

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: P859869

Luminaire Tested: **SPHB-12SE-N-L935-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: P859869
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-12SE-N-L935-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

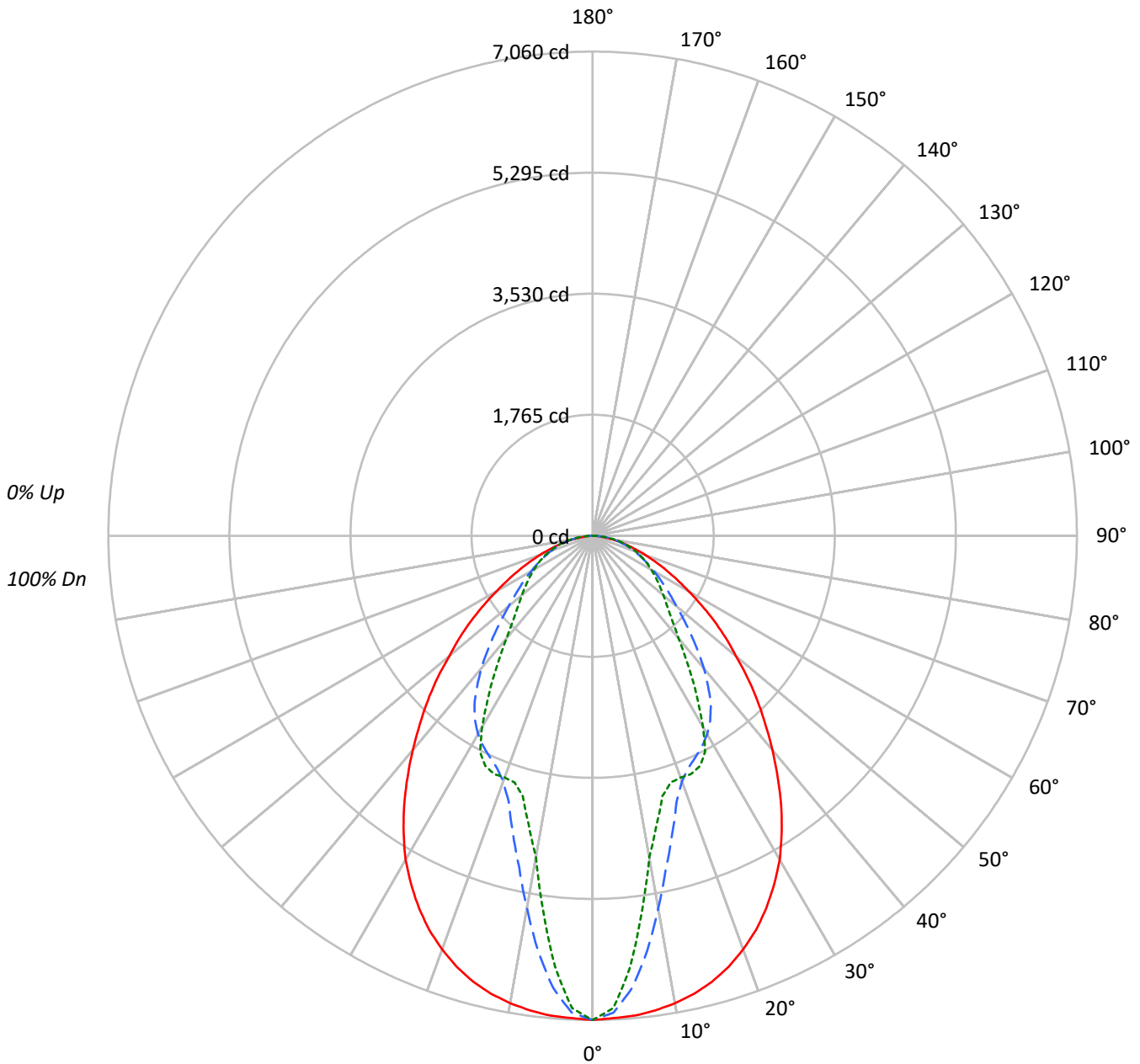
Lumens per Lamp: N/A
Luminaire Lumens: 10347.0 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 76.3
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

