# **Downlighting**

# LIGHTOLIER

## LyteProfile 4"







P4S Square 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)

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

Frame Standard example: 4SN

Series	Aperture	Installation	Option	ns		
4 Uniframe 4" Non-IC	<b>S</b> Square	N New construction (Non-IC)	EM6	Universal 120/277/347V Emergency, 6W Self-Test/Self- Diagnostic (not available for BAC) <sup>1</sup>	LC BAC	Chicago Plenum <sup>2</sup> 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: P4SDL20935CDZ10U

Series P4S	Style	Lumen	CRI/CCT	Beam	Reflector	Flange	Dimming / Options	Voltage	Options
P4S LyteProfile 4" square downlight	DL Downlight LW Lensed Wall Wash <sup>3</sup>	05 500 lm 10 1000 lm 15 1500 lm 20 2000 lm <sup>4</sup>	927 90 CRI / 2700 K 930 90 CRI / 3000 K 935 90 CRI / 3500 K 940 90 CRI / 4000 K	M Medium W Wide <sup>3</sup>	CL Specular clear CC Comfort clear CD Comfort clear diffuse	- White (matte)  B Black (matte)  A Aluminum (painted)	Z10 0-10V 1% Z10D20 0-10V 1% (dim to Off) (up to 3500lm)	U 120/277V 3 347V (Z10 only) (up to 3000lm) <sup>7</sup>	- None R Retrofit <sup>9</sup> (not compatible with IEM6)
Ü		25 2500 lm <sup>4</sup> 30 3000 lm <sup>5</sup> 35 3500 lm <sup>5</sup> 40 4000 lm <sup>5</sup>			WH White (matte) BK Black (matte)	- White (matte)  B Black (matte) <sup>6</sup>	L1 Lutron LDE1 EcoSystem 1% (500lm not available) RA Integral Interac		F Flex install (consult factory for ETO) 10 IEM6 Trim mounted EM test switch
Accesso	ries (Not curre	intly BAA-comp		RF sensor (up to  E Forward &  Revserse Phase (	<b>1</b> 120V	(for DL style only)			

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

CAEM6 Field installable E
4RNSR 4" round/square
LCEM6 Field installable E
T347-75VA 347:120V step-do

SBA

Interact Ready System Bridge Accessory with integral occupancy and daylight sensor (compatible with all 0-10V options, see SBA spec sheet) <sup>11</sup> Field installable Bodine BSL6 6W battery pack with self-test/self-diagnostic for use with new construction frames, 120-277V 4" round/square non-IC frame with Flex (F) light engine (provides mechanical support for rough-in construction only, no junction box) Field installable Bodine BSL06 emergency battery pack (for Flex (F) light engine only, includes switch mounting plate) 347:120V step-down transformer for non-IC (N) frame only (see page 2 for details)

- 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.
- $3. \ \ Lensed \ wall \ wash \ (LW) \ style \ only \ available \ with \ Wide \ (W) \ beam \ (2500 lm \ max).$
- 4. Not available with AirSeal (A) frame.
- 5. Not available with AirSeal (A) frame. Available with CL, CC, and CD reflector finishes only.
- 6. Consult factory with ETO request for black (B) flange for all styles.
- 7. The 500lm (05) option is not available.
- 8. Linear driver profile. See dimensional data following.

  Specify only with non-IC (N) frame, not for use with LC or EM6 options.
- 9. Retrofits select legacy Lightolier luminaires. See pages 2 and 6 for details.
- 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.
- 11. Requires IRT9015 IR remote and Interact Pro App for commissioning (requires above ceiling access).











# Square Downlight & Lensed Wall Wash

#### **Features**

#### Optics

- · Provides a 60° cutoff (physical and reflected)
- Available in wide (85°) and medium (70°) 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.

#### Quality of light

- · Consult factory for RAL finishes
- · 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 dimto-off function (consult factory for linear dimming curve).
- Lutron LDE1 (L1) EcoSystem 1%
- Electronic low voltage (E) offers forward or reverse phase dimming

### 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 stepdown 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: P4SDL20935WCDZ10UIEM6).
   DL style only.
- For remote ceiling mounted test switch, order standard light engine (ex: P4SDL20935CDZ10U).
   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**

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

**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. To mount
test switch to trim for new construction frame,
order light engine with IEM6 option code
(e.g. P4SDL20935WCDZ10UIEM6).

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.

