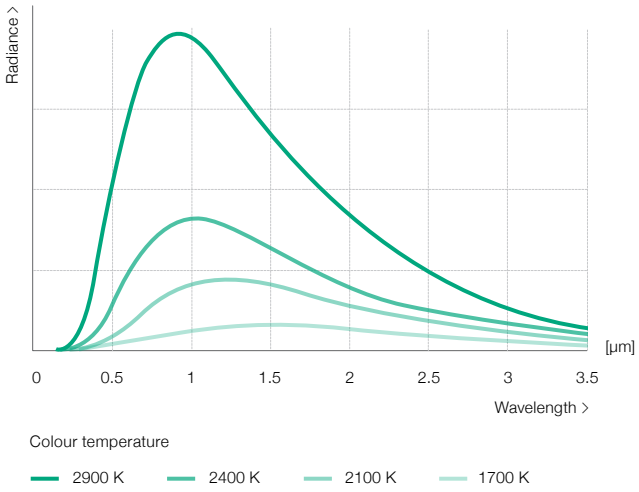
A substrate irradiated by short or medium wavelength IR can absorb more than 92% of the radiated energy. This radiation can be retained as heat within the heated object. For maximum efficiency, the substrate must have an absorption coefficient comparable to the spectral wavelength emitted by the IR lamp.



By using a reflector, the radiation can easily be directed, increasing usable infrared power by up to 180%. Integrated or external reflectors can be used depending on the application. Integrated reflectors guarantee high quality, easy handling, and heat protection of the IR lamp's housing.

Ushio's incandescent lamps continuously emit radiation within two of the wavelength ranges shown in the graph below.

This graph shows the typical spectrum of an incandescent lamp at different colour temperatures. Depending on the required range of wavelengths, different types of IR lamps are available. These include short wavelength (SWIR), medium wavelength open quartz tube lamps, and long wavelength ceramic or metal tube lamps.



Developing Solutions Together

Ushio is a partner that listens to your ideas and requirements. Let us optimise your processes according to your specifications and expectations. Use our expertise to develop a tailor-made solution that matches your needs.

Wattage W	Volt V	OAL mm	Heating length mm	Ushio item code
600	120	130	70	102508
1000	235	349	272	102050
1000	240	354	272	102657
1000	235	349	272	102562
1000	240	354	272	102136
1000	400	354	272	102689
1100	240	225	160	102252
1200	235	224	155	102570
1200	144	224	155	102506
1300	220	375	290	102599
1300	230	451	360	102115
1500	230	451	360	102598
1500	360	458	360	102588
1500	400	600	510	102127
1600	235	224	155	102569
1600	144	224	155	102504
1600	240	506	406	102004
1875	400	bent	bent	112075
2000	235	349	280	102051
2000	240	354	280	102243
2000	235	351	280	102590
2000	360	458	360	102526
2000	235	349	280	109585
2000	240	354	280	102251
2000	235	357	280	102520
2000	230	650	500	102055
2000	240	354	280	102135
2000	400	354	280	102256
2000	400	376	312	111024
2500	400	604	515	102042
2500	235	351	280	102656
2500	400	bent	bent	102039
2500	360	458	360	102676
2500	400	375	306	102196
2500	235	349	280	102519
2500	400	377	310	102278
2500	400	376	312	112387
3000	400	375	306	102200
3000	235	357	280	102579
3000	230	783	700	102209
3000	400	377	310	102617
3500	400	bent	bent	102040
4000	400	bent	bent	102172

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Intended use: Specifically designed and exclusively approved for use in industrial or professional electrical heating equipment only.

Version: 2023-F-IR-PET-EN