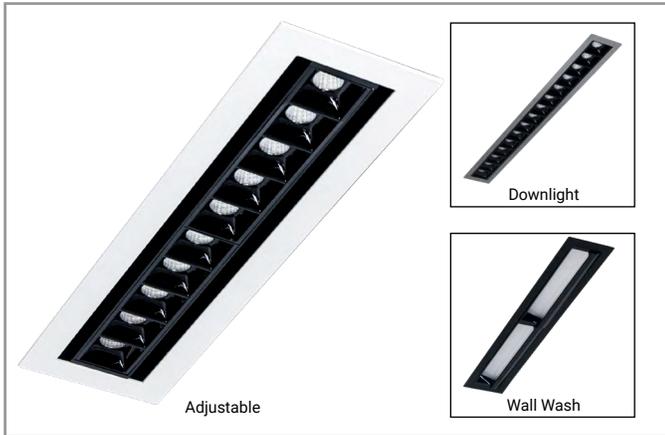


Project		Catalog #		Type	
Prepared by		Notes		Date	



Portfolio

LD1

1" Downlight, Adjustable & Wall Wash Multi-cell

Typical Applications

Office • Education • Healthcare • Hospitality

Interactive Menu

- Order Information [page 2](#)
- Product Specifications [page 3](#)
- Energy Data [page 4](#)
- Photometric Data [page 8](#)
- Connected System [page 16](#)
- Product Warranty

Product Certification



Product Features



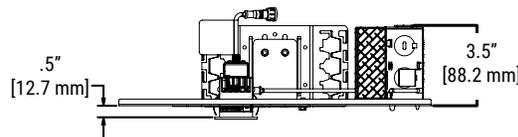
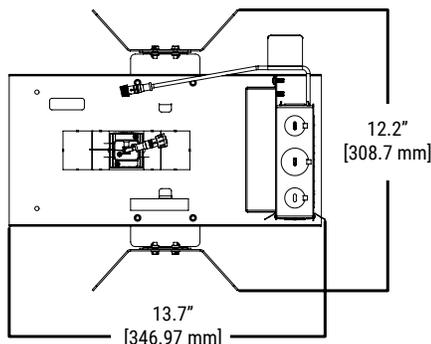
Control Compatibility



Top Product Features

- New construction, adjustable, downlight or wall wash
- 200 lumens per cell, 90 CRI
- Standard 0-10V driver /trailing edge combination dims to 1%; Easy disconnect for LED engine replacement and installation
- 2700K, 3000K, 3500K, 4000K

Dimensional and Mounting Details



Ceiling cutout	Downlight	Adjustable	Wall Wash
1 cell	1.68 X 1.5	N/A	N/A
2 cell	1.68 X 3.0	N/A	N/A
5 cell	1.68 x 5.5	2.74 x 6.3	N/A
10 cell	1.68 x 10.7	2.74 x 11.5	1.68 x 10.7
15 cell	1.68 x 16.0	2.74 x 16.7	N/A

Order Information

SAMPLE ORDER NUMBER: **LA1M521D010EM7 - ED1M123090MW1MB**

Housing	Cells	Lumens	Voltage	Driver	Options
LA1M = Adjustable Multi cell ⁽⁵⁾ LA1MRL = Adjustable Multi cell for flush mount plaster install ⁽⁵⁾ LD1M = Downlight or Wall Wash Multi cell LD1MRL = Downlight or Wall Wash Multi cell for flush mount plaster install ⁽⁵⁾	5 = 1, 2 or 5 cell ⁸ 10 = 10 cell 15 = 15 cell	2 = 200 lumens	1 = 120V 2 = 277V 3 = 347V ⁽¹⁾	D010TR = 0-10V or Line Voltage Dimming, 1% to 100%, 120V-277V D010 = 0-10V Dimming, 1% to 100%, 347V only DLV = Low voltage dimming driver (1-100%) for use with DLVP system DLE = Lutron Ecosystem dimming 1% to 100%, 120V-277V DE010 = 0-10V Linear Dimming, 0% to 100%, 120V-277V DSL = Fifth Light® DALI DT6 Logarithmic Dimming, 0% to 100%, 120V-277V DMX = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ⁽²⁾ DMXC5 = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection	EMBOD = Bodine® Emergency Module with 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 EMV14 = 14W Low Voltage Emergency Module with Remote Test Switch WPST = Factory installed WaveLinX sensor Kit ⁽³⁾⁽⁶⁾ WLST = Factory installed WaveLinX LITE Sensor Kit ⁽³⁾⁽⁷⁾ WPN = WaveLinX PRO Wireless Node without sensor ⁽⁹⁾

Accessories

Connected Lighting Systems ⁽³⁾
WPST = Field installed WaveLinX sensor Kit ⁽⁶⁾
WLST = Field installed WaveLinX LITE Sensor Kit ⁽⁷⁾

Light Engine	Cells	Lumens	Beam	CRI	CCT	Baffle	Flange Finish
ED1M = Downlight or wall wash EA1M = Adjustable	1 = 1 cell (downlight only) 2 = 2 cell (downlight only) 5 = 5 cell 10 = 10 cell 15 = 15 cell	2 = 200 lumens	30 = 30° reflector 50 = 50° reflector WW = Wall wash ⁽⁴⁾	90 = 90 CRI	27 = 2700K 30 = 3000K 35 = 3500K 40 = 4000K	MW = Matte White MMS = Matte Metallic Silver SC = Specular clear SB = Specular black	MI = For flush mount install ⁽⁵⁾ 1MB = Matte black 1MW = Matte white 1MMS = Matte metallic silver

- Notes**
- 347V driver D010TR available for downlight, wall wash all versions and adjustable up to 5 cell. 0-10V function only. All other 347V driver options and adjustable 10 and 15 cell use 347V step down transformer.
 - DMX fixtures default to full on upon loss of power.
 - Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory.
 - 10 cell only for wall wash
 - For 5, 10 and 15 cell only.
 - WPST = WaveLinX wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
 - WLST = WaveLinX LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinX LITE system specifications)
 - 1 and 2 cell offered with DE010, DSLT, and DMX only, above ceiling access required for driver replacement.
 - 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.

Product Specifications

Downlight and Adjustable

- Injection molded parabolic louver provides glare free illumination.
- Adjustable tilts from +/- 30°.

Wall wash

- Injection molded louver combined with diffuse lens provides smooth, even vertical illumination.

Optics

- Downlight and adjustable offered with 30° and 50° upper optic.

Plaster Frame/Collar

- Black painted and galvanized steel plaster frame
- Accommodates ceiling thickness from 1/2 to 1-1/4-inch

Universal Mounting Bracket

- Accepts 1/2" Electric Metallic Tube (EMT), C-channel and bar hangers
- Adjusts 2.5" vertically from above and below the ceiling

Junction Box

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

Thermal

- Extruded aluminum heat sink conducts heat away from the LED COB for optimal performance and long life

LED System

- LED provides uniform illumination without pixilation.
- 90 CRI minimum, R9 greater than 50 and color accuracy within 3 SDCM.
- Rated for 50,000 hours at 70% lumen maintenance. Available in 2700K, 3000K 3500K and 4000K

Driver

- Standard dual function 120-277V, 0-10V driver dims from 100% to 1% with dual 120V leading edge option providing flicker free control.
- Driver can be serviced from above with standard driver
- 347V 0-10V driver offered with 5, 10 and 15 Cell downlight and 5 cell adjustable. 10 and 15 cell adjustable utilizes step down transformer
- Distributed Low Voltage Power (DLVP) system combines power, lighting and controls with ease of installation

Connected Lighting System

Two WaveLinX connected solutions to choose from. Refer to WaveLinX system specifications and application guides for details.

WaveLinX PRO Tilemount Sensor Kit

- WaveLinX WPST tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinX PRO Wireless Node

- 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.

