

E M C O





Everyone will tell you that their luminaire is the best looking, best performing and best value available.

The fundamental difference is that Ecoround can make and support the claim.

Ecoround is the market's most refined, value-priced architectural

luminaire, made more so through its tapered

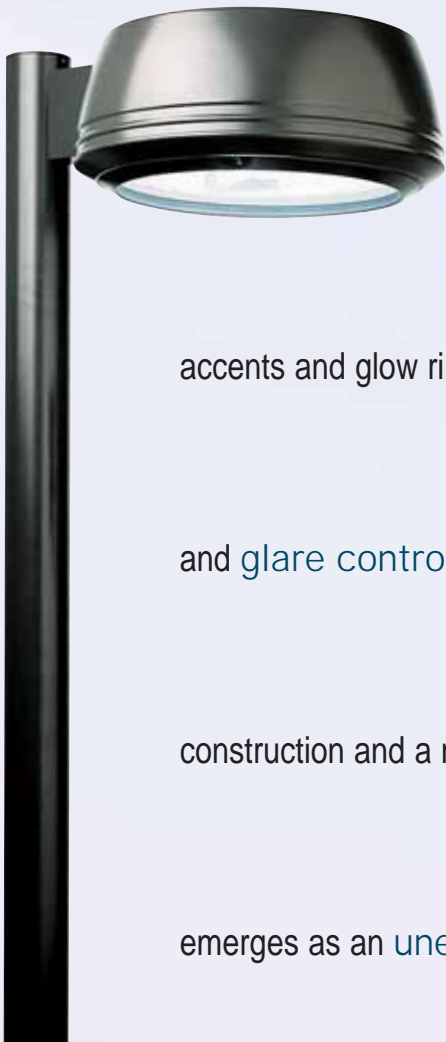
shape and the addition of optional color coordinated

accents and glow rings. The Ecoround provides highly efficient illumination

and glare control with lamps to 1000 watts. Add durable, long life

construction and a most attractive installed cost, and Ecoround

emerges as an unequaled choice.





*The refined tapered form of Ecoround is satisfying from all viewing angles.
Twin yokes meet the twin banded housing, which tapers as final design detail.
The addition of optional color to the twin housing reveals and optional pole-top
glow rings enables further integration of luminaires to building and landscape designs.*



HOUSING

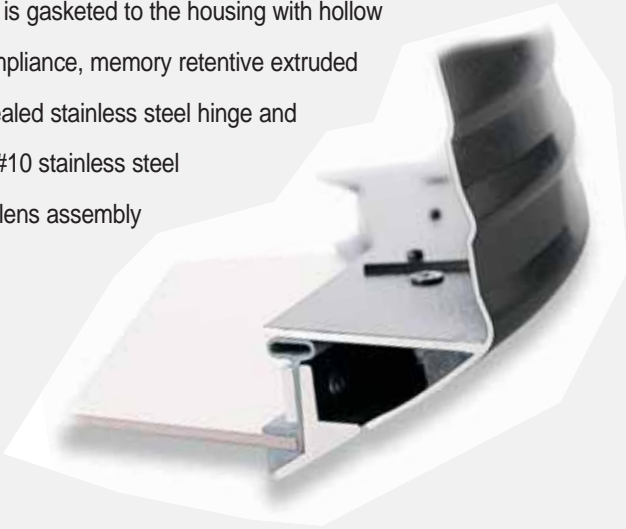
The luminaire consists of a one-piece seamless spun aluminum housing (20"-.080", 25"-.100", 30"-.125") with two (2) integral twin reveals. A cast aluminum heat sink accommodates the ballast mounting.

YOKE

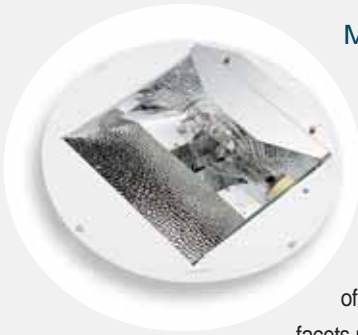
The twin parallel yokes are high strength steel tubing (5/8" diameter on 20" units and 3/4" diameter on 25" and 30") which provide luminaire support without obstruction of light distribution. Welds and fasteners are not visible at the luminaire or point of pole attachment. The yoke is electrogalvanized and finished with a polyester powdercoat to match the door frame and luminaire housing.

