



# Comparison: T5/HO Fluorescent vs. HID

ADVANTAGES:	T5/HO	HID
Higher CRI (better color rendering)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Better Lumen Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Less color shifting	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Instant-on and instant-restrike (HID) takes 5-12 minutes)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wider dimming range (100-10%, as opposed to 100-50% for HID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
More control options (switching, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooler Operating Temperatures	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safer for Open Luminaires (Won't explode, can safely operate 24/7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Smaller luminaire "footprint"	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Less temperature sensitive	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## LAMP COMPARISON:

Lamps	Total Input Watts (@277V)	Total Initial Lumens	Total Means Lumens	Mean Lumens Per System Watt
1 - 400W MH	458	36000	24000	52
1 - 400 PS MH	452	44000	31000	69
6 - 54W T5/HO	356 (2 ballasts)	30000	28440	<b>80</b>
8 - 54W T5/HO	468 (2 ballasts)	40000	37920	<b>81</b>

## THE BASIC DATA:

Description	Watts	Ballasts	Input Watts	Current	Initial Lumens	Mean Lumens	Lamp PW	Rated Life	Lumen Maint.	CRI	Color Temp (K)
<b>T5/HO Lamps</b>				(@277V)	(@277V)						
F24T5HO	24W	1-2L, electronic	52	0.23A	0.23A	1895	83	20,000 Hrs.	95%	85	3000, 3500, 4100
F39T5HO	39W	1-2L, electronic	88	0.39A	0.39A	3320	90	20,000 Hrs.	95%	85	3000, 3500, 4100
F54THO	54W	1-4L, electronic	234	1.72A	1.72A	4740	93	20,000 Hrs.	95%	85	3000, 3500, 4100
<b>HID - Metal Halide</b>				(@277V)							
MH400/U/ED28	400W	M59 CWA	458	1.7A	36000	24000	90	20,000 Hrs.	66%	65	4000
MH400/HBU/PS (pulse start)	400W	M135 CWA	452	1.7A	44000	31000	110	20,000 Hrs.	70%	65	4000
<b>HID - High Pressure Sodium</b>											
LU400	400W	S5EJ	460		50000	45000	125	24,000 Hrs.	90%	21	2100

## Notes:

- LPW - Lumens Per Watt
- T5/HO Lumen ratings are at 35°C, performance loses roughly 10% at 25°C, but this data is for bare single lamps rather than enclosed.
- CRI for Metal Halide lamps increases to 70 when using coated lamps instead of clear.
- New electronic ballasts for Pulse Start Metal Halide lamps do improve performance somewhat (lpw, lumen maintenance and dimming down to 35%) but seem susceptible to heat and are unproven in long term field use.

**PARAMOUNT** INDUSTRIES, INC.