

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: P470168

Luminaire Tested: **VHB2-18-W-UNV-L740-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470168
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-18-W-UNV-L740-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19721.5 lumens
Efficiency: N/A
Efficacy: 161.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

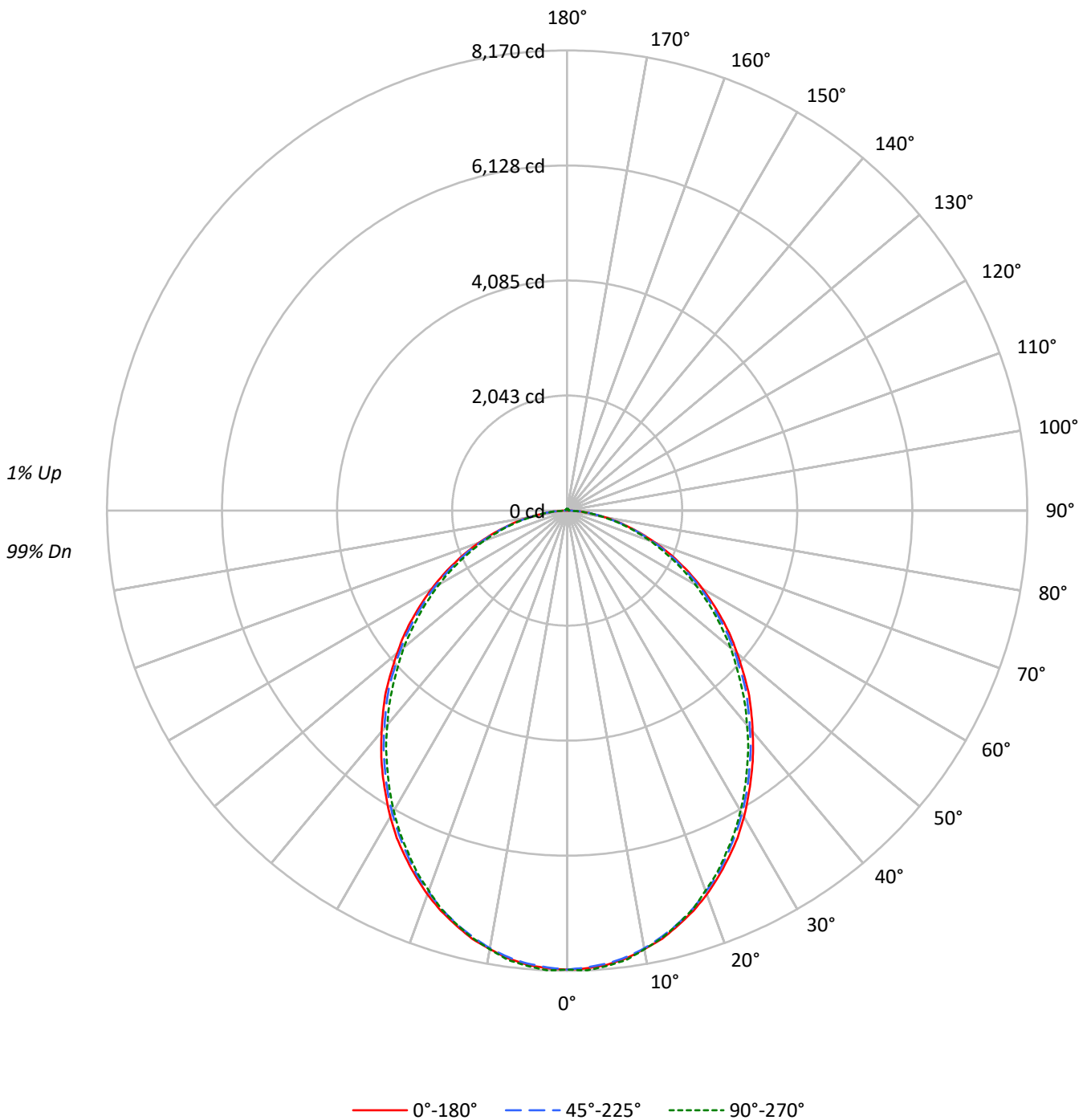
Input Watts (W): 122.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99								
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84								
2	100	92	85	79	97	90	84	78	86	81	76	83	78	75	79	76	73	71								
3	91	81	73	67	89	79	72	66	76	70	65	73	68	64	71	66	62	60								
4	84	72	63	57	81	71	63	57	68	61	56	66	60	55	63	58	54	52								
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45								
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40								
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	37	35								
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32								
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29								
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	50129	50129	50129
5°	49978	49852	50105
10°	49376	49280	49390
15°	48531	48368	48394
20°	47474	47132	47004
25°	46095	45684	45412
30°	44601	44091	43734
35°	42876	42321	41812
40°	41142	40508	39881
45°	39590	38964	37992
50°	37667	37088	36224
55°	36004	35223	34265
60°	34143	33385	32300
65°	32134	31357	30236
70°	29776	29222	28206
75°	27125	26759	25832
80°	24249	23852	23013
85°	20572	20572	20064



