

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P860017

Luminaire Tested: **SPHB-24SE-M-L740-CD**

Issue Date: 7/11/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P860017  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-24SE-M-L740-CD  
Description: 24000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 4000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

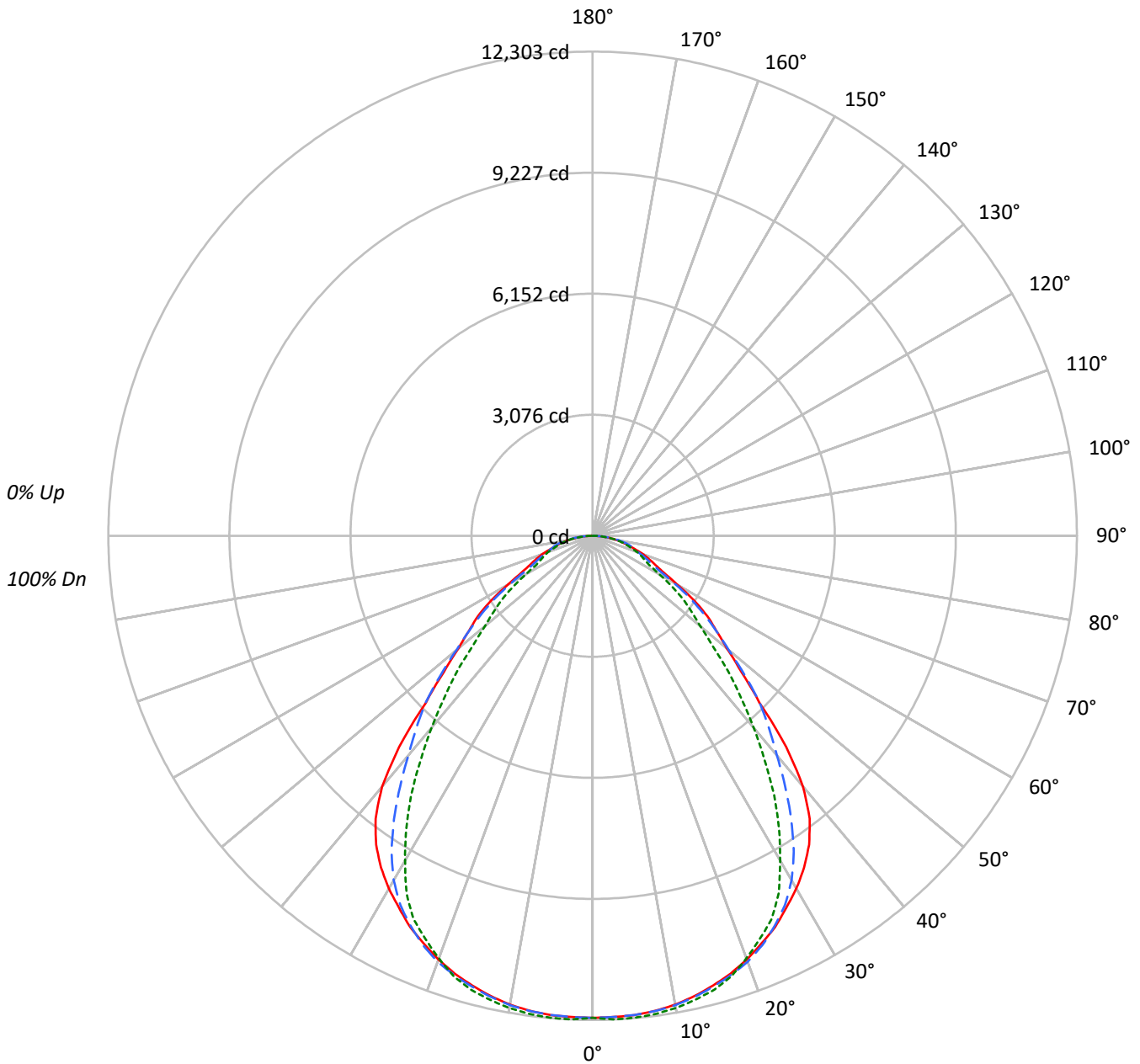
Lumens per Lamp: N/A  
Luminaire Lumens: 25423.0 lumens  
Efficiency: N/A  
Efficacy: 160.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 158.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
RC	80									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	100																			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