WaveLinX LITE Tilemount Sensor Kit

- WaveLinX LITE WLST tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinX Tilemount Kits Application

- The WPST and WLST 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 WPST and WLST tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Compliance

- IC rated; 1, 2, and 5 cell downlight and 5 cell adjustable
- Non-IC with 10 cell and 347V (insulation must be kept 3" from top and sides of housing)
- Thermally protected
- cULus Certified to UL 1598 / C22.2 No. 250.0 suitable for damp location
- EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Optional City of Chicago environmental air (CCEA) marking for plenum applications.
- Photometric testing completed in accordance with IES LM 79 and TM-30 standards. LED life testing completed in accordance with LM 80 standards
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference certified light fixtures database

Warranty

- Five year warranty www.cooperlighting.com/legal

Energy Data

1 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration	Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration
3.067W	0.04A	0.64	78	1.6	11 μ s	3.6W	0.026A	0.506	42	1.024	55 μ s

2 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration	Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration
5.1W	0.044A	0.96	16	1.95	26 μ s	5.7W	0.026A	0.79	10	1.056	55 μ s

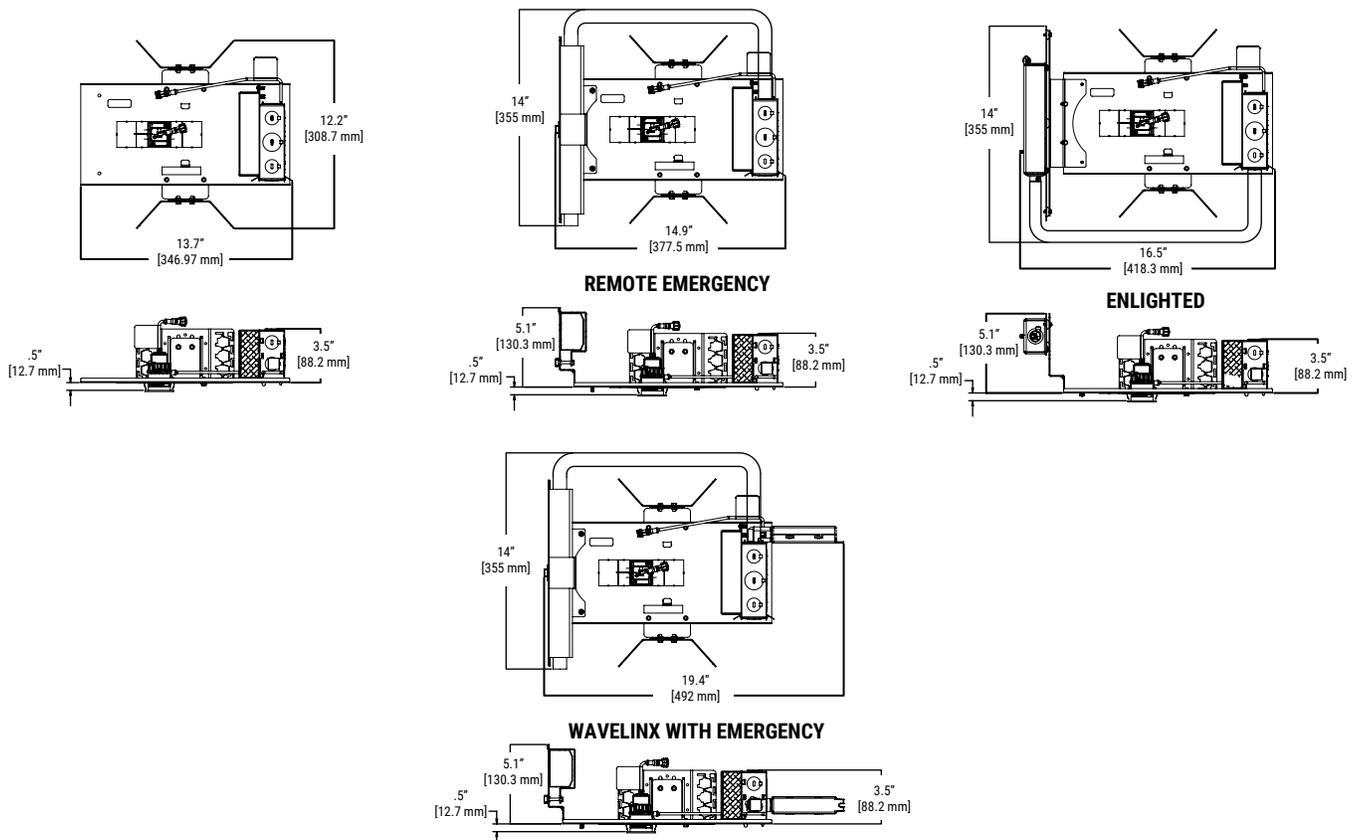
5 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration	Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration
12.5W	0.12A	0.98	11.5	6	191 μ s	12.5W	0.048A	0.95	9.2	13.2	92 μ s

10 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration	Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration
23.7W	0.199A	0.98	10.7	6.7	177 μ s	23.3W	0.085A	0.98	6.6	13.4	93 μ s

15 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration	Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration
34.7W	0.293A	0.98	9.8	6.9	164 μ s	33.9W	0.127A	0.96	9.8	14.8	85 μ s

