Concentrado de cargas:	Q sensible	Q latente	kcal/h
Radiación solar	25,936		
Personal	4,270	3,220	
Iluminación	702		
Equipo	2,064		
Miscelaneos	258	200	
Transmisión por ventanas	5,011		
Carga térmica total	**38,241**	**3,420**	kcal/h
Carga total del área	**41,661 kcal/h (13.9 TR)**		

$$FCS = \frac{q_s}{q_s + q_L} = \frac{38,241}{41,661} = 0.918$$

personal 110 personas — 15 pcm/pers. = 1,650 pcm. ($970 m^3/h$)

$$\rho = 1.2\left(\frac{616}{760}\right) = 0.97\ kg/m^3 \qquad m = V m^3/h \times \rho \frac{kg}{m^3}$$

$$m = 970 \times 0.97 = 941\ kg/h$$

h_{int} 13.3
h_{img} 10.4
h_{ext} 15.6

$$q_T = m(h_{int} - h_{img}) = 14,367\ kg/h$$

$$m = \frac{41,666}{13.3 - 10.4} = 14,367$$

$$Q = m/\rho = 14,367/0.97 = 14,811\ m^3/h$$

Aire de mezcla $m_1 h_1 + m_2 h_2 = m_3 h_3$

$m_{ext} = 6.5\%$
m_{recirc} 0.935

$$h_3 = (0.065)15.6 + 0.935(13.3)$$

$$h_3 = 13.45\ kcal/kg.$$

$$q_{equipo} = m(h_{mez} - h_{img}) = 14,367(13.45 - 10.4)$$

3.05

$$= 43,819\ kcal/h\ (14.6\ TR)$$