

5/1/2012

# Highbay Fluorescent - Twelve Lamp Curved Profile Tandem Lamp Design



## Applications

Warehouse	Gymnasium
Manufacturing Facility	Cafeteria
	Auditorium

## Features

- Easy access to wiring compartment & ballast
- Access plate provides access to electrical wiring with-out the need to open the fixture
- Knock-outs for easy electrical wiring and assembly
- Factory Installed Occupancy Sensor option
- Factory Installed Emergency ballast option
- Factory Installed Wrap Lens option
- Lamp Installation option available
- Multiple power cord set options, (voltage, length, gage)
- Choice of 86% Standard Specular Aluminum Reflector, 95% Specular Enhanced Aluminum Reflector or 91% White Reflector
- Heavy Duty pre-painted steel construction
- Wireguard available (not factory installed)
- Custom configurations available
- Suspended mounting insures a quick painless install
- Chain and V-Clip Hanging option
- Wire cable hanging option.
- UL Listed for Damp Locations

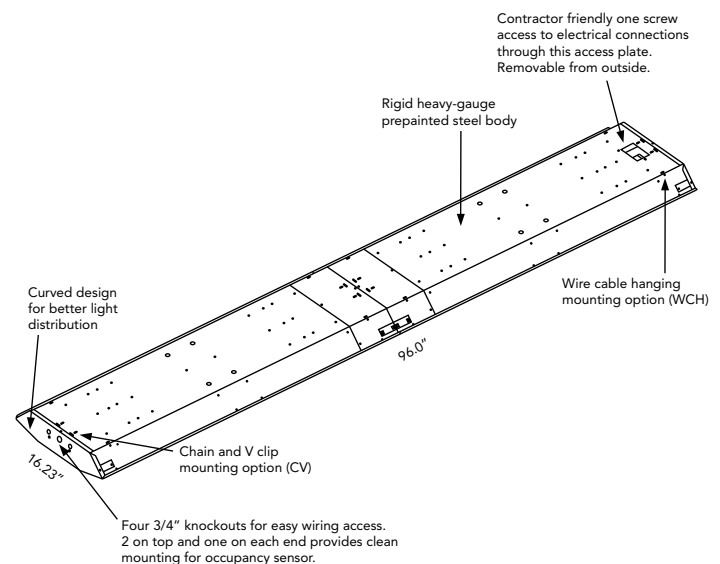
Project:	
Catalog#:	
Approved by:	

## Description

HFE7 series high-bay fluorescent fixture is a great energy saving alternative to traditional HID high-bay fixtures. This fixture operates twelve lamps and as a standard feature comes equipped with Howard ballasts.

## Benefits

- Energy Saving Compared to HID systems
- Exceptional Color Rendering
- High System Efficacy
- Long Lamp Life
- Instant On/Re-strike Capability
- Howard Ballast and Howard Lamp as a system is covered by Howard Industries Warranty
- Quality Lamp holders
- Computer Designed Reflectors
- System Tested, Designed, Approved, and Manufactured by Howard Industries in Mendenhall Mississippi.
- Compliant with Safety and performance standards.



Specifications subject to change without notice.

5/1/2012

# Highbay Fluorescent - Twelve Lamp Curved Profile Tandem Lamp Design

Project:	
Catalog#:	
Approved by:	

## Ordering Information

Model Family	Reflector	No. of Lamps	Lamp Type/ Wattage <sup>(1)</sup>	CRI/CCT				Ballast	Input Volts	Factory Installed Options	Cordset Options (see customer service for other cordset options)	T B A	Pack.
HFE7	E	12	54	A				PS	MV	000	00	0	I
HFE7	E: Enhanced Specular Aluminum (95%)  A: Specular Aluminum (86%)  W: White reflective (91%)	12	<b>T8 Lamps</b> 28: F28T8 32: F32T8  <b>T5 Lamps</b> 28:F28T5 54: F54T5HO	CRI	CCT	High Lumen	T8	T5	SE: SBF High Eff <sup>(2)</sup> HE: HBF High Eff <sup>(2)</sup> LE: LBF High Eff <sup>(2)</sup>  PS: PRS T5 P8: PRS T8 <sup>(2)</sup>	MV: 120-277v HV: 347-480v (T5HO) AX: 480-277 <sup>(3)</sup>	000: No FIOs A: Occ Sensor <sup>(4)</sup> B: Emergency Ballast <sup>(5)</sup> D: Wrap Lens <sup>(6)</sup> I: Special Wiring Instructions T: Toggle switch bi-level lighting control <sup>(8)</sup>	00: Standard Disconnect 01: 6' SJT 18/3, no plug 02: 10' SJT 18/3, no plug 03: 6' SJT 18/3 L5-15, twist lock 120v 04: 10' SJT 18/3 L5-15twist lock 120v 05: 6' SJT 18/3 5-15non twist lock 120v 06: 10' SJT 18/3 5-15non twist lock 120v 07: 6' SJT 18/3 L7-15 twist lock 277v 08: 10' SJT 18/3 L7-15 twist lock 277v 09: 6' SJT 7-15 non twist lock 277v 10: 10' SJT 7-15 non twist lock 277v 11: 16/3, no plug spec len 12: 16/4, no plug spec len 16: 16' SJT 18/3 7-15, non twist lock 277v 17: 18/3, no plug spec len 18: 6' STW L8-20, twist lock 480v 19: 10' STW L8-20, twist lock 480v 20: 16' SJT 18/3 L5-15, twist lock 120v 21: 16' SJT 18/3 L5-15, twist lock 277v	I: Single B: Bulk
				A: No Lamps									
				B: 75 3000			X						
				C: 75 3500			X						
				D: 75 4100			X						
				E: 75 5000			X						
				F: 85 3000		X	X						
				G: 85 3500		X	X						
				H: 85 4100		X	X						
				I: 85 5000		X	X						
				J: 85 6500			X						
				K: 85 3000	Yes		X						
				L: 85 3500	Yes		X						
				M: 85 4100	Yes		X						
				N: 85 5000	Yes		X						