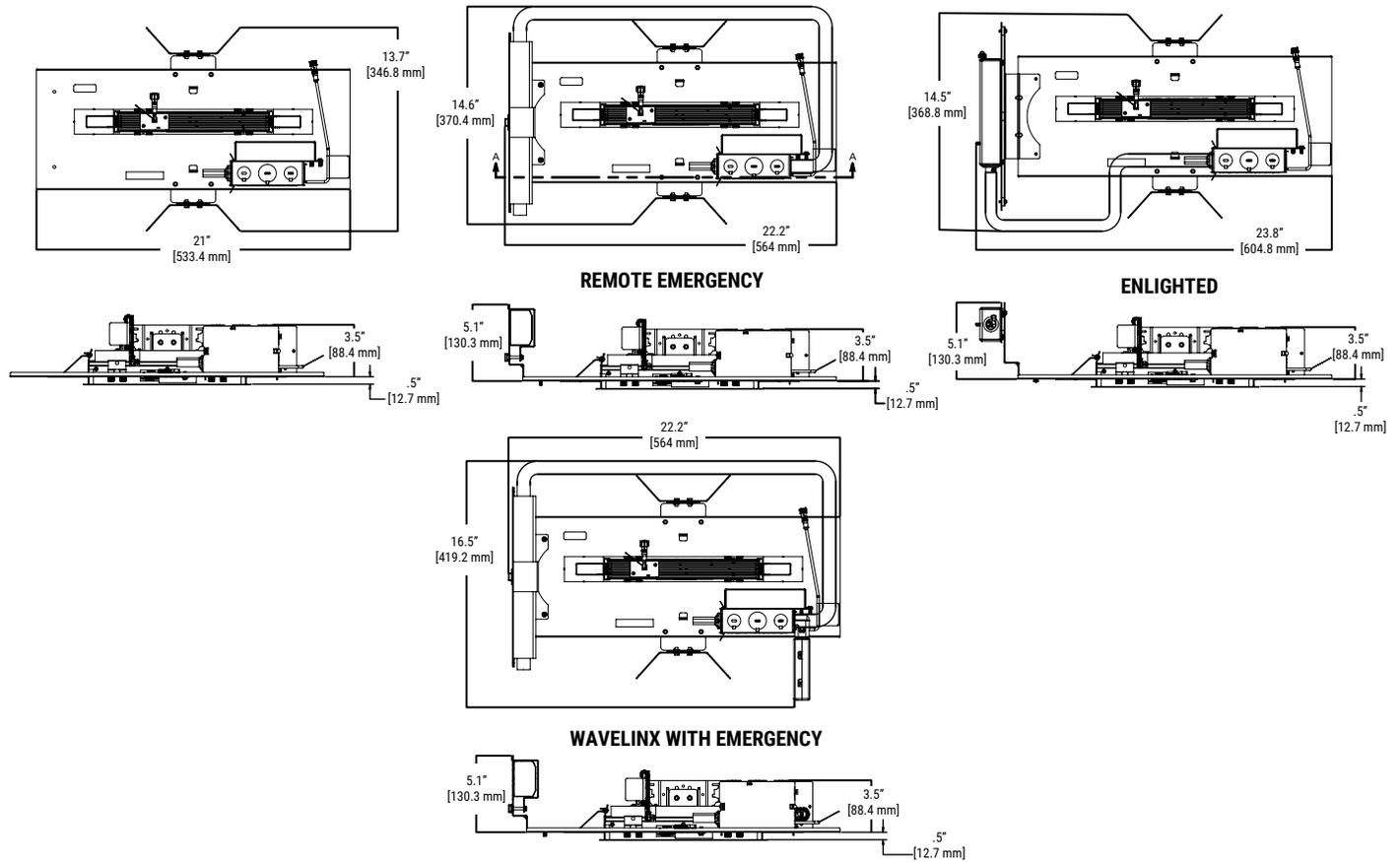
Dimensional Details

NEW CONSTRUCTION - 1, 2, 5 CELL FIXED



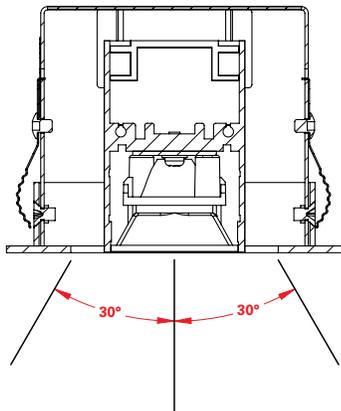
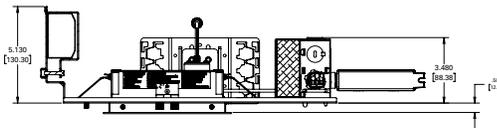
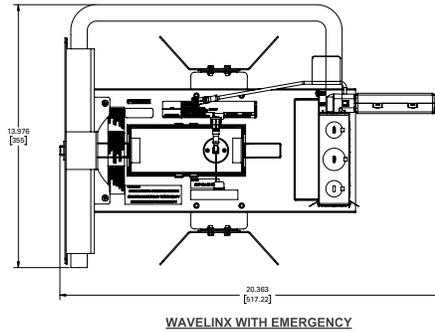
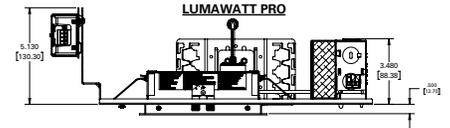
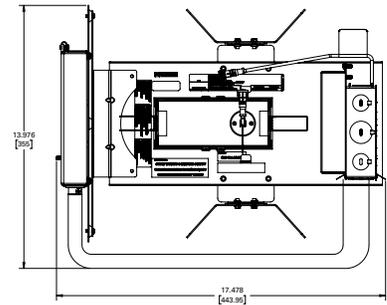
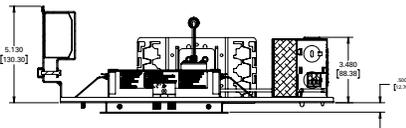
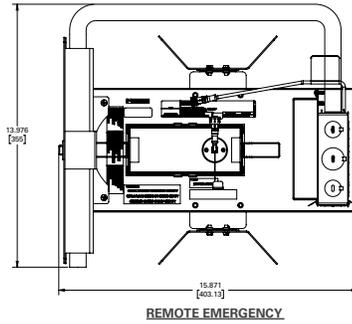
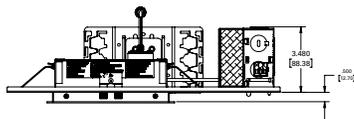
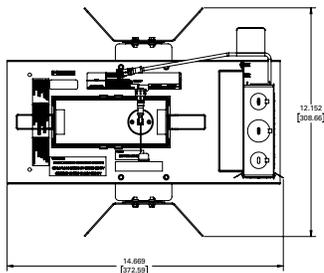
Dimensional Details

NEW CONSTRUCTION - 10, 15 CELL FIXED



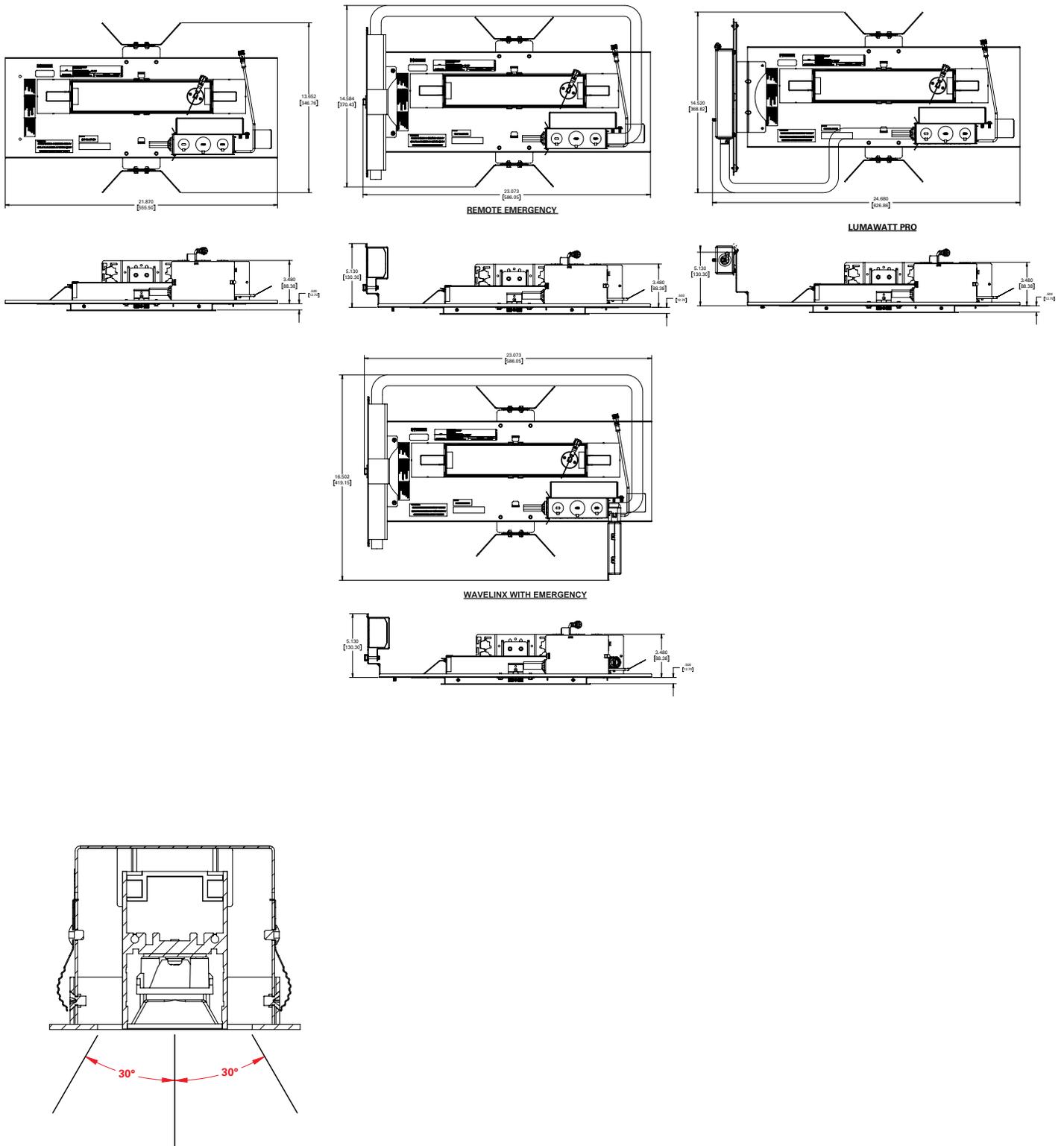
Dimensional Details

NEW CONSTRUCTION - 5 CELL ADJUSTABLE



Dimensional Details

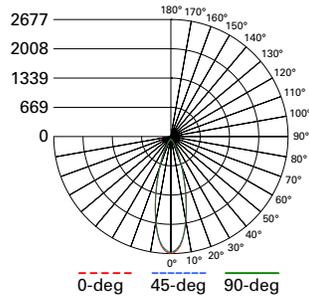
NEW CONSTRUCTION - 10, 15 CELL ADJUSTABLE



