LIGHTOLIER
by signify

Downlighting
LyteProfile 4"
P4R Round Downlight & Wall Wash

LyteProfile downlights and wall washers provide a perfect balance of functionality with glare control. The robust and versatile UniFrame frame-in kit makes changes and updates easy to manage and install. High optical efficiency reinforced with Accurender technology provides an optimum balance of performance and quality of light. Ideal for use in a variety of applications including open office, institutional, healthcare, and retail.

Standard luminaire: Complete luminaire = Frame + Engine + Trim + Accessories (optional)
Flex install luminaire: Complete luminaires = Engine (F) + Trim + Accessories (optional)

Frame

Standard example: 4RN

Series	Aperture	Installation	Options			
4	**R**					
4 Uniframe 4" Non-IC	**R** Round	**N** New construction (Non-IC)	**–**	Universal 120/277/347V	**LC**	Chicago Plenum[2]
			EM6	Emergency, 6W Self-Test/Self-Diagnostic (not available for BAC)[1]	**BAC**	Meets the requirements of the Buy American Act of 1933 (BAA)**
		R Remodeler (Non-IC)	**–**	Universal 120/277/347V		
		A AirSeal (IC)	**–**	Universal 120/277/347V		

Engine / Trim

Standard example: P4RDL20935WCDZ10U

Series	Style	Lumen	CRI/CCT	Beam	Reflector	Flange	Dimming / Options	Voltage	Options
P4R									
P4R LyteProfile 4" round downlight	**DL** Downlight **LW** Lensed Wall Wash[3] **SL** Shower light[4] (non-conductive lens)	**05** 500lm **10** 1000lm **15** 1500lm **20** 2000lm[5] **25** 2500lm[5] **30** 3000lm[6] **35** 3500lm[6] **40** 4000lm[6]	**927** 90CRI/2700K **930** 90CRI/3000K **935** 90CRI/3500K **940** 90CRI/4000K **9D2W** 3000-1800K (dim to warm)[7] **96T** 2700-6500K (tunable white)[8,9]	**N** Narrow **M** Medium **W** Wide[3]	**CL** Specular clear **CC** Comfort clear **CD** Comfort clear diffuse **WH** White (matte) **BK** Black (matte) **WHAMF** White (gloss antimicrobial)[10]	**–** White (matte) **B** Black (matte)[10] **P** Polished (matches aperture) **F** Flangeless (requires CA4RFT)[10] **–** White (matte) **B** Black (matte) **F** Flangeless (requires CA4RFT)[10] **–** White (gloss) **F** Flangeless (requires CA4RFT)[10]	**Z10** 0-10V 1% **Z10D20** 0-10V 1% (dim to Off) (up to 3500lm) **L1** Lutron LDE1 EcoSystem 1% (500lm not available) **RA** Integral Interact Pro RF sensor (up to 2500lm)[11] **E** Forward & Reverse Phase (up to 2500lm)	**U** 120/277V **3** 347V (Z10 only) (up to 3000lm)[9] **U** 120/277V **1** 120V	**–** None **R** Retrofit[12] (not compatible with IEM6) **F** Flex install (no frame required)[13] **IEM6** Trim mounted EM test switch (for DL style only)

Accessories (Not currently BAA-compliant - learn more on page 2)

SBA	Interact Ready System Bridge Accessory with integral occupancy and daylight sensor (compatible with all 0-10V options, see SBA spec sheet)[14]
CAEM6	Field installable Bodine BSL6 6W battery pack with self-test/self-diagnostic for use with new construction frames, 120-277V
CA4RFT	Mud-in ring for use in 4" round flangeless trim installations (ordered with a flangeless (F) light engine)
CAEM6TSCP	Remote switch cover plate. Order with EM6 frame for remote mounted test switch (Required for LW and SL styles).
C4RVPWH	IP65 rated vandal proof matte white accessory mounts onto flangeless light engines (F) and non-IC (N) frame only
T347-75VA	347:120V step-down transformer for non-IC (N) frame only (see page 2 for details)
7920	4" sloped ceiling adapter (refer to SCA spec sheet for slope options)

1. Emergency (EM6) frame is compatible with reflector mounted test switch when light engine is ordered with IEM6 (not compatible w/347V).
2. Chicago Plenum (LC) is not available for Buy American Compliant (BAC) configs.
3. Lensed wall wash (LW) style only available with Wide (W) beam (2500lm max).
4. Shower light (SL) in only available with White (WH) reflector finish and Wide (W) beam.
5. Not available with AirSeal (A) frame.
6. Not available with AirSeal (A) frame. Available with CL, CC, and CD reflector finishes only.
7. Specify 9D2W with Z10U dimming only (up to 2000lm max). Not compatible with Z10D20 or 347V (3) options. Not available with wide (W) beam.
8. Specify 96T with Z10U or RAU dimming only (up to 2000lm max). Not compatible with Z10D20 or 347V (3) options. Not available with wide (W) beam.
9. The 500lm (05) option is not available.

10. Consult factory with ETO request for antimicrobial reflector finish (WHAMF) and black (B) flange for all styles, and flangeless (F) for LW style.
11. Linear driver profile. See dimensional data following. Specify only with non-IC (N) frame, not for use with LC or EM6 options.
12. Retrofits select legacy Lightolier luminaires (see pages 2 for details). Z10 dimming only. Consult factory for other dimming options.
13. Flex install requires light engine & trim only (up to 4000lm only). Accessory frames available. Not compatible with standard frames and associated options. Not available with Interact (RA) dimming and IEM6 trim.
14. Requires IRT9015 IR remote and Interact Pro App for commissioning (requires above ceiling access).

