

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893386

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-ASYMR-UNV-L835
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

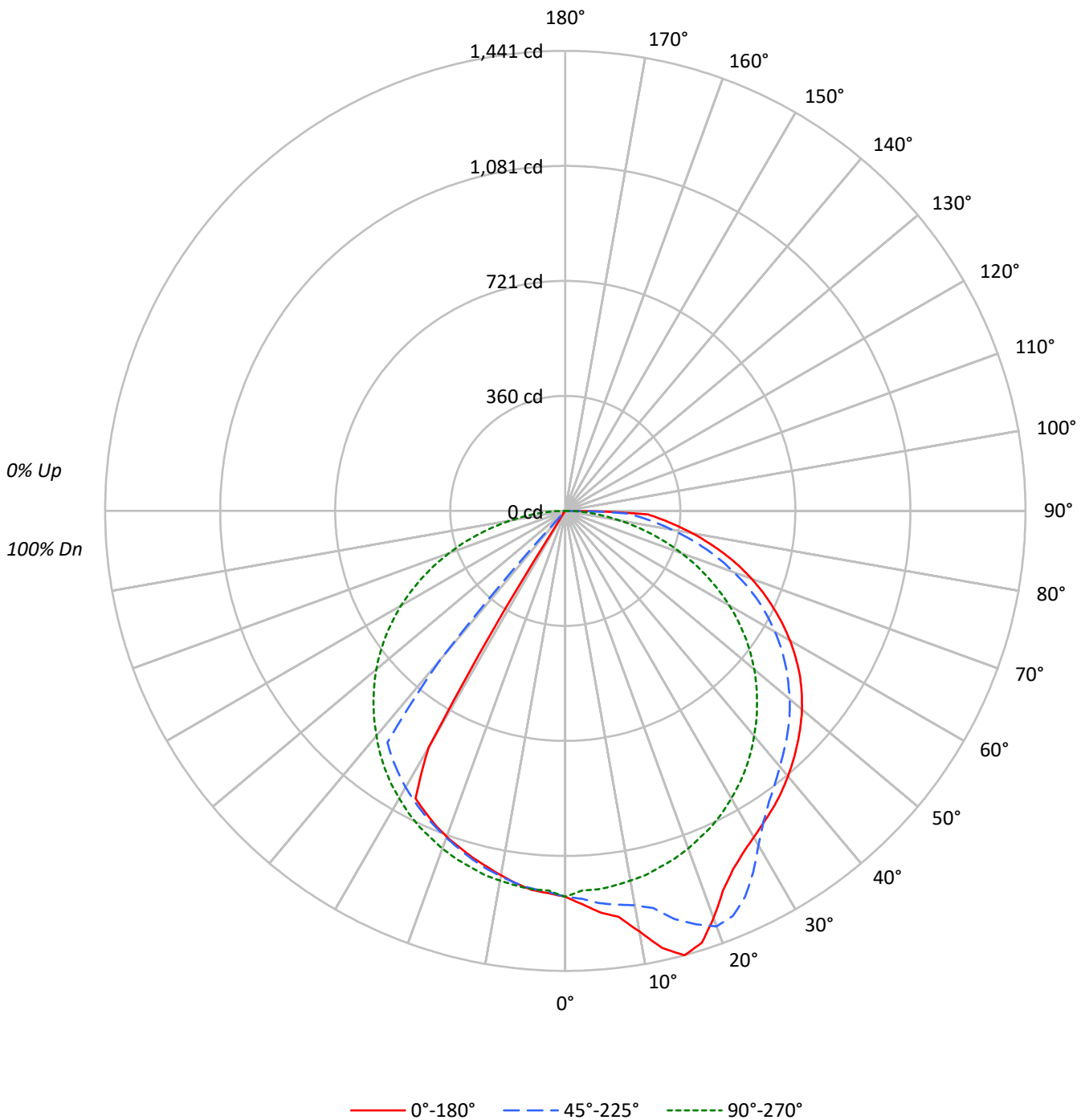
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3270.0 lumens
Efficiency: N/A
Efficacy: 155.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.28 / 1.25
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.2
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	85	85	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	71	71	71	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	30	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	27	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	15694	15694	15694	15694	15694
5°	16458	16078	15510	15483	15537
10°	17634	16538	15507	15324	15279
15°	19374	17792	15512	15177	15103
20°	18757	19140	15553	15055	15008
25°	17772	19101	15591	15005	14896
30°	17696	18132	15589	14988	12829
35°	17995	17634	15614	14990	176
40°	18387	17717	15593	10337	117
45°	18889	18075	15596	191	77
50°	19549	18529	15605	139	28
55°	20293	19055	15562	95	16
60°	21106	19704	15424	36	18
65°	22098	20481	15145	43	43
70°	23573	21341	14666	53	53
75°	25803	22712	14033	140	70
80°	30278	25417	12989	209	105
85°	45069	35682	12172	313	209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 77280 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.8	3.5
10°-20°	345.8	10.6
20°-30°	531.5	16.3
30°-40°	569.7	17.4
40°-50°	517.4	15.8
50°-60°	471.9	14.4
60°-70°	351.1	10.7
70°-80°	247.1	7.6
80°-90°	119.7	3.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	993.2	30.4
0°-40°	1562.8	47.8
0°-60°	2552.1	78.0
0°-90°	3270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3270.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1209	1209	1209	1209	1209	
5°	1263	1234	1190	1188	1192	122
