

DESCRIPTION

The Micro-Bay series is a functional and multi-purpose narrow profile fluorescent High-Bay that incorporates premium performance with durable construction. Designed for T5 fluorescent technology, the MBF series offers both high performance and application versatility with three optical configurations for general and aisle applications. Illumination solution in commercial, industrial and retail applications, MBF series can be used in warehouses and retail store distribution centers.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Construction

Die formed channel from 20 gauge prime cold rolled steel. Numerous KOs for ease of installation. End plate quickly converts to snap-in channel connector for continuous row alignment. Push-in style lampholders snap in to installed tracks. Channel/wireway cover positively secured with mechanical fastener.

Electrical*

Ballasts are Class "P" and are positively secured. Rotor-lock lampholders ensure positive lamp retention. Optional pre-wired factory installed multiple circuit plug-in connectors. UL/CUL listed. Suitable for damp locations.

Finish

Multistage iron phosphate pretreatment ensures maximum bonding and rust inhibitor.

Channel/Wireway Cover

Heavy gauge prime cold rolled steel. Tight fit for ease of maintenance.

Reflector

Specular Miro reflectors for precise light control minimum 95% total reflectivity. Three optical distribution patterns are available:

Focus - $SC < .5$
Task - $.5 \leq SC < .9$
Normal - $.9 \leq SC \leq 1.2$

Mounting

Suspension is convenient and flexible with the SS Aircraft Cable "Y" Toggle Mounting Kits. Adjustment for luminaire mounting height is provided at luminaire rather than structure. Order a rigid exterior connector/coupling with pre-punched holes facilitates easy installation of coupled sections up to 32' long.

Option

Integral occupancy sensor available and provides from 600 sq. ft. up to 1250 sq. ft. of coverage in a maximum mounting height of 40'.



MBF
154
254

4' OR 8' MICROBAY*
1 OR 2 LAMP

T5 Lamp Technology
Task Beam
Focus Beam
Normal Beam



ENERGY DATA

Input Watts @ 120V:
Electronic Ballast & STD Lamps
154 (62)
254 (117)
454 (229)
8T154 (117)
8T254 (229)

Luminaire Efficacy Rating
LER = 69
Catalog Number: MB-154T5

Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$3.47

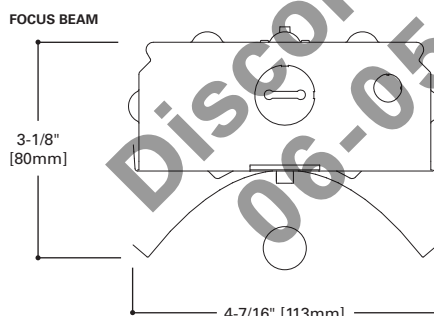
Reference the lamp/ballast data in the
Technical Section for specific lamp/ballast
requirements.

**LAMPS CONTAIN MERCURY. DISPOSE ACCORDING
TO LOCAL, STATE OR FEDERAL LAWS**

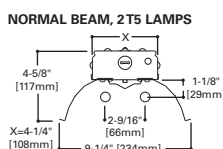
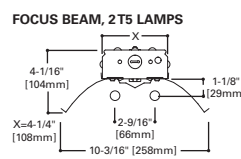
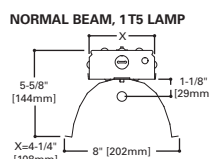
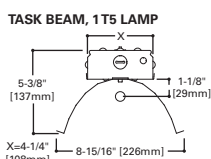
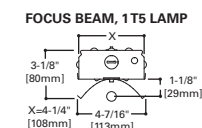
LINEAR DISCONNECT
Safe and convenient means of
disconnecting power

*Patent Pending

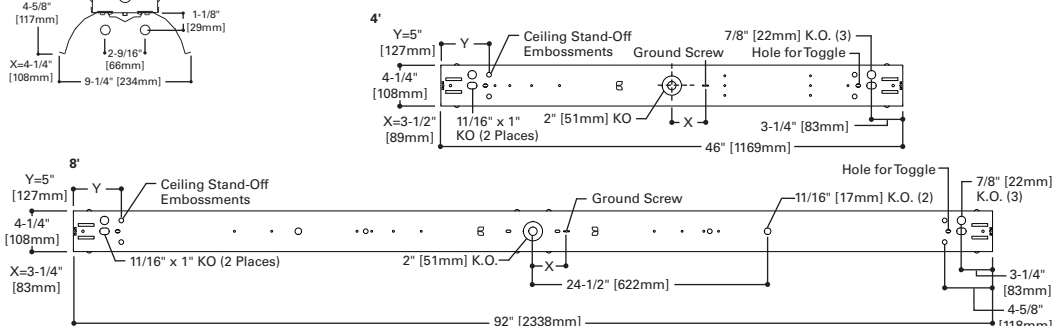
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LAMP CONFIGURATIONS