P4R LyteProfile 4"

Round Downlight & Lensed Wall Wash

Features

Optics

- Provides a 60° cutoff (physical and reflected)
- Available in wide (80°), medium (65°), and narrow (55°) beam options.
- Spun and anodized reflectors available in specular (clear), semi-specular (comfort clear and diffuse finishes. Also available in white and black painted finishes.
- Consult factory for RAL finishes.

Quality of light

- Color consistency: 2 SDCM
- 90 CRI minimum (Accurender)

Construction (New Construction)

- Galvanized stamped steal for dry / plaster ceilings.
- Pre-installed telescoping mounting bars (13"-24")
- Frame accommodates C- channel, black iron, and 3/4" EMT for mounting distances greater than 24" between joists.
- Manufactured from 20 gage galvanized steel construction with rolled edge aperture to guide cutting tools for perfect hole cutting.

> **Max ceiling thickness is 1.5" (38 mm).**

Patented install Mounting frame

- Pre-installed mounting bars allow for fast and tool-less install into T-grid & hat channel ceilings
- Close-cut aperture design eliminates an undesired gap between ceiling material and reflector.
- Simple plug-and-play connection between frame and light engine from below the ceiling allows for:
  - Easy upgrades
  - Technology changes
  - Repairs and troubleshooting

Retrofit

- Easily updates legacy LyteProfile LED downlights to the latest technology. Includes light engine, trim, and driver mounted on cover plate that mounts to previous generations of LyteProfile LED luminaires. Order with R option code at end of light engine/trim catalog number.

Dimming

- Advance 0-10v 1% (Z10) logarithmic curve is standard. Specify D2O for factory-set dim-to-off function (consult factory for linear dimming curve).
- Lutron LDE1 (L1) EcoSystem 1%
- Electronic low voltage (E) offers forward or reverse phase dimming
- **Dim to Warm (D2W):** changes CCT from 3000-1800K gradually as it dims. Use with Z10U dimming only. Fixture-to-fixture consistency of ≤3SDCM at 2700K & 3000K, & ≤5SDCM at 1800K
- **Tunable white (6T):** 2700K to 6500K CCT. Use with Z10U or RAU dimming only. Fixture-to-fixture consistency of ≤3SDCM at 2700K, 5000K, & 6500K CCT.

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.
- Lumen Maintenance: L80 at 60,000 hours.
- 347V light engines are Z10 dimming only and include dedicated 347V driver. For 347V non-Z10 dimming, order T347-75VA field-installed step-down transformer accessory.

Emergency

Bodine BSL6 6W battery pack with self-test/ diagnostic functionality. Factory or field mounted to frame.

- For trim with integral emergency test switch, order light engine with IEM6 option (ex: P4RDL20935WCDZ10UIEM6). DL style only.
- For remote ceiling mounted test switch, order standard light engine (ex: P4RDL20935WCDZ10U). Optional accessory ceiling mounting plate available (CAEM6TSCP) for remote mounted test switch.
- Refer to Calculite-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.
- Tunable white (96T) with EM6 frame option wired for emergency lighting on 6500K CCT circuit.
- CEC Title 24 JA8 Certified.

Options and Accessories

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

Flangeless mud-in ring: Use CA4RFT For use with flangless plaster installations.

Field Installed Emergency: Field install EM6 kit with Bodine BSL6 6W battery pack with self-test/ self-diagnostic. Includes remote ceiling plate for test switch. To mount test switch to trim for new construction frame, order trim with IEM6 option code (e.g. C4RDLCCIEM6). Refer to Calculite-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.

- **CAEM6:** For use with UniFrame frame in kits.
- **LCEM6:** For use with Flex intall (F) light engines.

C4RVPWH: Includes machined aluminum ring painted white, gasketed for IP65 protection, and impact resistant polycarbonate lens (IK10). Locks in place with discrete setscrew (key included). Available also with antimicrobial finish (C4RVPWHAMF).

CAEM6TSCP: Ceiling cover plate for remote mounted EM6 test switch. 1/2" (25mm) hole, 4 3/8" (109mm) x 2 3/4" (69mm) rectangular. Includes two mounting screws. Required for lensed wall wash (LW) and shower light (SL) styles.

T347-75VA: Field installable 347:120V 75VA step-down transformer, attaches to knock out on frame junction box, for use with non-IC (N) or remodel (R) frames.

ENERGY STAR® exceptions

- 500lm configurations
- Black finishes

Labels and Listings

- cULus listed for wet locations
- CCEA (frames with *LC suffix)
- ENERGY STAR® certified
- RoHS certified

Warranty

5 year limited warranty
Visit Signify.com/warranties for more information on Signify's standard 5-year limited warranty on complete luminaire systems.