- (1) Lamp installation available.
- (2) High Efficiency ballasts are CEE Listed.
- (3) Step-down autotransformer. Allows hook-up of standard MV ballast to 480v.
- (4) Occupancy Sensors should be used with programmed rapid start ballasts for maximum lamp life. Standard Occupancy Sensor requires neutral wired fixtures (ex. -120v or -277v). For phase-to-phase voltage applications (240v) advise Customer Service at time of request.
- (5) Please specify Emergency Ballast (120-277v only) lumen requirements at time of request.
- (6) Standard acrylic prismatic, pattern 12, 0.100" thick. Call for options.
- (7) (8) Allows for separate control of two ballasts through simple "toggling" of a standard wall switch. Recommend use of programmed rapid start ballast with this control.

**Sample Ordering Number:**  
**HFE7 E 12 54 A PS MV 000 00 I**  
 HFE7 Series Highbay Fluorescent  
 Enhanced Specular Aluminum Reflector  
 12-lamps (none installed)  
 F54T5HO Program Rapid Start Ballast  
 Multi-volt (120-277v)  
 No Factory Installed Options  
 Standard Luminaire Disconnect (no cordset)  
 Single Packaging

SE	Standard Ballast Factor High Efficiency Instant Start T8 Ballast
HE	High Ballast Factor High Efficiency Instant Start T8 Ballast
LE	Low Ballast Factor High Efficiency Instant Start T8 Ballast
PS	Program Rapid Start T5 Ballast
P8	Program Rapid Start High Efficiency T8 Ballast

Specifications subject to change without notice.

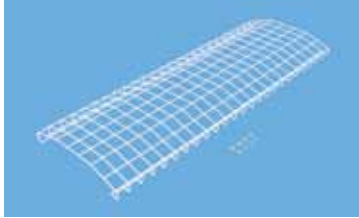


5/1/2012

Highbay Fluorescent

Project:	
Catalog#:	
Approved by:	

**Field Installed Options Ordering**



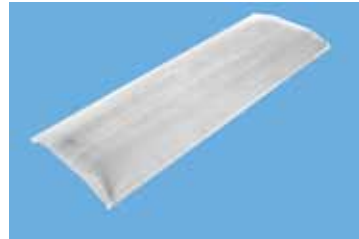
HFE7-WG\*  
Wire Guard  
(2pcs)



HFA-WCH  
Wire Cable Hanging Kit  
(2 pcs per kit)



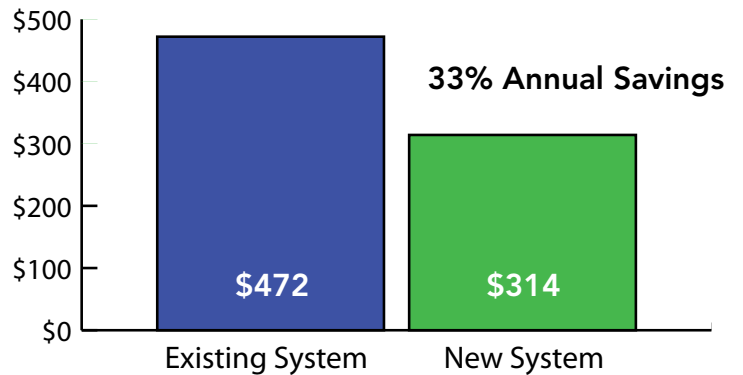
HF-2CV (2 foot)  
HF-3CV (3 foot)  
Hanging Chain & V-clips



HFA3-WL\*  
Wrap Lens  
(2 pcs)

