



Features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility. IntelliHue color changing capability combines the consistent quality of light from both Lightolier Calculite downlights with Color Kinetics, and provides millions of combinations of precise white and color to maximize potential of architectural appeal in application. Calculite plus Color Kinetics greatly expands product flexibility in addition to providing peace of mind with precision quality from a broad array of IntelliHue luminaires.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Complete luminaire = Frame + Engine + Trim + Accessories (optional)

Frame

example: 6RN

| Series | Installation | Voltage / Options |
|--------------------|--------------------|-----------------------|
| 6R 6" Non-IC Round | N New construction | — Universal 120V/277V |
| | R Remodeler | — Universal 120V/277V |

Engine

example: C6L15CKMDMXU

| Series | Lumens ² | Color Kinetics | Beam | Dimming | Voltage |
|----------------------|------------------------|---------------------------------|--------------------------------|--------------------------|----------------------------|
| C6L | | | | | |
| C6L Calculite LED 6" | 15 1500lm ³ | CK IntelliHue by Color Kinetics | M Medium (56°) W Wide (76°) | DMX Digital Multiplexing | U Universal 120V/277V/347V |

Trim

example: C6RDLCCP

| Series | Aperture | Style | Finish | Flange |
|---------------------|----------|---|--|--|
| C6 | | | | |
| C6 Calculite LED 6" | R Round | DL Downlight WW Wall Wash ¹ | BK Black (anodized) CL Specular clear | CC Comfort clear CD Comfort clear diffuse CZ Champagne bronze |
| | | | WH White (matte) | — White (matte) P Polished (matches aperture) F Flangeless (requires CA4RFT) |

Accessories

| | |
|---------|--|
| CA6RFT | Mud-in ring for use in flangeless trim installations (ordered with a flangeless trim) |
| C6RVPWH | IP65 Rated vandal proof matte white accessory mounts onto flangeless trims (C6RDL*F) and new construction frame only |

- Specify Wide (W) beam light engine only for Wall Wash trim option.
- Nominal Lumens at 25°C ambient temperature.
- Nominal output varies by color temperature/hue selected.

C6RCK Calculite LED 6" gen 3

Downlight & Wall Wash with IntelliHue

Frame-in-kits

New Construction:

Galvanized stamped steel for dry or plaster ceilings. Preinstalled telescoping mounting bars from 13" to 24". For 4' distances, use 1/2" EMT, 1-1/2" x 1/2" U or C channel.

Max ceiling thickness is 2.75" (70 mm) including PoE frame 4.88" (124 mm) plenum depth for installation.

Emergency:

For reflector mounted emergency test switch add "EM" to end of catalog code (example: C6RDLCCCEM). Leave blank for ceiling mounted test switch. Reflector mounted test switch requires above ceiling access.

Patented install Mounting frame:

- Pre-installed mounting bars for fast and tool-less installs into T-grid & hat channel ceilings.
- Close-cut aperture design eliminates possibility of gap between ceiling opening and reflector flange.
- Separate wiring compartment for wiring frame to building allows inspection prior to light engine install.
- Simple plug-and-play connection between frame and light engine from below ceiling.

Control

Interface:

Data Enabler Pro (DMX or Ethernet)

Control System:

Color Kinetics full range of controllers, including Light System Manager, Video System Manager Pro, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro

Remote Monitoring & Management:

Philips Activesite ready, works with Interact Landmark.

Light engine

Quick connect power pack allow for easy installation and replacement from below ceiling with no need for additional wiring. This allows for:

- Frame and ceiling installation to be performed while still finalizing details such as lumen packages, CCT and control type.
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Ease and upgradability of technology.
- Predicted 70% lumen maintenance to 78,000 hrs.
- Max operating ambient temperature 30°C.

Optical systems

Comfort throughout the space:

True 50° physical cutoff and 45° reflected cutoff.

Quality of light:

2 SDCM ensures color consistency from fixture to fixture and over the luminaire's long lifetime.

Time tested 3-step technology from Color Kinetics now exclusively available in Calculite downlights assures color consistency between luminaires in the space.

Optibin

A proprietary binning optimization process that exceeds industry standards for chromaticity leading to uniformity and consistency of hue and color temperature

Chromasync

An advanced algorithm that delivers improved color consistency between luminaires by adjusting color points. Factory adjustments translates to less time calibrating in the field and more time commissioning for desired lighting effect.

