

Induction Lighting V HID/HPS.

Lamp	Wattage	Load Connected	Lamp Life	C.R.I	Mean Lumens
HPS.	50	76	24,000	21	3,600
HPS.	70	97	24,000	21	5,350
HPS.	100	138	24,000	21	8,000
HPS.	150	205	24,000	21	13,400
HPS.	250	325	24,000	21	26,100
HPS.	400	528	24,000	21	40,000
HPS.	1000	1100	24,000	21	124,000

Induction	40	42	100,000	91	3,400
Induction	80	84	100,000	91	6,800
Induction	120	126	100,000	91	10,200
Induction	150	160	100,000	91	12,750
Induction	200	216	100,000	91	17,000
Induction	400	430	100,000	91	36,000

Metal HalideV.	70	95	15,000	75	3,400
Metal HalideV.	100	129	15,000	75	5,525
Metal HalideV.	175	210	10,000	75	9,300
Metal HalideV.	250	311	17,000	65	17,500
Metal HalideV.	400	516	20,000	65	23,400
Metal HalideV.	1000	1165	18,000	65	86,000
Metal HalideH.	70	95	10,000	75	3,400
Metal Halide H	100	129	10,000	75	5,525
Metal Halide H	175	210	7,500	75	9,300
Metal Halide H	250	311	10,000	65	13,500
Metal Halide H	400	516	15,000	65	17,550
Metal Halide H	1000	1165	9,000	65	27,950

V = Vertical Base Burning Position

H = Horizontal Burning Position

Operating Costs

Lamp	Wattage	Lamp Changes in Years	Energy Costs in 10 Yrs
HPS	150	3.7	£1,396.12
HPS	250	3.7	£2,277.41
HPS	400	3.7	£3,409.03
HPS	1000	3.7	£8,081.93

Induction	40	0	£308.38
Induction	80	0	£617.41
Induction	120	0	£925.80
Induction	150	0	£1,175.48
Induction	200	0	£1,587.09

Metal Halide V.	70	5.8	£661.12
Metal Halide V.	100	5.8	£947.74
Metal Halide V.	175	8.8	£1,542.58

Metal Halide V.	250	5.2	£2,277.41
Metal Halide V.	400	4.4	£3,416.12
Metal Halide V.	1000	6.6	£8,559.35
Metal Halide H	70	8.8	£661.29
Metal Halide H	100	8.8	£947.74
Metal Halide H	175	11.7	£1,542.58
Metal Halide H	250	8.8	£2,277.41
Metal Halide H	400	5.8	£3,416.12
Metal Halide H	1000	9.7	£8,559.35

Based upon 1 Lamp
24hr/365 Days Operation (87,000 Hours)
0.8p Per KWH Rate
£35.00 per hour Labor Rate

Photopic Lumens and Scotopic Lumen

Mean Pupil Lumens

2,052
3,050
4,560
7,638
14,877
22,800
70,680

6,222
12,444
18,666
23,333
31,110
54,000

5,066
8,232
13,857
22,750
30,420
111,800
5,066
8,232
13,857
17,550
27,950
111,800

Photopic Lumens are actual Lumens read by any measuring meter.

Scotopic Lumen (or Pupil Lumens) is a measurement based on how the human eye registers light.

The more bright white the light is the brighter the light will appear.

Scotopic Lumens or Pupil Lumens is calculated with a correction factor based on the initial lumen output. The brighter the light source the higher the correction factor is.

Pupil lumens is now a major deciding factor in which is chosen for a given application. This is one of the main principles in designing an efficient lighting solution.

Light Source	Conventional Lm/w
Low Pressure Sodium	165
High Pressure Sodium	100
Metal Halide	85
5000k Induction Lamp	80

Maintenance Costs over 10 yrs Material Costs over 10 Years Operational Costs over 10 Years

£129.67	£51.61	£1,577.41
£129.67	£58.70	£2,456.80
£129.67	£65.80	£3,604.51
£129.67	£131.61	£8,343.30

0	0	£308.38
0	0	£617.41
0	0	£925.80
0	0	£1,175.48
0	0	£1,587.09
0	0	

£207.09	£105.80	£1,400.72
£207.09	£105.80	£1,260.64
£310.96	£169.67	£2,023.22

£182.58	£100.00	£2,560.00
£155.48	£112.90	£3,685.16
£234.19	£247.09	£9,040.64
£310.96	£158.06	£1,130.32
£310.96	£158.06	£1,416.77
£414.19	£225.80	£2,183.22
£310.96	£169.67	£2,758.80
£207.09	£150.96	£3,774.19
£345.16	£364.51	£9,269.03

lens

ing device such as a lux

ed on how the human eye

ll appear to human eye

rrection factor applied to the
higher the correction

re better light source for any
signing the most energy

Correction Factor	Pupil Lm/w
0.38	63
0.68	49
1.49	126
1.62	129

er 10 Years