

FEATURES

- Meets IES standard RP-1 glare control
- Ideal for today's computer intensive electronic offices
- Wide light distribution provides uniform illumination
- Unique optical system eliminates glare
- Low iridescent anodized aluminum louver and reflector
- Treated with a five stage phosphate bonding process and finished with a baked white enamel
- Surface and pendant mount available
- Mechanical light trap prevents light leaks
- Black reveal with full air handling capabilities

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing and end caps are die formed code gauge CR steel. Upper specular reflector is constructed of highly reflective, specular anodized aluminum. The reflector is designed to increase efficiency while redirecting the light so fixture uniformity is maintained. Parabolic louver is constructed of low iridescent semi-specular (diffuse) anodized aluminum. Louver is secured in open or closed position by die formed steel hinges and can be hinged from either side. Mechanical light trap prevents light leaks. Latches are finger-tip actuated, positive-feed type, fabricated of spring steel and concealed in black reveal.

AIR HANDLING

All supply/return and air extract functions are available as a specified option. Directional control vanes and/or extract damper features available. Air extract slots are located out of sight in end caps. See air removal data on reverse.

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

FINISH

Painted parts are treated with a five stage phosphate bonding process and finished with a high temperature baked white enamel. Louvers are low iridescent semi-specular (diffuse) natural anodized (LD) aluminum as standard.

CEILING COMPATIBILITY

Luminaire is available to fit most standard ceiling types. For information on compatibility with specific ceilings, contact your Columbia representative. luminaires for concealed suspension ceilings are furnished with necessary T-Bar clips and/or wing hangers.

INSTALLATION

An access plate is furnished with each luminaire for fast wiring access from the plenum. No need to open fixture. Product ships standard with mylar dust cover to eliminate job site contamination.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE HC24-332G-LD39-S-3EU

HC	24	-	3	9	-	-	-
MODEL	NO. OF LAMPS	CEILING TYPE	NO. CELLS CROSSWISE	NO. CELLS LENGTHWISE	VOLTAGE	OPTIONS	
HC Low Glare Parabolic	3 Three	G Grid F Overlap Flange M Modular Fit-in Trim SG Slot Grid SM Surface Mount* <small>*See limitations under Product Availability in the Product Selection Guide.</small>	3 Three	9 Nine	U 120V-277V 347 347V	GLR Fast Blow Fuse GMF Slow Blow Fuse EL Emergency Battery Pack F0735 35K 75 CRI T8 Lamps Installed F0835 35K 80 CRI T8 Lamps Installed F5835 35K 80 CRI T5 Lamps Installed MS9 Master/Satellite w/9' Harness PAF Paint After Fabrication NYC NYC Compliant NYCU NYC Compliant, Union Label	
SIZE	LAMP TYPE	LOUVER FINISH	AIR FUNCTIONS		BALLAST		
24 2' x 4'	28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 Watt	LD Low Iridescent Semi-Specular (Std.) LS Low Iridescent Specular	S Static A Air Handling AV Air Handling w/Supply Vanes C Combination Supply/Extract CV Combination Supply Vanes/Extract CD Combination Supply Extract Dampers CVD Combination Supply Vanes Extract Dampers H Heat Extract HD Heat Extract w/Dampers		E Electronic T8, Instant Start 3E 3-Lamp Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start 3EP 3-Lamp Electronic T5HO or T8, Programmed Start <small>For a specific ballast vendor show as option.</small>		

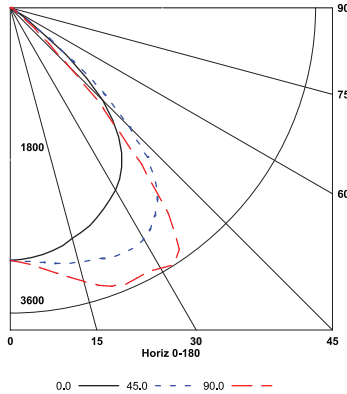
Test L12576 Test Date 1/8/03

PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	HC24-332G-LD39-3EU HC Parabolic 2 x 4 3-Lamp with 3 x 9 Cell Semi-Specular Louver
Ballast	B332I120RH
Ballast Factor	0.88
Lamp	F32T8/TL835 Bal. Afc. .88
Lumens per Lamp	3050
Watts	84
Shielding Angle	N/A
Spacing Criterion	0° = 1.23 90° = 1.55

INDOOR CANDELA PLOT



ENERGY DATA

Total Luminaire Efficiency	64.9%
Luminaire Efficacy Rating (LER)	62
ANSI/IESNA RP-1-2004 Compliance	Yes - Intensive
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.87 based on 3000 hrs. and \$0.08 per KWH

AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	4796	4796	4796	4796	4796
30	4601	5117	5845	6292	6596
40	4190	4858	5591	5384	5039
45	3506	4079	4533	2879	2224
50	2153	2793	2457	1217	959
55	652	914	796	399	253
60	203	219	213	174	165
65	134	126	122	126	126
70	99	99	108	99	99
75	56	75	87	69	75
80	46	56	84	46	19
85	37	37	37	56	56

ZONAL LUMEN SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	2602	28.4	43.8
0-40	4396	48.0	74.0
0-60	5887	64.3	99.1
0-90	5939	64.9	100.0
0-180	5939	64.9	100.0

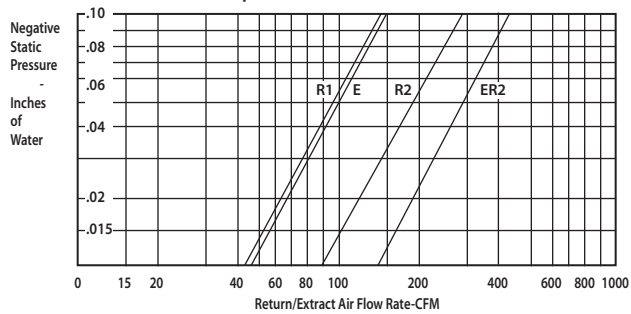
COEFFICIENTS OF UTILIZATION (%)

RCR	RW	80				70				50				0
		70	50	30	10	70	50	30	10	50	30	10	0	
1	73	71	69	67	71	69	68	66	67	65	64	59	0	
2	68	65	61	59	67	63	61	58	61	59	57	53	0	
3	64	59	55	52	63	58	54	51	56	53	51	48	0	
4	60	54	49	46	58	53	49	46	52	48	45	43	0	
5	56	49	45	41	55	49	44	41	47	44	41	39	0	
6	52	45	40	37	51	45	40	37	43	40	37	35	0	
7	49	41	37	33	48	41	37	33	40	36	33	32	0	
8	46	38	34	30	45	38	33	30	37	33	30	29	0	
9	43	35	31	28	42	35	31	28	34	30	27	26	0	
10	40	33	28	25	40	32	28	25	32	28	25	24	0	

RCR = Room Cavity Ratio

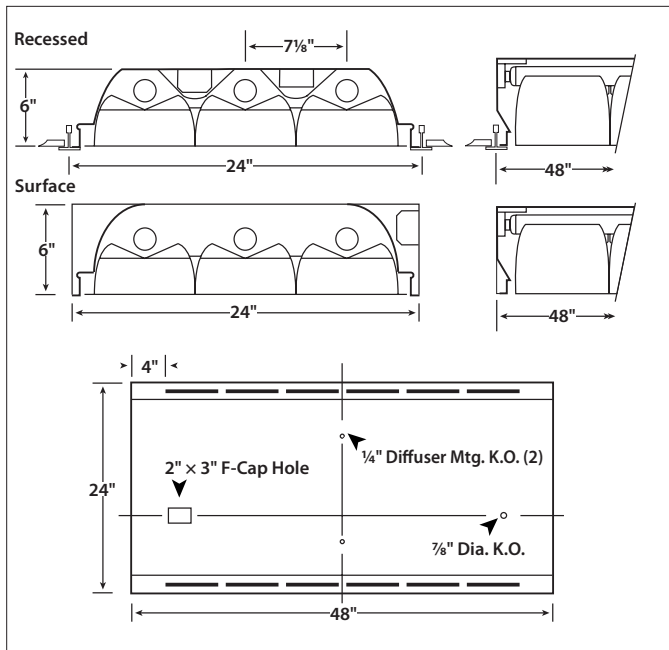
RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

EXTRACT AIR DATA Report AL-562-1.4



R1 - Air Return thru One Side Slot
 R2 - Air Return thru Two Side Slots
 E - Heat Extract thru Lamp Cavity
 ER2 - Return thru Two Side Slots & Lamp Cavity

DIMENSIONAL DATA



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

CEILING COMPATIBILITY

Type G

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

Type SG

For 3/8" slot grid type ceilings. Louver will be level with the ceiling plane. Shoulder heights of tee or exact slot grid must be specified.

Type F

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.

Type M

For metal pan ceilings "Fit-in" style extruded trim aligns with modular tile joints. Fixture is supported with concealed suspension and includes all adjustable wing hangers.

Flange kit rough in dimensions for single unit only: 24 1/8" x 48 1/8"