

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: P860140

Luminaire Tested: **SPHB-36SE-N-L940-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: P860140  
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-36SE-N-L940-CD  
Description: 36000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 4000K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

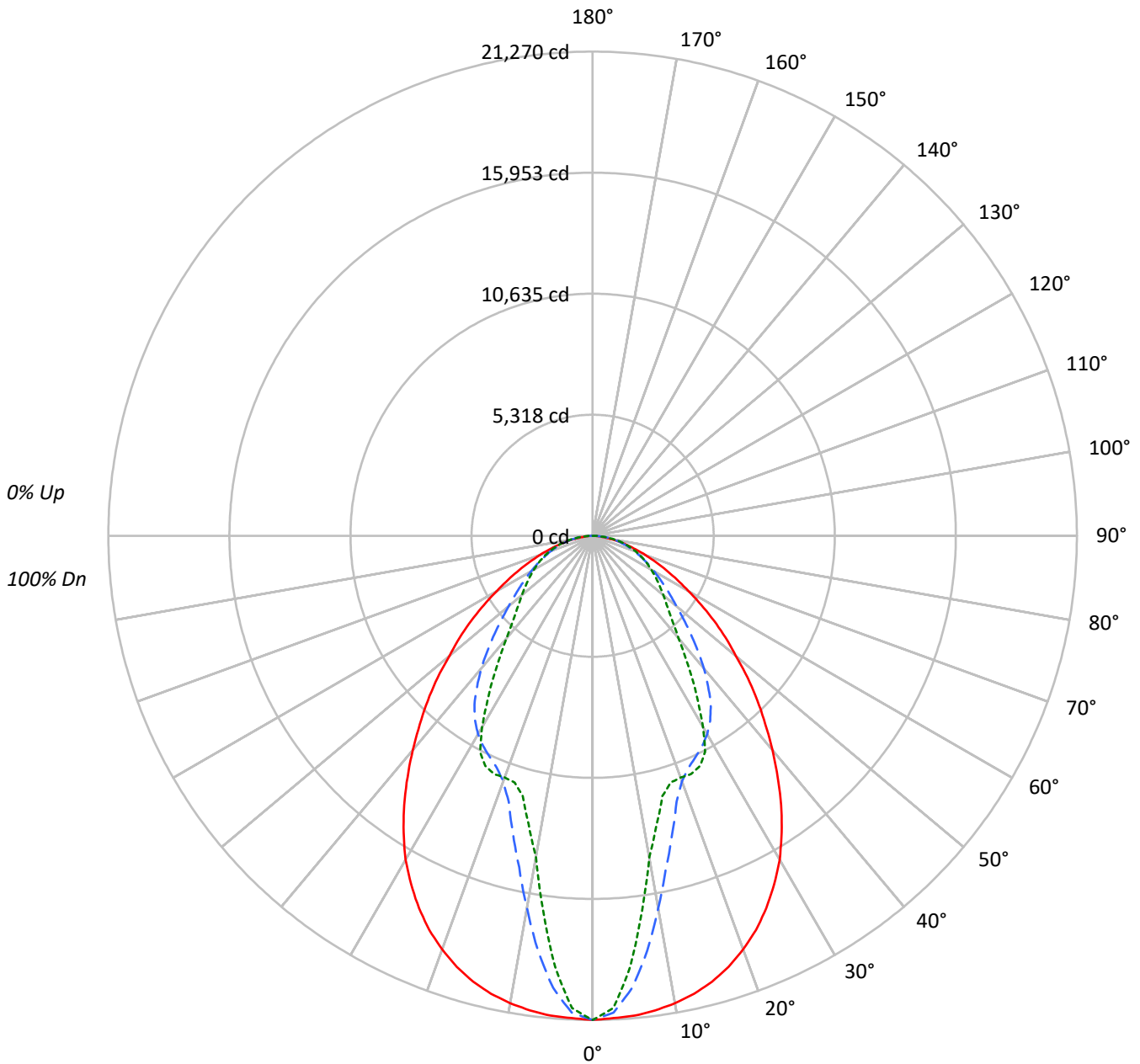
Lumens per Lamp: N/A  
Luminaire Lumens: 31173.0 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