IntelliHue

Brings unparalleled consistency in CRI and quality of both white and color LED light to Calculite downlights. Color-control technology enables use of millions of colors and shades of white light with pinpoint precision.

Options and Accessories

Flangeless mud-in ring:

Use CA4RFT for use with flangeless plaster installations.

Sloped ceilings: Compatible with sloped ceiling adapters (see SCA spec sheet).

Vandal Proof: Use C4RVPWH for an IP65 rated vandal proof matte white accessory. Must be ordered with flangeless trim and new construction frame.

Labels and Listings

- cULus listed for wet locations

- IP65 rated with vandal proof accessory

Warranty



5 year limited warranty

Visit [Signify.com/warranties](https://www.signify.com/warranties) for more information on Signify's standard 5-year limited warranty on complete luminaire systems.

Output

| Beam Angle | Medium | Wide |
|------------------|-------------------------------------|------|
| Lumens @ 2700K | 1601 | 1514 |
| Lumens @ 4000K | 1610 | 1524 |
| Efficacy @ 2700K | 72.9 | 68.8 |
| Efficacy @ 4000K | 71.0 | 69.9 |
| CRI @ 2700K | 88 | 88 |
| CRI R9 @ 2700K | 74 | 75 |
| CRI @ 4000K | 90 | 91 |
| CRI R9 @ 4000K | 59 | 61 |
| LED Channels | Red-Orange, Green, Blue, Mint, Lime | |

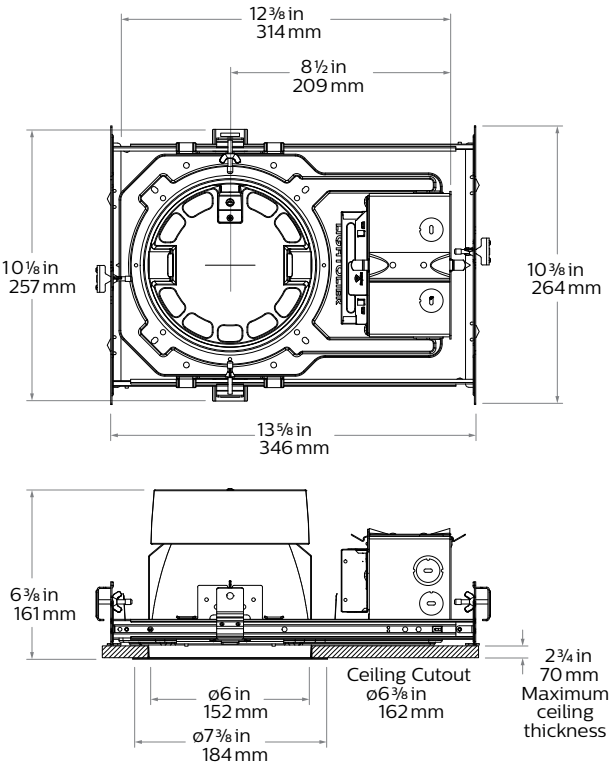
Electrical

| | |
|-------------------|---------------------------------------|
| Input Voltage | 100 to 277 VAC, auto-ranging, 50/60Hz |
| Power Consumption | 24W |
| Input Current | 120V @ 0.205A |
| | 277V @ 0.087A |
| Power Factor | >0.9 @ 100 to 240 VAC |
| LED Channels | >0.85 @ 277 VAC |