**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.

# Square Downlight & Lensed Wall Wash

# dittato interact 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 Support for sensor-based Tunable White luminaires New Energy reporting and monitoring Scheduling Demand response BMS integration (BACnet) Floor plan visualization

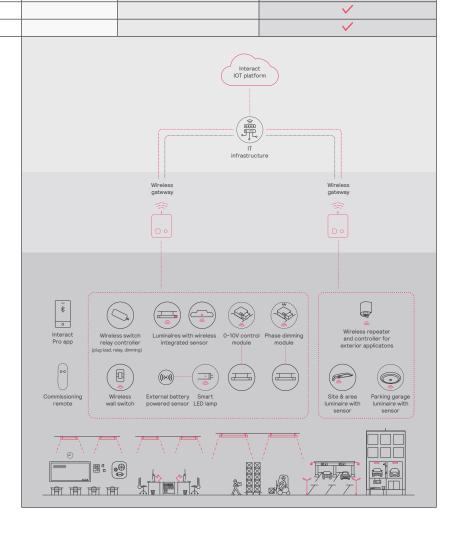
## Currently supported maximum system size

IoT sensors for wellness
IoT Apps for productivity

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



# Square Downlight & Lensed Wall Wash

## 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	-	-

# Square 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 CRI¹
- · 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<sub>a</sub> up to 94 CRI
   R<sub>f</sub> up to 92 TM-30
   R<sub>g</sub> up to 67 CRI
   G<sub>a</sub> up to 99 CRI
   C<sub>g</sub> up to 94 CRI
   R<sub>g</sub> up to 100 TM-30
   R<sub>cs,M</sub> up to -5% TM-30

#### Achieve color balance

#### Best in class color consistency:

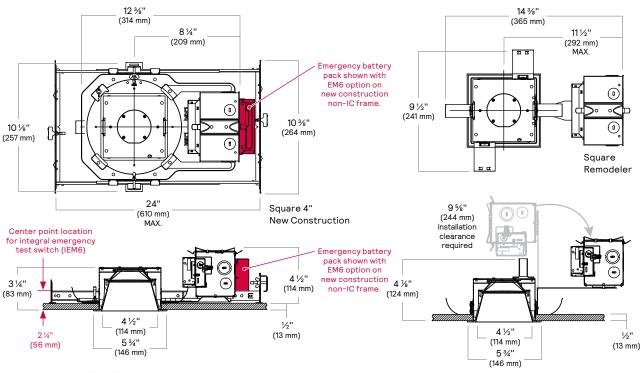
 Promote aesthetic harmony in your space with ≤ 2 SDCM

## Electrical (Input frequency of 50/60Hz)

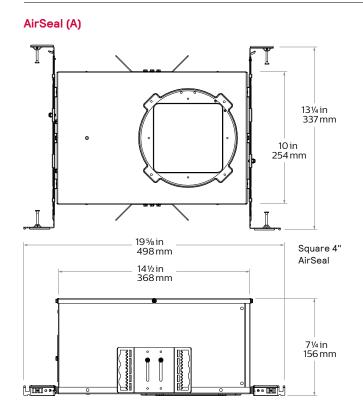
		Input	Drive	Input		THD	Power
	Input	Current	Current	Power	LED	Factor @	Factor @
Product	Volts	(A)	(A)	(W)	Power	Max Load	Max Load
	120V	0.054A	0.15A	6.5W	5.1W	<10%	>0.9
P4SDL05_Z10U/3	277V	0.024A	0.15A	6.7W	5.1W	<30%	>0.9
	347V	0.022A	0.15A	7.5W	5.1W	<30%	>0.9
	120V	0.087A	0.25A	10.4W	8.5W	<10%	>0.9
P4SDL10_Z10U/3	277V	0.039A	0.25A	10.7W	8.5W	<20%	>0.9
	347V	0.035A	0.25A	12.1W	8.5W	<30%	>0.9
	120V	0.126A	0.37A	15.1W	12.6W	<10%	>0.9
P4SDL15_Z10U/3	277V	0.055A	0.37A	15.2W	12.6W	<10%	>0.9
	347V	0.050A	0.37A	17.2W	12.6W	<25%	>0.9
	120V	0.168A	0.50A	20.1W	17.0W	<10%	>0.9
P4SDL20_Z10U/3	277V	0.073A	0.50A	20.2W	17.0W	<10%	>0.9
	347V	0.064A	0.50A	22.4W	17.0W	<20%	>0.9
	120V	0.210A	0.63A	25.2W	21.4W	<10%	>0.9
P4SDL25_Z10U/3	277V	0.092A	0.63A	25.3W	21.4W	<10%	>0.9
	347V	0.077A	0.63A	26.8W	21.4W	<20%	>0.9
	120V	0.252A	0.76A	30.2W	25.7W	<10%	>0.9
P4SDL30_Z10U/3	277V	0.110A	0.76A	30.4W	25.7W	<10%	>0.9
	347V	0.092A	0.76A	32.1W	25.7W	<20%	>0.9
	120V	0.298A	0.91A	35.8W	30.8W	<10%	>0.9
P4SDL35_Z10U/3	277V	0.129A	0.91A	35.8W	30.8W	<10%	>0.9
	347V	0.106A	0.91A	36.6W	30.8W	<20%	>0.9
	120V	0.321A	0.98A	38.5W	33.2W	<10%	>0.9
P4SDL40_Z10U/3	277V	0.139A	0.98A	38.5W	33.2W	<10%	>0.9
	347V	0.114A	0.98A	39.5W	33.2W	<20%	>0.9

