

Project		Catalog #		Type	
Prepared by		Notes		Date	



# HALO Commercial

## HCC4 | HM4 | 41

4-inch lens cylinder and lens wall wash

### Typical Applications

Office • Healthcare • Hospitality • Institutional

### Interactive Menu

- Order Information page 2
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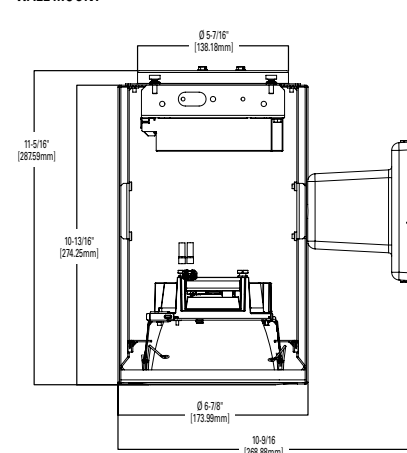


### Top Product Features

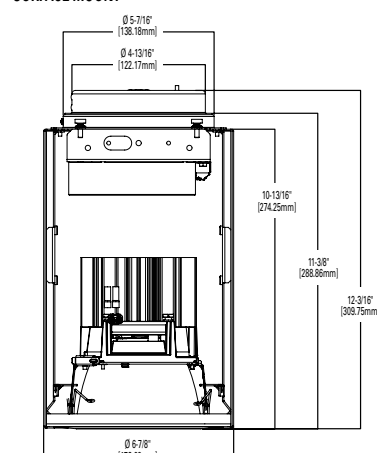
- 500 to 4000 lumens
- 2700K, 3000K, 3500K, 4000K, 5000K CCT; 80 or 90 CRI
- Narrow, Medium, Wide beam distribution in precision formed reflectors
- Wall wash with exclusive rotatable linear spread lens
- Specular, Semi Specular, White, Black & White Baffle reflector finishes
- Matte white, matte black, silver and bronze silver cylinder finishes
- Wall mount, and Surface mount with aircraft cable and pendant accessory options

### Dimensional and Mounting Details

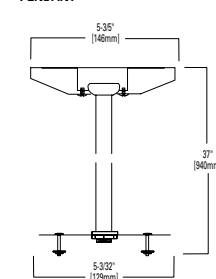
#### WALL MOUNT



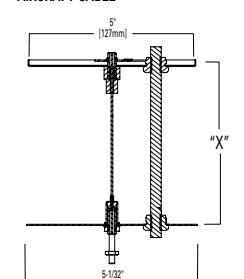
#### SURFACE MOUNT



#### PENDANT



#### AIRCRAFT CABLE



Low Lumen Module



Mid Lumen Module

## Order Information

SAMPLE ORDER NUMBER: **HCC4S20D010MW - HM40525930 - 41MDC****A complete luminaire consists of a cylinder, LED module, and reflector; ordered separately**

Cylinder	Lumens	Driver Options	Finish	Factory Installed Connected Lighting Options
<b>HCC4S</b> = 4" Surface Mount Cylinder for ceiling, cable, or pendant mounting <b>HCC4W</b> = 4" Wall Mount Cylinder	<b>05</b> = 500 lm <b>07</b> = 750 lm <b>10</b> = 1000 lm <b>15</b> = 1500 lm <b>20</b> = 2000 lm <b>25</b> = 2500 lm <b>30</b> = 3000 lm <b>35</b> = 3500 lm <b>40</b> = 4000 lm	<b>D010</b> = UNV 120-277V, 50/60Hz, 0-10V 1%-100% dimming at 120-277V on 0-10V controls  <b>Canada Option 500-4000 lumen</b> <b>D010347</b> = 347VAC 50/60Hz 0-10V 1%- 100% dimming. For 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000lm models only	<b>MW</b> = Matte White <b>MB</b> = Matte Black <b>BZ</b> = Bronze <b>SL</b> = Silver	<b>WPN</b> = WaveLinX PRO Wireless Node without sensor <sup>(4)</sup> <b>WLN</b> = WaveLinX LITE Wireless Node without Sensor <sup>(5)</sup>
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>  (4) WPN = WaveLinX PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. Not compatible with 347V or Chicago plenum. (Refer to WaveLinX PRO system specifications.) (5) WLN = WaveLinX LITE wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. Not compatible with 347V or Chicago plenum. (Refer to WaveLinX LITE system specifications.)

