

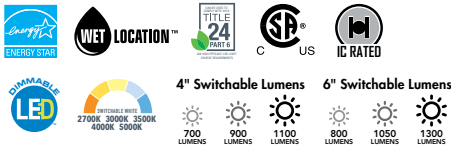


# Juno Wafer™ LED Downlight Series

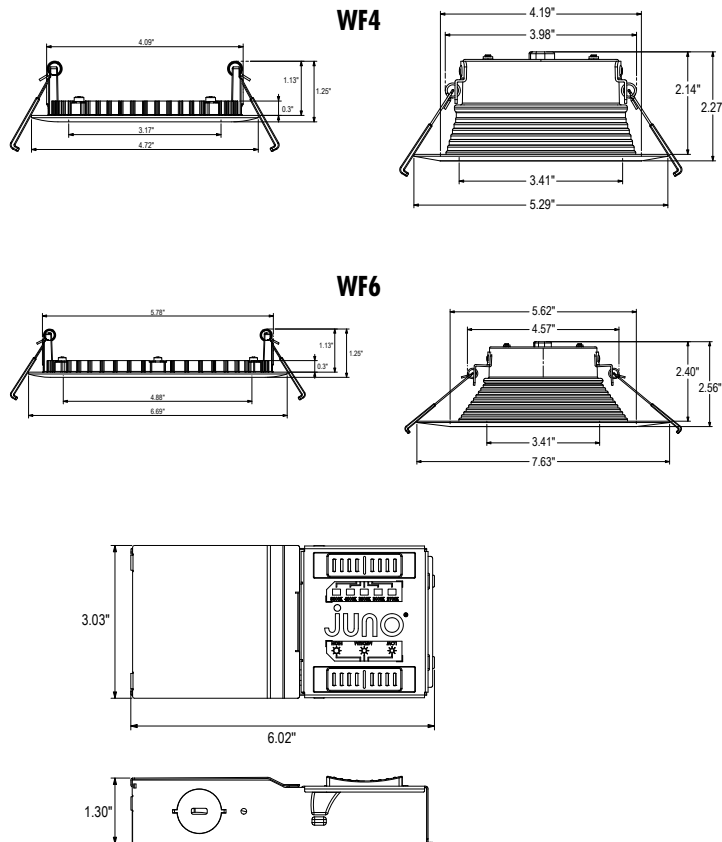
4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

|                |
|----------------|
| Project:       |
| Fixture Type:  |
| Location:      |
| Contact/Phone: |

## WF4 & WF6 SWW5 + ALO Series



### Dimensions



### Product Features

The 4" & 6" flat and deep regressed with 5CCT Switchable White and ALO technology wafers provide high-quality light output and efficiency while delivering industry leading technology and functionality without the need for a recessed housing.

- Next-generation optical technology and design enable precise, even illumination where needed
- Canless - no can required; equals easy to install and less labor
- With selectable color temperatures ranging from warm (2700K) to daylight (5000K), getting the right look for your space is a breeze
- 3 ALO settings allow you to get the perfect amount of light in your space

### Applications

- Residential and light commercial applications including multi-family, hospitality, assisted living, dormitories and other multi-level construction
- Streamlined profile allows for easy remodel or new construction in both insulated and drop ceiling installations
- Wet rated and airtight: perfect for showers, bathrooms, and covered outdoor soffits

### Performance

|                       |  |
|-----------------------|--|
| Delivered Lumens      | 4" - 700/900/1100<br>6" - 800/1050/1300                            |
| LED Color Temperature | Switchable White (27K, 30K, 35K, 40K, 50K)<br>Default set at 3000K |
| CRI                   | 90+  |
| Voltage               | Dedicated 120V and MVOLT   |
| Dimming               | Dimmable to 10% only with triac dimmers.                           |

For a list of compatible dimmers see [JUNO-WAFERS-DIM](#)

### Specifications

|                  | FLAT  |       | DREG  |       |
|------------------|-------|-------|-------|-------|
|                  | WF4   | WF6   | WF4   | WF6   |
| Aperture:        | 3.17" | 4.88" | 3.41" | 3.41" |
| Ceiling Opening: | 4.25" | 6.25" | 4.25" | 6.25" |
| Overlap Trim:    | 4.72" | 6.69" | 5.29" | 7.63" |
| Height:          | 1.25" | 1.25" | 2.27" | 2.56" |



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## ORDERING INFORMATION

### Flat Wafer

Example: WF4 ALO19 SWW5 90CRI MW

| Series                     | Trim Designation | Lumens   | Color Temperature   | Rendering Index | Voltage                                    | Finish   |
|----------------------------|------------------|--|---|-----------------|--|--|
| WF4 4" Wafer Led Downlight | (BLANK) Flat     | ALO19 <sup>1</sup> Switchable lumens – 700LM, 1000LM, and 1100LM | SWW5 Switchable CCT – 2700K, 3000K, 3500K, 4000K, and 5000K | 90CRI 90+ CRI   | (BLANK) 120V<br>MVOLT Multi-Volt (120-277) | MW Matte White<br>MB Matte Black<br>BN Brushed Nickel<br>ORB Oil Rubbed Bronze |
| WF6 6" Wafer Led Downlight |                  | ALO20 <sup>2</sup> Switchable lumens – 800LM, 1050LM, and 1300LM |   |                 |  |  |

### Deep Regressed Wafer

Example: WF6 DREG B ALO20 SWW5 90CRI MW

| Series                     | Trim Designation    | Trim Style | Lumens   | Color Temperature   | Rendering Index | Voltage      | Finish <sup>3</sup> |
|----------------------------|---------------------|------------|--|---|-----------------|--------------|---------------------|
| WF4 4" Wafer Led Downlight | DREG Deep Regressed | B Baffle   | ALO19 <sup>1</sup> Switchable lumens – 700LM, 1000LM, and 1100LM | SWW5 Switchable CCT – 2700K, 3000K, 3500K, 4000K, and 5000K | 90CRI 90+ CRI   | (BLANK) 120V | MW Matte White      |
| WF6 6" Wafer Led Downlight |                     | SM Smooth  | ALO20 <sup>2</sup> Switchable lumens – 800LM, 1050LM, and 1300LM |   |                 |              |                     |

1. Only available with WF4.
2. Only available with WF6.
3. For additional finishes see [trim insert](#) offerings.

### Accessories: Order as separate catalog number.

| Series             | Description                                      |
|--------------------|--|
| WF8643 PAN R6      | Universal New Construction Pan, Retail Pack of 6 |
| WF8643 PAN U       | Universal New Construction Pan, Unit Pack        |
| WF4 PAN R12        | 4" New construction pan, retail pack of 12       |
| WF4GR MW JZ        | 4" Wafer Goof Ring 4.2" ID x 6.2" OD             |
| WF6 PAN R12        | 6" New construction pan, retail pack of 12       |
| WF6GR MW JZ        | 6" Wafer Goof Ring 6" ID x 8" OD                 |
| WFJB U             | Remodel Joist Bar                                |
| WFEXC6 SW3PIN FT4  | 3-Pin 6ft Cable                                  |
| WFEXC10 SW3PIN FT4 | 3-Pin 10ft Cable                                 |
| WFEXC20 SW3PIN FT4 | 3-Pin 20ft Cable                                 |



WF8643 UNIVERSAL New Construction Pan



WF4 PAN 4" New Construction Pan



Remodel Joist Bar



WFEXC\_ 3-Pin Extension Cable



WF6 PAN 6" New Construction Pan

\*Goof rings are made of 22 gauge steel and painted white.

## PERFORMANCE DATA

|                       | WF4 ALO19 SWW5                           | WF6 ALO20 SWW5                           | WF4 DREG SWW5                            | WF6 DREG SWW5                            |
|-----------------------|--|--|--|--|
| Input Voltage         | 120V                                     | 120V                                     | 120V                                     | 120V                                     |
| Input Power Typical   | 14.5W (+/-5%)                            | 16W (+/-5%)                              | 14.5W (+/-5%)                            | 16W (+/-5%)                              |
| Frequency             | 60 Hz                                    | 60Hz                                     | 60 Hz                                    | 60Hz                                     |
| EMI/RFI               | FCC Title 47, Part 15 Class B (consumer) | FCC Title 47, Part 15 Class B (consumer) | FCC Title 47, Part 15 Class B (consumer) | FCC Title 47, Part 15 Class B (consumer) |
| Minimum Starting Temp | -40°F (-40°C)                            | -40°F (-40°C)                            | -40°F (-40°C)                            | -40°F (-40°C)                            |

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C.



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## TRIM INSERTS

TRIM INSERTS (for field configuration; ordered separately)

Example: 4BEMB R4

| Series/Finish |                              | Packaging     |                              |
|---------------|------------------------------|---------------|------------------------------|
| <b>4BEMB</b>  | 4" Baffle, Matte Black       | <b>4SEMB</b>  | 4" Smooth, Matte Black       |
| <b>4BEBN</b>  | 4" Baffle, Brush Nickel      | <b>4SEBN</b>  | 4" Smooth, Brush Nickel      |
| <b>4BEORB</b> | 4" Baffle, Oil-Rubbed Bronze | <b>4SEORB</b> | 4" Smooth, Oil-Rubbed Bronze |
|               |                              | R4            | Retail Pack of 4 units       |



4" Baffle, Matte Black (4BEMB)



4" Baffle, Brush Nickel (4BEBN)



4" Baffle, Oil-Rubbed Bronze (4BEORB)



4" Smooth, Matte Black (4SEMB)



4" Smooth, Brush Nickel (4SEBN)



4" Smooth, Oil-Rubbed Bronze (4SEORB)



Pre-Install color finish trim insert over white 4" or 6" Wafer LED Downlight.



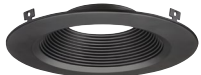
Press down color finish tabs for post-installation to create final Wafer LED Downlight.

## TRIM INSERTS

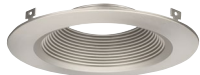
TRIM INSERTS (for field configuration; ordered separately)

Example: 6SSEBN R4

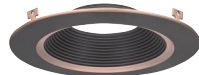
| Series/Finish  |                              | Packaging      |                              |
|----------------|------------------------------|----------------|------------------------------|
| <b>6SBEMB</b>  | 6" Baffle, Matte Black       | <b>6SSEMB</b>  | 6" Smooth, Matte Black       |
| <b>6SBEBN</b>  | 6" Baffle, Matte Nickel      | <b>6SSEBN</b>  | 6" Smooth, Brush Nickel      |
| <b>6SBEORB</b> | 6" Baffle, Oil-Rubbed Bronze | <b>6SSEORB</b> | 6" Smooth, Oil-Rubbed Bronze |
|                |                              | R4             | Retail Pack of 4 units       |



6" Baffle, Matte Black (6SBEMB)



6" Baffle, Brush Nickel (6SBEBN)



6" Baffle, Oil-Rubbed Bronze (6SBEORB)



6" Smooth, Matte Black (6SSEMB)



6" Smooth, Brush Nickel (6SSEBN)



6" Smooth, Oil-Rubbed Bronze (6SSEORB)



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## Specifications

### Housing

Aluminum die cast outer frame. Durable, powder coat paint to prevent rust

- FT4 3-pin plenum rated cable connector to connect from module to remote driver box
- Steel spring clip for easy installation. 4" or 6" cut out template is provided to ensure a correct sized hole is cut into ceiling for proper installation of the trim. Size of hole should not exceed 4-1/4" for the WF4 and 6-1/4" for the WF6
- Can be installed from 3/8" to 1 1/2" ceiling thickness
- Can be removed from below the ceiling for service or replacement.

### LED Light Engine

Low/Medium/High lumen output settings and choice of 2700K, 3000K, 3500K, 4000K or 5000K color temperatures

- 90 CRI minimum
- Color accuracy within 4 step MacAdams Ellipse at the end CCT (2700K and 5000K), within 6 step MacAdams Ellipse in the middle CCT (3000K, 3500K, and 4000K)
- Dimming 100% to 10% with most standard incandescent dimers (see list of approved dimmers).

### Driver

Connect directly to 120V Class-2 (CAN ICES-005 (B) / NMB-005 (B)) LED driver

- 120V 60 Hz constant current driver provides noise free operation
- IC rated driver with convenience of a switch to choose between 5 selectable color temperature options ranging from 2700K (warm white), 3000K, 3500K, 4000K, or 5000K (daylight)
- The isolated driver integrated inside steel remote box with four 7/8" knockouts with slots for pryout. Suitable for pulling wires with the 12 cubic-inch wiring compartment to accommodate up to (6) 14 gauge insulated conductor or (4) 12 gauge insulated conductors, making the Wafer LED Downlights much easier to wire in 2in/2out (plus ground) daisy-chain applications and contractor friendly
- 2" plenum space required for the installation of the WF6 driver box; 3" plenum space required for the installation of the WF4 driver box
- Suitable for installation in t-grid and drop ceiling applications with universal new construction pan.

