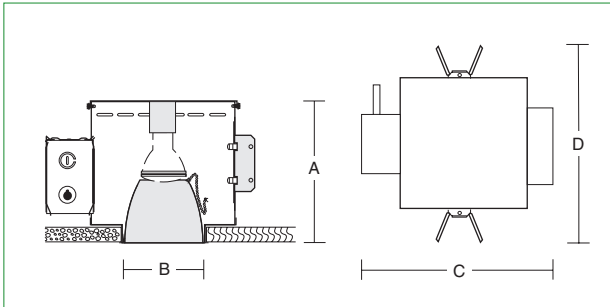


**Dimensions and Lamps**



| Number | A Depth         | B Aperture      | C Width          | D Length     | Lamp*                          |
|--------|-----------------|-----------------|------------------|--------------|--------------------------------|
| R7300* | 8 1/2"<br>216mm | 4 1/8"<br>105mm | 12 1/2"<br>318mm | 14"<br>357mm | 39W PAR-20 MH<br>Spot or Flood |

\*To specify add voltage for proper ballast, e.g. R7300-277.

**R7300**

**Downlight**  
**39W PAR-20 Metal Halide**  
**4 1/8" Aperture**

**Optics and Applications**

The small 4 1/8" diameter parabolic shielding cone is contoured for brightness control with PAR-20 spot or flood lamps. Performance is efficient with very low brightness from normal viewing angles. Use in low to medium ceilings for general or task lighting. See back of page for specific lamp performance.

**Design Features**

A vented steel housing protects and positions the lamp and reflector. Maximum ceiling thickness 1". Top or bottom service.

**Finish**

A specular clear Alzak cone is standard. Optional colors and Softglow® finishes are available. Housing and structural parts are painted optical matte black to suppress stray light leaks.

**Ballast**

Electronic metal halide ballasts provide more constant lumen and wattage output. They feature thermal protection with auto reset, fast restrike, quiet operation and automatic shutdown at end of life.

**General**

Fixtures are pre-wired and thermally protected, UL and C-UL listed for eight wire 75°C branch circuit wiring. Union made IBEW. Luminaire Efficiency Ratings (LER) do not apply to fixtures using reflector type lamps.

**Accessories**

- R2 26" support rails.
  - R5 52" support rails.
  - F Ballast fuse.
  - B Specular black cone.
  - G Specular gold cone.
  - H Specular mocha cone.
  - P Specular graphite cone.
  - S Softglow® finishes: add S before color letters. e.g. SW for Softglow® wheat cone, SC for Softglow® clear cone.
  - V347 347 volt ballast, magnetic only.
  - EC Emergency circuit with mini-can socket and leads.\*
  - AOE1 Electronic ballast Auto-On restrike system 120V.\*
- WT White trim flange.  
 WHT White complete trim.  
 TL1 Emergency 60W lamp.  
 T Specular titanium cone.  
 W Specular wheat cone.  
 Y Specular pewter cone.  
 Z Specular bronze cone.

\*Use open rated 60W max. auxiliary incandescent lamp.

**Matching Units**

- Sloped ceiling downlights Pages R2, C21, K3
- Directional downlights Pages R2, C21
- Wall washers Pages R31, E1, K4, P60
- Downlights Pages C1, C2, K2, P50

