

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: P893434

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893434
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-RFLW-UNV-L835
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3500K
Light Source: -
Ballast/Driver: -

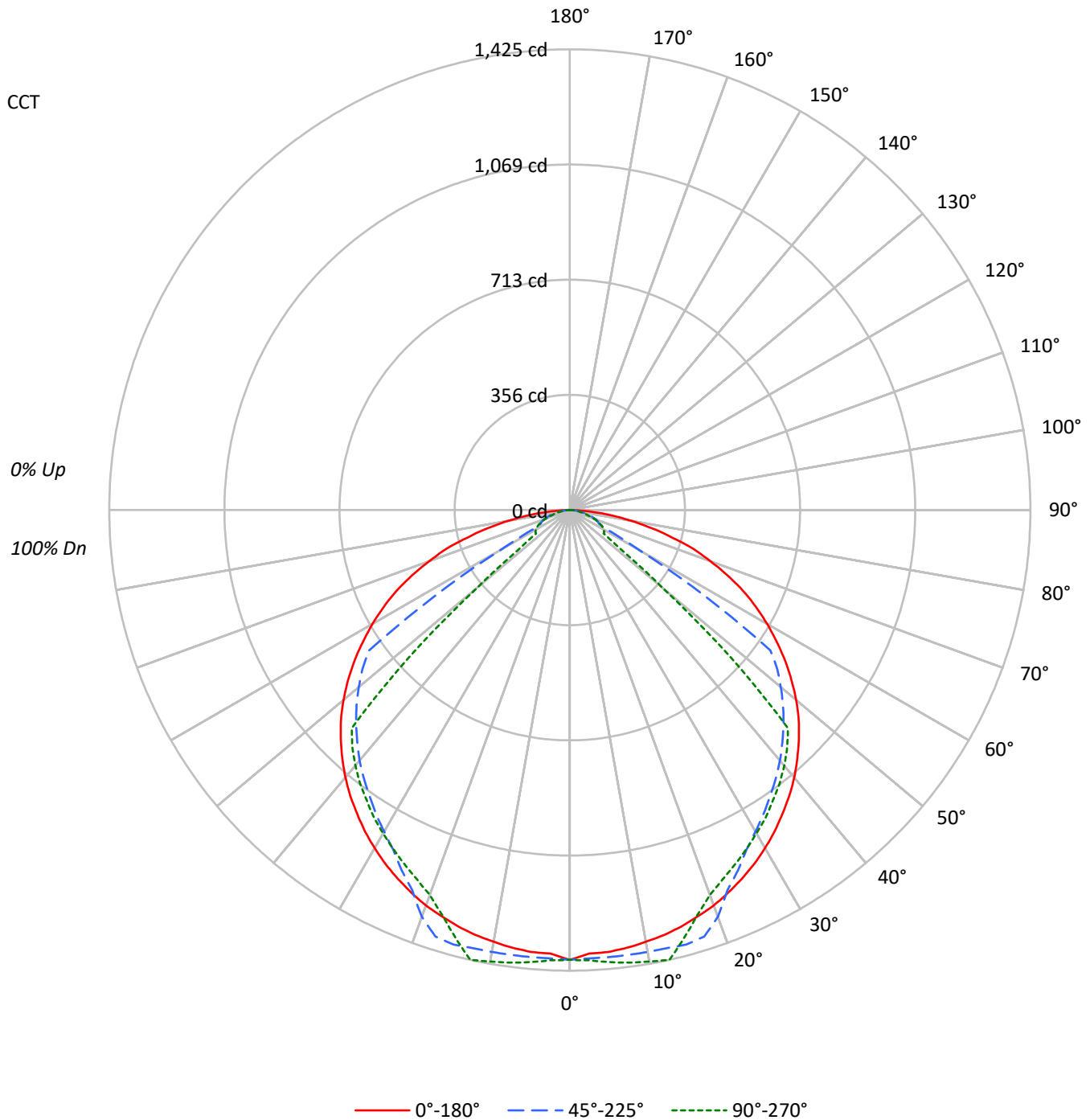
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3393.0 lumens
Efficiency: N/A
Efficacy: 160.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V): 120
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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	77	77	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	66	66	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	61	55	51	51	51	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	40	40	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	36	36	36	35
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18065	18065	18065
5°	17884	18092	18299
10°	17881	18301	18701
15°	17929	18702	18401
20°	17989	18496	17504
25°	18034	17623	17326
30°	18108	17223	17318
35°	18184	17122	17374
40°	18309	17146	17497
45°	18399	17168	17519
50°	18466	17209	7573
55°	18419	17156	2889
60°	18314	6547	3148
65°	18186	3039	3235
70°	17567	3269	3030
75°	16406	3121	2639
80°	14432	2744	2266
85°	11412	2384	1907