LENS ASSEMBLY

A single-piece die cast aluminum door frame retains an optically clear, heat and impact resistant, tempered flat or sag glass lens. The lens is gasketed to the door frame and the door frame is gasketed to the housing with hollow section, high compliance, memory retentive extruded silicone rubber. A concealed stainless steel hinge and two (20"/25") or four (30") #10 stainless steel captive screws secure the lens assembly to the housing.



Not only are the scale and proportion of the yoke pleasing at all viewing angles, but the sleek form of the housing is a refreshing departure from straight-sided drum shapes. The housing bands strengthen the form in looks and in function.

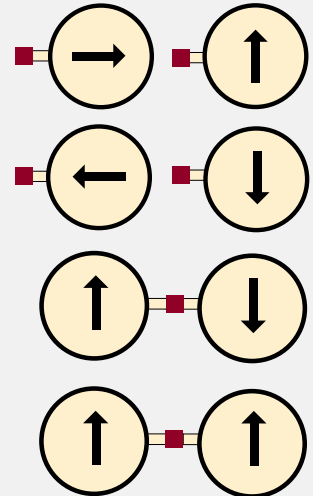


MORE LIGHT

The quality of a cutoff luminaire is measured by how well it controls and distributes light. Ecoround features a segmented optical system consisting of two levels of highly specular facets precisely aligned to distribute light in the desired pattern. This sophisticated optical system provides high efficiencies, uniform distribution and superior brightness control.

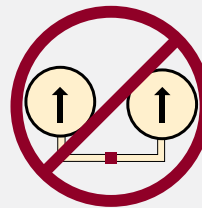
ROTATABLE OPTICS

Ecoround reflector assemblies are fully rotatable in 90° increments. This feature permits aiming of the distributions in any of four directions, regardless of the arm-to-pole orientation. Architectural symmetry is preserved as all of the luminaires and poles maintain a consistent alignment while the optical systems are aimed in various directions.



FEWER LUMINAIRES

The Ecoround optical system is designed to produce maximum candlepower at high angles while ensuring that discomforting glare is sharply cut off at normal viewing angles. This design allows for very wide pole spacings. Wider spacings mean fewer poles and fixtures as well as big savings in trenching, foundations, wiring, energy and maintenance costs.



The primary benefit of rotatable optics, however, is installation ease. For twin units with parallel orientation, a special “parallel bracket assembly” is not required. Additionally, the contractor has remarkable flexibility at the jobsite to fine tune the site plan without incurring special pole drilling costs.

MALLMASTER™

HIGH PERFORMANCE LARGE AREA OPTICS

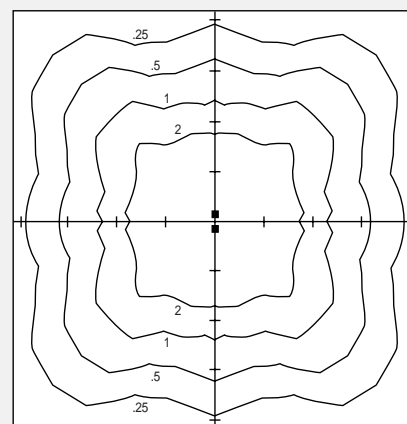
Large areas, like retail mall space or long term parking lots, provide both lighting challenges and cost saving opportunities. MallMaster™ optics were designed with these areas in mind. One footcandle minimum criteria projects are ideally suited to these optics, especially when spacing to mounting height ratios are a top priority. MallMaster™ provides even illumination while allowing for economical, wide pole spacings.

Using retrofit mechanisms, Ecoround 30" luminaires, equipped with MallMaster™ optics, can be mounted to existing poles increasing light levels while decreasing job costs through utilization of existing foundations and poles.

MallMaster™ reflectors were designed for 1000 watt sources and are available in both IES Type III semi-cutoff (3SV) and Type V semi-cutoff (QSV) patterns.



A combination of highly specular and hammertone aluminum is used in precisely engineered faceted segments to form MallMaster™ high performance optics.



Exceptionally wide spacings, thorough coverage to the pattern corners, maximum cost savings... MallMaster™ optics are engineered for value.