### Electrical

Multi-volt (120-277V, 50/60Hz) proprietary remote LED driver/splice box, with two (2) additional low-voltage wires for 0-10v dimming, down to 10% (depending on dimmer model and application). High efficient driver with power factor > 0.9. Ambient operating temperature: -40°F (-40°C) to +104°F (+40°C).

### Optical System

Both edge-lit and back-lit technologies are used to distribute light

- Polycarbonate lens provides even illumination throughout the space
- Efficient system that can produce over 1100 lumens while using 14.5W with the WF4 and over 1300 lumens while using 16W with the WF6
- Replaces 65W incandescent (WF4) and 75W incandescent (WF6).

### Life

Rated for 50,000 hours at 70% lumen maintenance.

### Labels

CSA certified to US and Canadian safety standards

- ENERGY STAR® certified product
- Suitable for wet location, covered ceiling
- Air-Loc certified in accordance with ASTM E283-2004
- NOM Certified
- Can be used to comply with California Title 24 Part 6 High Efficacy LED light Source Requirements
- U.S. Patent No. 10,681,784.

### Testing

All reports are based on published industry procedures; field performance may differ from laboratory performance.

### Warranty

3-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

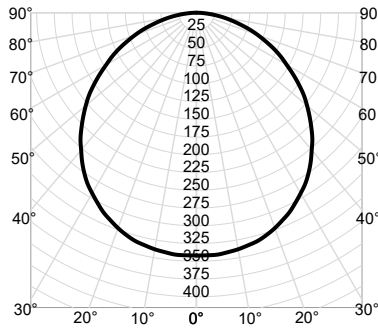
Distribution Data

Output Data

Coefficient of Utilization

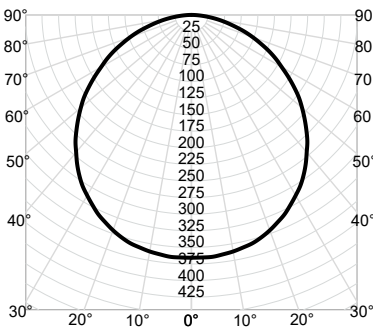
Illuminance Data at 30" Above Floor for a Single Luminaire

**WF4 ALO19 SWW5 90CRI 27K** Input Watts: 13.5, Delivered Lumens: 980, LPW: 72.6, S/MH: 1.27, Test No: ISF 232959P1



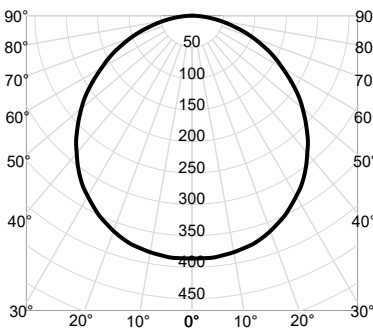
| CP Summary |      | Zonal Lumen Summary |           |       |     | Coefficients of Utilization |     |     |     |     |     |     |     |     |                     | Cone of Light   |                        |               | Luminance (cd/sq.m) |        |
|------------|------|---------------------|-----------|-------|-----|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-----------------|------------------------|---------------|---------------------|--------|
| 0°         | Zone | Lumens              | % Fixture | pf pc | 80% | 10%                         | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10%                 | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |        |
| 0°         | 342  | 0° - 30°            | 269       | 27%   | 0   | 119                         | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111 | 111                 | 6.0             | 9.5                    | 17.7          | 0°                  | 79,127 |
| 5°         | 342  | 0° - 40°            | 441       | 45%   | 1   | 104                         | 100 | 96  | 102 | 98  | 94  | 97  | 94  | 91  | 8.0                 | 5.3             | 23.6                   | 45°           | 74,900              |        |
| 15°        | 333  | 0° - 60°            | 774       | 79%   | 2   | 91                          | 84  | 78  | 89  | 82  | 77  | 85  | 80  | 75  | 10.0                | 3.4             | 29.5                   | 55°           | 71,000              |        |
| 25°        | 310  | 0° - 90°            | 980       | 100%  | 3   | 79                          | 71  | 65  | 78  | 70  | 64  | 75  | 68  | 63  | 12.0                | 2.4             | 35.4                   | 65°           | 65,905              |        |
| 35°        | 275  | 90° - 180°          | 0         | 0%    | 4   | 70                          | 62  | 55  | 69  | 61  | 54  | 67  | 59  | 54  | 14.0                | 1.7             | 41.3                   | 75°           | 57,068              |        |
| 45°        | 229  | 0° - 180°           | 980       | 100%  | 5   | 63                          | 54  | 47  | 62  | 53  | 47  | 60  | 52  | 46  |                     |                 |                        | 85°           | 43,578              |        |
| 55°        | 176  |                     |           |       | 6   | 57                          | 48  | 41  | 56  | 47  | 41  | 54  | 46  | 41  | Beam Angle: 111.7°  |                 |                        |               |                     |        |
| 65°        | 120  |                     |           |       | 7   | 51                          | 43  | 36  | 51  | 42  | 36  | 49  | 41  | 36  | Field Angle: 162.1° |                 |                        |               |                     |        |
| 75°        | 64   |                     |           |       | 8   | 47                          | 38  | 32  | 46  | 38  | 32  | 45  | 37  | 32  |                     |                 |                        |               |                     |        |
| 85°        | 16   |                     |           |       | 9   | 43                          | 35  | 29  | 42  | 34  | 29  | 41  | 34  | 29  |                     |                 |                        |               |                     |        |
| 90°        | 0    |                     |           |       | 10  | 40                          | 32  | 26  | 39  | 32  | 26  | 38  | 31  | 26  |                     |                 |                        |               |                     |        |

**WF4 ALO19 SWW5 90CRI 30K** Input Watts: 13.5, Delivered Lumens: 1048, LPW: 77.6, S/MH: 1.27, Test No: ISF 232959P2



| CP Summary |      | Zonal Lumen Summary |           |       |     | Coefficients of Utilization |     |     |     |     |     |     |     |     |                     | Cone of Light   |                        |               | Luminance (cd/sq.m) |  |
|------------|------|---------------------|-----------|-------|-----|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-----------------|------------------------|---------------|---------------------|--|
| 0°         | Zone | Lumens              | % Fixture | pf pc | 80% | 10%                         | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10%                 | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |  |
| 0°         | 366  | 0° - 30°            | 288       | 27%   | 0   | 119                         | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111 | 6.0                 | 10.2            | 17.7                   | 0°            | 84,618              |  |
| 5°         | 366  | 0° - 40°            | 472       | 45%   | 1   | 104                         | 100 | 96  | 102 | 98  | 94  | 97  | 94  | 91  | 8.0                 | 5.7             | 23.6                   | 45°           | 80,097              |  |
| 15°        | 356  | 0° - 60°            | 828       | 79%   | 2   | 91                          | 84  | 78  | 89  | 82  | 77  | 85  | 80  | 75  | 10.0                | 3.7             | 29.5                   | 55°           | 75,927              |  |
| 25°        | 331  | 0° - 90°            | 1,048     | 100%  | 3   | 79                          | 71  | 65  | 78  | 70  | 64  | 75  | 68  | 63  | 12.0                | 2.5             | 35.4                   | 65°           | 70,478              |  |
| 35°        | 294  | 90° - 180°          | 0         | 0%    | 4   | 70                          | 62  | 55  | 69  | 61  | 54  | 67  | 59  | 54  | 14.0                | 1.9             | 41.3                   | 75°           | 61,028              |  |
| 45°        | 245  | 0° - 180°           | 1,048     | 100%  | 5   | 63                          | 54  | 47  | 62  | 53  | 47  | 60  | 52  | 46  |                     |                 |                        | 85°           | 46,602              |  |
| 55°        | 188  |                     |           |       | 6   | 57                          | 48  | 41  | 56  | 47  | 41  | 54  | 46  | 41  | Beam Angle: 111.7°  |                 |                        |               |                     |  |
| 65°        | 129  |                     |           |       | 7   | 51                          | 43  | 36  | 51  | 42  | 36  | 49  | 41  | 36  | Field Angle: 162.1° |                 |                        |               |                     |  |
| 75°        | 68   |                     |           |       | 8   | 47                          | 38  | 32  | 46  | 38  | 32  | 45  | 37  | 32  |                     |                 |                        |               |                     |  |
| 85°        | 18   |                     |           |       | 9   | 43                          | 35  | 29  | 42  | 34  | 29  | 41  | 34  | 29  |                     |                 |                        |               |                     |  |
| 90°        | 0    |                     |           |       | 10  | 40                          | 32  | 26  | 39  | 32  | 26  | 38  | 31  | 26  |                     |                 |                        |               |                     |  |

**WF4 ALO19 SWW5 90CRI 35K** Input Watts: 13.5, Delivered Lumens: 1107, LPW: 82.0, S/MH: 1.27, Test No: ISF 232959P3



| CP Summary |      | Zonal Lumen Summary |           |       |     | Coefficients of Utilization |     |     |     |     |     |     |     |     |                     | Cone of Light   |                        |               | Luminance (cd/sq.m) |  |
|------------|------|---------------------|-----------|-------|-----|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-----------------|------------------------|---------------|---------------------|--|
| 0°         | Zone | Lumens              | % Fixture | pf pc | 80% | 10%                         | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10%                 | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |  |
| 0°         | 386  | 0° - 30°            | 304       | 27%   | 0   | 119                         | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111 | 6.0                 | 10.7            | 17.7                   | 0°            | 89,381              |  |
| 5°         | 386  | 0° - 40°            | 498       | 45%   | 1   | 104                         | 100 | 96  | 102 | 98  | 94  | 97  | 94  | 91  | 8.0                 | 6.0             | 23.6                   | 45°           | 84,607              |  |
| 15°        | 376  | 0° - 60°            | 875       | 79%   | 2   | 91                          | 84  | 78  | 89  | 82  | 77  | 85  | 80  | 75  | 10.0                | 3.9             | 29.5                   | 55°           | 80,201              |  |
| 25°        | 350  | 0° - 90°            | 1,107     | 100%  | 3   | 79                          | 71  | 65  | 78  | 70  | 64  | 75  | 68  | 63  | 12.0                | 2.7             | 35.4                   | 65°           | 74,446              |  |
| 35°        | 311  | 90° - 180°          | 0         | 0%    | 4   | 70                          | 62  | 55  | 69  | 61  | 54  | 67  | 59  | 54  | 14.0                | 2.0             | 41.3                   | 75°           | 64,464              |  |
| 45°        | 258  | 0° - 180°           | 1,107     | 100%  | 5   | 63                          | 54  | 47  | 62  | 53  | 47  | 60  | 52  | 46  |                     |                 |                        | 85°           | 49,226              |  |
| 55°        | 199  |                     |           |       | 6   | 57                          | 48  | 41  | 56  | 47  | 41  | 54  | 46  | 41  | Beam Angle: 111.7°  |                 |                        |               |                     |  |
| 65°        | 136  |                     |           |       | 7   | 51                          | 43  | 36  | 51  | 42  | 36  | 49  | 41  | 36  | Field Angle: 162.1° |                 |                        |               |                     |  |
| 75°        | 72   |                     |           |       | 8   | 47                          | 38  | 32  | 46  | 38  | 32  | 45  | 37  | 32  |                     |                 |                        |               |                     |  |
| 85°        | 19   |                     |           |       | 9   | 43                          | 35  | 29  | 42  | 34  | 29  | 41  | 34  | 29  |                     |                 |                        |               |                     |  |
| 90°        | 0    |                     |           |       | 10  | 40                          | 32  | 26  | 39  | 32  | 26  | 38  | 31  | 26  |                     |                 |                        |               |                     |  |



