

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: P859964

Luminaire Tested: **SPHB-18SE-M-L750-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: P859964  
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-18SE-M-L750-CD  
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens and, 5000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

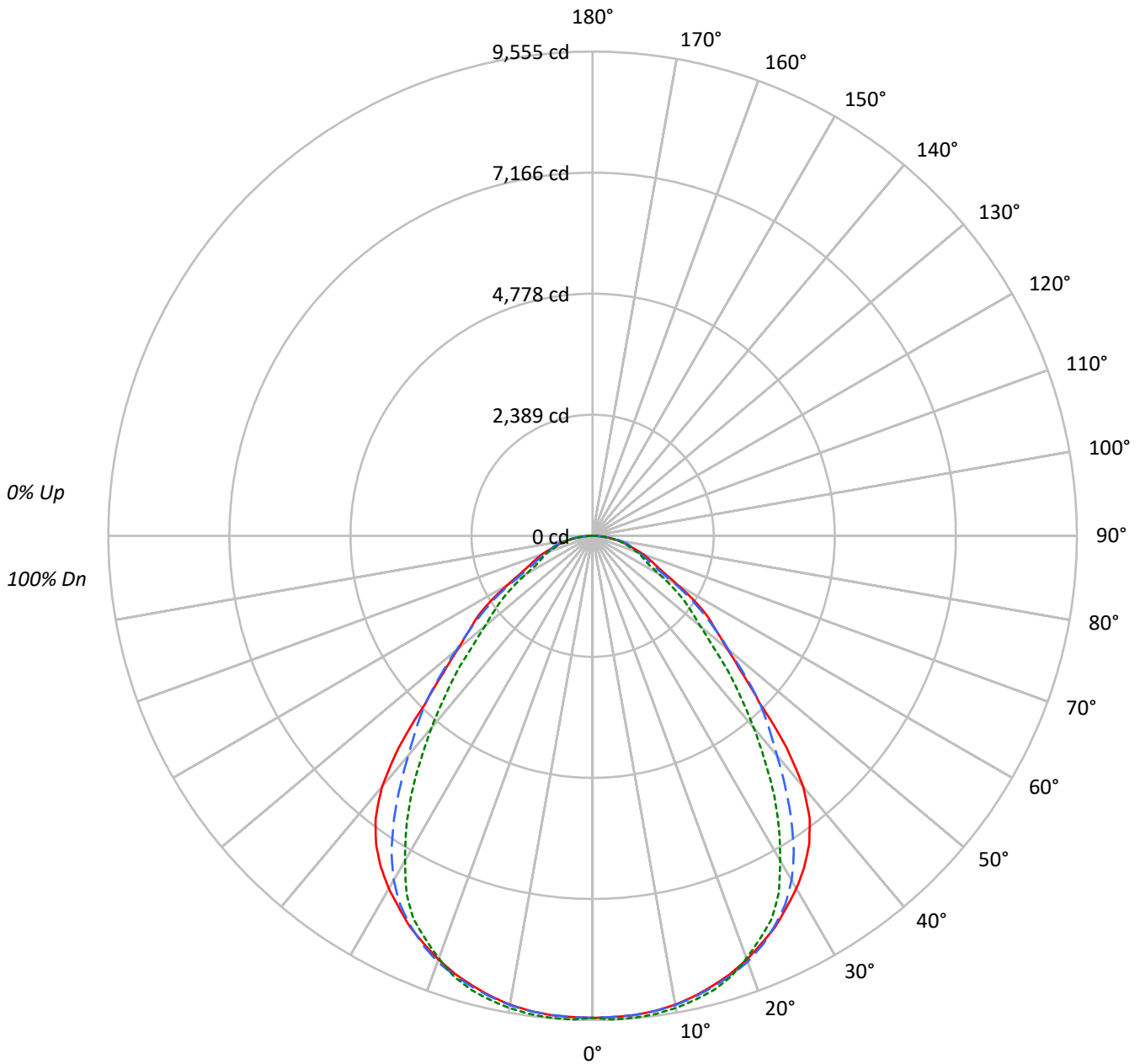
Lumens per Lamp: N/A  
Luminaire Lumens: 19745.0 lumens  
Efficiency: N/A  
Efficacy: 168.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 117.4  
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°	74199	74199	74199
5°	74345	74325	74747
10°	74409	74489	74946
15°	74192	74385	74901
20°	73868	74243	73650
25°	73328	73123	71881
30°	72400	70694	66660
35°	70880	65038	59411
40°	65778	57564	50321
45°	51317	51456	41643
50°	41914	42507	33631
55°	37553	36137	29552
60°	30063	28459	23643
65°	25195	23063	20911
70°	23921	21975	21289
75°	21704	23329	20532
80°	21812	23838	21642
85°	18973	22230	18078