15°	1441	1324	1154	1129	1124	398
25°	1240	1333	1088	1047	1040	577
35°	1135	1112	985	946	11	711
45°	1029	984	849	10	4	795
55°	896	842	687	4	1	801
65°	719	667	493	1	1	712
75°	514	453	280	3	1	542
85°	302	240	82	2	1	304
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1208.6	1208.6	1208.6	1208.6	1208.6	1208.6	1208.6	1208.6	1208.6
2.5°	1233.5	1219.7	1216.2	1225.9	1190.6	1214.1	1194.8	1198.9	1198.9
5°	1262.6	1243.2	1233.5	1230.8	1189.9	1205.8	1187.8	1187.8	1192.0
7.5°	1282.7	1261.2	1243.9	1237.0	1183.7	1197.5	1176.8	1176.8	1176.8
10°	1337.4	1297.2	1254.3	1241.8	1176.1	1186.4	1162.2	1163.6	1158.8
12.5°	1401.7	1365.7	1274.4	1239.7	1167.8	1172.6	1147.0	1146.3	1140.8
15°	1441.2	1414.2	1323.5	1237.0	1153.9	1158.1	1129.0	1126.9	1123.5
17.5°	1419.0	1414.9	1357.4	1234.9	1141.5	1138.0	1108.9	1106.8	1104.1
20°	1357.4	1367.8	1385.1	1230.8	1125.5	1118.6	1089.5	1088.2	1086.1
22.5°	1288.9	1299.3	1372.7	1237.7	1106.2	1097.8	1068.8	1067.4	1064.6
25°	1240.4	1240.4	1333.2	1254.3	1088.2	1072.9	1047.3	1045.2	1039.7
27.5°	1206.5	1200.3	1274.4	1273.0	1065.3	1048.0	1024.5	1022.4	1015.5
30°	1180.2	1169.8	1209.3	1282.0	1039.7	1021.0	999.6	997.5	855.6
32.5°	1156.7	1145.6	1154.6	1289.6	1014.1	991.9	973.2	694.3	30.5
35°	1135.2	1122.8	1112.4	1284.1	985.0	962.9	945.6	20.1	11.1
37.5°	1111.0	1101.3	1077.8	1255.0	953.9	931.7	915.1	11.1	9.7
40°	1084.7	1075.7	1045.2	1212.1	919.9	901.3	609.8	9.7	6.9
42.5°	1057.7	1050.8	1014.8	1149.8	886.0	867.3	19.4	7.6	5.5
45°	1028.6	1022.4	984.3	1074.3	849.3	832.0	10.4	5.5	4.2
47.5°	998.9	989.9	952.5	993.3	812.0	794.7	9.0	4.2	2.8
50°	967.7	958.0	917.2	922.0	772.5	755.2	6.9	2.8	1.4
52.5°	933.1	921.3	879.8	857.6	731.0	715.1	5.5	1.4	0.7
55°	896.4	883.3	841.7	801.6	687.4	669.4	4.2	1.4	0.7
57.5°	855.6	841.0	801.6	748.3	641.0	452.7	2.8	1.4	0.7
60°	812.7	798.1	758.7	698.4	593.9	31.1	1.4	1.4	0.7