Accessories (Order & Install Separately)	Option
<b>Pendant Kit <sup>(1)</sup></b> <b>HCC8P36MW</b> = Matte White pendant stem kit <b>HCC8P36MB</b> = Matte black pendant stem kit <b>HCC8P36BZ</b> = Bronze pendant stem kit <b>HCC8P36SL</b> = Silver pendant stem kit	<b>Blank</b> = 36" <b>SP*</b> = * specify 6 to 144 in 1" increments
<b>Aircraft Cable Kit <sup>(1) (2)</sup></b> <b>HCAC120MW</b> = 120" white power cable & aircraft cable kit <b>HCAC48MW</b> = 48" white power cable & aircraft cable kit <b>HCAC120MB</b> = 120" black power cable & aircraft cable kit <b>HCAC48MB</b> = 48" black power cable & aircraft cable kit	<b>Blank</b> = 5 conductor cable (power & 0-10V dimming)
<b>Notes</b> (1) Pendant and Aircraft Cable mounting accessories for use with surface cylinders. (2) Aircraft cable kit finish options: white or black cable & canopy plate, and stainless steel aircraft cable.	<b>Notes</b>

LED Module	Lumens	CRI / CCT	
<b>HM4</b> = 4" LED module	<b>0525</b> = 500 - 2500 lumen <b>3040</b> = 3000-4000 lumen	<b>827</b> = 80CRI, 2700K <b>830</b> = 80CRI, 3000K <b>835</b> = 80CRI, 3500K <b>840</b> = 80CRI, 4000K <b>850</b> = 80CRI, 5000K	<b>927</b> = 90CRI, 2700K <b>930</b> = 90CRI, 3000K <b>935</b> = 90CRI, 3500K <b>940</b> = 90CRI, 4000K <b>950</b> = 90CRI, 5000K
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	

Reflector	Distribution <sup>(3)</sup>	Finish	Flange	Accessories
<b>41</b> = 4" self-flanged, conical reflector	<b>ND</b> = narrow reflector 53° beam angle, 0.84 SC <b>MD</b> = medium reflector 61° beam angle, 1.00 SC <b>WD</b> = wide reflector 76° beam angle, 1.24 SC <b>RWW</b> = rotatable wall wash with linear spread lens	<b>C</b> = Specular clear <b>H</b> = Semi-specular clear <b>W</b> = White	<b>Blank</b> = Polished flange standard with C & H reflectors <b>Blank</b> = White flange standard with W reflector <b>WF</b> = White flange option available with C & H reflectors <b>BF</b> = Black Flange option available with C, H & W reflectors	<b>41RWWPK</b> = Replacement part kit - wall wash lens insert - for use with 41RWW* only.
<b>41</b> = 4" self-flanged, baffle reflector	<b>WD</b> = wide baffle 76° beam angle, 1.24 SC <b>RWW</b> = rotatable wall wash with linear spread lens (wide beam baffle with lens wall wash insert)	<b>BB</b> = Black baffle <b>WB</b> = White baffle	<b>Blank</b> = White flange standard with BB & WB reflectors <b>BF</b> = Black flange option available with BB reflectors	
<b>Notes</b>	<b>Notes</b> (3) Values are nominal, based on specular clear reflector, other may vary. Additional factors include CRI/CCT, reflector finish, and lumen selected.	<b>Notes</b>	<b>Notes</b>	

## Product Specifications

### Cylinder

- Round seamless spun aluminum housing available in matte white, matte black, bronze, or silver paint finish

### Mounting

- Ceiling mount: Included cylinder mounting plate installs to ceiling junction box (supplied by others), and the surface cylinder mounts to the plate with easy twist and lock hooks
- Pendant mount: Pendant stem (ordered separately) is field installed to the surface cylinder mounting plate. Offered in matching housing finishes
- Aircraft cable mount: Aircraft cable (ordered separately) is field installed to the surface cylinder mounting plate. Offered in white or black cable kit
- Wall mount: A mounting arm on the cylinder is designed to be attached directly to wall junction box (supplied by others) via a sturdy mounting plate

### LED Module

- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation
- Available in 80 or 90 CRI (nominal), provides accuracy within 3 SDCM color uniformity
- 90 CRI, R9>50 (refer to chromaticity technical note online for details)
- Correlated Color Temperature options (nominal)
  - 2700K, 3000K, 3500K, 4000K, 5000K
- Passive thermal management achieves L70 at 50,000 hours in IC and non IC applications

