Downlighting

LyteProfile 3"

P3S Square downlight

LIGHTOLIER
by **signify**

LED

LyteProfile downlights and wall washers provide a comfortable 60° cut-off to both the actual and reflected source. Utilizes a robust frame-in kit, light engine and reflector design that is designed for a wide variety of installation conditions with a plenum depth of 4-1/2".

Project:
Location:
Cat.No:
Type:
Qty:
Notes:

Complete unit = Fixture + Light Engine/Trim + Optional Accessories

Frame

example: 3SAS

Series	Installation	Voltage / Options		
3S				
3S Uniframe 3" square frame	**N** New Construction Non-IC	**—** Universal 120/277/347V[1] **LC** Chicago plenum **3** 347V (for non-0-10v configurations)	**EM6** **RADIO**	Emergency, 6W Self-Test/Self-Diagnostic[2] Integral Interact Pro RF sensor (requires above ceiling access – enables wireless connected lighting control)
	A AirSeal IC (1000lm max)	**—** Standard Universal 120/277/347V[1] **S** Shallow Universal 120/277/347V[1, 3]		

Light Engine / Trim

example: P3SDL10930CLZ10US

Series	Style	Lumens	CRI / CCT	
P3S				
P3S LyteProfile 3" square light engine/trim	**DL** Downlight **LW** Lensed Wall Wash[4]	**05** 500lm **10** 1000lm **15** 1500lm[5]	**927** **930** **935** **940**	90 CRI / 2700K 90 CRI / 3000K 90 CRI / 3500K 90 CRI / 4000K
		10 1000lm	**9D2W**	90 CRI / 3000K – 1800K (for Non-IC (N) frames only)

Light Engine / Trim (continued)

Reflector	Flange	Dimming	Voltage	Plenum
CL Specular clear **CC** Comfort clear **CD** Comfort clear diffuse **WH** White (matte)	**—** White (matte)	**Z10** 0-10V 1% dimming	**U** 120V/277V **3** 347V (0-10v only)[6,7]	**—** Standard depth **S** Shallow for shallow IC frame[3]
BK Black (matte)	**B** Black (matte)	**LU** Lutron PEQ0 dimming (dim to 0.1%) (not compatible with Shallow (S) plenums)	**U** 120V/277V/347V	
		E1 Electronic low voltage dimming (not compatible with 347V (3) frame)	**1** 120V	

Accessories

SBA Interact Ready System Bridge Accessory with integral occupancy and daylight sensor (compatible with all 0-10V options, see SBA spec sheet)[8]
CAEM6 Field installable Bodine BSL6 6W battery pack with self-test/self-diagnostic for use with new construction frames, 120-277V

1. Universal 120-347V is for 0-10v (Z10) dimming configurations only. For 347V non-Z10 dimming, order 347V (3) frame with (U) light engine/trim.
2. Emergency (EM6) frame requires remote mounted test switch. Order CAEM6TSCP mounting plate accessory (not compatible with 347V).
3. Must order shallow IC frame (S), shallow engine / shallow trim (S) for complete shallow assembly. Shallow configurations available in 500lm and 1000lm only with ELV or 0-10V.
4. Lensed wall wash (LWW) has a 1000lm (10) limit in Non-IC (N) configurations and 500lm (05) limit in IC (A) configurations. Order Shower light (SL) with WH trim finish only.
5. The 1500lm (15) option is not available with standard AirSeal IC frame (3RA-).
6. Specify standard UNV frame for use with 347V light engines
7. The 347V light engine voltage option is available only with Z10 dimming option. For other dimming protocols order (U) light engine and 347V (3) frame.
8. Requires IRT9015 IR remote & Interact Pro App for commissioning.

IC INSULATION CONTACT   WET LOCATION   c UL us LISTED   **RoHS COMPLIANT**   ENERGY STAR   **interact ready.**

P3S LyteProfile 3"

Square downlight

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" (51 mm) including PoE frame 4.88" (124 mm) plenum depth for installation.**

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.

Dimming

All configurations are FCC Class A unless otherwise specified.

