

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: P859849

Luminaire Tested: **SPHB-12HE-W-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: P859849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-12HE-W-L840-CD
Description: 12000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

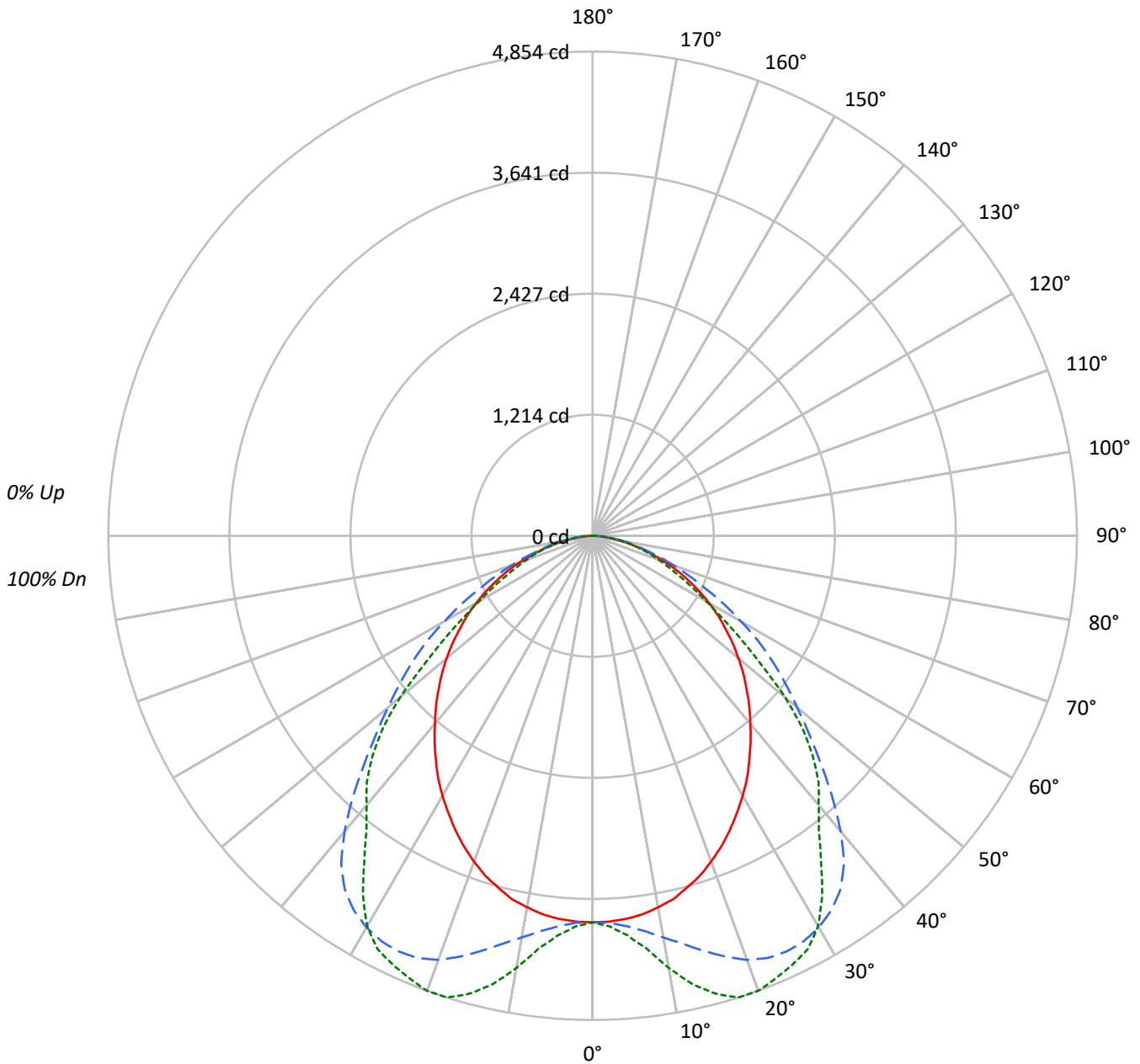
Lumens per Lamp: N/A
Luminaire Lumens: 12192.0 lumens
Efficiency: N/A
Efficacy: 171.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 71.1
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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62																			
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53																			
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46																			
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40																			
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36																			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29																			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30223	30223	30223
5°	30191	30760	31490
10°	29952	32384	34838
15°	29484	34795	38374
20°	28845	37562	40291
25°	28013	39588	40820
30°	27101	40827	40709
35°	26084	41237	37986
40°	25034	39374	35878
45°	24086	35690	34423
50°	23148	32453	30516
55°	22088	29984	24833
60°	20996	26732	20451
65°	19551	22971	17733
70°	17786	19610	16039
75°	15273	16458	14704
80°	11939	14118	13637
85°	8072	11983	11240



