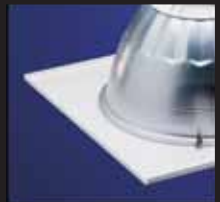




QUADRA-SERIES

Recessed Commercial Luminaires



QUADRA-SERIES

Recessed Commercial Luminaires

RETAIL + COMMERCIAL ENVIRONMENTS

Providing powerful recessed illumination in a compact 2' x 2' frame size, the Quadra-Series is ideal for retail and commercial environments with ceiling heights ranging from 12'-30'. Featuring a range of lense and louver options to optimize cutoff and aesthetic appeal, the Quadra-Series can be adapted to any standard 2' x 2' T-Bar frame or suspension mounted via wire application.

TREMENDOUS EFFICIENCY

Utilizing a 90% + reflective polyester power coat finish, the Quadra-Series offers tremendous efficiencies, toolless entry for ease of maintenance and access to the ballastry can be accomplished without going above the luminaire.

GREATER FLEXIBILITY

Available in a full range of high efficiency Metal Halide and Pulse Start Metal Halide sources from 70-400W, the Quadra-Series can also be finished with optional flush trims and "quiet" ballasts to assure they blend seamlessly to compliment their environment.



QC Quadra-Mark

Recessed Commercial



Specification Features

QF Quadra-Lume

Recessed Commercial with Flat Lens

QD Quadra-Lume

Recessed Commercial with Drop Lens

QP Quadra-Lume

Recessed Commercial with Specular Louvers

HOUSING

Quadra-Lume series die-formed heavy-duty housing is made of cold-rolled steel and finished in highly reflective white polyester powder coat. Stamped steel ballast mounting bracket is integral part of housing. **Quadra-Mark's** heavy-duty die-cast aluminum socket housing, finished with white polyester powder coat, for a variety of distributions from concentrated to wide.

REFLECTOR

Quadra-Lume series die-formed steel reflector has removable panels for easy ballast access from below. **Quadra-Mark's** computer-designed spun aluminum faceted reflector offers maximum light output with minimum voltage rise.

BALLAST [QC]

The thermally protected, high power factor 60Hz Metal Halide ballast is U.L. listed. Optional quiet ballast available.

DOOR FRAME [QF & QD]

QF Quadra-Lume available with die-formed heavy-gauge steel or aluminum door frame that can be hinged and latched from either side. **QD Quadra-Lume** available with aluminum door frame standard. Stamped steel retaining clips [standard on both units] assure flush fit of lens with frame.

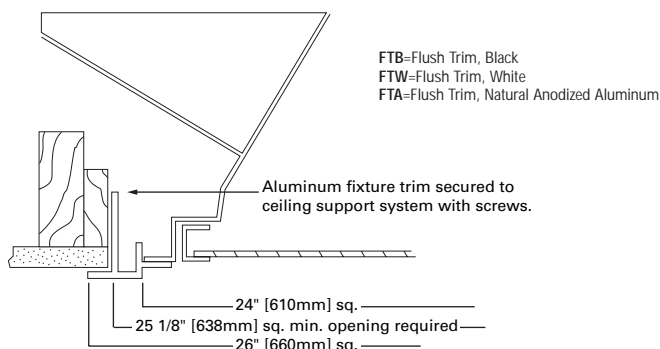
LENSING OPTIONS

QP Quadra-Lume: Nine- or 16-cell, 4" deep, regressed specular louvers standard. Optional 3" louvers optional. **QF Quadra-Lume:** Gasketed flat prismatic acrylic or C73 glass lens. **QD Quadra-Lume:** Virgin acrylic prismatic drop lens with UV inhibitor. **QC Quadra-Lume:** Prime cold-rolled steel pan is die-formed for maximum rigidity and has a 45° angled lip around the reflector opening to help reduce glare. It is finished with a white polyester powder coat and mounts easily into inverted T-bar ceilings.

OPTIONAL QUADRA-LUME

FLUSH MOUNTING TRIMS [FTB, FTW, FTA]

Heavy-gauge extruded aluminum combination fixture trim and plaster frame. Neatly finishes out any 2' x 2' recessed installation.