### Lumen Options

- Lumen options include 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000 lumens

### Reflector

- Self-flanged aluminum reflectors are available in narrow, medium or wide distribution patterns
- Integral diffuse lens provides visual shielding
- Wall wash reflector features a rotatable linear spread lens for precise alignment of vertical illumination.
- Reflector attaches to LED module with (3) speed clamps
- Multiple painted or plated finishes are available

### Reflector / Module Retention

- Reflector / module assembly is securely retained in the housing with (2) torsion springs

### Driver

- Field replaceable constant current driver
- UNV 120-277V input standard; continuous dimming 1%-100% with 0-10V analog controls.

### Canada option

- 347VAC 50/60Hz; 1% dimming on 0-10V analog control, for 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000 lumen models only

### Electrical Connections

- Quick disconnect allows for tool-less replacement of LED engine from below
- (3) 4-port push wire nuts for mains voltage, with 1-port for fixture connection

### Connected Lighting System

Refer to WaveLinx system specifications and application guides for details.

#### [WaveLinx PRO Wireless Node](#)

- WaveLinx PRO WPN wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. **Note:** Not compatible with 347V or Chicago plenum.

#### [WaveLinx LITE Wireless Node](#)

- WaveLinx LITE WLN wireless node provides luminaire level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. **Note:** Not compatible with 347V or Chicago plenum.
- Note: WaveLinx PRO devices are only compatible with the WaveLinx PRO system.**
- Note: WaveLinx LITE devices are only compatible with the WaveLinx LITE system.**

### Compliance

- cULus Certified to UL 1598 / Canada C22.2 No. 250.0
- Surface mount:** suitable for damp and wet locations in covered ceilings only
- Pendant and aircraft cable mount:** suitable for damp locations in covered ceilings only
- Wall mount:** suitable for damp and wet locations
- Note:** Wet location models are IP65 rated (wet location and IP65 not applicable with wall wash reflector which is damp location)
- EMI/RFI emissions FCC CFR Title 47 Part 15 Class A 277V & Class B 120V
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- May be used to comply with State of California Title 24 non-residential code, as a dimmable LED luminaire
- ENERGY STAR® certified, refer to certified light fixture database

### Warranty

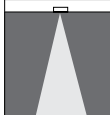
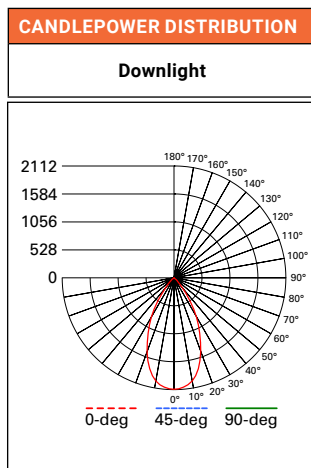
- Five year limited warranty, consult website for details. [www.cooperlighting.com/legal](http://www.cooperlighting.com/legal)

## Photometric Data

 View IES files

## NARROW DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

NARROW (50° BEAM*)	
Test Number	P571728
Housing	HC420D010 <sup>(1)</sup>
Module	HM40525835
Reflector	41NDC
Lumens	2010 Lm
Efficacy	100.5 Lm/W
SC	0.84
UGR	12.2

CONE OF LIGHT			
MH	FC	L	W
5.5'	79.3	4.6	4.6
7'	49	5.8	5.8
8'	37.5	6.6	6.6
9'	29.6	7.4	7.4
10'	24	8.4	8.4
12'	16.7	10	10

CANDELA TABLE	
Degrees Vertical	Candela
0	2400
5	2387
15	2110
25	1368
35	676
45	152
55	23
65	5
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1436	71.5
0-40	1848	92
0-60	2002	99.6
0-90	2010	100
90-180	0	0
0-180	2010	100


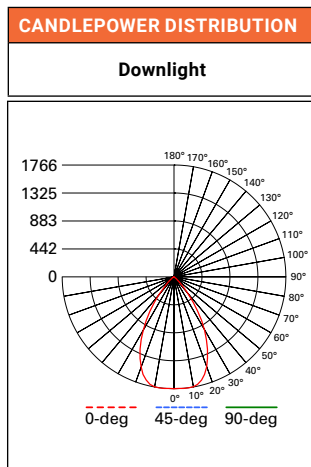
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	26514
55	4968
65	1576
75	667
85	0