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

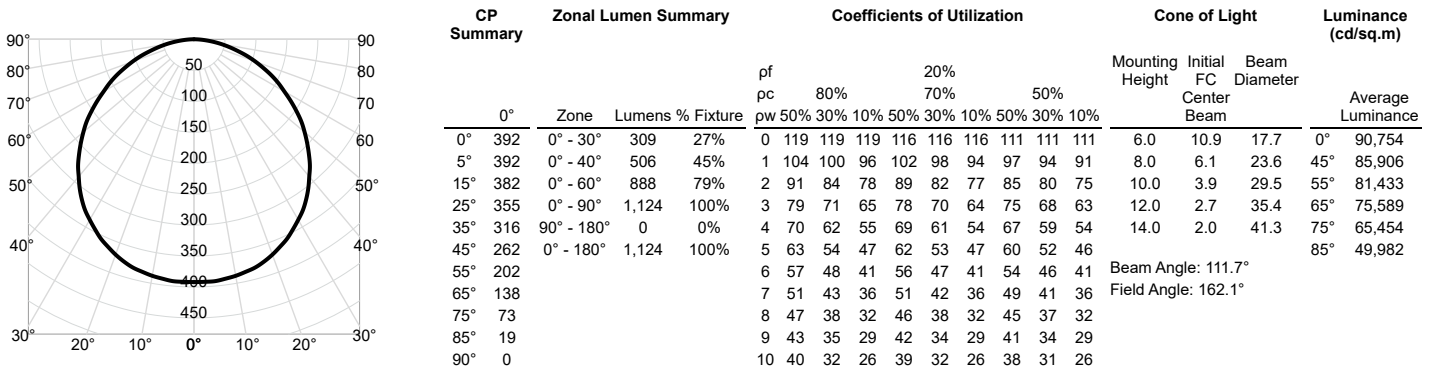
Distribution Data

Output Data

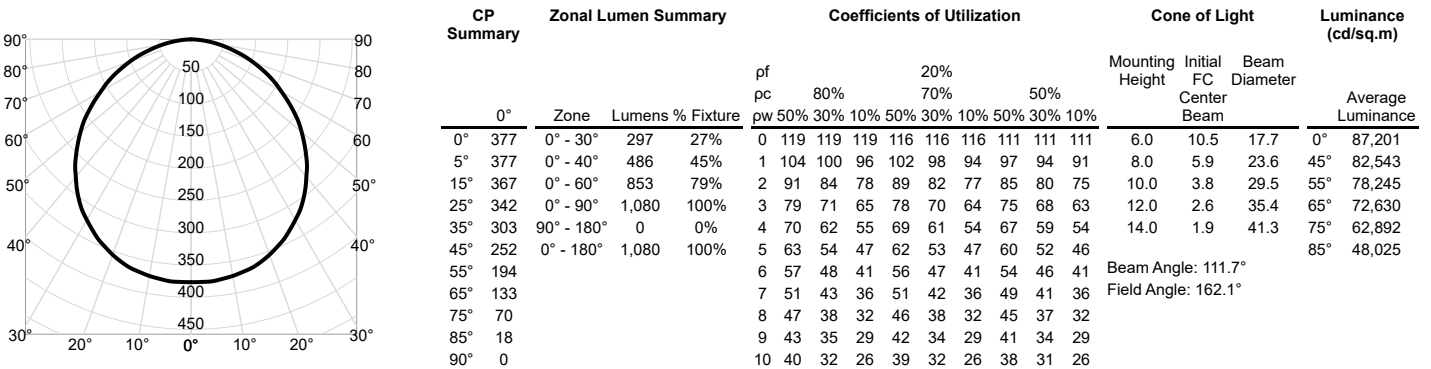
Coefficient of Utilization

Illuminance Data at 30" Above Floor for a Single Luminaire

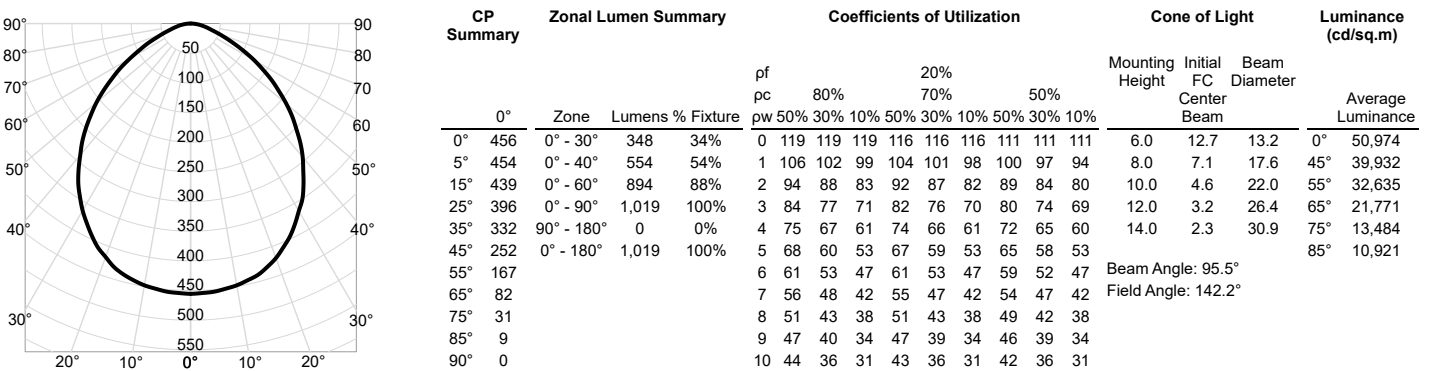
WF4 ALO19 SWW5 90CRI 40K Input Watts: 13.5, Delivered Lumens: 1124, LPW: 83.3, S/MH: 1.27, Test No: ISF 232959P4



WF4 ALO19 SWW5 90CRI 50K Input Watts: 13.5, Delivered Lumens: 1080, LPW: 80.0, S/MH: 1.27, Test No: ISF 232959P5



WF4 DREG B ALO19 SWW5 90CRI 27K Input Watts: 12.5, Delivered Lumens: 1019, LPW: 81.5, S/MH: 1.19, Test No: ISF 232976P6





# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

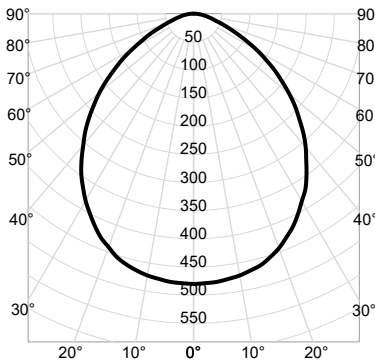
Distribution Data

Output Data

Coefficient of Utilization

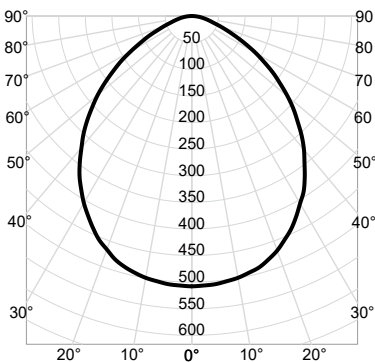
Illuminance Data at 30" Above Floor for a Single Luminaire

**WF4 DREG B ALO19 SWW5 90CRI 30K** Input Watts: 12.5, Delivered Lumens: 1074, LPW: 85.9, S/MH: 1.19, Test No: ISF 232976P7



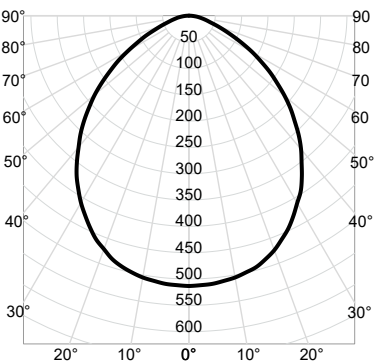
| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     |     |                 | Cone of Light          |               |                     | Luminance (cd/sq.m) |      |     |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----------------|------------------------|---------------|---------------------|---------------------|------|-----|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf                          | 80% |     | 20% |     | 50% |     | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |                     |      |     |        |
|            |            |                     |           | pc                          | 50% | 30% | 10% | 50% | 30% | 10% |                 |                        |               |                     | 50%                 | 30%  | 10% |        |
| 0°         | 0° - 30°   | 367                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111             | 111                    | 111           | 6.0                 | 13.3                | 13.2 | 0°  | 53,725 |
| 5°         | 0° - 40°   | 584                 | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100             | 97                     | 94            | 8.0                 | 7.5                 | 17.6 | 45° | 42,088 |
| 15°        | 0° - 60°   | 942                 | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89              | 84                     | 80            | 10.0                | 4.8                 | 22.0 | 55° | 34,396 |
| 25°        | 0° - 90°   | 1,074               | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80              | 74                     | 69            | 12.0                | 3.3                 | 26.4 | 65° | 22,946 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72              | 65                     | 60            | 14.0                | 2.5                 | 30.9 | 75° | 14,212 |
| 45°        | 0° - 180°  | 1,074               | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65              | 58                     | 53            |                     |                     |      | 85° | 11,510 |
| 55°        |            | 176                 |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59              | 52                     | 47            | Beam Angle: 95.5°   |                     |      |     |        |
| 65°        |            | 87                  |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54              | 47                     | 42            | Field Angle: 142.2° |                     |      |     |        |
| 75°        |            | 33                  |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49              | 42                     | 38            |                     |                     |      |     |        |
| 85°        |            | 9                   |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46              | 39                     | 34            |                     |                     |      |     |        |
| 90°        |            | 0                   |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42              | 36                     | 31            |                     |                     |      |     |        |

**WF4 DREG B ALO19 SWW5 90CRI 35K** Input Watts: 12.5, Delivered Lumens: 1136, LPW: 90.9, S/MH: 1.19, Test No: ISF 232976P8



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     |     |                 | Cone of Light          |               |                     | Luminance (cd/sq.m) |      |     |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----------------|------------------------|---------------|---------------------|---------------------|------|-----|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf                          | 80% |     | 20% |     | 50% |     | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |                     |      |     |        |
|            |            |                     |           | pc                          | 50% | 30% | 10% | 50% | 30% | 10% |                 |                        |               |                     | 50%                 | 30%  | 10% |        |
| 0°         | 0° - 30°   | 388                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111             | 111                    | 111           | 6.0                 | 14.1                | 13.2 | 0°  | 56,826 |
| 5°         | 0° - 40°   | 618                 | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100             | 97                     | 94            | 8.0                 | 7.9                 | 17.6 | 45° | 44,517 |
| 15°        | 0° - 60°   | 997                 | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89              | 84                     | 80            | 10.0                | 5.1                 | 22.0 | 55° | 36,382 |
| 25°        | 0° - 90°   | 1,136               | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80              | 74                     | 69            | 12.0                | 3.5                 | 26.4 | 65° | 24,270 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72              | 65                     | 60            | 14.0                | 2.6                 | 30.9 | 75° | 15,032 |
| 45°        | 0° - 180°  | 1,136               | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65              | 58                     | 53            |                     |                     |      | 85° | 12,174 |
| 55°        |            | 187                 |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59              | 52                     | 47            | Beam Angle: 95.5°   |                     |      |     |        |
| 65°        |            | 92                  |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54              | 47                     | 42            | Field Angle: 142.2° |                     |      |     |        |
| 75°        |            | 35                  |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49              | 42                     | 38            |                     |                     |      |     |        |
| 85°        |            | 9                   |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46              | 39                     | 34            |                     |                     |      |     |        |
| 90°        |            | 0                   |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42              | 36                     | 31            |                     |                     |      |     |        |

**WF4 DREG B ALO19 SWW5 90CRI 40K** Input Watts: 12.5, Delivered Lumens: 1148, LPW: 91.8, S/MH: 1.19, Test No: ISF 232976P9



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     |     |                 | Cone of Light          |               |                     | Luminance (cd/sq.m) |      |     |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----------------|------------------------|---------------|---------------------|---------------------|------|-----|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf                          | 80% |     | 20% |     | 50% |     | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |                     |      |     |        |
|            |            |                     |           | pc                          | 50% | 30% | 10% | 50% | 30% | 10% |                 |                        |               |                     | 50%                 | 30%  | 10% |        |
| 0°         | 0° - 30°   | 392                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111             | 111                    | 111           | 6.0                 | 14.3                | 13.2 | 0°  | 57,427 |
| 5°         | 0° - 40°   | 624                 | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100             | 97                     | 94            | 8.0                 | 8.0                 | 17.6 | 45° | 44,988 |
| 15°        | 0° - 60°   | 1,007               | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89              | 84                     | 80            | 10.0                | 5.1                 | 22.0 | 55° | 36,766 |
| 25°        | 0° - 90°   | 1,148               | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80              | 74                     | 69            | 12.0                | 3.6                 | 26.4 | 65° | 24,527 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72              | 65                     | 60            | 14.0                | 2.6                 | 30.9 | 75° | 15,191 |
| 45°        | 0° - 180°  | 1,148               | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65              | 58                     | 53            |                     |                     |      | 85° | 12,303 |
| 55°        |            | 188                 |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59              | 52                     | 47            | Beam Angle: 95.5°   |                     |      |     |        |
| 65°        |            | 93                  |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54              | 47                     | 42            | Field Angle: 142.2° |                     |      |     |        |
| 75°        |            | 35                  |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49              | 42                     | 38            |                     |                     |      |     |        |
| 85°        |            | 10                  |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46              | 39                     | 34            |                     |                     |      |     |        |
| 90°        |            | 0                   |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42              | 36                     | 31            |                     |                     |      |     |        |