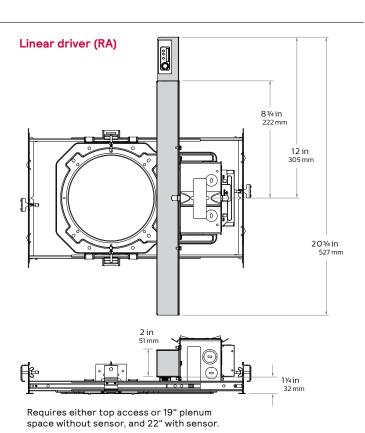
# Square Downlight & Lensed Wall Wash

#### **New construction**



4  $\,\%$  " x 4  $\,\%$  " hole cutout

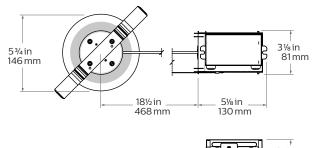


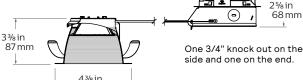


# Square Downlight & Lensed Wall Wash

### Flex Install (F)

(Flex architecture available as ETO, consult factory)

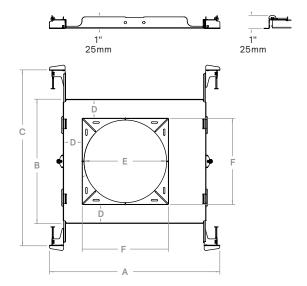




LCEM6 Flex install (F) engine only

112 mm





3½in 90mm 5½in	21/s in 73 mm . ②	1½ in 38 mm
140 mm	1% in 42 mm	12" conduit with connector to j-box knock out

Α	В	С	D	E	F
13 ¼"	9 5/8"	13 %"	1½"	6%"	5%"
334mm	244mm	345mm	37mm	162mm	169mm

### 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.



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.

## **Flanges**



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



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



**Aluminum (A):** Painted aluminum finish to more closely match visual appearance of anodized inner trim surface.

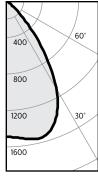
# Square Downlight & Lensed Wall Wash

#### 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%

## Downlight, Medium beam, 20W LED, 90 CRI, 3500 K

# Candela Curves



Zonal lur	nens &	percentages	Angle	Mean CP	Lms
Zone Lumens %Luminaire			0	1487	
0-30 0-40 0-60 0-90	1180 1678 1942 1945	86.3% 99.8%	5 10 15 20 25 30	1500 1534 1542 1477 1329 1097	144 433 603
Report¹: P4SDL20		CLZ10U.ies	35 40 45	806 508 268	498
Dutput l		1945 lms 20.1W	50 55	122 49	216
Efficacy CCT <sup>3</sup> :		96.8lm/w 3500K	60 65	12 2	48
CRI: Beam An	ngle:	90 min 71°	70 75	1 0	3
Spacing	Črit.:	1.14	80 85	0	0

#### Single unit data

	Initial center beam foot-candles	Beam dia. (ft)*
5'	59	5.7'
6'	41	6.8'
7'	30	8.0'
8'	23	9.1'
9'	18	10.3'
* D		

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

#### Multiple unit data - RCR 2

on center	foot-candles	n Watts per sq.ft.
5'	88.0	0.89
6'	58.0	0.58
7'	41.0	0.42
8'	34.0	0.35
9'	27.0	0.28

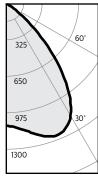
38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