Photometric Data

View IES files

LA1MR 30° 5 CELL	
Test Number	P402112
Housing	LA1MR052D010
Light Engine	EA1M52309035SC1MW
Head Position	30 horizontal, 30 vertical
Lumens	910 Lm
Watts	12.1 W
Efficacy	75.2 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



CONE OF LIGHT				
MH	FC	L	W	
5.5'	88.5	2.6	2.6	
7'	54.6	3.4	3.4	
8'	41.8	4	3.8	
9'	33	4.4	4.4	
10'	26.8	5	4.8	
12'	18.6	6	5.8	

CONE OF LIGHT					
Horizontal					
MH	FC	L	W	CB	
5.5'	61.8	3.3	3	3.2	
7'	38.2	4.2	3.8	4	
8'	29.2	4.9	4.4	4.6	
9'	23.1	5.5	4.8	5.2	
10'	18.7	6.1	5.4	5.8	
12'	13	7.4	6.6	6.9	

CONE OF LIGHT					
Vertical					
D	FC	L	W	CB	
1'	530.6	1.1	0.6	1.7	
2'	132.6	2.3	1.4	3.5	
3'	59	3.5	2.2	5.2	
4'	33.2	4.7	3	6.9	
5'	21.2	5.9	3.8	8.7	
6'	14.7	7.1	4.6	10.4	

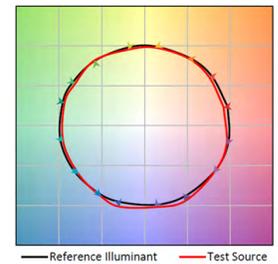
CANDELA TABLE	
Degrees Vertical	Candela
0	2670
5	2513
15	1371
25	464
35	107
45	20
55	7
65	1
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	805	88.4
0-40	879	96.6
0-60	908	99.8
0-90	910	100
90-180	0	0
0-180	910	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	8680
55	3783
65	880
75	0
85	0

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K

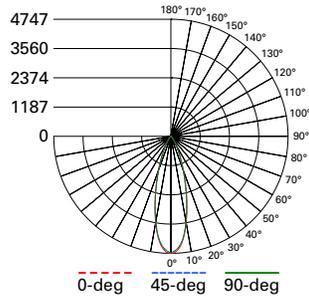


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

Multipliers for relative lumen values with other color temperatures.

LA1MR 30° 10 CELL	
Test Number	P401968
Housing	LA1MR102D010
Light Engine	EA1M102309035SC1MW
Head Position	30 horizontal, 30 vertical
Lumens	1614 Lm
Watts	23.5 W
Efficacy	68.7 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



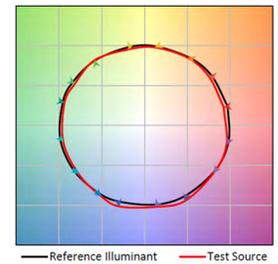
CONE OF LIGHT				
MH	FC	L	W	
5.5'	156.9	2.6	2.6	
7'	96.8	3.4	3.4	
8'	74.1	4	3.8	
9'	58.6	4.4	4.4	
10'	47.5	5	4.8	
12'	33	6	5.8	

CONE OF LIGHT					
Horizontal					
MH	FC	L	W	CB	
5.5'	109.7	3.3	3	3.2	
7'	67.7	4.2	3.8	4	
8'	51.8	4.9	4.4	4.6	
9'	41	5.5	4.8	5.2	
10'	33.2	6.1	5.4	5.8	
12'	23	7.4	6.6	6.9	

CONE OF LIGHT					
Vertical					
D	FC	L	W	CB	
1'	940.8	1.1	0.6	1.7	
2'	235.2	2.3	1.4	3.5	
3'	104.5	3.5	2.2	5.2	
4'	58.8	4.7	3	6.9	
5'	37.6	5.9	3.8	8.7	
6'	26.1	7.1	4.6	10.4	

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

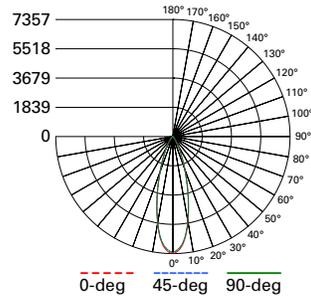
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LA1MR 30° 15 CELL	
Test Number	P402048
Housing	LA1MR152D010
Light Engine	EA1M152309035SC1MW
Head Position	30 horizontal, 30 vertical
Lumens	2501 Lm
Watts	34.2 W
Efficacy	73.1 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



CANDELA TABLE	
Degrees Vertical	Candela
0	2670
5	2513
15	1371
25	464
35	107
45	20
55	7
65	1
75	0
80	0

ZONAL LUMEN SUMMARY			
Zone	Lumens	% Fixture	
0-30	2211	88.4	
0-40	2415	96.6	
0-60	2495	99.8	
0-90	2501	100	
90-180	0	0	
0-180	2501	100	

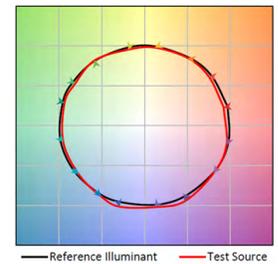
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	23849
55	10377
65	2347
75	0
85	0

CONE OF LIGHT				
MH	FC	L	W	
5.5'	243.1	2.6	2.6	
7'	150.1	3.4	3.4	
8'	114.9	4	3.8	
9'	90.8	4.4	4.4	
10'	73.5	5	4.8	
12'	51.1	6	5.8	

CONE OF LIGHT					
MH	FC	L	W	CB	
5.5'	170	3.3	3	3.2	
7'	104.9	4.2	3.8	4	
8'	80.3	4.9	4.4	4.6	
9'	63.5	5.5	4.8	5.2	
10'	51.4	6.1	5.4	5.8	
12'	35.7	7.4	6.6	6.9	

CONE OF LIGHT					
D	FC	L	W	CB	
1'	1458	1.1	0.6	1.7	
2'	364.5	2.3	1.4	3.5	
3'	162	3.5	2.2	5.2	
4'	91.1	4.7	3	6.9	
5'	58.3	5.9	3.8	8.7	
6'	40.5	7.1	4.6	10.4	

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65
	CCT - Range of 2700K- 4000K

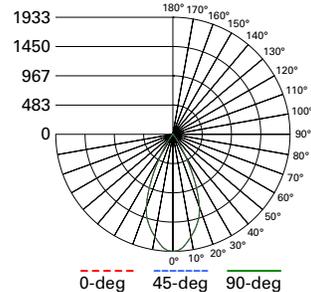


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

LA1MR 50° 5 CELL	
Test Number	P402128
Housing	LA1MR052D010
Light Engine	EA1M52509035SC1MW
Head Position	30 horizontal, 30 vertical
Lumens	1091 Lm
Watts	12.1 W
Efficacy	90.2 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	1933
5	1877
15	1536
25	838
35	125
45	10
55	6
65	2
75	0
80	0

