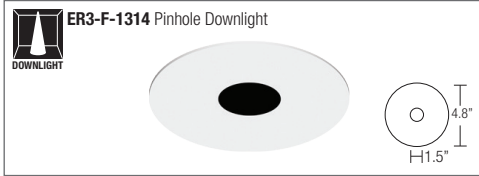
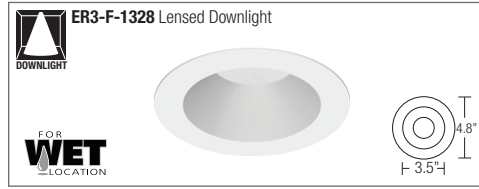
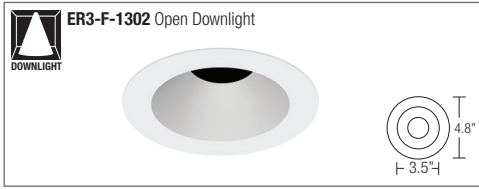


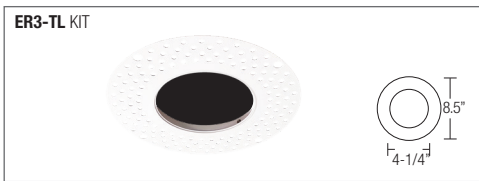




**Round Flanged Trim Options**



**Round Trim-less Options**



**FLANGED OPTION:**

Post-painted powder coated Die-Cast trim ring available in white and custom colors (Please consult factory for custom paint color options). Collar and trim rotate jointly, and a Solite frosted lens is standard on all trims (Please consult factory for additional lens options). Available in Open Downlight, Lensed Downlight, Pinhole Downlight, Slot, Adjustable Downlight Accent or Lensed Adjustable Wall Wash. Trims attach to the housing with piano springs for snug fit and zero light leakage.

**FINISH**



**WH-White**



**CL-Chrome**



**SHZ-Satin Haze**



**BK-Black**

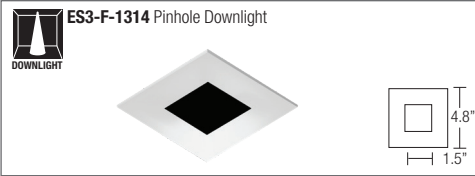
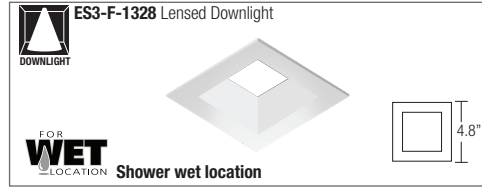
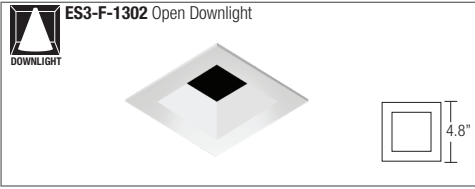
**TRIMLESS OPTION:**

Die-Cast perforated mesh cover intended for installation in drywall or plaster ceilings. Mudding may be applied right up to the edge of the luminaire opening to provide a seamless appearance. Trimless accessory is secured to the housing to prevent fractures in the ceiling and/or drywall during and after installation. Trims attach to the housing with piano springs for snug fit and zero light leakage. Available in Open Downlight, Lensed Downlight, Pinhole Downlight, Slot, Adjustable Downlight Accent or Lensed Adjustable Wall Wash.

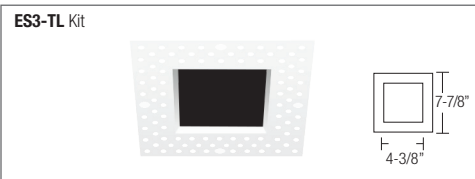
**Note:**

Additional lens filters must only be used on open non-lensed downlight trim options.

**Square Flanged Trim Options**



**Square Trim-less Options**



**FLANGED OPTION:**

Post-painted powder coated Die-Cast trim ring available in white and custom colors (Please consult factory for custom paint color options). Collar and trim rotate jointly, and a Solite frosted lens is standard on all trims (Please consult factory for additional lens options). Available in Open Downlight, Lensed Downlight, Pinhole Downlight, Slot, Adjustable Downlight Accent or Lensed Adjustable Wall Wash. Trims attach to the housing with piano springs for snug fit and zero light leakage.

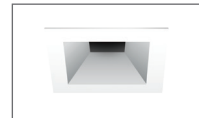
**FINISH**



**WH**-White



**CL**-Chrome



**SHZ**-Satin Haze



**BK**-Black

**TRIMLESS OPTION:**

Die-Cast perforated mesh cover intended for installation in drywall or plaster ceilings. Mudding may be applied right up to the edge of the luminaire opening to provide a seamless appearance. Trimless accessory is secured to the housing to prevent fractures in the ceiling and/or drywall during and after installation. Trims attach to the housing with piano springs for snug fit and zero light leakage. Available in Open Downlight, Lensed Downlight, Pinhole Downlight, Slot, Adjustable Downlight Accent or Lensed Adjustable Wall Wash.

**Note:**

Additional lens filters must only be used on open non-lensed downlight trim options.

