DESCRIPTION

6 inch LED square recessed downlight designed for glare free, even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 500 to 7000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. VividTune: Dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Lower Shielding Reflector
Painted die cast aluminum or anodized aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Anodized reflectors are offered in all Portfolio Alzak® finishes. Available with non-conductive polymer trim. Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface. Plaster lathing ring accessory offered for flush reflector transition.

Plaster Frame / Collar
Galvanized steel plaster frame with adjustable collar adjusts for up to 2" thick ceilings and rotates+/- 7.5°.

Universal Mounting Bracket
Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box
(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring. Lever connectors for simple push in wiring.

Thermal
Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED
Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Lumen output shall not decrease by more than 10% over the minimum life of 55,000 hours (L90 > 55,000 hours). Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 2-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI.
D2W™ – dim-to-warm shifts CCT from 3000K to1850K as fixture dims mimicking halogen sources.
W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI.

Driver
Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120-277V phase dimming, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.
Distributed low voltage power system combines power, lighting, and controls with ease of installation.

Connected Lighting System Options
Two WaveLinx connected systems to choose from. Refer to WaveLinx system specifications and application guides for details.

WaveLinx Wireless System Tilemount Sensor Kit

- WaveLinx Wireless WTA tile mount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinx Lite System Tilemount Sensor Kit

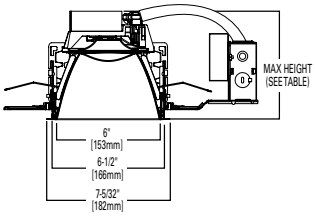
- WaveLinx Lite WTK tile mount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx Tilemount Kits Application

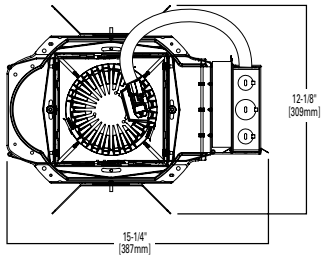
- The WTA and WTK tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WTA and WTK tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

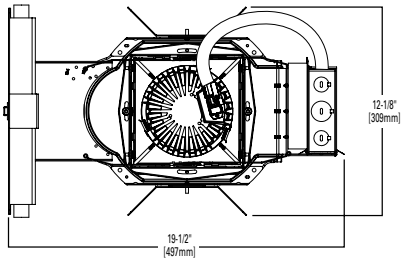
Code Compliance
Thermally protected and cULus listed for wet locations with covered ceiling. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. 2000 lumen and above are Non-IC rated - Insulation must be kept 3" from top and sides of housing. IC rated up to 1500 lumens. 5000 lumen and above are marked spacing and must follow spacing requirements. RoHS Compliant. Photometric testing completed in accordance with IES LM 79. Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.

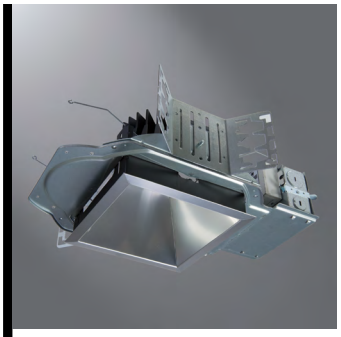
Warranty
5-year warranty



	1000-2000 LUMENS	3000-5000 LUMENS	6000-7000 LUMENS
STANDARD	6-7/16" [163mm]	6-7/16" [163mm]	8-3/15" [208mm]
SHALLOW	4-7/16" [113mm]	5-5/8" [143mm]	5-5/8" [143mm]







LDSQ6B EU6B 6LBSQ

500, 1000, 1500, 2000, 3000, 4000, 5000, 6000, 7000 Lumens LED

Die Cast or Anodized Aluminum
Square Downlight
New Construction

VividTune color tuning solutions

D2W™

ENERGY STAR

Can be used to comply with T24 California Non-Residential Lighting Controls requirements

RoHS Compliant

Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements.

