Conversion of RGB encoding to HSI encoding.

R, G, B : input values of RGB all in range $[0,1]$ or $[0, 255]$;

I : output value of intensity in same range as input;

S : output value of saturation in range $[0, 1]$;

H : output value of hue in range $[0, 2\pi]$, -1 if S is 0;

R, G, B, H, S, I are all floating point numbers;