## ORDERING GUIDE

| TYPE             | LUMENS                         | DIMMING                             | VOLTAGE                                     | OPTICS                            | CCT                          | CIR                          | EMERGENCY   |
|------------------|--------------------------------|-------------------------------------|---|-----------------------------------|------------------------------|------------------------------|---|
| ER3-SHAL-LED     | <input type="checkbox"/> 700L  | <input type="checkbox"/> DIM10      | <input type="checkbox"/> 120                | <input type="checkbox"/> ND (25°) | <input type="checkbox"/> 27K | <input type="checkbox"/> 90+ | <input type="checkbox"/> EMG-LED-10W  |
|                  | <input type="checkbox"/> 900L  | <input type="checkbox"/> DIMTR      | <input type="checkbox"/> 277                | <input type="checkbox"/> MD (35°) | <input type="checkbox"/> 30K | <input type="checkbox"/> 98+ | <input type="checkbox"/> EMG-LED-20W  |
| HIGH PERFORMANCE | <input type="checkbox"/> 1200L | <input type="checkbox"/> LUTH       | <input type="checkbox"/> 347                | <input type="checkbox"/> WD (50°) | <input type="checkbox"/> 35K |                              | <input type="checkbox"/> Blank-Standard bar hangers (included)                                  |
|                  | <input type="checkbox"/> 1500L | <input type="checkbox"/> LUT2W      | <input type="checkbox"/> MVOLT (DIM10 only) |                                   | <input type="checkbox"/> 40K |                              | <input type="checkbox"/> BP31 - 27" C-channel bar hangers.                                      |
|                  | <input type="checkbox"/> 2000L | <input type="checkbox"/> ELD010.1   |   |                                   | <input type="checkbox"/> 50K |                              | <input type="checkbox"/> RIF - RIF filter.  |
|                  |                                | <input type="checkbox"/> ELD0DALI.1 |   |                                   |                              |                              | <input type="checkbox"/> SF - Spray Foam suitable for insulation. (Consult factory for details) |
|                  |                                | <input type="checkbox"/> ELD0DMX.1  |   |                                   |                              |                              | <input type="checkbox"/> CP - CCEA Chicago Plenum   |
|                  |                                | <input type="checkbox"/> LUTFTB     |   |                                   |                              |                              |   |
|                  |                                |                                     |   |                                   |                              |                              |   |
|                  |                                |                                     |   |                                   |                              |                              |   |
|                  |                                |                                     |   |                                   |                              |                              |   |
|                  |                                |                                     |   |                                   |                              |                              |   |
|                  |                                |                                     |   |                                   |                              |                              |   |

- LUTFTB up to 1500L only. - LUT2W, DIMTR 120V only. - LUTH, ELD010.1, ELD0DALI.1, ELD0DMX.1 120-277V only.

## TRIM OPTIONS

### TRIM & TRIM-LESS OPTIONS

| ROUND TRIM OPTIONS   |   |  |   |
|--|---|--|---|
| TRIM OPTIONS   | FINISH  | LENS FILTERS   |   |
| <input type="checkbox"/> ER3-F-1328- Lensed Downlight ( wet Location)<br><input type="checkbox"/> ER3-F-1314** - Pinhole Downlight | <input type="checkbox"/> ER3-F-1302- Open Downlight<br><input type="checkbox"/> ER3-TL-KIT* - Kit | <input type="checkbox"/> W-WH - White<br><input type="checkbox"/> CL-WH - Chrome<br><input type="checkbox"/> SHZ-WH -Satin Haze<br><input type="checkbox"/> BK-WH -Black | <input type="checkbox"/> BP8MR16-FR - FROSTED<br><input type="checkbox"/> BP8MR16-SF - SOFT FOCUS<br><input type="checkbox"/> BP8MR16-CL - CLEAR<br><input type="checkbox"/> BP8MR16-UV - ULTRAVIOLET<br><input type="checkbox"/> 6BP8MR16-SP - SPREAD<br><input type="checkbox"/> BPmr16-HC - HONEY COMB<br><input type="checkbox"/> BPmr16-LI - LINEAR<br><input type="checkbox"/> BPmr16-SOL - SOLITE<br><br><b>Note:</b><br>Additional lens filters must only be used on open non-lensed downlight trim options |
|  |   |  | <input type="checkbox"/> BP8MR16-BL - BLUE<br><input type="checkbox"/> BP8MR16-GR - GREEN<br><input type="checkbox"/> BP8MR16-PI - PINK<br><input type="checkbox"/> BP8MR16-PU - PURPLE<br><input type="checkbox"/> BP8MR16-DL - DAY LIGHT<br><input type="checkbox"/> BP8MR16-YE - YELLOW<br><input type="checkbox"/> BP8MR16-AM - AMBER<br><input type="checkbox"/> BP8MR16-OR - ORANGE<br><input type="checkbox"/> BP8MR16-RE - RED  |

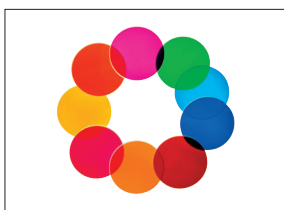
| SQUARE TRIM OPTIONS  |   |  |   |
|--|---|--|---|
| TRIM OPTIONS   | FINISH  | LENS FILTERS   |   |
| <input type="checkbox"/> ES3-F-1328- Lensed Downlight ( wet Location)<br><input type="checkbox"/> ES3-F-1314** - Pinhole Downlight | <input type="checkbox"/> ES3-F-1302- Open Downlight<br><input type="checkbox"/> ES3-TL-KIT* - Kit | <input type="checkbox"/> W-WH - White<br><input type="checkbox"/> CL-WH - Chrome<br><input type="checkbox"/> SHZ-WH -Satin Haze<br><input type="checkbox"/> BK-WH -Black | <input type="checkbox"/> BP8MR16-FR - FROSTED<br><input type="checkbox"/> BP8MR16-SF - SOFT FOCUS<br><input type="checkbox"/> BP8MR16-CL - CLEAR<br><input type="checkbox"/> BP8MR16-UV - ULTRAVIOLET<br><input type="checkbox"/> 6BP8MR16-SP - SPREAD<br><input type="checkbox"/> BPmr16-HC - HONEY COMB<br><input type="checkbox"/> BPmr16-LI - LINEAR<br><input type="checkbox"/> BPmr16-SOL - SOLITE<br><br><b>Note:</b><br>Additional lens filters must only be used on open non-lensed downlight trim options |
|  |   |  | <input type="checkbox"/> BP8MR16-BL - BLUE<br><input type="checkbox"/> BP8MR16-GR - GREEN<br><input type="checkbox"/> BP8MR16-PI - PINK<br><input type="checkbox"/> BP8MR16-PU - PURPLE<br><input type="checkbox"/> BP8MR16-DL - DAY LIGHT<br><input type="checkbox"/> BP8MR16-YE - YELLOW<br><input type="checkbox"/> BP8MR16-AM - AMBER<br><input type="checkbox"/> BP8MR16-OR - ORANGE<br><input type="checkbox"/> BP8MR16-RE - RED  |