ORDERING INFORMATION

SAMPLE NUMBER: LDSQ6B15D010EMBOD

Housing	Lumens[1]	Voltage	Driver	Options[4]
LDSQ6B=LED Square Downlight 6" Nominal Aperture **LDSQ6BCP**=LED Square Downlight 6" Nominal Aperture, Chicago Plenum	**05**=500 lumens[15] **10**=1000 lumens **15**=1500 lumens **20**=2000 lumens **30**=3000 lumens **40**=4000 lumens **50**=5000 lumens[6] **60**=6000 lumens[6] **70**=7000 lumens[6]	**Blank**=120-277V **3**=347V (step down transformer)	**500 - 4000 Lumen** **D010**=0-10V Dimming, 1% to 100%, 120V-277V **D010TR**=0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V **DE010**=0-10V Linear Dimming, 0% to 100%, 120V-277V **D5LT**=Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100%, 120V-277V **DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V[9] **DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection **DL2**=Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only **DLE**=Lutron Ecosystem dimming 1% to 100%, 120V-277V **5000, 6000 and 7000 Lumen** **D010TE**=0-10V 1% or Trailing Edge, 10% to 100%, 120V-277V (120V Only for Trailing Edge Dimming) **1000 - 3000 Lumen** **DLV**=Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below)[4,10] **Tunable white 1000-2000 Lumens**[12] **1DE010W2N2050**=0-10V dimming, 0% to 100%, 120V, 2000K - 5000K **1DE010W2N2765**=0-10V dimming, 0% to 100%, 120V, 2700K - 6500K **1D5LTW2N2050**=Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 120, 2000K - 5000K **1D5LTW2N2765**=Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 120V, 2700K - 6500K **2DE010W2N2050**=0-10V dimming, 0% to 100%, 277V, 2000K - 5000K **2DE010W2N2765**=0-10V dimming, 0% to 100%, 277V, 2700K - 6500K **2D5LTW2N2050**=Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 277V, 2000K - 5000K **2D5LTW2N2765**=Fifth Light DALI DT6 Logarithmic Dimming, 0% to 100%, 277V, 2700K - 6500K	**EMBOD**=Bodine® Emergency Module with Remote Test Switch **EMBOD7ST**=Bodine® Emergency Module with Self Test Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch[5] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch[5] **WTA** = Factory installed WaveLinx sensor Kit[10, 13] **WTK** = Factory installed WaveLinx Lite Sensor Kit[10, 14]

SAMPLE NUMBER: EU6B10208035

Power Module	Lumen Levels[1]	CRI	Color		
EU6B=6" Universal LED Module	**05**=500 lumens **1020**=1000, 1500, 2000 lumens **3050**=3000, 4000, 5000 lumens[6] **6070**=6000, 7000 lumens[6] **1015IC**=1000, 1500 lumen IC rated	**80**=80 CRI Minimum **90**=90 CRI Minimum **97**=97 CRI Minimum	**80 CRI** **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K
	Dim 2 Warm **109030D2W**=1000 lumen, 90 CRI, Dim 2 Warm, IC rated **159030D2W**=1500 lumen, 90 CRI, Dim 2 Warm, IC rated **209030D2W**=2000 lumen, 90 CRI, Dim 2 Warm **309030D2W**=3000 lumen, 90 CRI, Dim 2 Warm		**Tunable white**[12] **1020W2N902050** =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K **1020W2N902765** =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K		

SAMPLE NUMBER: 6LBSQ1LI

Trim	Distribution	Flange	Finish	
6LB=6" LED	**SQ**=Square Anodized Aluminum **CSSQ**=Cast Shallow Square, Die Cast Aluminum[7]	**0**=White Polymer Trim Ring[11] **1**=Self-flanged[8] **2**=White Painted Self-flanged	**LI**=Specular Clear[2] **H**=Semi-Specular Clear[2] **WMH**=Warm Haze[2] **WH**=Wheat[2] **GPH**=Graphite Haze[2]	**B**=Specular Black[2] **MW**=Matte White **MB**=Matte Black[3] **MMS**=Matte Metallic Silver[3]

Accessories

PRSQ6=Plaster Lathing Ring for Flush Mount for use with Rimless Flange (order with white polymer trim ring flange option)
LGSKT6SQIP66=IP66 Gasket Kit