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.4	3.1
10°-20°	1206.3	9.9
20°-30°	1974.2	16.2
30°-40°	2408.4	19.8
40°-50°	2385.3	19.6
50°-60°	1907.4	15.6
60°-70°	1189.9	9.8
70°-80°	583.0	4.8
80°-90°	152.9	1.3
90°-100°	4.0	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°	3561.0	29.2
0°-40°	5969.4	49.0
0°-60°	10262.1	84.2
0°-90°	12188.0	100.0
90°-120°	4.0	0.0
90°-150°	4.0	0.0
90°-180°	4.0	0.0
0°-180°	12192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3875	3875	3875	3875	3875	
5°	3856	3873	3929	3997	4022	366
15°	3651	3864	4309	4652	4752	1029
25°	3255	3806	4600	4733	4743	1498
35°	2739	3660	4331	4099	3989	1714
45°	2184	3392	3236	3127	3121	1687
55°	1624	2604	2205	1992	1826	1455
65°	1059	1461	1245	1032	961	1050
75°	507	621	546	500	488	538
85°	90	128	134	127	126	112
90°	0	13	24	30	31	5
95°	0	2	2	2	1	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3874.8	3874.8	3874.8	3874.8	3874.8
2.5°	3870.9	3869.5	3883.5	3909.2	3920.9
5°	3855.9	3872.9	3928.6	3997.0	4021.8
7.5°	3828.7	3874.3	3997.5	4123.1	4176.5
10°	3781.7	3875.3	4088.7	4310.3	4398.6
12.5°	3733.2	3871.9	4190.1	4503.9	4600.4
15°	3651.2	3863.6	4308.9	4651.8	4752.2
17.5°	3575.1	3853.9	4423.4	4777.4	4853.6
20°	3475.1	3839.9	4525.2	4815.7	4854.0
22.5°	3370.4	3828.7	4581.5	4790.0	4801.7
25°	3254.9	3805.9	4599.9	4733.3	4743.0
27.5°	3131.8	3785.6	4582.4	4663.0	4671.2
30°	3009.0	3748.7	4533.0	4553.3	4519.9
32.5°	2880.5	3711.8	4452.9	4361.3	4283.2
35°	2739.4	3660.4	4330.7	4099.4	3989.3
37.5°	2600.2	3611.0	4140.1	3806.4	3723.5
40°	2458.6	3549.8	3867.0	3532.9	3523.6
42.5°	2324.7	3483.9	3558.1	3319.9	3351.0
45°	2183.5	3392.2	3235.5	3126.9	3120.6
47.5°	2049.7	3265.6	2942.1	2913.5	2849.0
50°	1907.6	3091.0	2674.4	2647.2	2514.8
52.5°	1768.4	2868.4	2435.3	2333.4	2140.4
55°	1624.3	2604.5	2204.9	1992.0	1826.1
57.5°	1490.5	2314.5	1970.6	1694.6	1545.7
60°	1345.9	2020.6	1713.6	1433.7	1311.0
62.5°	1204.3	1731.0	1480.8	1211.6	1130.1
65°	1059.3	1461.4	1244.6	1032.1	960.8
67.5°	920.6	1228.1	1040.4	870.1	822.6
70°	779.9	996.2	859.9	730.9	703.3
72.5°	634.9	795.9	695.5	616.9	596.1
75°	506.8	620.8	546.1	500.1	487.9
77.5°	377.3	461.7	426.8	399.7	396.3
80°	265.8	333.2	314.3	309.0	303.6
82.5°	169.8	217.8	223.6	220.2	216.3
85°	90.2	128.0	133.9	127.1	125.6
87.5°	36.4	55.8	60.1	66.4	68.4
90°	0.5	13.1	23.8	30.1	31.0
92.5°	0.5	2.9	3.4	3.4	2.9
95°	0.5	1.9	1.9	1.5	1.0
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)