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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°	55067	55067	55067
5°	55003	51812	49361
10°	54815	43674	37651
15°	54359	36254	31728
20°	53264	31603	31146
25°	51552	30577	31876
30°	49116	30087	29009
35°	45604	28591	24038
40°	41527	25667	19849
45°	37485	22271	17425
50°	33080	19366	16317
55°	29354	17466	15707
60°	25156	16152	15386
65°	21775	15180	15309
70°	18634	14602	15291
75°	15641	14179	15156
80°	11935	13704	14841
85°	7813	12153	11428



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	601.9	5.8
10°-20°	1382.1	13.4
20°-30°	1867.8	18.1
30°-40°	1965.8	19.0
40°-50°	1668.0	16.1
50°-60°	1292.1	12.5
60°-70°	899.9	8.7
70°-80°	515.3	5.0
80°-90°	150.0	1.4
90°-100°	4.0	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°	3851.8	37.2
0°-40°	5817.6	56.2
0°-60°	8777.8	84.8
0°-90°	10343.0	100.0
90°-120°	4.0	0.0
90°-150°	4.0	0.0
90°-180°	4.0	0.0
0°-180°	10347.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7060	7060	7060	7060	7060	
5°	7025	6896	6617	6364	6304	667
15°	6732	5714	4490	4041	3929	1894
25°	5990	4231	3553	3656	3704	2750
35°	4789	3254	3003	2712	2524	2985
45°	3398	2444	2019	1659	1580	2617
55°	2159	1646	1284	1167	1155	1930
65°	1180	966	822	822	830	1178
75°	519	461	470	500	503	553
85°	87	113	136	128	128	111
90°	0	10	20	25	26	5
95°	0	2	3	3	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7059.9	7059.9	7059.9	7059.9	7059.9
2.5°	7039.5	7016.3	6959.7	6923.0	6894.5
5°	7024.9	6896.1	6617.4	6363.6	6304.3
7.5°	6981.2	6698.3	6102.7	5633.3	5514.7
10°	6920.9	6414.3	5514.2	4926.2	4753.7
12.5°	6840.6	6110.8	4950.4	4396.4	4311.7
15°	6731.7	5713.6	4489.6	4041.2	3929.1
17.5°	6590.5	5302.9	4064.4	3805.1	3773.9
20°	6416.9	4926.2	3807.3	3718.9	3752.3
22.5°	6221.8	4560.2	3658.0	3695.2	3757.7
25°	5990.1	4231.4	3552.9	3655.8	3703.8
27.5°	5729.8	3934.5	3456.4	3550.7	3550.7
30°	5453.3	3687.1	3340.5	3331.9	3220.9
32.5°	5130.4	3476.9	3189.1	3018.2	2853.3
35°	4789.3	3254.3	3002.6	2712.1	2524.5
37.5°	4431.4	3047.3	2766.5	2383.3	2208.7
40°	4078.4	2843.1	2520.8	2088.0	1949.4
42.5°	3727.0	2635.0	2264.7	1848.7	1739.2
45°	3398.2	2443.7	2019.0	1658.9	1579.7
47.5°	3064.0	2240.5	1792.1	1506.4	1451.4
50°	2726.1	2034.6	1595.9	1385.1	1344.7
52.5°	2441.5	1842.7	1429.3	1270.3	1246.1
55°	2158.6	1646.0	1284.4	1167.4	1155.0
57.5°	1877.8	1462.8	1151.8	1073.1	1070.4
60°	1612.6	1291.4	1035.4	992.2	986.3
62.5°	1386.8	1121.1	924.9	904.4	907.1
65°	1179.8	965.8	822.5	822.5	829.5
67.5°	987.9	823.0	728.7	741.1	750.8
70°	817.1	693.7	640.3	661.9	670.5
72.5°	655.4	573.5	555.7	579.4	586.4
75°	519.0	461.4	470.5	500.2	502.9
77.5°	384.8	363.3	387.0	419.3	425.2
80°	265.7	267.9	305.1	327.7	330.4
82.5°	171.4	187.0	228.5	240.4	236.1
85°	87.3	113.2	135.8	127.7	127.7
87.5°	33.4	49.0	57.7	67.9	71.7
90°	0.5	10.2	19.9	25.3	26.4
92.5°	0.5	2.7	4.3	4.9	4.3
95°	0.5	1.6	3.2	3.2	2.7
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)