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interact

|	Standalone	Gateway	Gateway + IoT
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0–10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
Correlated color temperature (CCT) tuning by switch `New`	✓	✓	✓
Support for sensor-based Tunable White luminaires `New`	✓	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
· Luminaires with integrated sensors	150
· Smart TLEDS	150
· Zones + groups	64
Total number of ZGP devices (sensors and switches)	50
· Sensors	30
· Switches	50

Group level	
Recommended number of lights	40 (maximum 150)
Number of ZGP devices	5
Number of scenes	16
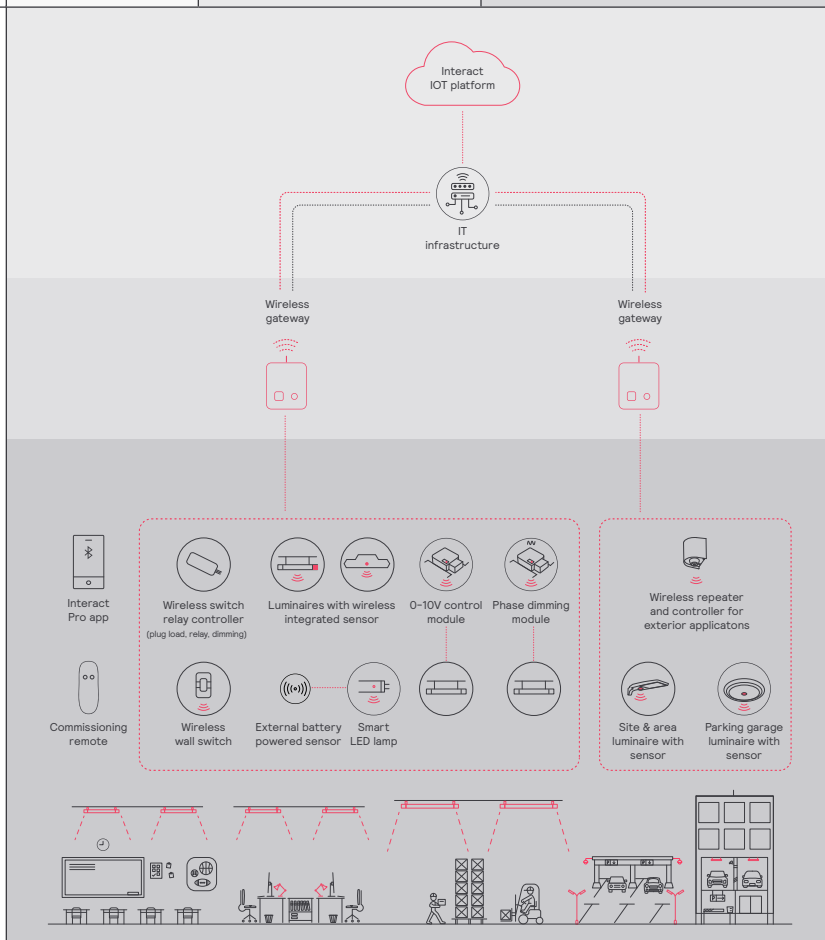
P4R LyteProfile 4"
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Wireless controls options

Interact

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.

- The sensor works in the standalone mode (similar to SpaceWise) when configured without a gateway or in a cloud connected mode if a compatible gateway is used.

- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.

- Startup is implemented via Interact Pro App (Android or iPhone) & BlueTooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.

- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.

- Prepare project configuration steps remotely and use IRT9015 remote on-site to identify and group devices together.

  Compatible with:

  - SWS200 & UID8465 wireless scene switch
  - Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
  - Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
  - LCN3110: battery powered IP65 presence sensor, OCC sensor IA CM IP65W
  - LCN3120: battery powered IP65 presence & daylight sensor, OCC-DL sensor IA CM IP65 WH

- For more information on Interact visit: interact-lighting.com/interactproscalablesystem

Radio only sensor (RA or RADIO)

- Integral RA or RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.

- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.

- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.

- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non-gateway mode for setup.

- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.

- Prepare project configuration steps remotely, identify and group devices together onsite.

- Compatible with SWS200 and UID8465 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).

- For more information on Interact visit: interact-lighting.com/interactproscalablesystem

Sensor bundle (IAOSB or SB)

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.

- View all your projects under one dashboard and easily compare insights from multiple projects in one view.

- Compatible with SWS200 wireless scene switch, wireless Occ sensor (OCC SENSORIA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available.• Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.

- IAOSB or SB option in addition to occupancy and daylights sensing supports advanced IoT capabilities, such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.

- Requires compatible Gateway and internet connectivity for commissioning.

- For more information, visit: interact-lighting.com/interactproscalablesystem

Emergency Options (ER100)

- **Power Sensing** (factory default) – Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output.

- **Power Interruption Detection** (field option) – Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output.

Interact supported sensor option codes across Genlyte product lines

	Evokit	Day-Brite	Ledalite	Lightolier
ZigBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZigBee + Bluetooth	RADIO	RADIO	RA	RA
ZigBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZigBee + Highbay + Sensing	–	SWZCSH	–	–

P4R   LyteProfile 4"

Round Downlight & Lensed Wall Wash

AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are rendered more accurately and consistently, while doing so as efficiently as CRI 80 products.