ZONAL LUMEN SUMMARY			
Zone	Lumens	% Fixture	
0-30	980	89.9	
0-40	1075	98.5	
0-60	1089	99.8	
0-90	1091	100	
90-180	0	0	
0-180	1091	100	

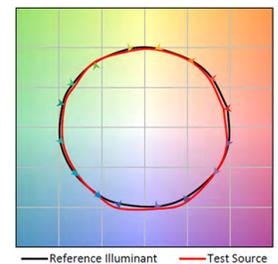
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	1086
55	795
65	398
75	0
85	0

CONE OF LIGHT				
MH	FC	L	W	
5.5'	63.9	4.2	4.2	
7'	39.5	5.4	5.4	
8'	30.2	6	6	
9'	23.9	6.8	6.8	
10'	19.3	7.6	7.6	
12'	13.4	9.2	9.2	

CONE OF LIGHT					
MH	FC	L	W	CB	
5.5'	47.1	4.4	4.6	3.2	
7'	29.1	5.6	5.8	4	
8'	22.3	6.4	6.6	4.6	
9'	17.6	7.2	7.4	5.2	
10'	14.3	8	8.2	5.8	
12'	9.9	9.7	10	6.9	

CONE OF LIGHT					
D	FC	L	W	CB	
1'	576.2	0.9	0.8	1.7	
2'	144.1	1.9	2	3.5	
3'	64	2.9	3	5.2	
4'	36	3.9	4	6.9	
5'	23	4.9	5	8.7	
6'	16	5.9	6	10.4	

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65
	CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

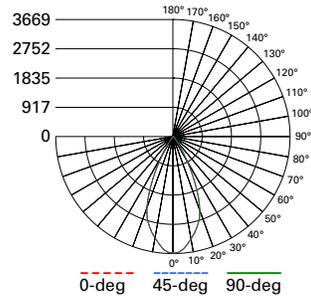
2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LA1MR 50° 10 CELL	
Test Number	P401984
Housing	LA1MR102D010
Light Engine	EA1M102509035SC1MW
Head Position	30 horizontal, 30 vertical
Lumens	2071 Lm
Watts	23.5 W
Efficacy	88.1 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	3669
5	3563
15	2916
25	1591
35	238
45	18
55	11
65	4
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1861	89.8
0-40	2041	98.5
0-60	2067	99.8
0-90	2071	100
90-180	0	0
0-180	2071	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	2070
55	1506
65	776
75	0
85	0

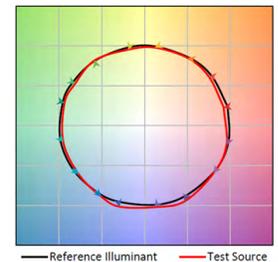
CONE OF LIGHT				
MH	FC	L	W	
5.5'	121.3	4.2	4.2	
7'	74.9	5.4	5.4	
8'	57.3	6	6	
9'	45.3	6.8	6.8	
10'	36.7	7.6	7.6	
12'	25.5	9.2	9.2	

CONE OF LIGHT				
MH	FC	L	W	CB
5.5'	89.5	4.4	4.6	3.2
7'	55.2	5.6	5.8	4
8'	42.3	6.4	6.6	4.6
9'	33.4	7.2	7.4	5.2
10'	27.1	8	8.2	5.8
12'	18.8	9.7	10	6.9

CONE OF LIGHT				
D	FC	L	W	CB
1'	1093.7	0.9	0.8	1.7
2'	273.4	1.9	2	3.5
3'	121.5	2.9	3	5.2
4'	68.4	3.9	4	6.9
5'	43.7	4.9	5	8.7
6'	30.4	5.9	6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K

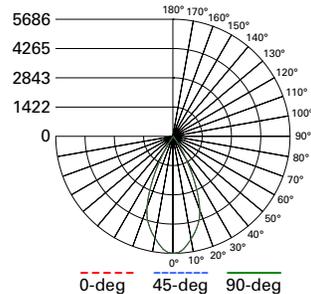


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

LA1MR 50° 15 CELL	
Test Number	P402064
Housing	LA1MR152D010
Light Engine	EA1M152509035SC1MW
Head Position	30 horizontal, 30 vertical
Lumens	3210 Lm
Watts	34.2 W
Efficacy	93.8 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	5686
5	5521
15	4518
25	2465
35	369
45	28
55	17
65	6
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	2884	89.8
0-40	3163	98.5
0-60	3204	99.8
0-90	3210	100
90-180	0	0
0-180	3210	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	3213
55	2343
65	1193
75	0
85	0

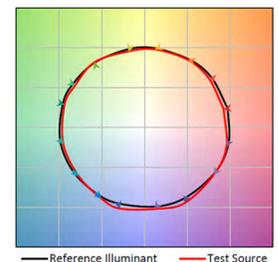
CONE OF LIGHT				
MH	FC	L	W	
5.5'	188	4.2	4.2	
7'	116	5.4	5.4	
8'	88.8	6	6	
9'	70.2	6.8	6.8	
10'	56.9	7.6	7.6	
12'	39.5	9.2	9.2	

CONE OF LIGHT				
MH	FC	L	W	CB
5.5'	138.6	4.4	4.6	3.2
7'	85.6	5.6	5.8	4
8'	65.5	6.4	6.6	4.6
9'	51.8	7.2	7.4	5.2
10'	41.9	8	8.2	5.8
12'	29.1	9.7	10	6.9

CONE OF LIGHT				
D	FC	L	W	CB
1'	1694.9	0.9	0.8	1.7
2'	423.7	1.9	2	3.5
3'	188.3	2.9	3	5.2
4'	105.9	3.9	4	6.9
5'	67.8	4.9	5	8.7
6'	47.1	5.9	6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

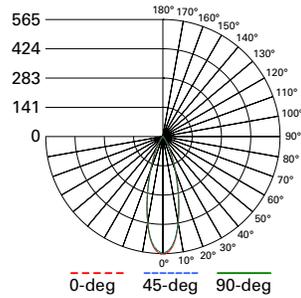
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LD1MR 1 CELL 30°	
Test Number	P402192
Housing	LD1MR012D010
Light Engine	ED1M12309035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	192 Lm
Watts	3.6 W
Efficacy	53.4 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



CANDELA TABLE	
Degrees Vertical	Candela
0	564
5	530
15	289
25	98
35	23
45	4
55	2
65	0
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	170	88.4
0-40	186	96.6
0-60	192	99.8
0-90	192	100
90-180	0	0
0-180	192	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	1841
55	811
65	147
75	0
85	0

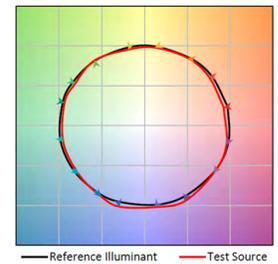
CONE OF LIGHT			
MH	FC	L	W
5.5'	18.7	2.6	2.6
7'	11.5	3.4	3.4
8'	8.8	4	3.8
9'	7	4.4	4.4
10'	5.6	5	4.8
12'	3.9	6	5.8

CONE OF LIGHT				
Horizontal				
MH	FC	L	W	CB
5.5'	13.1	3.3	3	3.2
7'	8.1	4.2	3.8	4
8'	6.2	4.9	4.4	4.6
9'	4.9	5.5	4.8	5.2
10'	3.9	6.1	5.4	5.8
12'	2.7	7.4	6.6	6.9

CONE OF LIGHT				
Vertical				
D	FC	L	W	CB
1'	112	1.1	0.6	1.7
2'	28	2.3	1.4	3.5
3'	12.4	3.5	2.2	5.2
4'	7	4.7	3	6.9
5'	4.5	5.9	3.8	8.7
6'	3.1	7.1	4.6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K

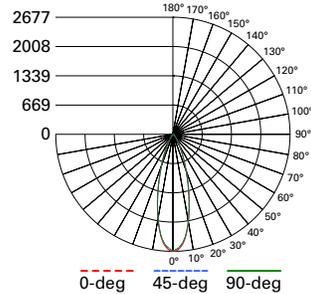


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

Multipliers for relative lumen values with other color temperatures.