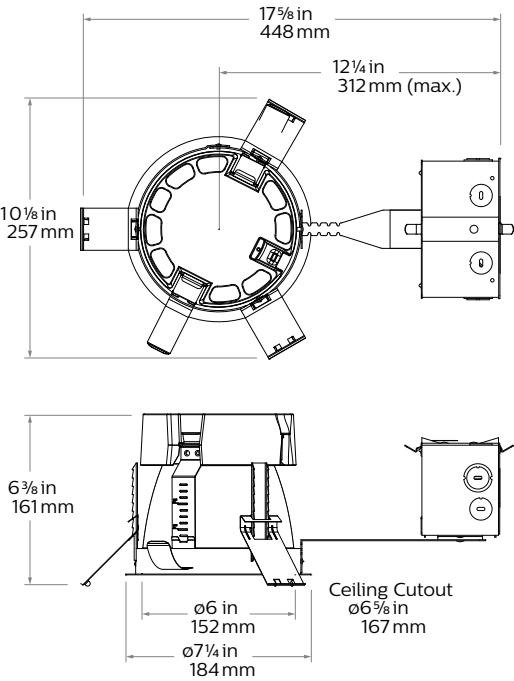
C6RCK Calculite LED 6" gen 3

Downlight & Wall Wash with IntelliHue

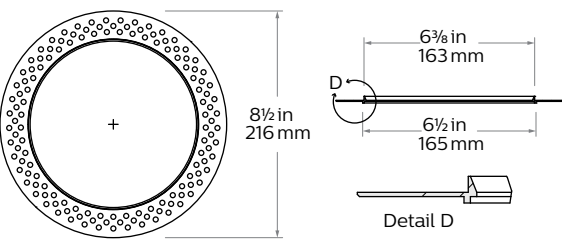
New Construction (N)



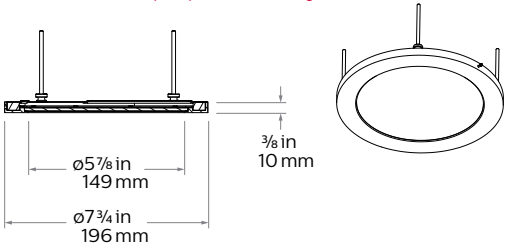
Remodeler (R)



Flangeless mud-in ring (CA6RFT) accessory



Vandal Proof (VP) accessory



C6RCK Calculite LED 6" gen 3

Downlight & Wall Wash with IntelliHue

Reflector



Specular clear (CL): Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



Champagne bronze (CZ): Semi-specular finish that softens light at the source of the reflector while providing a warmer reflector appearance (slightly warmer).



Comfort clear (CC): Semi-specular finish that softens the light at the source of the reflector and creates a subtle, even luminance from the reflector cone.



White (WH): (matte) Brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



Comfort clear diffuse (CD): Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.



Black (BK): (matte) Specular finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.



Vandal proof (VP): Provides an elegant solution for vandal resistant needs. One piece machined aluminum ring with impact resistant clear lens. Flangeless (F) flange must be ordered. Provides the luminaire with an IK10 impact and IP65 rating.

Flange



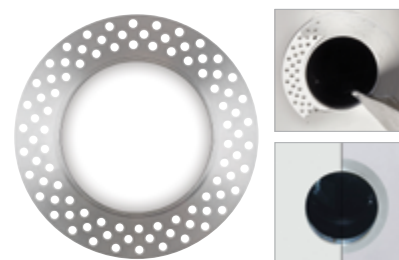
White (-): (matte) Provides the smoothest transition to ceilings when off.



Polished (P): (matches aperture) Produces a continuous look throughout the reflector (aperture matching).



Flangeless (F): (flush-mount) Creates a flush, virtually seamless transition from aperture to ceiling.



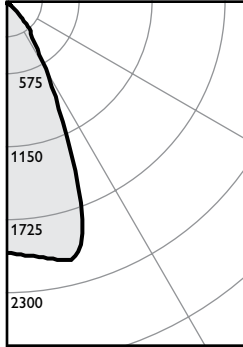
Mud-in ring (FT): Low profile, machined aluminum mud-in ring provides a raised rib to plaster up to and a 3/16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

C6RCK Calculite LED 6" gen 3

Downlight & Wall Wash with IntelliHue

Downlight, Medium beam, 1500lm Engine, 74.8 lm/W at 20.7W

Candela Curve



Frame: **6RN**
Engine: **C6L15CKMDMXU**
Trim: **C6RDLCL**

Output lumens: 1548 lms
Input watts¹: 20.7 W
CRI: 90 min
CCT²: 3500K
Spacing Crit.: 0.84

Zonal summary

| Zone | Lumens | %Luminaire |
|------|--------|------------|
| 0-30 | 1223 | 79.0% |
| 0-40 | 1458 | 94.2% |
| 0-60 | 1543 | 99.7% |
| 0-90 | 1548 | 100.0% |

| Angle | Mean CP | Lumens |
|-------|---------|--------|
| 0 | 1982 | |
| 5 | 2010 | |
| 10 | 2058 | 195 |
| 15 | 2075 | |
| 20 | 1689 | 549 |
| 25 | 1039 | |
| 30 | 601 | 479 |
| 35 | 366 | |
| 40 | 245 | 236 |
| 45 | 100 | |
| 50 | 9 | 82 |
| 55 | 3 | |
| 60 | 2 | 3 |
| 65 | 1 | |
| 70 | 1 | 1 |
| 75 | 0 | |
| 80 | 0 | 0 |
| 85 | 0 | |
| 90 | 0 | |