Standard CRI 80
Good color rendering
and high efficacy

Standard CRI 90
Better color rendering
and low efficacy

AccuRender
Best color rendering,
color preference and high efficacy

Enjoy design flexibility

Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- Multiple color temperatures (CCTs) and lumen packages offered

Promote savings

High efficacy, with no penalty:

- Energy efficacy compares well to conventional 80 CRI
- Up to 25% more energy savings vs competitor 90 CRI[1]
- Helps meet Title 24 requirements

Show your true colors

High color rendering:

- True to life colors to help energize your environment and render better flesh tones critical for healthcare hospitality and retail applications.
- R_a up to 94 CRI   · R_f up to 92 TM-30
  R_9 up to 67 CRI $R_{f,h1}$ up to 91 TM-30
  G_a up to 99 CRI R_9 up to 100 TM-30
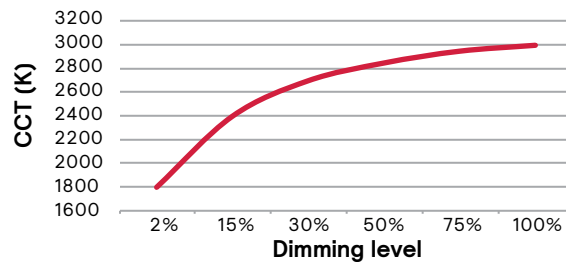 C_9 up to 94 CRI $R_{cs,h1}$ up to -5% TM-30

Achieve color balance

Best in class color consistency:

- Promote aesthetic harmony in your space with ≤ 2 SDCM

Tunable white binning chart
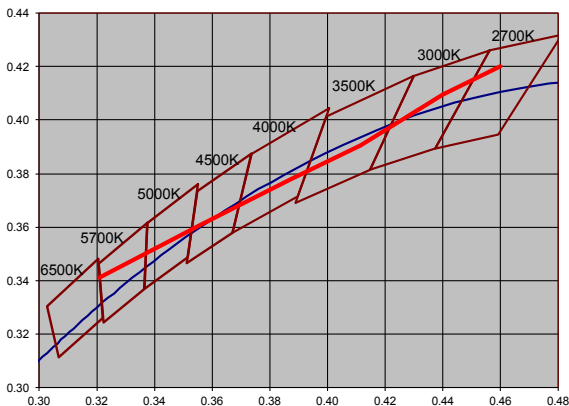
Dim-to-Warm: CCT vs Dimmed level

P4R   LyteProfile 4"
Round Downlight & Lensed Wall Wash

Electrical – Static White
Input frequency of 50/60Hz, Power Factor @ Max Load >0.9

Product	Input Volts (V)	Input Freq. (Hz)	Input Current (A)	LED Drive Current (A)	Input Power (W)	LED Power (W)	THD Factor @ Max Load	Power Factor @ Max Load
P4RDL05_Z10U/3	120V	50/60	0.041A	0.12A	4.9W	3.9W	<10%	>0.9
	277V	50/60	0.019A	0.12A	5.1W	3.9W	<30%	>0.9
	347V	50/60	0.017A	0.12A	5.8W	3.9W	<30%	>0.9
P4RDL10_Z10U/3	120V	50/60	0.070A	0.20A	8.3W	6.8W	<10%	>0.9
	277V	50/60	0.031A	0.20A	8.6W	6.8W	<20%	>0.9
	347V	50/60	0.028A	0.20A	9.7W	6.8W	<30%	>0.9
P4RDL15_Z10U/3	120V	50/60	0.102A	0.30A	12.2W	10.2W	<10%	>0.9
	277V	50/60	0.044A	0.30A	12.3W	10.2W	<10%	>0.9
	347V	50/60	0.040A	0.30A	14.0W	10.2W	<25%	>0.9
P4RDL20_Z10U/3	120V	50/60	0.134A	0.40A	16.1W	13.6W	<10%	>0.9
	277V	50/60	0.058A	0.40A	16.2W	13.6W	<10%	>0.9
	347V	50/60	0.052A	0.40A	17.9W	13.6W	<20%	>0.9
P4RDL25_Z10U/3	120V	50/60	0.175A	0.53A	21.0W	17.9W	<10%	>0.9
	277V	50/60	0.076A	0.53A	21.1W	17.9W	<10%	>0.9
	347V	50/60	0.064A	0.53A	22.3W	17.9W	<20%	>0.9
P4RDL30_Z10U/3	120V	50/60	0.208A	0.63A	25.0W	21.3W	<10%	>0.9
	277V	50/60	0.091A	0.63A	25.1W	21.3W	<10%	>0.9
	347V	50/60	0.077A	0.63A	26.6W	21.3W	<20%	>0.9
P4RDL35_Z10U/3	120V	50/60	0.247A	0.75A	29.7W	25.5W	<10%	>0.9
	277V	50/60	0.107A	0.75A	29.7W	25.5W	<10%	>0.9
	347V	50/60	0.087A	0.75A	30.4W	25.5W	<20%	>0.9
P4RDL40_Z10U/3	120V	50/60	0.288A	0.88A	34.6W	29.8W	<10%	>0.9
	277V	50/60	0.125A	0.88A	34.6W	29.8W	<10%	>0.9
	347V	50/60	0.102A	0.88A	35.4W	29.8W	<20%	>0.9

Electrical – Dim-to-Warm (9D2W)
Input frequency of 50/60Hz, Power Factor @ Max Load >0.9

Product	Input Volts (V)	Input Freq. (Hz)	Input Current (A)	LED Drive Current (A)	Input Power (W)	LED Power (W)	THD Factor @ Max Load	Power Factor @ Max Load
P4RDL059D2W_Z10U	120V	50/60	0.067A	0.175	8.1W	6.3W	<15%	>0.9
P4RDL059D2W_Z10U	277V	50/60	0.031A	0.175	8.6W	6.3W	<25%	>0.8
P4RDL109D2W_Z10U	120V	50/60	0.118A	0.315	14.2W	11.3W	<10%	>0.9
P4RDL109D2W_Z10U	277V	50/60	0.055A	0.315	15.1W	11.3W	<20%	>0.9
P4RDL159D2W_Z10U	120V	50/60	0.161A	0.450	19.3W	16.2W	<10%	>0.9
P4RDL159D2W_Z10U	277V	50/60	0.074A	0.450	20.5W	16.2W	<20%	>0.9
P4RDL209D2W_Z10U	120V	50/60	0.212A	0.600	25.4W	21.6W	<10%	>0.9
P4RDL209D2W_Z10U	277V	50/60	0.094A	0.600	26.0W	21.6W	<10%	>0.9