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

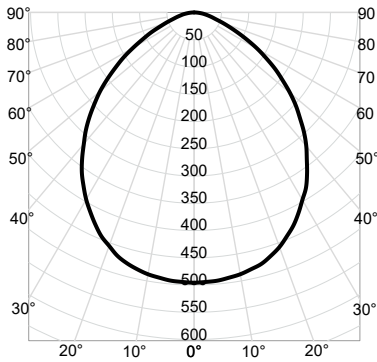
Distribution Data

Output Data

Coefficient of Utilization

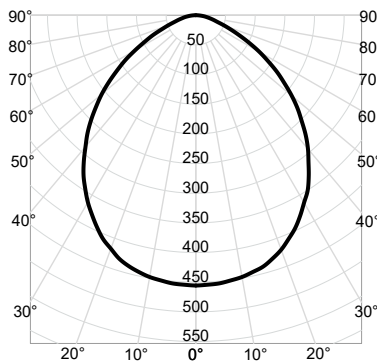
Illuminance Data at 30" Above Floor for a Single Luminaire

**WF4 DREG B ALO19 SWW5 90CRI 50K** Input Watts: 12.5, Delivered Lumens: 1109, LPW: 88.7, S/MH: 1.19, Test No: ISF 232976P10



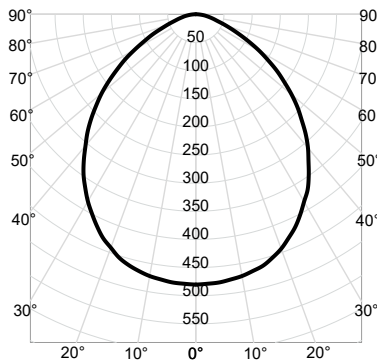
| CP Summary | Zonal Lumen Summary |            |        |           | Coefficients of Utilization |     |     |     |     |     |     |     |     | Cone of Light |                     |                        | Luminance (cd/sq.m) |                   |        |
|------------|---------------------|------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|---------------------|-------------------|--------|
|            | 0°                  | Zone       | Lumens | % Fixture | pf pc                       | 80% |     |     | 20% |     |     | 50% |     |               | Mounting Height     | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |                     |            |        |           |                             | pw  | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30%           |                     |                        |                     |                   | 10%    |
| 0°         | 496                 | 0° - 30°   | 379    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111           | 6.0                 | 13.8                   | 13.2                | 0°                | 55,476 |
| 5°         | 494                 | 0° - 40°   | 603    | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100 | 97  | 94            | 8.0                 | 7.7                    | 17.6                | 45°               | 43,459 |
| 15°        | 477                 | 0° - 60°   | 973    | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89  | 84  | 80            | 10.0                | 5.0                    | 22.0                | 55°               | 35,517 |
| 25°        | 431                 | 0° - 90°   | 1,109  | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80  | 74  | 69            | 12.0                | 3.4                    | 26.4                | 65°               | 23,693 |
| 35°        | 361                 | 90° - 180° | 0      | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72  | 65  | 60            | 14.0                | 2.5                    | 30.9                | 75°               | 14,675 |
| 45°        | 275                 | 0° - 180°  | 1,109  | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65  | 58  | 53            | Beam Angle: 95.5°   |                        |                     | 85°               | 11,885 |
| 55°        | 182                 |            |        |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59  | 52  | 47            | Field Angle: 142.2° |                        |                     |                   |        |
| 65°        | 90                  |            |        |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54  | 47  | 42            |                     |                        |                     |                   |        |
| 75°        | 34                  |            |        |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49  | 42  | 38            |                     |                        |                     |                   |        |
| 85°        | 9                   |            |        |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34            |                     |                        |                     |                   |        |
| 90°        | 0                   |            |        |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31            |                     |                        |                     |                   |        |

**WF4 DREG SM ALO19 SWW5 90CRI 27K** Input Watts: 12.5, Delivered Lumens: 1019, LPW: 81.5, S/MH: 1.19, Test No: ISF 232976P1



| CP Summary | Zonal Lumen Summary |            |        |           | Coefficients of Utilization |     |     |     |     |     |     |     |     | Cone of Light |                     |                        | Luminance (cd/sq.m) |                   |        |
|------------|---------------------|------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|---------------------|-------------------|--------|
|            | 0°                  | Zone       | Lumens | % Fixture | pf pc                       | 80% |     |     | 20% |     |     | 50% |     |               | Mounting Height     | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |                     |            |        |           |                             | pw  | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30%           |                     |                        |                     |                   | 10%    |
| 0°         | 456                 | 0° - 30°   | 348    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111           | 6.0                 | 12.7                   | 13.2                | 0°                | 50,974 |
| 5°         | 454                 | 0° - 40°   | 554    | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100 | 97  | 94            | 8.0                 | 7.1                    | 17.6                | 45°               | 39,932 |
| 15°        | 439                 | 0° - 60°   | 894    | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89  | 84  | 80            | 10.0                | 4.6                    | 22.0                | 55°               | 32,635 |
| 25°        | 396                 | 0° - 90°   | 1,019  | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80  | 74  | 69            | 12.0                | 3.2                    | 26.4                | 65°               | 21,771 |
| 35°        | 332                 | 90° - 180° | 0      | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72  | 65  | 60            | 14.0                | 2.3                    | 30.9                | 75°               | 13,484 |
| 45°        | 252                 | 0° - 180°  | 1,019  | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65  | 58  | 53            | Beam Angle: 95.5°   |                        |                     | 85°               | 10,921 |
| 55°        | 167                 |            |        |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59  | 52  | 47            | Field Angle: 142.2° |                        |                     |                   |        |
| 65°        | 82                  |            |        |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54  | 47  | 42            |                     |                        |                     |                   |        |
| 75°        | 31                  |            |        |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49  | 42  | 38            |                     |                        |                     |                   |        |
| 85°        | 9                   |            |        |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34            |                     |                        |                     |                   |        |
| 90°        | 0                   |            |        |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31            |                     |                        |                     |                   |        |

**WF4 DREG SM ALO19 SWW5 90CRI 30K** Input Watts: 12.5, Delivered Lumens: 1074, LPW: 85.9, S/MH: 1.19, Test No: ISF 232976P2



| CP Summary | Zonal Lumen Summary |            |        |           | Coefficients of Utilization |     |     |     |     |     |     |     |     | Cone of Light |                     |                        | Luminance (cd/sq.m) |                   |        |
|------------|---------------------|------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|---------------------|-------------------|--------|
|            | 0°                  | Zone       | Lumens | % Fixture | pf pc                       | 80% |     |     | 20% |     |     | 50% |     |               | Mounting Height     | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |                     |            |        |           |                             | pw  | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30%           |                     |                        |                     |                   | 10%    |
| 0°         | 480                 | 0° - 30°   | 367    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111           | 6.0                 | 13.3                   | 13.2                | 0°                | 53,725 |
| 5°         | 478                 | 0° - 40°   | 584    | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100 | 97  | 94            | 8.0                 | 7.5                    | 17.6                | 45°               | 42,088 |
| 15°        | 462                 | 0° - 60°   | 942    | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89  | 84  | 80            | 10.0                | 4.8                    | 22.0                | 55°               | 34,396 |
| 25°        | 417                 | 0° - 90°   | 1,074  | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80  | 74  | 69            | 12.0                | 3.3                    | 26.4                | 65°               | 22,946 |
| 35°        | 350                 | 90° - 180° | 0      | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72  | 65  | 60            | 14.0                | 2.5                    | 30.9                | 75°               | 14,212 |
| 45°        | 266                 | 0° - 180°  | 1,074  | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65  | 58  | 53            | Beam Angle: 95.5°   |                        |                     | 85°               | 11,510 |
| 55°        | 176                 |            |        |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59  | 52  | 47            | Field Angle: 142.2° |                        |                     |                   |        |
| 65°        | 87                  |            |        |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54  | 47  | 42            |                     |                        |                     |                   |        |
| 75°        | 33                  |            |        |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49  | 42  | 38            |                     |                        |                     |                   |        |
| 85°        | 9                   |            |        |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34            |                     |                        |                     |                   |        |
| 90°        | 0                   |            |        |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31            |                     |                        |                     |                   |        |





# Juno Wafer™ LED Downlight Series

## 4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

### PHOTOMETRICS

Distribution Curve

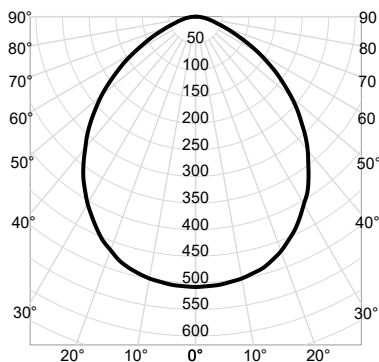
Distribution Data

Output Data

Coefficient of Utilization

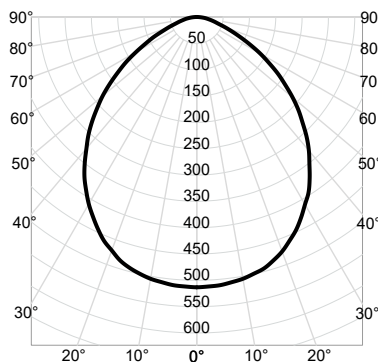
Illuminance Data at 30" Above Floor for a Single Luminaire

**WF4 DREG SM ALO19 SWW5 90CRI 35K** Input Watts: 12.5, Delivered Lumens: 1136, LPW: 90.9, S/MH: 1.19, Test No: ISF 232976P3



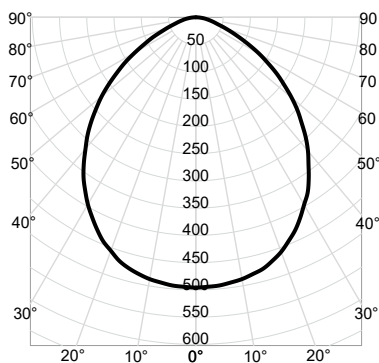
| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     |     |     |     | Cone of Light |                     |                        | Luminance (cd/sq.m) |                   |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|---------------------|-------------------|--------|
| 0°         | Zone       | Lumens              | % Fixture | pw                          | 50% | 30% | 10% | 20% |     |     | 50% |     |               | Mounting Height     | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |            |                     |           |                             |     |     |     | 50% | 30% | 10% | 50% | 30% | 10%           |                     |                        |                     |                   |        |
| 0°         | 0° - 30°   | 388                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111           | 6.0                 | 14.1                   | 13.2                | 0°                | 56,826 |
| 5°         | 0° - 40°   | 618                 | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100 | 97  | 94            | 8.0                 | 7.9                    | 17.6                | 45°               | 44,517 |
| 15°        | 0° - 60°   | 997                 | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89  | 84  | 80            | 10.0                | 5.1                    | 22.0                | 55°               | 36,382 |
| 25°        | 0° - 90°   | 1,136               | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80  | 74  | 69            | 12.0                | 3.5                    | 26.4                | 65°               | 24,270 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72  | 65  | 60            | 14.0                | 2.6                    | 30.9                | 75°               | 15,032 |
| 45°        | 0° - 180°  | 1,136               | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65  | 58  | 53            | Beam Angle: 95.5°   |                        |                     | 85°               | 12,174 |
| 55°        |            |                     |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59  | 52  | 47            | Field Angle: 142.2° |                        |                     |                   |        |
| 65°        |            |                     |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54  | 47  | 42            |                     |                        |                     |                   |        |
| 75°        |            |                     |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49  | 42  | 38            |                     |                        |                     |                   |        |
| 85°        |            |                     |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34            |                     |                        |                     |                   |        |
| 90°        |            |                     |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31            |                     |                        |                     |                   |        |

**WF4 DREG SM ALO19 SWW5 90CRI 40K** Input Watts: 12.5, Delivered Lumens: 1148, LPW: 91.8, S/MH: 1.19, Test No: ISF 232976P4