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	904.5	4.6
10°-20°	2601.3	13.2
20°-30°	3883.3	19.7
30°-40°	4237.4	21.5
40°-50°	3466.4	17.6
50°-60°	2279.1	11.5
60°-70°	1307.6	6.6
70°-80°	792.4	4.0
80°-90°	266.1	1.3
90°-100°	6.9	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°	7389.2	37.4
0°-40°	11626.5	58.9
0°-60°	17372.0	88.0
0°-90°	19738.1	100.0
90°-120°	6.9	0.0
90°-150°	6.9	0.0
90°-180°	7.0	0.0
0°-180°	19745.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9513	9513	9513	9513	9513	
5°	9495	9480	9493	9532	9547	903
15°	9188	9187	9212	9271	9276	2593
25°	8520	8540	8496	8394	8352	3920
35°	7444	7276	6830	6365	6239	4614
45°	4652	5000	4665	4118	3775	3693
55°	2762	2686	2657	2284	2173	2432
65°	1365	1345	1250	1216	1133	1396
75°	720	779	774	743	681	779
85°	212	241	248	217	202	230
90°	1	18	35	41	44	10
95°	1	2	4	4	2	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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CATALOG NUMBER: SPHB-18SE-M-L750-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9512.8	9512.8	9512.8	9512.8	9512.8
2.5°	9506.5	9492.7	9505.2	9544.1	9555.4
5°	9495.2	9480.1	9492.7	9531.6	9546.6
7.5°	9456.3	9447.5	9460.1	9499.0	9517.8
10°	9394.8	9384.8	9404.9	9438.7	9462.6
12.5°	9303.2	9299.5	9318.3	9367.2	9377.3
15°	9187.8	9186.6	9211.7	9270.6	9275.6
17.5°	9057.3	9056.1	9087.4	9126.3	9112.5
20°	8899.2	8908.0	8944.4	8908.0	8872.9
22.5°	8709.8	8737.4	8746.2	8632.0	8614.4
25°	8520.3	8540.4	8496.5	8393.6	8352.2
27.5°	8275.7	8299.5	8218.0	8071.2	7953.2
30°	8038.6	8016.0	7849.1	7565.5	7401.2
32.5°	7766.3	7686.0	7386.1	6994.7	6845.4
35°	7443.8	7275.7	6830.3	6364.8	6239.4
37.5°	7036.1	6728.7	6241.9	5756.3	5566.9
40°	6460.2	6105.1	5653.5	5151.6	4942.1
42.5°	5653.5	5521.7	5147.8	4583.2	4333.6
45°	4652.2	4999.8	4664.8	4117.8	3775.2
47.5°	3982.3	4465.3	4062.6	3667.3	3195.6
50°	3454.1	3786.5	3503.0	3146.7	2771.5
52.5°	3072.6	3173.0	3058.8	2667.4	2454.1
55°	2761.5	2686.2	2657.4	2283.5	2173.1
57.5°	2375.1	2333.7	2259.6	1991.1	1845.6
60°	1927.1	2015.0	1824.3	1747.7	1515.6
62.5°	1583.4	1669.9	1465.4	1460.4	1267.2
65°	1365.1	1345.0	1249.6	1215.8	1133.0
67.5°	1208.2	1145.5	1112.9	1069.0	1040.1
70°	1048.9	1022.5	963.6	972.4	933.5
72.5°	874.5	908.4	849.4	865.7	795.4
75°	720.2	779.1	774.1	742.8	681.3
77.5°	593.5	656.2	667.5	638.6	588.4
80°	485.6	528.2	530.7	513.2	481.8
82.5°	356.3	381.4	400.2	370.1	350.0
85°	212.0	240.9	248.4	217.1	202.0
87.5°	69.0	96.6	107.9	111.7	112.9
90°	1.3	17.6	35.1	41.4	43.9
92.5°	1.3	5.0	7.5	11.3	12.5
95°	1.3	2.5	3.8	3.8	2.5
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)