

Project		Catalog #		Type	
Prepared by		Notes		Date	



Portfolio

LD1/LA1 Retrofit

1" Downlight, Adjustable and Wall Wash

Typical Applications

Office • Education • Healthcare • Hospitality

Interactive Menu

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- Product Warranty

Product Certification



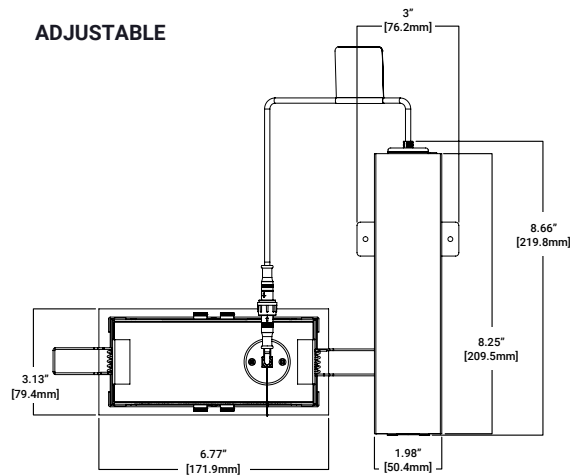
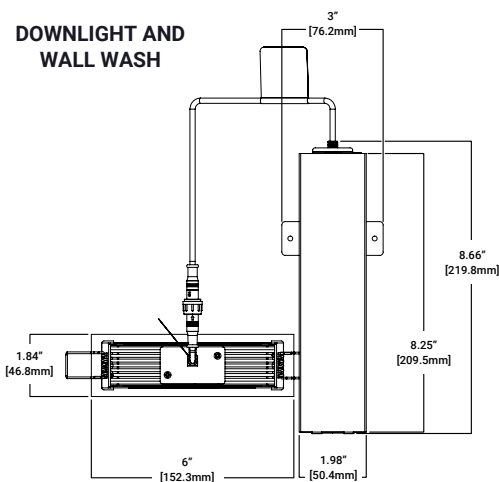
Product Features

Top Product Features

- Install from below, 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

additional product diagrams



Order Information

SAMPLE ORDER NUMBER: **LD1MRT52D010TR309027MW1MB**

Housing	Cells	Lumens	Driver	Beam
LA1MRT = Adjustable install from below LD1MRT = Downlight or wall wash install from below	5 = 5 cell 10 = 10 cell 15 = 15 cell	2 = 200 lumens	D010TR = 0-10V Dimming, 1% to 100%,120V-277V or 120V line voltage dimming	30 = 30° reflector 50 = 50° reflector WW = wall wash ⁽¹⁾
Notes	Notes	Notes	Notes	Notes
				(1) 10 cell only for wall wash

CRI	CCT	Baffle Finish	Flange Finish
90 = 90 CRI	27 = 2700K 30 = 3000K 35 = 3500K 40 = 4000K	MW = Matte White MMS = Matte Metallic Silver SC = Specular clear SB = Specular black	1MB = Matte black 1MW = Matte white 1MMS = Matte metallic silver
Notes	Notes	Notes	Notes

Product Specifications

Downlight and adjustable

- Injection molded parabolic louver provides glare free illumination.

Wall wash

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

Optics

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

Plaster Frame/Collar

- Installs from below with mousetrap springs supporting the engine tight to the ceiling.
- Accommodates ceiling thickness from 1/2 to 1-1/4-inch.

Junction Box

- One 3/8" and one 3/4" trade size pry outs positioned to allow straight conduit runs
- Lever connectors for simple push in wiring

Thermal

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

LED System

- Chip on board 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 or through the aperture with standard driver.