Bar Hangers
HB26=C-channel Bar Hanger, 26" Long, Pair
HB50=C-channel Bar Hanger, 50" Long, Pair
RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Transformers
H347=347 to 120V Step Down Transformer, 75VA
H347200=347 to 120V Step Down Transformer, 200VA

Connected Lighting Systems[4, 10]
WTA = Field installed WaveLinx sensor Kit[13]
WTK = Field installed WaveLinx Lite Sensor Kit[14]

Notes:
1. Nominal Lumens will vary depending on selected color, driver and reflector finish.
2. Available on anodized aluminum
3. Available only on cast aluminum
4. Not available with Chicago Plenum
5. UL/US approved only
6. Product is marked spacing and must be installed with the following minimum spacing.
   - Center to center of adjacent luminaires: 36"
   - Center of luminaire to side of building member: 18"
   - Minimum overhead: 1/2"
   - Not available with CSSQ or PSSQ trims.
7. Offered up to 5000 lumens
8. Flange is the same finish as reflector
9. DMX fixtures default to full on upon loss of DMX signal.
10. Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.
11. Not available with cast shallow
12. Non-IC
13. WTA = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
14. WTK = WaveLinx Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx Lite system specifications)
15. Limited to D010 drivers.

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

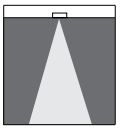
4000 Lumen D010		5000 Lumen D010TE	
Input Power: 41.6W	THD: <13%	Input Power: 57.9W	THD: <14%
120V Input Current: 0.35A	277V Input Current: 0.15A	120V Input Current: 0.49A	277V Input Current: 0.22A

6000 Lumen D010TE		7000 Lumen D010TE	
Input Power: 59.7W	THD: <14%	Input Power: 75.8W	THD: <13%
120V Input Current: 0.50A	277V Input Current: 0.22A	120V Input Current: 0.64A	277V Input Current: 0.29A

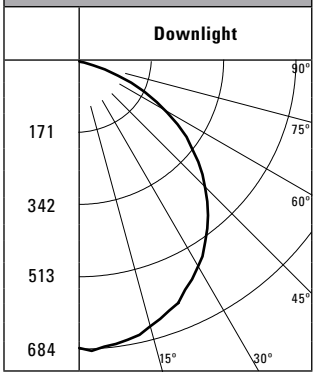
	120V		277V	
Lumens	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03
5000 Lumen D010TE	5.1	0.132	10.2	0.153
6000 Lumen D010TE	5.4	0.123	10.8	0.154
7000 Lumen D010TE	4.9	0.13	9.8	0.156

PHOTOMETRY

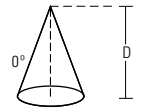
Test Number	P35359
Housing	LDSQ6B15D010
Module	EU4B10208035
Trim	6LBCSSQ1MMS
Lumens	1637
Efficacy	116.9 Lm/W
SC	1.24



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
5.5'	23	6.6	6.6
7'	14	8.6	8.4
8'	11	9.8	9.6
9'	8	11	10.8
10'	7	12.2	12
12'	5	14.6	14.4

CANDELA TABLE

Degrees Vertical	Candela
0	678
5	678
15	648
25	607
35	527
45	420
55	295
65	139
75	20
85	0
90	0

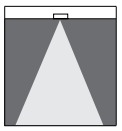
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	522	31.9
0-40	848	51.8
0-60	1442	88.1
0-90	1637	100
90-180	0	0
0-180	1637	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	25574
55	22144
65	14161
75	3327
85	0

Test Number	P35360
Housing	LDSQ6B15D010
Module	EU4B10208035
Trim	6LBSQ0LI
Lumens	1491
Efficacy	106.5 Lm/W
SC	0.92



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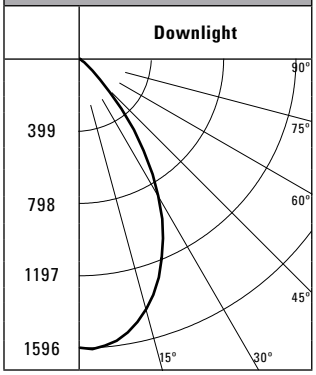