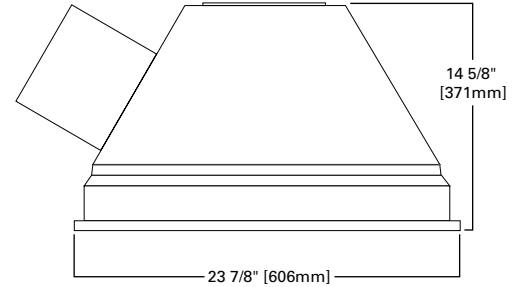
QP Quadra-Lume

RECESSED COMMERCIAL WITH SPECULAR LOUVER

70-400W HP/MH/MP



LUMARK®



APPLICATION

The Quadra-Lume provides minimum surface brightness, excellent uniformity and gentle diffusion. It is ideal for use in department stores, banks, auto showrooms, schools, libraries, office buildings and auditoriums.

ordering information

SAMPLE NUMBER: MHQP-S4/9-400-120V-Q

ENERGY DATA

High Reactance Ballast Input Watts

- 70W HPS HPF (95 Watts)
- 70W MH HPF (94 Watts)
- 100W HPS HPF (130 Watts)
- 100W MH HPF (129 Watts)
- 150W HPS HPF (190 Watts)
- 150W MH HPF (210 Watts)

CWI Ballast Input Watts

- 175W MH HPF (223 Watts)
- 250W HPS HPF (300 Watts)
- 250W MH HPF (300 Watts)
- 400W HPS HPF (465 Watts)
- 400W MH HPF (475 Watts)

CWA Ballast Input Watts

- 175W MH HPF (210 Watts)
- 200W HPS HPF (250 Watts)
- 200W MP HPF (232 Watts)
- 250W MH HPF (295 Watts)
- 320W MP HPF (365 Watts)
- 350W MP HPF (395 Watts)
- 400W MP HPF (448 Watts)
- 400W MH HPF (455 Watts)
- 400W HPS HPF (465 Watts)

LAMP TYPE

- HP=High Pressure Sodium
- MH=Metal Halide¹
- MP=Pulse Start Metal Halide (CWA)^{1,2}

SERIES

- QP=Quadra-Lume w/ Specular Louvers

DOOR/LENS^{1,3}

- S4/9=Nine-cell Louver
- S4/9/GL=Nine-cell Louver with Glass Overlay
- S4/16=16-cell Louver
- S4/16/GL=16-cell Louver with Glass Overlay

LAMP WATTAGE⁴

- 70=70W⁵
- 100=100W⁵
- 150=150W
- 175=175W
- 200=200W
- 250=250W
- 320=320W
- 350=350W
- 400=400W

VOLTAGE⁶

- 120V
- 208V
- 240V
- 277V
- 347V

OPTIONS + ACCESSORIES

(See Below)

OPTIONS + ACCESSORIES

OPTIONS (add as suffix)⁷

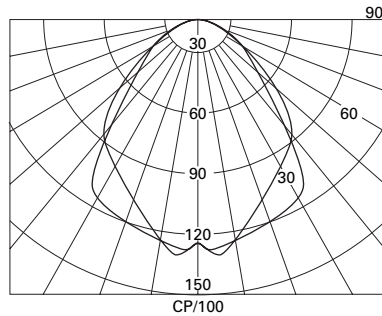
- OR=Open Rated Socket⁸
- QB=Quiet Ballast (MH 120/277 only)
- HL=LumaWatt Fixture Control Module (Allows low voltage control wire to be daisy-chained between fixtures outside AC conduit run similar to low voltage intercom's, fire alarms and phone systems)^{9,10}
- HC=LumaWatt Fixture Control Module (Low voltage leads pulled out of top connection box for areas requiring all wiring to be installed in conduit)^{9,10}
- Q=Quartz Restrike DC Bayonet Base (Hot strike only)
- EM=Quartz Restrike with "Delay Relay" (Strikes at cold start)¹¹

