



**GLOBAL
INDUCTION
LIGHTING US**



Global Induction Lighting US

917 SE 14th St, Fort Lauderdale, FL 33316

info@gilus.us • 954-467-8478 • www.gilus.us

	High Pressure Sodium	Metal Halide	T8 Fluorescent - 48"	T5 Fluorescent - 48"	Induction Lamps
Start Time	Starts at 8-12% output Takes 5-8 minutes to reach 100% output	Starts at 5-10% output Takes 5-10 minutes to reach 100% output	Starts at 90-95% output 10-15 seconds to reach 100% output	Starts at 90-95% output 10-15 seconds to reach 100% output	Starts at 80-85% output 60 to 90 seconds to reach 100% output depending on wattage
Hot Re-start?	NO	NO	YES	YES	YES
Ballast Overhead	6-9% for electronic type 9-14% for core & coil	6-9% for electronic type 9-14% for core & coil type	5-8% for electronic type 9-12% for core & coil type	5-8% for electronic type 9-12% for core & coil type	2.5% for 100W or less 2% for 100W or more
Average Initial lumens^{1,2}	9,500 lumens	8,500 lumens	7,875 lumens	10,357 lumens	7,800 lumens
Mean lumens^{1,2}	8,500 lumens ²	6,400 lumens ²	6,787 lumens ²	8,804 lumens ²	6,825 lumens
Mean Lumens/ W^{2,3}	65.8 L/W	56.9 L/W	51.2 L/W	87 L/W	68.2 L/W
Lumen Depreciation^{2,3}	10.5% depreciation	24% depreciation	14.5% depreciation	15% depreciation	12.5-15% depending on wattage
Lifespan²	20,000 to 22,000 hours	8,000 to 10,000 hours	18,000 to 20,000 hours	12,000 to 18,000 hours	85,000 to 100,000 hours
Average Mercury [Hg] Content⁴	13-20 mg - Osram Lamps 12-15 mg - Sylvania lamps	11-30 mg - GE lamps 12-15 mg - Phillips lamps	40-43 mg - Sylvania 10-12 mg - Phillips low Hg	8-10 mg - Sylvania low Hg 5.6-20 mg - HO T5 linear	6.4 Mg
Mercury use per 20,000 hours⁵	14.3 mg Hg/20,000 Hrs	37.8 mg Hg/20,000 Hrs	27.6 mg Hg/20,000 Hrs	11.5 mg Hg/20,000 Hrs	1.3 mg Hg/20,000 Hrs
Colour Rendering Index²	CRI = 21	CRI = 64	CRI = 62	CRI = 82	CRI = 80-85 depending on wattage and CCT
Colour temperature²	2050K	4000K	4300K [Cool white]	4200K [Cool white]	3500K, 4100K, 5000K, 6500K
S/P Ratio⁶	0.62	1.49	1.62	1.62	1.96 for 5000K 2.25 for 6500K
Visually Effective Lumens [VEL]⁷	5,270 VEL	9,536 VEL	10,995 VEL	14,262 VEL	13,377 VEL @ 5000K 15,356 VEL @ 6500K
How much useful light [VEL] do you get per Kilowatt?⁸	52,700 VEL/kW	95,360 VEL/kW	109,950 VEL/kW	140,625 VEL/kW	133,770 VEL/kW @ 5000K 153,560 VEL/kW @ 6500K

NOTES:

1 - For comparison purposes, figures have been adjusted as if comparing 100W lamps

2 - Figures for conventional sources taken from Natural resources Canada Lighting reference guide at <http://oee.nrcan.gc.ca/publications/equipment/lighting/index.cfm>

3 - Lumen depreciation is expressed as % decline in output from initial lumens to mean lumens [rounded up or down to one decimal place]

4 - Mercury content taken from manufacturers data sheets and http://www.informinc.org/fact_P3mercury_lamps.php then adjusted as if comparing 100W lamps

5 - Calculated from average Mercury content and average lifespan figures given above [rounded up/down to one decimal place]

6 - Scotopic/Photopic [S/P] ratio taken from figures provided courtesy of Francis Rubinstein of the Building Technologies division of Lawrence Berkeley National Laboratory, California

7 - Visually effective lumens calculated by multiplying mean lumens by the S/P ratio [rounded up/down to nearest whole number]

8 - Figures adjusted for a theoretical 100W lamp according to the formula [lamp mean lumens (from above) X 10 (converts to kW) X S/P ratio] = VEL per Kilowatt [not including ballast overhead]

Table courtesy of L. Michael Robert