

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: P859987

Luminaire Tested: **SPHB-18SE-W-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: P859987
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-18SE-W-L940-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

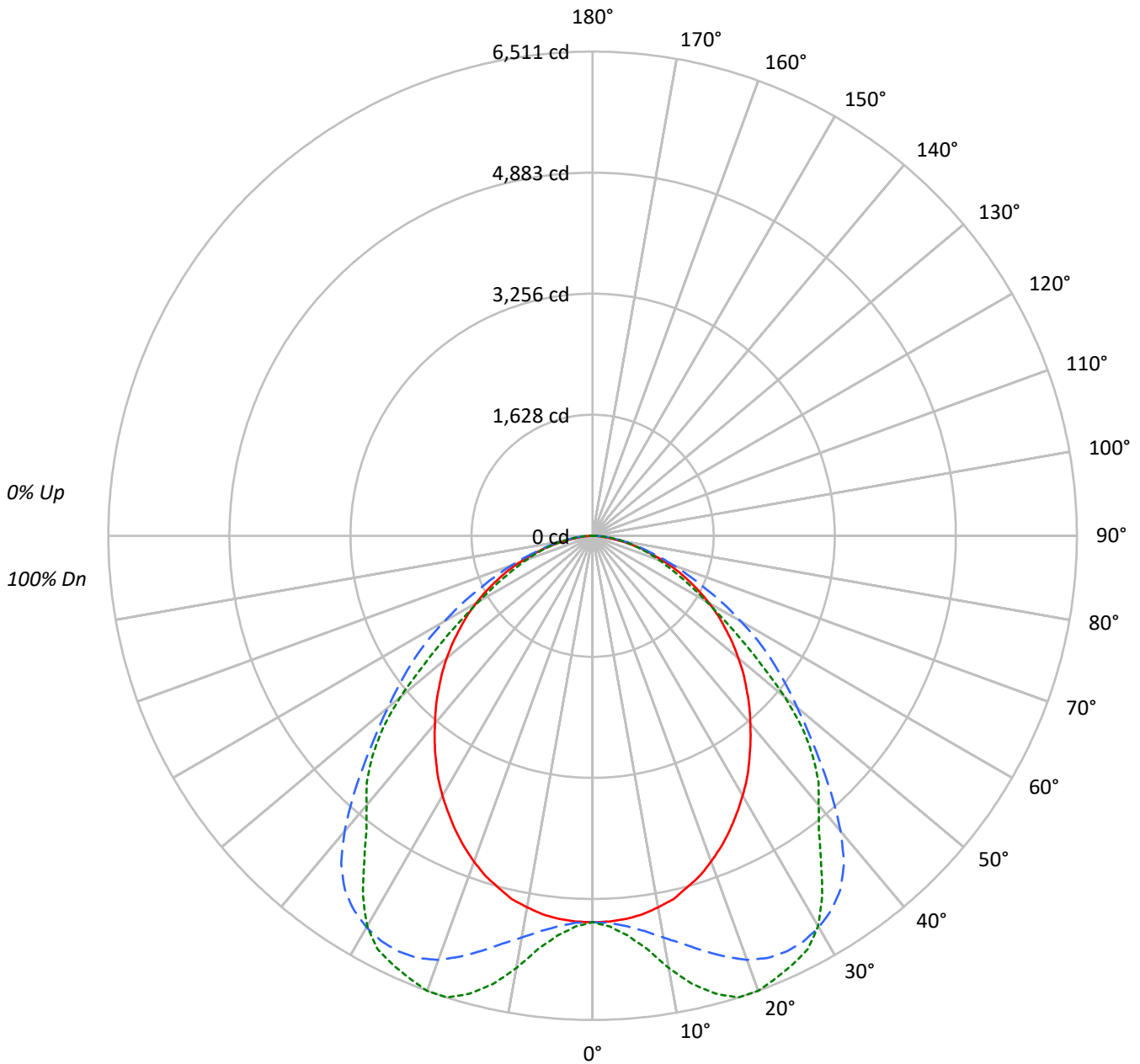
Lumens per Lamp: N/A
Luminaire Lumens: 16353.0 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
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: P859987

CATALOG NUMBER: SPHB-18SE-W-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	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°	40538	40538	40538
5°	40495	41258	42236
10°	40174	43436	46728
15°	39546	46670	51471
20°	38690	50381	54042
25°	37573	53099	54751
30°	36351	54760	54602
35°	34987	55310	50950
40°	33576	52812	48123
45°	32307	47871	46170
50°	31047	43528	40931
55°	29628	40217	33307
60°	28162	35855	27431
65°	26223	30809	23785
70°	23857	26304	21512
75°	20487	22075	19724
80°	16013	18937	18291
85°	10829	16073	15080