Single unit data

| Height to lighted plane | Initial center beam foot-candles | Beam diameter (ft)* |
|-------------------------|----------------------------------|---------------------|
| 5' | 79 | 4.2' |
| 6' | 55 | 5.0' |
| 7' | 40 | 5.9' |
| 8' | 31 | 6.7' |
| 9' | 24 | 7.6' |

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

Multiple unit data - RCR 2

| Spacing on center | Initial center beam foot-candles | Watts per sq. ft. |
|-------------------|----------------------------------|-------------------|
| 5' | 72.0 | 0.92 |
| 6' | 47.0 | 0.60 |
| 7' | 34.0 | 0.43 |
| 8' | 28.0 | 0.36 |
| 9' | 22.0 | 0.29 |

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: **74.8 lm/w**
Report³: STMR-95-I

Adjustment factors

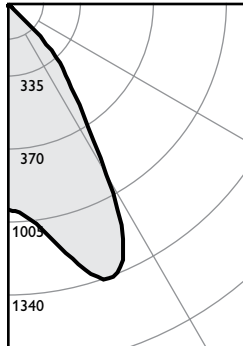
| Finish | CCT |
|-----------|--------------|
| CL = 100% | 2700K = 103% |
| CC = 95% | 3000K = 101% |
| CD = 87% | 3500K = 100% |
| CZ = 63% | 4000K = 103% |
| WH = 87% | 5000K = 96% |
| BK = 57% | 6500K = 88% |

Coefficients of utilization

| Ceiling | 80% | | | | 70% | | | | 50% | | | | 30% | | | | 0% |
|-------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| Wall | 70 | 50 | 30 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 0 |
| RCR | Zonal cavity method - Effective floor reflectance = 20% | | | | | | | | | | | | | | | | |
| Room Cavity Ratio | 0 | 119 | 119 | 119 | 119 | 116 | 116 | 111 | 111 | 106 | 106 | 100 | 106 | 106 | 100 | 94 | 88 |
| 1 | 114 | 111 | 109 | 107 | 109 | 105 | 105 | 102 | 102 | 101 | 99 | 94 | 96 | 94 | 88 | 83 | 78 |
| 2 | 109 | 104 | 100 | 97 | 102 | 96 | 96 | 94 | 94 | 91 | 88 | 83 | 91 | 88 | 83 | 78 | 73 |
| 3 | 104 | 98 | 93 | 89 | 96 | 89 | 89 | 87 | 87 | 84 | 81 | 77 | 86 | 82 | 75 | 73 | 69 |
| 4 | 99 | 92 | 87 | 83 | 91 | 82 | 82 | 81 | 81 | 78 | 75 | 71 | 81 | 77 | 71 | 69 | 65 |
| 5 | 94 | 87 | 81 | 77 | 86 | 77 | 77 | 76 | 76 | 74 | 71 | 67 | 76 | 72 | 67 | 65 | 62 |
| 6 | 90 | 82 | 76 | 72 | 81 | 72 | 72 | 71 | 71 | 70 | 67 | 63 | 72 | 68 | 63 | 61 | 58 |
| 7 | 86 | 77 | 72 | 68 | 77 | 68 | 68 | 67 | 67 | 66 | 63 | 60 | 70 | 66 | 61 | 59 | 56 |
| 8 | 82 | 73 | 68 | 64 | 73 | 64 | 64 | 63 | 63 | 62 | 60 | 57 | 68 | 64 | 59 | 57 | 54 |
| 9 | 79 | 70 | 64 | 60 | 69 | 60 | 60 | 59 | 59 | 58 | 56 | 53 | 66 | 62 | 57 | 55 | 52 |
| 10 | 75 | 66 | 61 | 57 | 66 | 57 | 57 | 56 | 56 | 55 | 53 | 50 | 64 | 60 | 55 | 53 | 50 |

Downlight, Wide beam, 1500lm Engine, 70.7 lm/W at 20.7W

Candela Curve



Frame: **6RN**
Engine: **C6L15CKWDMXU**
Trim: **C6RDLCL**

Output lumens: 1464 lms
Input watts¹: 20.7 W
CRI: 90 min
CCT²: 3500K
Spacing Crit.: 1.24

