

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: P860242

Luminaire Tested: **SPHB-60SE-N-L740-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: P860242
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-60SE-N-L740-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

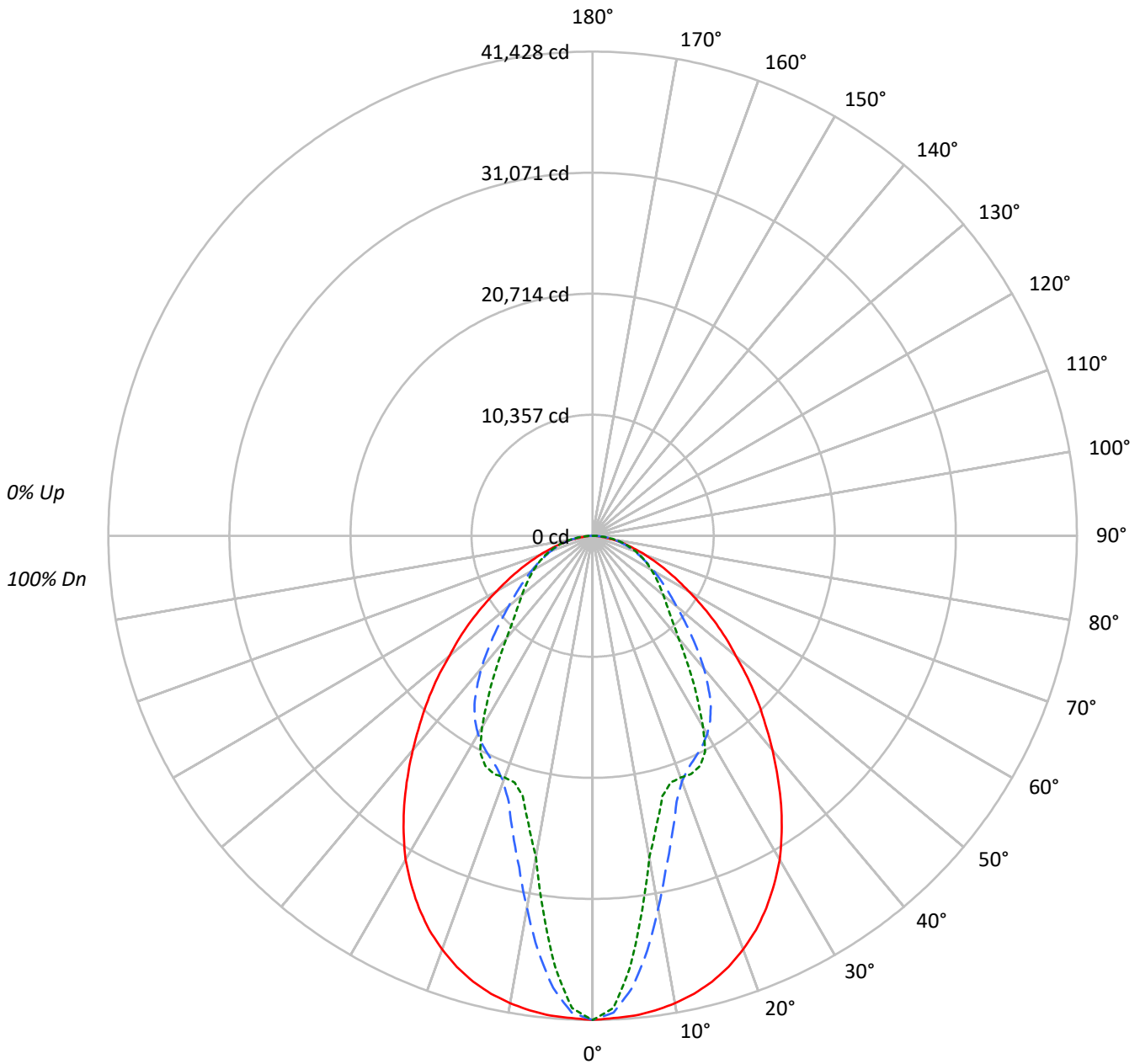
Lumens per Lamp: N/A
Luminaire Lumens: 60717.0 lumens
Efficiency: N/A
Efficacy: 161.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 376
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°	131932	131932	131932
5°	131779	124135	118261
10°	131329	104635	90205
15°	130236	86859	76014
20°	127612	75714	74621
25°	123511	73258	76369
30°	117673	72083	69501
35°	109258	68498	57592
40°	99491	61493	47556
45°	89807	53357	41749
50°	79255	46396	39094
55°	70327	41845	37631
60°	60270	38697	36863
65°	52169	36368	36678
70°	44644	34985	36634
75°	37475	33972	36308
80°	28595	32829	35554
85°	18723	29122	27390