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     |     |     |     | Cone of Light |                     |                        | Luminance (cd/sq.m) |                   |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|---------------------|-------------------|--------|
| 0°         | Zone       | Lumens              | % Fixture | pw                          | 50% | 30% | 10% | 20% |     |     | 50% |     |               | Mounting Height     | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |            |                     |           |                             |     |     |     | 50% | 30% | 10% | 50% | 30% | 10%           |                     |                        |                     |                   |        |
| 0°         | 0° - 30°   | 392                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111           | 6.0                 | 14.3                   | 13.2                | 0°                | 57,427 |
| 5°         | 0° - 40°   | 624                 | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100 | 97  | 94            | 8.0                 | 8.0                    | 17.6                | 45°               | 44,988 |
| 15°        | 0° - 60°   | 1,007               | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89  | 84  | 80            | 10.0                | 5.1                    | 22.0                | 55°               | 36,766 |
| 25°        | 0° - 90°   | 1,148               | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80  | 74  | 69            | 12.0                | 3.6                    | 26.4                | 65°               | 24,527 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72  | 65  | 60            | 14.0                | 2.6                    | 30.9                | 75°               | 15,191 |
| 45°        | 0° - 180°  | 1,148               | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65  | 58  | 53            | Beam Angle: 95.5°   |                        |                     | 85°               | 12,303 |
| 55°        |            |                     |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59  | 52  | 47            | Field Angle: 142.2° |                        |                     |                   |        |
| 65°        |            |                     |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54  | 47  | 42            |                     |                        |                     |                   |        |
| 75°        |            |                     |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49  | 42  | 38            |                     |                        |                     |                   |        |
| 85°        |            |                     |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34            |                     |                        |                     |                   |        |
| 90°        |            |                     |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31            |                     |                        |                     |                   |        |

**WF4 DREG SM ALO19 SWW5 90CRI 50K** Input Watts: 12.5, Delivered Lumens: 1109, LPW: 88.7, S/MH: 1.19, Test No: ISF 232976P5



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     |     |     |     | Cone of Light |                     |                        | Luminance (cd/sq.m) |                   |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|---------------------|-------------------|--------|
| 0°         | Zone       | Lumens              | % Fixture | pw                          | 50% | 30% | 10% | 20% |     |     | 50% |     |               | Mounting Height     | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |            |                     |           |                             |     |     |     | 50% | 30% | 10% | 50% | 30% | 10%           |                     |                        |                     |                   |        |
| 0°         | 0° - 30°   | 379                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111           | 6.0                 | 13.8                   | 13.2                | 0°                | 55,476 |
| 5°         | 0° - 40°   | 603                 | 54%       | 1                           | 106 | 102 | 99  | 104 | 101 | 98  | 100 | 97  | 94            | 8.0                 | 7.7                    | 17.6                | 45°               | 43,459 |
| 15°        | 0° - 60°   | 973                 | 88%       | 2                           | 94  | 88  | 83  | 92  | 87  | 82  | 89  | 84  | 80            | 10.0                | 5.0                    | 22.0                | 55°               | 35,517 |
| 25°        | 0° - 90°   | 1,109               | 100%      | 3                           | 84  | 77  | 71  | 82  | 76  | 70  | 80  | 74  | 69            | 12.0                | 3.4                    | 26.4                | 65°               | 23,693 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 75  | 67  | 61  | 74  | 66  | 61  | 72  | 65  | 60            | 14.0                | 2.5                    | 30.9                | 75°               | 14,675 |
| 45°        | 0° - 180°  | 1,109               | 100%      | 5                           | 68  | 60  | 53  | 67  | 59  | 53  | 65  | 58  | 53            | Beam Angle: 95.5°   |                        |                     | 85°               | 11,885 |
| 55°        |            |                     |           | 6                           | 61  | 53  | 47  | 61  | 53  | 47  | 59  | 52  | 47            | Field Angle: 142.2° |                        |                     |                   |        |
| 65°        |            |                     |           | 7                           | 56  | 48  | 42  | 55  | 47  | 42  | 54  | 47  | 42            |                     |                        |                     |                   |        |
| 75°        |            |                     |           | 8                           | 51  | 43  | 38  | 51  | 43  | 38  | 49  | 42  | 38            |                     |                        |                     |                   |        |
| 85°        |            |                     |           | 9                           | 47  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34            |                     |                        |                     |                   |        |
| 90°        |            |                     |           | 10                          | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31            |                     |                        |                     |                   |        |



# Juno Wafer™ LED Downlight Series

4" & 6" SSW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

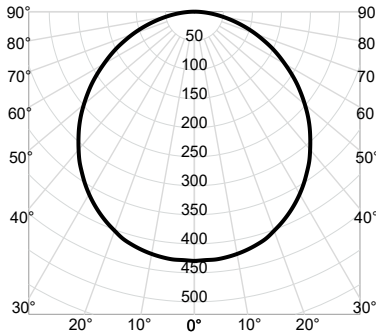
Distribution Data

Output Data

Coefficient of Utilization

Illuminance Data at 30" Above Floor for a Single Luminaire

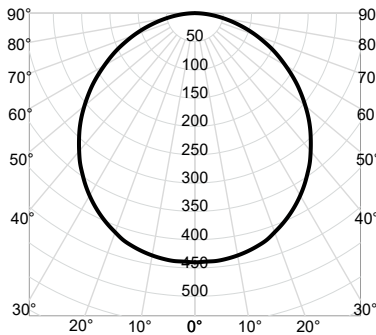
**WF6 ALO20 SSW5 90CRI 27K** Input Watts: 15.0, Delivered Lumens: 1209, LPW: 80.6, S/MH: 1.25, Test No: ISF 232965P1



| CP Summary | Zonal Lumen Summary |            |                  | Coefficients of Utilization |     |     |     |     |     |     |     | Cone of Light |     |     | Luminance (cd/sq.m) |                 |                        |               |                   |
|------------|---------------------|------------|------------------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|---------------|-----|-----|---------------------|-----------------|------------------------|---------------|-------------------|
|            | 0°                  | Zone       | Lumens % Fixture | pf pc                       | 80% | 10% | 20% | 30% | 10% | 50% | 30% | 10%           | 50% | 30% | 10%                 | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance |
| 0°         | 429                 | 0° - 30°   | 335 28%          | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111           | 111 | 111 | 111                 | 6.0             | 11.9                   | 17.2          | 0° 35,591         |
| 5°         | 429                 | 0° - 40°   | 547 45%          | 1                           | 104 | 100 | 96  | 102 | 98  | 94  | 97  | 94            | 91  | 91  | 8.0                 | 6.7             | 22.9                   | 45° 32,906    |                   |
| 15°        | 416                 | 0° - 60°   | 955 79%          | 2                           | 91  | 84  | 78  | 89  | 82  | 77  | 85  | 80            | 75  | 75  | 10.0                | 4.3             | 28.6                   | 55° 31,092    |                   |
| 25°        | 384                 | 0° - 90°   | 1,209 100%       | 3                           | 79  | 71  | 65  | 78  | 70  | 64  | 75  | 68            | 63  | 63  | 12.0                | 3.0             | 34.4                   | 65° 28,796    |                   |
| 35°        | 338                 | 90° - 180° | 0 0%             | 4                           | 70  | 62  | 55  | 69  | 61  | 55  | 67  | 59            | 54  | 54  | 14.0                | 2.2             | 40.1                   | 75° 25,433    |                   |
| 45°        | 281                 | 0° - 180°  | 1,209 100%       | 5                           | 63  | 54  | 47  | 62  | 53  | 47  | 60  | 52            | 47  | 47  |                     |                 |                        | 85° 21,077    |                   |
| 55°        | 215                 |            |                  | 6                           | 57  | 48  | 41  | 56  | 47  | 41  | 54  | 46            | 41  | 41  |                     |                 |                        |               |                   |
| 65°        | 147                 |            |                  | 7                           | 51  | 43  | 36  | 51  | 42  | 36  | 49  | 42            | 36  | 36  |                     |                 |                        |               |                   |
| 75°        | 79                  |            |                  | 8                           | 47  | 38  | 33  | 46  | 38  | 32  | 45  | 38            | 32  | 32  |                     |                 |                        |               |                   |
| 85°        | 22                  |            |                  | 9                           | 43  | 35  | 29  | 43  | 35  | 29  | 41  | 34            | 29  | 29  |                     |                 |                        |               |                   |
| 90°        | 1                   |            |                  | 10                          | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31            | 26  | 26  |                     |                 |                        |               |                   |

Beam Angle: 110.1°  
Field Angle: 162.2°

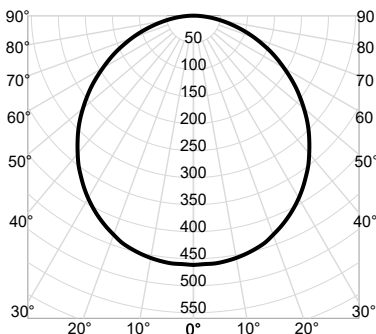
**WF6 ALO20 SSW5 90CRI 30K** Input Watts: 15.0, Delivered Lumens: 1239, LPW: 82.6, S/MH: 1.25, Test No: ISF 232965P2



| CP Summary | Zonal Lumen Summary |            |                  | Coefficients of Utilization |     |     |     |     |     |     |     | Cone of Light |     |     | Luminance (cd/sq.m) |                 |                        |               |
|------------|---------------------|------------|------------------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|---------------|-----|-----|---------------------|-----------------|------------------------|---------------|
|            | 0°                  | Zone       | Lumens % Fixture | pf pc                       | 80% | 10% | 20% | 30% | 10% | 50% | 30% | 10%           | 50% | 30% | 10%                 | Mounting Height | Initial FC Center Beam | Beam Diameter |
| 0°         | 440                 | 0° - 30°   | 344 28%          | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111           | 111 | 111 | 6.0                 | 12.2            | 17.2                   | 0° 36,474     |
| 5°         | 439                 | 0° - 40°   | 560 45%          | 1                           | 104 | 100 | 96  | 102 | 98  | 94  | 97  | 94            | 91  | 91  | 8.0                 | 6.9             | 22.9                   | 45° 33,723    |
| 15°        | 426                 | 0° - 60°   | 978 79%          | 2                           | 91  | 84  | 78  | 89  | 82  | 77  | 85  | 80            | 75  | 75  | 10.0                | 4.4             | 28.6                   | 55° 31,864    |
| 25°        | 394                 | 0° - 90°   | 1,239 100%       | 3                           | 79  | 71  | 65  | 78  | 70  | 64  | 75  | 68            | 63  | 63  | 12.0                | 3.1             | 34.4                   | 65° 29,511    |
| 35°        | 346                 | 90° - 180° | 0 0%             | 4                           | 70  | 62  | 55  | 69  | 61  | 55  | 67  | 59            | 54  | 54  | 14.0                | 2.2             | 40.1                   | 75° 26,064    |
| 45°        | 288                 | 0° - 180°  | 1,239 100%       | 5                           | 63  | 54  | 47  | 62  | 53  | 47  | 60  | 52            | 47  | 47  |                     |                 |                        | 85° 21,600    |
| 55°        | 221                 |            |                  | 6                           | 57  | 48  | 41  | 56  | 47  | 41  | 54  | 46            | 41  | 41  |                     |                 |                        |               |
| 65°        | 150                 |            |                  | 7                           | 51  | 43  | 36  | 51  | 42  | 36  | 49  | 42            | 36  | 36  |                     |                 |                        |               |
| 75°        | 81                  |            |                  | 8                           | 47  | 38  | 33  | 46  | 38  | 32  | 45  | 38            | 32  | 32  |                     |                 |                        |               |
| 85°        | 23                  |            |                  | 9                           | 43  | 35  | 29  | 43  | 35  | 29  | 41  | 34            | 29  | 29  |                     |                 |                        |               |
| 90°        | 1                   |            |                  | 10                          | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31            | 26  | 26  |                     |                 |                        |               |