\*Driver only accessible from the top of the luminaire when using Trim-less application

\*\*Pinhole and Slot are only available in black (Reflector) and white (Trim)

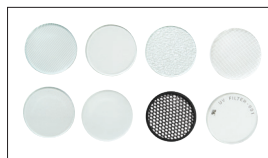
Emergency only accessible from the top of the luminaire

## COLOR FILTERS & DISTRIBUTION FILTERS



### MR16 LENS FILTER

| CAT. #     | COLOR     |
|------------|-----------|
| BP8MR16-BL | BLUE      |
| BP8MR16-GR | GREEN     |
| BP8MR16-PI | PINK      |
| BP8MR16-PU | PURPLE    |
| BP8MR16-DL | DAY LIGHT |
| BP8MR16-YE | YELLOW    |
| BP8MR16-AM | AMBER     |
| BP8MR16-OR | ORANGE    |
| BP8MR16-RE | RED       |



### MR16 SPECIALTY LENS FILTER

| CAT. #         | COLOR       |
|----------------|-------------|
| 1. BP8MR16-FR  | FROSTED     |
| 2. BP8MR16-SF  | SOFT FOCUS  |
| 3. BP8MR16-CL  | CLEAR       |
| 4. BP8MR16-UV  | ULTRAVIOLET |
| 5. 6BP8MR16-SP | SPREAD      |
| 6. BPmr16-HC   | HONEY COMB  |
| 7. BPmr16-LI   | LINEAR      |
| 8. BPmr16-SOL  | SOLITE      |

#### Note:

Additional lens filters must only be used on open non-lensed downlight trim options.

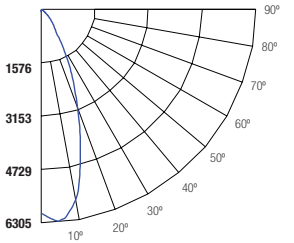
\*Please consult factory

**ER3-SHAL-LED-2000L-DIM10-MVOLT-ND-40K-90-ER3-F-1302**

TEST NO.: **EL121757**

INPUT WATTS: **26.3**      LUMENS: **2509**      CRI: **90**      EFFICACY: **95**      CCT: **4000K**      SPACING CRITERIA: **0.58**

**Candle Power Distribution (Candelas)**



**Zonal Lumens Summary**

| Zone | Lumens  | %Lamp  | %Fixt  |
|------|---------|--------|--------|
| 0-20 | 1407.33 | 56.10  | 56.10  |
| 0-30 | 2069.01 | 82.50  | 82.50  |
| 0-40 | 2311.85 | 92.20  | 92.20  |
| 0-60 | 2443.04 | 97.40  | 97.40  |
| 0-80 | 2500.48 | 99.70  | 99.70  |
| 0-90 | 2508.64 | 100.00 | 100.00 |

**Luminance (Average candela/M<sup>2</sup>)**

| Angle in Degrees | Average |       |       |
|------------------|---------|-------|-------|
|                  | 0°      | 45°   | 90°   |
| 45               | 17904   | 22527 | 97615 |
| 55               | 18517   | 17230 | 16554 |
| 65               | 18262   | 16858 | 15940 |
| 75               | 17589   | 16429 | 15955 |
| 85               | 16364   | 19229 | 19204 |

**Lumens Per Zone**

| Zone  | Lumens |
|-------|--------|
| 0-10  | 494.96 |
| 10-20 | 912.37 |
| 20-30 | 661.68 |
| 30-40 | 242.83 |
| 40-50 | 87.20  |
| 50-60 | 43.99  |
| 60-70 | 35.07  |
| 70-80 | 22.36  |
| 80-90 | 8.17   |

**Candela Tabulation**

| Q  |         |     |
|----|---------|-----|
| 0  | 6066.90 | 100 |
| 5  | 5971.79 | 94  |
| 15 | 3718.82 | 83  |
| 25 | 1673.64 | 75  |
| 35 | 349.66  | 65  |
| 45 | 57.79   | 55  |
| 55 | 48.48   | 45  |
| 65 | 35.23   | 35  |
| 75 | 20.78   | 25  |
| 85 | 6.51    | 15  |
| 90 | 0.18    | 5   |

**Cone of Light**

| 2  | 1517 | 1.1 | 1.1 |
|----|------|-----|-----|
| 4  | 379  | 2.3 | 2.3 |
| 6  | 169  | 3.4 | 3.4 |
| 8  | 94.8 | 4.5 | 4.6 |
| 10 | 60.7 | 5.6 | 5.7 |
| 12 | 42.1 | 6.8 | 6.9 |

(FT.) Distance to Plane      (FC.) Initial Footcandle at Nadir      (FT.) Beam Vert. Spread      (FT.) Beam Horiz. Spread  
BEAM DIA. MEASURED AT 50% OF NADIR F.C.

