

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: P893660

Luminaire Tested: 4MB-5SL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893660
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-5SL-RFLW-UNV-L850
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

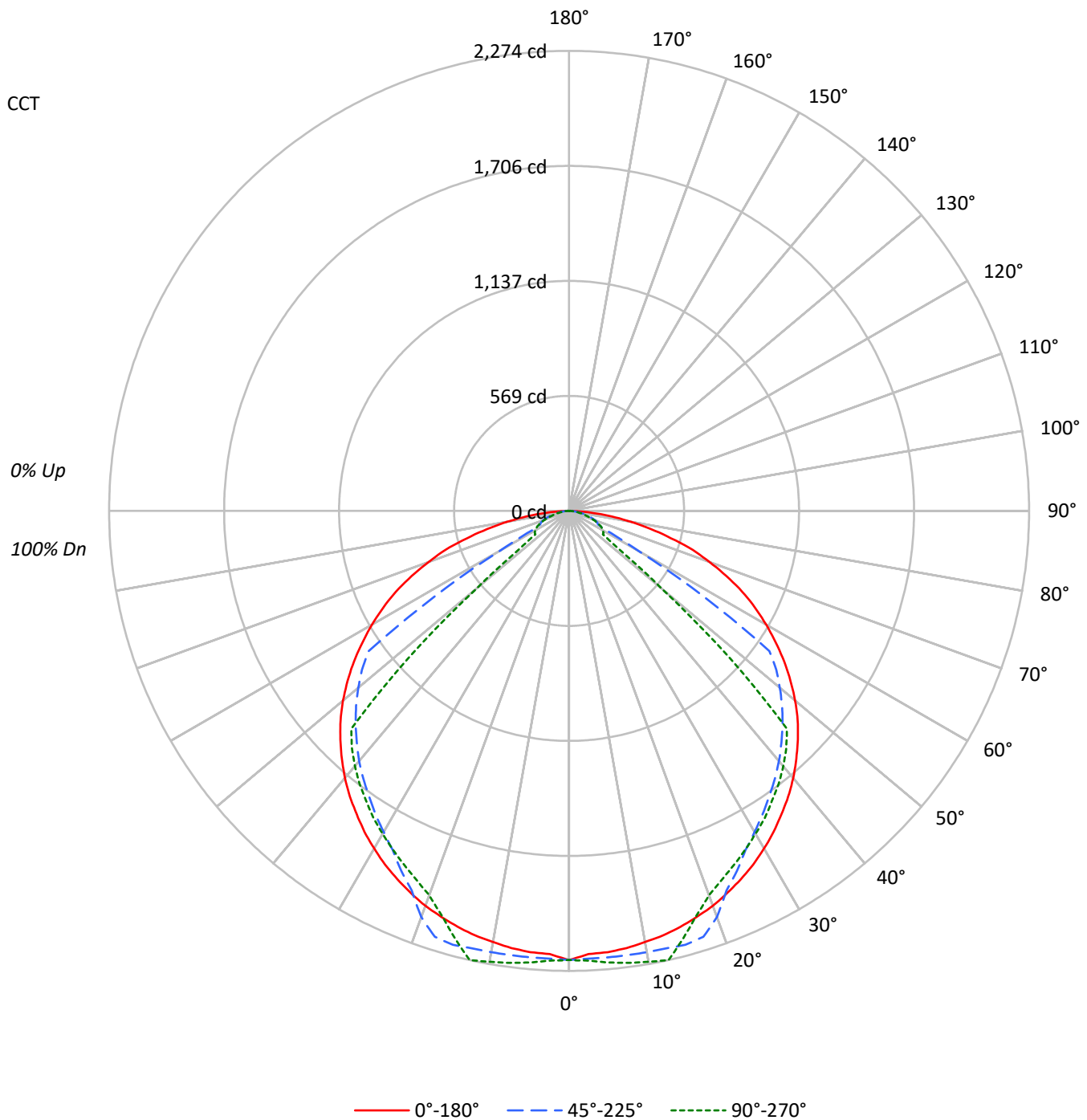
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5415.0 lumens
Efficiency: N/A
Efficacy: 154.7 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): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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°	28829	28829	28829
5°	28541	28873	29205
10°	28536	29207	29845
15°	28614	29846	29367
20°	28709	29519	27935
25°	28782	28125	27651
30°	28899	27487	27640
35°	29018	27324	27728
40°	29218	27362	27923
45°	29362	27399	27961
50°	29472	27466	12086
55°	29396	27379	4612
60°	29227	10448	5025
65°	29023	4852	5162
70°	28034	5220	4833
75°	26184	4982	4214
80°	23039	4382	3619
85°	18206	3799	3039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 29472 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.0	3.9
10°-20°	615.7	11.4
20°-30°	918.6	17.0
30°-40°	1113.4	20.6
40°-50°	1140.1	21.1
50°-60°	758.2	14.0
60°-70°	432.1	8.0
70°-80°	181.6	3.4
80°-90°	43.3	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°	1746.3	32.2
0°-40°	2859.7	52.8
0°-60°	4758.0	87.9
0°-90°	5415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5415.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2220	2220	2220	2220	2220	
5°	2190	2233	2215	2220	2241	208
15°	2128	2187	2220	2213	2184	601
25°	2009	2106	1963	1920	1930	927
35°	1831	1864	1724	1731	1749	1147
45°	1599	1502	1492	1510	1523	1234
55°	1298	1189	1209	265	204	1160
65°	945	845	158	168	168	930
75°	522	110	99	87	84	554
85°	122	31	26	20	20	146
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2220.2	2220.2	2220.2	2220.2	2220.2
2.5°	2192.2	2238.0	2215.1	2217.6	2225.3
5°	2189.6	2232.9	2215.1	2220.2	2240.6
7.5°	2179.5	2225.3	2215.1	2230.4	2253.3
10°	2164.2	2217.6	2215.1	2240.6	2263.5
12.5°	2148.9	2202.4	2215.1	2253.3	2273.7
15°	2128.5	2187.1	2220.2	2212.6	2184.5
17.5°	2103.1	2171.8	2207.5	2098.0	2095.4
20°	2077.6	2151.4	2136.2	2031.8	2021.6
22.5°	2044.5	2131.1	2031.8	1960.5	1973.2
