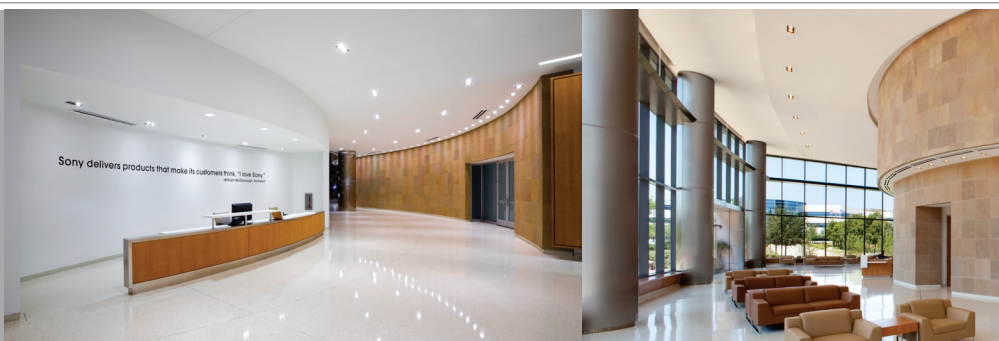
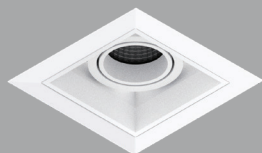




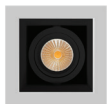
MODULE/FLANGE COLORS



WH-WH-White



BK-BK-Black



WH-BK-White/Black



BK-WH-Black/White

FEATURES

A recessed multiple mini combo downlight, available in 1, 2, 3 or 4 heads, with fully interchangeable, field-adjustable modules. Each individual head has full aiming adjustability, rotating 360°, pivoting 35° vertically, with a secure locking mechanism. Each head can be individually specified, allowing for mix-and-matching of different color temperatures, finishes, flange colors, and field-changeable optics in a single housing. Delivering the full spectrum of cool to warm tones, the FCM is ideal for retail, hospitality, commercial, and high-end residential applications.

LUMENS	1000 per head
CCT	27K, 30K, 35K, 40K, 50K (only 85 CRI)
CRI	90+ Standard
COLOR QUALITY	2-Step MacAdam Ellipse
DISTRIBUTION PATTERNS	SP 23° (Spot), NFL 30° (Narrow Flood), FL 40° (Flood)
TRIM OPTIONS	1, 2, 3, 4 Trim, Trimless
MODULE FINISH	BK (Black), WH (White)
FLANGE COLORS	BK (Black), WH (White), Trimless Custom RAL Colors.
DIMMING	0-10V Flicker Free 1% Dimming Standard (DIM10) 120-277V Triac dimming 5% Dimming (DIMTR) 120V
RATING	ETL
EMERGENCY	EMG-LED-G-16W-HV-FLEX*
LIFETIME	L70 at 102,000 Hours
PHOTOMETRIC TESTS	In Accordance with IES LM79-08, LM80 and TM-30, TM-21

*Only powers one head and must have ceiling access.

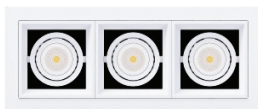
FCM1-LED



FCM2-LED



FCM3-LED



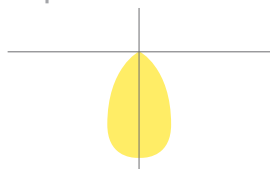
FCM4-LED



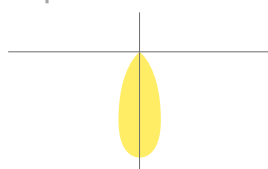
NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
1000	1042	15.7W

Based on 4000K, 90+ CRI. Actual wattage may vary +/- 5%

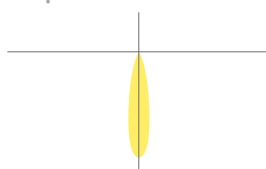
FL: FLOOD
Candlepower Distribution Curve



NFL: NARROW FLOOD
Candlepower Distribution Curve



SP: SPOT
Candlepower Distribution Curve



WALL WASH
Candlepower Distribution Curve



OPTICS AND REFLECTOR

A multi-segmented reflector provides precise beam control and field-changeable optics in Spot, Narrow Flood, Flood, and Wall Wash. Each luminaire head can provide task, accent, or general illumination. Available in trim or trimless, black or white finish. The FCM is the perfect solution for using a single housing to highlight up to 4 different displays in a retail setting.