**Coefficients of Utilization - Zonal Cavity Method**  
Effective Floor Cavity Reflectance 0.20

| RC                | 80% |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     | 10% |     |     |     | 0%  |     |     |     |     |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% |
| ROOM CAVITY RATIO | 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1                 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 105 | 103 | 102 | 101 | 101 | 100 | 99  | 98  | 97  | 96  | 95  | 94  | 94  | 94  | 94  |     |
| 2                 | 109 | 104 | 100 | 97  | 106 | 102 | 99  | 96  | 96  | 94  | 92  | 90  | 89  | 88  | 87  | 86  | 84  | 83  | 82  | 80  | 79  | 78  | 77  | 76  |     |
| 3                 | 104 | 98  | 93  | 90  | 102 | 97  | 92  | 89  | 89  | 87  | 85  | 83  | 82  | 81  | 80  | 79  | 78  | 77  | 76  | 74  | 73  | 72  | 71  | 70  |     |
| 4                 | 99  | 93  | 88  | 84  | 98  | 93  | 87  | 83  | 83  | 81  | 79  | 78  | 77  | 76  | 75  | 74  | 73  | 72  | 71  | 70  | 69  | 68  | 67  | 66  |     |
| 5                 | 95  | 88  | 82  | 79  | 94  | 87  | 82  | 78  | 85  | 81  | 78  | 76  | 75  | 74  | 73  | 72  | 71  | 70  | 69  | 68  | 67  | 66  | 65  | 64  |     |
| 6                 | 91  | 83  | 78  | 74  | 90  | 83  | 78  | 74  | 81  | 77  | 73  | 70  | 70  | 69  | 68  | 67  | 66  | 65  | 64  | 63  | 62  | 61  | 60  | 59  |     |
| 7                 | 88  | 79  | 74  | 70  | 86  | 79  | 74  | 70  | 78  | 73  | 70  | 67  | 67  | 66  | 65  | 64  | 63  | 62  | 61  | 60  | 59  | 58  | 57  | 56  |     |
| 8                 | 84  | 76  | 71  | 67  | 83  | 75  | 70  | 67  | 74  | 70  | 67  | 64  | 64  | 63  | 62  | 61  | 60  | 59  | 58  | 57  | 56  | 55  | 54  | 53  |     |
| 9                 | 81  | 73  | 67  | 64  | 80  | 72  | 67  | 64  | 71  | 67  | 64  | 61  | 61  | 60  | 59  | 58  | 57  | 56  | 55  | 54  | 53  | 52  | 51  | 50  |     |
| 10                | 78  | 70  | 65  | 61  | 77  | 69  | 64  | 61  | 69  | 64  | 61  | 58  | 58  | 57  | 56  | 55  | 54  | 53  | 52  | 51  | 50  | 49  | 48  | 47  |     |

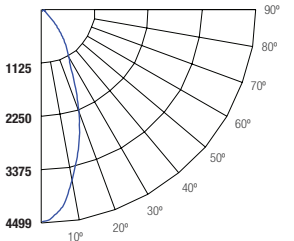
RC - Ceiling Cavity Reflectance      RW - Wall Reflectance

**ER3-SHAL-LED-2000L-DIM10-MVOLT-MD-40K-90-ER3-F-1302**

TEST NO.: **EL121860**

INPUT WATTS: **26.1**      LUMENS: **2344**      CRI: **90**      EFFICACY: **90**      CCT: **4000K**      SPACING CRITERIA: **0.68**

**Candle Power Distribution (Candelas)**



**Zonal Lumens Summary**

| Zone | Lumens  | %Lamp  | %Fixt  |
|------|---------|--------|--------|
| 0-20 | 1193.19 | 50.90  | 50.90  |
| 0-30 | 1883.1  | 80.40  | 80.40  |
| 0-40 | 2140.51 | 91.30  | 91.30  |
| 0-60 | 2277.2  | 97.20  | 97.20  |
| 0-80 | 2335.52 | 99.70  | 99.70  |
| 0-90 | 2343.61 | 100.00 | 100.00 |

**Luminance (Average candela/M<sup>2</sup>)**

| Angle in Degrees | Average |       |        |
|------------------|---------|-------|--------|
|                  | 0°      | 45°   | 90°    |
| 45               | 17982   | 20863 | 114503 |
| 55               | 18895   | 16794 | 16294  |
| 65               | 18314   | 16438 | 15826  |
| 75               | 17183   | 15972 | 15913  |
| 85               | 13951   | 18425 | 18802  |

**Lumens Per Zone**

| Zone  | Lumens |
|-------|--------|
| 0-10  | 380.02 |
| 10-20 | 813.17 |
| 20-30 | 689.91 |
| 30-40 | 257.42 |
| 40-50 | 91.85  |
| 50-60 | 44.84  |
| 60-70 | 35.65  |
| 70-80 | 22.67  |
| 80-90 | 8.09   |

**Candela Tabulation**

| Q  |         |     |
|----|---------|-----|
| 0  | 4395.00 | 100 |
| 5  | 4228.22 | 94  |
| 15 | 3047.97 | 83  |
| 25 | 1638.42 | 75  |
| 35 | 256.84  | 65  |
| 45 | 58.04   | 55  |
| 55 | 49.47   | 45  |
| 65 | 35.33   | 35  |
| 75 | 20.30   | 25  |
| 85 | 5.55    | 15  |
| 90 | 0.18    | 5   |

**Cone of Light**

| 2  | 1099 | 1.5 | 1.5 |
|----|------|-----|-----|
| 4  | 275  | 2.9 | 2.9 |
| 6  | 122  | 4.4 | 4.4 |
| 8  | 68.7 | 5.9 | 5.8 |
| 10 | 44   | 7.4 | 7.3 |
| 12 | 30.5 | 8.8 | 8.8 |

(FT.) Distance to Plane      (FC.) Initial Footcandle at Nadir      (FT.) Beam Vert. Spread      (FT.) Beam Horiz. Spread  
BEAM DIA. MEASURED AT 50% OF NADIR F.C.

