

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: P860084

Luminaire Tested: **SPHB-30SE-N-L850-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: P860084  
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-30SE-N-L850-CD  
Description: 30000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

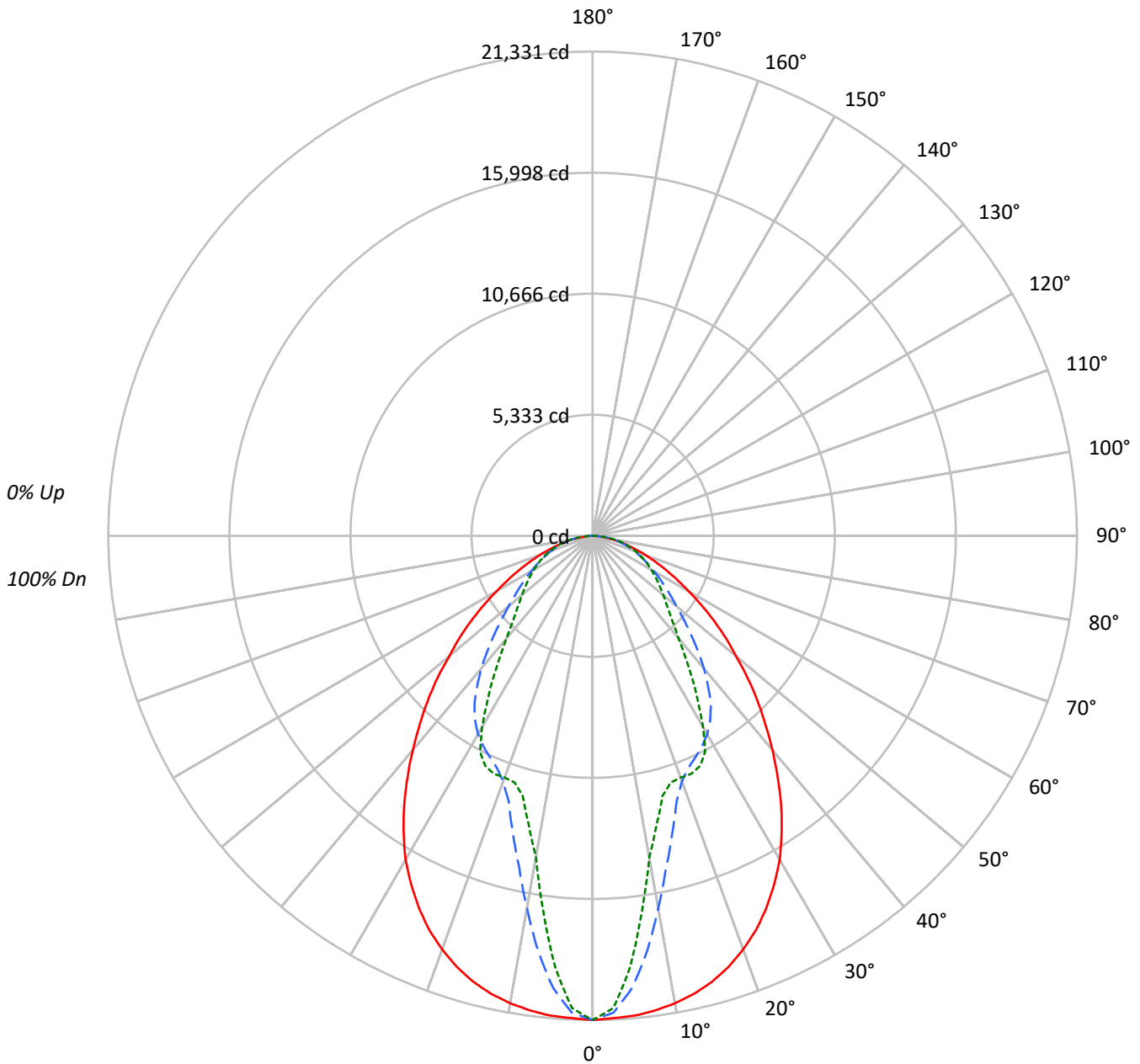
Lumens per Lamp: N/A  
Luminaire Lumens: 31262.0 lumens  
Efficiency: N/A  
Efficacy: 160.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