REMOVABLE LED MODULE

Field-changeable modular components allow you to remove and upgrade your light without replacing the junction box. Completely interchangeable, module is easy to service and swap out.

AIMING

The proprietary hot aiming system allows each individual head to be rotated 360° horizontally and 35° vertically, and to be aimed precisely at the desired position, which can be locked into position without the use of tools.

HOUSING

Thermally protected for new construction, non-IC applications. Housing vertically adjusts to accommodate various ceiling heights. Fabricated from 18-gauge steel and post-painted. Interior painted matte black for maximum heat dissipation, zero internal reflection, and glare-free illumination. Each luminaire head made of die-cast aluminum to dissipate heat.

TRIM OPTION

Post-painted powder coated die-cast trim ring available in white, black, and custom RAL colors. (Please consult factory for custom finish options). Trim attaches to housing with secure clips for snug fit and zero light leakage.

TRIMLESS OPTION

Mudding may be applied right up to the edge of the luminaire opening for a seamless appearance. Trimless accessory is secured to the housing with safety cable to prevent fractures in the ceiling and/or drywall during and after installation.

MOUNTING FRAME & BRACKET

Pre-installed bar hangers can be shortened to position and lock housing at any point within the joist span. Bar hangers can fit onto T-Bar spline with additional slots and holes for special mounting methods, if necessary.

THERMAL MANAGEMENT SYSTEM

Passive cooling die-cast aluminum heatsink. LED light engine and driver are replaceable, upgradeable, and can be accessed from above and below the ceiling. A unique locking mechanism aligns the reflector with the light engine for precise optical performance.

DRIVER ELECTRICAL INFORMATION

The LED driver is rated for 50 to 60Hz at 120V/277V input, produces less than 20% THD, has a power factor between 90% and 100%, and is thermally protected for additional safety. Junction box and driver can be accessed from below and above the ceiling. Junction box is listed for through branch circuit wiring.

DIMMING & DRIVER INFORMATION

DIM10 - 0-10V dimming on either MVOLT 120 or 277. Dimmable down to 1% of initial lumens, standard.

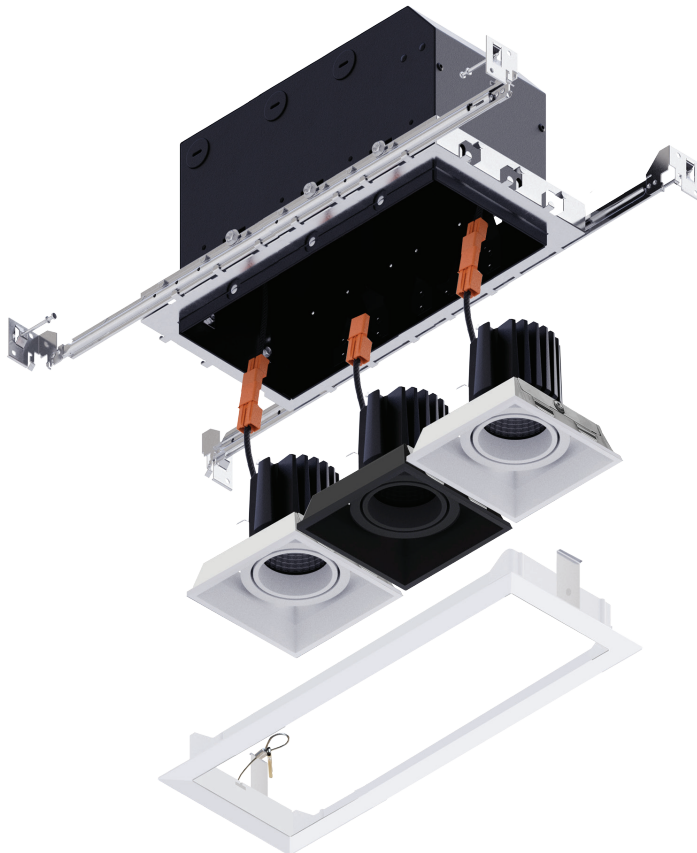
DIMTR - Triac & electronic low voltage dimming. Available in 120V.