OPTICS AND PHOTOMETRICS

There has been a trend to use the word “cutoff” too loosely, especially with vertical lamp optics. Ecoround provides exceptionally wide spacings and meets IES requirements for the cutoff classification without compromising glare.



TYPE II (2H) & III (3H)

These reflector systems create an asymmetric distribution pattern with wide lateral throw. Type II and Type III work well in walkway and roadway applications where more light is required “street side” than “house side.”



FORWARD THROW (FH)

The Type IV Forward Throw reflector is suitable for applications where light is primarily required in one direction with minimal backlight. Typical installations include perimeter lighting, auto dealerships and tennis courts.



TYPE V HORIZONTAL (QH)

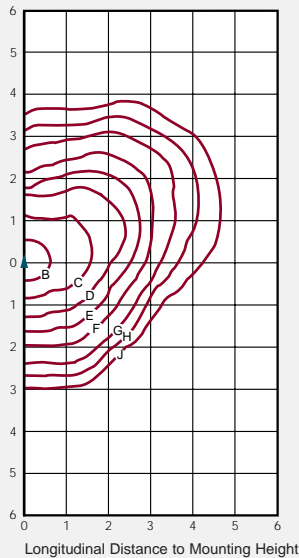
The Type V square creates a symmetrical pattern for efficiently illuminating large areas. Good spacings are combined with excellent glare control with the horizontal lamp Type V reflector.



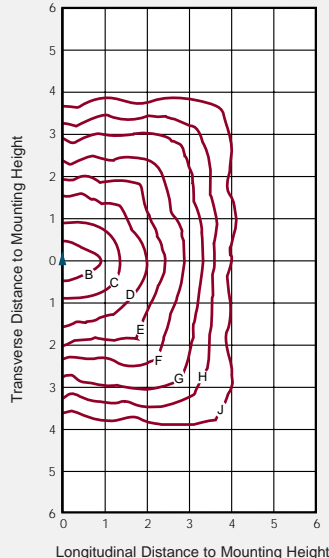
VERTICAL LAMP(3V) (FV) (QV)

A vertical lamp position makes this the most efficient optical system available for uniform illumination of large parking areas without pattern overlap. The two-position socket offers remarkable design flexibility. The standard lamp socket position provides superior spacings while meeting IES criteria for cutoff of high angle brightness. A lower socket position creates a system for the widest spacings available while still meeting IES semi-cutoff criteria.

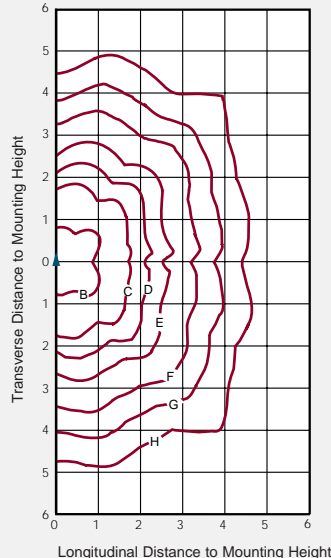
3H Optics



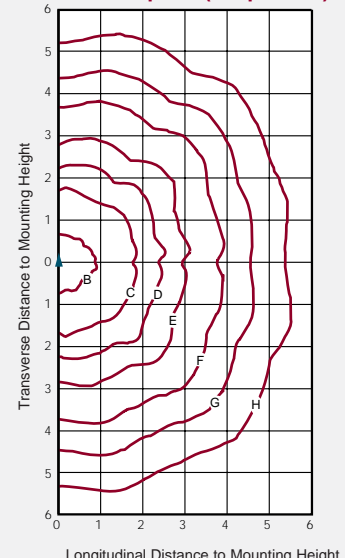
QH Optics



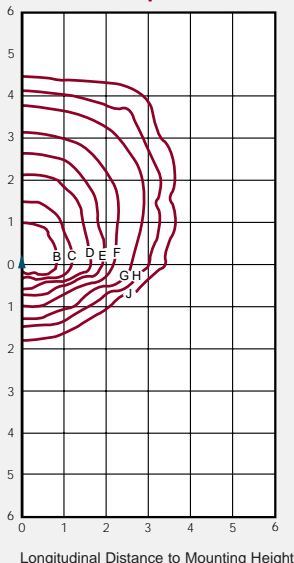
QV Optics (lamp up)



QV Optics (lamp down)



FH Optics



Initial footcandles for 400W HPS units mounted on 30' poles.