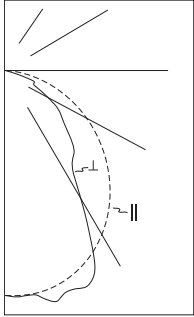


MOUNTING DATA



COOPER LIGHTING

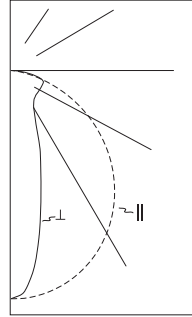
PHOTOMETRICS



MBF-254-NB
 (1) Electronic Ballast
 (2) 54WT5 lamp
 4400 lumens
 Spacing criterion:
 (II) 1.3 x mounting
 height, (L) 1.1 x
 mounting height
 Efficiency 96.3%
 Test Report:
 MBF-254NB.IES
 LER =FL71
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$3.38

Candela

Angle	Along II	45°	Across II
0	3736	3736	3736
5	3743	3791	3756
10	3716	3751	3860
15	3643	3846	3822
20	3528	3730	3839
25	3374	3636	3514
30	3182	3488	2564
35	2960	2905	1939
40	2708	2103	1783
45	2434	1612	1497
50	2147	1424	1244
55	1849	1133	1018
60	1548	913	700
65	1241	665	522
70	936	395	476
75	640	354	40
80	362	30	0
85	122	16	0
90	0	0	0



MBF-154FB
 (1) Electronic Ballast
 (1) 54WT5 lamp
 4400 lumens
 Spacing criterion:
 (II) 1.2 x mounting
 height, (L) 0.5 x
 mounting height
 Efficiency 105%
 Test Report:
 MBF-154FB.IES
 LER =FL74
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$3.24

Candela

Angle	Along II	45°	Across II
0	3538	3538	3538
5	3528	3409	3281
10	3477	2970	2542
15	3393	2349	1786
20	3275	1777	1322
25	3126	1376	915
30	2944	1020	714
35	2734	752	613
40	2498	596	564
45	2239	504	543
50	1961	449	537
55	1663	416	534
60	1357	396	534
65	1043	378	534
70	729	364	535
75	438	353	473
80	197	289	312
85	39	131	135
90	0	0	0

Coefficients of Utilization

rc	Effective floor cavity reflectance								20%							
	80%				70%				50%				30%			
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
0	115	115	115	115	112	112	112	112	107	107	107	103	103	103	98	98
1	106	102	99	96	104	100	97	94	96	94	91	93	90	88	89	87
2	98	91	85	80	95	89	84	79	86	81	78	83	79	76	80	77
3	90	81	74	68	88	80	73	68	77	71	67	74	69	66	72	68
4	83	73	65	59	81	71	64	59	69	63	58	67	62	57	65	60
5	77	66	58	52	75	65	57	52	63	56	51	61	55	50	59	54
6	71	60	52	46	70	59	51	46	57	50	45	55	50	45	54	49
7	67	54	47	41	65	54	46	41	52	46	41	51	45	40	50	44
8	62	50	42	37	61	49	42	37	48	41	37	47	41	36	46	40
9	58	46	39	34	57	46	38	33	44	38	33	43	37	33	42	37
10	55	43	35	31	54	42	35	31	41	35	30	40	35	30	40	34

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	3050	34.7	36.0
0-40	4711	53.5	55.6
0-60	7390	84.0	87.2
0-90	8479	96.3	100.0
0-180	8479	96.3	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	13251	8776	8150
55	12410	7406	6832
65	11304	6057	4755
75	9519	5265	595
85	5389	707	0

Coefficients of Utilization

rc	Effective floor cavity reflectance								20%							
	80%				70%				50%				30%			
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
0	125	125	125	125	122	122	122	122	117	117	117	112	112	112	107	107
1	115	110	105	101	112	107	103	100	103	99	96	99	96	93	95	93
2	105	97	90	84	102	95	88	83	91	86	81	88	83	79	84	81
3	97	86	78	71	94	84	77	71	81	75	70	78	73	68	76	71
4	89	77	69	62	87	76	68	62	73	66	61	71	65	60	69	64
5	83	70	61	55	81	69	61	55	67	60	54	65	59	53	63	57
6	77	64	56	49	76	63	55	49	62	54	49	60	53	48	58	52
7	73	59	51	45	71	58	50	44	57	49	44	55	49	44	54	48
8	68	55	46	41	67	54	46	41	53	46	40	52	45	40	50	44
9	64	51	43	37	63	50	43	37	49	42	37	48	42	37	47	41
10	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1775	40.4	38.3
0-40	2479	56.3	53.5
0-60	3657	83.1	79.0
0-90	4632	105.3	100.0
0-180	4632	105.3	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	22714	5113	5509
55	20798	5203	6678
65	17703	6416	9064
75	12139	9784	13110
85	3210	10782	11111