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	766.3	3.9
10°-20°	2140.5	10.9
20°-30°	3101.3	15.7
30°-40°	3527.5	17.9
40°-50°	3439.8	17.4
50°-60°	2936.6	14.9
60°-70°	2131.9	10.8
70°-80°	1190.4	6.0
80°-90°	334.2	1.7
90°-100°	23.7	0.1
100°-110°	23.5	0.1
110°-120°	23.1	0.1
120°-130°	22.1	0.1
130°-140°	20.9	0.1
140°-150°	18.0	0.1
150°-160°	12.6	0.1
160°-170°	7.0	0.0
170°-180°	2.1	0.0
0°-30°	6008.1	30.5
0°-40°	9535.6	48.4
0°-60°	15912.0	80.7
0°-90°	19568.5	99.2
90°-120°	70.3	0.4
90°-150°	131.4	0.7
90°-180°	153.0	0.8
0°-180°	19721.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8150	8150	8150	8150	8150	
5°	8095	8076	8074	8102	8115	767
15°	7621	7608	7596	7595	7600	2148
25°	6792	6768	6732	6707	6691	3127
35°	5710	5692	5636	5584	5568	3571
45°	4551	4508	4479	4396	4368	3502
55°	3358	3343	3285	3216	3195	3003
65°	2208	2192	2154	2104	2078	2190
75°	1141	1148	1126	1098	1087	1220
85°	292	298	292	283	284	319
90°	20	23	27	32	30	24
95°	9	15	23	27	28	9
105°	17	17	22	27	29	18
115°	20	20	23	26	28	20
125°	22	24	24	27	27	20
135°	25	27	28	28	28	19
145°	24	28	30	32	32	15
155°	23	25	29	30	30	10
165°	18	22	25	28	28	5
175°	20	20	22	23	24	2
180°	20	20	20	20	20	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8150.0	8150.0	8150.0	8150.0	8150.0
2.5°	8133.6	8112.0	8116.2	8142.8	8169.5
5°	8094.6	8076.1	8074.1	8101.8	8115.1
7.5°	8018.6	7999.1	7998.1	8029.9	8045.3
10°	7905.7	7900.6	7890.3	7911.9	7907.8
12.5°	7787.7	7758.9	7753.8	7771.3	7772.3
15°	7621.4	7608.1	7595.7	7594.7	7599.8
17.5°	7451.0	7422.3	7415.1	7411.0	7421.2
20°	7252.9	7221.1	7200.6	7196.5	7181.1
22.5°	7028.1	7008.6	6989.1	6955.2	6958.3
25°	6792.0	6768.4	6731.5	6706.8	6691.4
27.5°	6550.8	6513.9	6474.9	6452.3	6438.9
30°	6279.8	6257.2	6208.0	6165.9	6157.7
32.5°	5992.4	5977.0	5927.8	5890.8	5866.2
35°	5710.1	5691.7	5636.2	5583.9	5568.5
37.5°	5422.7	5400.2	5352.9	5306.8	5281.1
40°	5124.0	5107.6	5045.0	4989.6	4967.0
42.5°	4835.6	4814.1	4757.6	4689.9	4676.5
