

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: P860057

Luminaire Tested: **SPHB-30HE-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: P860057
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-L850-CD
Description: 30000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

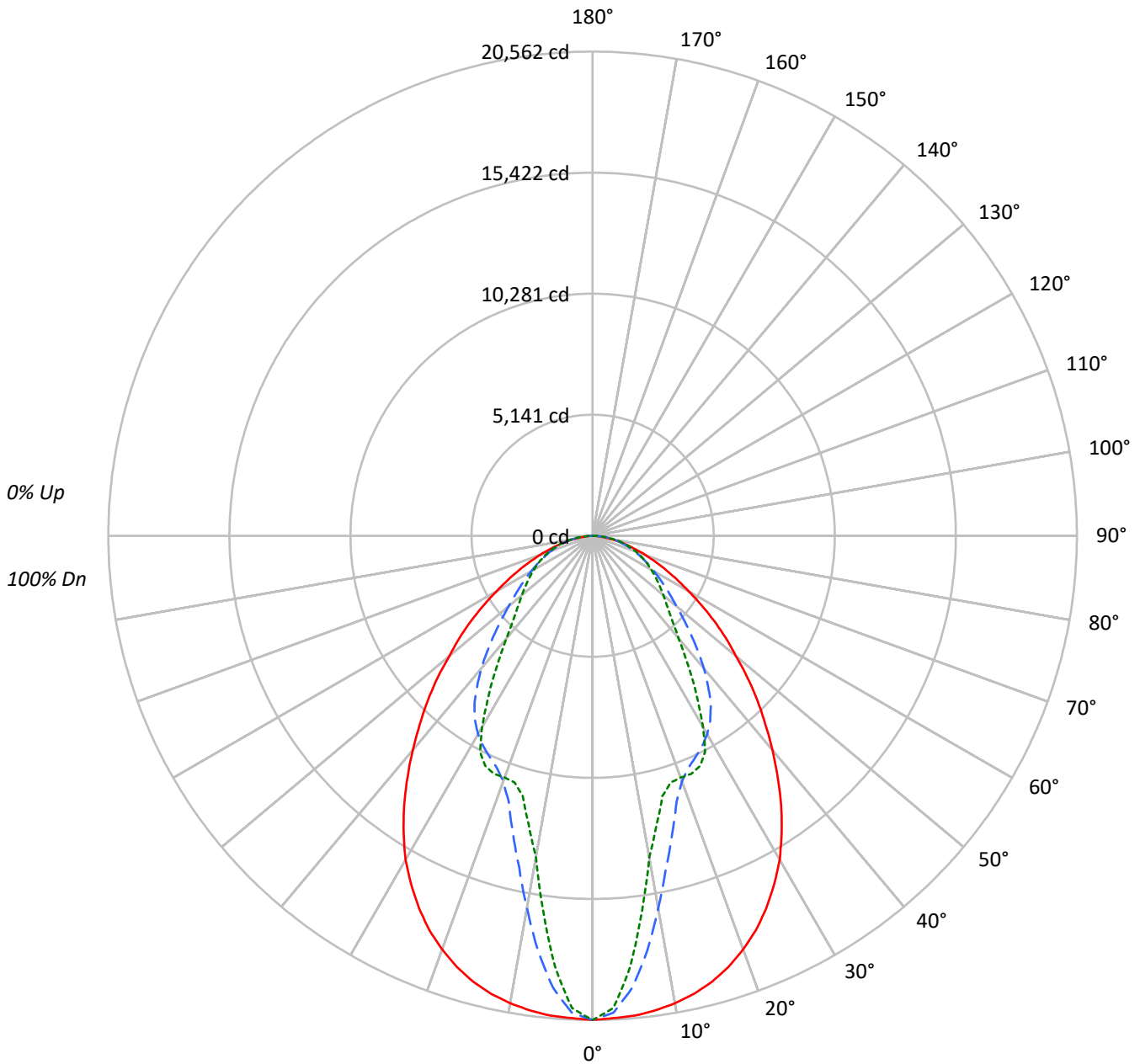
Lumens per Lamp: N/A
Luminaire Lumens: 30135.0 lumens
Efficiency: N/A
Efficacy: 169.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 177.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	108492	108492	108492
5°	108366	102081	97250
10°	107996	86045	74178
15°	107097	71427	62509
20°	104940	62262	61363
25°	101568	60242	62801
30°	96766	59276	57153
35°	89846	56329	47360
40°	81814	50567	39107
45°	73851	43877	34331
50°	65174	38153	32148
55°	57832	34410	30945
60°	49563	31821	30314
65°	42900	29907	30161
70°	36712	28769	30125
75°	30816	27938	29856
80°	23516	26998	29237
85°	15395	23950	22521