Input Watts (W): 195  
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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CATALOG NUMBER: SPHB-30SE-N-L850-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								
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°	112549	112549	112549
5°	112419	105898	100887
10°	112035	89263	76952
15°	111102	74098	64847
20°	108864	64591	63658
25°	105366	62495	65150
30°	100385	61493	59290
35°	93207	58435	49131
40°	84874	52459	40570
45°	76614	45518	35615
50°	67611	39580	33351
55°	59995	35697	32102
60°	51416	33011	31448
65°	44504	31025	31289
70°	38085	29846	31251
75°	31970	28982	30973
80°	24394	28007	30331
85°	15971	24846	23362



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1818.6	5.8
10°-20°	4175.8	13.4
20°-30°	5643.4	18.1
30°-40°	5939.3	19.0
40°-50°	5039.7	16.1
50°-60°	3904.0	12.5
60°-70°	2719.0	8.7
70°-80°	1557.0	5.0
80°-90°	453.1	1.4
90°-100°	12.1	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°	11637.8	37.2
0°-40°	17577.1	56.2
0°-60°	26520.9	84.8
0°-90°	31249.9	100.0
90°-120°	12.1	0.0
90°-150°	12.1	0.0
90°-180°	12.0	0.0
0°-180°	31262.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	21331	21331	21331	21331	21331	
5°	21225	20836	19994	19227	19048	###
15°	20339	17263	13565	12210	11871	5723
25°	18098	12785	10734	11046	11190	8308
35°	14470	9832	9072	8194	7628	9020
45°	10267	7383	6100	5012	4773	7908
55°	6522	4973	3880	3527	3490	5831
65°	3565	2918	2485	2485	2506	3561
75°	1568	1394	1422	1511	1519	1672
85°	264	342	410	386	386	335
90°	2	31	60	76	80	14
95°	2	5	10	10	8	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-30SE-N-L850-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	21330.6	21330.6	21330.6	21330.6	21330.6
2.5°	21268.7	21198.7	21027.7	20917.0	20830.7
5°	21224.8	20835.6	19993.7	19226.7	19047.6
7.5°	21092.9	20237.9	18438.5	17020.2	16661.9
10°	20910.5	19379.8	16660.3	14883.7	14362.6
12.5°	20667.8	18463.0	14957.0	13283.0	13027.3
15°	20338.9	17262.8	13564.7	12209.9	11871.1
17.5°	19912.3	16022.0	12279.9	11496.6	11402.2
20°	19387.9	14883.7	11503.1	11236.1	11337.0
22.5°	18798.4	13778.0	11052.1	11164.4	11353.3
25°	18098.2	12784.7	10734.5	11045.5	11190.5
27.5°	17311.7	11887.4	10443.0	10728.0	10728.0
30°	16476.3	11140.0	10092.9	10066.9	9731.4
32.5°	15500.9	10504.9	9635.3	9119.1	8620.8
35°	14470.1	9832.4	9071.9	8194.2	7627.5
37.5°	13388.8	9207.1	8358.7	7200.8	6673.2
40°	12322.2	8589.9	7616.1	6308.5	5890.0
42.5°	11260.5	7961.3	6842.6	5585.5	5254.9
45°	10267.2	7383.2	6100.0	5012.3	4772.9
47.5°	9257.5	6769.3	5414.5	4551.4	4385.3
50°	8236.5	6147.3	4821.7	4185.0	4062.9
52.5°	7376.7	5567.5	4318.6	3838.2	3764.9
55°	6521.8	4973.2	3880.5	3527.1	3489.7
57.5°	5673.4	4419.5	3479.9	3242.2	3234.0
60°	4872.2	3901.7	3128.2	2997.9	2980.0
62.5°	4189.9	3387.1	2794.4	2732.5	2740.6
65°	3564.6	2918.1	2485.0	2485.0	2506.1
67.5°	2984.9	2486.6	2201.6	2239.1	2268.4
70°	2468.7	2095.8	1934.6	1999.7	2025.7
72.5°	1980.2	1732.6	1678.9	1750.5	1771.7
75°	1568.2	1393.9	1421.6	1511.2	1519.3
77.5°	1162.7	1097.6	1169.2	1266.9	1284.8
80°	802.8	809.3	921.7	990.1	998.2
82.5°	517.8	565.1	690.4	726.3	713.2
85°	263.8	342.0	410.4	385.9	385.9
87.5°	101.0	148.2	174.2	205.2	216.6
90°	1.6	30.9	60.3	76.5	79.8
92.5°	1.6	8.1	13.0	14.7	13.0
95°	1.6	4.9	9.8	9.8	8.1
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)