

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: P859981

Luminaire Tested: **SPHB-18SE-W-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: P859981  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-18SE-W-L740-CD  
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

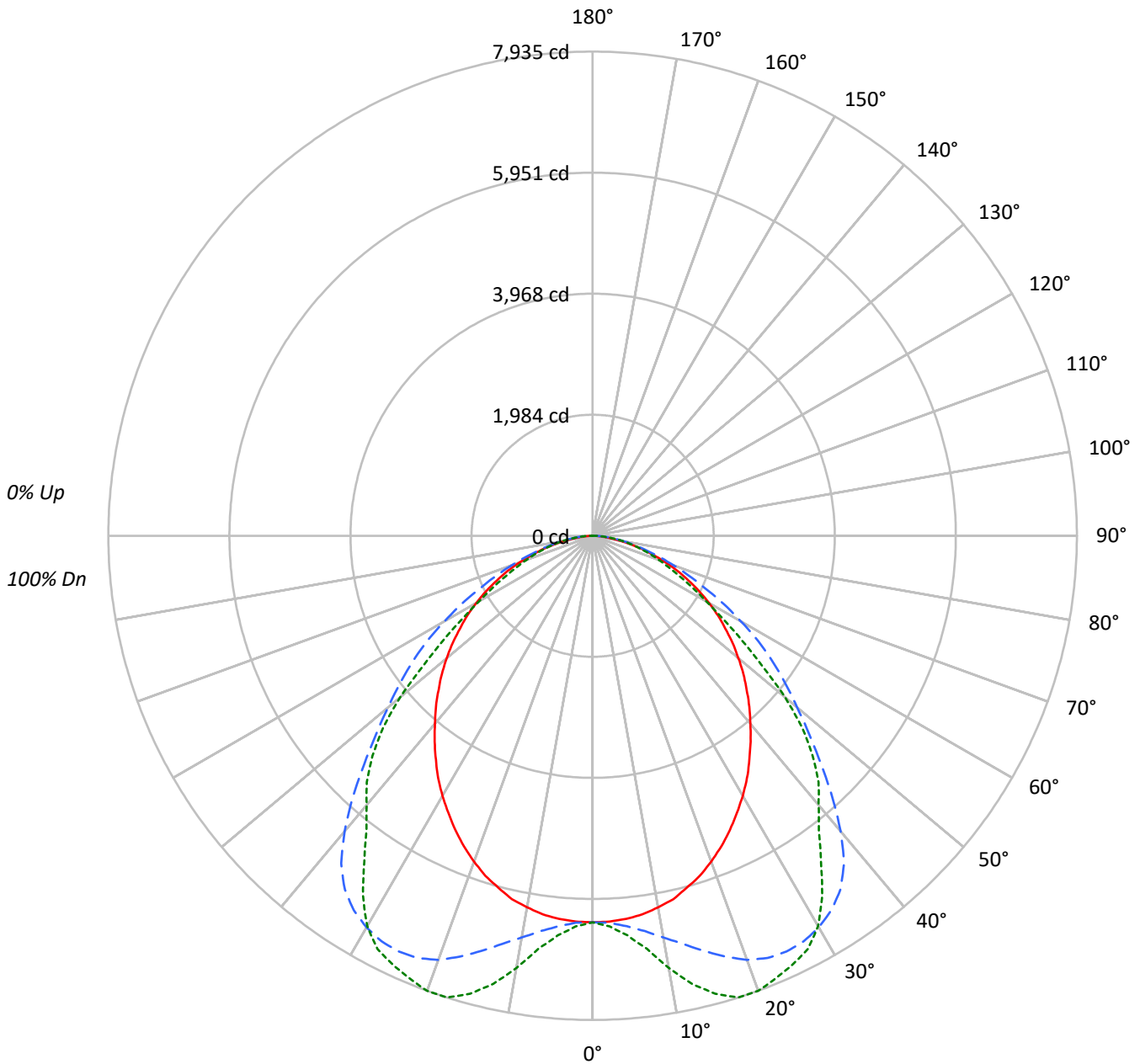
Lumens per Lamp: N/A  
Luminaire Lumens: 19931.0 lumens  
Efficiency: N/A  
Efficacy: 169.8 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 117.4  
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

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CATALOG NUMBER: SPHB-18SE-W-L740-CD