- EM/SC=Emergency Separate Circuit
- F1=Single Fuse (120, 277 or 347V)
- F2=Double Fused (208, 240 or 480V)
- SCF=3" Aircraft Safety Cable-Housing to ceiling
- DL=U.L. Labeled for Damp Locations
- BDF=Black Door Frame
- G2=Double Gasketing
- VL=Vertical Lamp (Adds 3 1/4" to overall fixture height)
- LL=Lamp Included¹²

ACCESSORIES (order separately)

- FTB=Flush Trim, Black
- FTW=Flush Trim, White
- FTA=Flush Trim, Natural Anodized Aluminum
- WGQF=Wire Guard (Not compatible with FTA, FTB, or FTW)

PHOTOMETRICS



MHQP-S4/9/GL-400

400-Watt Metal Halide
40,000-Lumen Coated Lamp

Coefficients Of Utilization

| Effective floor cavity reflectance | 20% | | | | | | | |
|------------------------------------|-----|----|-----|----|-----|----|-----|----|
| | 80% | | 70% | | 50% | | 30% | |
| rc | 70 | 50 | 30 | 70 | 50 | 30 | 50 | 30 |
| RCR | | | | | | | | |
| 0 | 70 | 70 | 70 | 68 | 68 | 68 | 65 | 65 |
| 1 | 66 | 64 | 62 | 64 | 62 | 61 | 60 | 59 |
| 2 | 61 | 58 | 54 | 60 | 56 | 54 | 54 | 52 |
| 3 | 57 | 52 | 48 | 56 | 51 | 48 | 50 | 47 |
| 4 | 53 | 47 | 43 | 52 | 46 | 43 | 45 | 42 |
| 5 | 49 | 43 | 39 | 48 | 42 | 38 | 41 | 38 |
| 6 | 46 | 39 | 35 | 45 | 39 | 34 | 38 | 34 |
| 7 | 43 | 36 | 32 | 42 | 36 | 31 | 35 | 31 |
| 8 | 40 | 33 | 29 | 39 | 33 | 29 | 32 | 28 |
| 9 | 38 | 31 | 26 | 37 | 30 | 26 | 30 | 26 |
| 10 | 35 | 28 | 24 | 35 | 28 | 24 | 28 | 24 |

Candlepower

| Degree | CP |
|--------|-------|
| 0 | 12867 |
| 5 | 12908 |
| 15 | 12132 |
| 25 | 10828 |
| 35 | 9166 |
| 45 | 6296 |
| 55 | 2723 |
| 65 | 566 |
| 75 | 103 |
| 85 | 2 |

SHIPPING DATA

Approximate Net Weight:

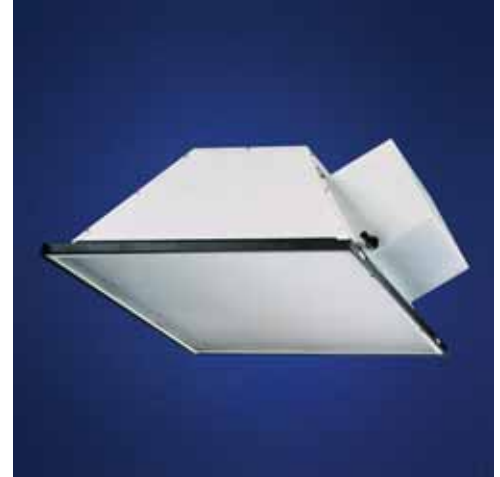
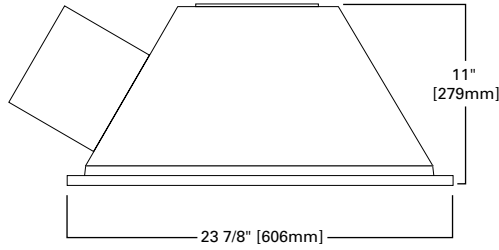
49 lbs. (22 kgs.)