**Coefficients of Utilization - Zonal Cavity Method**  
Effective Floor Cavity Reflectance 0.20

| RC                | 80% |     |     |     | 70% |     |     |     | 50% |     |     |     | 30% |     |     |     | 10% |     |     |     | 0%  |     |     |     |     |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% |
| ROOM CAVITY RATIO | 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1                 | 114 | 111 | 108 | 106 | 111 | 109 | 106 | 104 | 104 | 105 | 103 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 94  | 94  | 94  | 94  | 94  | 94  | 94  |
| 2                 | 108 | 103 | 100 | 96  | 106 | 102 | 98  | 95  | 96  | 96  | 93  | 91  | 91  | 90  | 89  | 88  | 87  | 86  | 85  | 84  | 83  | 82  | 81  | 80  | 79  |
| 3                 | 103 | 97  | 92  | 88  | 101 | 96  | 91  | 88  | 89  | 89  | 86  | 84  | 84  | 83  | 82  | 81  | 80  | 79  | 78  | 77  | 76  | 75  | 74  | 73  | 72  |
| 4                 | 99  | 91  | 86  | 82  | 97  | 90  | 85  | 82  | 88  | 84  | 81  | 79  | 78  | 77  | 76  | 75  | 74  | 73  | 72  | 71  | 70  | 69  | 68  | 67  | 66  |
| 5                 | 94  | 86  | 81  | 77  | 93  | 85  | 80  | 76  | 84  | 79  | 76  | 74  | 73  | 72  | 71  | 70  | 69  | 68  | 67  | 66  | 65  | 64  | 63  | 62  | 61  |
| 6                 | 90  | 82  | 76  | 72  | 89  | 81  | 76  | 72  | 79  | 75  | 71  | 70  | 69  | 68  | 67  | 66  | 65  | 64  | 63  | 62  | 61  | 60  | 59  | 58  | 57  |
| 7                 | 86  | 78  | 72  | 68  | 85  | 77  | 72  | 68  | 78  | 73  | 70  | 68  | 67  | 66  | 65  | 64  | 63  | 62  | 61  | 60  | 59  | 58  | 57  | 56  | 55  |
| 8                 | 83  | 74  | 68  | 65  | 81  | 73  | 68  | 64  | 72  | 67  | 64  | 61  | 61  | 60  | 59  | 58  | 57  | 56  | 55  | 54  | 53  | 52  | 51  | 50  | 49  |
| 9                 | 79  | 70  | 65  | 61  | 78  | 70  | 65  | 61  | 69  | 64  | 61  | 58  | 58  | 57  | 56  | 55  | 54  | 53  | 52  | 51  | 50  | 49  | 48  | 47  | 46  |
| 10                | 76  | 67  | 62  | 58  | 75  | 67  | 62  | 58  | 66  | 61  | 58  | 55  | 55  | 54  | 53  | 52  | 51  | 50  | 49  | 48  | 47  | 46  | 45  | 44  | 43  |

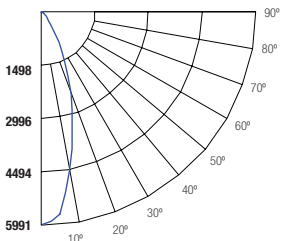
RC - Ceiling Cavity Reflectance      RW - Wall Reflectance

**ER3-SHAL-LED-2000L-DIM10-MVOLT-WD-40K-90-ER3-F-1302**

TEST NO.: **EL121863**

INPUT WATTS: **26.1**      LUMENS: **2470**      CRI: **90**      EFFICACY: **95**      CCT: **4000K**      SPACING CRITERIA: **0.60**

**Candle Power Distribution (Candelas)**



**Zonal Lumens Summary**

| Zone | Lumens  | %Lamp  | %Fixt  |
|------|---------|--------|--------|
| 0-20 | 1360.3  | 55.30  | 55.10  |
| 0-30 | 2024.81 | 82.30  | 82.00  |
| 0-40 | 2272.76 | 92.40  | 92.00  |
| 0-60 | 2405.25 | 97.80  | 97.40  |
| 0-80 | 2461.81 | 100.10 | 99.70  |
| 0-90 | 2469.64 | 100.40 | 100.00 |

**Luminance (Average candela/M<sup>2</sup>)**

| Angle in Degrees | Average |       |       |
|------------------|---------|-------|-------|
|                  | 0°      | 45°   | 90°   |
| 45               | 45342   | 18162 | 17824 |
| 55               | 19143   | 19093 | 18666 |
| 65               | 18988   | 19335 | 18511 |
| 75               | 19045   | 18376 | 17174 |
| 85               | 19380   | 18299 | 7164  |

**Lumens Per Zone**

| Zone  | Lumens |
|-------|--------|
| 0-10  | 470.29 |
| 10-20 | 890.00 |
| 20-30 | 664.52 |
| 30-40 | 247.95 |
| 40-50 | 88.70  |
| 50-60 | 43.79  |
| 60-70 | 34.60  |
| 70-80 | 21.95  |
| 80-90 | 7.83   |

**Candela Tabulation**

| Q  |         |     |
|----|---------|-----|
| 0  | 5714.33 | 100 |
| 5  | 4547.50 | 94  |
| 15 | 2450.90 | 83  |
| 25 | 976.82  | 75  |
| 35 | 325.32  | 65  |
| 45 | 146.35  | 55  |
| 55 | 50.12   | 45  |
| 65 | 36.63   | 35  |
| 75 | 22.50   | 25  |
| 85 | 7.71    | 15  |
| 90 | 0.31    | 5   |

**Cone of Light**

| 2  | 1429 | 1.2 | 1.2 |
|----|------|-----|-----|
| 4  | 357  | 2.3 | 2.3 |
| 6  | 159  | 3.5 | 3.5 |
| 8  | 89.3 | 4.7 | 4.6 |
| 10 | 57.1 | 5.9 | 5.8 |
| 12 | 39.7 | 7   | 6.9 |

(FT.) Distance to Plane      (FC.) Initial Footcandle at Nadir      (FT.) Beam Vert. Spread      (FT.) Beam Horiz. Spread  
BEAM DIA. MEASURED AT 50% OF NADIR F.C.

**Coefficients of Utilization - Zonal Cavity Method**  
Effective Floor Cavity Reflectance 0.20

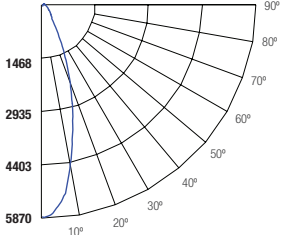
| RC | 80% |     |     |     | 70% |     |     |     | 50% |  |  |  | 30% |  |  |  | 10% |  |  |  | 0% |  |  |  |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|-----|--|--|--|-----|--|--|--|----|--|--|--|
|    | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% |     |  |  |  |     |  |  |  |     |  |  |  |    |  |  |  |

## ER3-SHAL-LED-2000L-DIM10-MVOLT-ND-40K-90-ES3-F-1302

TEST NO.: **EL121859**

INPUT WATTS: **26**    LUMENS: **2074**    CRI: **90**    EFFICACY: **80**    CCT: **4000K**    SPACING CRITERIA: **0.58**