#### Coefficients of utilization

Ceil	ling		80	)%		70	1%	50	%	30	)%	0%
Wal	I	70	50	30	10	50	10	50	10	50	10	0
RCF	?	Zon	al cav	ity m	ethod	- Eff	ectiv	e floo	r refl	ectan	ce = :	20%
	0	119	119	119	119	116	116	111	111	106	106	100
0	1	113	110	108	106	108	104	104	101	100	98	93
Ĕ	2	107	102	98	95	101	94	97	91	94	90	86
8	3	102	95	90	86	94	85	91	84	88	82	79
ΞĘ	4	96	88	82	78	87	78	85	77	83	76	73
a	5	91	82	76	72	81	71	79	71	78	70	68
Room Cavity Ratio	6	86	77	70	66	76	66	74	65	73	65	63
O	7	81	72	65	61	71	61	70	60	68	60	58
8	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

## Downlight, Wide beam, 20W LED, 90 CRI, 3500 K

### Candela Curves



Zonal lumens & percentages							
Zone	Lumens	%Luminaire					
0-30	1019	48.5%					
0-40	1621	77.1%					
0-60	2097	99.7%					
0-90	2103	100.0%					
Danas	<b>±</b> 1.						

#### P4SDL20935WCLZ10U.ies Output Lms: Input Watts<sup>2</sup>: 20.1W 104.6 lm/w Efficacy:

3500K CRI:  $90\,min$ 

Beam Angle: 80° Spacing Crit.: 1.4

0	1089	
5	1108	
10	1158	107
15	1218	
20	1255	346
25	1237	
30	1150	566
35	977	
40	743	602
45	484	
50	257	373
55	104	
60	24	103
65	3	
70	1	5
75	0	
80	0	1
~-	_	ľ

Angle Mean CP Lms

#### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	44	7.0'
6'	30	8.4'
7'	22	9.8'
8'	17	11.2'
9'	13	12.6'

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

## Multiple unit data - RCR 2

Spacing on center	foot-candles	n Watts per sq.ft.
5'	93.0	0.89
6'	61.0	0.58
7'	44.0	0.42
8'	36.0	0.35
9'	29.0	0.28

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

#### Coefficients of utilization

Ce	iling		80	)%		//	1%	50	1%	30	1%	0%
Wa	II	70	50	30	10	50	10	50	10	50	10	0
RC	R	Zon	al cav	ity m	ethoc	l – Eff	ectiv	e floo	r refl	ectan	ce = :	20%
	0	119	119	119	119	116	116	111	111	106	106	100
0	1	114	111	109	106	109	105	105	101	101	98	94
ij	2	108	103	100	96	102	95	99	93	96	91	88
æ	3	103	97	92	88	95	87	93	86	90	85	82
Ξź	4	98	91	85	81	89	81	87	80	85	79	76
a	5	93	85	79	75	84	75	82	74	81	73	71
õ	6	89	80	74	70	79	70	78	69	76	69	67
Room Cavity Ratio	7	84	75	69	65	75	65	73	65	72	64	63
8	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

- 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.

# Square Downlight & Lensed Wall Wash

#### Adjustment Factors

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

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

# Candela Curve 225 450 675 900 Wall side Room side

#### Report1: P4SLW20930CLZ10U.IES 1966 lms Output Lms:

Input Watts<sup>2</sup>: Efficacy: 103.5 lm/w CCT3. 3000K 90 min

#### Multiple unit data Footcandles on wall

	2' from wall					
	0	2' on ctr	. •			
1	68	69	68			
<del>0</del> 2	94	96	94			
9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	74	77	74			
Distance from ceiling in feet 5 10 6 8 2 9 5 7 8 5 7 8 9 10 7	51	54	51			
<u>≒</u> 5	35	37	35			
ဗ္ 6	25	26	25			
E 7	18	19	18			
<u>+</u> 8	14	14	14			
ညီ 9	11	11	11			
克 10	9	9	9			
<u>≅</u> 12	7	8	7			
14	6	6	6			
	1	1	1			

#### Multiple unit data Footcandles on wall

	3' from wall 3' on ctr.					
iling in feet 2 8 8 2 2 4	23 40 43 37 29	22 40 43 38 30	23 40 43 37 29			
Distance from ceiling in feet 17 01 6 8 2 9 9 4 8 5 2 9 5 4 8 6 8 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	23 18 14 11 9 8	23 18 14 11 9 8	23 18 14 11 9 8			

<sup>3.</sup> Correlated Color Temperature: within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.



presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Telephone: 800-555-0050

Markham, ON, Canada L6C 2S3 Telephone: 800-668-9008

<sup>1.</sup> Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

<sup>2.</sup> Wattage: controlled to within 5%