



# RD Retrofit Downlight

## Round 4" & 5/6" Apertures

### Compatibility

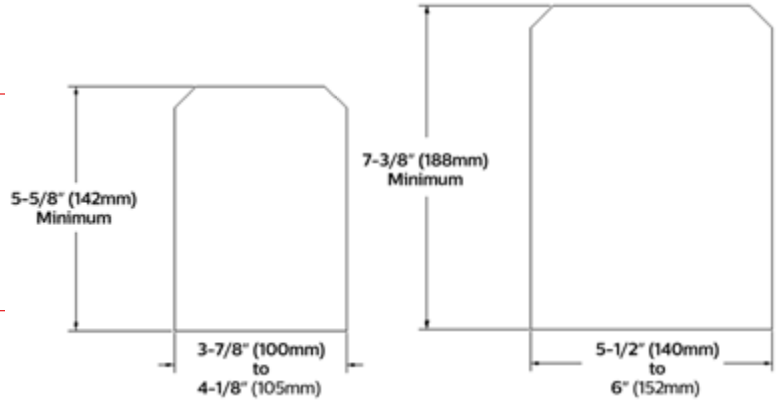
Installs into IC or Non-IC rough in sections with cylindrical recessed metal housings.

#### RD4R series

| Manufacturer | Model     |         |
|--------------|-----------|---------|
| Philips      | CP4RN     |         |
|              | CP4RR     |         |
|              | FDIC4V50  |         |
|              | P4        |         |
|              | P4R       |         |
|              | P4ASIC    |         |
|              | P4GU      |         |
|              | P4RGU     |         |
|              | R4        |         |
|              | RR4       |         |
|              | R4ASICG   |         |
|              | Halo      | H991CAT |
|              |           | H99T    |
| H99RT        |           |         |
| Seagull      | 1179      |         |
|              | 1105      |         |
| All-Pro      | E1400ATSB |         |

#### RD5R series

| Manufacturer | Model            |
|--------------|------------------|
| Philips      | CP6RN 1104IC     |
|              | CP6RR 1004IC     |
|              | CR1NBQP 1004ICN  |
|              | QL6NBQP 1004ICNQ |
|              | P6GU 1004ICNS    |
|              | P6RGU 1004ICQ    |
|              | PR75ASIC 1004ICN |
|              | PRR75ICX         |
|              | FD2IC6V90        |
|              | Halo             |
| H7RT,        |                  |
| H7ICAT,      |                  |
| H7RICAT      |                  |
| Lithonia     | L7X              |
| Juno         | IC22             |
| Progress     | P87-A1           |

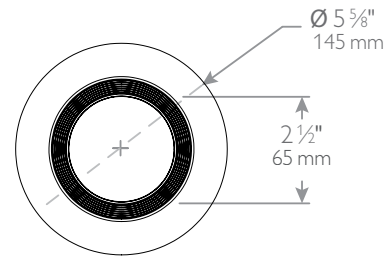
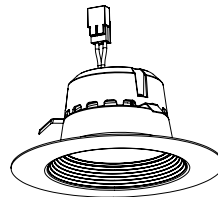
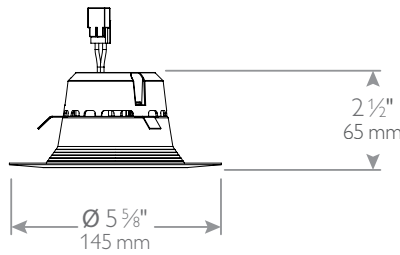


**RD4R Series**, minimum 3-7/8" (100mm) to maximum 4-1/8" (105mm) diameter and 5-5/8" (142mm) height

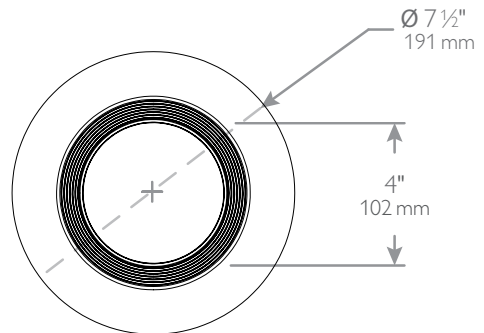
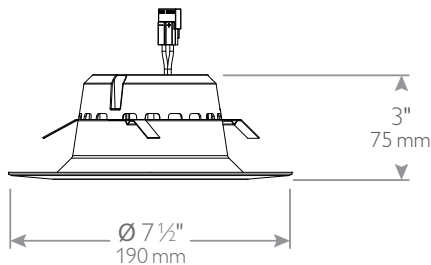
**RD5R Series**, minimum 5-1/2" (140mm) to maximum 6" (152mm) diameter and 7-3/8" (188mm) height