NOTES: 1 Fixture with Metal Halide lamp must have glass overlay or must use open rated socket (OR). 2 150, 175, 200, 250, 320, 350, & 400W only. 3 Substitute "G" for "S" in catalog number for Gold Louver. 4 All lamps are mogul-base except 150W Metal Halide which are medium-base. 5 HPS only. 6 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information. 7 Must be listed in the order shown and separated by a dash. 8 Available with "VL" (Vertical Lamp) option only. 9 Not compatible with EM or EM/SC. 10 Requires "VL" (vertical lamp option). 11 Not compatible with HC or HL. 12 Lamp is shipped separate from luminaire. Lamp is Cooper designated product based on luminaire requirements. Specified lamps must be ordered as a separate line item.

70-400W HP/MH/MP

QF Quadra-Lume

RECESSED COMMERCIAL WITH FLAT LENS



LUMARK™

APPLICATION

The Quadra-Lume provides minimum surface brightness, excellent uniformity and gentle diffusion. It is ideal for use in department stores, banks, auto showrooms, schools, libraries, office buildings and auditoriums.

ordering information

SAMPLE NUMBER: MHQF-GS-C73-400-120V-Q

| LAMP TYPE | SERIES | DOOR FRAME | LENS TYPE ² | LAMP WATTAGE ³ | VOLTAGE ⁴ | OPTIONS + ACCESSORIES (See Below) |
|--|-----------------------------|--|-----------------------------------|---------------------------|----------------------|-----------------------------------|
| HP=High Pressure Sodium | QF=Quadra-Lume w/ Flat Lens | GS=Flat Steel | A=Acrylic | 70=70W | 120V | |
| MH=Metal Halide ¹ | | GO/GAS=Flat Aluminum | A/GL=Acrylic with Glass Overlay | 100=100W | 208V | |
| MP=Pulse Start Metal Halide (CWA) ^{1,2} | | GMXF=Flat, Non-floating Aluminum Door Frame | ACTF.140=Acrituf, .140" thick | 150=150W | 240V | |
| | | GMXR=3/8" Regressed Non-floating Aluminum Door Frame | ACTF.187=Acrituf, .187" thick | 175=175W | 277V | |
| | | | 8246=Holophane 8246 | 200=200W | 347V | |
| | | | PL=Polycarbonate | 250=250W | | |
| | | | C73=Prismatic Tempered Glass Lens | 320=320W | | |
| | | | | 350=350W | | |
| | | | | 400=400W | | |

ENERGY DATA

High Reactance Ballast Input Watts

| |
|--------------------------|
| 70W MH HPF (94 Watts) |
| 100W MH HPF (129 Watts) |
| 150W HPS HPF (190 Watts) |
| 150W MH HPF (210 Watts) |

CWI Ballast Input Watts

| |
|--------------------------|
| 175W MH HPF (223 Watts) |
| 250W HPS HPF (300 Watts) |
| 250W MH HPF (300 Watts) |
| 400W HPS HPF (465 Watts) |
| 400W MH HPF (475 Watts) |

CWA Ballast Input Watts

| |
|--------------------------|
| 175W MH HPF (210 Watts) |
| 200W HPS HPF (250 Watts) |
| 200W MP HPF (232 Watts) |
| 250W MH HPF (295 Watts) |
| 320W MP HPF (365 Watts) |
| 350W MP HPF (395 Watts) |
| 400W MP HPF (448 Watts) |
| 400W MH HPF (455 Watts) |
| 400W HPS HPF (465 Watts) |

OPTIONS + ACCESSORIES

OPTIONS (add as suffix) ⁵

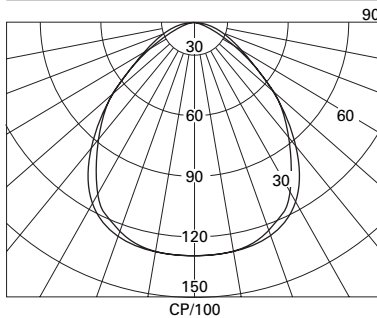
- OR=Open Rated Socket ⁶
- QB=Quiet Ballast (MH 120/277 only)
- HL=LumaWatt Fixture Control Module (Allows low voltage control wire to be daisy-chained between fixtures outside AC conduit run similar to low voltage intercom's, fire alarms and phone systems) ^{7,8}
- HC=LumaWatt Fixture Control Module (Low voltage leads pulled out of top connection box for areas requiring all wiring to be installed in conduit) ^{7,8}
- Q=Quartz Restrike DC Bayonet Base (Hot strike only)
- EM=Quartz Restrike with "Delay Relay" (Strikes at cold start) ⁹