### Candle Power Distribution (Candelas)



### Zonal Lumens Summary

| Zone | Lumens  | %Lamp  | %Fixt  |
|------|---------|--------|--------|
| 0-20 | 1328.27 | 64.00  | 64.00  |
| 0-30 | 1859.75 | 89.70  | 89.70  |
| 0-40 | 1978.49 | 95.40  | 95.40  |
| 0-60 | 2044.3  | 98.60  | 98.60  |
| 0-80 | 2070.39 | 99.80  | 99.80  |
| 0-90 | 2074.13 | 100.00 | 100.00 |

### Luminance (Average candela/M²)

| Angle in Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45               | 8402       | 10983       | 44171       |
| 55               | 9606       | 8659        | 8514        |
| 65               | 7988       | 8196        | 7781        |
| 75               | 6281       | 6848        | 7584        |
| 85               | 4550       | 9175        | 10381       |

### Lumens Per Zone

| Zone  | Lumens |
|-------|--------|
| 0-10  | 466.98 |
| 10-20 | 861.28 |
| 20-30 | 531.48 |
| 30-40 | 118.74 |
| 40-50 | 43.23  |
| 50-60 | 22.58  |
| 60-70 | 16.59  |
| 70-80 | 9.50   |
| 80-90 | 3.74   |

### Candela Tabulation

| Q  |         |
|----|---------|
| 0  | 5672.78 |
| 5  | 5588.30 |
| 15 | 3470.81 |
| 25 | 1070.95 |
| 35 | 49.27   |
| 45 | 27.12   |
| 55 | 25.15   |
| 65 | 15.41   |
| 75 | 7.42    |
| 85 | 1.81    |
| 90 | 0.10    |

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

| ROOM CAVITY RATIO | RC RW | 80% |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0%  |     |     |
|-------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   |       | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% |     |
| 0                 | 0     | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1                 | 1     | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  |
| 2                 | 2     | 110 | 105 | 102 | 99  | 108 | 104 | 101 | 98  | 101 | 98  | 96  | 98  | 96  | 94  | 95  | 93  | 92  | 90  |
| 3                 | 3     | 105 | 100 | 96  | 92  | 103 | 99  | 95  | 92  | 96  | 93  | 90  | 94  | 91  | 89  | 91  | 89  | 87  | 86  |
| 4                 | 4     | 101 | 95  | 90  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 85  | 90  | 87  | 84  | 88  | 86  | 83  | 82  |
| 5                 | 5     | 97  | 91  | 86  | 82  | 96  | 90  | 85  | 82  | 88  | 84  | 81  | 86  | 83  | 80  | 85  | 82  | 80  | 78  |
| 6                 | 6     | 94  | 87  | 82  | 78  | 93  | 86  | 81  | 78  | 84  | 80  | 77  | 83  | 80  | 77  | 82  | 79  | 76  | 75  |
| 7                 | 7     | 90  | 83  | 78  | 75  | 89  | 82  | 78  | 74  | 81  | 77  | 74  | 80  | 76  | 74  | 79  | 76  | 73  | 72  |
| 8                 | 8     | 87  | 80  | 75  | 71  | 86  | 79  | 74  | 71  | 78  | 74  | 71  | 77  | 73  | 71  | 76  | 73  | 70  | 69  |
| 9                 | 9     | 84  | 76  | 72  | 68  | 83  | 76  | 71  | 68  | 75  | 71  | 68  | 74  | 71  | 68  | 74  | 70  | 68  | 67  |
| 10                | 10    | 82  | 74  | 69  | 66  | 81  | 73  | 69  | 66  | 73  | 68  | 66  | 72  | 68  | 65  | 71  | 68  | 65  | 64  |

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

### Cone of Light

| Beam Spread (°) | Beam Diameter (in) |
|-----------------|--------------------|
| 2               | 1.1                |
| 4               | 2.3                |
| 6               | 3.4                |
| 8               | 4.6                |
| 10              | 5.7                |
| 12              | 6.8                |

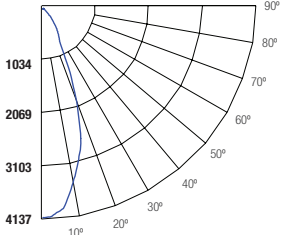
BEAM DIA. MEASURED AT 50% OF NADIR F.C.

## ER3-SHAL-LED-2000L-DIM10-MVOLT-MD-40K-90-ES3-F-1302

TEST NO.: **EL121862**

INPUT WATTS: **26**    LUMENS: **1936**    CRI: **90**    EFFICACY: **74**    CCT: **4000K**    SPACING CRITERIA: **0.68**

### Candle Power Distribution (Candelas)



### Zonal Lumens Summary

| Zone | Lumens  | %Lamp  | %Fixt  |
|------|---------|--------|--------|
| 0-20 | 1116.62 | 57.70  | 57.70  |
| 0-30 | 1680.2  | 86.80  | 86.80  |
| 0-40 | 1828.04 | 94.40  | 94.40  |
| 0-60 | 1905.32 | 98.40  | 98.40  |
| 0-80 | 1932.74 | 99.80  | 99.80  |
| 0-90 | 1936.34 | 100.00 | 100.00 |

### Luminance (Average candela/M²)

| Angle in Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45               | 9508       | 12932       | 64160       |
| 55               | 11096      | 9419        | 8372        |
| 65               | 10005      | 9092        | 7703        |
| 75               | 8109       | 7948        | 7508        |
| 85               | 6912       | 9929        | 9904        |

### Lumens Per Zone

| Zone  | Lumens |
|-------|--------|
| 0-10  | 353.34 |
| 10-20 | 763.28 |
| 20-30 | 563.58 |
| 30-40 | 147.84 |
| 40-50 | 53.03  |
| 50-60 | 24.24  |
| 60-70 | 17.57  |
| 70-80 | 9.85   |
| 80-90 | 3.60   |

### Candela Tabulation

| Q  |         |
|----|---------|
| 0  | 4025.20 |
| 5  | 3908.31 |
| 15 | 2830.58 |
| 25 | 1106.38 |
| 35 | 61.04   |
| 45 | 30.69   |
| 55 | 29.05   |
| 65 | 19.30   |
| 75 | 9.58    |
| 85 | 2.75    |
| 90 | 0.09    |