### Dimensions

#### Retrofit downlight 4"



#### Retrofit downlight 5/6"



# RD Retrofit Downlight

## Round 4" & 5/6" Apertures

### 4-inch, 12W, 76.4lm/W

| Candela Curve | Angle | Mean CP | Lumens |
|---------------|-------|---------|--------|
|               | 0     | 397     |        |
|               | 5     | 395     | 37     |
|               | 10    | 388     |        |
|               | 15    | 377     | 106    |
|               | 20    | 361     |        |
|               | 25    | 342     | 158    |
|               | 30    | 320     |        |
|               | 35    | 293     | 184    |
|               | 40    | 261     |        |
|               | 45    | 227     | 181    |
|               | 50    | 190     |        |
|               | 55    | 150     | 145    |
|               | 60    | 108     |        |
|               | 65    | 67      | 82     |
|               | 70    | 32      |        |
|               | 75    | 11      | 21     |
|               | 80    | 5       |        |
|               | 85    | 1       | 3      |
|               | 90    | 0       |        |

Report#: RD4R089301W

|                            |        |                    |          |
|----------------------------|--------|--------------------|----------|
| Output lumens:             | 917lms | Efficacy:          | 76.4lm/w |
| Spacing Criterion:         | 1.2    | CCT <sup>3</sup> : | 3000K    |
| Input Watts <sup>2</sup> : | 12W    | CRI:               | 90min    |

| Single unit data        |                                  |                 |
|-------------------------|----------------------------------|-----------------|
| Height to Lighted Plane | Initial center beam foot-candles | Beam dia. (ft)* |
| 5'                      | 16                               | 6.0'            |
| 6'                      | 11                               | 7.2'            |
| 7'                      | 8                                | 8.4'            |
| 8'                      | 6                                | 9.6'            |
| 9'                      | 5                                | 10.8'           |

\* Beam diameter is where foot-candles drop to 50% of maximum.

| Multiple unit data - RCR 2 |                                  |                  |
|----------------------------|----------------------------------|------------------|
| Spacing on center          | Initial center beam foot-candles | Watts per sq.ft. |
| 5'                         | 38.3                             | 0.53             |
| 6'                         | 25.2                             | 0.35             |
| 7'                         | 18.0                             | 0.25             |
| 8'                         | 15.0                             | 0.21             |
| 9'                         | 12.0                             | 0.17             |

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

| Coefficients of utilization |   |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ceiling                     | 80%   |     |     |     | 70% |     | 50% |     | 30% |     | 0%  |     |
|                             | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  | 0   |     |
| RCR                         | Zonal cavity method - Effective floor reflectance = 20% |     |     |     |     |     |     |     |     |     |     |     |
| Room Cavity Ratio           | 0   | 119 | 119 | 119 | 119 | 116 | 116 | 111 | 111 | 106 | 106 | 100 |
|                             | 1   | 111 | 107 | 103 | 100 | 104 | 98  | 100 | 95  | 96  | 92  | 87  |
|                             | 2   | 102 | 95  | 89  | 84  | 93  | 83  | 89  | 81  | 86  | 79  | 75  |
|                             | 3   | 94  | 84  | 77  | 71  | 83  | 70  | 80  | 69  | 77  | 68  | 65  |
|                             | 4   | 86  | 75  | 67  | 61  | 74  | 61  | 71  | 60  | 69  | 59  | 56  |
|                             | 5   | 79  | 68  | 59  | 53  | 66  | 53  | 64  | 52  | 63  | 52  | 49  |
|                             | 6   | 74  | 61  | 53  | 47  | 60  | 47  | 58  | 46  | 57  | 46  | 43  |
|                             | 7   | 68  | 56  | 47  | 42  | 55  | 41  | 53  | 41  | 52  | 41  | 39  |
|                             | 8   | 64  | 51  | 43  | 37  | 50  | 37  | 49  | 37  | 48  | 37  | 35  |
|                             | 9   | 60  | 47  | 39  | 34  | 46  | 34  | 45  | 33  | 44  | 33  | 31  |
|                             | 10  | 56  | 43  | 36  | 31  | 43  | 31  | 42  | 30  | 41  | 30  | 28  |

#### Zonal lumens & percentages

| Zone | Lumens | %Luminaire |
|------|--------|------------|
| 0-30 | 302    | 32.9%      |
| 0-40 | 486    | 53.0%      |
| 0-60 | 812    | 88.5%      |
| 0-90 | 917    | 100.0%     |