45°	4551.3	4508.2	4479.4	4396.3	4367.6
47.5°	4236.2	4224.9	4163.3	4096.6	4064.7
50°	3936.4	3929.3	3875.9	3801.0	3785.6
52.5°	3661.4	3632.6	3583.3	3515.6	3480.7
55°	3357.5	3343.2	3284.6	3215.9	3195.3
57.5°	3059.9	3059.9	2997.2	2938.7	2903.8
60°	2775.5	2758.1	2713.9	2657.5	2625.7
62.5°	2489.1	2474.8	2436.8	2380.3	2351.6
65°	2207.9	2191.5	2154.5	2104.2	2077.5
67.5°	1939.0	1919.5	1895.9	1830.2	1812.7
70°	1655.7	1651.6	1624.9	1579.7	1568.4
72.5°	1401.1	1397.0	1366.2	1326.2	1313.9
75°	1141.4	1147.6	1126.0	1098.3	1087.0
77.5°	915.6	909.4	888.9	872.5	853.0
80°	684.6	682.6	673.4	650.8	649.7
82.5°	473.2	481.4	474.2	457.8	451.6
85°	291.5	297.7	291.5	283.3	284.3
87.5°	130.4	132.4	125.2	112.9	104.7
90°	20.5	22.6	26.7	31.8	29.8
92.5°	7.2	15.4	22.6	26.7	27.7
95°	9.2	15.4	22.6	26.7	27.7
97.5°	13.3	15.4	22.6	26.7	28.7
100°	15.4	16.4	22.6	26.7	28.7
102.5°	16.4	16.4	22.6	26.7	28.7
105°	17.4	17.4	21.6	26.7	28.7
107.5°	18.5	17.4	21.6	26.7	28.7
110°	18.5	18.5	21.6	26.7	27.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	19.5	19.5	22.6	25.7	27.7
115°	20.5	20.5	22.6	25.7	27.7
117.5°	20.5	21.6	22.6	26.7	27.7
120°	21.6	22.6	22.6	26.7	26.7
122.5°	21.6	23.6	23.6	26.7	26.7
125°	21.6	23.6	23.6	26.7	26.7
127.5°	22.6	24.6	23.6	26.7	26.7
130°	23.6	24.6	25.7	26.7	26.7
132.5°	23.6	25.7	26.7	27.7	26.7
135°	24.6	26.7	27.7	27.7	27.7
137.5°	25.7	26.7	28.7	28.7	28.7
140°	25.7	27.7	28.7	29.8	29.8
142.5°	23.6	27.7	28.7	30.8	30.8
145°	23.6	27.7	29.8	31.8	31.8
147.5°	22.6	26.7	28.7	31.8	31.8
150°	22.6	25.7	28.7	30.8	30.8
152.5°	23.6	24.6	28.7	29.8	30.8
155°	22.6	24.6	28.7	29.8	29.8
157.5°	21.6	23.6	27.7	29.8	30.8
160°	20.5	23.6	26.7	29.8	29.8
162.5°	19.5	22.6	25.7	28.7	29.8
165°	18.5	21.6	24.6	27.7	27.7
167.5°	18.5	21.6	23.6	25.7	26.7
170°	19.5	20.5	22.6	23.6	24.6
172.5°	20.5	20.5	22.6	22.6	22.6
175°	20.5	20.5	21.6	22.6	23.6
177.5°	21.6	20.5	20.5	22.6	22.6
180°	20.5	20.5	20.5	20.5	20.5

(END OF REPORT)