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

| ROOM CAVITY RATIO | RC RW | 80% |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0%  |     |     |
|-------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   |       | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% |     |
| 0                 | 0     | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1                 | 1     | 114 | 111 | 109 | 107 | 112 | 109 | 107 | 105 | 105 | 104 | 102 | 102 | 100 | 99  | 98  | 97  | 96  | 95  |
| 2                 | 2     | 109 | 105 | 101 | 98  | 107 | 103 | 100 | 97  | 100 | 97  | 95  | 97  | 95  | 93  | 94  | 92  | 91  | 89  |
| 3                 | 3     | 105 | 99  | 94  | 91  | 103 | 97  | 93  | 90  | 95  | 91  | 89  | 92  | 90  | 87  | 90  | 88  | 86  | 85  |
| 4                 | 4     | 100 | 93  | 89  | 85  | 98  | 92  | 88  | 84  | 90  | 86  | 83  | 88  | 85  | 82  | 87  | 84  | 82  | 80  |
| 5                 | 5     | 96  | 89  | 84  | 80  | 95  | 88  | 83  | 80  | 86  | 82  | 79  | 85  | 81  | 78  | 83  | 80  | 78  | 76  |
| 6                 | 6     | 92  | 84  | 79  | 76  | 91  | 84  | 79  | 75  | 82  | 78  | 75  | 81  | 77  | 74  | 80  | 76  | 74  | 73  |
| 7                 | 7     | 89  | 81  | 75  | 72  | 87  | 80  | 75  | 72  | 79  | 74  | 71  | 78  | 74  | 71  | 77  | 73  | 70  | 69  |
| 8                 | 8     | 85  | 77  | 72  | 68  | 84  | 76  | 72  | 68  | 75  | 71  | 68  | 74  | 70  | 68  | 74  | 70  | 67  | 66  |
| 9                 | 9     | 82  | 74  | 69  | 65  | 81  | 73  | 68  | 65  | 72  | 68  | 65  | 72  | 68  | 65  | 71  | 67  | 64  | 63  |
| 10                | 10    | 79  | 71  | 66  | 62  | 78  | 70  | 65  | 62  | 70  | 65  | 62  | 69  | 65  | 62  | 68  | 64  | 62  | 61  |

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

### Cone of Light

| Beam Spread (°) | Beam Diameter (in) |
|-----------------|--------------------|
| 2               | 1.4                |
| 4               | 2.9                |
| 6               | 4.3                |
| 8               | 5.6                |
| 10              | 7.0                |
| 12              | 8.4                |

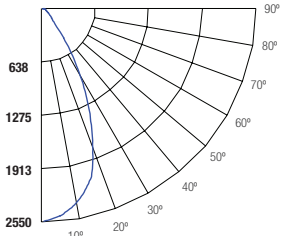
BEAM DIA. MEASURED AT 50% OF NADIR F.C.

## ER3-SHAL-LED-2000L-DIM10-MVOLT-WD-40K-90-ES3-F-1302

TEST NO.: **EL121867**

INPUT WATTS: **27**    LUMENS: **1692**    CRI: **90**    EFFICACY: **63**    CCT: **4000K**    SPACING CRITERIA: **0.80**

### Candle Power Distribution (Candelas)



### Zonal Lumens Summary

| Zone | Lumens  | %Lamp  | %Fixt  |
|------|---------|--------|--------|
| 0-20 | 808.64  | 47.80  | 47.80  |
| 0-30 | 1349.9  | 79.80  | 79.80  |
| 0-40 | 1559.85 | 92.20  | 92.20  |
| 0-60 | 1658.36 | 98.00  | 98.00  |
| 0-80 | 1688.23 | 99.80  | 99.80  |
| 0-90 | 1692.03 | 100.00 | 100.00 |

### Luminance (Average candela/M²)

| Angle in Degrees | Average 0° | Average 45° | Average 90° |
|------------------|------------|-------------|-------------|
| 45               | 11377      | 33907       | 69316       |
| 55               | 13406      | 12302       | 9098        |
| 65               | 12140      | 10720       | 8418        |
| 75               | 9836       | 9269        | 8143        |
| 85               | 8320       | 10758       | 9954        |

### Lumens Per Zone

| Zone  | Lumens |
|-------|--------|
| 0-10  | 230.88 |
| 10-20 | 577.77 |
| 20-30 | 541.26 |
| 30-40 | 209.95 |
| 40-50 | 71.64  |
| 50-60 | 26.87  |
| 60-70 | 19.11  |
| 70-80 | 10.75  |
| 80-90 | 3.80   |

### Candela Tabulation

| Q  |         |
|----|---------|
| 0  | 2485.95 |
| 5  | 2420.52 |
| 15 | 1972.34 |
| 25 | 869.97  |
| 35 | 219.53  |
| 45 | 36.72   |
| 55 | 35.10   |
| 65 | 23.42   |
| 75 | 11.62   |
| 85 | 3.31    |
| 90 | 0.08    |

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

| ROOM CAVITY RATIO | RC RW | 80% |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0%  |     |     |
|-------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   |       | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% |     |
| 0                 | 0     | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1                 | 1     | 114 | 111 | 108 | 106 | 111 | 109 | 107 | 105 | 105 | 103 | 101 | 101 | 100 | 98  | 98  | 96  | 95  | 94  |
| 2                 | 2     | 108 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 99  | 96  | 93  | 96  | 93  | 91  | 93  | 91  | 89  | 88  |
| 3                 | 3     | 103 | 97  | 92  | 88  | 101 | 96  | 91  | 88  | 93  | 89  | 86  | 91  | 88  | 85  | 88  | 86  | 84  | 82  |
| 4                 | 4     | 98  | 91  | 86  | 82  | 97  | 90  | 85  | 81  | 88  | 84  | 80  | 86  | 82  | 79  | 84  | 81  | 79  | 77  |
| 5                 | 5     | 94  | 86  | 80  | 76  | 92  | 8   |     |     |     |     |     |     |     |     |     |     |     |     |

1- Luminaire will be shipped with Powerpacks pre-installed, ready to be integrated to designated control systems