\*Value are nominal with specular clear reflectors, other finishes and field results may vary.  
 SC = Spacing Criteria  
 UGR = Unified Glare Rating

1. Test with HC420D010 also applies to HCC420D010 using same reflector and LED module.

## MEDIUM DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

MEDIUM (60° BEAM*)	
Test Number	P571727
Housing	HC420D010 <sup>(1)</sup>
Module	HM40525835
Reflector	41MDC
Lumens	2096 Lm
Efficacy	104.8 Lm/W
SC	1.0
UGR	13.6

CONE OF LIGHT			
MH	FC	L	W
5.5'	65.3	5.4	5.4
7'	40.3	6.8	6.8
8'	30.9	7.8	7.8
9'	24.4	8.8	8.8
10'	19.8	9.8	9.8
12'	13.7	11.8	11.8

CANDELA TABLE	
Degrees Vertical	Candela
0	1969
5	1997
15	1974
25	1467
35	800
45	192
55	26
65	4
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1408	67.1
0-40	1899	90.6
0-60	2091	99.7
0-90	2096	100
90-180	0	0
0-180	2096	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	33405
55	5548
65	1197
75	667
85	0

\*Value are nominal with specular clear reflectors, other finishes and field results may vary.  
 SC = Spacing Criteria  
 UGR = Unified Glare Rating

1. Test with HC420D010 also applies to HCC420D010 using same reflector and LED module.

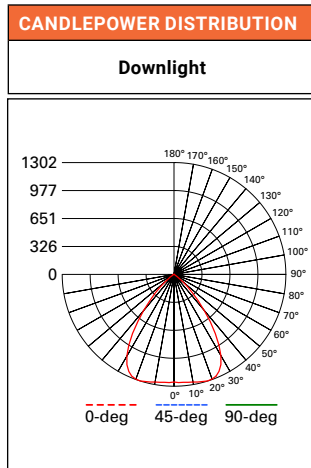
Note: Refer to IES files for more product data.

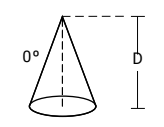
## Photometric Data

 View IES files

## WIDE DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WIDE (75° BEAM*)	
Test Number	P571730
Housing	HC420D010 <sup>(1)</sup>
Module	HM40525835
Reflector	41WDC
Lumens	2304 Lm
Efficacy	115.2 Lm/W
SC	1.25
UGR	15.7



CONE OF LIGHT			
			
MH	FC	L	W
5.5'	49.9	6.8	6.8
7'	30.8	8.6	8.6
8'	23.6	9.8	9.8
9'	18.6	11.2	11.2
10'	15.1	12.4	12.4
12'	10.5	14.8	14.8

CANDELA TABLE	
Degrees Vertical	Candela
0	1509
5	1525
15	1630
25	1603
35	1012
45	369
55	44
65	5
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1334	57.9
0-40	1960	85.1
0-60	2296	99.7
0-90	2304	100
90-180	0	0
0-180	2304	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	64437
55	9355
65	1576
75	667
85	0

\*Value are nominal with specular clear reflectors, other finishes and field results may vary.

SC = Spacing Criteria

UGR = Unified Glare Rating

1. Test with HC420D010 also applies to HCC420D010 using same reflector and LED module.

## Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen
0.33	0.44	0.54	0.74	1.00	1.24	1.54	1.85	2.15

Multipliers for relative lumen values with other series models.

## Color Finish Multipliers

Finish code	C	H	W/WB	BB
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.94	0.88	0.76

Multipliers for relative lumen values with other color finishes.

## CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K	5000K
0.89	0.96	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

## CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K	5000K
0.76	0.85	0.89	0.93	0.93

Multipliers for relative lumen values with other series color temperatures.

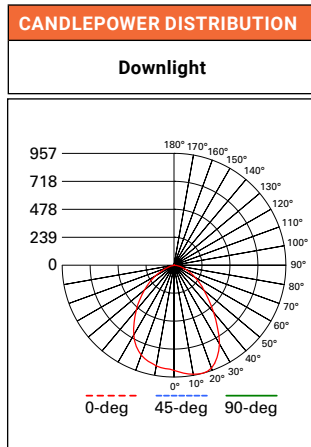
Note: Refer to IES files for more product data.