WARRANTY

Five-year carefree warranty for parts and components. (Labor not included.)

LISTINGS

ETL - Listed for Feed Through Wiring.



MULTIPLE COMBINATIONS

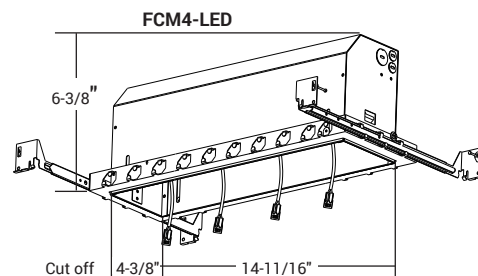
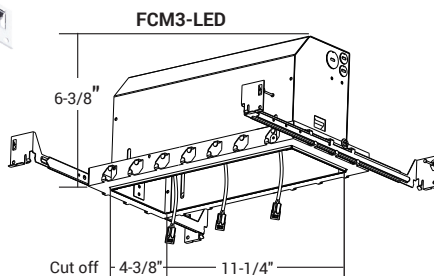
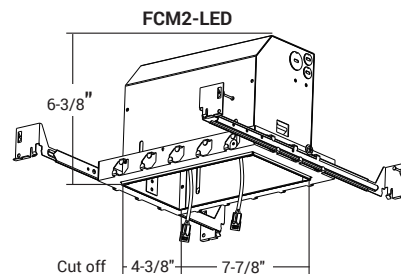
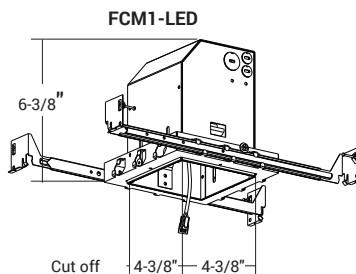
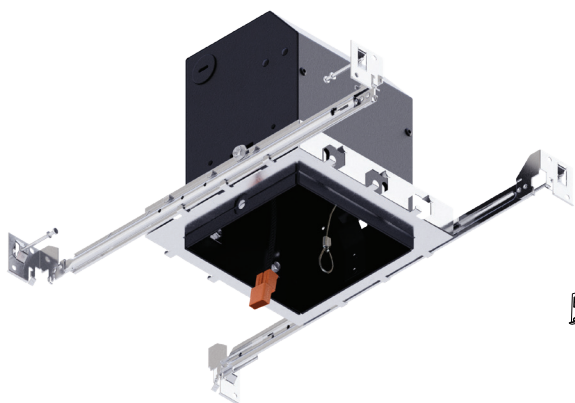
Mix and match to create multiple combinations.

Step 1: Choose your housing. Either 1, 2, 3, or 4.

Step 2: Choose your modules.

Step 3: Choose trim or trimless. For trim, choose finish.

