

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 227P154

Luminaire Tested: **MBF-132FB-UNV-EB81-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 227P154  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: MBF-132FB-UNV-EB81-U  
Description: MICROBAY, 1 LAMP T8, WITH SPECULAR FOCUS BEAM REFLECTOR  
Light Source: ONE T8 LINEAR FLUORESCENT LAMP  
F32T8 32 WATTS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3100 (1 lamp)  
Luminaire Lumens: 3094.2 lumens  
Efficiency: 99.8%  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.5 / 0.7  
Luminous Opening: Rectangular (W 0.71' x L: 4' x H: 0')  
CIE Type: Direct

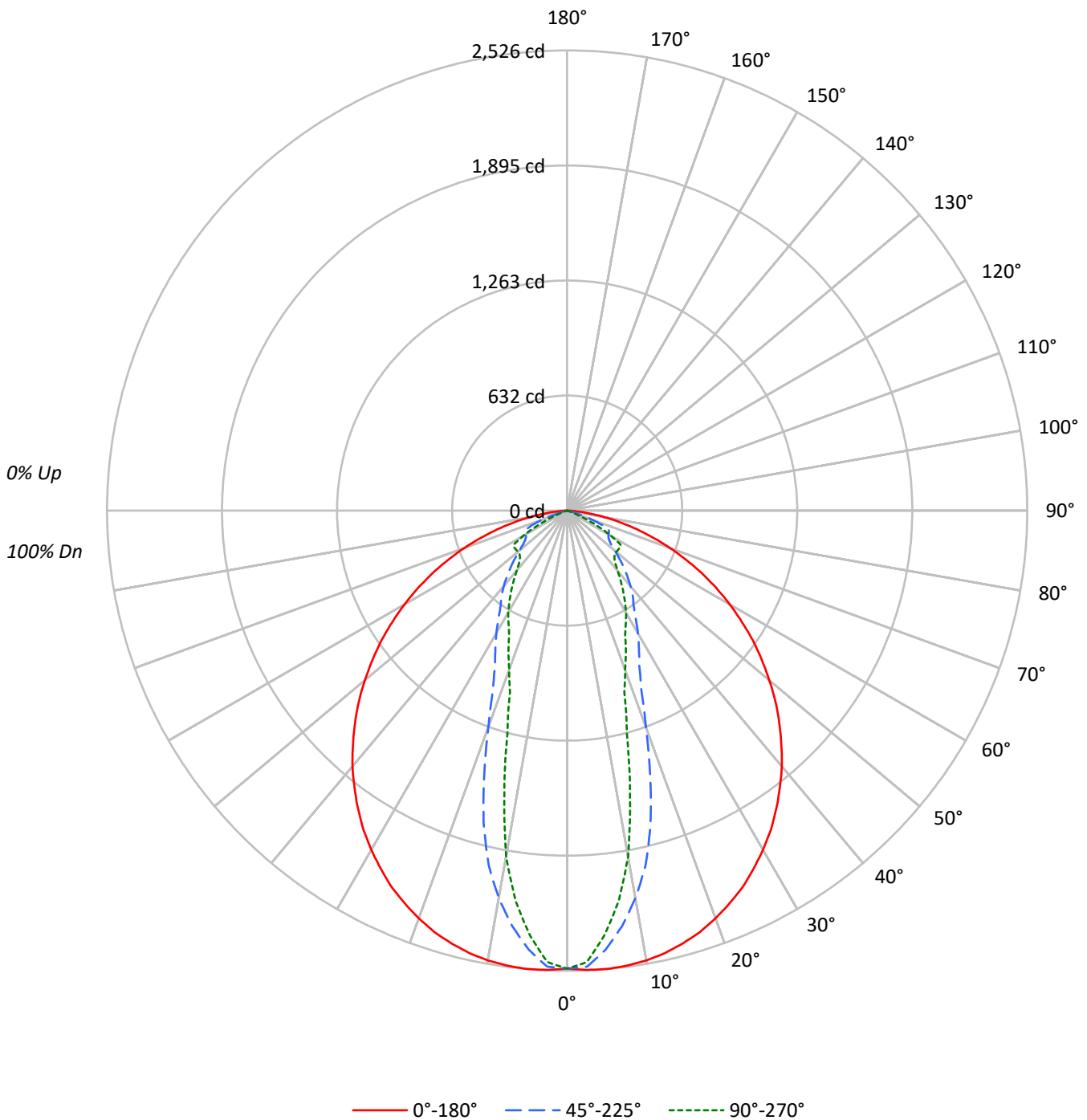
Input Watts (W): 35  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: 227P154

