

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 HH22 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 (2) 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.

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 HH22-P400G-FSTG73-S-QT277

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

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

² Available with FS door only.

³ DP drop lens projects 2.25" below ceiling.

PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	HH22-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	20000
Watts	295
Spacing Criterion	0° = 1.22 90° = 1.36
Luminous Opening in Ft	Length: 1.77 Width: 1.77 Height: 0.00

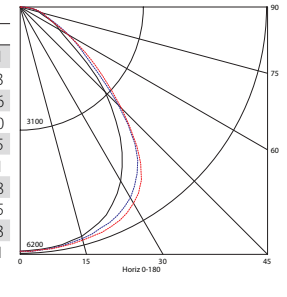
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	21109	21109	21109	21109	21109
30	20063	20646	21995	22566	22625
40	16824	17828	20142	20712	20479
45	14703	15549	17021	17720	17541
50	11679	13192	13427	14426	14555
55	8895	10201	11213	12058	12016
60	7834	8102	9723	9861	9435
65	7471	7471	8032	7731	7528
70	6238	7062	7012	6781	6931
75	6598	6651	7248	7487	7553
80	7816	7618	7558	7914	8013
85	8121	8121	7924	7924	8712

COEFFICIENTS OF UTILIZATION (%)

RC	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	78	75	72	70	76	73	71	68	70	68	66	61				
2	71	66	62	59	70	65	61	58	63	59	57	53				
3	66	59	54	50	64	58	53	50	56	52	49	46				
4	61	53	48	43	59	52	47	43	51	46	43	40				
5	56	48	42	38	55	47	42	38	46	41	38	35				
6	52	44	38	34	51	43	38	34	42	37	33	31				
7	49	40	34	30	48	39	34	30	38	33	30	28				
8	46	37	31	27	45	36	31	27	35	30	27	25				
9	43	34	28	25	42	33	28	25	33	28	24	23				
10	40	31	26	22	39	31	26	22	30	26	22	21				

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	4931	24.7	35.0
0-40	8036	40.2	57.1
0-60	12335	61.7	87.6
0-90	14077	70.4	100.0
0-180	14077	70.4	100.0

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	70.4%
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	HH22-M400G-FSTG73 HH/HV HID 2 x 2 with C73 pattern tempered glass lens and BWE reflector
Ballast	N/A
Ballast Factor	1.00
Lamp	M400/C
Lumens per Lamp	32000
Watts	458
Spacing Criterion	0° = 1.23 90° = 1.34
Luminous Opening in Ft	Length: 1.81 Width: 1.81 Height: 0.00

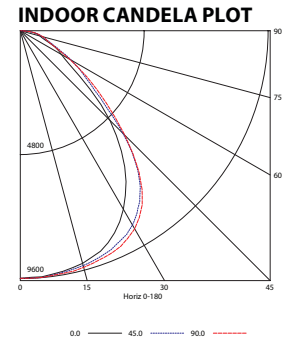
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	31502	31502	31502	31502	31502
30	30279	31129	32954	33572	33587
40	26133	27480	30388	31194	30675
45	22801	24074	26109	27071	26639
50	18115	20303	20661	22025	22148
55	13702	15615	17317	18330	18273
60	12071	12400	14969	15081	14358
65	11483	11529	12229	11872	11506
70	9530	10817	10750	10433	10586
75	10092	10257	11235	11578	11578
80	12072	11826	11883	12261	12318
85	12592	13082	12705	12592	13836

COEFFICIENTS OF UTILIZATION (%)

RC	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	77	74	71	69	75	72	70	68	69	67	65	60				
2	71	66	61	58	69	64	60	57	62	59	56	52				
3	65	59	53	49	63	57	53	49	55	51	48	45				
4	60	53	47	43	59	52	46	42	50	45	42	39				
5	56	47	42	38	54	47	41	37	45	41	37	35				
6	52	43	37	33	50	42	37	33	41	36	33	31				
7	48	39	34	30	47	39	33	30	38	33	29	28				
8	45	36	31	27	44	36	30	27	35	30	26	25				
9	42	33	28	24	41	33	28	24	32	27	24	23				
10	40	31	26	22	39	30	25	22	30	25	22	21				

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	7707	24.1	34.6
0-40	12592	39.3	56.5
0-60	19478	60.9	87.4
0-90	22289	69.7	100.0
0-180	22289	69.7	100.0

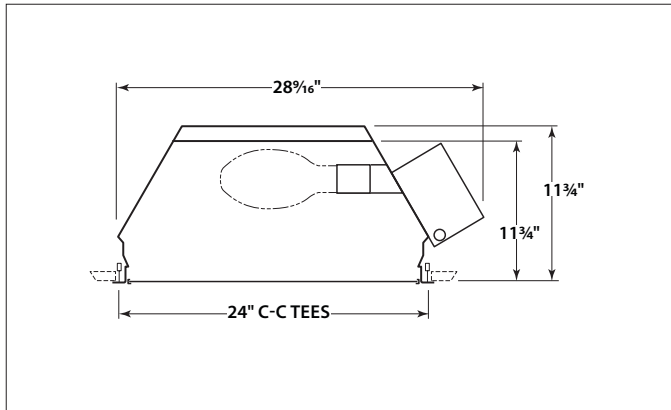
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

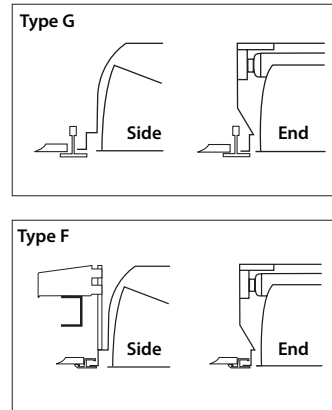
ENERGY DATA

Total Luminaire Efficiency	69.7%
Luminaire Efficacy Rating (LER)	67
IESNA RP-1-2004 Compliance	N/A
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.