### 5/6-inch, 18W, 78.4lm/W

| Candela Curve | Angle | Mean CP | Lumens |
|---------------|-------|---------|--------|
|               | 0     | 564     |        |
|               | 5     | 561     | 53     |
|               | 10    | 552     |        |
|               | 15    | 538     | 152    |
|               | 20    | 517     |        |
|               | 25    | 492     | 227    |
|               | 30    | 463     |        |
|               | 35    | 429     | 270    |
|               | 40    | 390     |        |
|               | 45    | 347     | 272    |
|               | 50    | 300     |        |
|               | 55    | 250     | 232    |
|               | 60    | 197     |        |
|               | 65    | 139     | 151    |
|               | 70    | 80      |        |
|               | 75    | 30      | 49     |
|               | 80    | 8       |        |
|               | 85    | 3       | 4      |
|               | 90    | 0       |        |

Report#: RD5R129301W

|                            |         |                    |          |
|----------------------------|---------|--------------------|----------|
| Output lumens:             | 1411lms | Efficacy:          | 78.4lm/w |
| Spacing Criterion:         | 1.2     | CCT <sup>3</sup> : | 3000K    |
| Input Watts <sup>2</sup> : | 18W     | CRI:               | 90min    |

| Single unit data        |                                  |                 |
|-------------------------|----------------------------------|-----------------|
| Height to Lighted Plane | Initial center beam foot-candles | Beam dia. (ft)* |
| 5'                      | 23                               | 6.0'            |
| 6'                      | 16                               | 7.2'            |
| 7'                      | 12                               | 8.4'            |
| 8'                      | 9                                | 9.6'            |
| 9'                      | 7                                | 10.8'           |

\* Beam diameter is where foot-candles drop to 50% of maximum.

| Multiple unit data - RCR 2 |                                  |                  |
|----------------------------|----------------------------------|------------------|
| Spacing on center          | Initial center beam foot-candles | Watts per sq.ft. |
| 5'                         | 58.3                             | 0.80             |
| 6'                         | 38.3                             | 0.52             |
| 7'                         | 27.3                             | 0.37             |
| 8'                         | 22.8                             | 0.31             |
| 9'                         | 18.2                             | 0.25             |

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

| Coefficients of utilization |   |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ceiling                     | 80%   |     |     |     | 70% |     | 50% |     | 30% |     | 0%  |     |
|                             | 70  | 50  | 30  | 10  | 50  | 10  | 50  | 10  | 50  | 10  | 0   |     |
| RCR                         | Zonal cavity method - Effective floor reflectance = 20% |     |     |     |     |     |     |     |     |     |     |     |
| Room Cavity Ratio           | 0   | 119 | 119 | 119 | 119 | 116 | 116 | 111 | 111 | 106 | 106 | 100 |
|                             | 1   | 110 | 106 | 102 | 99  | 104 | 97  | 99  | 94  | 96  | 91  | 87  |
|                             | 2   | 101 | 93  | 87  | 82  | 92  | 81  | 88  | 79  | 85  | 77  | 74  |
|                             | 3   | 92  | 83  | 75  | 69  | 81  | 68  | 78  | 67  | 75  | 66  | 63  |
|                             | 4   | 85  | 74  | 65  | 59  | 72  | 58  | 70  | 58  | 67  | 57  | 54  |
|                             | 5   | 78  | 66  | 57  | 51  | 65  | 51  | 63  | 50  | 61  | 50  | 47  |
|                             | 6   | 72  | 59  | 51  | 45  | 59  | 44  | 57  | 44  | 55  | 44  | 41  |
|                             | 7   | 67  | 54  | 46  | 40  | 53  | 39  | 52  | 39  | 50  | 39  | 37  |
|                             | 8   | 62  | 49  | 41  | 35  | 49  | 35  | 47  | 35  | 46  | 35  | 33  |
|                             | 9   | 58  | 45  | 37  | 32  | 45  | 32  | 44  | 32  | 43  | 31  | 30  |
|                             | 10  | 55  | 42  | 34  | 29  | 41  | 29  | 40  | 29  | 39  | 29  | 27  |

#### Zonal lumens & percentages

| Zone | Lumens | %Luminaire |
|------|--------|------------|
| 0-30 | 433    | 30.6%      |
| 0-40 | 702    | 49.8%      |
| 0-60 | 1206   | 85.5%      |
| 0-90 | 1411   | 100.0%     |

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI\_NEMA\_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