TEST NUMBER: P859987

CATALOG NUMBER: SPHB-18SE-W-L940-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	510.3	3.1
10°-20°	1618.0	9.9
20°-30°	2648.0	16.2
30°-40°	3230.4	19.8
40°-50°	3199.3	19.6
50°-60°	2558.4	15.6
60°-70°	1596.0	9.8
70°-80°	782.0	4.8
80°-90°	205.1	1.3
90°-100°	5.4	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°	4776.3	29.2
0°-40°	8006.7	49.0
0°-60°	13764.5	84.2
0°-90°	16347.6	100.0
90°-120°	5.4	0.0
90°-150°	5.4	0.0
90°-180°	5.0	0.0
0°-180°	16353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5197	5197	5197	5197	5197	
5°	5172	5195	5269	5361	5394	491
15°	4897	5182	5780	6239	6374	1381
25°	4366	5105	6170	6349	6362	2009
35°	3674	4910	5809	5498	5351	2298
45°	2929	4550	4340	4194	4186	2262
55°	2179	3493	2957	2672	2449	1952
65°	1421	1960	1669	1384	1289	1409
75°	680	833	732	671	654	722
85°	121	172	180	170	168	150
90°	1	18	32	40	42	7
95°	1	3	3	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



TEST NUMBER: P859987

CATALOG NUMBER: SPHB-18SE-W-L940-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5197.2	5197.2	5197.2	5197.2	5197.2
2.5°	5192.0	5190.1	5208.9	5243.4	5259.0
5°	5171.9	5194.6	5269.4	5361.2	5394.3
7.5°	5135.4	5196.6	5361.8	5530.3	5601.9
10°	5072.3	5197.9	5484.1	5781.4	5899.8
12.5°	5007.3	5193.3	5620.1	6041.0	6170.4
15°	4897.3	5182.3	5779.5	6239.4	6374.1
17.5°	4795.2	5169.3	5933.0	6407.9	6510.0
20°	4661.2	5150.4	6069.6	6459.3	6510.7
22.5°	4520.7	5135.4	6145.1	6424.8	6440.4
25°	4365.8	5104.8	6169.8	6348.7	6361.7
27.5°	4200.6	5077.5	6146.4	6254.4	6265.4
30°	4036.0	5028.1	6080.0	6107.3	6062.5
32.5°	3863.6	4978.6	5972.7	5849.7	5745.0
35°	3674.3	4909.7	5808.7	5498.4	5350.8
37.5°	3487.6	4843.3	5553.1	5105.5	4994.3
40°	3297.6	4761.4	5186.8	4738.6	4726.2
42.5°	3118.1	4672.9	4772.4	4453.0	4494.6
45°	2928.8	4549.9	4339.8	4194.1	4185.6
47.5°	2749.2	4380.1	3946.2	3907.8	3821.3
50°	2558.6	4145.9	3587.1	3550.7	3373.1
52.5°	2371.9	3847.3	3266.4	3129.8	2870.9
55°	2178.7	3493.4	2957.4	2671.8	2449.3
57.5°	1999.1	3104.4	2643.2	2273.0	2073.3
60°	1805.3	2710.2	2298.4	1923.0	1758.4
62.5°	1615.3	2321.8	1986.1	1625.1	1515.8
65°	1420.8	1960.1	1669.3	1384.4	1288.7
67.5°	1234.7	1647.2	1395.4	1167.1	1103.3
70°	1046.1	1336.2	1153.4	980.4	943.3
72.5°	851.6	1067.5	932.9	827.5	799.5
75°	679.8	832.7	732.5	670.7	654.5
77.5°	506.1	619.3	572.5	536.1	531.5
80°	356.5	446.9	421.6	414.4	407.2
82.5°	227.7	292.1	299.9	295.3	290.1
85°	121.0	171.7	179.6	170.4	168.5
87.5°	48.8	74.8	80.7	89.1	91.7
90°	0.7	17.6	31.9	40.3	41.6
92.5°	0.7	3.9	4.6	4.6	3.9
95°	0.7	2.6	2.6	2.0	1.3
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: P859987

CATALOG NUMBER: SPHB-18SE-W-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)