Pole Height (Feet) Factor

Lamp Factor Table

| Curve | F.C. Value |
|-------|------------|
| B | 5.00 |
| C | 2.50 |
| D | 1.00 |
| E | 0.50 |
| F | 0.25 |
| G | 0.10 |
| H | 0.05 |
| J | 0.025 |

| | |
|----|------|
| 10 | 9.00 |
| 12 | 6.25 |
| 14 | 4.59 |
| 16 | 3.52 |
| 18 | 2.78 |
| 20 | 2.25 |
| 25 | 1.44 |
| 35 | 0.73 |
| 39 | 0.59 |

| | |
|--------|------|
| 150HPS | 0.32 |
| 250HPS | 0.58 |
| 400HPS | 1.00 |
| 175SMH | 0.30 |
| 250SMH | 0.46 |
| 400SMH | 0.80 |

Footcandle multipliers for Other Conditions

- For other mounting heights, multiply the values of footcandles shown by the pole height factor in table above.
- For multiple mounts with beam patterns oriented parallel, multiply F.C. by number of heads per pole.
- For combination of above, multiply factors together to produce a single multiplier.
Example: Two heads on 39' pole = 2 x 0.59 = 1.18 Total F.C. Multiplier.
- For approximate F.C. levels, the lamp factors shown at right may be multiplied by the 400W HPS value.
Example: 250W HPS Type III at curve C = .58 x 2.50 = 1.45 F.C.
- 2H, 3V, FV (30" housing only) not shown.
- Complete photometrics data base available – consult factory.

OPTICAL SYSTEM



The Ecoround segmented reflector system consists of two levels of specular, clear-anodized aluminum facets precisely aligned to achieve IES Types II, III, V and Type IV Forward Throw. The entire optical system is field rotatable in 90° increments. All mogul base horizontally positioned metal halide units feature a position-oriented lampholder and lamp stabilizer. All optical systems meet IES cutoff criteria. Vertical lamp units can be field-adjusted to achieve wider luminaire spacings while still meeting IES semi-cutoff criteria.

ARM MOUNTING

A one-piece extruded aluminum arm conceals two steel tie rods and all mounting hardware. No fasteners or welds are visible. For pole installation, a reinforcing plate and wire strain relief are provided.

WALL MOUNTING

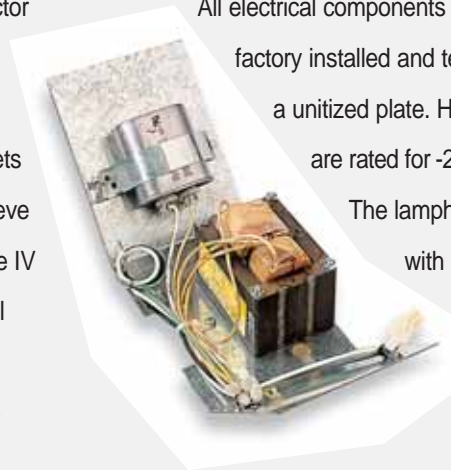


The luminaire is supported by a 10 gauge galvanized steel mounting plate. A die cast aluminum canopy is provided which completely conceals the mounting assembly.

LABELS

All luminaires bear UL or CUL (when applicable) wet location labels.

ELECTRICAL



All electrical components are UL recognized, factory installed and tested and mounted on a unitized plate. High power factor ballasts are rated for -20°F starting temperatures. The lampholder is glazed porcelain with a nickel plated screw shell. Quick disconnects are supplied on the reflector assembly.

FINISH

Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) powdercoat finish. Standard finishes are textured powdercoat. Optional finishes may vary.

COLOR BANDS AND GLOW RINGS

Ecoround may be specified with factory-applied color accents which nest in the twin reveals at the lower perimeter of the housing. Luminaire color bands may be specified with or without pole-top glow rings. The optional color glow ring module features a clear top cap, enabling the optical system to illuminate the acrylic rings. Consult factory for custom colors.