HOUSING DIMENSIONS



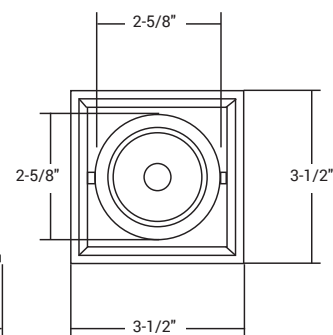
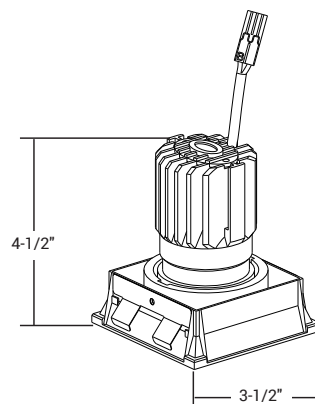
LED MODULE DIMENSIONS



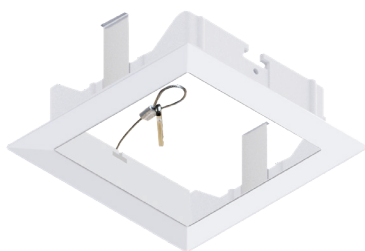
WH-White



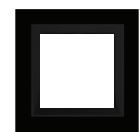
BK-Black



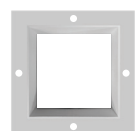
TRIM OPTION DIMENSIONS



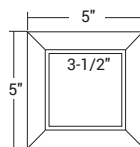
FLANGE-WH-White



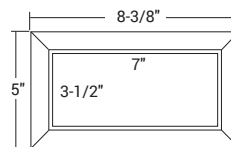
FLANGE-BK-Black



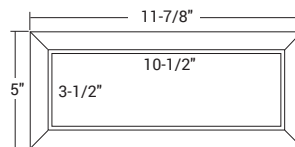
TRIM-LESS
FCM1-T-TL



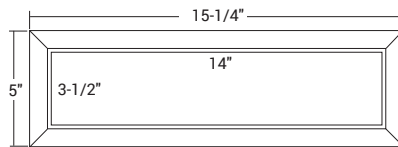
FCM1-T-F



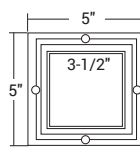
FCM2-T-F



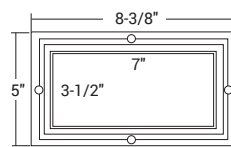
FCM3-T-F



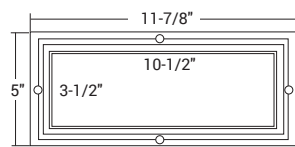
FCM4-T-F



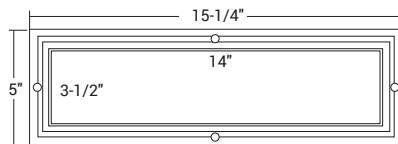
FCM1-T-TL



FCM2-T-TL



FCM3-T-TL



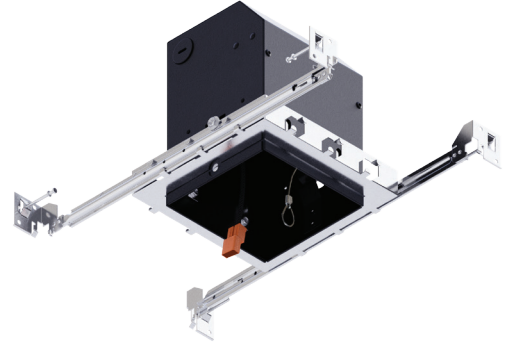
FCM4-T-TL

ORDERING GUIDE

HOUSING

Example: **FCM1-LED-BK-DIMTR-120/DIM10-MVOLT**

SERIES	DIMMING
☐ FCM1-LED ☐ FCM2-LED ☐ FCM3-LED ☐ FCM4-LED	☐ DIMTR-120/ DIM10-MVOLT <i>0-10V dimming on either MVOLT 120 or 277</i>



LED MODULE

Example: **FCM-LED-1000L-FL-30K-90-WH**

SERIES	LUMEN	OPTICS	CCT - CRI	INTERIOR COLOR
☐ FCM-LED	☐ 1000L	☐ SP- Spot-23° ☐ NFL- Narrow Flood-30° ☐ FL- Flood-40°	☐ 27K - 90 ☐ 30K - 90 ☐ 35K - 90 ☐ 40K - 90 ☐ 50K - 85 50K is 85 CRI only	☐ WH (White) ☐ BK (Black)

