

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: P860027

Luminaire Tested: **SPHB-24SE-N-L750-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: P860027  
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-24SE-N-L750-CD  
Description: 24000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 5000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

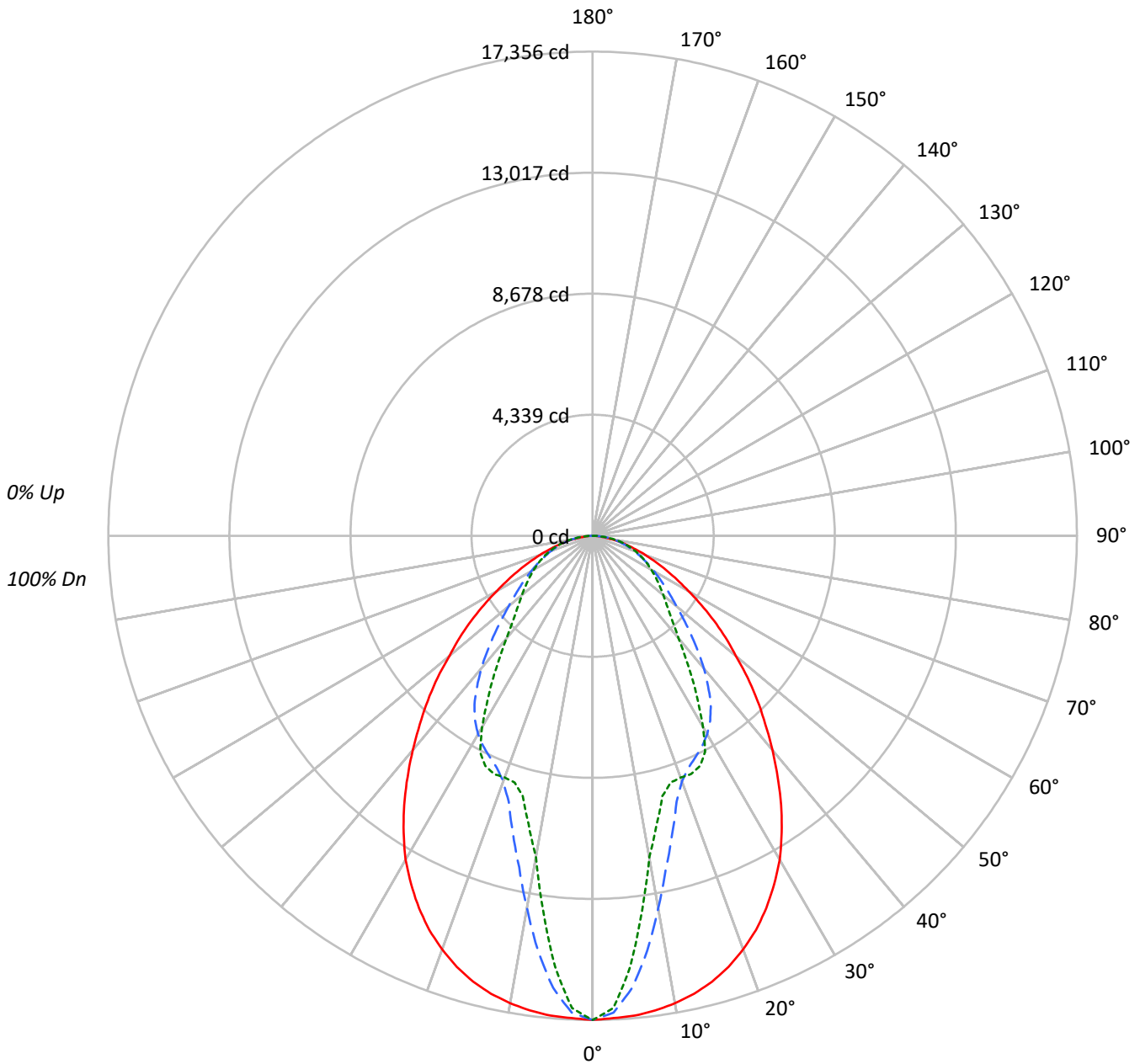
Lumens per Lamp: N/A  
Luminaire Lumens: 25437.0 lumens  
Efficiency: N/A  
Efficacy: 160.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 158.6  
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: P860027

