

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: P860199

Luminaire Tested: **SPHB-48SE-W-L835-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: P860199  
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-48SE-W-L835-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens  
and, 3500K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

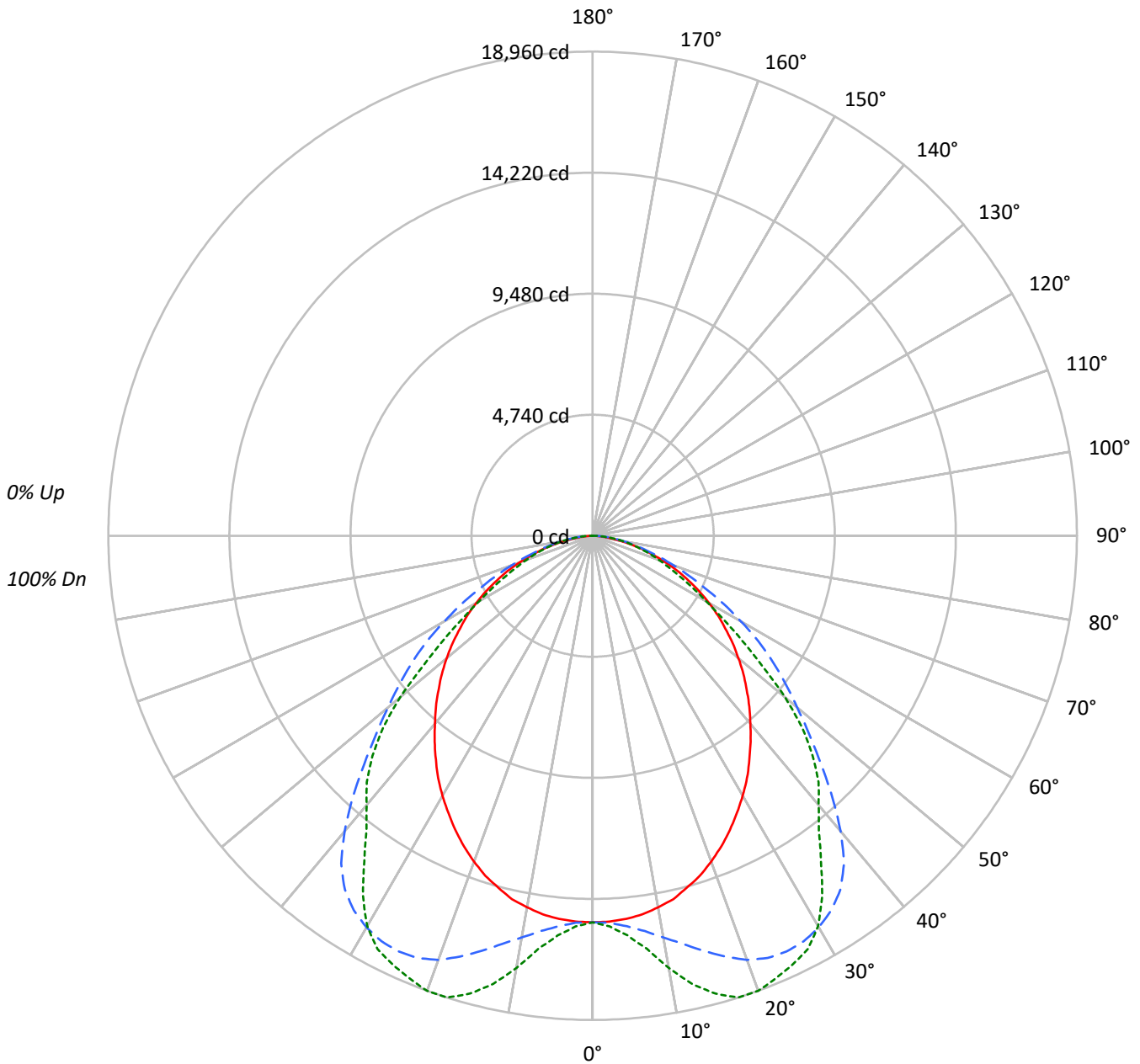
Lumens per Lamp: N/A  
Luminaire Lumens: 47623.0 lumens  
Efficiency: N/A  
Efficacy: 156.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 304.9  
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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### 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	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°	48200	48200	48200
5°	48148	49056	50219
10°	47767	51645	55560
15°	47020	55490	61199
20°	46003	59903	64256
25°	44675	63135	65099
30°	43221	65110	64922
35°	41599	65764	60579
40°	39923	62794	57218
45°	38412	56919	54897
50°	36915	51755	48667
55°	35227	47818	39603
60°	33485	42631	32616
65°	31178	36632	28280
70°	28365	31276	25579
75°	24360	26248	23451
80°	19040	22513	21750
85°	12876	19106	17930