\* Wire Guards and Wrap Lens can be used together

Energy Cost Estimator					
		Existing System		New System	
		1000W MH Highbay		HFE7E1254APS Program Rapid Start T5 Fluorescent Highbay	
Hours burned per year	4368	Number of Fixtures	1	Number of Fixtures	1
Cost per kWh\$	0.12	Watts per Fixture (existing system)	1081	Watts per Fixture (new system)	720
Energy Cost Estimation		Energy used per year (existing system)	\$472	Energy used per year (new system)	\$314
		Energy saving per year (per fixture)		<b>\$158.00</b>	



Howard Industries provides this tool to examine the potential impact of lighting decisions. This tool provides an ESTIMATE only. The analysis of this tool does not warrant or guarantee the actual costs or savings that will be realized as the analysis suggested. You can find the full version of this cost saving tool at the Howard Lighting Website—www.howardlightingproducts.com. Click "Cost of Ownership Calculator".  
Copyright (c) 2008 Howard Industries All Rights Reserved.

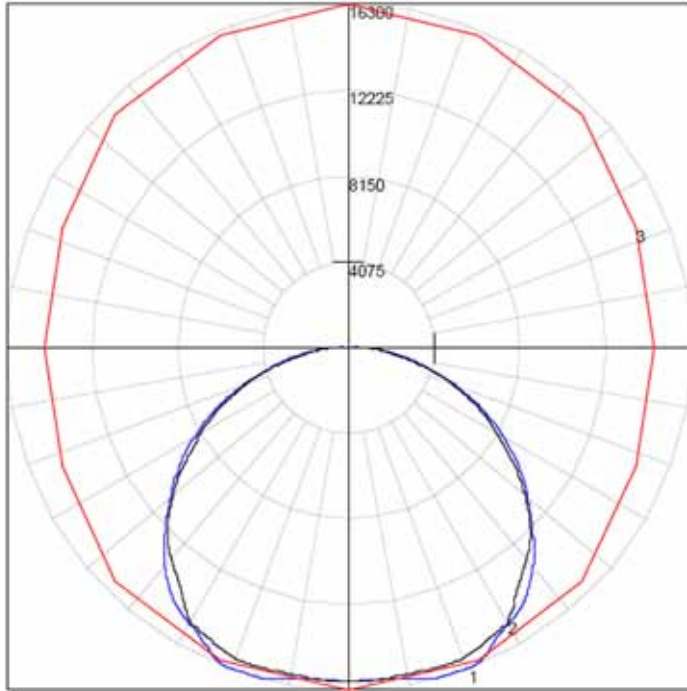
Specifications subject to change without notice.

5/1/2012

Highbay Fluorescent

**Photometric Data - 12 Lamp T5 (HFE7E1254)**

**Candela Polar Plot**



HFE7E1254  
Test Report: HFE7E1254APS.ies

Maximum Candela = 16299.72

Located at Horizontal Angle = 90, Vertical Angle = 21  
 #1 = Vertical Plane Through Horizontal Angles (90-270) Through Max Cd.  
 #2 = Vertical Plane Through Horizontal Angles (45-225)  
 #3 = Horizontal Cone Through Vertical Angle (21) (Through Max. Cd.)

Project:	
Catalog#:	
Approved by:	

**Luminaire Efficiencies\***

Reflector Type	T8	T5
Enhanced Specular	88%	92%
Specular	83%	87%
White	83%	87%

\*Luminaire efficiency is the ratio of light output emitted by the luminaire to the light output emitted by its lamps.

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fix
0-30	12945.27	21.6	25.6
0-40	21576.09	36	42.6
0-60	38964.26	64.9	77
0-90	50539.08	84.2	99.8
0-180	50625.32	84.4	100

**Luminance Data (cd/Sq.m)**

Angle In Degrees	Average 0-deg	Average 45-deg	Average 90-deg
45	28478	33123	33505
55	26444	31255	32304
65	23384	29416	30142
75	17583	25312	26052
85	7078	19587	22661

**Coefficients of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance 0.20																	
RC	80				70				50			30			10		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	0	0
0	101	101	101	101	98	98	98	98	94	94	94	90	90	90	86	86	86
1	91	87	83	80	89	85	82	79	82	79	76	78	76	74	71	71	71
2	83	76	70	65	81	74	69	64	71	66	62	68	64	61	58	58	58
3	75	66	59	53	73	65	58	53	62	57	52	60	55	51	49	49	49
4	69	58	51	45	67	57	50	45	55	49	44	53	48	43	41	41	41
5	63	52	44	39	61	51	44	38	49	43	38	48	42	38	35	35	35
6	58	47	39	34	57	46	39	33	44	38	33	43	37	33	31	31	31
7	54	42	35	30	53	42	34	29	40	34	29	39	33	29	27	27	27
8	50	39	31	26	49	38	31	26	37	31	26	36	30	26	24	24	24
9	47	35	28	24	46	35	28	23	34	28	23	33	27	23	22	22	22
10	44	33	26	21	43	32	26	21	31	25	21	30	25	21	19	19	19

Specifications subject to change without notice.