# R1 R7300

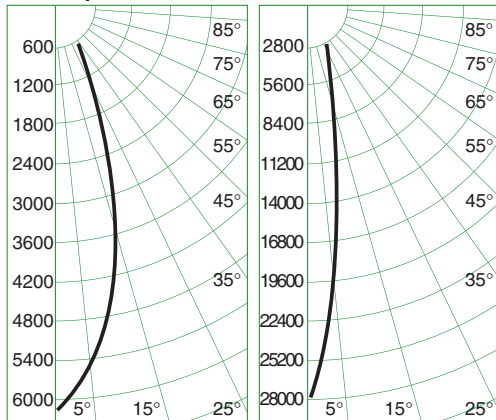
## Performance Datachart

| Single Unit Initial Footcandles, 30" Work Plane |     |      |     |      |     | Ceiling to Floor |                                    | Multiple Units Initial Footcandles, 30" Work Plane |       |       |     |
|---|-----|------|-----|------|-----|------------------|------------------------------------|--|-------|-------|-----|
| R7300 39W PAR-20 FL MH                          |     |      |     |      |     |                  |                                    | Ceiling 80% Walls 50% Floor 20%                    |       |       |     |
| Nadir   | 10° |      | 20° |      | 30° |                  | Spacing is Maximum Over Work Plane |  |       |       |     |
| FC  | FC  | Diam | FC  | Diam | FC  | Diam             | Spacing                            | RCR 1  | RCR 3 | RCR 8 |     |
| 110   | 79  | 3'   | 19  | 5'   | 2   | 9'               | 10'                                | 4'   | 140   | 128   | 107 |
| 68  | 49  | 3'   | 12  | 7'   | 2   | 11'              | 12'                                | 5'   | 87    | 80    | 67  |
| 47  | 33  | 4'   | 8   | 8'   | 1   | 13'              | 14'                                | 6'   | 59    | 54    | 46  |
| 26  | 18  | 5'   | 5   | 11'  | 1   | 18'              | 18'                                | 8'   | 33    | 30    | 25  |
| 16  | 12  | 7'   | 3   | 14'  | .4  | 23'              | 22'                                | 10'  | 21    | 19    | 16  |

| Single Unit Initial Footcandles, 30" Work Plane |     |      |     |      |     | Ceiling to Floor |                                    | Multiple Units Initial Footcandles, 30" Work Plane |       |       |     |
|---|-----|------|-----|------|-----|------------------|------------------------------------|--|-------|-------|-----|
| R7300 39W PAR-20 SP MH                          |     |      |     |      |     |                  |                                    | Ceiling 80% Walls 50% Floor 20%                    |       |       |     |
| Nadir   | 5°  |      | 10° |      | 15° |                  | Spacing is Maximum Over Work Plane |  |       |       |     |
| FC  | FC  | Diam | FC  | Diam | FC  | Diam             | Spacing                            | RCR 1  | RCR 3 | RCR 8 |     |
| 179   | 101 | 2'   | 52  | 4'   | 7   | 7'               | 15'                                | 3'   | 314   | 297   | 274 |
| 91  | 52  | 3'   | 26  | 6'   | 3   | 9'               | 20'                                | 4'   | 160   | 152   | 140 |
| 55  | 31  | 4'   | 16  | 8'   | 2   | 12'              | 25'                                | 5'   | 97    | 92    | 84  |
| 37  | 21  | 5'   | 11  | 10'  | 1   | 15'              | 30'                                | 6'   | 65    | 61    | 57  |
| 26  | 15  | 6'   | 8   | 12'  | 1   | 17'              | 35'                                | 7'   | 46    | 44    | 40  |

See notes 1 and 2.

### Candlepower Distribution



R7300 39W PAR-20 FL MH  
Eff. 71% S/M .49

R7300 39W PAR-20 SP MH  
Eff. 86% S/M .21

### Candelas

|    | 39W FL | 39W SP |
|----|--------|--------|
| o  | 2300*  | 2300*  |
| 0  | 6162   | 27951  |
| 5  | 5685   | 16021  |
| 10 | 4636   | 8497   |
| 15 | 2992   | 1141   |
| 20 | 1304   | 289    |
| 25 | 505    | 75     |
| 30 | 212    | 15     |
| 35 | 67     | 0      |
| 40 | 22     | 0      |
| 45 | 10     | 0      |
| 50 | 0      | 0      |
| 55 | 0      | 0      |
| 60 | 0      | 0      |
| 65 | 0      | 0      |
| 70 | 0      | 0      |
| 75 | 0      | 0      |
| 80 | 0      | 0      |
| 85 | 0      | 0      |
| 90 | 0      | 0      |

