

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: P860056

Luminaire Tested: **SPHB-30HE-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: P860056  
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-30HE-N-L840-CD  
Description: 30000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

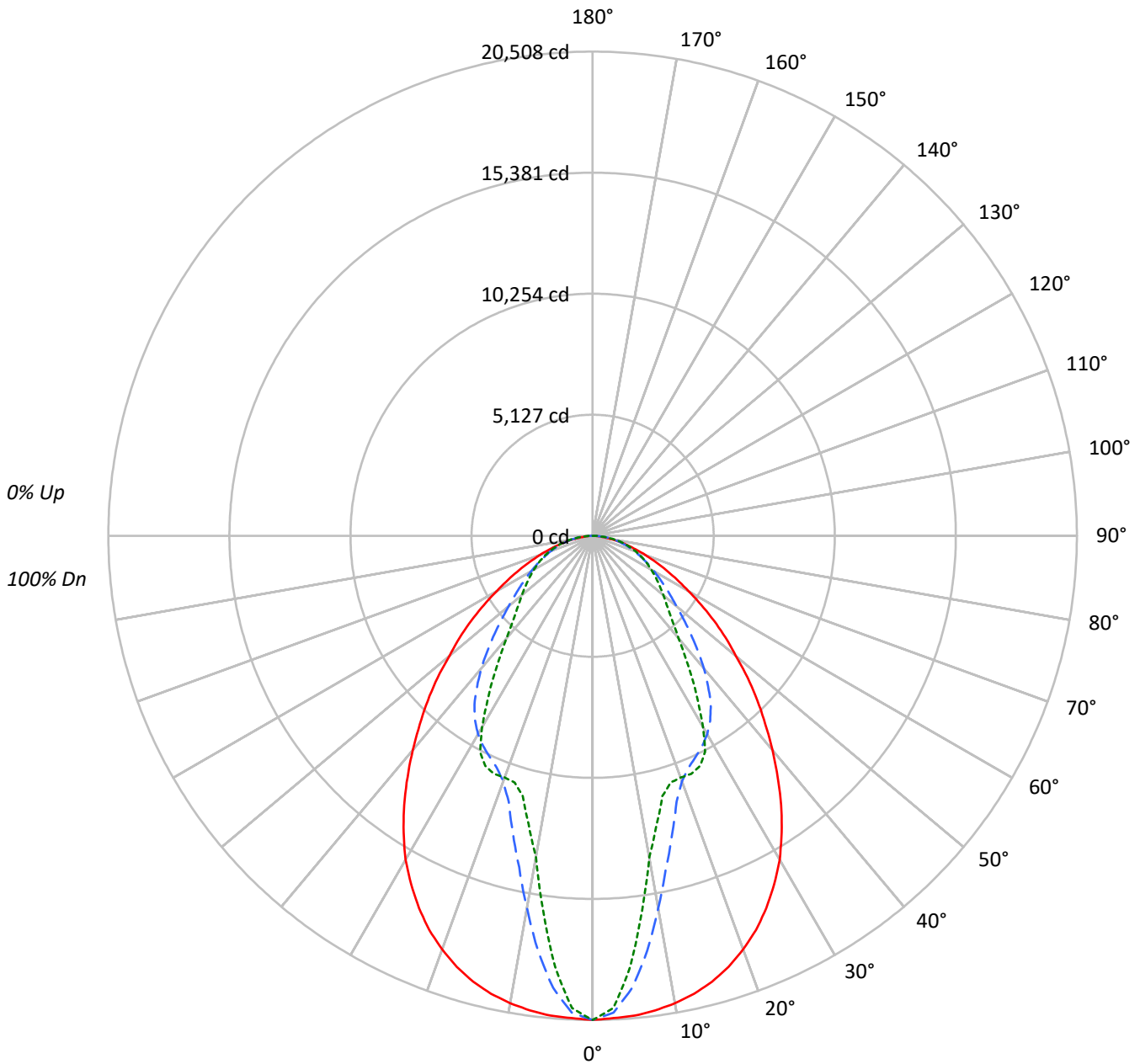
Lumens per Lamp: N/A  
Luminaire Lumens: 30056.0 lumens  
Efficiency: N/A  
Efficacy: 169.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

Input Watts (W): 177.6  
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: P860056