- Advance 0-10V 1% (Z10)
- Lutron PEQ0 Hi-lume Premier 0.1% EcoSystem
- Electronic low voltage (ELV) - Remodel and AirSeal IC Shallow are FCC Class B
- Dim to Warm (D2W) - option changes CCT from 3000K to 1800K gradually as it dims

Optical systems

Quality of light: 3 SDCM ensures color consistency from fixture to fixture and over the luminaire's long lifetime.

Construction: Precision formed high grade aluminum reflectors with options for anodized or painted finishes.

Comfort throughout the space: 60° cutoff.

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 57,000 hrs.
- Max operating ambient temperature of 30°C.
- 347V light engines are 0-10v dimming only and include dedicated 347V driver for use with universal 120/277/347V (U) frames. For 347V and non-0-10v dimming, order (U) light engine and 347V (3) frame (includes step down transformer).

Emergency

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

- For remote ceiling mounted test switch, order standard light engine (ex: P3SDL10935CDZ10U). 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.

Options and Accessories

Field Installed Emergency: Refer to Calculite-LyteProfile-EasyLyte Emergency Battery Pack specification sheet for more details.

CAEM6: Field install EM6 kit with Bodine BSL6 6W battery pack with self-test/self-diagnostic, mounts to new construction frames. Includes remote ceiling plate for test switch.

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.

ENERGY STAR® exceptions

- BK finishes
- 347V & Emergency voltage/options
- Lutron configurations
- Dim to Warm configurations: DL downlight only

Title 24 exceptions

- BK finishes
- Must be installed in shallow AirSeal IC Frame
- Downlight (DL): 500lm and 1000lm only
- Lensed wall wash (LW): 500lm only

Labels and listings

- cULus listed for wet locations
- ENERGY STAR® certified
- CEC Title 24 JA8 certified
- CCEA (frames with *LC suffix)

Warranty

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

0-10V electrical tables

Light engine	Input volts	Input current	Drive current	Input power
P3RDL05_Z10U/3	120 V	0.06 A	150 mA	7.0 W
	277 V	0.02 A		
P3RDL10_Z10U/3	120 V	0.09 A	250 mA	10.4 W
	277 V	0.04 A		
P3RDL109D2WZ10U/3	120 V	0.12 A	330 mA	13.6 W
	277 V	0.05 A		
P3RDL15_Z10U/3	120 V	0.13 A	380 mA	15.6 W
	277 V	0.06 A		
P3RDL07_Z10U/3S	120 V	0.08 A	220 mA	9.4 W
	277 V	0.03 A		
P3RDL10_Z10U/3S	120 V	0.12 A	330 mA	14.1 W
	277 V	0.05 A		

ELV electrical tables

Light engine	Input volts	Input current	Drive current	Input power
P3RDL05_E1	120 V	0.05 A	150 mA	5.4 W
	277 V	0.02 A		
P3RDL10_E1	120 V	0.08 A	250 mA	10.0 W
	277 V	0.04 A		
P3RDL109D2WE1	120 V	0.11 A	330 mA	13.1 W
	277 V	0.05 A		
P3RDL15_E1	120 V	0.11 A	350 mA	12.7 W
	277 V	0.05 A		
P3RDL07_E1S	120 V	0.08 A	220 mA	8.7 W
	277 V	0.03 A		
P3RDL10_E1S	120 V	0.11 A	330 mA	13.2 W
	277 V	0.05 A		

Lutron electrical tables

Light engine	Input volts	Input current	Drive current	Input power
P3RDL05_LU	120 V	0.06 A	150 mA	6.2 W
	277 V	0.02 A		
P3RDL10_LU	120 V	0.12 A	250 mA	13.0 W
	277 V	0.05 A		
P3RDL109D2WLU	120 V	0.12 A	330 mA	13.0 W
	277 V	0.05 A		
P3RDL15_LU	120 V	0.13 A	380 mA	15.0 W
	277 V	0.05 A		

P3S   LyteProfile 3"

Square downlight

interact

	Interact Pro scalable system		
	Foundation	**Advanced**	**Enterprise**
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	✓	✓	✓
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
Total number of ZGP devices (sensors and switches)	50
· sensors	30
· switches	50
· zones and groups	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16

Interact Pro scalable system architecture

Interact IOT platform

Building connectivity bridge (BCB)