Beam Angle: 110.1°  
Field Angle: 162.2°

**WF6 ALO20 SSW5 90CRI 35K** Input Watts: 15.0, Delivered Lumens: 1299, LPW: 86.6, S/MH: 1.25, Test No: ISF 232965P3



| CP Summary | Zonal Lumen Summary |            |                  | Coefficients of Utilization |     |     |     |     |     |     |     | Cone of Light |     |     | Luminance (cd/sq.m) |                 |                        |               |
|------------|---------------------|------------|------------------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|---------------|-----|-----|---------------------|-----------------|------------------------|---------------|
|            | 0°                  | Zone       | Lumens % Fixture | pf pc                       | 80% | 10% | 20% | 30% | 10% | 50% | 30% | 10%           | 50% | 30% | 10%                 | Mounting Height | Initial FC Center Beam | Beam Diameter |
| 0°         | 461                 | 0° - 30°   | 360 28%          | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111           | 111 | 111 | 6.0                 | 12.8            | 17.2                   | 0° 38,241     |
| 5°         | 460                 | 0° - 40°   | 587 45%          | 1                           | 104 | 100 | 96  | 102 | 98  | 94  | 97  | 94            | 91  | 91  | 8.0                 | 7.2             | 22.9                   | 45° 35,356    |
| 15°        | 447                 | 0° - 60°   | 1,026 79%        | 2                           | 91  | 84  | 78  | 89  | 82  | 77  | 85  | 80            | 75  | 75  | 10.0                | 4.6             | 28.6                   | 55° 33,407    |
| 25°        | 413                 | 0° - 90°   | 1,299 100%       | 3                           | 79  | 71  | 65  | 78  | 70  | 64  | 75  | 68            | 63  | 63  | 12.0                | 3.2             | 34.4                   | 65° 30,940    |
| 35°        | 363                 | 90° - 180° | 0 0%             | 4                           | 70  | 62  | 55  | 69  | 61  | 55  | 67  | 59            | 54  | 54  | 14.0                | 2.4             | 40.1                   | 75° 27,326    |
| 45°        | 302                 | 0° - 180°  | 1,299 100%       | 5                           | 63  | 54  | 47  | 62  | 53  | 47  | 60  | 52            | 47  | 47  |                     |                 |                        | 85° 22,646    |
| 55°        | 231                 |            |                  | 6                           | 57  | 48  | 41  | 56  | 47  | 41  | 54  | 46            | 41  | 41  |                     |                 |                        |               |
| 65°        | 158                 |            |                  | 7                           | 51  | 43  | 36  | 51  | 42  | 36  | 49  | 42            | 36  | 36  |                     |                 |                        |               |
| 75°        | 85                  |            |                  | 8                           | 47  | 38  | 33  | 46  | 38  | 32  | 45  | 38            | 32  | 32  |                     |                 |                        |               |
| 85°        | 24                  |            |                  | 9                           | 43  | 35  | 29  | 43  | 35  | 29  | 41  | 34            | 29  | 29  |                     |                 |                        |               |
| 90°        | 1                   |            |                  | 10                          | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31            | 26  | 26  |                     |                 |                        |               |

Beam Angle: 110.1°  
Field Angle: 162.2°



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

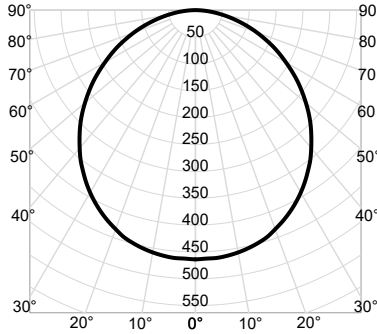
Distribution Data

Output Data

Coefficient of Utilization

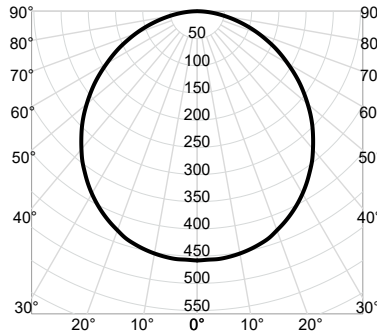
Illuminance Data at 30" Above Floor for a Single Luminaire

**WF6 ALO20 SWW5 90CRI 40K** Input Watts: 15.0, Delivered Lumens: 1306, LPW: 87.1, S/MH: 1.25, Test No: ISF 232965P4



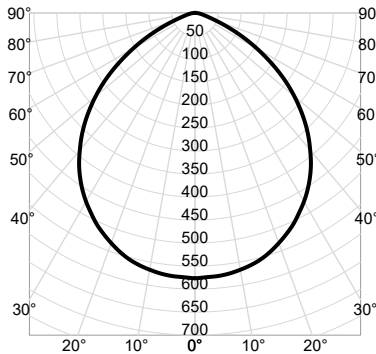
| CP Summary | Zonal Lumen Summary |                     |        |           | Coefficients of Utilization |     |     |     |     |     |     |     | Cone of Light   |                        |                    | Luminance (cd/sq.m) |      |            |
|------------|---------------------|---------------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----------------|------------------------|--------------------|---------------------|------|------------|
|            | 0°                  | Zone                | Lumens | % Fixture | 80%                         |     |     |     | 20% |     |     |     | Mounting Height | Initial FC Center Beam | Beam Diameter      | Average Luminance   |      |            |
|            |                     |                     |        |           | pw                          | 50% | 30% | 10% | 50% | 30% | 10% | 50% |                 |                        |                    |                     | 30%  | 10%        |
| 0°         | 464                 | 0° - 30°            | 362    | 28%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111             | 111                    | 6.0                | 12.9                | 17.2 | 0° 38,447  |
| 5°         | 463                 | 0° - 40°            | 591    | 45%       | 1                           | 104 | 100 | 96  | 102 | 98  | 94  | 97  | 94              | 91                     | 8.0                | 7.2                 | 22.9 | 45° 35,546 |
| 15°        | 449                 | 0° - 60°            | 1,031  | 79%       | 2                           | 91  | 84  | 78  | 89  | 82  | 77  | 85  | 80              | 75                     | 10.0               | 4.6                 | 28.6 | 55° 33,587 |
| 25°        | 415                 | 0° - 90°            | 1,306  | 100%      | 3                           | 79  | 71  | 65  | 78  | 70  | 64  | 75  | 68              | 63                     | 12.0               | 3.2                 | 34.4 | 65° 31,107 |
| 35°        | 365                 | 90° - 180°          | 0      | 0%        | 4                           | 70  | 62  | 55  | 69  | 61  | 55  | 67  | 59              | 54                     | 14.0               | 2.4                 | 40.1 | 75° 27,473 |
| 45°        | 303                 | 0° - 180°           | 1,306  | 100%      | 5                           | 63  | 54  | 47  | 62  | 53  | 47  | 60  | 52              | 47                     | Beam Angle: 110.1° |                     |      |            |
| 55°        | 232                 | Field Angle: 162.2° |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 65°        | 159                 |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 75°        | 86                  |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 85°        | 24                  |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 90°        | 1                   |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |

**WF6 ALO20 SWW5 90CRI 50K** Input Watts: 15.0, Delivered Lumens: 1289, LPW: 85.9, S/MH: 1.25, Test No: ISF 232965P5



| CP Summary | Zonal Lumen Summary |                     |        |           | Coefficients of Utilization |     |     |     |     |     |     |     | Cone of Light   |                        |                    | Luminance (cd/sq.m) |      |            |
|------------|---------------------|---------------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----------------|------------------------|--------------------|---------------------|------|------------|
|            | 0°                  | Zone                | Lumens | % Fixture | 80%                         |     |     |     | 20% |     |     |     | Mounting Height | Initial FC Center Beam | Beam Diameter      | Average Luminance   |      |            |
|            |                     |                     |        |           | pw                          | 50% | 30% | 10% | 50% | 30% | 10% | 50% |                 |                        |                    |                     | 30%  | 10%        |
| 0°         | 458                 | 0° - 30°            | 358    | 28%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111             | 111                    | 6.0                | 12.7                | 17.2 | 0° 37,946  |
| 5°         | 457                 | 0° - 40°            | 583    | 45%       | 1                           | 104 | 100 | 96  | 102 | 98  | 94  | 97  | 94              | 91                     | 8.0                | 7.2                 | 22.9 | 45° 35,084 |
| 15°        | 443                 | 0° - 60°            | 1,018  | 79%       | 2                           | 91  | 84  | 78  | 89  | 82  | 77  | 85  | 80              | 75                     | 10.0               | 4.6                 | 28.6 | 55° 33,150 |
| 25°        | 410                 | 0° - 90°            | 1,289  | 100%      | 3                           | 79  | 71  | 65  | 78  | 70  | 64  | 75  | 68              | 63                     | 12.0               | 3.2                 | 34.4 | 65° 30,702 |
| 35°        | 360                 | 90° - 180°          | 0      | 0%        | 4                           | 70  | 62  | 55  | 69  | 61  | 55  | 67  | 59              | 54                     | 14.0               | 2.3                 | 40.1 | 75° 27,116 |
| 45°        | 299                 | 0° - 180°           | 1,289  | 100%      | 5                           | 63  | 54  | 47  | 62  | 53  | 47  | 60  | 52              | 47                     | Beam Angle: 110.1° |                     |      |            |
| 55°        | 229                 | Field Angle: 162.2° |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 65°        | 157                 |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 75°        | 85                  |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 85°        | 24                  |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |
| 90°        | 1                   |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                    |                     |      |            |

**WF6 DREG B ALO20 SWW5 90CRI 27K** Input Watts: 15.5, Delivered Lumens: 1297, LPW: 83.7, S/MH: 1.21, Test No: ISF 233012P6



| CP Summary | Zonal Lumen Summary |                     |        |           | Coefficients of Utilization |     |     |     |     |     |     |     | Cone of Light   |                        |                   | Luminance (cd/sq.m) |      |            |
|------------|---------------------|---------------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----------------|------------------------|-------------------|---------------------|------|------------|
|            | 0°                  | Zone                | Lumens | % Fixture | 80%                         |     |     |     | 20% |     |     |     | Mounting Height | Initial FC Center Beam | Beam Diameter     | Average Luminance   |      |            |
|            |                     |                     |        |           | pw                          | 50% | 30% | 10% | 50% | 30% | 10% | 50% |                 |                        |                   |                     | 30%  | 10%        |
| 0°         | 577                 | 0° - 30°            | 444    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111             | 111                    | 6.0               | 16.0                | 14.0 | 0° 35,770  |
| 5°         | 574                 | 0° - 40°            | 715    | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99  | 100 | 98              | 95                     | 8.0               | 9.0                 | 18.7 | 45° 29,701 |
| 15°        | 554                 | 0° - 60°            | 1,170  | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83  | 90  | 85              | 82                     | 10.0              | 5.8                 | 23.3 | 55° 23,790 |
| 25°        | 506                 | 0° - 90°            | 1,297  | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71  | 80  | 75              | 70                     | 12.0              | 4.0                 | 28.0 | 65° 13,951 |
| 35°        | 435                 | 90° - 180°          | 0      | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62  | 72  | 66              | 61                     | 14.0              | 2.9                 | 32.7 | 75° 5,207  |
| 45°        | 339                 | 0° - 180°           | 1,297  | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54  | 65  | 59              | 54                     | Beam Angle: 98.8° |                     |      |            |
| 55°        | 220                 | Field Angle: 137.4° |        |           |                             |     |     |     |     |     |     |     |                 |                        |                   |                     |      |            |
| 65°        | 95                  |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                   |                     |      |            |
| 75°        | 22                  |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                   |                     |      |            |
| 85°        | 5                   |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                   |                     |      |            |
| 90°        | 0                   |                     |        |           |                             |     |     |     |     |     |     |     |                 |                        |                   |                     |      |            |



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

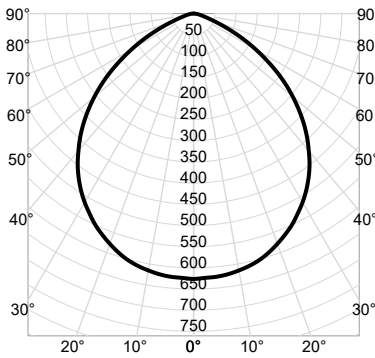
Distribution Data

Output Data

Coefficient of Utilization

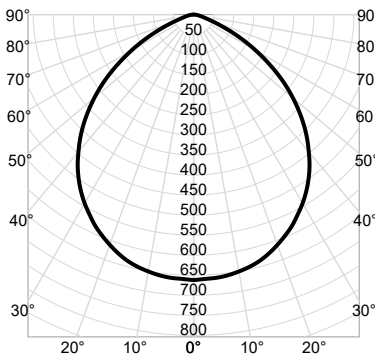
Illuminance Data at 30" Above Floor for a Single Luminaire

WF6 DREG B ALO20 SWW5 90CRI 30K Input Watts: 15.5, Delivered Lumens: 1409, LPW: 90.9, S/MH: 1.21, Test No: ISF 233012P7