Electrical – Tunable White (96T)
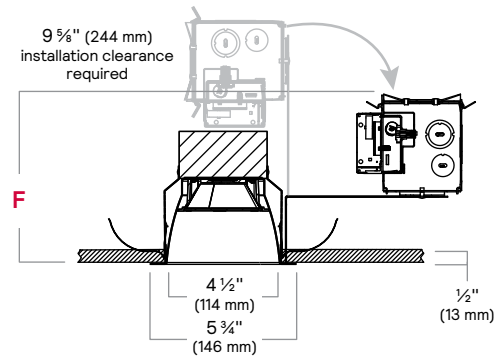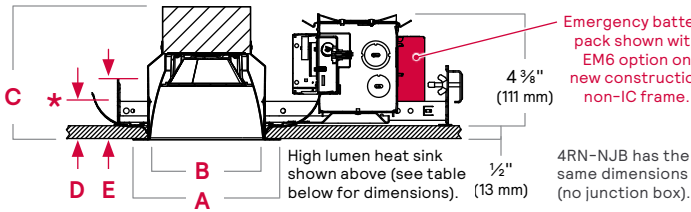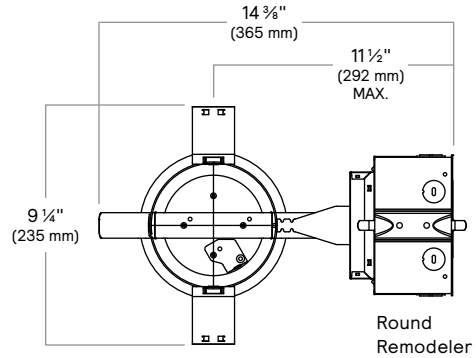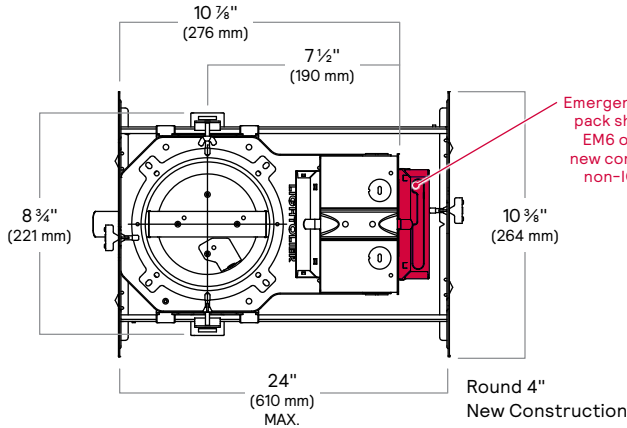Input frequency of 50/60Hz, Power Factor @ Max Load >0.9

Product	Input Volts (V)	Input Freq. (Hz)	Input Current (A)	LED Drive Current (A)	Input Power (W)	LED Power (W)	THD Factor @ Max Load	Power Factor @ Max Load
P4RDL0596T_Z10U	120V	50/60	0.044A	0.114	5.3W	4.1W	<15%	>0.9
P4RDL0596T_Z10U	277V	50/60	0.020A	0.114	5.6W	4.1W	<25%	>0.8
P4RDL1096T_Z10U	120V	50/60	0.088A	0.235	10.6W	8.5W	<10%	>0.9
P4RDL1096T_Z10U	277V	50/60	0.041A	0.235	11.3W	8.5W	<20%	>0.9
P4RDL1596T_Z10U	120V	50/60	0.131A	0.362	15.7W	13.0W	<10%	>0.9
P4RDL1596T_Z10U	277V	50/60	0.060A	0.362	16.7W	13.0W	<20%	>0.9
P4RDL2096T_Z10U	120V	50/60	0.178A	0.497	21.3W	17.9W	<10%	>0.9
P4RDL2096T_Z10U	277V	50/60	0.079A	0.497	21.8W	17.9W	<10%	>0.9

P4R LyteProfile 4"
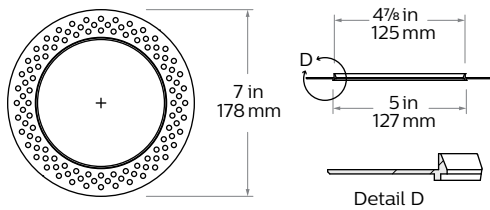
Round Downlight & Lensed Wall Wash

New construction

10 ⅞" (276 mm)
7 ½" (190 mm)
8 ¾" (221 mm)
10 ⅜" (264 mm)
24" (610 mm) MAX.

Emergency battery pack shown with EM6 option on new construction non-IC frame.

Round 4" New Construction

14 ⅜" (365 mm)
11 ½" (292 mm) MAX.
9 ¼" (235 mm)

Round Remodeler

C
*
B
A
D E

Emergency battery pack shown with EM6 option on new construction non-IC frame.

4 ⅜" (111 mm)
½" (13 mm)

High lumen heat sink shown above (see table below for dimensions).

4RN-NJB has the same dimensions (no junction box).

9 ⅝" (244 mm) installation clearance required

F

4 ½" (114 mm)
5 ¾" (146 mm)
½" (13 mm)

* Center point location for integral emergency test switch (IEM6)

	Downlight/Showerlight		Lensed Wall Wash
	500–2500lm	3000–4000lm	
A	5 ¾" (146mm)	5 ¾" (146mm)	5 ¾" (146mm)
B	4 ½" (114mm)	4 ½" (114mm)	4 ½" (114mm)
C	3 ⅜" (86m)	5 ¼" (133mm)	3 ⅜" (86m)
D	2 ¼" (54mm)	2 ¼" (54mm)	2 ⅛" (54mm) – Lower end of LW lens is 3/16" (5mm) above flange.
E	2 ⅜" (60mm)	2 ⅜" (60mm)	N/A
F	5" (127mm)	5 ¼" (133mm)	4 ⅞" (127mm)

Flangeless mud-in ring (CA4RFT) accessory

7 in 178 mm
4 ⅞ in 125 mm
5 in 127 mm
D

Detail D

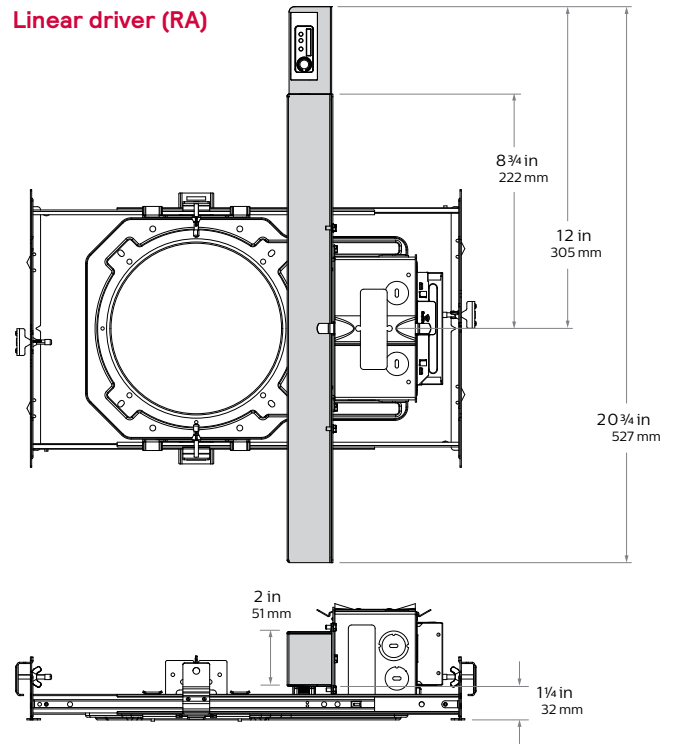## Vandal Proof (VP) accessory

ø4 ⅜ in 111 mm
ø6 ¼ in 158 mm
⅜ in 10 mm
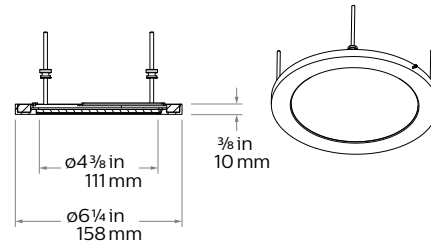
P4R LyteProfile 4"

Round Downlight & Lensed Wall Wash

AirSeal (A) / Chicago plenum (LC)

13 ¼ in
337 mm

7 ¾ in
197 mm

16 ⅜ in
416 mm

11 ¼ in
286 mm

Round 4"
AirSeal

6 ⅛ in
156 mm

Linear driver (RA)

8 ¾ in
222 mm

12 in
305 mm

20 ¾ in
527 mm

2 in
51 mm

1 ¼ in
32 mm
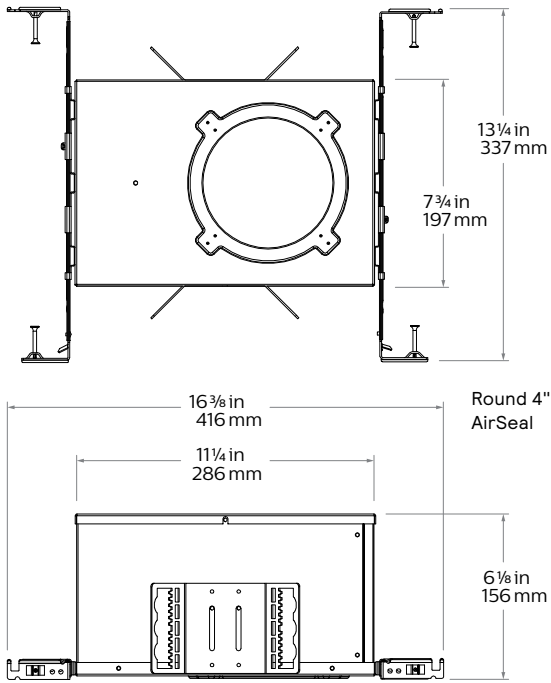
Requires either top access or 19" plenum
space without sensor, and 22" with sensor.