Zonal summary

| Zone | Lumens | %Luminaire |
|------|--------|------------|
| 0-30 | 974 | 66.5% |
| 0-40 | 1327 | 90.6% |
| 0-60 | 1459 | 99.7% |
| 0-90 | 1464 | 100.0% |

| Angle | Mean CP | Lumens |
|-------|---------|--------|
| 0 | 792 | |
| 5 | 824 | |
| 10 | 923 | 81 |
| 15 | 1028 | |
| 20 | 1077 | 285 |
| 25 | 1035 | |
| 30 | 835 | 449 |
| 35 | 566 | |
| 40 | 381 | 349 |
| 45 | 173 | |
| 50 | 16 | 127 |
| 55 | 3 | |
| 60 | 2 | 4 |
| 65 | 1 | |
| 70 | 1 | 1 |
| 75 | 0 | |
| 80 | 0 | 0 |
| 85 | 0 | |
| 90 | 0 | |

Single unit data

| Height to lighted plane | Initial center beam foot-candles | Beam diameter (ft)* |
|-------------------------|----------------------------------|---------------------|
| 5' | 32 | 6.2' |
| 6' | 22 | 7.4' |
| 7' | 16 | 8.7' |
| 8' | 12 | 9.9' |
| 9' | 10 | 11.2' |

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

Multiple unit data - RCR 2

| Spacing on center | Initial center beam foot-candles | Watts per sq. ft. |
|-------------------|----------------------------------|-------------------|
| 5' | 59.0 | 0.92 |
| 6' | 43.0 | 0.60 |
| 7' | 31.0 | 0.43 |
| 8' | 25.0 | 0.36 |
| 9' | 21.0 | 0.29 |

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: **70.7 lm/w**
Report³: STMR-95-I

Adjustment factors

| Finish | CCT |
|-----------|--------------|
| CL = 100% | 2700K = 103% |
| CC = 95% | 3000K = 101% |
| CD = 87% | 3500K = 100% |
| CZ = 63% | 4000K = 103% |
| WH = 87% | 5000K = 96% |
| BK = 57% | 6500K = 88% |

Coefficients of utilization

| Ceiling | 80% | | | | 70% | | | | 50% | | | | 30% | | | | 0% |
|-------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| Wall | 70 | 50 | 30 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 0 |
| RCR | Zonal cavity method - Effective floor reflectance = 20% | | | | | | | | | | | | | | | | |
| Room Cavity Ratio | 0 | 119 | 119 | 119 | 119 | 116 | 116 | 111 | 111 | 106 | 106 | 100 | 106 | 106 | 100 | 94 | 88 |
| 1 | 113 | 110 | 108 | 105 | 108 | 104 | 104 | 104 | 104 | 101 | 99 | 94 | 96 | 94 | 88 | 83 | 78 |
| 2 | 107 | 102 | 98 | 95 | 101 | 94 | 94 | 97 | 97 | 91 | 88 | 83 | 91 | 88 | 83 | 78 | 73 |
| 3 | 102 | 95 | 90 | 86 | 93 | 85 | 85 | 91 | 91 | 84 | 81 | 77 | 86 | 82 | 75 | 73 | 69 |
| 4 | 96 | 88 | 82 | 78 | 87 | 78 | 78 | 85 | 85 | 77 | 74 | 70 | 81 | 77 | 71 | 69 | 65 |
| 5 | 91 | 82 | 76 | 71 | 81 | 71 | 71 | 79 | 79 | 70 | 67 | 63 | 76 | 72 | 67 | 65 | 62 |
| 6 | 86 | 77 | 70 | 66 | 76 | 65 | 65 | 74 | 74 | 65 | 62 | 58 | 72 | 68 | 63 | 61 | 58 |
| 7 | 81 | 71 | 65 | 61 | 71 | 61 | 61 | 69 | 69 | 60 | 57 | 53 | 68 | 64 | 59 | 57 | 54 |
| 8 | 77 | 67 | 61 | 56 | 66 | 56 | 56 | 65 | 65 | 56 | 53 | 50 | 64 | 60 | 55 | 53 | 50 |
| 9 | 73 | 63 | 56 | 52 | 62 | 52 | 52 | 61 | 61 | 52 | 49 | 46 | 60 | 56 | 51 | 49 | 46 |
| 10 | 69 | 59 | 53 | 49 | 58 | 49 | 49 | 58 | 58 | 48 | 45 | 42 | 57 | 53 | 48 | 46 | 43 |