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 18466 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.9	3.9
10°-20°	385.8	11.4
20°-30°	575.6	17.0
30°-40°	697.7	20.6
40°-50°	714.4	21.1
50°-60°	475.1	14.0
60°-70°	270.8	8.0
70°-80°	113.8	3.4
80°-90°	27.1	0.8
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°	1094.2	32.2
0°-40°	1791.9	52.8
0°-60°	2981.3	87.9
0°-90°	3393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3393.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1372	1399	1388	1391	1404	130
15°	1334	1370	1391	1386	1369	377
25°	1259	1319	1230	1203	1209	581
35°	1147	1168	1080	1085	1096	719
45°	1002	941	935	946	954	773
55°	814	745	758	166	128	727
65°	592	530	99	105	105	582
75°	327	69	62	54	53	347
85°	77	19	16	13	13	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1391.2	1391.2	1391.2	1391.2	1391.2
2.5°	1373.6	1402.3	1388.0	1389.6	1394.3
5°	1372.0	1399.1	1388.0	1391.2	1403.9
7.5°	1365.6	1394.3	1388.0	1397.5	1411.9
10°	1356.1	1389.6	1388.0	1403.9	1418.3
12.5°	1346.5	1380.0	1388.0	1411.9	1424.7
15°	1333.7	1370.4	1391.2	1386.4	1368.8
17.5°	1317.8	1360.8	1383.2	1314.6	1313.0
20°	1301.8	1348.1	1338.5	1273.1	1266.7
22.5°	1281.1	1335.3	1273.1	1228.4	1236.4
25°	1258.7	1319.4	1230.0	1202.9	1209.3
27.5°	1234.8	1303.4	1183.8	1174.2	1182.2
30°	1207.7	1281.1	1148.7	1145.5	1155.0
32.5°	1179.0	1238.0	1115.2	1116.8	1127.9
35°	1147.1	1167.8	1080.1	1084.8	1096.0
37.5°	1115.2	1102.4	1046.6	1054.5	1065.7
40°	1080.1	1051.3	1011.5	1019.4	1032.2
42.5°	1041.8	997.1	973.2	984.3	995.5
45°	1001.9	941.3	934.9	946.0	954.0
47.5°	960.4	893.4	895.0	903.0	676.4
50°	914.1	845.5	851.9	590.3	374.9
52.5°	864.7	796.1	808.8	328.6	189.8
55°	813.6	745.0	757.8	165.9	127.6
57.5°	759.4	694.0	494.6	119.7	126.0
60°	705.2	639.7	252.1	118.1	121.2
62.5°	649.3	585.5	119.7	113.3	114.9
65°	591.9	529.7	98.9	105.3	105.3
67.5°	528.1	470.6	94.1	94.1	92.5
70°	462.7	390.9	86.1	81.4	79.8
72.5°	402.0	150.0	75.0	67.0	65.4
75°	327.0	68.6	62.2	54.2	52.6
77.5°	260.0	57.4	49.5	43.1	41.5
80°	193.0	44.7	36.7	31.9	30.3
82.5°	134.0	30.3	25.5	20.7	20.7
85°	76.6	19.1	16.0	12.8	12.8
87.5°	30.3	9.6	8.0	4.8	4.8
90°	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	22.98	24.50	23.35	24.82	25.13	10.75	12.27	11.11	12.58	12.90
	3H	25.00	26.36	25.38	26.69	27.05	13.06	14.42	13.44	14.75	15.11
	4H	25.46	26.73	25.86	27.08	27.46	13.77	15.05	14.17	15.39	15.77
	6H	25.87	27.04	26.28	27.41	27.80	14.26	15.43	14.67	15.80	16.19
	8H	26.02	27.13	26.45	27.52	27.93	14.39	15.51	14.82	15.90	16.30
	12H	26.12	27.18	26.55	27.57	28.00	14.48	15.55	14.91	15.93	16.36
4H	2H	22.82	24.09	23.22	24.44	24.82	11.55	12.82	11.95	13.17	13.54
	3H	25.03	26.07	25.44	26.47	26.87	14.06	15.10	14.47	15.50	15.90
	4H	25.47	26.41	25.91	26.83	27.27	14.87	15.81	15.31	16.23	16.67
	6H	25.94	26.75	26.40	27.20	27.66	15.47	16.28	15.92	16.72	17.19
	8H	26.13	26.89	26.59	27.34	27.80	15.64	16.40	16.10	16.84	17.31
	12H	26.28	26.96	26.76	27.44	27.91	15.75	16.43	16.24	16.91	17.38
8H	4H	25.39	26.15	25.86	26.60	27.06	15.71	16.47	16.18	16.92	17.39
	6H	25.85	26.48	26.35	26.97	27.45	16.34	16.97	16.83	17.46	17.93
	8H	26.05	26.62	26.56	27.13	27.61	16.54	17.10	17.05	17.61	18.10
	12H	26.23	26.74	26.74	27.23	27.79	16.69	17.19	17.20	17.69	18.25
12H	4H	25.36	26.04	25.84	26.52	26.99	15.78	16.46	16.27	16.94	17.41
	6H	25.80	26.37	26.32	26.88	27.37	16.43	17.00	16.94	17.51	17.99
	8H	26.03	26.53	26.54	27.02	27.59	16.68	17.18	17.19	17.68	18.24