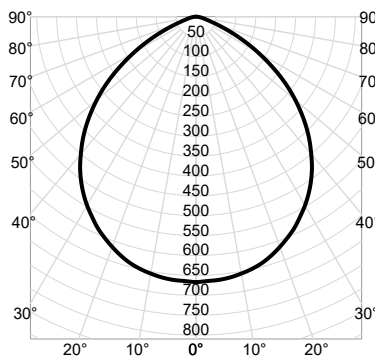
| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |         |     |     | Cone of Light |                 |                        | Luminance (cd/sq.m) |                   |      |     |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|---------|-----|-----|---------------|-----------------|------------------------|---------------------|-------------------|------|-----|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf pc                       | 80% |     | 20% 70% |     | 50% |               | Mounting Height | Initial FC Center Beam | Beam Diameter       | Average Luminance |      |     |        |
| 0°         | 0° - 30°   | 482                 | 34%       | 0                           | 119 | 119 | 119     | 116 | 116 | 111           | 111             | 111                    | 6.0                 | 17.4              | 14.0 | 0°  | 38,859 |
| 5°         | 0° - 40°   | 777                 | 55%       | 1                           | 107 | 103 | 100     | 105 | 101 | 99            | 100             | 98                     | 8.0                 | 9.8               | 18.7 | 45° | 32,265 |
| 15°        | 0° - 60°   | 1,271               | 90%       | 2                           | 95  | 89  | 84      | 93  | 88  | 83            | 90              | 85                     | 10.0                | 6.3               | 23.3 | 55° | 25,844 |
| 25°        | 0° - 90°   | 1,409               | 100%      | 3                           | 85  | 78  | 72      | 83  | 77  | 71            | 80              | 75                     | 12.0                | 4.3               | 28.0 | 65° | 15,156 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 76  | 68  | 62      | 75  | 67  | 62            | 72              | 66                     | 14.0                | 3.2               | 32.7 | 75° | 5,657  |
| 45°        | 0° - 180°  | 1,409               | 100%      | 5                           | 69  | 60  | 54      | 67  | 60  | 54            | 65              | 59                     |                     |                   |      | 85° | 3,500  |
| 55°        |            | 239                 |           | 6                           | 62  | 54  | 48      | 61  | 53  | 48            | 59              | 53                     | Beam Angle: 98.8°   |                   |      |     |        |
| 65°        |            | 103                 |           | 7                           | 57  | 48  | 43      | 56  | 48  | 43            | 54              | 47                     | Field Angle: 137.4° |                   |      |     |        |
| 75°        |            | 24                  |           | 8                           | 52  | 44  | 38      | 51  | 44  | 38            | 50              | 43                     |                     |                   |      |     |        |
| 85°        |            | 5                   |           | 9                           | 48  | 40  | 35      | 47  | 40  | 35            | 46              | 39                     |                     |                   |      |     |        |
| 90°        |            | 0                   |           | 10                          | 44  | 37  | 32      | 44  | 36  | 32            | 43              | 36                     |                     |                   |      |     |        |

WF6 DREG B ALO20 SWW5 90CRI 35K Input Watts: 15.5, Delivered Lumens: 1489, LPW: 96.1, S/MH: 1.21, Test No: ISF 233012P8



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |         |     |     | Cone of Light |                 |                        | Luminance (cd/sq.m) |                   |      |     |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|---------|-----|-----|---------------|-----------------|------------------------|---------------------|-------------------|------|-----|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf pc                       | 80% |     | 20% 70% |     | 50% |               | Mounting Height | Initial FC Center Beam | Beam Diameter       | Average Luminance |      |     |        |
| 0°         | 0° - 30°   | 509                 | 34%       | 0                           | 119 | 119 | 119     | 116 | 116 | 111           | 111             | 111                    | 6.0                 | 18.4              | 14.0 | 0°  | 41,065 |
| 5°         | 0° - 40°   | 821                 | 55%       | 1                           | 107 | 103 | 100     | 105 | 101 | 99            | 100             | 98                     | 8.0                 | 10.3              | 18.7 | 45° | 34,097 |
| 15°        | 0° - 60°   | 1,343               | 90%       | 2                           | 95  | 89  | 84      | 93  | 88  | 83            | 90              | 85                     | 10.0                | 6.6               | 23.3 | 55° | 27,312 |
| 25°        | 0° - 90°   | 1,489               | 100%      | 3                           | 85  | 78  | 72      | 83  | 77  | 71            | 80              | 75                     | 12.0                | 4.6               | 28.0 | 65° | 16,017 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 76  | 68  | 62      | 75  | 67  | 62            | 72              | 66                     | 14.0                | 3.4               | 32.7 | 75° | 5,978  |
| 45°        | 0° - 180°  | 1,489               | 100%      | 5                           | 69  | 60  | 54      | 67  | 60  | 54            | 65              | 59                     |                     |                   |      | 85° | 3,698  |
| 55°        |            | 252                 |           | 6                           | 62  | 54  | 48      | 61  | 53  | 48            | 59              | 53                     | Beam Angle: 98.8°   |                   |      |     |        |
| 65°        |            | 109                 |           | 7                           | 57  | 48  | 43      | 56  | 48  | 43            | 54              | 47                     | Field Angle: 137.4° |                   |      |     |        |
| 75°        |            | 25                  |           | 8                           | 52  | 44  | 38      | 51  | 44  | 38            | 50              | 43                     |                     |                   |      |     |        |
| 85°        |            | 5                   |           | 9                           | 48  | 40  | 35      | 47  | 40  | 35            | 46              | 39                     |                     |                   |      |     |        |
| 90°        |            | 0                   |           | 10                          | 44  | 37  | 32      | 44  | 36  | 32            | 43              | 36                     |                     |                   |      |     |        |

WF6 DREG B ALO20 SWW5 90CRI 40K Input Watts: 15.5, Delivered Lumens: 1500, LPW: 96.8, S/MH: 1.21, Test No: ISF 233012P9



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |         |     |     | Cone of Light |                 |                        | Luminance (cd/sq.m) |                   |      |     |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|---------|-----|-----|---------------|-----------------|------------------------|---------------------|-------------------|------|-----|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf pc                       | 80% |     | 20% 70% |     | 50% |               | Mounting Height | Initial FC Center Beam | Beam Diameter       | Average Luminance |      |     |        |
| 0°         | 0° - 30°   | 513                 | 34%       | 0                           | 119 | 119 | 119     | 116 | 116 | 111           | 111             | 111                    | 6.0                 | 18.5              | 14.0 | 0°  | 41,368 |
| 5°         | 0° - 40°   | 827                 | 55%       | 1                           | 107 | 103 | 100     | 105 | 101 | 99            | 100             | 98                     | 8.0                 | 10.4              | 18.7 | 45° | 34,349 |
| 15°        | 0° - 60°   | 1,353               | 90%       | 2                           | 95  | 89  | 84      | 93  | 88  | 83            | 90              | 85                     | 10.0                | 6.7               | 23.3 | 55° | 27,513 |
| 25°        | 0° - 90°   | 1,500               | 100%      | 3                           | 85  | 78  | 72      | 83  | 77  | 71            | 80              | 75                     | 12.0                | 4.6               | 28.0 | 65° | 16,135 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 76  | 68  | 62      | 75  | 67  | 62            | 72              | 66                     | 14.0                | 3.4               | 32.7 | 75° | 6,022  |
| 45°        | 0° - 180°  | 1,500               | 100%      | 5                           | 69  | 60  | 54      | 67  | 60  | 54            | 65              | 59                     |                     |                   |      | 85° | 3,726  |
| 55°        |            | 254                 |           | 6                           | 62  | 54  | 48      | 61  | 53  | 48            | 59              | 53                     | Beam Angle: 98.8°   |                   |      |     |        |
| 65°        |            | 110                 |           | 7                           | 57  | 48  | 43      | 56  | 48  | 43            | 54              | 47                     | Field Angle: 137.4° |                   |      |     |        |
| 75°        |            | 25                  |           | 8                           | 52  | 44  | 38      | 51  | 44  | 38            | 50              | 43                     |                     |                   |      |     |        |
| 85°        |            | 5                   |           | 9                           | 48  | 40  | 35      | 47  | 40  | 35            | 46              | 39                     |                     |                   |      |     |        |
| 90°        |            | 0                   |           | 10                          | 44  | 37  | 32      | 44  | 36  | 32            | 43              | 36                     |                     |                   |      |     |        |



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

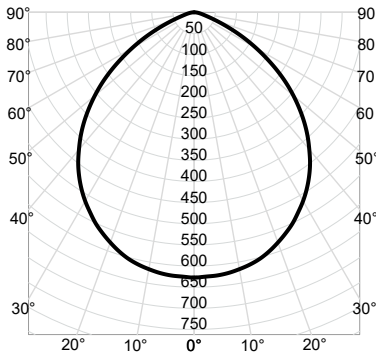
Distribution Data

Output Data

Coefficient of Utilization

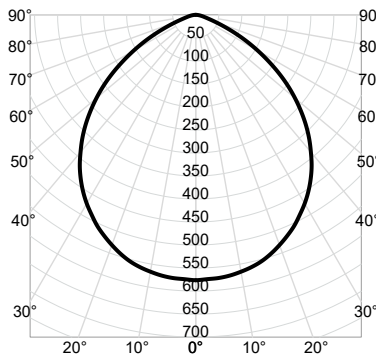
Illuminance Data at 30" Above Floor for a Single Luminaire

**WF6 DREG B ALO20 SWW5 90CRI 50K** Input Watts: 15.5, Delivered Lumens: 1412, LPW: 91.1, S/MH: 1.21, Test No: ISF 233012P10



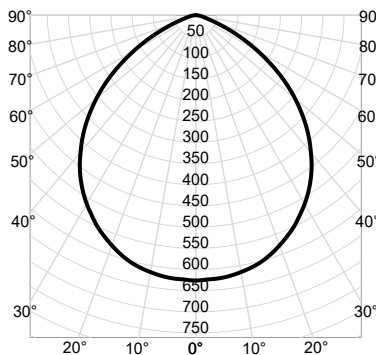
| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     | Cone of Light |                 |                        | Luminance (cd/sq.m) |                   |        |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|---------------|-----------------|------------------------|---------------------|-------------------|--------|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf pc                       | 80% |     | 20% |     | 50% |               | Mounting Height | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |        |
|            |            |                     |           |                             | 50% | 30% | 10% | 50% | 30% | 10%           |                 |                        |                     |                   |        |        |
| 0°         | 0° - 30°   | 483                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116           | 111             | 111                    | 111                 | 111               | 0°     | 38,941 |
| 5°         | 0° - 40°   | 778                 | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99            | 100             | 98                     | 95                  | 45°               | 32,334 |        |
| 15°        | 0° - 60°   | 1,274               | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83            | 90              | 85                     | 82                  | 55°               | 25,899 |        |
| 25°        | 0° - 90°   | 1,412               | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71            | 80              | 75                     | 70                  | 65°               | 15,188 |        |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62            | 72              | 66                     | 61                  | 75°               | 5,669  |        |
| 45°        | 0° - 180°  | 1,412               | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54            | 65              | 59                     | 54                  | 85°               | 3,507  |        |
| 55°        |            | 239                 |           | 6                           | 62  | 54  | 48  | 61  | 53  | 48            | 59              | 53                     | 47                  |                   |        |        |
| 65°        |            | 103                 |           | 7                           | 57  | 48  | 43  | 56  | 48  | 43            | 54              | 47                     | 42                  |                   |        |        |
| 75°        |            | 24                  |           | 8                           | 52  | 44  | 38  | 51  | 44  | 38            | 50              | 43                     | 38                  |                   |        |        |
| 85°        |            | 5                   |           | 9                           | 48  | 40  | 35  | 47  | 40  | 35            | 46              | 39                     | 34                  |                   |        |        |
| 90°        |            | 0                   |           | 10                          | 44  | 37  | 32  | 44  | 36  | 32            | 43              | 36                     | 31                  |                   |        |        |

**WF6 DREG SM ALO20 SWW5 90CRI 27K** Input Watts: 15.5, Delivered Lumens: 1297, LPW: 83.7, S/MH: 1.21, Test No: ISF 233012P1



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     | Cone of Light |                 |                        | Luminance (cd/sq.m) |                   |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|---------------|-----------------|------------------------|---------------------|-------------------|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf pc                       | 80% |     | 20% |     | 50% |               | Mounting Height | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |            |                     |           |                             | 50% | 30% | 10% | 50% | 30% | 10%           |                 |                        |                     |                   |        |
| 0°         | 0° - 30°   | 444                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116           | 111             | 111                    | 111                 | 0°                | 35,770 |
| 5°         | 0° - 40°   | 715                 | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99            | 100             | 98                     | 95                  | 45°               | 29,701 |
| 15°        | 0° - 60°   | 1,170               | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83            | 90              | 85                     | 82                  | 55°               | 23,790 |
| 25°        | 0° - 90°   | 1,297               | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71            | 80              | 75                     | 70                  | 65°               | 13,951 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62            | 72              | 66                     | 61                  | 75°               | 5,207  |
| 45°        | 0° - 180°  | 1,297               | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54            | 65              | 59                     | 54                  | 85°               | 3,221  |
| 55°        |            | 220                 |           | 6                           | 62  | 54  | 48  | 61  | 53  | 48            | 59              | 53                     | 47                  |                   |        |
| 65°        |            | 95                  |           | 7                           | 57  | 48  | 43  | 56  | 48  | 43            | 54              | 47                     | 42                  |                   |        |
| 75°        |            | 22                  |           | 8                           | 52  | 44  | 38  | 51  | 44  | 38            | 50              | 43                     | 38                  |                   |        |
| 85°        |            | 5                   |           | 9                           | 48  | 40  | 35  | 47  | 40  | 35            | 46              | 39                     | 34                  |                   |        |
| 90°        |            | 0                   |           | 10                          | 44  | 37  | 32  | 44  | 36  | 32            | 43              | 36                     | 31                  |                   |        |