2- Luminaire will be shipped with Sensors installed on the luminaire, allowing for individual luminaire control. Luminaires will be ready to be integrated with designated control systems

3- Luminaire will be shipped with Sensors to be remotely installed on the ceiling. Luminaires will be ready to be integrated with designated control systems

| BRAND  | EASYFIT<br>by EnOcean  | LUTRON  | enlighted   | LEVITON  | OSRAM   | PHILIPS<br>EasySense   | legrand®   |
|--|--|---|---|--|---|--|--|
| CONTROL UNIT                                   | <input type="checkbox"/> LEDRU<br>LED Relay Zone<br>Controller 0-10V <sup>1</sup>  | <input type="checkbox"/> FCJS-010<br>Lutron Vive 0-10V Individual<br>Pow Pak (Luminare is<br>shipped Vive Enabled) <sup>14</sup>  | <input type="checkbox"/> CU-4E-FMH<br>Fixture Mount Control<br>Unit <sup>15</sup>   | <input type="checkbox"/> ZL027 –NOW<br>Intellect Power Control<br>Module <sup>16</sup>   | <input type="checkbox"/> EN-WCM2-ZB-DR<br>Wireless Control Module <sup>17</sup>   | <input type="checkbox"/> SBR -BS<br>Xtanium SR<br>Bridge <sup>18</sup>         | <input type="checkbox"/> LMFC-011<br>ON/OFF/0-10V dimming<br>fixture controller <sup>19</sup>                            |
|  | <input type="checkbox"/> LEDDU<br>LED Zone Controller<br>0-10V <sup>1</sup>  | <input type="checkbox"/> FCJS-ECO<br>Lutron Vive Eco-system Pow<br>Pak (Luminare is shipped Vive<br>Enabled) <sup>14</sup>  |   | <input type="checkbox"/> ZL027 –NOW<br>Intellect Power Control<br>Module <sup>16</sup>   | <input type="checkbox"/> EN- ALC-ZB-BK-DR<br>Wireless Area Lighting<br>Control Module <sup>17</sup>   |  |  |
| INTEGRAT<br>SENSOR                             | N/A  | N/A   | N/A   | N/A  | N/A   | N/A  | N/A  |
| *WIRELESS<br>OCCUPANCY<br>SENSOR               | <input type="checkbox"/> EOSCU-W-EO<br>Occupancy Sensor<br>- Ceiling Mounted<br>(Must be specified<br>with LEDRU or<br>LEDDU control<br>unit) <sup>3</sup>   | N/A   | N/A   | N/A  | N/A   | N/A  | <input type="checkbox"/> LMDC-100<br>Dual technology PIR<br>Ceiling Mount Occupancy<br>Sensor <sup>3</sup>               |
| *WIRELESS<br>DAYLIGHT<br>SENSOR                | <input type="checkbox"/> ELLSU-W-EO<br>Light Level Sensor -<br>Ceiling Mounted<br>(Must be specified<br>with LEDRU or<br>LEDDU control<br>unit) <sup>3</sup> | N/A   | N/A   | N/A  | N/A   | N/A  | <input type="checkbox"/> LMLS-400<br>Single zone switching<br>and dimming digital<br>photosensor <sup>3</sup>            |
| *WIRELESS<br>OCCUPANCY<br>& DAYLIGHT<br>SENSOR | N/A  | N/A   | <input type="checkbox"/> SU-5E-IoT<br>IoT Node Micro Sensor <sup>3</sup><br><input type="checkbox"/> SU-5E-CL<br>Connected Lighting<br>Micro Sensor <sup>3</sup><br><input type="checkbox"/> SU-5E-IL<br>Independent Lighting /<br>Enlightened One Micro<br>Sensor <sup>3</sup><br><input type="checkbox"/> SU-5S-H-(IoT/CL/IL)<br>Surface Mount Sensor <sup>3</sup><br><br>(Must be specified with CU-<br>4E-FMH Control Unit) | <input type="checkbox"/> ZL00J -TOW<br>Intellect Intelligent Fixture<br>Control System <sup>3</sup><br><br>(Must be specified with<br>ZL027 –NOW Control Unit) | <input type="checkbox"/> EN-CLM-PIR-DD-ZB<br>SensiLUM™ Wireless<br>Integrated Sensor<br><input type="checkbox"/> EN-SCPPH-1500-ZB<br>Wireless Passive Infrared<br>Occupancy and Photo<br>Sensors <sup>3</sup><br><br>(Must be specified with<br>EN-WCM2-ZB-DR or EN-<br>ALC-ZB-BK-DR Control<br>Unit) | <input type="checkbox"/> SNS200-<br>CMP<br>SNS200 for<br>grouping <sup>3</sup> | N/A  |
| ACCESORIES                                     | N/A  | N/A   | <input type="checkbox"/> TMC-SU-5E<br>Tile Mount Carrier<br><input type="checkbox"/> CBL-5E-CU4-30N<br>30 inch Sensor Cable for<br>CU-4 and IoT Ready™<br>drivers<br><input type="checkbox"/> CBL-5E-CU4-7F<br>7 foot Sensor Cable for<br>CU-4 and IoT Ready™<br>drivers  | N/A  | N/A   | N/A  | N/A  |
| NOTES  | N/A  | 4- Luminaire will be compatible with Lutron LRF2-OCR2B-P-WH Ceiling mount 360° occupancy/vacancy sensor & LRF2-DCRB-WH Ceiling-mount daylight sensor. Sensors must be ordered through Lutron. | 5- Luminaire will be compatible with ENLIGHTED SU-5E-IoT, SU-5E-CL, SU-5E-IL, SU-5S-H, Sensors.   | 6-Luminaire will be compatible with Leviton Intellect App & Keypad Room Controller   | 7-Luminaire will be compatible with EN-SCPPH-1500-ZB Wireless Passive Infrared Occupancy and Photo Sensors  | 8-Luminaire will be compatible with Philips field and wireless switch.         | 9-Luminaire will be compatible with DLM Room control system LMPB-100. DLM control system must be orderd through Legrand. |