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

	0°	45°	90°
0°	95536	95536	95536
5°	95724	95699	96242
10°	95807	95910	96498
15°	95528	95775	96441
20°	95111	95593	94828
25°	94415	94151	92552
30°	93220	91022	85828
35°	91262	83741	76496
40°	84694	74118	64791
45°	66075	66253	53620
50°	53966	54730	43302
55°	48352	46528	38049
60°	38708	36643	30443
65°	32439	29696	26922
70°	30799	28295	27410
75°	27946	30037	26436
80°	28083	30693	27863
85°	24432	28629	23277



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1164.6	4.6
10°-20°	3349.4	13.2
20°-30°	5000.1	19.7
30°-40°	5455.9	21.5
40°-50°	4463.2	17.6
50°-60°	2934.5	11.5
60°-70°	1683.6	6.6
70°-80°	1020.2	4.0
80°-90°	342.6	1.3
90°-100°	8.9	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°	9514.0	37.4
0°-40°	14969.9	58.9
0°-60°	22367.7	88.0
0°-90°	25414.1	100.0
90°-120°	8.9	0.0
90°-150°	8.9	0.0
90°-180°	9.0	0.0
0°-180°	25423.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12248	12248	12248	12248	12248	
5°	12226	12206	12222	12273	12292	###
15°	11830	11828	11861	11936	11943	3339
25°	10970	10996	10940	10807	10754	5047
35°	9584	9368	8794	8195	8034	5940
45°	5990	6438	6006	5302	4861	4755
55°	3556	3459	3422	2940	2798	3131
65°	1758	1732	1609	1565	1459	1797
75°	927	1003	997	956	877	1004
85°	273	310	320	280	260	296
90°	2	23	45	53	56	13
95°	2	3	5	5	3	1
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12248.3	12248.3	12248.3	12248.3	12248.3
2.5°	12240.2	12222.5	12238.6	12288.7	12303.2
5°	12225.7	12206.3	12222.5	12272.6	12291.9
7.5°	12175.6	12164.3	12180.5	12230.5	12254.8
10°	12096.5	12083.5	12109.4	12153.0	12183.7
12.5°	11978.5	11973.7	11997.9	12060.9	12073.9
15°	11829.9	11828.3	11860.6	11936.5	11943.0
17.5°	11661.9	11660.3	11700.7	11750.8	11733.0
20°	11458.4	11469.7	11516.5	11469.7	11424.4
22.5°	11214.4	11250.0	11261.3	11114.3	11091.7
25°	10970.5	10996.3	10939.8	10807.3	10754.0
27.5°	10655.5	10686.2	10581.2	10392.2	10240.3
30°	10350.2	10321.1	10106.2	9741.1	9529.5
32.5°	9999.6	9896.2	9510.1	9006.1	8813.9
35°	9584.4	9368.0	8794.5	8195.2	8033.6
37.5°	9059.4	8663.6	8036.8	7411.7	7167.7
40°	8317.9	7860.8	7279.2	6633.0	6363.2
42.5°	7279.2	7109.6	6628.2	5901.2	5579.8
45°	5990.1	6437.6	6006.2	5301.9	4860.9
47.5°	5127.4	5749.4	5230.8	4722.0	4114.5
50°	4447.3	4875.4	4510.3	4051.5	3568.5
52.5°	3956.2	4085.5	3938.5	3434.4	3159.8
55°	3555.6	3458.7	3421.5	2940.1	2798.0
57.5°	3058.0	3004.7	2909.4	2563.7	2376.3
60°	2481.3	2594.4	2348.9	2250.3	1951.5
62.5°	2038.7	2150.2	1886.8	1880.4	1631.6
65°	1757.6	1731.8	1609.0	1565.4	1458.7
67.5°	1555.7	1474.9	1432.9	1376.4	1339.2
70°	1350.5	1316.6	1240.7	1252.0	1201.9
72.5°	1126.0	1169.6	1093.7	1114.7	1024.2
75°	927.3	1003.2	996.7	956.3	877.2
77.5°	764.1	844.9	859.4	822.3	757.6
80°	625.2	680.1	683.3	660.7	620.3
82.5°	458.8	491.1	515.3	476.6	450.7
85°	273.0	310.2	319.9	279.5	260.1
87.5°	88.8	124.4	138.9	143.8	145.4
90°	1.6	22.6	45.2	53.3	56.5
92.5°	1.6	6.5	9.7	14.5	16.2
95°	1.6	3.2	4.8	4.8	3.2
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)