**WF6 DREG SM ALO20 SWW5 90CRI 30K** Input Watts: 15.5, Delivered Lumens: 1409, LPW: 90.9, S/MH: 1.21, Test No: ISF 233012P2



| CP Summary |            | Zonal Lumen Summary |           | Coefficients of Utilization |     |     |     |     |     | Cone of Light |                 |                        | Luminance (cd/sq.m) |                   |        |
|------------|------------|---------------------|-----------|-----------------------------|-----|-----|-----|-----|-----|---------------|-----------------|------------------------|---------------------|-------------------|--------|
| 0°         | Zone       | Lumens              | % Fixture | pf pc                       | 80% |     | 20% |     | 50% |               | Mounting Height | Initial FC Center Beam | Beam Diameter       | Average Luminance |        |
|            |            |                     |           |                             | 50% | 30% | 10% | 50% | 30% | 10%           |                 |                        |                     |                   |        |
| 0°         | 0° - 30°   | 482                 | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116           | 111             | 111                    | 111                 | 0°                | 38,859 |
| 5°         | 0° - 40°   | 777                 | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99            | 100             | 98                     | 95                  | 45°               | 32,265 |
| 15°        | 0° - 60°   | 1,271               | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83            | 90              | 85                     | 82                  | 55°               | 25,844 |
| 25°        | 0° - 90°   | 1,409               | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71            | 80              | 75                     | 70                  | 65°               | 15,156 |
| 35°        | 90° - 180° | 0                   | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62            | 72              | 66                     | 61                  | 75°               | 5,657  |
| 45°        | 0° - 180°  | 1,409               | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54            | 65              | 59                     | 54                  | 85°               | 3,500  |
| 55°        |            | 239                 |           | 6                           | 62  | 54  | 48  | 61  | 53  | 48            | 59              | 53                     | 47                  |                   |        |
| 65°        |            | 103                 |           | 7                           | 57  | 48  | 43  | 56  | 48  | 43            | 54              | 47                     | 42                  |                   |        |
| 75°        |            | 24                  |           | 8                           | 52  | 44  | 38  | 51  | 44  | 38            | 50              | 43                     | 38                  |                   |        |
| 85°        |            | 5                   |           | 9                           | 48  | 40  | 35  | 47  | 40  | 35            | 46              | 39                     | 34                  |                   |        |
| 90°        |            | 0                   |           | 10                          | 44  | 37  | 32  | 44  | 36  | 32            | 43              | 36                     | 31                  |                   |        |



# Juno Wafer™ LED Downlight Series

4" & 6" SWW5 + ALO LED Flat & Deep Regressed Wafers

## PHOTOMETRICS

Distribution Curve

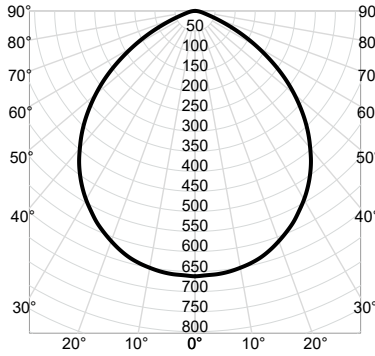
Distribution Data

Output Data

Coefficient of Utilization

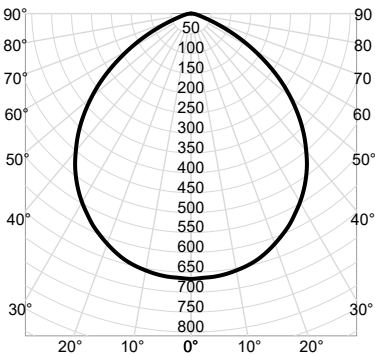
Illuminance Data at 30" Above Floor for a Single Luminaire

WF6 DREG SM ALO20 SWW5 90CRI 35K Input Watts: 15.5, Delivered Lumens: 1489, LPW: 96.1, S/MH: 1.21, Test No: ISF 233012P3



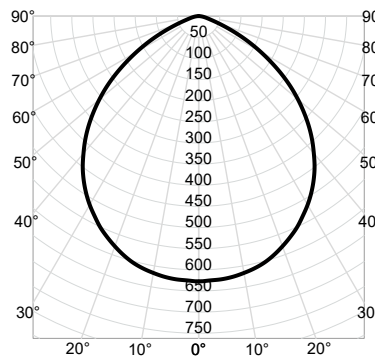
| 0°  | Zonal Lumen Summary |        |           | Coefficients of Utilization |     |     |     |     |     |     |                 |                        | Cone of Light |                     |      | Luminance (cd/sq.m) |     |        |
|-----|---------------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----------------|------------------------|---------------|---------------------|------|---------------------|-----|--------|
|     | Zone                | Lumens | % Fixture | pw                          | 80% |     |     | 20% |     |     | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |      |                     |     |        |
|     |                     |        |           |                             | 50% | 30% | 10% | 50% | 30% | 10% |                 |                        |               |                     | 50%  | 30%                 | 10% |        |
| 0°  | 0° - 30°            | 509    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111             | 111                    | 111           | 6.0                 | 18.4 | 14.0                | 0°  | 41,065 |
| 5°  | 0° - 40°            | 821    | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99  | 100             | 98                     | 95            | 8.0                 | 10.3 | 18.7                | 45° | 34,097 |
| 15° | 0° - 60°            | 1,343  | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83  | 90              | 85                     | 82            | 10.0                | 6.6  | 23.3                | 55° | 27,312 |
| 25° | 0° - 90°            | 1,489  | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71  | 80              | 75                     | 70            | 12.0                | 4.6  | 28.0                | 65° | 16,017 |
| 35° | 90° - 180°          | 0      | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62  | 72              | 66                     | 61            | 14.0                | 3.4  | 32.7                | 75° | 5,978  |
| 45° | 0° - 180°           | 1,489  | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54  | 65              | 59                     | 54            |                     |      |                     | 85° | 3,698  |
| 55° |                     | 252    |           | 6                           | 62  | 54  | 48  | 61  | 53  | 48  | 59              | 53                     | 47            | Beam Angle: 98.8°   |      |                     |     |        |
| 65° |                     | 109    |           | 7                           | 57  | 48  | 43  | 56  | 48  | 43  | 54              | 47                     | 42            | Field Angle: 137.4° |      |                     |     |        |
| 75° |                     | 25     |           | 8                           | 52  | 44  | 38  | 51  | 44  | 38  | 50              | 43                     | 38            |                     |      |                     |     |        |
| 85° |                     | 5      |           | 9                           | 48  | 40  | 35  | 47  | 40  | 35  | 46              | 39                     | 34            |                     |      |                     |     |        |
| 90° |                     | 0      |           | 10                          | 44  | 37  | 32  | 44  | 36  | 32  | 43              | 36                     | 31            |                     |      |                     |     |        |

WF6 DREG SM ALO20 SWW5 90CRI 40K Input Watts: 15.5, Delivered Lumens: 1500, LPW: 96.8, S/MH: 1.21, Test No: ISF 233012P4



| 0°  | Zonal Lumen Summary |        |           | Coefficients of Utilization |     |     |     |     |     |     |                 |                        | Cone of Light |                     |      | Luminance (cd/sq.m) |     |        |
|-----|---------------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----------------|------------------------|---------------|---------------------|------|---------------------|-----|--------|
|     | Zone                | Lumens | % Fixture | pw                          | 80% |     |     | 20% |     |     | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |      |                     |     |        |
|     |                     |        |           |                             | 50% | 30% | 10% | 50% | 30% | 10% |                 |                        |               |                     | 50%  | 30%                 | 10% |        |
| 0°  | 0° - 30°            | 513    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111             | 111                    | 111           | 6.0                 | 18.5 | 14.0                | 0°  | 41,368 |
| 5°  | 0° - 40°            | 827    | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99  | 100             | 98                     | 95            | 8.0                 | 10.4 | 18.7                | 45° | 34,349 |
| 15° | 0° - 60°            | 1,353  | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83  | 90              | 85                     | 82            | 10.0                | 6.7  | 23.3                | 55° | 27,513 |
| 25° | 0° - 90°            | 1,500  | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71  | 80              | 75                     | 70            | 12.0                | 4.6  | 28.0                | 65° | 16,135 |
| 35° | 90° - 180°          | 0      | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62  | 72              | 66                     | 61            | 14.0                | 3.4  | 32.7                | 75° | 6,022  |
| 45° | 0° - 180°           | 1,500  | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54  | 65              | 59                     | 54            |                     |      |                     | 85° | 3,726  |
| 55° |                     | 254    |           | 6                           | 62  | 54  | 48  | 61  | 53  | 48  | 59              | 53                     | 47            | Beam Angle: 98.8°   |      |                     |     |        |
| 65° |                     | 110    |           | 7                           | 57  | 48  | 43  | 56  | 48  | 43  | 54              | 47                     | 42            | Field Angle: 137.4° |      |                     |     |        |
| 75° |                     | 25     |           | 8                           | 52  | 44  | 38  | 51  | 44  | 38  | 50              | 43                     | 38            |                     |      |                     |     |        |
| 85° |                     | 5      |           | 9                           | 48  | 40  | 35  | 47  | 40  | 35  | 46              | 39                     | 34            |                     |      |                     |     |        |
| 90° |                     | 0      |           | 10                          | 44  | 37  | 32  | 44  | 36  | 32  | 43              | 36                     | 31            |                     |      |                     |     |        |

WF6 DREG SM ALO20 SWW5 90CRI 50K Input Watts: 15.5, Delivered Lumens: 1412, LPW: 91.1, S/MH: 1.21, Test No: ISF 233012P5



| 0°  | Zonal Lumen Summary |        |           | Coefficients of Utilization |     |     |     |     |     |     |                 |                        | Cone of Light |                     |      | Luminance (cd/sq.m) |     |        |
|-----|---------------------|--------|-----------|-----------------------------|-----|-----|-----|-----|-----|-----|-----------------|------------------------|---------------|---------------------|------|---------------------|-----|--------|
|     | Zone                | Lumens | % Fixture | pw                          | 80% |     |     | 20% |     |     | Mounting Height | Initial FC Center Beam | Beam Diameter | Average Luminance   |      |                     |     |        |
|     |                     |        |           |                             | 50% | 30% | 10% | 50% | 30% | 10% |                 |                        |               |                     | 50%  | 30%                 | 10% |        |
| 0°  | 0° - 30°            | 483    | 34%       | 0                           | 119 | 119 | 119 | 116 | 116 | 116 | 111             | 111                    | 111           | 6.0                 | 17.4 | 14.0                | 0°  | 38,941 |
| 5°  | 0° - 40°            | 778    | 55%       | 1                           | 107 | 103 | 100 | 105 | 101 | 99  | 100             | 98                     | 95            | 8.0                 | 9.8  | 18.7                | 45° | 32,334 |
| 15° | 0° - 60°            | 1,274  | 90%       | 2                           | 95  | 89  | 84  | 93  | 88  | 83  | 90              | 85                     | 82            | 10.0                | 6.3  | 23.3                | 55° | 25,899 |
| 25° | 0° - 90°            | 1,412  | 100%      | 3                           | 85  | 78  | 72  | 83  | 77  | 71  | 80              | 75                     | 70            | 12.0                | 4.4  | 28.0                | 65° | 15,188 |
| 35° | 90° - 180°          | 0      | 0%        | 4                           | 76  | 68  | 62  | 75  | 67  | 62  | 72              | 66                     | 61            | 14.0                | 3.2  | 32.7                | 75° | 5,669  |
| 45° | 0° - 180°           | 1,412  | 100%      | 5                           | 69  | 60  | 54  | 67  | 60  | 54  | 65              | 59                     | 54            |                     |      |                     | 85° | 3,507  |
| 55° |                     | 239    |           | 6                           | 62  | 54  | 48  | 61  | 53  | 48  | 59              | 53                     | 47            | Beam Angle: 98.8°   |      |                     |     |        |
| 65° |                     | 103    |           | 7                           | 57  | 48  | 43  | 56  | 48  | 43  | 54              | 47                     | 42            | Field Angle: 137.4° |      |                     |     |        |
| 75° |                     | 24     |           | 8                           | 52  | 44  | 38  | 51  | 44  | 38  | 50              | 43                     | 38            |                     |      |                     |     |        |
| 85° |                     | 5      |           | 9                           | 48  | 40  | 35  | 47  | 40  | 35  | 46              | 39                     | 34            |                     |      |                     |     |        |
| 90° |                     | 0      |           | 10                          | 44  | 37  | 32  | 44  | 36  | 32  | 43              | 36                     | 31            |                     |      |                     |     |        |