

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: P859864

Luminaire Tested: **SPHB-12SE-N-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: P859864  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-12SE-N-L740-CD  
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 4000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

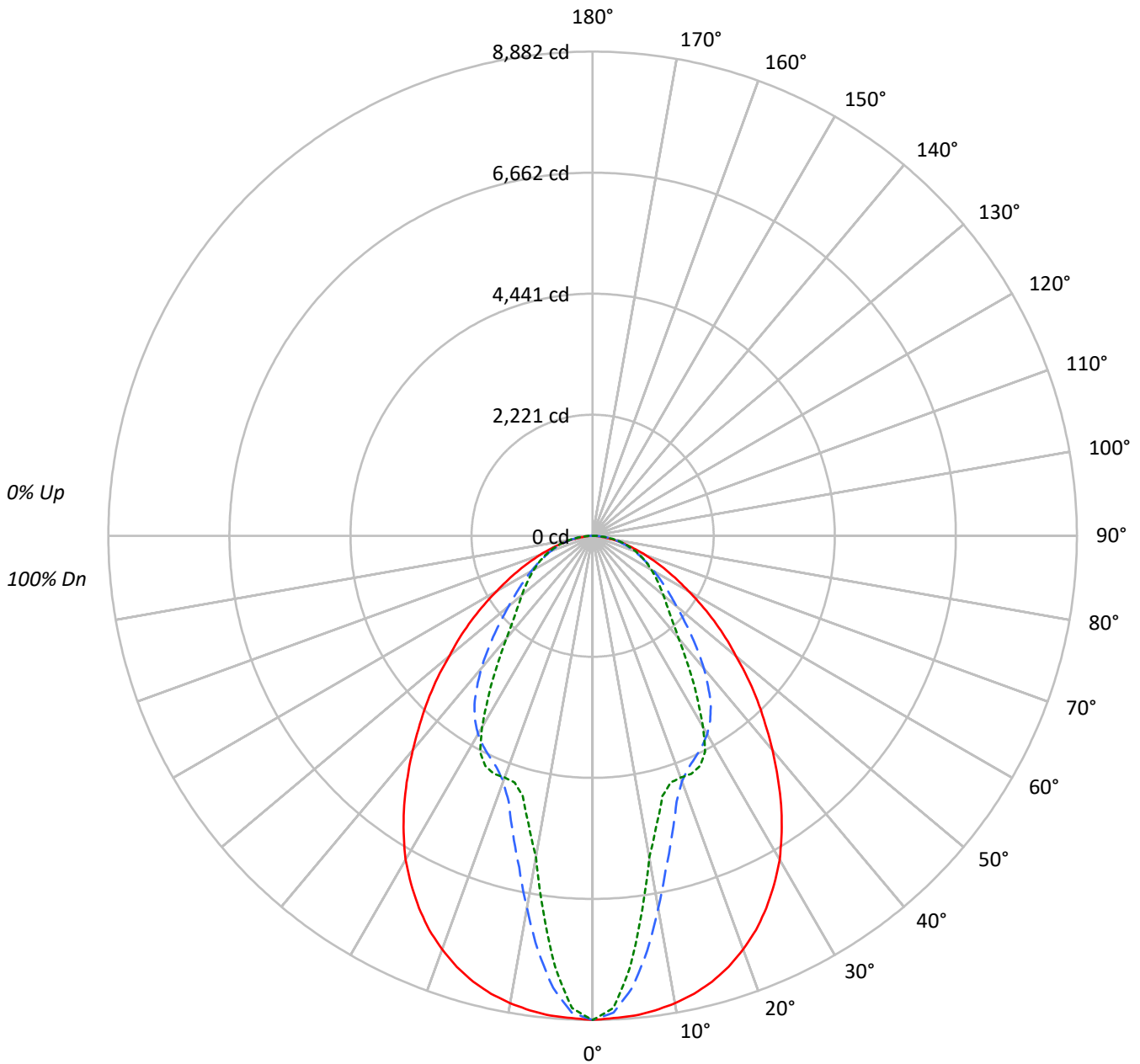
Lumens per Lamp: N/A  
Luminaire Lumens: 13017.0 lumens  
Efficiency: N/A  
Efficacy: 170.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 76.3  
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

TEST NUMBER: P859864

CATALOG NUMBER: SPHB-12SE-N-L740-CD

### Luminous Intensity Polar Plot





TEST NUMBER: P859864

CATALOG NUMBER: SPHB-12SE-N-L740-CD

**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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74																			
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																			
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40																			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																			

