

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 G and SG ceilings are supplied with UL recognized T-Bar clips.

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 HC24-232G-LD29-S-EU

HC	24	-	2	-	9	-	-	-
MODEL	NO. OF LAMPS	CEILING TYPE		NO. CELLS CROSSWISE	NO. CELLS LENGTHWISE	VOLTAGE		OPTIONS
HC Low Glare Parabolic	2 Two	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>		2 Two 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 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 EP Electronic T5 or T8, Programmed Start <small>For a specific ballast vendor show as option.</small>		

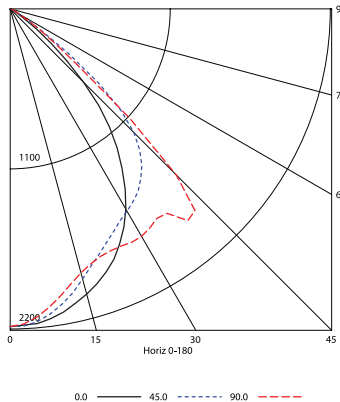
PHOTOMETRIC DATA

Test 12355 Test Date 4/30/03

LUMINAIRE DATA

Luminaire	HC24-232G-LD29-PAF-E HC Parabolic 2 x 4 2-Lamp with 2 x 9 Cell Semi-Specular Louver
Ballast	B232I120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	58
Shielding Angle	N/A
Spacing Criterion	Along = 1.12 Across = 1.28

INDOOR CANDELA PLOT



ENERGY DATA

Total Luminaire Efficiency	63.2%
Luminaire Efficacy Rating (LER)	56
IESNA RP-1-1993 Compliance	Yes - Intensive
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$4.29 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	3521	3521	3521	3521	3521
30	2960	2887	2991	3241	3362
40	2234	2419	2963	3483	3999
45	1624	2049	2742	3424	3680
50	916	1355	1990	1860	1553
55	335	610	765	728	664
60	152	174	213	248	239
65	84	103	92	122	145
70	47	52	52	75	104
75	50	44	31	19	56
80	19	19	9	37	28
85	0	19	0	19	0

ZONAL LUMEN SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	1553	26.8	42.4
0-40	2513	43.3	68.6
0-60	3624	62.5	98.9
0-90	3663	63.2	100.0
0-180	3663	63.2	100.0

COEFFICIENTS OF UTILIZATION (%)

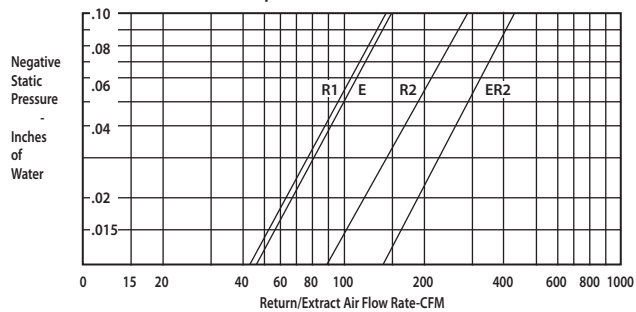
RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	71	69	67	65	69	67	66	64	65	63	62	57	0
2	66	63	59	57	65	61	59	56	59	57	55	51	0
3	62	57	53	50	61	56	52	50	54	51	49	46	0
4	58	52	48	44	56	51	47	44	50	46	43	41	0
5	54	47	43	39	53	47	42	39	45	42	39	37	0
6	50	43	39	35	49	43	38	35	42	38	35	33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

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

EXTRACT AIR DATA

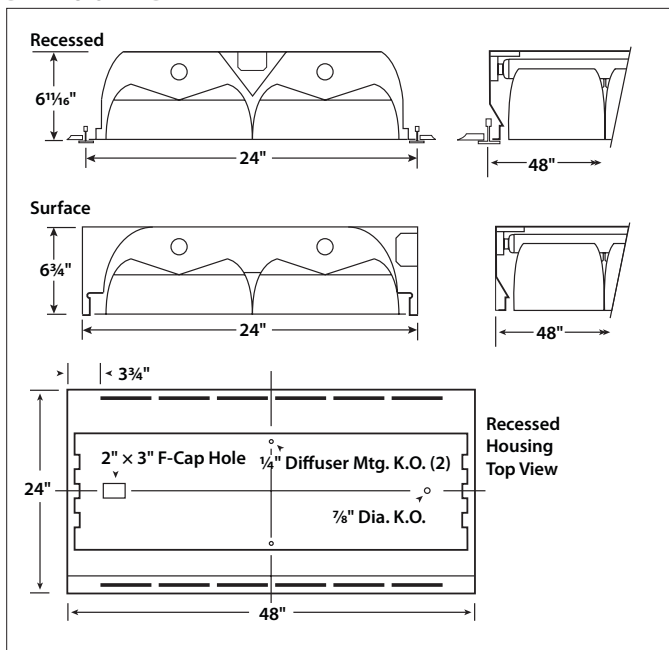
Report AL-562-1.4



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"