

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: P859924

Luminaire Tested: **SPHB-15SE-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: P859924
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-15SE-N-L940-CD
Description: 15000 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

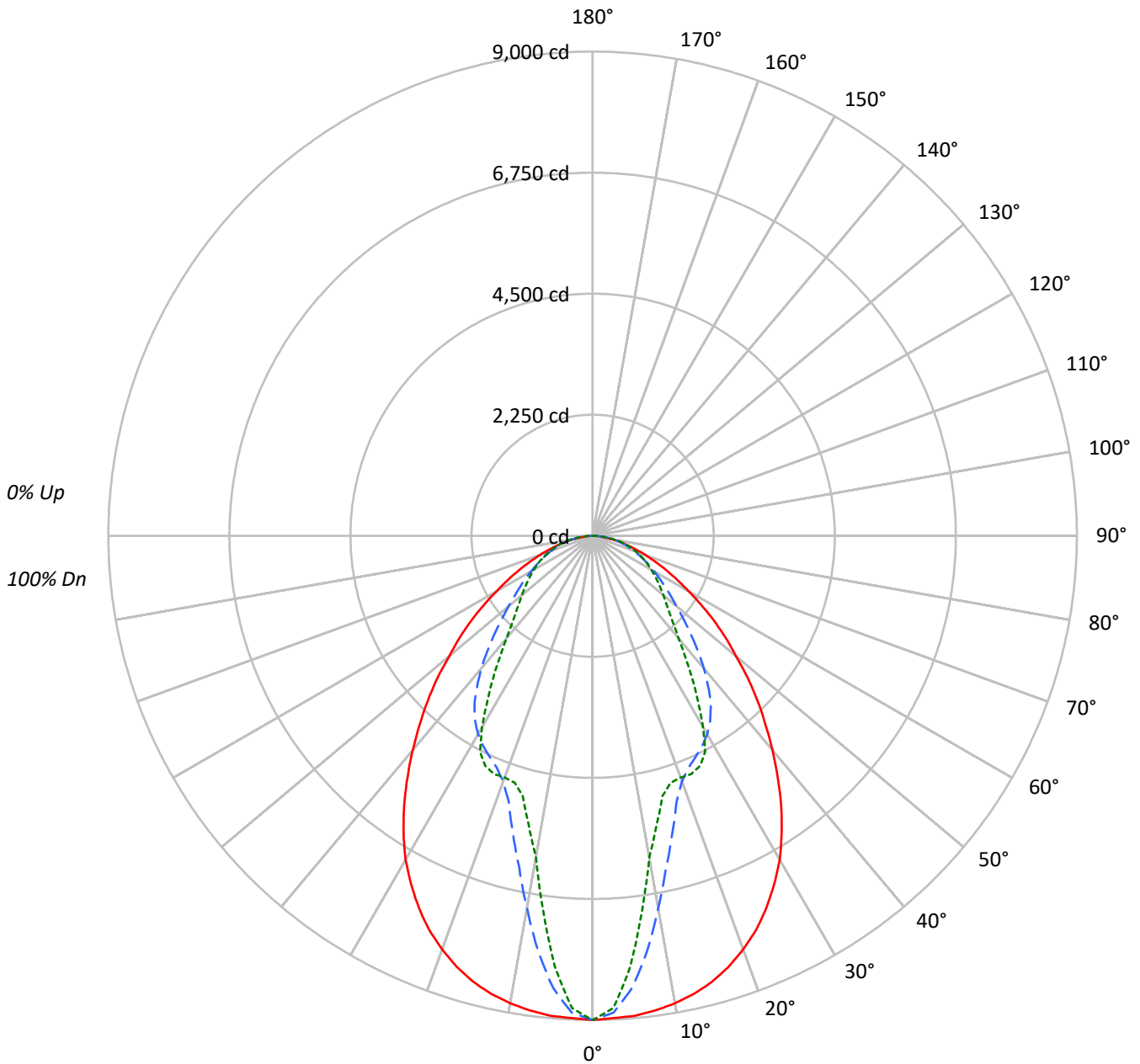
Lumens per Lamp: N/A
Luminaire Lumens: 13191.0 lumens
Efficiency: N/A
Efficacy: 137.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 95.9
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