ORDERING INFORMATION

MOUNTING

A = Arm Mount
 P = Post Top Mount
 W⁵ = Wall Mount
 MF⁵ = Mast Arm

CONFIGURATION (Arm Mount)

1 Single Assembly
 2 Twin Assembly
 2@90 Twin Assembly at 90°
 3 Triple at 90°
 3@120 Triple at 120°
 4 Quad Assembly
 Use "1" for ERW wall mounted units

FINISHES:

BRP Bronze Paint
 BLP Black Paint
 WP White Paint
 NP Natural Aluminum Paint
 OC Optional Color Paint
 Specify RAL designation
 ex: OC-RAL7024
 SC Special Color Paint
 Specify. Must supply color chip.

PREFIX

ER = Ecoround

SIZE

20"
 25"
 30"

ER A 20 1 - 3H 175MH 120 - WP - HS

DISTRIBUTION

Flat Glass Lens Luminaires meet IESNA Full Cutoff Criteria. Sag Lens Luminaires meet IESNA Full Cutoff or Semi-Cutoff Criteria.

20" and 25"

Horizontal Lamp

2H Type II
 3H Type III
 FH Type IV Forward Throw
 QH Type V

Vertical Lamp

3V¹ Type III
 FV¹ Type IV Forward Throw
 QV³ Type V

30"

Vertical Lamp

3V^{1,2} Type III
 FV¹ Type IV Forward Throw
 QV^{1,2} Type V
 3V-RNC^{1,2} Type III Reduced Nadir Candlepower
 QV-RNC^{1,2} Type V Reduced Nadir Candlepower
 RNV (Reduced Nadir Candlepower) option should be specified only in applications requiring extreme maximum to minimum uniformity ratios (5 to 1 or lower). Reduced luminaire efficiency will result in lower average footcandle levels.

3SV¹ Type III Mallmaster Semi-cutoff
 QSV¹ Type V Mallmaster Semi-cutoff

WATTAGE

| 20" | | 25" | | 30" | |
|-----------------------|------------------------|---------------------------|--|-----|--|
| 70 HPS | 250 HPS | 750 HPS | | | |
| 100 HPS | 400 HPS | 1000 HPS | | | |
| 150 HPS | 600 HPS | 1000 MH | | | |
| 100 MH ³ | 250 MH | 750 PSMH ^{11,12} | | | |
| 150 MH | 400 MH | 1000 PSMH ¹² | | | |
| 175 MH ³ | 250 PSMH ⁸ | | | | |
| 200 MH ⁴ | 320 PSMH ⁹ | | | | |
| 250 MH ⁶ | 350 PSMH | | | | |
| 175 PSMH ⁷ | 400 PSMH ¹⁰ | | | | |
| | 450 PSMH ⁵ | | | | |

VOLTS:

120
 208
 240
 277
 347
 480

OPTIONS:

HS Internal House Side Shield
 Supplied standard for FH/FV
 F Fusing
 LF In-Pole/In-line Fusing
 Kit includes In-Line Fuses
 PCT Locking Type Photocontrol
 Receptacle w/Photocontrol
 Not available with 480V
 PCR Locking Type Photocontrol
 Receptacle
 PCB Button Photocontrol
 MF Mast Arm Fitter
 20" & 25" units only
 PTF2 Pole Top Fitter 2 3/8" x 4"
 PTF3 Pole Top Fitter 3"-3 1/2" x 6"
 PTF4 Pole Top Fitter 3 1/2"-4" x 6"
 QS Quartz Standby
 CR Colored Reveal
 Specify color.
 Subject to availability.

DISTRIBUTION

TYPE II



2H Horizontal

TYPE III



3H Horizontal
 3V Vertical
 3SV Semicutoff
 Vertical
 (MallMaster™)

TYPE IV



FH Horizontal
 FV Vertical

TYPE V



QH Horizontal
 QV Vertical
 QSV Semicutoff
 Vertical
 (MallMaster™)

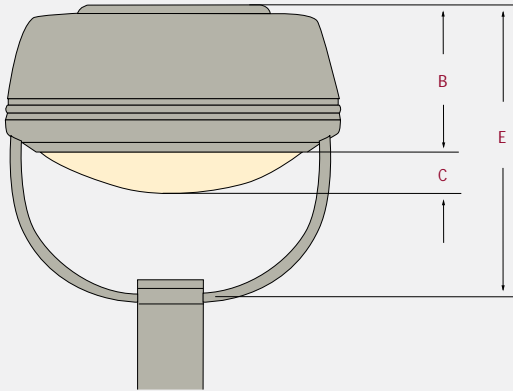
Consult Submittal Data Sheets on www.sitelighting.com for latest information prior to ordering.