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1486.0	3.1
10°-20°	4712.0	9.9
20°-30°	7711.5	16.2
30°-40°	9407.5	19.8
40°-50°	9317.1	19.6
50°-60°	7450.6	15.6
60°-70°	4648.0	9.8
70°-80°	2277.3	4.8
80°-90°	597.3	1.3
90°-100°	15.7	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°	13909.5	29.2
0°-40°	23317.0	49.0
0°-60°	40084.8	84.2
0°-90°	47607.3	100.0
90°-120°	15.7	0.0
90°-150°	15.7	0.0
90°-180°	16.0	0.0
0°-180°	47623.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15135	15135	15135	15135	15135	
5°	15061	15128	15346	15613	15709	###
15°	14262	15092	16831	18170	18562	4021
25°	12714	14866	17968	18489	18526	5851
35°	10700	14298	16916	16012	15582	6693
45°	8529	13250	12638	12214	12189	6588
55°	6345	10174	8612	7781	7133	5685
65°	4138	5708	4861	4032	3753	4103
75°	1980	2425	2133	1953	1906	2102
85°	352	500	523	496	491	436
90°	2	51	93	118	121	20
95°	2	8	8	6	4	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-48SE-W-L835-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	15135.3	15135.3	15135.3	15135.3	15135.3
2.5°	15120.1	15114.5	15169.4	15269.8	15315.3
5°	15061.4	15127.7	15345.6	15612.7	15709.3
7.5°	14955.3	15133.4	15614.6	16105.3	16313.7
10°	14771.6	15137.2	15970.8	16836.6	17181.4
12.5°	14582.1	15123.9	16366.7	17592.5	17969.5
15°	14261.9	15091.7	16830.9	18170.3	18562.5
17.5°	13964.5	15053.8	17278.0	18661.0	18958.4
20°	13574.2	14998.9	17675.8	18810.7	18960.3
22.5°	13165.0	14955.3	17895.6	18710.3	18755.7
25°	12714.1	14866.3	17967.6	18488.6	18526.5
27.5°	12232.9	14786.7	17899.4	18213.9	18246.1
30°	11753.6	14642.7	17706.2	17785.7	17655.0
32.5°	11251.5	14498.7	17393.6	17035.5	16730.5
35°	10700.2	14297.9	16916.1	16012.5	15582.4
37.5°	10156.5	14104.7	16171.6	14868.2	14544.2
40°	9603.3	13866.0	15105.0	13799.7	13763.7
42.5°	9080.4	13608.3	13898.2	12968.0	13089.2
45°	8529.1	13250.3	12638.3	12214.0	12189.3
47.5°	8006.2	12755.8	11492.1	11380.4	11128.4
50°	7451.1	12073.8	10446.4	10340.3	9823.1
52.5°	6907.4	11204.2	9512.4	9114.5	8360.5
55°	6344.7	10173.6	8612.5	7780.8	7132.9
57.5°	5821.9	9040.6	7697.4	6619.4	6037.8
60°	5257.3	7892.6	6693.3	5600.2	5120.9
62.5°	4704.1	6761.5	5784.0	4732.5	4414.2
65°	4137.6	5708.2	4861.3	4031.5	3753.0
67.5°	3595.8	4796.9	4063.7	3398.8	3213.1
70°	3046.4	3891.3	3359.0	2855.0	2747.1
72.5°	2479.9	3108.9	2716.7	2409.8	2328.4
75°	1979.8	2425.0	2133.2	1953.2	1905.9
77.5°	1473.9	1803.6	1667.2	1561.1	1547.8
80°	1038.2	1301.5	1227.6	1206.8	1186.0
82.5°	663.1	850.6	873.4	860.1	845.0
85°	352.4	500.2	522.9	496.4	490.7
87.5°	142.1	217.9	234.9	259.5	267.1
90°	1.9	51.2	92.8	117.5	121.2
92.5°	1.9	11.4	13.3	13.3	11.4
95°	1.9	7.6	7.6	5.7	3.8
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)