CATALOG NUMBER: MBF-132FB-UNV-EB81-U

### Luminous Intensity Polar Plot





TEST NUMBER: 227P154

CATALOG NUMBER: MBF-132FB-UNV-EB81-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	101	98	100	98	95	97	94	93	93	91	90	88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59
5	82	70	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48
7	71	59	52	46	70	59	51	46	57	51	46	56	50	45	55	49	45	43
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	46	40	36	45	39	35	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9551	9551	9551
5°	9633	9225	8928
10°	9671	8329	7434
15°	9671	6965	4987
20°	9630	5102	3760
25°	9557	3919	3152
30°	9431	3413	2834
35°	9280	2945	2477
40°	9095	2683	2132
45°	8849	2353	1966
50°	8564	2021	2086
55°	8246	1861	2345
60°	7841	1998	2127
65°	7335	2274	1151
70°	6676	1566	11
75°	5798	191	0
80°	4551	66	0
85°	2659	131	0



TEST NUMBER: 227P154

CATALOG NUMBER: MBF-132FB-UNV-EB81-U

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	223.9	7.2	7.2	0°	2514	2514	2514	2514	2514	
10°-20°	502.6	16.2	16.2	5°	2526	2488	2419	2363	2341	240
20°-30°	568.9	18.4	18.4	15°	2459	2192	1771	1384	1268	694
30°-40°	545.0	17.6	17.6	25°	2280	1689	935	793	752	1049
40°-50°	472.6	15.3	15.2	35°	2001	1005	635	557	534	1251
50°-60°	402.8	13.0	13.0	45°	1647	626	438	364	366	1270
60°-70°	267.7	8.7	8.6	55°	1245	393	281	329	354	1111
70°-80°	95.2	3.1	3.1	65°	816	207	253	169	128	807
80°-90°	15.5	0.5	0.5	75°	395	129	13	0	0	420
90°-100°	0.0	0.0	0.0	85°	61	12	3	0	0	84
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1295.4	41.9	41.8							
0°-40°	1840.3	59.5	59.4							
0°-60°	2715.8	87.8	87.6							
0°-90°	3094.2	100.0	99.8							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	3094.2	100.0	99.8							



TEST NUMBER: 227P154

CATALOG NUMBER: MBF-132FB-UNV-EB81-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2514	2514	2514	2514	2514
2.5°	2524	2519	2506	2490	2481
5°	2526	2488	2419	2363	2341
7.5°	2519	2433	2302	2199	2162
10°	2507	2362	2159	1993	1927
12.5°	2487	2282	1992	1702	1596
15°	2459	2192	1771	1384	1268
17.5°	2425	2088	1513	1118	1044
20°	2382	1973	1262	967	930
22.5°	2332	1843	1062	877	842
25°	2280	1689	935	793	752
27.5°	2216	1518	853	710	697
30°	2150	1342	778	665	646
32.5°	2080	1167	699	612	589
35°	2001	1005	635	557	534
37.5°	1918	871	593	503	480
40°	1834	769	541	451	430
42.5°	1740	692	489	406	389
45°	1647	626	438	364	366
47.5°	1551	560	388	342	354
50°	1449	492	342	333	353
52.5°	1347	436	304	330	353
55°	1245	393	281	329	354
57.5°	1137	344	268	328	347
60°	1032	297	263	314	280
62.5°	924	250	258	242	205
65°	816	207	253	169	128
67.5°	707	170	208	94	52
70°	601	148	141	24	1
72.5°	496	137	73	0	0
75°	395	129	13	0	0
77.5°	298	107	4	0	0
80°	208	56	3	0	0
82.5°	127	15	3	0	0
85°	61	12	3	0	0
87.5°	16	10	2	0	0
90°	0	0	0	0	0

(END OF REPORT)