Flex Install (F)

5 ¾ in
146 mm

18 ½ in
468 mm

5 ⅛ in
130 mm

3 ⅛ in
81 mm

3 ⅜ in
87 mm

4 ⅜ in
112 mm

2 ⅝ in
68 mm
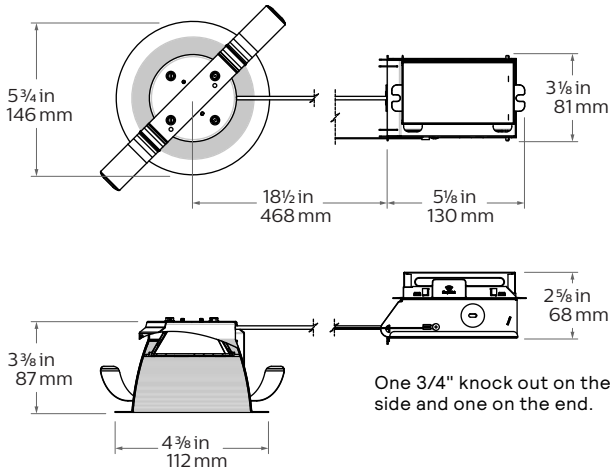
One 3/4" knock out on the
side and one on the end.

LCEM6 Flex install (F) engine only

3 ½ in
90 mm

5 ½ in
140 mm

2 ⅞ in
73 mm

1 ½ in
38 mm

1 ⅝ in
42 mm
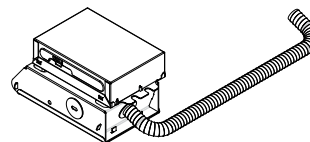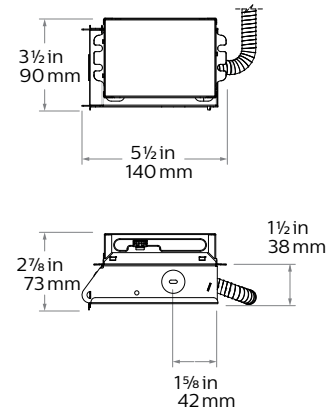
12" conduit with connector
to j-box knock out

P4R   LyteProfile 4"

Round Downlight & Lensed Wall Wash

Reflectors

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

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.

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

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.

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

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

Shower light (SL): Wet location rated shower light applicable in any installation requiring dead front trims, interior or exterior non-corrosive applications, or where a diffused lens at the ceiling is required (non-conductive).

Flanges

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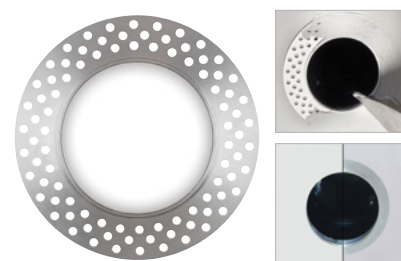

Black (BK): Painted matte finish that provides the lowest aperture brightness possible.

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.
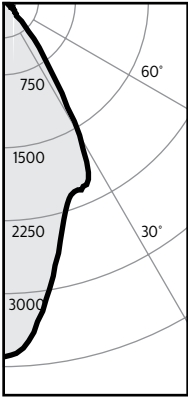
P4R LyteProfile 4"
Round Downlight & Lensed Wall Wash

Adjustment Factors

Finish	CRI/CCT		Lumens	
CL = 100%	90CRI 4000K = 106%		4000lm = 200%	2000lm = 100%
CC = 86%	90CRI 3500K = 104%		3500lm = 175%	1500lm = 75%
CD = 91%	90CRI 3000K = 100%		3000lm = 150%	1000lm = 50%
WH = 90%	90CRI 2700K = 96%		2500lm = 125%	500lm = 25%
BK = 54%				

Downlight, Narrow beam, 19W LED, 90CRI, 3000K

Candela Curves

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	1474	74.9%
0-40	1838	93.4%
0-60	1965	99.8%
0-90	1968	100.0%

Report[1]:
P4RDL20930NCLZ10U.ies

Output Lms: 1968 lms
Input Watts[2]: 18.6W
Efficacy: 105.8 lm/w
CCT[3]: 3000K
CRI: 90 min
Beam Angle: 54°
Spacing Crit.: 0.66

Angle	Mean CP	Lms
0	2912	
5	2718	
10	2288	114
15	1855	
20	1664	318
25	1608	
30	1135	448
35	561	
40	214	461
45	115	
50	85	343
55	27	
60	5	204
65	2	
70	1	117
75	1	
80	0	66
85	0	
90	0	20

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	116	3.3'
6'	81	4.0'
7'	59	4.6'
8'	46	5.3'
9'	36	5.9'

*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'	90.0	0.82
6'	59.0	0.54
7'	42.0	0.39
8'	35.0	0.32
9'	28.0	0.26

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

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method – Effective floor reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	114	111	109	106	109	105	105	101	101	98	94
2	108	103	100	96	102	95	99	93	96	91	88
3	103	97	92	88	95	87	93	86	90	85	82
4	98	91	85	81	89	81	87	80	85	79	76
5	93	85	79	75	84	75	82	74	81	73	71
6	89	80	74	70	79	70	78	69	76	69	67
7	84	75	69	65	75	65	73	65	72	64	63
8	80	71	65	61	71	61	69	61	68	61	59
9	77	67	61	58	67	57	66	57	65	57	56
10	73	64	58	54	63	54	63	54	62	54	53

(Room Cavity Ratio)

Downlight, Medium beam, 19W LED, 90CRI, 3000K

Candela Curves

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	1271	65.4%
0-40	1740	89.5%
0-60	1941	99.8%
0-90	1944	100.0%

Report[1]:
P4RDL20930MCLZ10U.ies

Output Lms: 1944 lms
Input Watts[2]: 18.6W
Efficacy: 104.5 lm/w
CCT[3]: 3000K
CRI: 90 min
Beam Angle: 66°
Spacing Crit.: 1.06