- EM/SC=Emergency Separate Circuit
- F1=Single Fuse (120, 277 or 347V)
- F2=Double Fused (208, 240 or 480V)
- SCF=3" Aircraft Safety Cable-Housing to ceiling
- DL=U.L. Labeled for Damp Locations
- BDF=Black Door Frame
- G2=Double Gasketing
- VL=Vertical Lamp (Adds 3 1/4" to overall fixture height)
- LL=Lamp Included ¹⁰

ACCESSORIES (order separately)

- FTB=Flush Trim, Black
- FTW=Flush Trim, White
- FTA=Flush Trim, Natural Anodized Aluminum
- WGQF=Wire Guard (Not compatible with FTA, FTB, or FTW)

PHOTOMETRICS



Coefficients Of Utilization

| rc | Effective floor cavity reflectance 20% | | | | | | | | | |
|-----|--|----|-----|----|-----|----|-----|----|----|----|
| | 80% | | 70% | | 50% | | 30% | | | |
| rw | 70 | 50 | 30 | 70 | 50 | 30 | 50 | 30 | 50 | 30 |
| RCR | | | | | | | | | | |
| 0 | 89 | 89 | 89 | 87 | 87 | 87 | 83 | 83 | 79 | 79 |
| 1 | 82 | 79 | 76 | 80 | 77 | 75 | 74 | 72 | 71 | 70 |
| 2 | 76 | 70 | 66 | 74 | 69 | 65 | 66 | 63 | 64 | 61 |
| 3 | 70 | 63 | 57 | 68 | 62 | 56 | 59 | 55 | 57 | 54 |
| 4 | 64 | 56 | 50 | 63 | 55 | 50 | 54 | 49 | 52 | 48 |
| 5 | 60 | 51 | 45 | 58 | 50 | 44 | 49 | 43 | 47 | 43 |
| 6 | 55 | 46 | 40 | 54 | 46 | 40 | 44 | 39 | 43 | 38 |
| 7 | 52 | 42 | 36 | 50 | 42 | 36 | 40 | 35 | 39 | 35 |
| 8 | 48 | 39 | 33 | 47 | 38 | 33 | 37 | 32 | 36 | 32 |
| 9 | 45 | 36 | 30 | 44 | 35 | 30 | 34 | 29 | 34 | 29 |
| 10 | 42 | 33 | 27 | 41 | 33 | 27 | 32 | 27 | 31 | 27 |

Candlepower

| Degree | CP |
|--------|-------|
| 0 | 12888 |
| 5 | 12878 |
| 15 | 12798 |
| 25 | 12165 |
| 35 | 10322 |
| 45 | 7253 |
| 55 | 3975 |
| 65 | 2097 |
| 75 | 1121 |
| 85 | 437 |

MHQF-GL-C73-400

400-Watt Metal Halide
40,000-Lumen Coated Lamp

NOTES: 1 Fixture with Metal Halide lamp must have glass overlay or must use open rated socket (OR). 2 200, 250, 320, 350, & 400W only. 3 All lamps are mogul-base except 150W Metal Halide which are medium-base. 4 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information. 5 Must be listed in the order shown and separated by a dash. 6 Available with "VL" (Vertical Lamp) option only. 7 Not compatible with EM or EM/SC. 8 Requires "VL" (vertical lamp option). 9 Not compatible with EM/SC, HC, or HL. 10 Lamp is shipped separate from luminaire. Lamp is Cooper designated product based on luminaire requirements. Specified lamps must be ordered as a separate line item.