25°	2008.9	2105.6	1963.0	1919.8	1929.9
27.5°	1970.7	2080.2	1889.2	1873.9	1886.7
30°	1927.4	2044.5	1833.2	1828.1	1843.4
32.5°	1881.6	1975.8	1779.7	1782.3	1800.1
35°	1830.6	1863.7	1723.7	1731.3	1749.2
37.5°	1779.7	1759.3	1670.2	1683.0	1700.8
40°	1723.7	1677.9	1614.2	1627.0	1647.3
42.5°	1662.6	1591.3	1553.1	1570.9	1588.8
45°	1598.9	1502.2	1492.0	1509.8	1522.6
47.5°	1532.7	1425.8	1428.4	1441.1	1079.5
50°	1458.9	1349.4	1359.6	942.1	598.3
52.5°	1380.0	1270.5	1290.9	524.5	303.0
55°	1298.5	1189.0	1209.4	264.8	203.7
57.5°	1211.9	1107.5	789.3	191.0	201.1
60°	1125.4	1021.0	402.3	188.4	193.5
62.5°	1036.3	934.4	191.0	180.8	183.3
65°	944.6	845.3	157.9	168.0	168.0
67.5°	842.8	751.1	150.2	150.2	147.7
70°	738.4	623.8	137.5	129.9	127.3
72.5°	641.6	239.3	119.7	106.9	104.4
75°	521.9	109.5	99.3	86.6	84.0
77.5°	415.0	91.7	78.9	68.7	66.2
80°	308.1	71.3	58.6	50.9	48.4
82.5°	213.9	48.4	40.7	33.1	33.1
85°	122.2	30.6	25.5	20.4	20.4
87.5°	48.4	15.3	12.7	7.6	7.6
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	24.60	26.13	24.97	26.44	26.75	12.37	13.89	12.74	14.21	14.52
	3H	26.62	27.98	27.00	28.31	28.67	14.69	16.04	15.06	16.37	16.73
	4H	27.09	28.36	27.49	28.71	29.09	15.40	16.67	15.80	17.02	17.40
	6H	27.49	28.67	27.91	29.03	29.43	15.88	17.05	16.29	17.42	17.81
	8H	27.64	28.76	28.07	29.15	29.55	16.02	17.14	16.45	17.53	17.93
	12H	27.74	28.81	28.17	29.19	29.62	16.11	17.17	16.54	17.56	17.99
4H	2H	24.45	25.72	24.85	26.07	26.44	13.17	14.44	13.57	14.79	15.17
	3H	26.65	27.70	27.06	28.10	28.50	15.68	16.73	16.09	17.13	17.53
	4H	27.10	28.04	27.53	28.45	28.89	16.50	17.44	16.93	17.86	18.29
	6H	27.56	28.38	28.02	28.82	29.28	17.09	17.91	17.55	18.35	18.81
	8H	27.75	28.51	28.22	28.96	29.43	17.26	18.02	17.73	18.47	18.93
	12H	27.91	28.58	28.39	29.06	29.54	17.38	18.06	17.86	18.54	19.01
8H	4H	27.01	27.78	27.48	28.22	28.69	17.34	18.10	17.80	18.54	19.01
	6H	27.47	28.10	27.97	28.59	29.07	17.96	18.59	18.46	19.08	19.56
	8H	27.67	28.24	28.19	28.75	29.24	18.16	18.73	18.68	19.24	19.73
	12H	27.86	28.36	28.37	28.85	29.42	18.32	18.82	18.83	19.31	19.88
12H	4H	26.98	27.66	27.47	28.14	28.61	17.41	18.09	17.89	18.57	19.04
	6H	27.43	27.99	27.94	28.50	28.99	18.05	18.62	18.57	19.13	19.62
	8H	27.65	28.15	28.16	28.64	29.21	18.31	18.81	18.82	19.30	19.87