### 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	100			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

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

	0°	45°	90°
0°	49408	49408	49408
5°	49354	50286	51477
10°	48964	52939	56952
15°	48199	56881	62733
20°	47155	61404	65866
25°	45795	64717	66730
30°	44304	66742	66549
35°	42641	67413	62098
40°	40923	64368	58652
45°	39375	58345	56272
50°	37840	53052	49886
55°	36110	49017	40595
60°	34324	43700	33434
65°	31961	37549	28989
70°	29077	32060	26219
75°	24971	26906	24037
80°	19517	23079	22293
85°	13200	19581	18382



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	621.9	3.1
10°-20°	1972.1	9.9
20°-30°	3227.4	16.2
30°-40°	3937.2	19.8
40°-50°	3899.4	19.6
50°-60°	3118.2	15.6
60°-70°	1945.3	9.8
70°-80°	953.1	4.8
80°-90°	250.0	1.3
90°-100°	6.6	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°	5821.4	29.2
0°-40°	9758.6	49.0
0°-60°	16776.1	84.2
0°-90°	19924.4	100.0
90°-120°	6.6	0.0
90°-150°	6.6	0.0
90°-180°	7.0	0.0
0°-180°	19931.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6334	6334	6334	6334	6334	
5°	6303	6331	6422	6534	6575	598
15°	5969	6316	7044	7605	7769	1683
25°	5321	6222	7520	7738	7754	2449
35°	4478	5984	7080	6702	6522	2801
45°	3570	5545	5289	5112	5101	2757
55°	2655	4258	3604	3256	2985	2379
65°	1732	2389	2034	1687	1571	1717
75°	829	1015	893	818	798	880
85°	148	209	219	208	205	183
90°	1	21	39	49	51	8
95°	1	3	3	2	2	0
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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CATALOG NUMBER: SPHB-18SE-W-L740-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6334.4	6334.4	6334.4	6334.4	6334.4
2.5°	6328.0	6325.6	6348.6	6390.7	6409.7
5°	6303.4	6331.2	6422.4	6534.2	6574.6
7.5°	6259.0	6333.6	6535.0	6740.3	6827.5
10°	6182.1	6335.2	6684.0	7046.4	7190.7
12.5°	6102.8	6329.6	6849.7	7362.7	7520.5
15°	5968.8	6316.1	7044.0	7604.6	7768.7
17.5°	5844.4	6300.3	7231.1	7809.9	7934.4
20°	5681.0	6277.3	7397.6	7872.6	7935.2
22.5°	5509.8	6259.0	7489.6	7830.5	7849.6
25°	5321.1	6221.8	7519.7	7737.8	7753.6
27.5°	5119.7	6188.5	7491.2	7622.8	7636.3
30°	4919.1	6128.2	7410.3	7443.6	7388.9
32.5°	4709.0	6068.0	7279.5	7129.6	7002.0
35°	4478.2	5983.9	7079.7	6701.5	6521.5
37.5°	4250.7	5903.0	6768.1	6222.6	6087.0
40°	4019.1	5803.1	6321.7	5775.4	5760.3
42.5°	3800.3	5695.3	5816.6	5427.3	5478.1
45°	3569.6	5545.4	5289.3	5111.7	5101.4
47.5°	3350.7	5338.5	4809.6	4762.9	4657.4
50°	3118.4	5053.1	4372.0	4327.6	4111.1
52.5°	2890.9	4689.1	3981.1	3814.6	3499.0
55°	2655.4	4257.8	3604.5	3256.4	2985.2
57.5°	2436.5	3783.7	3221.5	2770.3	2526.9
60°	2200.3	3303.2	2801.3	2343.8	2143.2
62.5°	1968.7	2829.8	2420.7	1980.6	1847.4
65°	1731.7	2389.0	2034.5	1687.3	1570.7
67.5°	1504.9	2007.6	1700.7	1422.4	1344.7
70°	1275.0	1628.6	1405.8	1194.9	1149.7
72.5°	1037.9	1301.1	1137.0	1008.6	974.5
75°	828.6	1014.9	892.8	817.5	797.6
77.5°	616.9	754.8	697.7	653.3	647.8
80°	434.5	544.7	513.8	505.1	496.3
82.5°	277.5	356.0	365.5	360.0	353.6
85°	147.5	209.3	218.8	207.7	205.4
87.5°	59.5	91.2	98.3	108.6	111.8
90°	0.8	21.4	38.9	49.2	50.7
92.5°	0.8	4.8	5.6	5.6	4.8
95°	0.8	3.2	3.2	2.4	1.6
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)