Notes:

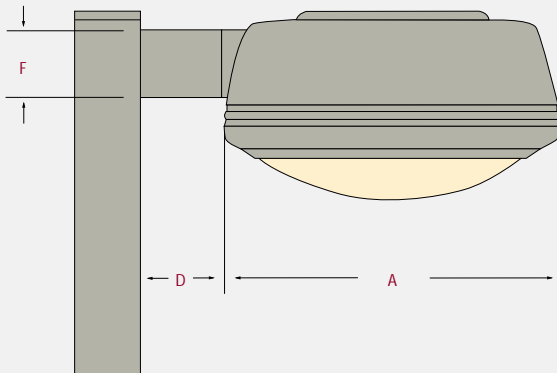
- Sag glass is supplied standard for all vertical lamp units. Polycarbonate is NOT available.
- 25" and 30" 3 V/QV optical systems feature an upper (factory set) sharp cutoff socket position. For wider spacings, a lower (field adjustable) semi-cutoff socket position may be set.
- N/A w/480V
- 20" 200MH w/vertical lamp optics is available in medium base only. Horizontal lamp configurations are mogul base.
- Vertical lamp only.
- Horizontal lamp only.
- M137 or M152
- M138 or M153
- M132 or M154
- M135 or M155
- M149 only.
- Available with vertical lamp optics only.

LUMINAIRE DIMENSIONS

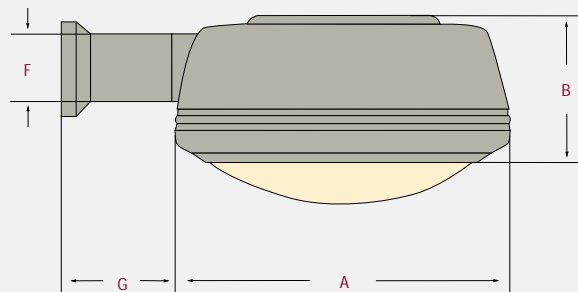
POST TOP YOKE MOUNT



ARM MOUNT



WALL MOUNT



| DIMENSIONS | 20" | 25" | 30" |
|--------------------------------|--------|--------|--------|
| A | 20" | 25" | 30" |
| B | 9.25" | 10.75" | 15.00" |
| C Drop Lens | – | 3.25" | 4.75" |
| D Arm Length | 4.38" | 6.25" | 8.38" |
| E Overall with Yoke | 18.38" | 21.38" | 28.63" |
| F Arm Height | 5" | 5" | 6" |
| G Arm Length | 6.38" | 8.25" | 8.38" |
| EPA – ARM MOUNT | | | |
| Single, Flat Lens | .75 | 1.2 | 1.9 |
| Single, Sag Lens | – | 1.3 | 2.1 |
| Twin, Flat Lens | 1.5 | 2.3 | 3.7 |
| Twin, Sag Lens | – | 2.6 | 4.2 |
| Quad, Flat Lens | 2.0 | 3.2 | 4.2 |
| Quad, Sag Lens | – | 3.7 | 5.0 |
| EPA – YOKE MOUNTED | | | |
| Single, Flat Lens | .61 | 1.1 | 1.6 |
| Single, Sag Lens | – | 1.6 | 1.9 |
| SINGLE LUMINAIRE WEIGHT | | | |
| ERA Flat Glass | 26 | 45 | 75 |
| ERP Flat Glass | 31 | 52 | 83 |
| ERA Sag Glass | – | 47 | 79 |
| ERP Sag Glass | – | 54 | 87 |



One of the beauties of Ecoround, is that service is always fast and easy. Access for relamping and to electrical components is just a turn away.

Your Emco representative can assist you with additional information about luminaires that complement your designs.



Emco Bollards



Emco Ecolume/Decolume



Emco V Sconce



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