62.5°	767.0	751.7	713.7	647.9	543.4	25.6	1.4	1.4	1.4
65°	719.2	701.2	666.6	596.0	492.9	21.5	1.4	1.4	1.4
67.5°	671.4	648.6	616.1	542.7	440.9	18.0	1.4	1.4	1.4
70°	620.9	596.0	562.1	488.7	386.3	14.5	1.4	1.4	1.4
72.5°	569.0	544.8	508.1	434.0	335.0	11.1	1.4	1.4	1.4
75°	514.3	492.2	452.7	379.3	279.7	8.3	2.8	1.4	1.4
77.5°	457.6	440.2	395.9	323.3	225.7	5.5	2.8	1.4	1.4
80°	404.9	385.6	339.9	266.5	173.7	4.2	2.8	2.1	1.4
82.5°	351.0	333.6	288.0	214.6	124.6	3.5	2.8	2.1	1.4
85°	302.5	285.9	239.5	167.5	81.7	2.8	2.1	2.1	1.4
87.5°	259.6	244.4	198.7	122.5	46.4	2.1	2.1	2.1	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	24.10	25.71	24.46	26.03	26.34	19.53	21.14	19.90	21.46	21.77
	3H	26.54	28.01	26.92	28.33	28.70	20.17	21.64	20.55	21.96	22.32
	4H	27.67	29.05	28.07	29.40	29.77	20.32	21.70	20.72	22.05	22.42
	6H	28.76	30.05	29.17	30.41	30.80	20.36	21.64	20.77	22.01	22.40
	8H	29.29	30.52	29.72	30.91	31.31	20.35	21.57	20.77	21.96	22.36
	12H	29.86	31.04	30.29	31.42	31.85	20.33	21.51	20.76	21.89	22.32
4H	2H	24.75	26.14	25.15	26.48	26.86	20.66	22.04	21.06	22.39	22.76
	3H	27.44	28.61	27.85	29.01	29.41	22.00	23.17	22.41	23.56	23.96
	4H	28.74	29.80	29.17	30.21	30.65	22.54	23.60	22.97	24.01	24.45
	6H	30.02	30.95	30.47	31.39	31.85	22.81	23.74	23.26	24.18	24.64
	8H	30.65	31.52	31.11	31.97	32.43	22.85	23.72	23.31	24.17	24.63
	12H	31.33	32.13	31.81	32.60	33.07	22.86	23.65	23.34	24.13	24.59
8H	4H	29.10	29.98	29.56	30.42	30.89	23.48	24.36	23.94	24.80	25.27
	6H	30.59	31.32	31.08	31.81	32.28	24.07	24.81	24.56	25.30	25.77
	8H	31.37	32.03	31.88	32.54	33.02	24.25	24.91	24.76	25.42	25.90
	12H	32.26	32.85	32.76	33.34	33.90	24.35	24.94	24.86	25.43	25.99
12H	4H	29.14	29.93	29.62	30.41	30.88	23.70	24.49	24.18	24.97	25.43
	6H	30.67	31.34	31.18	31.84	32.33	24.42	25.09	24.93	25.59	26.08
	8H	31.55	32.14	32.06	32.63	33.19	24.73	25.33	25.24	25.82	26.37