BMS system

BACNet

IT infrastructure

Interact Pro Enterprise

Wireless gateway

Interact Pro Advanced

Interact Pro App

Commissioning remote

Smart LED lamp

External battery powered sensor

Wireless wall switch

Wireless luminaires with integrated sensor

Plug load control module

0-10V control module

Phase dimming module

Interact Pro Foundation

P3S LyteProfile 3"

Square downlight

Wireless Controls Options

Interact Pro scalable sensor
(System Bridge Accessory with –CS option):

- CS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- Interact Pro 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 onsite to identify and group devices together.
- Compatible with:
  - UID8451/10 wireless dimmer switch
  - SWS200 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
  - Battery powered IP65 presence sensor OCC sensor IA CM IP65 WH
  - Battery powered IP65 presence & daylight sensor OCC-DL sensor IA CM IP65 WH
- For more information on Interact Pro visit: www.interact-lighting.com/interactproscalablesystem.

Interact Pro Enterprise
(System Bridge Accessory with –SB option):

- 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 UID8451/10 wireless dimmer switch, SWS200 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) 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.
- SB option in addition to occupancy and daylight 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: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

Emergency Options (ER100)
(System Bridge Accessory with –ER100 option):

- 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

Radio only sensor (RADIO):

- Integral 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.

Wired Controls Options

Interact Office Wired (PoE):

- PoE based IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on Personal Control, Space Management, wayfinding, room/desk reservation and offers open APIs for light control and data exchange.
- PoE lighting controller is accessible from below.
- Integral sensor option for occupancy sensing (PIR) and/or daylight harvesting available for additional energy savings.

- Optional integral emergency controller and battery pack provides 600lm nominal output.
- Test switch and indicator light mounted on side of chassis on one end.
- Emergency battery has a 3 month pre-installed shelf life, and must be stored and installed in environments of 20C to 30C (–4F to 86F) ambient, and 45–85% relative humidity.
- For more information on Interact Office Wired, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.

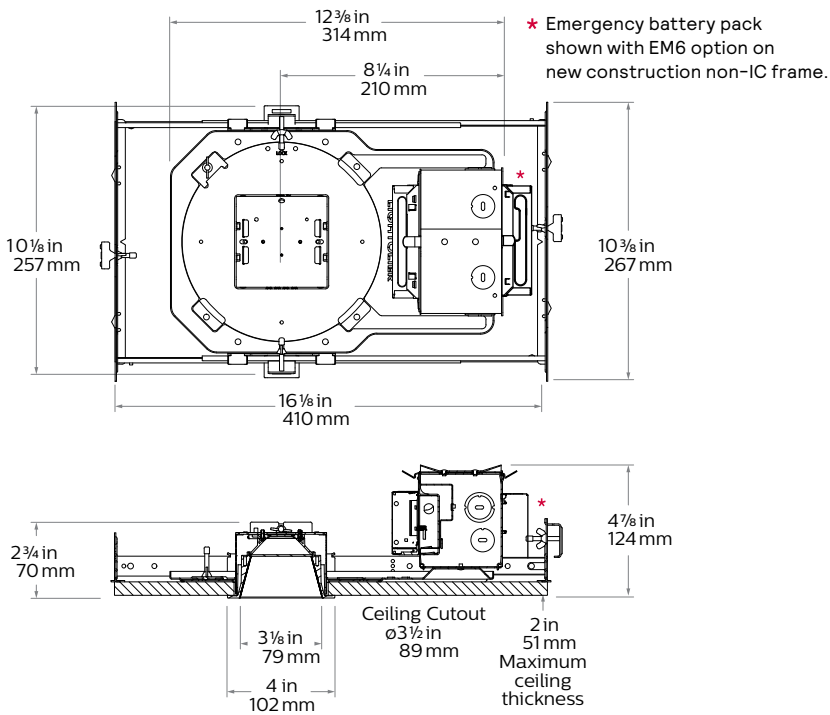### Interact Office Wired (PoE), Static White:

- 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 Zigbee Green Power wall dimmer and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact Office software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- Supports advanced IoT Apps on wayfinding, room/desk reservation and offers open APIs
- Requires compatible Interact Office Gateway and internet connectivity for commissioning.
- For more information on Interact Office Wireless, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices.
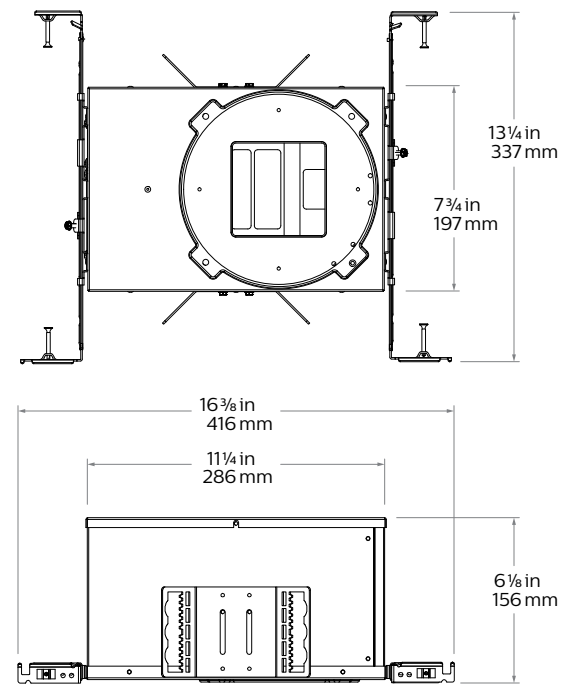
P3S LyteProfile 3"

Square downlight

New construction (N)

12 3/8 in
314 mm

8 1/4 in
210 mm

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

10 1/8 in
257 mm

10 3/8 in
267 mm

16 1/8 in
410 mm

2 3/4 in
70 mm

4 7/8 in
124 mm

3 1/8 in
79 mm

Ceiling Cutout
ø3 1/2 in
89 mm

2 in
51 mm
Maximum ceiling thickness

4 in
102 mm

Standard IC (A) and Chicago plenum (LC)

13 1/4 in
337 mm

7 3/4 in
197 mm

16 3/8 in
416 mm

11 1/4 in
286 mm

6 1/8 in
156 mm

Shallow IC (S)

7 1/2 in
191 mm

3 7/16 in
87 mm

ø3 1/2 in
89 mm

18 1/8 in
461 mm
min

8 in
203 mm

13 in
330 mm
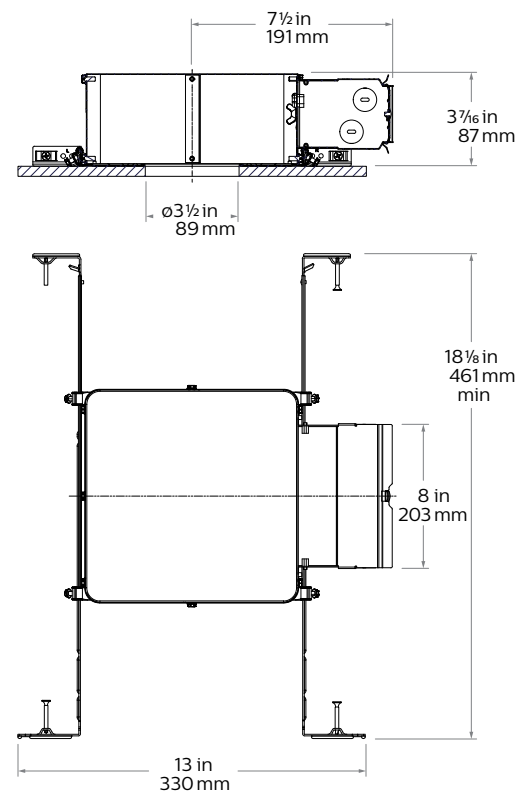
P3S LyteProfile 3"

Square downlight

Polished Reflectors   Shown as round reflectors but represent the finish of LyteProfile square 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, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.

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

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

Flanges

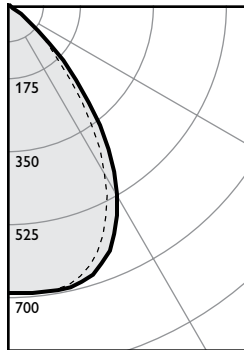**White (–):** (matte) Provides the smoothest transition to ceilings when off.