Input Watts (W): 240.8  
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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CATALOG NUMBER: SPHB-36SE-N-L940-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°	112229	112229	112229
5°	112098	105597	100600
10°	111716	89009	76733
15°	110786	73887	64662
20°	108554	64407	63477
25°	105066	62317	64964
30°	100099	61318	59122
35°	92941	58269	48991
40°	84632	52309	40454
45°	76395	45389	35514
50°	67419	39467	33256
55°	59824	35596	32011
60°	51269	32918	31358
65°	44378	30937	31200
70°	37976	29759	31163
75°	31878	28900	30886
80°	24324	27928	30246
85°	15928	24773	23296



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1813.4	5.8
10°-20°	4163.9	13.4
20°-30°	5627.3	18.1
30°-40°	5922.4	19.0
40°-50°	5025.4	16.1
50°-60°	3892.9	12.5
60°-70°	2711.3	8.7
70°-80°	1552.5	5.0
80°-90°	451.8	1.4
90°-100°	12.1	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°	11604.6	37.2
0°-40°	17527.1	56.2
0°-60°	26445.3	84.8
0°-90°	31161.0	100.0
90°-120°	12.1	0.0
90°-150°	12.1	0.0
90°-180°	12.0	0.0
0°-180°	31173.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	21270	21270	21270	21270	21270	
5°	21164	20776	19937	19172	18993	###
15°	20281	17214	13526	12175	11837	5707
25°	18047	12748	10704	11014	11159	8284
35°	14429	9804	9046	8171	7606	8994
45°	10238	7362	6083	4998	4759	7885
55°	6503	4959	3870	3517	3480	5814
65°	3554	2910	2478	2478	2499	3551
75°	1564	1390	1418	1507	1515	1667
85°	263	341	409	385	385	334
90°	2	31	60	76	80	14
95°	2	5	10	10	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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CATALOG NUMBER: SPHB-36SE-N-L940-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	21269.9	21269.9	21269.9	21269.9	21269.9
2.5°	21208.2	21138.4	20967.9	20857.4	20771.4
5°	21164.3	20776.2	19936.8	19172.0	18993.3
7.5°	21032.8	20180.3	18386.0	16971.7	16614.5
10°	20850.9	19324.6	16612.9	14841.3	14321.7
12.5°	20609.0	18410.4	14914.4	13245.2	12990.2
15°	20281.0	17213.7	13526.1	12175.1	11837.3
17.5°	19855.6	15976.4	12244.9	11463.9	11369.7
20°	19332.7	14841.3	11470.4	11204.1	11304.7
22.5°	18744.9	13738.8	11020.6	11132.6	11321.0
25°	18046.7	12748.3	10703.9	11014.1	11158.6
27.5°	17262.4	11853.6	10413.3	10697.5	10697.5
30°	16429.4	11108.3	10064.2	10038.2	9703.7
32.5°	15456.7	10475.0	9607.9	9093.2	8596.3
35°	14428.9	9804.4	9046.1	8170.9	7605.8
37.5°	13350.7	9180.8	8334.9	7180.3	6654.2
40°	12287.1	8565.4	7594.4	6290.5	5873.2
42.5°	11228.4	7938.7	6823.1	5569.6	5239.9
45°	10237.9	7362.2	6082.7	4998.0	4759.3
47.5°	9231.2	6750.0	5399.1	4538.5	4372.8
50°	8213.1	6129.8	4808.0	4173.1	4051.3
52.5°	7355.7	5551.7	4306.3	3827.2	3754.2
55°	6503.2	4959.0	3869.5	3517.1	3479.8
57.5°	5657.2	4406.9	3470.0	3232.9	3224.8
60°	4858.3	3890.6	3119.3	2989.4	2971.5
62.5°	4178.0	3377.5	2786.4	2724.7	2732.8
65°	3554.5	2909.8	2477.9	2477.9	2499.0
67.5°	2976.4	2479.5	2195.3	2232.7	2261.9
70°	2461.6	2089.8	1929.0	1994.0	2020.0
72.5°	1974.5	1727.7	1674.1	1745.6	1766.7
75°	1563.7	1390.0	1417.6	1506.9	1515.0
77.5°	1159.4	1094.4	1165.9	1263.3	1281.2
80°	800.5	807.0	919.1	987.3	995.4
82.5°	516.4	563.5	688.5	724.2	711.2
85°	263.1	341.0	409.2	384.8	384.8
87.5°	100.7	147.8	173.7	204.6	216.0
90°	1.6	30.9	60.1	76.3	79.6
92.5°	1.6	8.1	13.0	14.6	13.0
95°	1.6	4.9	9.7	9.7	8.1
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)