## Photometric Data

 View IES files

## WALL WASH DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WALL WASH	
Test Number	P571729
Housing	HC420D010 <sup>(1)</sup>
Module	HM40525835
Reflector	41RWWC
Lumens	2094 Lm
Efficacy	104.7 Lm/W
SC	1.15



CANDELA TABLE	
Degrees Vertical	Candela
0	1005
5	1041
15	1079
25	980
35	743
45	494
55	312
65	180
75	80
85	10
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	789	37.7
0-40	1221	58.3
0-60	1872	89.4
0-90	2094	100
90-180	0	0
0-180	2094	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	86207
55	67159
65	52681
75	38173
85	13445

SC = Spacing Criteria, nominal for specular clear reflector, other finishes and field results may vary.

1. Test with HC420D010 also applies to HCC420D010 using same reflector and LED module.

SINGLE UNIT FOOTCANDLES							
2.5' from wall (distance from fixture along wall)							
1	18.7	13.6	6.1	2.3	0.8	0.3	0.1
2	28.4	22.3	12.2	5.7	2.6	1.2	0.6
3	25.9	21.4	13.3	7.2	3.8	2	1.1
4	19.6	16.9	11.6	7	4.1	2.4	1.4
5	13.6	12.3	9.2	6.2	3.9	2.5	1.5
6	9.3	8.6	7	5.1	3.5	2.3	1.6
7	6.4	6.1	5.2	4.1	3	2.1	1.5
8	4.6	4.4	3.9	3.2	2.5	1.8	1.3
9	3.3	3.2	2.9	2.5	2	1.6	1.2
10	2.5	2.4	2.2	2	1.7	1.4	1.1

MULTIPLE UNIT FOOTCANDLES						
2.5' from wall (Distance from fixture along wall)				2.5' from wall (Distance from fixture along wall)		
1	21	18.8	21	19.5	12.1	19.5
2	34.1	34.1	34.1	31	24.4	31
3	33.1	34.4	33.1	29.7	26.5	29.7
4	26.7	28.7	26.7	23.7	23.3	23.7
5	19.8	21.7	19.8	17.5	18.5	17.5
6	14.4	15.8	14.4	12.8	14	12.8
7	10.5	11.4	10.5	9.4	10.4	9.4
8	7.8	8.3	7.8	7	7.7	7
9	5.8	6.2	5.8	5.4	5.9	5.4
10	4.4	4.7	4.4	4.1	4.5	4.1

## Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen
0.33	0.44	0.54	0.74	1.00	1.24	1.54	1.85	2.15

Multipliers for relative lumen values with other series models.

## Color Finish Multipliers

Finish code	C	H	W/WB	BB
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.94	0.88	0.76

Multipliers for relative lumen values with other color finishes.

## CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K	5000K
0.89	0.96	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

## CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K	5000K
0.76	0.85	0.89	0.93	0.93

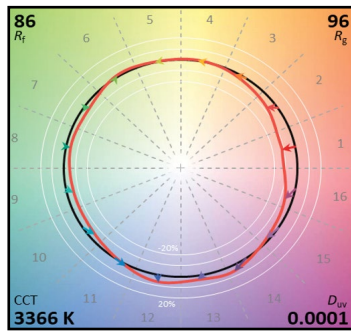
Multipliers for relative lumen values with other series color temperatures.

Note: Refer to IES files for more product data.

## Energy and Performance Data

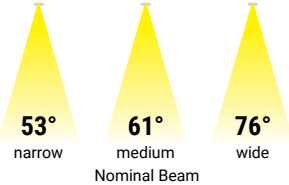
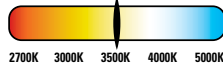
## COLOR METRICS - TM-30-15 &amp; CRI/CIE (3500K)

## 80 CRI Color Metric Summary - 3500K\*

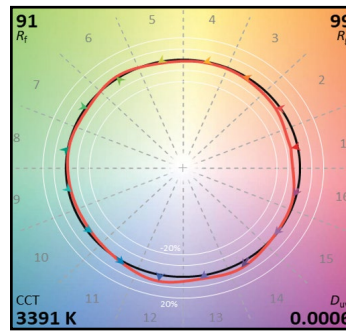


— Reference Illuminant — Test Source

TM-30-15	Rf = 86
	Rg = 95.5
CRI/CIE	Ra = 83.8
	R9 = 10.3

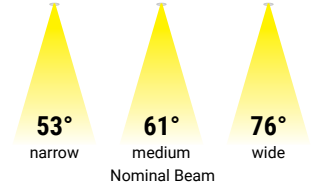
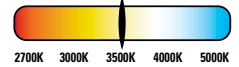