CATALOG NUMBER: SPHB-24SE-N-L750-CD

### 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	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°	135377	135377	135377
5°	135219	127376	121349
10°	134758	107367	92560
15°	133636	89126	77999
20°	130944	77691	76569
25°	126736	75171	78364
30°	120745	73965	71316
35°	112111	70286	59096
40°	102088	63098	48798
45°	92152	54750	42839
50°	81323	47607	40116
55°	72163	42938	38614
60°	61844	39706	37825
65°	53530	37317	37636
70°	45809	35898	37590
75°	38454	34859	37255
80°	29340	33684	36482
85°	19205	29882	28101



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1479.8	5.8
10°-20°	3397.7	13.4
20°-30°	4591.9	18.1
30°-40°	4832.7	19.0
40°-50°	4100.7	16.1
50°-60°	3176.6	12.5
60°-70°	2212.4	8.7
70°-80°	1266.8	5.0
80°-90°	368.6	1.4
90°-100°	9.8	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°	9469.3	37.2
0°-40°	14302.0	56.2
0°-60°	21579.3	84.8
0°-90°	25427.1	100.0
90°-120°	9.8	0.0
90°-150°	9.8	0.0
90°-180°	10.0	0.0
0°-180°	25437.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	17356	17356	17356	17356	17356	
5°	17270	16953	16268	15644	15498	###
15°	16549	14046	11037	9935	9659	4657
25°	14726	10402	8734	8987	9105	6760
35°	11774	8000	7382	6667	6206	7339
45°	8354	6008	4963	4078	3884	6434
55°	5307	4046	3158	2870	2840	4744
65°	2900	2374	2022	2022	2039	2897
75°	1276	1134	1157	1230	1236	1361
85°	215	278	334	314	314	273
90°	1	25	49	62	65	12
95°	1	4	8	8	7	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: P860027

CATALOG NUMBER: SPHB-24SE-N-L750-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	17356.1	17356.1	17356.1	17356.1	17356.1
2.5°	17305.8	17248.8	17109.7	17019.6	16949.3
5°	17270.0	16953.3	16268.3	15644.2	15498.5
7.5°	17162.7	16467.0	15002.9	13848.8	13557.3
10°	17014.3	15768.8	13556.0	12110.5	11686.5
12.5°	16816.8	15022.8	12170.1	10808.0	10600.0
15°	16549.2	14046.3	11037.2	9934.8	9659.2
17.5°	16202.0	13036.6	9991.8	9354.5	9277.6
20°	15775.4	12110.5	9359.8	9142.5	9224.6
22.5°	15295.7	11210.8	8992.7	9084.2	9237.9
25°	14726.0	10402.5	8734.4	8987.4	9105.4
27.5°	14086.0	9672.5	8497.2	8729.1	8729.1
30°	13406.3	9064.3	8212.3	8191.1	7918.2
32.5°	12612.6	8547.5	7840.0	7420.0	7014.5
35°	11773.9	8000.3	7381.5	6667.4	6206.3
37.5°	10894.1	7491.5	6801.2	5859.1	5429.8
40°	10026.2	6989.3	6197.0	5133.0	4792.5
42.5°	9162.3	6477.9	5567.6	4544.7	4275.8
45°	8354.1	6007.5	4963.4	4078.3	3883.6
47.5°	7532.6	5508.0	4405.6	3703.4	3568.2
50°	6701.8	5001.9	3923.3	3405.2	3305.9
52.5°	6002.2	4530.2	3513.9	3123.0	3063.4
55°	5306.6	4046.5	3157.5	2869.9	2839.5
57.5°	4616.3	3596.0	2831.5	2638.1	2631.4
60°	3964.4	3174.7	2545.3	2439.3	2424.7
62.5°	3409.2	2756.0	2273.7	2223.3	2230.0
65°	2900.4	2374.4	2021.9	2021.9	2039.2
67.5°	2428.7	2023.3	1791.4	1821.9	1845.7
70°	2008.7	1705.3	1574.1	1627.1	1648.3
72.5°	1611.2	1409.8	1366.1	1424.4	1441.6
75°	1276.0	1134.2	1156.7	1229.6	1236.2
77.5°	946.0	893.0	951.3	1030.8	1045.4
80°	653.2	658.5	749.9	805.6	812.2
82.5°	421.3	459.8	561.8	590.9	580.3
85°	214.6	278.2	333.9	314.0	314.0
87.5°	82.1	120.6	141.8	166.9	176.2
90°	1.3	25.2	49.0	62.3	64.9
92.5°	1.3	6.6	10.6	11.9	10.6
95°	1.3	4.0	7.9	7.9	6.6
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: P860027

CATALOG NUMBER: SPHB-24SE-N-L750-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)