SHIPPING DATA

Approximate Net Weight:
39 lbs. (18 kgs.)

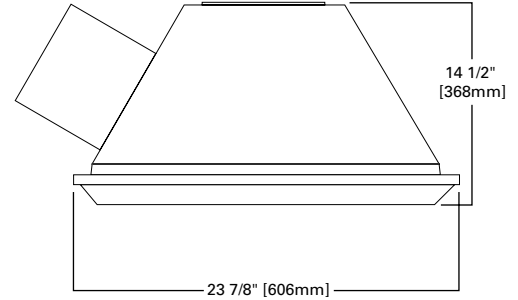
QD Quadra-Lume

70-400W HP/MH/MP

RECESSED COMMERCIAL WITH DROP LENS



LUMARK®



APPLICATION

The Quadra-Lume provides minimum surface brightness, excellent uniformity and gentle diffusion. It is ideal for use in department stores, banks, auto showrooms, schools, libraries, office buildings and auditoriums.

ordering information

ENERGY DATA

High Reactance Ballast Input Watts

- 70W HPS HPF (95 Watts)
- 70W MH HPF (94 Watts)
- 100W HPS HPF (130 Watts)
- 100W MH HPF (129 Watts)
- 150W HPS HPF (190 Watts)
- 150W MH HPF (210 Watts)

CWI Ballast Input Watts

- 175W MH HPF (223 Watts)
- 250W HPS HPF (300 Watts)
- 250W MH HPF (300 Watts)
- 400W HPS HPF (465 Watts)
- 400W MH HPF (475 Watts)

CWA Ballast Input Watts

- 175W MH HPF (210 Watts)
- 200W HPS HPF (250 Watts)
- 200W MP HPF (232 Watts)
- 250W MH HPF (295 Watts)
- 320W MP HPF (365 Watts)
- 350W MP HPF (395 Watts)
- 400W MP HPF (448 Watts)
- 400W MH HPF (455 Watts)
- 400W HPS HPF (465 Watts)

SAMPLE NUMBER: MHQD-GO/GAS-A-400-120V-Q

| LAMP TYPE | SERIES | DOOR FRAME | LENS TYPE ² | LAMP WATTAGE ³ | VOLTAGE ⁵ | OPTIONS + ACCESSORIES |
|-------------------------|-----------------------------|----------------------|--|--|--------------------------------------|-----------------------|
| HP=High Pressure Sodium | QD=Quadra-Lume w/ Drop Lens | GO/GAS=Flat Aluminum | A=Acrylic A/GL=Acrylic with Glass Overlay P=Polycarbonate P/GL=Polycarbonate with Glass Overlay | 70=70W 100=100W 150=150W 175=175W ⁴ 200=200W ⁴ 250=250W 320=320W ⁴ 350=350W ⁴ 400=400W | 120V 208V 240V 277V 347V | (See Below) |

OPTIONS + ACCESSORIES

OPTIONS (add as suffix) ⁶

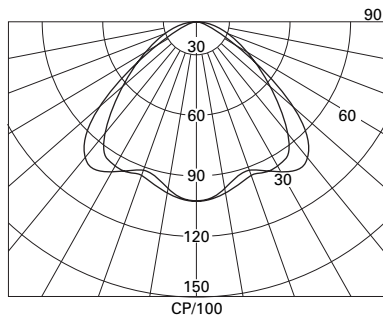
- OR=Open Rated Socket ⁷
- QB=Quiet Ballast (MH 120/277V only)
- HL=LumaWatt Fixture Control Module (Allows low voltage control wire to be daisy-chained between fixtures outside AC conduit run similar to low voltage intercom's, fire alarms and phone systems) ^{8,9}
- HC=LumaWatt Fixture Control Module (Low voltage leads pulled out of top connection box for areas requiring all wiring to be installed in conduit) ^{8,9}
- Q=Quartz Restrike DC Bayonet Base (Hot strike only)
- EM=Quartz Restrike with "Delay Relay" (Strikes at cold start) ¹⁰

