

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: P860083

Luminaire Tested: **SPHB-30SE-N-L840-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: P860083  
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-L840-CD  
Description: 30000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

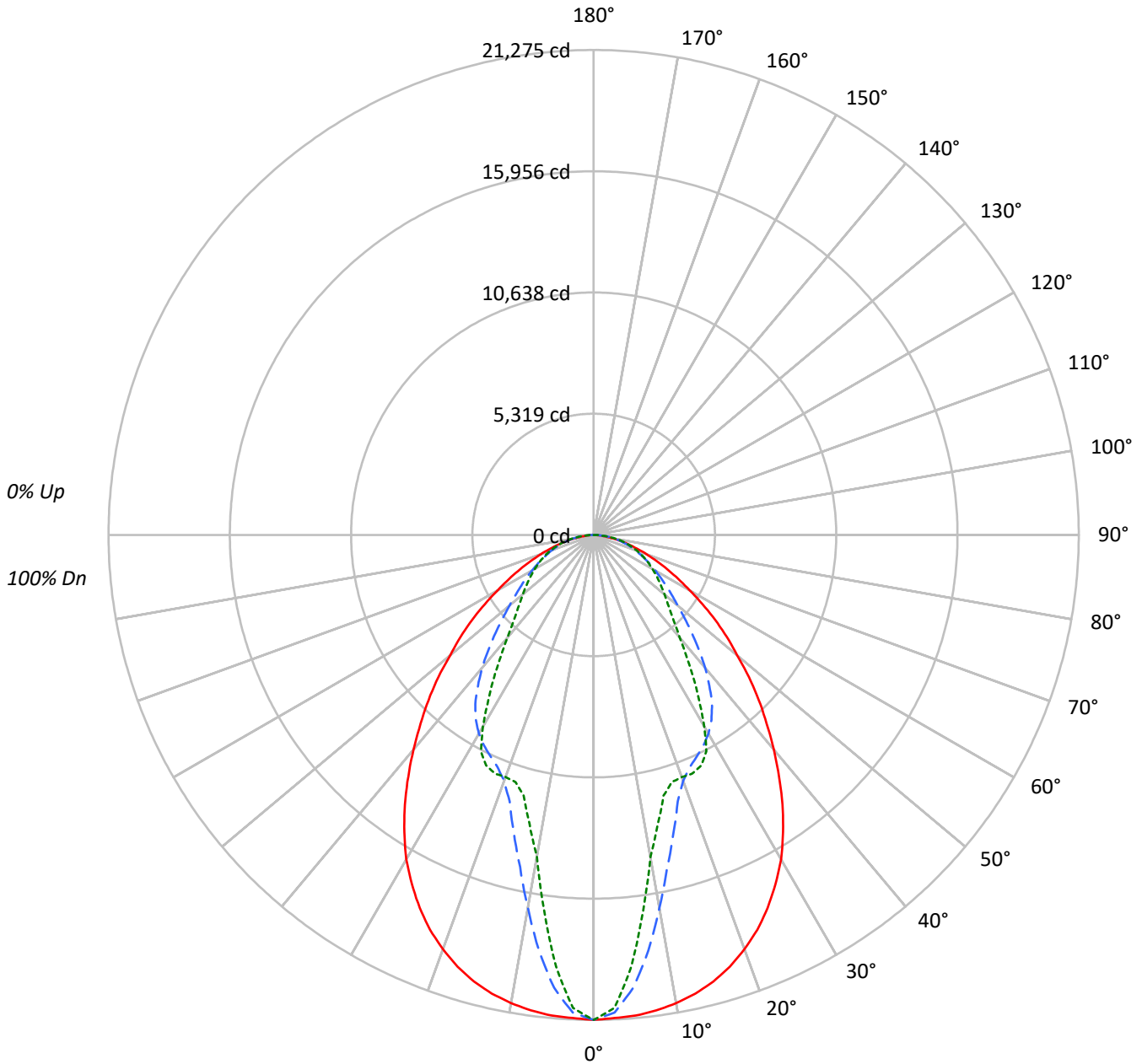
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31181.0 lumens  
Efficiency: N/A  
Efficacy: 159.9 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 (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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### 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	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°	112258	112258	112258
5°	112128	105624	100626
10°	111744	89032	76753
15°	110815	73906	64679
20°	108582	64423	63493
25°	105093	62333	64981
30°	100125	61334	59137
35°	92965	58284	49004
40°	84654	52323	40464
45°	76415	45400	35523
50°	67436	39477	33265
55°	59840	35605	32020
60°	51283	32926	31366
65°	44390	30944	31208
70°	37987	29767	31171
75°	31887	28906	30894
80°	24330	27934	30252
85°	15928	24779	23302