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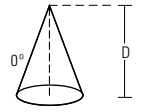


D	FC	L	W
5.5'	53	5	5
7'	33	6.4	6.4
8'	24	7.2	7.2
9'	20	8.2	8.2
10'	16	9	9.2
12'	11	11	11

CANDELA TABLE

Degrees Vertical	Candela
0	1587
5	1566
15	1400
25	1045
35	441
45	83
55	14
65	4
75	1
85	0
90	0

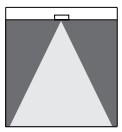
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1029	69
0-40	1364	91.4
0-60	1485	99.6
0-90	1491	100
90-180	0	0
0-180	1491	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	5054
55	1051
65	408
75	166
85	0

Test Number	P202483
Housing	LDSQ6B40D010
Module	EU6B30508035
Trim	6LBCSSQ1MMS
Lumens	4636
Efficacy	107.8 Lm/W
SC	1.24



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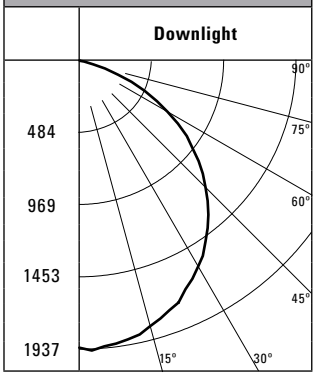

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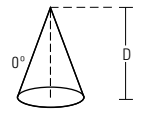


D	FC	L	W
5.5'	64	6.6	6.6
7'	39	8.6	8.4
8'	30	9.8	9.6
9'	24	11	10.8
10'	19	12.2	12
12'	13	14.6	14.4

CANDELA TABLE

Degrees Vertical	Candela
0	1920
5	1920
15	1835
25	1719
35	1492
45	1190
55	836
65	394
75	57
85	0
90	0

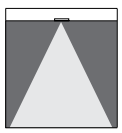
ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1479	31.9
0-40	2401	51.8
0-60	4083	88.1
0-90	4636	100
90-180	0	0
0-180	4636	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	18216
55	15774
65	10088
75	2368
85	0

Test Number	P202482
Housing	LDSQ6B40D010
Module	EU6B30508035
Trim	6LBSQ1LI
Lumens	4222
Efficacy	98.2 Lm/W
SC	0.92



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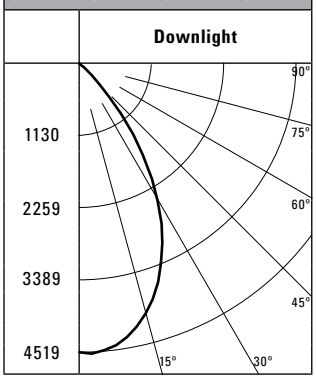

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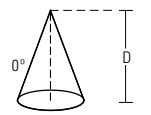


D	FC	L	W
5.5'	149	5	5
7'	92	6.4	6.4
8'	70	7.2	7.2
9'	56	8.2	8.2
10'	45	9	9.2
12'	31	11	11

CANDELA TABLE

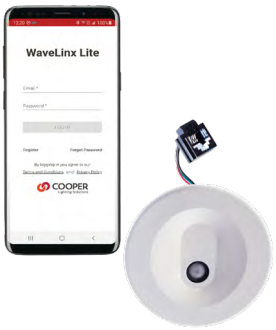
Degrees Vertical	Candela
0	4493
5	4434
15	3964
25	2959
35	1249
45	235
55	40
65	11
75	3
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	2913	69
0-40	3861	91.4
0-60	4204	99.6
0-90	4222	100
90-180	0	0
0-180	4222	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	3599
55	748
65	290
75	117
85	0