LD1MR 5 CELL 30°	
Test Number	P402288
Housing	LD1MR052D010
Light Engine	ED1M52309035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	910 Lm
Watts	12.1 W
Efficacy	75.2 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



CANDELA TABLE	
Degrees Vertical	Candela
0	2670
5	2513
15	1371
25	464
35	107
45	20
55	7
65	1
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	805	88.4
0-40	879	96.6
0-60	908	99.8
0-90	910	100
90-180	0	0
0-180	910	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	8680
55	3783
65	880
75	0
85	0

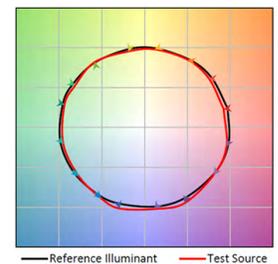
CONE OF LIGHT			
MH	FC	L	W
5.5'	88.5	2.6	2.6
7'	54.6	3.4	3.4
8'	41.8	4	3.8
9'	33	4.4	4.4
10'	26.8	5	4.8
12'	18.6	6	5.8

CONE OF LIGHT				
Horizontal				
MH	FC	L	W	CB
5.5'	61.8	3.3	3	3.2
7'	38.2	4.2	3.8	4
8'	29.2	4.9	4.4	4.6
9'	23.1	5.5	4.8	5.2
10'	18.7	6.1	5.4	5.8
12'	13	7.4	6.6	6.9

CONE OF LIGHT				
Vertical				
D	FC	L	W	CB
1'	530.6	1.1	0.6	1.7
2'	132.6	2.3	1.4	3.5
3'	59	3.5	2.2	5.2
4'	33.2	4.7	3	6.9
5'	21.2	5.9	3.8	8.7
6'	14.7	7.1	4.6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

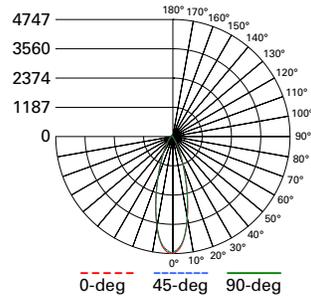
2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LD1MR 10 CELL 30°	
Test Number	P402144
Housing	LD1MR102D010
Light Engine	ED1M102309035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	1614 Lm
Watts	23.5 W
Efficacy	68.7 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



CANDELA TABLE	
Degrees Vertical	Candela
0	4735
5	4456
15	2430
25	823
35	190
45	35
55	12
65	2
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1427	88.4
0-40	1558	96.6
0-60	1610	99.8
0-90	1614	100
90-180	0	0
0-180	1614	100

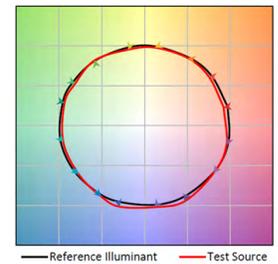
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	15388
55	6702
65	1540
75	0
85	0

CONE OF LIGHT			
	MH	FC	L W
5.5'	156.9	2.6	2.6
7'	96.8	3.4	3.4
8'	74.1	4	3.8
9'	58.6	4.4	4.4
10'	47.5	5	4.8
12'	33	6	5.8

CONE OF LIGHT				
Horizontal				
	MH	FC	L W	CB
5.5'	109.7	3.3	3	3.2
7'	67.7	4.2	3.8	4
8'	51.8	4.9	4.4	4.6
9'	41	5.5	4.8	5.2
10'	33.2	6.1	5.4	5.8
12'	23	7.4	6.6	6.9

CONE OF LIGHT				
Vertical				
	D	FC	L W	CB
1'	940.8	1.1	0.6	1.7
2'	235.2	2.3	1.4	3.5
3'	104.5	3.5	2.2	5.2
4'	58.8	4.7	3	6.9
5'	37.6	5.9	3.8	8.7
6'	26.1	7.1	4.6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65
	CCT - Range of 2700K- 4000K

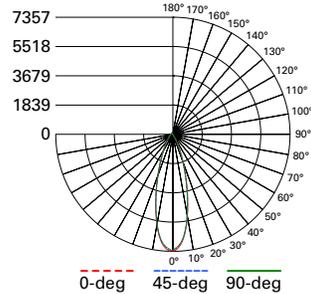


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

LD1MR 15 CELL 30°	
Test Number	P402224
Housing	LD1MR152D010
Light Engine	ED1M152309035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	2501 Lm
Watts	34.2 W
Efficacy	73.1 Lm/W
CCT	3500K
SC	0.51 / 0.5 / 0.52
UGR	10



CANDELA TABLE	
Degrees Vertical	Candela
0	7338
5	6906
15	3766
25	1276
35	294
45	54
55	19
65	3
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	2211	88.4
0-40	2415	96.6
0-60	2495	99.8
0-90	2501	100
90-180	0	0
0-180	2501	100

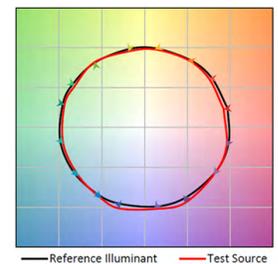
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	23849
55	10377
65	2347
75	0
85	0

CONE OF LIGHT			
	MH	FC	L W
5.5'	243.1	2.6	2.6
7'	150.1	3.4	3.4
8'	114.9	4	3.8
9'	90.8	4.4	4.4
10'	73.5	5	4.8
12'	51.1	6	5.8

CONE OF LIGHT				
Horizontal				
	MH	FC	L W	CB
5.5'	170	3.3	3	3.2
7'	104.9	4.2	3.8	4
8'	80.3	4.9	4.4	4.6
9'	63.5	5.5	4.8	5.2
10'	51.4	6.1	5.4	5.8
12'	35.7	7.4	6.6	6.9

CONE OF LIGHT				
Vertical				
	D	FC	L W	CB
1'	1458	1.1	0.6	1.7
2'	364.5	2.3	1.4	3.5
3'	162	3.5	2.2	5.2
4'	91.1	4.7	3	6.9
5'	58.3	5.9	3.8	8.7
6'	40.5	7.1	4.6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65
	CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

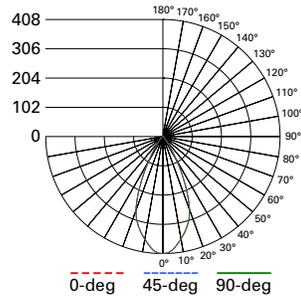
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LD1MR 1 CELL 50°	
Test Number	P402208
Housing	LD1MR012D010
Light Engine	ED1M12509035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	230 Lm
Watts	3.6 W
Efficacy	64 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	408
5	396
15	324
25	177
35	26
45	2
55	1
65	0
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	207	89.8
0-40	227	98.5
0-60	230	99.8
0-90	230	100
90-180	0	0
0-180	230	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	226
55	167
65	95
75	0
85	0

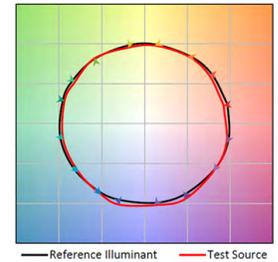
CONE OF LIGHT				
MH	FC	L	W	
5.5'	13.5	4.2	4.2	
7'	8.3	5.4	5.4	
8'	6.4	6	6	
9'	5	6.8	6.8	
10'	4.1	7.6	7.6	
12'	2.8	9.2	9.2	

CONE OF LIGHT					
MH	FC	L	W	CB	
5.5'	9.9	4.4	4.6	3.2	
7'	6.1	5.6	5.8	4	
8'	4.7	6.4	6.6	4.6	
9'	3.7	7.2	7.4	5.2	
10'	3	8	8.2	5.8	
12'	2.1	9.7	10	6.9	

CONE OF LIGHT					
D	FC	L	W	CB	
1'	121.6	0.9	0.8	1.7	
2'	30.4	1.9	2	3.5	
3'	13.5	2.9	3	5.2	
4'	7.6	3.9	4	6.9	
5'	4.9	4.9	5	8.7	
6'	3.4	5.9	6	10.4	

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K

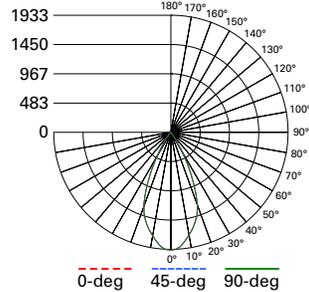


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

Multipliers for relative lumen values with other color temperatures.