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

P3S LyteProfile 3"

Square downlight

Downlight, 1000lm engine, 90.3 lm/W at 10.3W

Candela Curve

Frame: **3SN**
Engine / Trim:
P3SDL10935CCZ10U

Output lumens:	930 lms
Input watts:	10.3 W
CRI:	90 min
CCT[1]:	3500K
Spacing Crit.:	1.08

Zonal summary

Zone	Lumens	%Luminaire
0-30	520	55.9%
0-40	757	81.4%
0-60	923	99.2%
0-90	930	100.0%

H/V	0	45	90
0	686	686	686
5	688	688	689
15	671	684	669
25	556	603	557
35	349	420	352
45	140	187	145
55	37	39	39
65	4	5	4
75	1	1	1
85	0	0	0
90	0	0	0

Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	27	5.4'
6'	19	6.5'
7'	14	7.6'
8'	11	8.6'
9'	8	9.7'

* 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'	41.0	0.46
6'	27.0	0.30
7'	19.0	0.21
8'	16.0	0.18
9'	13.0	0.14

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

Efficacy: 90.3lm/w
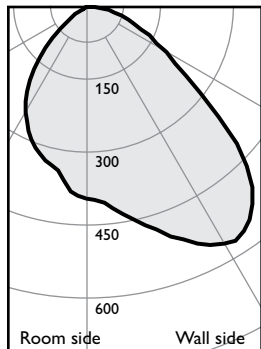Report[2]: F41039

Adjustment Factors

Finish	CCT	Lumens
CL = 109%	90CRI 4000K = 107%	1500lm = 150%
WH = 103%	90CRI 3500K = 100%	1000lm = 100%
CC = 100%	90CRI 3000K = 93%	500lm = 70%
CD = 86%	90CRI 2700K = 87%	
BK = 63%		

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	105	108	103	104	100	100	97	92
2	106	101	96	93	99	92	96	90	93	88	84
3	100	93	87	83	91	82	89	81	86	80	77
4	94	86	79	75	84	74	82	73	80	72	70
5	89	79	73	68	78	67	76	67	75	66	64
6	83	73	67	62	72	62	71	61	69	61	59
7	78	68	61	57	67	56	66	56	65	56	54
8	74	63	57	52	63	52	62	52	61	51	50
9	70	59	53	48	59	48	58	48	57	48	46
10	66	55	49	45	55	45	54	44	53	44	43

Room Cavity Ratio (left-side label for RCR column)

Wall wash, 1000lm engine, 90.0 lm/W at 10.3W

Candela Curve

Room side   Wall side

Frame: **3SN**
Engine / Trim:
P3SLW10935CCZ10U

Output lumens:	926 lms
Input watts:	10.3 W
CRI:	90 min
CCT[1]:	3500K

Efficacy: 90.0 lm/w
Report[2]: F41040

Adjustment factors

Finish	CCT	Lumens
CL = 109%	90CRI 4000K = 107%	1500lm = 150%
CD = 109%	90CRI 3500K = 100%	1000lm = 100%
WH = 109%	90CRI 3000K = 93%	500lm = 70%
CC = 100%	90CRI 2700K = 87%	
BK = 89%		

Multiple unit data
Footcandles on wall

	2' from wall 3' on ctr.		
Distance from ceiling in feet			
1	29	26	29
2	46	42	46
3	37	36	37
4	24	24	24
5	15	15	15
6	10	11	10
7	7	8	7
8	6	6	6
9	4	4	4
10	3	4	3
12	3	3	3
14	2	2	2

Multiple unit data
Footcandles on wall

	2' from wall 4' on ctr.		
Distance from ceiling in feet			
1	25	16	25
2	38	26	38
3	30	25	30
4	19	18	19
5	12	12	12
6	8	9	8
7	6	6	6
8	5	5	5
9	4	4	4
10	3	3	3
12	3	3	3
14	2	2	2

Multiple unit data
Footcandles on wall

	2' from wall 5' on ctr.		
Distance from ceiling in feet			
1	26	9	26
2	38	16	38
3	28	17	28
4	16	13	16
5	10	10	10
6	7	7	7
7	5	5	5
8	4	4	4
9	3	3	3
10	3	3	3
12	2	2	2
14	2	2	2

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