CATALOG NUMBER: SPHB-30HE-N-L840-CD

### Luminous Intensity Polar Plot





TEST NUMBER: P860056

CATALOG NUMBER: SPHB-30HE-N-L840-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°	108207	108207	108207
5°	108082	101813	96995
10°	107713	85820	73984
15°	106817	71239	62345
20°	104665	62099	61202
25°	101301	60084	62637
30°	96513	59121	57003
35°	89611	56181	47236
40°	81600	50435	39005
45°	73658	43762	34242
50°	65003	38053	32065
55°	57681	34320	30864
60°	49433	31738	30234
65°	42788	29828	30083
70°	36615	28693	30046
75°	30737	27864	29779
80°	23452	26925	29161
85°	15353	23883	22460



TEST NUMBER: P860056

CATALOG NUMBER: SPHB-30HE-N-L840-CD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1748.5	5.8
10°-20°	4014.7	13.4
20°-30°	5425.7	18.1
30°-40°	5710.2	19.0
40°-50°	4845.3	16.1
50°-60°	3753.4	12.5
60°-70°	2614.1	8.7
70°-80°	1496.9	5.0
80°-90°	435.6	1.4
90°-100°	11.6	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°	11188.8	37.2
0°-40°	16899.0	56.2
0°-60°	25497.8	84.8
0°-90°	30044.4	100.0
90°-120°	11.6	0.0
90°-150°	11.6	0.0
90°-180°	12.0	0.0
0°-180°	30056.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	20508	20508	20508	20508	20508	
5°	20406	20032	19222	18485	18313	###
15°	19554	16597	13041	11739	11413	5502
25°	17400	12292	10320	10619	10759	7988
35°	13912	9453	8722	7878	7333	8672
45°	9871	7098	5865	4819	4589	7603
55°	6270	4781	3731	3391	3355	5606
65°	3427	2806	2389	2389	2410	3423
75°	1508	1340	1367	1453	1461	1608
85°	254	329	394	371	371	322
90°	2	30	58	74	77	14
95°	2	5	9	9	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



TEST NUMBER: P860056

CATALOG NUMBER: SPHB-30HE-N-L840-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	20507.7	20507.7	20507.7	20507.7	20507.7
2.5°	20448.2	20380.9	20216.5	20110.1	20027.1
5°	20406.0	20031.8	19222.4	18485.0	18312.8
7.5°	20279.2	19457.2	17727.2	16363.6	16019.2
10°	20103.8	18632.1	16017.6	14309.5	13808.5
12.5°	19870.5	17750.7	14380.0	12770.6	12524.8
15°	19554.3	16596.9	13041.4	11738.8	11413.2
17.5°	19144.1	15403.9	11806.2	11053.1	10962.3
20°	18640.0	14309.5	11059.4	10802.6	10899.7
22.5°	18073.2	13246.5	10625.7	10733.7	10915.3
25°	17400.0	12291.5	10320.4	10619.4	10758.8
27.5°	16643.8	11428.8	10040.2	10314.1	10314.1
30°	15840.7	10710.2	9703.6	9678.5	9356.0
32.5°	14902.9	10099.7	9263.6	8767.3	8288.3
35°	13911.9	9453.1	8721.9	7878.1	7333.2
37.5°	12872.3	8851.9	8036.2	6923.1	6415.8
40°	11846.9	8258.5	7322.3	6065.1	5662.8
42.5°	10826.1	7654.2	6578.6	5370.0	5052.2
45°	9871.1	7098.4	5864.7	4818.9	4588.8
47.5°	8900.4	6508.2	5205.6	4375.8	4216.1
50°	7918.8	5910.1	4635.7	4023.6	3906.2
52.5°	7092.1	5352.8	4152.0	3690.1	3619.7
55°	6270.2	4781.3	3730.8	3391.1	3355.1
57.5°	5454.5	4249.0	3345.7	3117.1	3109.3
60°	4684.3	3751.2	3007.5	2882.3	2865.0
62.5°	4028.3	3256.4	2686.6	2627.1	2634.9
65°	3427.1	2805.5	2389.1	2389.1	2409.5
67.5°	2869.7	2390.7	2116.7	2152.7	2180.9
70°	2373.4	2014.9	1859.9	1922.6	1947.6
72.5°	1903.8	1665.8	1614.1	1683.0	1703.4
75°	1507.7	1340.1	1366.8	1452.9	1460.7
77.5°	1117.8	1055.2	1124.1	1218.0	1235.3
80°	771.8	778.1	886.1	951.9	959.7
82.5°	497.9	543.3	663.8	698.3	685.7
85°	253.6	328.8	394.5	371.0	371.0
87.5°	97.1	142.5	167.5	197.3	208.2
90°	1.6	29.7	57.9	73.6	76.7
92.5°	1.6	7.8	12.5	14.1	12.5
95°	1.6	4.7	9.4	9.4	7.8
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: P860056

CATALOG NUMBER: SPHB-30HE-N-L840-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)