ORDERING INFORMATION

SAMPLE NUMBER: MBF-154T5-FB-UNV-EBT1-U

Tandem
Blank=
4' Length
8T=
8' Length

Series
MBF=Micro-Bay

Number of Lamps
(Not included)
1=1 Lamp
2=2 Lamps

Lamp Types
49T5=49W T5HO (48")
51T5=51W T5HO (48")
54T5=54W T5HO (48")

Reflector
FB=Focus Beam
TB=Task Beam (Medium -1 lamp only)
NB=Normal Beam

Voltage⁽¹⁾
120V=120 Volt
277V=277 Volt
347V=347 Volt UNV=Universal
120-277 Voltage
UNC=Universal 347/480 Voltage

Options
GL=Single Element Fuse
GM=Double Element Fuse
EL=Emergency Installed⁽²⁾

Ballast Type
T5 Systems

EBT =T5 Linear Electronic Program Rapid
Start. Total Harmonic Distortion < 10%
No. of Ballast
1 or 2

EHT =T5 Linear Electronic Program Rapid
Start High Ambient.
Total Harmonic Distortion < 10%⁽⁴⁾
No. of Ballast
1 or 2

DIM=Dimming (ballast must be specified)

Options

PI/CPI=Plug-In (1, 2 or 3) See pg. 52
C3=3' Power Cord
C6=6' Power Cord
PC3=3' Power Cord & Plug (Specify Voltage)⁽³⁾
PC6=6' Power Cord & Plug (Specify Voltage)⁽³⁾

Packaging
U=Unit Pack

Accessories (order separately)

AYC-CHAIN/SET/U=(2) Hooks, 36" Chain Sets w/S-Hooks
Y-TOGGLE=Y Mounting Toggle, #2 Cable (Specify 10' or 30')⁽⁶⁾
TOGGLE=Single Toggle, #2 Cable (Specify 10' or 30')
SSF-EXT-LONG-CONN-KIT-U=Rigid Connector Support for
Continuous Channel Installation
MBF-SENSOR-KIT-CTR/MT-U=Aisle Coverage Motion Sensor,
Center Mount Hardware, 120/277V^{(3), (5)}
MBF-SENSOR-KIT-END/MT-U=Aisle Coverage Motion Sensor,
End Mount Hardware, 120/277V^{(3), (5)}
ATG-SSF-4-U=Tong Hanger

NOTES: ⁽¹⁾Products also available in non-US voltages and frequencies for international markets. ⁽²⁾Voltage to be specified with emergency ballast option. ⁽³⁾Voltage must be specified when ordered with plugs, motion sensor or emergency ballasts. ⁽⁴⁾2 lamp ballast configurations only in UNC versions. ⁽⁵⁾Must ship separately. ⁽⁶⁾Use with continuous row mount at fixture joint only.

PI OPTION ORDERING INFORMATION

Catalog Number Suffix	Number of Circuits	Circuit Wired To Ballast
PI 1 BLK	1	Black
PI 2 BLU	2	Blue
PI 2 BLK	2	Black
PI 3 RED	3	Red
PI 3 BLU	3	Blue
PI 3 BLK	3	Black

Catalog Numbering System

The PI System is available in sections up to 8' in length for continuous row wiring by simply plugging the sections together. Each PI section is factory wired to the ballast leads. Color coding of wires is as follows:

PI-1 = One Circuit - 2 Wires: one black, one white

PI-2 = Two Circuits - 3 Wires: one black, one blue, one white

PI-3 = Three Circuits - 4 wires: one black, one blue, one red, one white

When ordering the PI2/PI3 System it is necessary to specify the number of fixtures required for each circuit. Each circuit in fixture must be ordered as a separate line item, with a different hot wire color specified. All wiring to external feeds, using cord or cord & plug, are responsibility of installing licensed contractor. Cord and cord & plug sets must be ordered separately if PI option is chosen.

PI1 - Single Circuit Plug-In

SAMPLE NUMBER: PI1BLK-WG

PI1= Single Circuit

BLK=Black Hot

NG= No Ground (ground provided by fixture body)
WG= With Ground (separate ground wire in harness)

PI2 - Two Circuit Plug-In

SAMPLE NUMBER: PI2BLK-WG

PI2= Two Circuit

BLK=Black Hot
BLU=Blue Hot

Leave Blank=Single Neutral
2NEU=Two Neutrals

NG= No Ground (ground provided by fixture body)
WG= With Ground (separate ground wire in harness)

PI3 - Three Circuit Plug-In

SAMPLE NUMBER: PI3BLK-WG

PI3= Three Circuit

BLK=Black Hot
BLU=Blue Hot
RED=Red Hot

Leave Blank=Single Neutral
2NEU=Two Neutrals

NG= No Ground (ground provided by fixture body)
WG= With Ground (separate ground wire in harness)

Leave Blank=Single Neutral
/WHT=White Neutral
/GRY=Gray Neutral

Leave Blank=Single Neutral
/WHT=White Neutral
/GRY=Gray Neutral

For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

SHIPPING INFORMATION

Catalog No.	Wt.
MBF-154T5	6 lbs.