## 90 CRI Color Metric Summary - 3500K\*



— Reference Illuminant — Test Source

TM-30-15	Rf = 91.1
	Rg = 99
CRI/CIE	Ra = 92.4
	R9 = 55.1



## ENERGY DATA

Series	500 lumen		750 lumen		1000 lumen		1500 lumen		2000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.051	0.026	0.067	0.036	0.083	0.039	0.119	0.053	0.171	0.077
Input Power (W)	6.1	6.5	7.9	8.3	10	10.4	14.5	14.5	20.9	20.6
In-rush (A)	1.9	8.4	2	8.4	2.2	8.5	2.7	8.5	2.1	9.7
Inrush duration (μs)	251	135	237	133	250	134	250	139	245	131
THD (%)	6.2	13.5	7.4	8.8	5.4	10.3	10	6.7	6.5	7.9
PF	≥ 0.99	≥ 0.9	≥ 0.98	≥ 0.92	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.97	≥ 0.99	≥ 0.96

Series	2500 lumen		3000 lumen		3500 lumen		4000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.23	0.103	0.24	0.107	0.292	0.152	0.351	0.159
Input Power (W)	27.5	27.5	28.6	28.5	34.6	35.1	42.1	42.1
In-rush (A)	2.5	5.6	2.5	11.6	3.4	13.9	3.1	14.7
Inrush duration (μs)	232	123	216	111	183	95	200	98
THD (%)	6.5	8.1	7.8	8.3	5.6	10	4.1	9.5
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.94

Minimum starting temperature -30°C (-22°F)  
(Nominal input 120-277VAC & 100% of rated output power)

Sound Rating: Class A standards

## Connected Solutions



### WaveLinX LITE Wireless Node - WLN

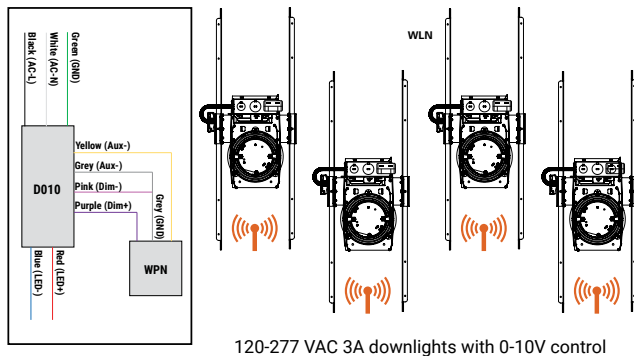
**WaveLinX LITE devices only compatible with the WaveLinX LITE system.**

- 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
- Refer to the WaveLinX system specifications for details

#### WaveLinX mobile app settings



#### WaveLinX LITE Wireless Node (WLN) Wiring Diagram



#### WaveLinX LITE Bluetooth Enabled System

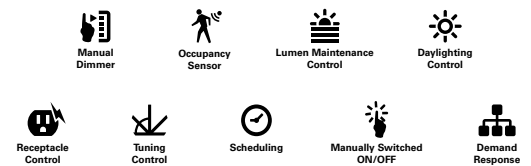


### WaveLinX PRO Wireless Node - WPN

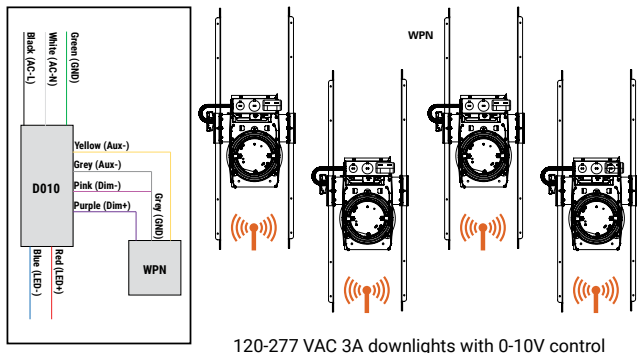
**WaveLinX PRO devices only compatible with the WaveLinX PRO system.**

- 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 WaveLinX Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations

#### WaveLinX mobile app settings



#### WaveLinX PRO Wireless Node (WPN) Wiring Diagram



#### WaveLinX CORE Building Management Integration