Angle	Mean CP	Lms
0	1925	
5	1857	
10	1739	173
15	1580	
20	1465	446
25	1449	
30	1235	653
35	745	
40	361	468
45	192	
50	122	160
55	35	
60	6	41
65	2	
70	1	3
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	77	5.3'
6'	53	6.4'
7'	39	7.4'
8'	30	8.5'
9'	24	9.5'

*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'	88.0	0.82
6'	58.0	0.54
7'	41.0	0.39
8'	25.0	0.32
9'	27.0	0.26

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

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method – Effective floor reflectance = 20%										
0	119	119	119	119	116	116	111	111	106	106	100
1	113	110	108	106	108	104	104	101	100	98	93
2	107	102	98	95	101	94	97	91	94	90	86
3	102	95	90	86	94	85	91	84	88	82	79
4	96	88	82	78	87	78	85	77	83	76	73
5	91	82	76	72	81	71	79	71	78	70	68
6	86	77	70	66	76	66	74	65	73	65	63
7	81	72	65	61	71	61	70	60	68	60	58
8	77	67	61	57	67	56	65	56	64	56	54
9	73	63	57	53	63	53	62	52	61	52	51
10	70	59	53	49	59	49	58	49	57	49	47

(Room Cavity Ratio)

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1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
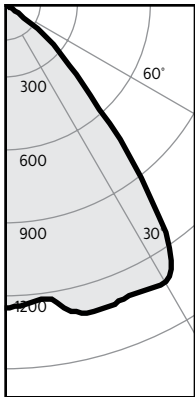
P4R   LyteProfile 4"
Round Downlight & Lensed Wall Wash

Adjustment Factors

Finish	CRI / CCT	Lumens	
CL = 100%	90CRI 4000K = 106%	4000lm = 200%	2000lm = 100%
CC = 86%	90CRI 3500K = 104%	3500lm = 175%	1500lm = 75%
CD = 91%	90CRI 3000K = 100%	3000lm = 150%	1000lm = 50%
WH = 90%	90CRI 2700K = 96%	2500lm = 125%	500lm = 25%
BK = 54%			

Downlight, Wide beam, 19W LED, 90CRI, 3000K

Candela Curves

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	875	49.8%
0-40	1422	81.0%
0-60	1752	99.8%
0-90	1756	100.0%

Report[1]:
P4RDL20930WCLZ10U.ies

Output Lms:	1756 lms
Input Watts[2]:	16.1W
Efficacy:	109.1lm/w
CCT[3]:	3000K
CRI:	90min
Beam Angle:	82°
Spacing Crit.:	1.42

Angle	Mean CP	Lms
0	997	
5	983	
10	996	94
15	1049	
20	1048	296
25	1045	
30	1052	485
35	919	
40	584	547
45	332	
50	185	266
55	56	
60	9	64
65	3	
70	1	3
75	1	
80	0	1
85	0	
90	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	40	7.1'
6'	28	8.5'
7'	20	9.9'
8'	16	11.4'
9'	12	12.8'

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

Multiple unit data – RCR 2

| Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	78.0	0.71
6'	51.0	0.47
7'	37.0	0.33
8'	31.0	0.28
9'	20.0	0.22

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

Coefficients of utilization

Ceiling		80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
0	119	119	119	119	116	116	111	111	106	106	100	
1	113	110	107	104	107	103	103	99	100	96	92	
2	106	100	96	92	99	91	95	89	92	87	83	
3	100	92	86	82	91	81	88	80	85	79	76	
4	93	85	78	73	83	73	81	72	79	71	69	
5	87	78	71	66	77	66	75	65	73	64	62	
6	82	72	65	60	71	60	69	59	68	59	57	
7	77	66	59	54	65	54	64	54	63	54	52	
8	72	61	54	50	61	50	59	49	58	49	47	
9	68	57	50	45	56	45	55	45	54	45	43	
10	64	53	46	42	53	42	52	42	51	42	40	

Room Cavity Ratio

Lensed Wall Wash, Wide beam, 19W LED, 90CRI, 3000K

Candela Curve

Room side   Wall side
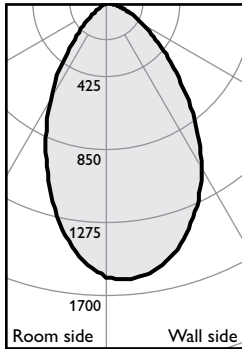
Report[1]:
P4RLW20930WCLZ10U.ies

Output Lms:	1966 lms
Input Watts[2]:	19.0W
Efficacy:	103.5lm/w
CCT[3]:	3000K
CRI:	90min

Multiple unit data
Footcandles on wall

	2' from wall		
		2' on ctr.	
Distance from ceiling in feet			
1	41	41	41
2	73	74	73
3	74	76	74
4	61	63	61
5	46	48	46
6	34	36	34
7	26	27	26
8	20	21	20
9	16	17	16
10	13	14	13
12	11	11	11
14	9	10	9

Multiple unit data
Footcandles on wall

	3' from wall		
		3' on ctr.	
Distance from ceiling in feet			
1	12	11	12
2	26	25	26
3	34	33	34
4	36	35	36
5	32	33	32
6	27	28	27
7	23	23	23
8	19	19	19
9	15	16	15
10	13	13	13
12	11	11	11
14	9	10	9

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