LD1MR 5 CELL 50°	
Test Number	P402304
Housing	LD1MR052D010
Light Engine	ED1M52509035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	1091 Lm
Watts	12.1 W
Efficacy	90.2 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	1933
5	1877
15	1536
25	838
35	125
45	10
55	6
65	2
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	980	89.9
0-40	1075	98.5
0-60	1089	99.8
0-90	1091	100
90-180	0	0
0-180	1091	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	1086
55	795
65	398
75	0
85	0

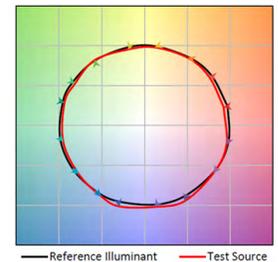
CONE OF LIGHT				
MH	FC	L	W	
5.5'	63.9	4.2	4.2	
7'	39.5	5.4	5.4	
8'	30.2	6	6	
9'	23.9	6.8	6.8	
10'	19.3	7.6	7.6	
12'	13.4	9.2	9.2	

CONE OF LIGHT					
MH	FC	L	W	CB	
5.5'	47.1	4.4	4.6	3.2	
7'	29.1	5.6	5.8	4	
8'	22.3	6.4	6.6	4.6	
9'	17.6	7.2	7.4	5.2	
10'	14.3	8	8.2	5.8	
12'	9.9	9.7	10	6.9	

CONE OF LIGHT					
D	FC	L	W	CB	
1'	576.2	0.9	0.8	1.7	
2'	144.1	1.9	2	3.5	
3'	64	2.9	3	5.2	
4'	36	3.9	4	6.9	
5'	23	4.9	5	8.7	
6'	16	5.9	6	10.4	

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

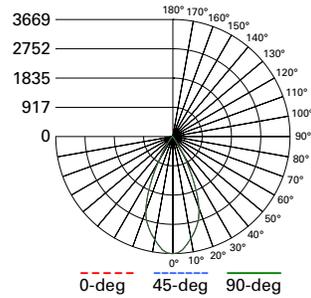
2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LD1MR 10 CELL 50°	
Test Number	P402160
Housing	LD1MR102D010
Light Engine	ED1M102509035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	2071 Lm
Watts	23.5 W
Efficacy	88.1 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	3669
5	3563
15	2916
25	1591
35	238
45	18
55	11
65	4
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1861	89.8
0-40	2041	98.5
0-60	2067	99.8
0-90	2071	100
90-180	0	0
0-180	2071	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	2070
55	1506
65	776
75	0
85	0

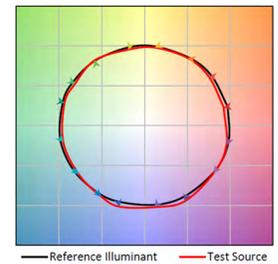
CONE OF LIGHT				
MH	FC	L	W	
5.5'	121.3	4.2	4.2	
7'	74.9	5.4	5.4	
8'	57.3	6	6	
9'	45.3	6.8	6.8	
10'	36.7	7.6	7.6	
12'	25.5	9.2	9.2	

CONE OF LIGHT				
MH	FC	L	W	CB
5.5'	89.5	4.4	4.6	3.2
7'	55.2	5.6	5.8	4
8'	42.3	6.4	6.6	4.6
9'	33.4	7.2	7.4	5.2
10'	27.1	8	8.2	5.8
12'	18.8	9.7	10	6.9

CONE OF LIGHT				
D	FC	L	W	CB
1'	1093.7	0.9	0.8	1.7
2'	273.4	1.9	2	3.5
3'	121.5	2.9	3	5.2
4'	68.4	3.9	4	6.9
5'	43.7	4.9	5	8.7
6'	30.4	5.9	6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K

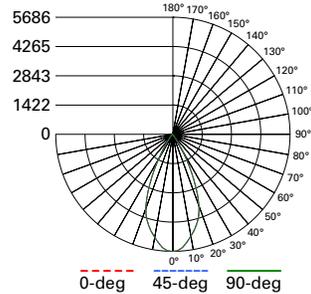


CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

LD1MR 15 CELL 50°	
Test Number	P402240
Housing	LD1MR152D010
Light Engine	ED1M152509035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	3210 Lm
Watts	34.2 W
Efficacy	93.8 Lm/W
CCT	3500K
SC	0.77 / 0.77 / 0.71
UGR	12



CANDELA TABLE	
Degrees Vertical	Candela
0	5686
5	5521
15	4518
25	2465
35	369
45	28
55	17
65	6
75	0
80	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	2884	89.8
0-40	3163	98.5
0-60	3204	99.8
0-90	3210	100
90-180	0	0
0-180	3210	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	3213
55	2343
65	1193
75	0
85	0

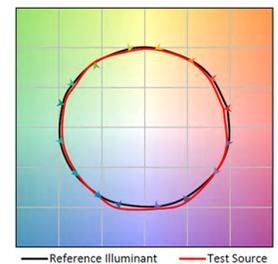
CONE OF LIGHT				
MH	FC	L	W	
5.5'	188	4.2	4.2	
7'	116	5.4	5.4	
8'	88.8	6	6	
9'	70.2	6.8	6.8	
10'	56.9	7.6	7.6	
12'	39.5	9.2	9.2	

CONE OF LIGHT				
MH	FC	L	W	CB
5.5'	138.6	4.4	4.6	3.2
7'	85.6	5.6	5.8	4
8'	65.5	6.4	6.6	4.6
9'	51.8	7.2	7.4	5.2
10'	41.9	8	8.2	5.8
12'	29.1	9.7	10	6.9

CONE OF LIGHT				
D	FC	L	W	CB
1'	1694.9	0.9	0.8	1.7
2'	423.7	1.9	2	3.5
3'	188.3	2.9	3	5.2
4'	105.9	3.9	4	6.9
5'	67.8	4.9	5	8.7
6'	47.1	5.9	6	10.4

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K



CCT Multipliers – 90CRI

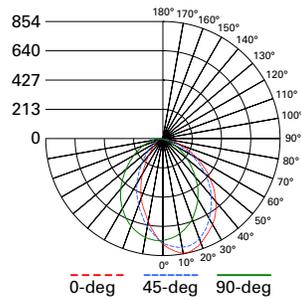
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

Photometric Data

View IES files

LD1MR 10 CELL WALL WASH	
Test Number	P402176
Housing	LD1MR102D010
Light Engine	ED1M102WW9035SC1MW
Head Position	0, 30 horizontal, 30 vertical
Lumens	1437 Lm
Watts	23.5 W
Efficacy	61.1 Lm/W
CCT	3500K
SC	1 / 1.12 / 1.15
UGR	14



CONE OF LIGHT			
MH	FC	L	W
5.5'	26.6	5.3	6.2
7'	16.4	6.7	7.8
8'	12.6	7.7	9
9'	9.9	8.7	10
10'	8.1	9.7	11.2
12'	5.6	11.6	13.4