- EM/SC=Emergency Separate Circuit
- F1=Single Fuse (120, 277 or 347V)
- F2=Double Fused (208, 240 or 480V)
- SCF=3" Aircraft Safety Cable-Housing to ceiling
- DL=U.L. Labeled for Damp Locations
- BDF=Black Door Frame
- G2=Double Gasketing
- VL=Vertical Lamp (Adds 3 1/4" to overall fixture height)
- LL=Lamp Included ¹¹

ACCESSORIES (order separately)

- FTB=Flush Trim, Black
- FTW=Flush Trim, White
- FTA=Flush Trim, Natural Anodized Aluminum

PHOTOMETRICS



MHQD-GO/GAS-A-400
400-Watt Metal Halide
40,000-Lumen Coated Lamp

Coefficients Of Utilization

| Effective floor cavity reflectance | 20% | | | | | | | | | | Candlepower Degree CP | |
|------------------------------------|-----|----|-----|----|-----|----|-----|----|----|----|-----------------------|-------|
| | 80% | | 70% | | 50% | | 30% | | | | | |
| rc | 70 | 50 | 30 | 70 | 50 | 30 | 50 | 30 | 50 | 30 | | |
| RCR | | | | | | | | | | | 0 | 10306 |
| 0 | 90 | 90 | 90 | 88 | 88 | 88 | 83 | 83 | 79 | 79 | 5 | 10235 |
| 1 | 82 | 78 | 75 | 80 | 76 | 73 | 73 | 70 | 69 | 67 | 15 | 9706 |
| 2 | 75 | 69 | 64 | 73 | 67 | 62 | 64 | 60 | 61 | 58 | 25 | 9517 |
| 3 | 69 | 61 | 55 | 67 | 59 | 54 | 57 | 52 | 54 | 50 | 35 | 9982 |
| 4 | 63 | 54 | 48 | 61 | 53 | 47 | 51 | 46 | 49 | 44 | 45 | 7845 |
| 5 | 58 | 49 | 42 | 56 | 48 | 41 | 46 | 40 | 44 | 39 | 55 | 4027 |
| 6 | 54 | 44 | 37 | 52 | 43 | 37 | 41 | 36 | 40 | 35 | 65 | 2521 |
| 7 | 50 | 40 | 33 | 48 | 39 | 33 | 38 | 32 | 36 | 31 | 75 | 1703 |
| 8 | 46 | 36 | 30 | 45 | 36 | 30 | 34 | 29 | 33 | 28 | 85 | 1062 |
| 9 | 43 | 33 | 27 | 42 | 33 | 27 | 32 | 26 | 31 | 26 | 95 | 495 |
| 10 | 41 | 31 | 25 | 40 | 30 | 24 | 29 | 24 | 28 | 24 | 105 | 198 |
| | | | | | | | | | | | 115 | 136 |
| | | | | | | | | | | | 125 | 57 |
| | | | | | | | | | | | 135 | 0 |

SHIPPING DATA

Approximate Net Weight:

43 lbs. (20 kgs.)

NOTES: 1 Fixture with Metal Halide lamp must have glass overlay or must use open rated socket (OR). 2 150, 175, 200, 250, 320, 350, & 400W only. 3 All lamps are mogul-base except 150W Metal Halide which are medium-base. 4 Not available in HPS. 5 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information. 6 Must be listed in the order shown and separated by a dash. 7 Available with "VL" (Vertical Lamp) option only. 8 Not compatible with EM or EM/SC. 9 Requires "VL" (vertical lamp option). 10 Not compatible with EM/SC, HC, or HL. 11 Lamp is shipped separate from luminaire. Lamp is Cooper designated product based on luminaire requirements. Specified lamps must be ordered as a separate line item.



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FAX 770 486 4801

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Domestic Facilities, Canada

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Chomedey, Laval P.Q.

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Lumière
Invue
McGraw-Edison
Fail-Safe
MWS
DLS
RSA

QUADRA-SERIES

Recessed Commercial Luminaires