o Vertical Angles  
\* Initial Lamp Lumens

### Coefficients of Utilization

| Ceiling | 80%   |     |     |     | 70% |     | 50% |     | 30% |     | 0   |
|---------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|         | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  |     |
| Wall %  | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  | 0   |
| RCR     | Zonal Cavity Method - Floor Reflectance 20% |     |     |     |     |     |     |     |     |     |     |
| 1       | .83   | .82 | .80 | .79 | .80 | .78 | .77 | .75 | .75 | .73 | .70 |
| 2       | .81   | .78 | .76 | .74 | .77 | .73 | .75 | .72 | .72 | .70 | .68 |
| 3       | .78   | .75 | .72 | .70 | .74 | .69 | .72 | .68 | .70 | .67 | .65 |
| 4       | .76   | .72 | .69 | .67 | .71 | .66 | .70 | .66 | .68 | .65 | .63 |
| 5       | .73   | .69 | .66 | .64 | .69 | .64 | .67 | .63 | .66 | .63 | .61 |
| 6       | .71   | .67 | .64 | .62 | .66 | .61 | .65 | .61 | .64 | .61 | .60 |
| 7       | .69   | .65 | .62 | .60 | .64 | .59 | .63 | .59 | .63 | .59 | .58 |
| 8       | .67   | .63 | .60 | .58 | .62 | .58 | .62 | .57 | .61 | .57 | .56 |
| 9       | .66   | .61 | .58 | .56 | .61 | .56 | .60 | .56 | .59 | .55 | .55 |
| 10      | .64   | .59 | .56 | .54 | .59 | .54 | .58 | .54 | .58 | .54 | .53 |

R7300 39W PAR-20 FL MH

### Brightness

| Number | Lamps            | 85° | 75° | 65° | 55° | 45° |
|--------|------------------|-----|-----|-----|-----|-----|
| R7300  | 39W PAR-20 FL MH | 10  | 34  | 56  | 103 | 587 |
|        | 39W PAR-20 SP MH | 7   | 26  | 44  | 84  | 468 |

Data in footlamberts. Photometer readings, Maximum Brightness Method. See note 3.

### Notes

- 1 Datachart degree headings measure one side from nadir. Diameter data includes both sides. Therefore the 10° column describes a total 20° pattern diameter at the work plane above the floor. Footcandle values are at the diameter edge.
- 2 Datachart spacing is rounded off to the nearest foot.
- 3 Brightness data from the Average Luminance Method are inaccurate for downlights. They are theoretical calculations for large surfaces such as troffer lenses. We recommend the stricter standard of Maximum Brightness Method point data from direct photometer readings. They approximate what the human eye perceives when evaluating glare. For more information refer to Z section brochure Z1.
- 4 Data with a clear specular cone.
- 5 Specular colored cone multipliers: Gold x .98, Wheat x .96, Pewter x .92, Mocha x .93, Graphite x .90, Titanium x .90, Bronze x .85, Black x .68.
- 6 Softglow® cone multipliers: Clear x .96, Gold x .91, Wheat x .87, Pewter x .73, Mocha x .75, Graphite x .73, Titanium x .73, Bronze x .68, Black x .62.

| Ceiling | 80%   |     |     |     | 70% |     | 50% |     | 30% |     | 0   |
|---------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|         | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  |     |
| Wall %  | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  | 0   |
| RCR     | Zonal Cavity Method - Floor Reflectance 20% |     |     |     |     |     |     |     |     |     |     |
| 1       | .95   | .94 | .92 | .91 | .92 | .90 | .89 | .87 | .86 | .85 | .81 |
| 2       | .93   | .91 | .89 | .88 | .90 | .87 | .87 | .85 | .85 | .83 | .80 |
| 3       | .91   | .89 | .87 | .85 | .88 | .84 | .86 | .83 | .84 | .82 | .80 |
| 4       | .90   | .87 | .85 | .83 | .86 | .83 | .85 | .82 | .83 | .81 | .79 |
| 5       | .89   | .85 | .83 | .81 | .85 | .81 | .84 | .80 | .82 | .80 | .79 |
| 6       | .87   | .84 | .82 | .80 | .84 | .80 | .83 | .80 | .82 | .79 | .78 |
| 7       | .86   | .83 | .81 | .79 | .83 | .79 | .82 | .79 | .81 | .78 | .78 |
| 8       | .85   | .82 | .80 | .79 | .82 | .78 | .81 | .78 | .80 | .78 | .77 |
| 9       | .84   | .81 | .79 | .78 | .81 | .78 | .80 | .78 | .80 | .77 | .77 |
| 10      | .84   | .80 | .78 | .77 | .80 | .77 | .80 | .77 | .79 | .77 | .76 |

R7300 39W PAR-20 SP MH