1. Wattage controlled to within 65%.

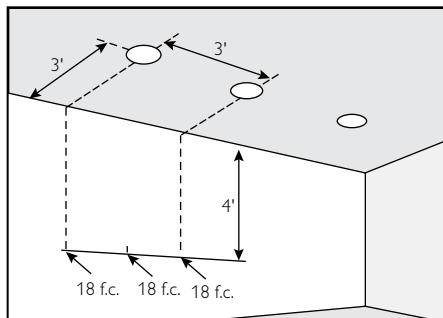
2. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

C6RCK Calculite LED 6" gen 3

Downlight & Wall Wash with IntelliHue

Spacing

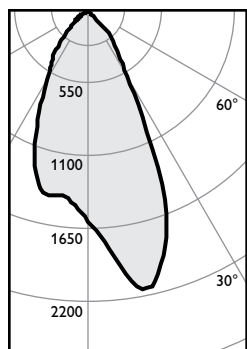


Adjustment factors

| Finish | CCT |
|-----------|--------------|
| CL = 100% | 2700K = 103% |
| CC = 95% | 3000K = 101% |
| CD = 87% | 3500K = 100% |
| CZ = 63% | 4000K = 103% |
| WH = 87% | 5000K = 96% |
| BK = 57% | 6500K = 88% |

Wall wash, 1500lm Engine, 68.0 lm/W at 21.3W

Candela Curve



Frame: **4RN**
Engine: **C4L15CKWDMXU**
Trim: **C4RWWCL**

Output lumens: 1447 lms
Input watts: 21.3 W
CRI: 90 min
CCT¹: 3500K

Efficacy: **68.0 lm/w**
Report²: STMR-95-1

Multiple unit data

Footcandles on wall

| | 2' from wall | | | |
|-------------------------------|--------------|----|----|----|
| | 3' on ctr. | | | |
| Distance from ceiling in feet | 1 | 5 | 6 | 5 |
| 2 | 15 | 16 | 16 | 15 |
| 3 | 22 | 23 | 22 | 22 |
| 4 | 26 | 27 | 26 | 26 |
| 5 | 25 | 26 | 25 | 25 |
| 6 | 22 | 24 | 22 | 22 |
| 7 | 19 | 20 | 19 | 19 |
| 8 | 16 | 17 | 16 | 16 |
| 9 | 14 | 14 | 14 | 14 |
| 10 | 12 | 12 | 12 | 12 |
| 12 | 11 | 11 | 11 | 11 |
| 14 | 10 | 10 | 10 | 10 |

Multiple unit data

Footcandles on wall

| | 3' from wall | | | |
|-------------------------------|--------------|----|----|----|
| | 3' on ctr. | | | |
| Distance from ceiling in feet | 1 | 5 | 5 | 5 |
| 2 | 11 | 11 | 11 | 11 |
| 3 | 16 | 16 | 16 | 16 |
| 4 | 18 | 18 | 18 | 18 |
| 5 | 18 | 18 | 18 | 18 |
| 6 | 16 | 17 | 16 | 16 |
| 7 | 14 | 15 | 14 | 14 |
| 8 | 13 | 13 | 13 | 13 |
| 9 | 11 | 11 | 11 | 11 |
| 10 | 10 | 10 | 10 | 10 |
| 12 | 8 | 9 | 8 | 8 |
| 14 | 7 | 8 | 7 | 7 |

Multiple unit data

Footcandles on wall

| | 3' from wall | | | |
|-------------------------------|--------------|----|----|----|
| | 4' on ctr. | | | |
| Distance from ceiling in feet | 1 | 3 | 3 | 3 |
| 2 | 6 | 6 | 6 | 6 |
| 3 | 10 | 10 | 10 | 10 |
| 4 | 12 | 12 | 12 | 12 |
| 5 | 13 | 13 | 13 | 13 |
| 6 | 12 | 12 | 12 | 12 |
| 7 | 12 | 12 | 12 | 12 |
| 8 | 12 | 12 | 12 | 12 |
| 9 | 11 | 11 | 11 | 11 |
| 10 | 10 | 10 | 10 | 10 |
| 12 | 9 | 9 | 9 | 9 |
| 14 | 8 | 8 | 8 | 8 |

1. Wattage controlled to within 65%.
2. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.



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