TEST NUMBER: P859924

CATALOG NUMBER: SPHB-15SE-N-L940-CD

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°	70203	70203	70203
5°	70122	66054	62928
10°	69882	55678	47999
15°	69300	46219	40448
20°	67904	40288	39707
25°	65722	38981	40637
30°	62616	38356	36983
35°	58138	36449	30645
40°	52941	32721	25306
45°	47788	28392	22215
50°	42172	24688	20802
55°	37422	22267	20024
60°	32070	20590	19615
65°	27760	19351	19517
70°	23756	18616	19494
75°	19941	18076	19321
80°	15214	17469	18919
85°	9961	15500	14570



TEST NUMBER: P859924

CATALOG NUMBER: SPHB-15SE-N-L940-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	767.4	5.8
10°-20°	1762.0	13.4
20°-30°	2381.2	18.1
30°-40°	2506.1	19.0
40°-50°	2126.5	16.1
50°-60°	1647.3	12.5
60°-70°	1147.3	8.7
70°-80°	657.0	5.0
80°-90°	191.2	1.4
90°-100°	5.1	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°	4910.6	37.2
0°-40°	7416.7	56.2
0°-60°	11190.5	84.8
0°-90°	13185.9	100.0
90°-120°	5.1	0.0
90°-150°	5.1	0.0
90°-180°	5.0	0.0
0°-180°	13191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9000	9000	9000	9000	9000	
5°	8956	8792	8436	8113	8037	850
15°	8582	7284	5724	5152	5009	2415
25°	7636	5394	4529	4661	4722	3506
35°	6106	4149	3828	3458	3218	3806
45°	4332	3115	2574	2115	2014	3337
55°	2752	2098	1637	1488	1472	2460
65°	1504	1231	1048	1048	1058	1502
75°	662	588	600	638	641	706
85°	111	144	173	163	163	141
90°	1	13	25	32	34	6
95°	1	2	4	4	3	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



TEST NUMBER: P859924

CATALOG NUMBER: SPHB-15SE-N-L940-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9000.4	9000.4	9000.4	9000.4	9000.4
2.5°	8974.3	8944.8	8872.6	8825.9	8789.5
5°	8955.8	8791.6	8436.3	8112.7	8037.1
7.5°	8900.1	8539.4	7780.1	7181.7	7030.5
10°	8823.2	8177.3	7029.8	6280.2	6060.3
12.5°	8720.8	7790.4	6311.1	5604.8	5496.9
15°	8582.0	7284.0	5723.6	5151.9	5009.0
17.5°	8402.0	6760.5	5181.5	4851.0	4811.1
20°	8180.7	6280.2	4853.7	4741.1	4783.7
22.5°	7932.0	5813.6	4663.4	4710.8	4790.5
25°	7636.5	5394.5	4529.4	4660.7	4721.8
27.5°	7304.7	5015.9	4406.4	4526.7	4526.7
30°	6952.2	4700.5	4258.7	4247.7	4106.2
32.5°	6540.6	4432.5	4065.6	3847.8	3637.6
35°	6105.7	4148.8	3827.9	3457.5	3218.4
37.5°	5649.4	3884.9	3526.9	3038.4	2815.8
40°	5199.4	3624.5	3213.6	2661.9	2485.3
42.5°	4751.4	3359.3	2887.2	2356.8	2217.3
45°	4332.2	3115.4	2573.9	2114.9	2013.9
47.5°	3906.2	2856.3	2284.6	1920.5	1850.4
50°	3475.4	2593.8	2034.5	1765.9	1714.3
52.5°	3112.6	2349.2	1822.2	1619.5	1588.6
55°	2751.9	2098.4	1637.4	1488.3	1472.5
57.5°	2393.9	1864.8	1468.4	1368.0	1364.6
60°	2055.8	1646.3	1319.9	1265.0	1257.4
62.5°	1767.9	1429.2	1179.1	1153.0	1156.4
65°	1504.1	1231.3	1048.5	1048.5	1057.5
67.5°	1259.5	1049.2	929.0	944.8	957.1
70°	1041.7	884.3	816.3	843.8	854.8
72.5°	835.5	731.1	708.4	738.6	747.6
75°	661.7	588.2	599.8	637.6	641.1
77.5°	490.6	463.1	493.3	534.6	542.1
80°	338.7	341.5	388.9	417.8	421.2
82.5°	218.5	238.4	291.3	306.5	301.0
85°	111.3	144.3	173.2	162.8	162.8
87.5°	42.6	62.5	73.5	86.6	91.4
90°	0.7	13.1	25.4	32.3	33.7
92.5°	0.7	3.4	5.5	6.2	5.5
95°	0.7	2.1	4.1	4.1	3.4
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: P859924

CATALOG NUMBER: SPHB-15SE-N-L940-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)