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1813.9	5.8
10°-20°	4165.0	13.4
20°-30°	5628.8	18.1
30°-40°	5924.0	19.0
40°-50°	5026.7	16.1
50°-60°	3893.9	12.5
60°-70°	2712.0	8.7
70°-80°	1552.9	5.0
80°-90°	451.9	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°	11607.6	37.2
0°-40°	17531.6	56.2
0°-60°	26452.1	84.8
0°-90°	31168.9	100.0
90°-120°	12.1	0.0
90°-150°	12.1	0.0
90°-180°	12.0	0.0
0°-180°	31181.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	21275	21275	21275	21275	21275	
5°	21170	20782	19942	19177	18998	###
15°	20286	17218	13530	12178	11840	5708
25°	18051	12752	10707	11017	11162	8287
35°	14433	9807	9048	8173	7608	8996
45°	10241	7364	6084	4999	4760	7887
55°	6505	4960	3870	3518	3481	5816
65°	3555	2911	2478	2478	2500	3551
75°	1564	1390	1418	1507	1515	1668
85°	263	341	409	385	385	334
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-L840-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	21275.3	21275.3	21275.3	21275.3	21275.3
2.5°	21213.6	21143.8	20973.2	20862.8	20776.7
5°	21169.8	20781.6	19941.9	19176.9	18998.2
7.5°	21038.2	20185.5	18390.8	16976.1	16618.8
10°	20856.3	19329.5	16617.1	14845.1	14325.4
12.5°	20614.3	18415.1	14918.2	13248.6	12993.6
15°	20286.2	17218.1	13529.5	12178.2	11840.4
17.5°	19860.7	15980.5	12248.1	11466.8	11372.6
20°	19337.7	14845.1	11473.3	11206.9	11307.6
22.5°	18749.7	13742.3	11023.4	11135.5	11323.9
25°	18051.3	12751.6	10706.7	11016.9	11161.5
27.5°	17266.8	11856.6	10416.0	10700.2	10700.2
30°	16433.6	11111.1	10066.8	10040.8	9706.2
32.5°	15460.7	10477.7	9610.4	9095.5	8598.5
35°	14432.6	9806.9	9048.4	8173.0	7607.7
37.5°	13354.1	9183.2	8337.0	7182.2	6656.0
40°	12290.3	8567.6	7596.4	6292.1	5874.7
42.5°	11231.3	7940.7	6824.9	5571.0	5241.3
45°	10240.6	7364.1	6084.2	4999.3	4760.5
47.5°	9233.6	6751.8	5400.4	4539.6	4374.0
50°	8215.2	6131.3	4809.2	4174.2	4052.4
52.5°	7357.6	5553.1	4307.4	3828.2	3755.1
55°	6504.9	4960.3	3870.5	3518.0	3480.7
57.5°	5658.7	4408.1	3470.9	3233.8	3225.7
60°	4859.6	3891.6	3120.1	2990.1	2972.3
62.5°	4179.1	3378.3	2787.1	2725.4	2733.5
65°	3555.4	2910.6	2478.5	2478.5	2499.6
67.5°	2977.2	2480.1	2195.9	2233.3	2262.5
70°	2462.3	2090.3	1929.5	1994.5	2020.5
72.5°	1975.0	1728.1	1674.5	1746.0	1767.1
75°	1564.1	1390.3	1417.9	1507.3	1515.4
77.5°	1159.7	1094.7	1166.2	1263.6	1281.5
80°	800.7	807.2	919.3	987.5	995.6
82.5°	516.5	563.6	688.7	724.4	711.4
85°	263.1	341.1	409.3	384.9	384.9
87.5°	100.7	147.8	173.8	204.6	216.0
90°	1.6	30.9	60.1	76.3	79.6
92.5°	1.6	8.1	13.0	14.6	13.0
95°	1.6	4.9	9.7	9.7	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)