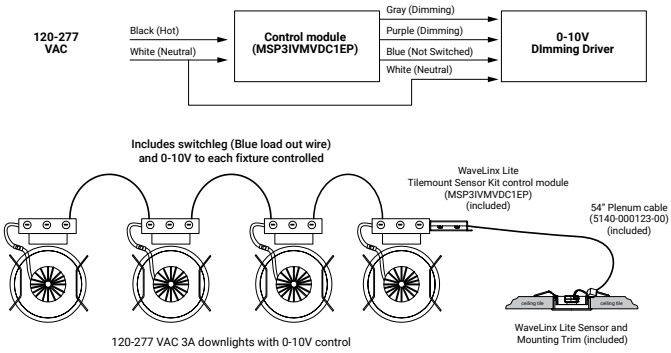


WaveLinx Lite - WTK Tilemount Sensor

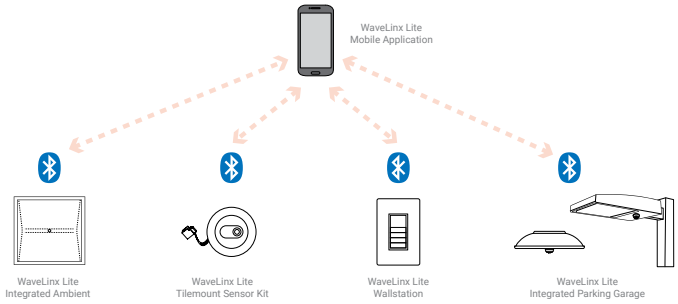
- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx Lite Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details

Device Security | Manual Dimmer | Occupancy Sensor | Daylighting Control | Manually Switched ON/OFF | Tuning Control | Lumen Maintenance Control | Scenes

WaveLinx Lite WTK Tilemount Wiring Diagram



WaveLinx Lite Bluetooth Enabled System





WaveLinx Wireless – WTA Tilemount Sensor

- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



Downlights with tilemount sensor wireless communication
Highly efficient LED fixtures

Wireless Area Controller
Provides centralized coordination of multiple area control options

Wireless Wall Station/Receptacle
Provides customized wireless control of each area

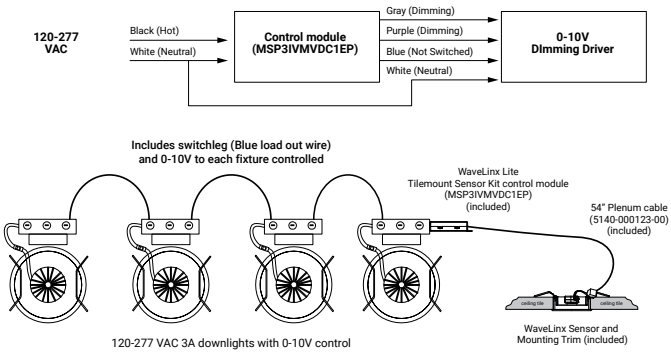
Mobile Applications
Provides personalized, local control from a tablet or smartphone

WaveLinx mobile app settings

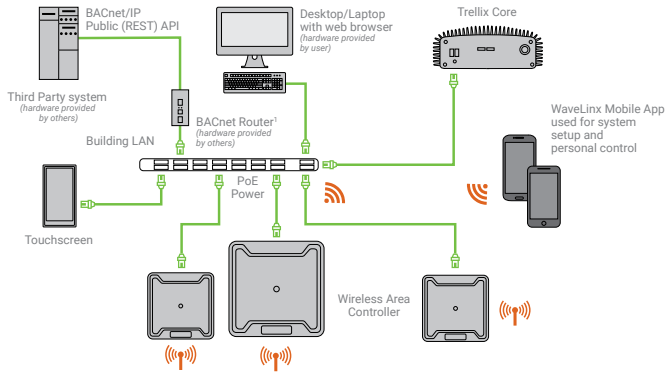
Manual Dimmer | Occupancy Sensor | Lumen Maintenance Control | Daylighting Control

Receptacle Control | Tuning Control | Scheduling | Manually Switched ON/OFF | Demand Response

WaveLinx Lite WTA Tilemount Wiring Diagram



WaveLinx Wireless Trellix Building Management Integration



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