Compliance

- IC rated with 5, 10 and 15 cell adjustable, 5 cell downlight
- Non-IC rated with 10 and 15 cell downlight
- Thermally protected and cULus listed for protected damp locations.
- 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

Warranty

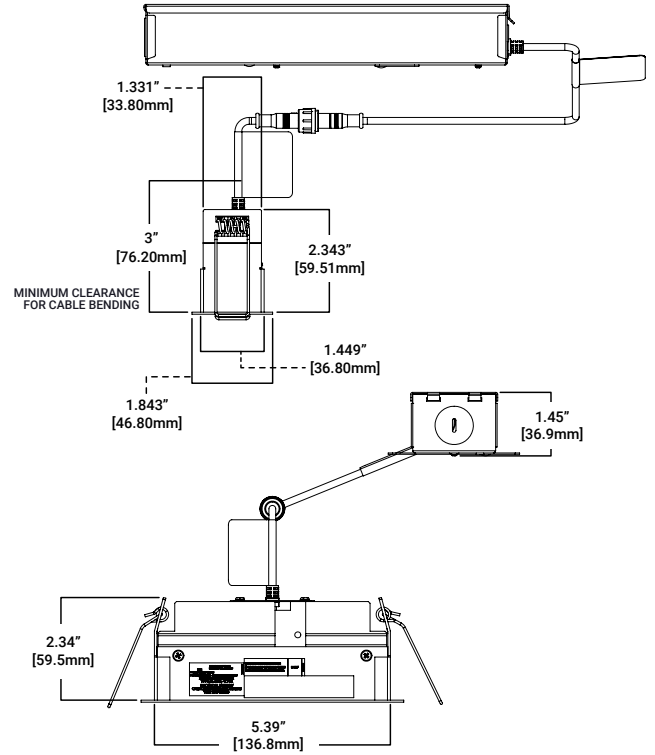
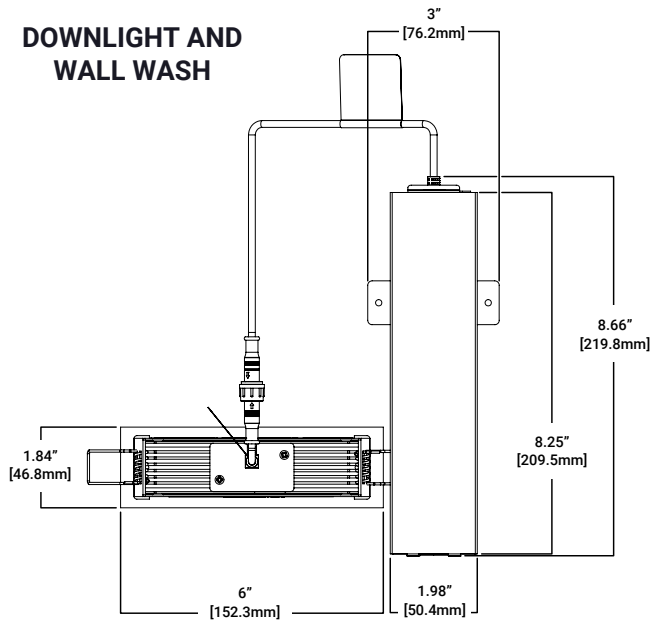
- Five-year warranty

Energy Data

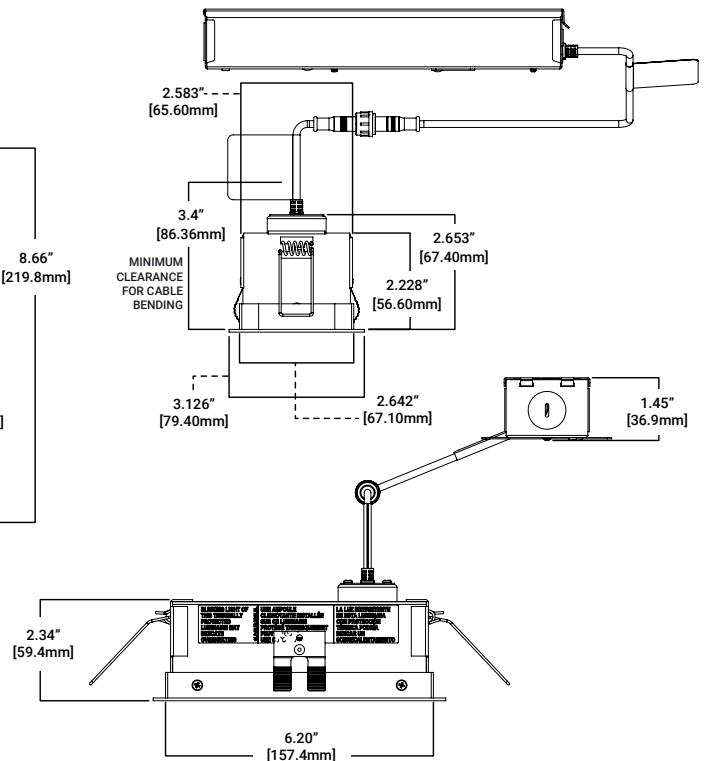
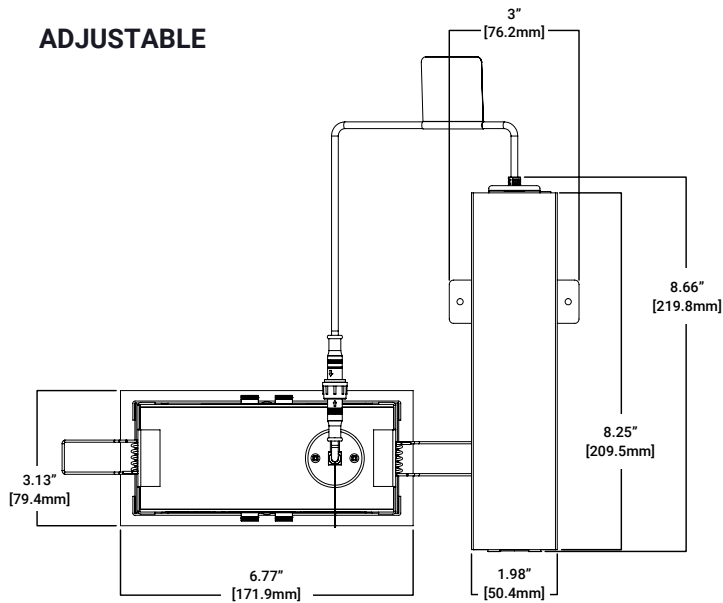
5 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration	Input Power	Input Current	PF	THDi	Inrush Current	Inrush Duration
12.5W	0.12A	0.98	11.5	6	191 µs	12.5W	0.048A	0.95	9.2	13.2	92 µs
10 Cell											
120V						277V					
Input Power	Input Current	PF	THDi	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 µs	23.3W	0.085A	0.98	6.6	13.4	93 µs
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 µs	33.9W	0.127A	0.96	9.8	14.8	85 µs

Dimensional and Mounting Details

DOWNLIGHT AND WALL WASH



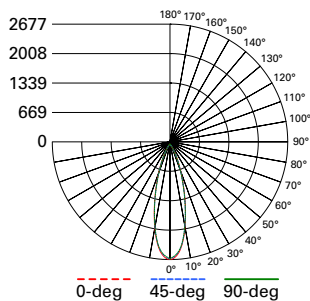
ADJUSTABLE



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

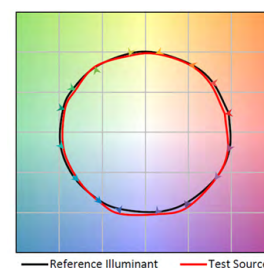
CANDELA TABLE	
Degrees Vertical	Candela
0	2670
5	2513
15	1371
25	464
35	107
45	20
55	7
65	1
75	0
80	0

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

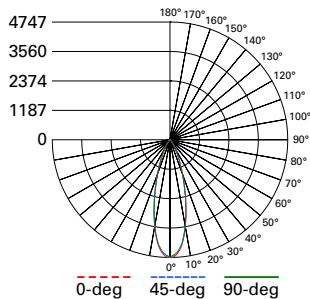


CCT Multipliers – 90CRI

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



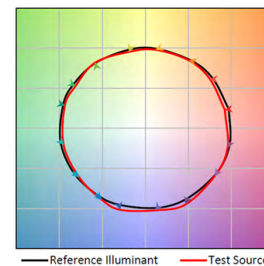
CONE OF LIGHT				
MH	FC	L	W	
5.5'	156.9	2.6	2.6	
7'	96.8	3.4	3.4	
8'	74.1	4	3.8	
9'	58.6	4.4	4.4	
10'	47.5	5	4.8	
12'	33	6	5.8	

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

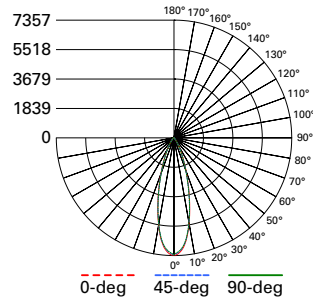
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

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

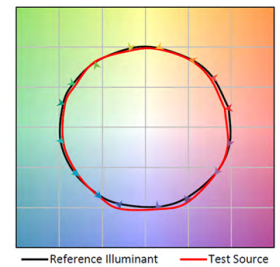
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	23849
55	10377
65	2347
75	0
85	0

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				
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

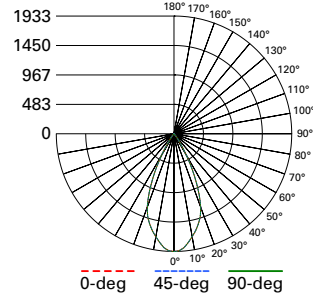


CCT Multipliers – 90CRI

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

Multipliers for relative lumen values with other color temperatures.

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

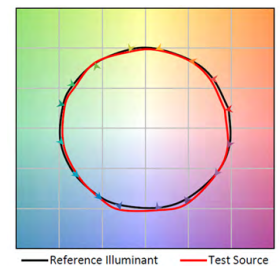
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	1086
55	795
65	398
75	0
85	0

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				
Horizontal				
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				
Vertical				
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

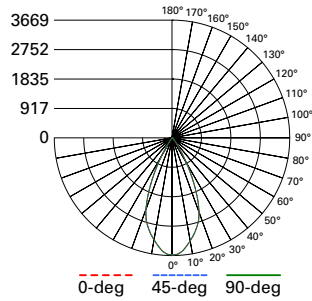
2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

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



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					
Horizontal					
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	

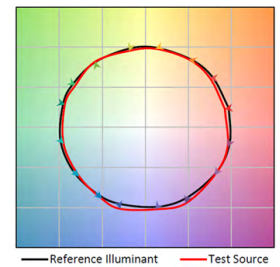
CONE OF LIGHT					
Vertical					
D	FC	L	W	CB	
1'	1093.7	0.9	0.8	1.7	
2'	273.4	1.9	2	3.5	
3'	121.5	2.9	3	5.2	
4'	68.4	3.9	4	6.9	
5'	43.7	4.9	5	8.7	
6'	30.4	5.9	6	10.4	

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

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

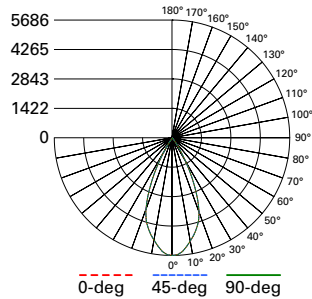


CCT Multipliers – 90CRI

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

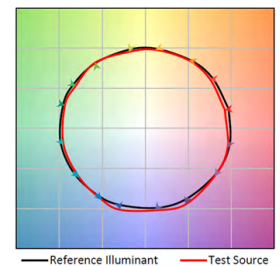


CONE OF LIGHT				
MH	FC	L	W	
5.5'	188	4.2	4.2	
7'	116	5.4	5.4	
8'	88.8	6	6	
9'	70.2	6.8	6.8	
10'	56.9	7.6	7.6	
12'	39.5	9.2	9.2	

CONE OF LIGHT					
Horizontal					
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					
Vertical					
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

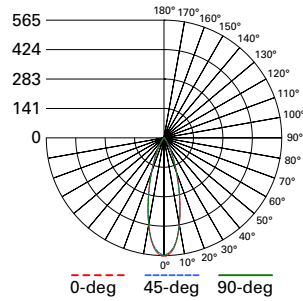
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

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

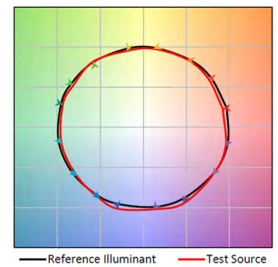
CONE OF LIGHT			
MH	FC	L	W
5.5'	18.7	2.6	2.6
7'	11.5	3.4	3.4
8'	8.8	4	3.8
9'	7	4.4	4.4
10'	5.6	5	4.8
12'	3.9	6	5.8

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

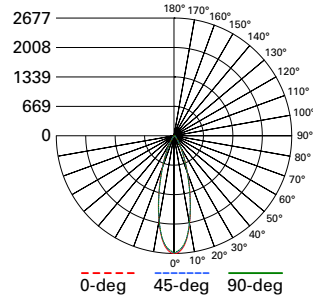


CCT Multipliers – 90CRI

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

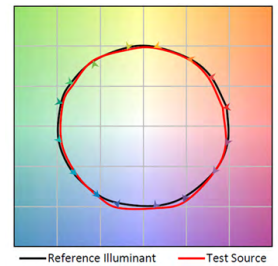
CONE OF LIGHT			
MH	FC	L	W
5.5'	88.5	2.6	2.6
7'	54.6	3.4	3.4
8'	41.8	4	3.8
9'	33	4.4	4.4
10'	26.8	5	4.8
12'	18.6	6	5.8

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

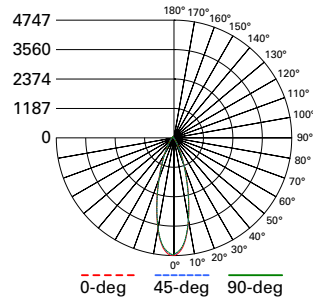
2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

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

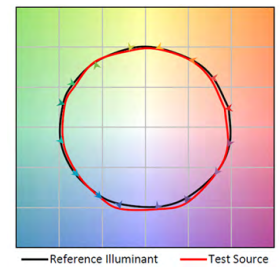
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	15388
55	6702
65	1540
75	0
85	0

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

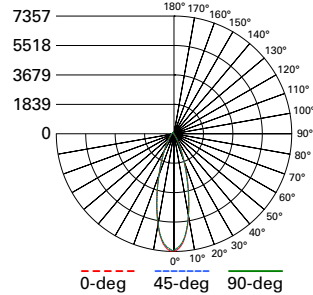


CCT Multipliers – 90CRI

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

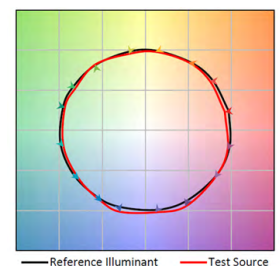
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	23849
55	10377
65	2347
75	0
85	0

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

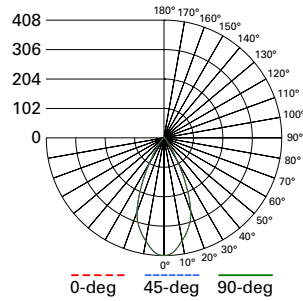
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

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

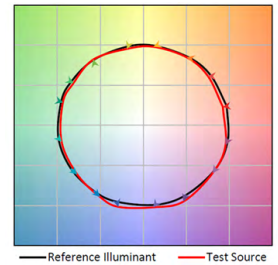
CONE OF LIGHT				
MH	FC	L	W	
5.5'	13.5	4.2	4.2	
7'	8.3	5.4	5.4	
8'	6.4	6	6	
9'	5	6.8	6.8	
10'	4.1	7.6	7.6	
12'	2.8	9.2	9.2	

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

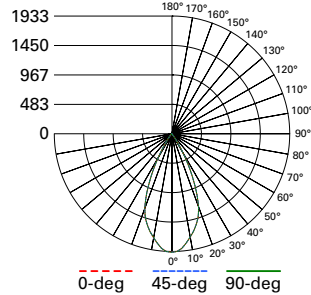


CCT Multipliers – 90CRI

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

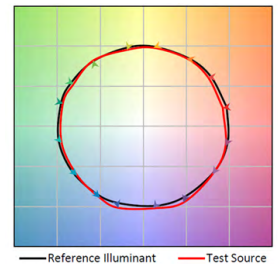
CONE OF LIGHT				
MH	FC	L	W	
5.5'	63.9	4.2	4.2	
7'	39.5	5.4	5.4	
8'	30.2	6	6	
9'	23.9	6.8	6.8	
10'	19.3	7.6	7.6	
12'	13.4	9.2	9.2	

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

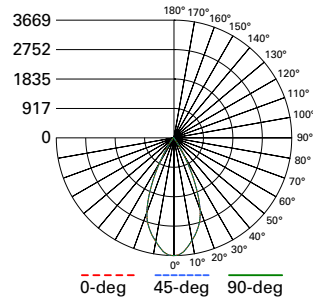
2700K	3000K	3500K	4000K
0.95	0.95	1.00	1.00

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

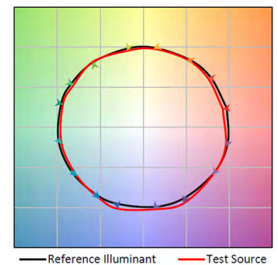
CONE OF LIGHT				
MH	FC	L	W	
5.5'	121.3	4.2	4.2	
7'	74.9	5.4	5.4	
8'	57.3	6	6	
9'	45.3	6.8	6.8	
10'	36.7	7.6	7.6	
12'	25.5	9.2	9.2	

CONE OF LIGHT				
Horizontal				
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				
Vertical				
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

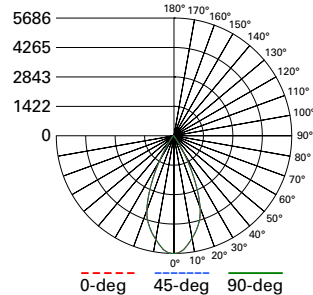


CCT Multipliers – 90CRI

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

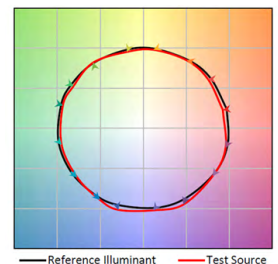
CONE OF LIGHT				
MH	FC	L	W	
5.5'	188	4.2	4.2	
7'	116	5.4	5.4	
8'	88.8	6	6	
9'	70.2	6.8	6.8	
10'	56.9	7.6	7.6	
12'	39.5	9.2	9.2	

CONE OF LIGHT				
Horizontal				
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				
Vertical				
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

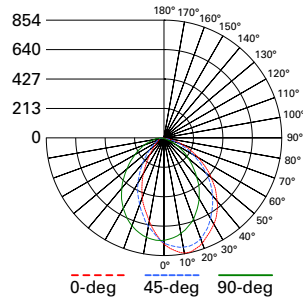
2700K	3000K	3500K	4000K
0.97	0.96	1.00	1.02

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

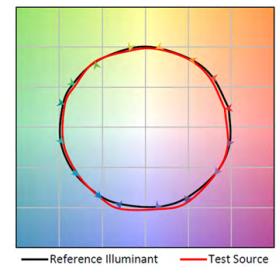
ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	523	36.4
0-40	800	55.7
0-60	1231	85.6
0-90	1437	100
90-180	0	0
0-180	1437	100

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.