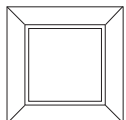
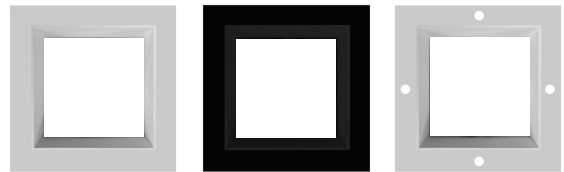


MUST ORDER LED MODULES BASED ON HOUSING SIZE.
FCM3-LED (3 HEADS) = 3 X FCM-LED (3 LED MODULES)

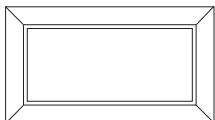
TRIM OPTIONS

Example: **FCM1-T-F-BK**

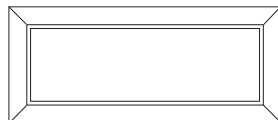
SERIES	TRIM OPTION	TRIM COLOR
☐ FCM1-T ☐ FCM2-T ☐ FCM3-T ☐ FCM4-T	☐ F (Flanged) ☐ TL (Trimless)	☐ WH (White) ☐ BK (Black) <i>Note: Trimless has no finish color.</i>



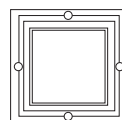
FCM1-T-F



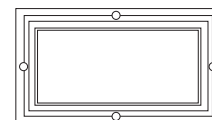
FCM2-T-F



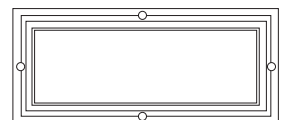
FCM3-T-F



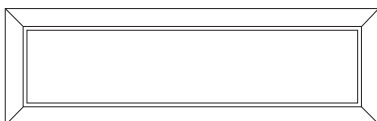
FCM1-T-TL



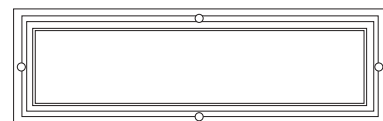
FCM2-T-TL



FCM3-T-TL



FCM4-T-F



FCM4-T-TL

FCM1-LED-1000L-DIM10-120-FL-30K-90-F-WH-BK(PER HEAD)

TEST NO.: **EL08252055**

INPUT WATTS: **14.4**

LUMENS: **1057**

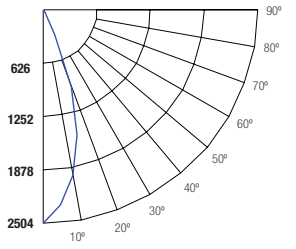
CRI: **90**

EFFICACY: **73**

CCT: **3000K**

SPACING CRITERIA: **0.62**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	683.53	65.8	64.7
0-30	961.02	92.5	90.9
0-40	999.43	96.2	94.6
0-60	1029.41	99.1	97.4
0-80	1042.79	100.4	98.7
0-90	1043.35	100.4	98.7

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	13093	12768	12856
55	12399	12374	11949
65	10834	11807	9805
75	3306	4580	2271
85	3235	2742	2468

Lumens Per Zone

Zone	Lumens
0-10	217.41
10-20	466.12
20-30	277.5
30-40	38.41
40-50	16.12
50-60	13.86
60-70	10.01
70-80	3.37
80-90	0.56

Candela Tabulation

0	0
0	2455.019
5	2311.23
15	1542.33
25	343.94
35	30.4
45	19.37
55	14.88
65	9.58
75	1.79
85	0.59
90	0.12

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

Cone of Light			
2	855	1.2	1.2
3	227	2.3	2.3
5	98.8	3.5	3.5
7	55.0	4.7	4.8
8	35.9	5.8	5.9
10	24.7	7.0	7.1
(FT.) Distance to Plane	(FC.) Initial Footcandle at Nadir	(FT.) Beam Vert. Spread	(FT.) Beam Horiz. Spread

