

**FEATURES**

- Ideal for manufacturing areas, retail stores, and gymnasiums
- Horizontal or vertical lamp position
- Choice of tempered glass or acrylic lens with tempered glass overlay
- Ballast accessible from below
- Ballast housing is made of aluminum for maximum heat dissipation
- White powder coat finish, painted after fabrication
- Uses EISA compliant pulse start metal halide technology
- Louvered version also available, see HV22 Parabolic

**PROJECT INFORMATION**

Project Name \_\_\_\_\_

Type \_\_\_\_\_

Catalog No. \_\_\_\_\_

Date \_\_\_\_\_

**CONSTRUCTION**

Housing constructed of code gauge steel. Power door is constructed of 18 gauge steel and is secured with (3) ¼ turn fasteners. The power door contains all of the electrical components and can easily be removed from the fixture for maintenance. The ballast housing is constructed of aluminum for maximum heat dissipation. The housing is riveted together for maximum rigidity. Standard door frame is constructed of cold rolled steel and is retained in fixture with two sturdy cam latches and T-hinges. The door can be installed from either side. Consult your Columbia representative for availability of aluminum doors.

**INSTALLATION**

A ⅝" knockout is provided in the capacitor housing. All leads are pulled through the knockout for installation.

**ELECTRICAL**

Wired with core and coil ballasts and are SCWA. HV requires use of ED28 lamps.

**CEILING COMPATIBILITY**

Luminaire is available to fit most standard ceiling types as shown at left. For information on compatibility with specific ceilings, contact your Columbia representative. All luminaires are provided as standard with integral T-Bar clips.

**FINISH**

Housing and all other parts are painted after fabrication with a white polyester finish for maximum reflectance longevity.

**CERTIFICATION**

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard.

**AIR HANDLING**

All units are static and cannot be used for supply or air return.

**ORDERING INFORMATION**

**EXAMPLE HV22-P400G-FSTG73-S-QT277**

<b>MODEL</b> HV Vertical Lamp Orientation	<b>LAMP TYPE</b> P Pulse Start Metal Halide	<b>CEILING TYPE</b> G Grid F Flange	<b>SHIELDING</b> TG73 Tempered Glass Pattern 73 CTGY12 Clear Tempered Glass with A12 Underlay DP Drop Polycarbonate Lens <sup>2,3</sup>	<b>VOLTAGE</b> QT Quad-Tap, 120V, 208V, 240V, 277V 480 480V 347 347V	<b>OPTIONS</b> QR Quartz Restrike GLR Fast Blow Fuse NYC NYC Compliant NYCU NYC Compliant, Union Label
<b>SIZE</b> 22 2' x 2'	<b>LAMP WATTS</b> 175 175 Watt 200 200 Watt 250 250 Watt 320 320 Watt 350 350 Watt 400 400 Watt <sup>1</sup>	<b>DOOR</b> FS Flush Steel FA Flush Aluminum RA Regressed Aluminum	<b>AIR HANDLING FUNCTION</b> S Static	<b>WIRED TO</b> 120 120V 208 208V 240 240V 277 277V (Std.)	

<sup>1</sup> 400W horizontal positioned lamp listed for Marked Spacing only. See specification sheet for details.

<sup>2</sup> Available with FS door only.

<sup>3</sup> DP drop lens projects 2.25" below ceiling.

**PHOTOMETRIC DATA**

Test L11275 Test Date 1/08/03

**LUMINAIRE DATA**

Luminaire	HV22-M400G-FSTG73 HH/HV HID 2 x 2 Recessed metal halide, baked white enamel reflector and pattern 73 tempered glass lens
Ballast	N/A
Ballast Factor	1.00
Lamp	M-400/C
Lumens per Lamp	36000
Watts	64
Spacing Criterion	0° = 1.34 90° = 1.31
Luminous Opening in Ft	Length: 1.81 Width: 1.82 Height: 0.00

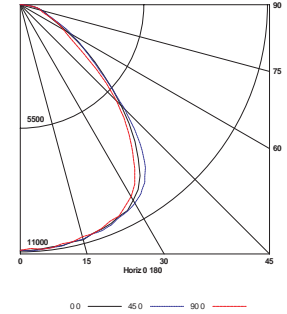
**AVG. LUMINANCE (Candela/Sq. M.)**

	0.0	22.5	45.0	67.5	90.0
0	35695	35695	35695	35695	35695
30	37904	38070	38470	37896	37176
40	33851	34810	35877	33057	32093
45	29325	30221	30480	29251	28012
50	24436	24588	23856	24563	22001
55	20263	20679	19853	18936	16589
60	15841	17030	17285	14599	14514
65	12711	13136	14118	13268	13244
70	12076	11703	12277	12592	10891
75	12941	12827	12511	11766	11817
80	13473	13398	13003	13247	13567
85	13685	12522	12522	13010	12860