CONE OF LIGHT				
Horizontal				
MH	FC	L	W	CB
5.5'	16.2	5.9	7	3.2
7'	10	7.5	8.8	4
8'	7.6	8.6	10.2	4.6
9'	6	9.7	11.4	5.2
10'	4.9	10.7	12.8	5.8
12'	3.4	13	15.2	6.9

CONE OF LIGHT				
Vertical				
D	FC	L	W	CB
1'	533.7	1	1.2	1.7
2'	133.4	2.1	2.4	3.5
3'	59.3	3.1	3.6	5.2
4'	33.4	4.3	4.8	6.9
5'	21.3	5.4	6	8.7
6'	14.8	6.4	7.2	10.4

CANDELA TABLE	
Degrees Vertical	Candela
0	743
5	803
15	854
25	791
35	705
45	571
55	426
65	273
75	153
80	87

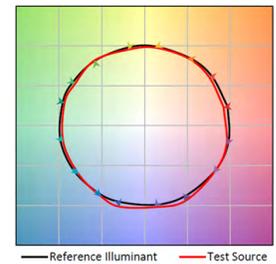
ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	523	36.4
0-40	800	55.7
0-60	1231	85.6
0-90	1437	100
90-180	0	0
0-180	1437	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	64567
55	59375
65	51754
75	47384
85	34238

TM-30-15	Rf = 90.1
	Rg = 98.7
CRI/CIE	Ra = 92.7
	R9 = 65

CCT - Range of 2700K- 4000K

warm ← → cool



SINGLE UNIT FOOTCANDLES							
2.5' from wall (distance from fixture along wall)							
1	29.7	21.7	10.2	4.2	1.8	0.8	0.4
2	36.4	29.1	16.2	7.6	3.6	1.8	0.9
3	27.1	23.1	15.1	8.5	4.5	2.4	1.4
4	17.5	15.6	11.5	7.5	4.5	2.6	1.6
5	11.1	10.3	8.2	5.9	4	2.5	1.6
6	7.4	6.9	5.9	4.5	3.3	2.3	1.6
7	5.1	4.8	4.2	3.4	2.6	2	1.4
8	3.6	3.4	3.1	2.6	2.1	1.6	1.3
9	2.6	2.5	2.3	2	1.7	1.4	1.1
10	1.9	1.9	1.8	1.6	1.3	1.1	0.9

MULTIPLE UNIT FOOTCANDLES						
2.5' from wall (distance from fixture along wall)			2.5' from wall (distance from fixture along wall)			
1	39.8	43.5	39.8	36.2	36.8	36.2
2	52.6	58.2	52.6	47.6	51.5	47.6
3	42.2	46.2	42.2	38.7	42.4	38.7
4	29	31.3	29	26.9	29.4	26.9
5	19.4	20.5	19.4	18.2	19.7	18.2
6	13.3	13.9	13.3	12.6	13.4	12.6
7	9.3	9.7	9.3	8.9	9.4	8.9
8	6.7	6.9	6.7	6.5	6.7	6.5
9	4.9	5.1	4.9	4.8	5	4.8
10	3.7	3.8	3.7	3.6	3.7	3.6

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

Multipliers for relative lumen values with other color temperatures.

Connected Solutions

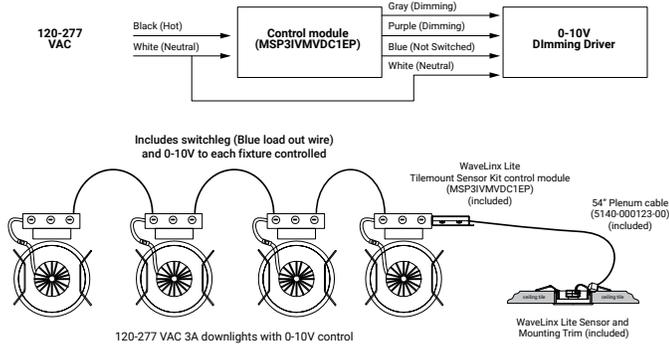
WaveLinX LITE - WLST Tilemount Sensor



- 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



WaveLinX LITE WLST Tilemount Wiring Diagram



WaveLinX LITE Bluetooth Enabled System



WaveLinX PRO Wireless – WPST Tilemount Sensor



- WaveLinX PRO 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-Along Offices or Entire Building Network Installations

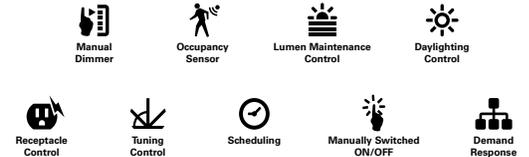
Downlights with tilemount sensor wireless communication
Highly efficient LED fixtures

WaveLinX Area Controller
Provides centralized coordination of multiple area control options

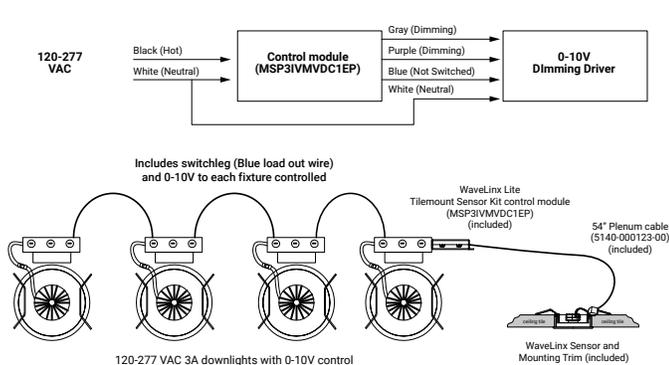
Wireless Wall Station/Receptacle
Provides customized wireless control of each area

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

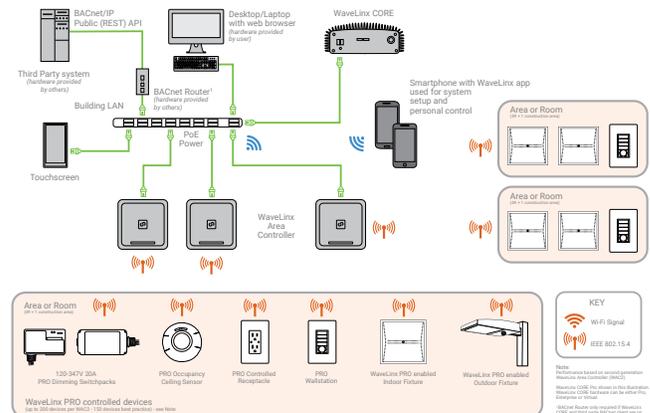
WaveLinX mobile app settings



WaveLinX PRO WPST Tilemount Wiring Diagram



WaveLinX CORE Building Management Integration



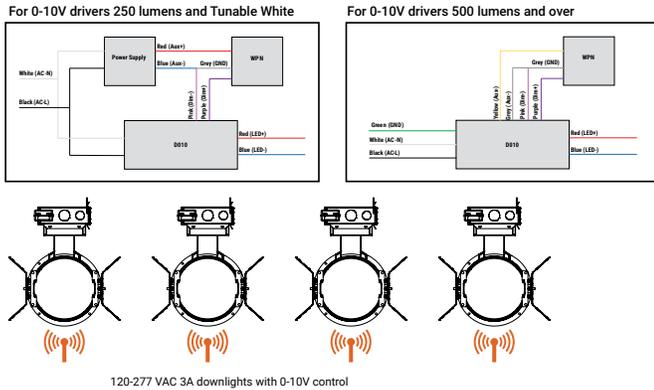
Connected Solutions

WaveLinx PRO Wireless Node - WPN

- 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 PRO Wireless Node (WPN) Wiring Diagram



WaveLinx CORE Building Management Integration