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3532.1	5.8
10°-20°	8110.2	13.4
20°-30°	10960.5	18.1
30°-40°	11535.4	19.0
40°-50°	9788.2	16.1
50°-60°	7582.3	12.5
60°-70°	5280.8	8.7
70°-80°	3023.9	5.0
80°-90°	880.0	1.4
90°-100°	23.5	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°	22602.8	37.2
0°-40°	34138.2	56.2
0°-60°	51508.7	84.8
0°-90°	60693.5	100.0
90°-120°	23.5	0.0
90°-150°	23.5	0.0
90°-180°	23.0	0.0
0°-180°	60717.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	41428	41428	41428	41428	41428	
5°	41223	40467	38832	37342	36994	###
15°	39502	33528	26345	23714	23056	11115
25°	35150	24830	20848	21453	21734	16136
35°	28104	19096	17619	15915	14814	17518
45°	19941	14340	11848	9735	9270	15358
55°	12667	9659	7537	6850	6778	11325
65°	6923	5668	4826	4826	4867	6915
75°	3046	2707	2761	2935	2951	3248
85°	512	664	797	750	750	651
90°	3	60	117	149	155	28
95°	3	10	19	19	16	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	41428.3	41428.3	41428.3	41428.3	41428.3
2.5°	41308.1	41172.1	40840.0	40624.9	40457.3
5°	41222.7	40466.8	38831.7	37342.0	36994.1
7.5°	40966.5	39306.1	35811.3	33056.6	32360.8
10°	40612.3	37639.3	32357.6	28907.1	27895.0
12.5°	40141.0	35858.7	29049.4	25798.2	25301.6
15°	39502.2	33527.8	26345.3	23714.0	23056.1
17.5°	38673.5	31117.8	23850.0	22328.7	22145.3
20°	37655.2	28907.1	22341.3	21822.7	22018.7
22.5°	36510.3	26759.6	21465.3	21683.5	22050.4
25°	35150.3	24830.4	20848.5	21452.6	21734.1
27.5°	33622.7	23087.7	20282.4	20835.9	20835.9
30°	32000.2	21636.1	19602.4	19551.8	18900.3
32.5°	30105.8	20402.6	18713.7	17711.1	16743.4
35°	28103.8	19096.4	17619.4	15914.7	14814.1
37.5°	26003.8	17881.9	16234.2	13985.5	12960.8
40°	23932.2	16683.3	14792.0	12252.3	11439.5
42.5°	21870.1	15462.5	13289.7	10848.1	10206.0
45°	19940.8	14339.7	11847.5	9734.8	9269.9
47.5°	17980.0	13147.4	10516.0	8839.8	8517.2
50°	15997.0	11939.2	9364.8	8128.1	7890.9
52.5°	14327.0	10813.3	8387.5	7454.5	7312.2
55°	12666.6	9658.9	7536.7	6850.4	6777.7
57.5°	11018.9	8583.6	6758.7	6296.9	6281.1
60°	9462.8	7577.8	6075.6	5822.5	5787.7
62.5°	8137.6	6578.4	5427.2	5307.0	5322.8
65°	6923.2	5667.6	4826.3	4826.3	4867.4
67.5°	5797.2	4829.4	4276.0	4348.7	4405.6
70°	4794.7	4070.4	3757.3	3883.8	3934.4
72.5°	3845.8	3365.1	3260.7	3399.9	3441.0
75°	3045.7	2707.3	2761.0	2935.0	2950.8
77.5°	2258.2	2131.7	2270.8	2460.6	2495.4
80°	1559.2	1571.9	1790.1	1922.9	1938.7
82.5°	1005.7	1097.5	1341.0	1410.6	1385.3
85°	512.4	664.2	797.0	749.6	749.6
87.5°	196.1	287.8	338.4	398.5	420.6
90°	3.2	60.1	117.0	148.6	155.0
92.5°	3.2	15.8	25.3	28.5	25.3
95°	3.2	9.5	19.0	19.0	15.8
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)