**COEFFICIENTS OF UTILIZATION (%)**

RCR	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	79	76	73	71	77	75	72	70	72	70	68	62	62			
2	73	68	63	60	71	66	62	59	64	61	58	54	54			
3	67	60	55	51	66	59	54	51	57	53	50	47	47			
4	62	54	49	44	61	53	48	44	52	47	43	41	41			
5	57	49	43	39	56	48	43	39	47	42	38	36	36			
6	53	45	39	34	52	44	38	34	43	38	34	32	32			
7	50	41	35	31	48	40	34	31	39	34	30	29	29			
8	46	37	31	28	45	37	31	27	36	31	27	26	26			
9	43	34	29	25	42	34	29	25	33	28	25	23	23			
10	41	32	26	23	40	31	26	23	31	26	23	21	21			

**INDOOR CANDELA PLOT**



**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	8890	24.7	34.4
0-40	14666	40.7	56.7
0-60	22702	63.1	87.8
0-90	25870	71.9	100.0
0-180	25870	71.9	100.0

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

**ENERGY DATA**

Total Luminaire Efficiency	71.9%
Luminaire Efficacy Rating (LER)	N/A
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$N/A based on 3000 hrs. and \$0.08 per KWH

**LUMINAIRE DATA**

Luminaire	HV22-M250G-FSTG73 HH/HV HID 2 x 2 with pattern 73 tempered glass lens and white enamel reflector
Ballast	N/A
Ballast Factor	1.00
Lamp	M250/C
Lumens per Lamp	20500
Watts	295
Spacing Criterion	0° = 1.35 90° = 1.32
Luminous Opening in Ft	Length: 1.77 Width: 1.77 Height: 0.00

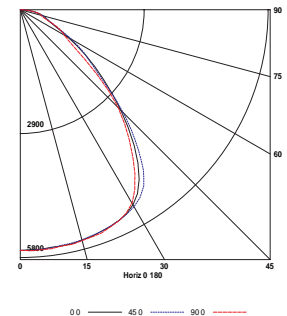
**AVG. LUMINANCE (Candela/Sq. M.)**

	0.0	22.5	45.0	67.5	90.0
0	19340	19340	19340	19340	19340
30	20904	21062	21110	20713	20741
40	18595	19245	19322	18061	17770
45	16161	16656	16530	15996	15743
50	13619	13619	13186	13331	12385
55	11279	11351	11255	10153	9339
60	8926	9421	9455	8122	8191
65	7170	7536	7561	7601	7674
70	6731	6751	6851	6992	6299
75	7341	7368	7275	6545	6651
80	7736	7539	7400	7598	7875
85	8358	7411	7609	7885	7806

**COEFFICIENTS OF UTILIZATION (%)**

RCR	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	73	70	67	65	71	68	66	64	66	64	62	57	57			
2	67	62	58	55	65	61	57	54	59	56	53	49	49			
3	62	55	51	47	60	54	50	46	53	49	46	43	43			
4	57	50	45	40	56	49	44	40	47	43	40	37	37			
5	53	45	40	35	51	44	39	35	43	38	35	33	33			
6	49	41	35	31	48	40	35	31	39	34	31	29	29			
7	46	37	32	28	44	37	32	28	36	31	28	26	26			
8	43	34	29	25	42	34	29	25	33	28	25	24	24			
9	40	31	26	23	39	31	26	23	30	26	23	21	21			
10	37	29	24	21	37	29	24	21	28	24	21	19	19			

**INDOOR CANDELA PLOT**



**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	4621	22.5	34.1
0-40	7636	37.2	56.4
0-60	11842	57.8	87.4
0-90	13551	66.1	100.0
0-180	13551	66.1	100.0

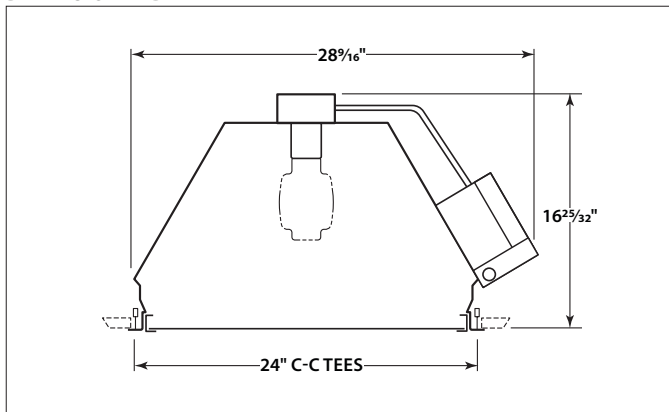
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

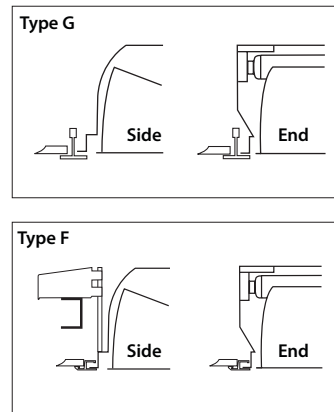
**ENERGY DATA**

Total Luminaire Efficiency	66.1%
Luminaire Efficacy Rating (LER)	N/A
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$N/A based on 3000 hrs. and \$0.08 per KWH

**DIMENSIONAL DATA**



**CEILING COMPATIBILITY**



For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

For tile, plaster or plasterboard type ceilings. Overlapping extruded aluminum trim conceals edges of ceiling opening. Wing hanger suspension system included. For row mounting, row information is required.

**NOTE:** All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.