ROOM CAVITY RATIO	RC	80%				70%				50%				30%				10%				0%
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%			
0	1	121	121	121	121	118	118	118	118	112	112	112	107	107	107	103	103	103	100			
1	2	116	113	111	109	113	110	109	107	107	105	104	103	102	101	99	98	97	96			
2	3	107	107	107	109	105	102	99	99	102	99	97	99	96	95	96	94	93	91			
3	4	107	101	97	94	105	100	96	93	97	94	91	95	92	90	92	90	88	87			
4	5	103	96	92	88	101	95	91	87	93	89	86	91	88	85	89	86	84	83			
5	6	99	92	87	83	97	91	86	83	89	85	82	87	84	81	86	83	80	79			
6	7	95	88	83	79	94	87	82	79	85	81	78	84	80	78	83	79	77	76			
7	8	92	84	79	75	90	83	79	75	82	78	75	81	77	74	80	76	74	73			
8	9	89	81	76	72	87	80	75	72	79	75	72	78	74	71	77	73	71	70			
9	10	85	77	73	69	84	77	72	69	76	72	69	75	71	69	74	71	68	67			
10		83	75	70	67	82	74	70	66	73	69	66	73	69	66	72	68	66	65			

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

FCM1-LED-1000L-DIM10-120-FL-40K-90-F-WH-BK(PER HEAD)

TEST NO.: **EL01162047**

INPUT WATTS: **14.5**

LUMENS: **1100**

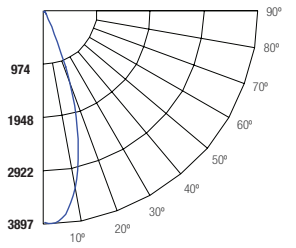
CRI: **90**

EFFICACY: **76**

CCT: **4000K**

SPACING CRITERIA: **0.52**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	915.63	83.2	83.2
0-30	1048.73	95.3	95.3
0-40	1068.87	97.1	97.1
0-60	1095.92	99.6	99.6
0-80	1099.35	99.9	99.9
0-90	1099.36	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	9938	10340	10166
55	6696	7555	7233
65	1126	2171	1903
75	251	397	622
85	39	39	39

Lumens Per Zone

Zone	Lumens
0-10	334.22
10-20	581.41
20-30	133.1
30-40	20.15
40-50	16.02
50-60	11.02
60-70	3
70-80	0.42
80-90	0.01

Candela Tabulation

0	0
0	3875.08
5	3748.67
15	2288.64
25	188.22
35	31.97
45	20.53
55	11.22
65	1.39
75	0.19
85	0.01
90	0.01

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

Cone of Light			
2	1,341	1.0	1.0
3	356	1.9	1.9
5	155	2.9	2.9
7	86.3	3.9	3.9
8	56.3	4.8	4.8
10	38.8	5.8	5.8
(FT.) Distance to Plane	(FC.) Initial Footcandle at Nadir	(FT.) Beam Vert. Spread	(FT.) Beam Horiz. Spread

	RC	80%				70%				50%				30%				10%				0%	
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%				
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
	1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96				
	2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	96	94	93				
	3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	94	93	91	90				
	4	104	99	94	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87				
	5	101	95	91	88	99	94	90	87	92	89	86	91	88	86	89	87	85	84				
	6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81				
	7	95	88	84	81	94	88	84	81	87	83	81	86	83	80	85	82	80	79				
	8	92	86	81	79	91	85	81	78	84	81	78	83	80	78	82	80	77	77				
	9	90	83	79	76	89	83	79	76	82	78	76	81	78	76	80	77	75	74				
10	87	81	77	74	87	80	76	74	80	76	74	79	76	73	78	75	73	72					
RC Ceiling Cavity Reflectance																				RW Wall Reflectance			

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

FCM1-LED-1000L-DIM10-120-NFL-30K-90-F-WH-BK(PER HEAD)