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

	0°	45°	90°
0°	69277	69277	69277
5°	69197	65183	62098
10°	68960	54944	47366
15°	68386	45609	39915
20°	67008	39757	39183
25°	64855	38467	40101
30°	61790	37850	36495
35°	57371	35968	30242
40°	52242	32289	24972
45°	47158	28018	21923
50°	41617	24363	20528
55°	36929	21973	19760
60°	31647	20319	19356
65°	27393	19097	19259
70°	23442	18370	19236
75°	19679	17838	19064
80°	15016	17240	18668
85°	9826	15295	14382



TEST NUMBER: P859864

CATALOG NUMBER: SPHB-12SE-N-L740-CD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	757.2	5.8
10°-20°	1738.7	13.4
20°-30°	2349.8	18.1
30°-40°	2473.0	19.0
40°-50°	2098.5	16.1
50°-60°	1625.6	12.5
60°-70°	1132.1	8.7
70°-80°	648.3	5.0
80°-90°	188.7	1.4
90°-100°	5.0	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°	4845.8	37.2
0°-40°	7318.8	56.2
0°-60°	11042.9	84.8
0°-90°	13012.0	100.0
90°-120°	5.0	0.0
90°-150°	5.0	0.0
90°-180°	5.0	0.0
0°-180°	13017.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8882	8882	8882	8882	8882	
5°	8838	8676	8325	8006	7931	839
15°	8469	7188	5648	5084	4943	2383
25°	7536	5323	4470	4599	4660	3459
35°	6025	4094	3777	3412	3176	3756
45°	4275	3074	2540	2087	1987	3293
55°	2716	2071	1616	1469	1453	2428
65°	1484	1215	1035	1035	1044	1483
75°	653	580	592	629	633	696
85°	110	142	171	161	161	140
90°	1	13	25	32	33	6
95°	1	2	4	4	3	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



TEST NUMBER: P859864

CATALOG NUMBER: SPHB-12SE-N-L740-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8881.7	8881.7	8881.7	8881.7	8881.7
2.5°	8856.0	8826.8	8755.6	8709.5	8673.6
5°	8837.7	8675.6	8325.0	8005.7	7931.1
7.5°	8782.7	8426.8	7677.5	7086.9	6937.8
10°	8706.8	8069.4	6937.1	6197.3	5980.4
12.5°	8605.8	7687.7	6227.9	5530.8	5424.4
15°	8468.8	7188.0	5648.1	5084.0	4943.0
17.5°	8291.1	6671.3	5113.1	4787.0	4747.7
20°	8072.8	6197.3	4789.7	4678.5	4720.6
22.5°	7827.4	5736.9	4601.9	4648.7	4727.3
25°	7535.8	5323.3	4469.7	4599.2	4659.5
27.5°	7208.3	4949.7	4348.3	4467.0	4467.0
30°	6860.5	4638.5	4202.5	4191.7	4052.0
32.5°	6454.3	4374.1	4012.0	3797.1	3589.6
35°	6025.1	4094.0	3777.4	3411.9	3176.0
37.5°	5574.9	3833.7	3480.4	2998.3	2778.6
40°	5130.8	3576.7	3171.2	2626.8	2452.5
42.5°	4688.7	3315.0	2849.1	2325.7	2188.1
45°	4275.1	3074.3	2540.0	2087.0	1987.4
47.5°	3854.7	2818.6	2254.5	1895.1	1826.0
50°	3429.6	2559.6	2007.7	1742.6	1691.7
52.5°	3071.5	2318.2	1798.2	1598.2	1567.6
55°	2715.6	2070.8	1615.8	1468.6	1453.1
57.5°	2362.3	1840.2	1449.0	1350.0	1346.6
60°	2028.7	1624.6	1302.5	1248.3	1240.8
62.5°	1744.6	1410.3	1163.5	1137.8	1141.2
65°	1484.2	1215.1	1034.7	1034.7	1043.5
67.5°	1242.9	1035.4	916.7	932.3	944.5
70°	1027.9	872.6	805.5	832.6	843.5
72.5°	824.5	721.4	699.1	728.9	737.7
75°	653.0	580.4	591.9	629.2	632.6
77.5°	484.1	457.0	486.8	527.5	535.0
80°	334.3	337.0	383.8	412.3	415.6
82.5°	215.6	235.3	287.5	302.4	297.0
85°	109.8	142.4	170.9	160.7	160.7
87.5°	42.0	61.7	72.6	85.4	90.2
90°	0.7	12.9	25.1	31.9	33.2
92.5°	0.7	3.4	5.4	6.1	5.4
95°	0.7	2.0	4.1	4.1	3.4
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



TEST NUMBER: P859864

CATALOG NUMBER: SPHB-12SE-N-L740-CD

**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)