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1753.1	5.8
10°-20°	4025.2	13.4
20°-30°	5439.9	18.1
30°-40°	5725.2	19.0
40°-50°	4858.1	16.1
50°-60°	3763.3	12.5
60°-70°	2621.0	8.7
70°-80°	1500.8	5.0
80°-90°	436.8	1.4
90°-100°	11.7	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°	11218.2	37.2
0°-40°	16943.4	56.2
0°-60°	25564.8	84.8
0°-90°	30123.3	100.0
90°-120°	11.7	0.0
90°-150°	11.7	0.0
90°-180°	12.0	0.0
0°-180°	30135.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	20562	20562	20562	20562	20562	
5°	20460	20084	19273	18534	18361	###
15°	19606	16640	13076	11770	11443	5517
25°	17446	12324	10348	10647	10787	8009
35°	13948	9478	8745	7899	7352	8695
45°	9897	7117	5880	4832	4601	7623
55°	6287	4794	3741	3400	3364	5621
65°	3436	2813	2395	2395	2416	3432
75°	1512	1344	1370	1457	1464	1612
85°	254	330	396	372	372	323
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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	20561.6	20561.6	20561.6	20561.6	20561.6
2.5°	20502.0	20434.5	20269.7	20162.9	20079.7
5°	20459.6	20084.4	19272.9	18533.6	18360.9
7.5°	20332.5	19508.4	17773.8	16406.6	16061.3
10°	20156.6	18681.1	16059.7	14347.1	13844.8
12.5°	19922.8	17797.4	14417.8	12804.1	12557.7
15°	19605.7	16640.5	13075.7	11769.7	11443.2
17.5°	19194.4	15444.4	11837.2	11082.2	10991.1
20°	18689.0	14347.1	11088.4	10831.0	10928.3
22.5°	18120.7	13281.3	10653.6	10761.9	10944.0
25°	17445.8	12323.8	10347.5	10647.3	10787.0
27.5°	16687.6	11458.9	10066.6	10341.2	10341.2
30°	15882.3	10738.4	9729.1	9703.9	9380.6
32.5°	14942.1	10126.2	9288.0	8790.4	8310.0
35°	13948.4	9477.9	8744.9	7898.8	7352.5
37.5°	12906.2	8875.1	8057.3	6941.3	6432.7
40°	11878.0	8280.2	7341.5	6081.1	5677.6
42.5°	10854.5	7674.3	6595.9	5384.1	5065.5
45°	9897.0	7117.1	5880.1	4831.6	4600.8
47.5°	8923.8	6525.3	5219.3	4387.3	4227.2
50°	7939.6	5925.7	4647.9	4034.2	3916.4
52.5°	7110.8	5366.8	4162.9	3699.8	3629.2
55°	6286.7	4793.9	3740.6	3400.0	3363.9
57.5°	5468.9	4260.2	3354.5	3125.3	3117.4
60°	4696.6	3761.0	3015.4	2889.8	2872.6
62.5°	4038.9	3265.0	2693.6	2634.0	2641.8
65°	3436.1	2812.9	2395.4	2395.4	2415.8
67.5°	2877.3	2396.9	2122.2	2158.4	2186.6
70°	2379.7	2020.2	1864.8	1927.6	1952.7
72.5°	1908.8	1670.2	1618.4	1687.4	1707.8
75°	1511.6	1343.7	1370.4	1456.7	1464.5
77.5°	1120.8	1058.0	1127.1	1221.2	1238.5
80°	773.9	780.1	888.5	954.4	962.2
82.5°	499.2	544.7	665.6	700.1	687.5
85°	254.3	329.6	395.6	372.0	372.0
87.5°	97.3	142.8	168.0	197.8	208.8
90°	1.6	29.8	58.1	73.8	76.9
92.5°	1.6	7.8	12.6	14.1	12.6
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



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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)