TEST NO.: **EL08252056**

INPUT WATTS: **14.2**

LUMENS: **975**

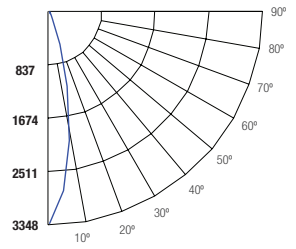
CRI: **90**

EFFICACY: **69**

CCT: **3000K**

SPACING CRITERIA: **0.50**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	721.35	76	74
0-30	896.85	94.4	92
0-40	919.64	96.8	94.4
0-60	947.94	99.8	97.3
0-80	961.43	101.2	98.7
0-90	961.98	101.3	98.7

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	14005	13309	12396
55	12532	12616	11774
65	11773	12779	10190
75	4432	5614	2475
85	2852	2468	2358

Lumens Per Zone

Zone	Lumens
0-10	272.76
10-20	448.6
20-30	175.49
30-40	22.8
40-50	14.99
50-60	13.31
60-70	10.16
70-80	3.32
80-90	0.56

Cand

FCM1-LED-1000L-DIM10-120-SP-30K-90-F-WH-BK(PER HEAD)

TEST NO.: **EL08252056**

INPUT WATTS: **14.1**

LUMENS: **1044**

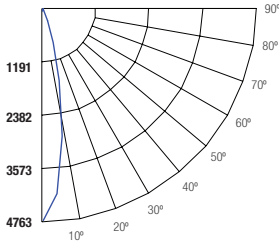
CRI: **90**

EFFICACY: **74**

CCT: **3000K**

SPACING CRITERIA: **0.44**

Candle Power Distribution (Candelas)



Cone of Light				
2	1.648	0.7	0.7	
3	437	1.4	1.4	
5	191	2.1	2.1	
7	106	2.8	2.8	
8	69.1	3.4	3.5	
10	47.6	4.1	4.2	
BEAM DIA. MEASURED AT 50% OF NADIR F.C.				

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	819.02	81.3	78.5
0-30	967.48	96	92.7
0-40	987.4	98	94.6
0-60	1015.95	100.8	97.3
0-80	1029.59	102.2	98.7
0-90	1030.16	102.2	98.7

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	12856	12369	12200
55	12266	12382	11916
65	11366	12372	10201
75	3583	4931	2419
85	2961	2632	2523

Lumens Per Zone

Zone	Lumens
0-10	356.42
10-20	462.6
20-30	148.46
30-40	19.91
40-50	15.12
50-60	13.44
60-70	10.27
70-80	3.38
80-90	0.57

Candela Tabulation

0	0
0	4763.36
5	4175.66
15	1652.48
25	277.74
35	29.83
45	19.02
55	14.72
65	10.05
75	1.94
85	0.54
90	0.12

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

	RC	80%				70%				50%				30%				10%				0%
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
ROOM CAVITY RATIO	0	123	123	123	123	120	120	120	120	114	114	114	109	109	109	104	104	104	104	104	104	102
	1	119	116	114	112	116	114	112	110	109	108	107	105	104	103	102	101	100	100	100	100	98
	2	114	110	107	104	112	109	106	103	105	103	101	102	100	98	99	97	96	95	95	95	95
	3	110	105	101	98	108	104	100	97	101	98	96	99	96	94	96	94	93	91	91	91	91
	4	107	101	97	93	105	100	96	93	98	94	92	96	93	90	94	91	89	88	88	88	88
	5	104	97	93	89	102	96	92	89	94	91	88	93	90	87	91	88	86	85	85	85	85
	6	100	94	89	86	99	93	89	86	91	88	85	90	87	84	89	86	84	83	83	83	83
	7	98	91	86	83	96	90	86	83	89	85	82	87	84	82	86	83	81	80	80	80	80
	8	95	88	83	80	94	87	83	80	86	82	80	85	82	79	84	81	79	78	78	78	78
	9	92	85	81	78	91	85	81	78	84	80	77	83	80	77	82	79	77	76	76	76	76
10	90	83	79	76	89	82	78	76	82	78	75	81	77	75	80	77	75	74	74	74	74	

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance