

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: P470193

Luminaire Tested: **VHB2-18-W-UNV-L935-CD-U**

Issue Date: 01/20/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P470193  
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-L935-CD-U  
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

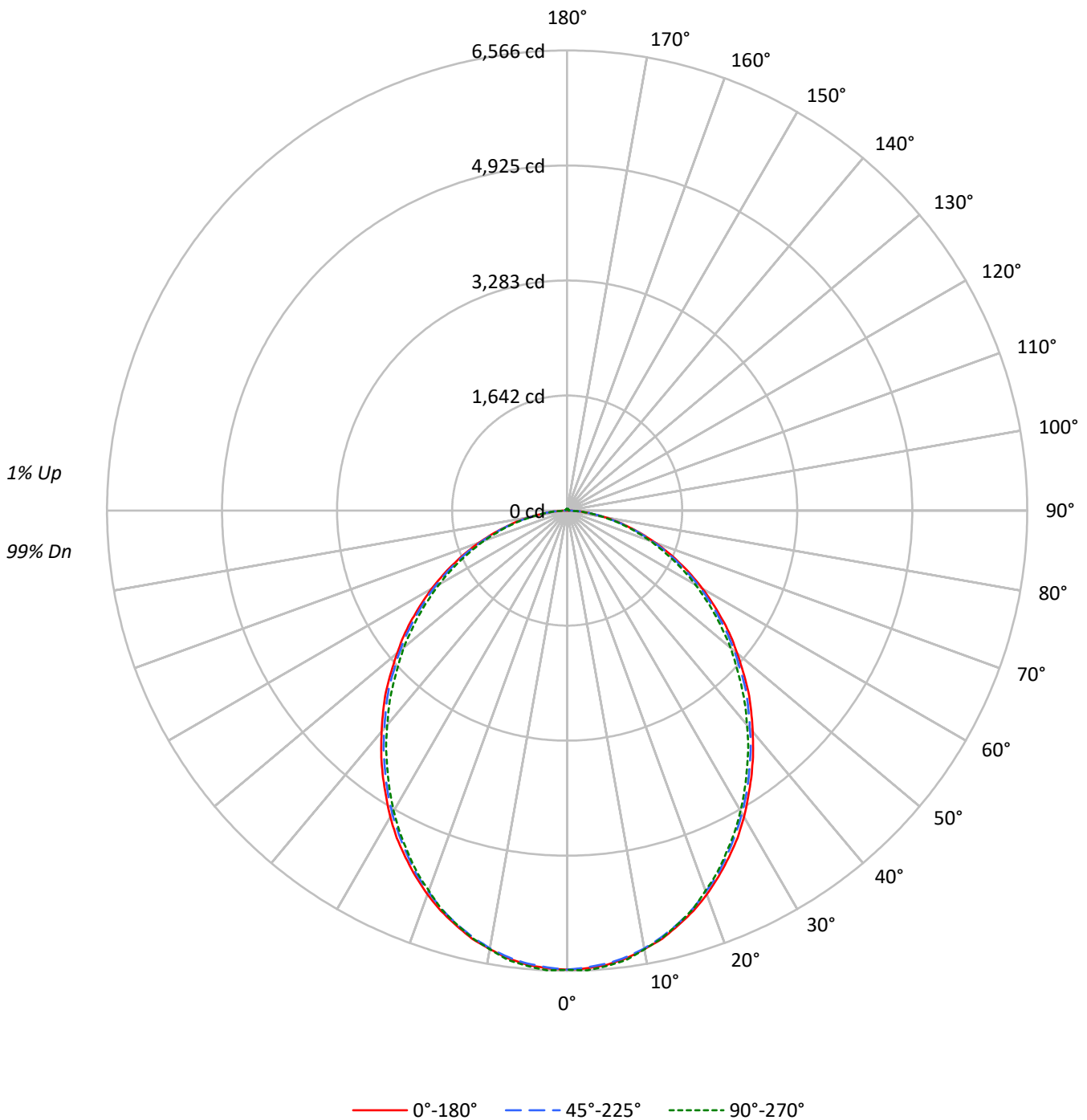
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15850.8 lumens  
Efficiency: N/A  
Efficacy: 129.6 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



TEST NUMBER: P470193  
CATALOG NUMBER: VHB2-18-W-UNV-L935-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P470193

CATALOG NUMBER: VHB2-18-W-UNV-L935-CD-U

**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°	40291	40291	40291
5°	40169	40067	40271
10°	39686	39609	39696
15°	39006	38875	38896
20°	38157	37882	37779
25°	37048	36718	36500
30°	35848	35438	35151
35°	34461	34015	33606
40°	33068	32558	32055
45°	31819	31317	30535
50°	30275	29809	29114
55°	28939	28310	27540
60°	27442	26833	25960
65°	25828	25203	24302
70°	23931	23487	22670
75°	21802	21507	20763
80°	19492	19170	18497
85°	16535	16535	16126



TEST NUMBER: P470193

CATALOG NUMBER: VHB2-18-W-UNV-L935-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	615.9	3.9
10°-20°	1720.4	10.9
20°-30°	2492.7	15.7
30°-40°	2835.2	17.9
40°-50°	2764.7	17.4
50°-60°	2360.3	14.9
60°-70°	1713.5	10.8
70°-80°	956.7	6.0
80°-90°	268.6	1.7
90°-100°	19.1	0.1
100°-110°	18.8	0.1
110°-120°	18.5	0.1
120°-130°	17.8	0.1
130°-140°	16.8	0.1
140°-150°	14.5	0.1
150°-160°	10.1	0.1
160°-170°	5.6	0.0
170°-180°	1.7	0.0
0°-30°	4828.9	30.5
0°-40°	7664.1	48.4
0°-60°	12789.1	80.7
0°-90°	15727.9	99.2
90°-120°	56.4	0.4
90°-150°	105.5	0.7
90°-180°	123.0	0.8
0°-180°	15850.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6550	6550	6550	6550	6550	
5°	6506	6491	6489	6512	6522	616
15°	6126	6115	6105	6104	6108	1726
25°	5459	5440	5410	5390	5378	2513
35°	4590	4575	4530	4488	4476	2870
45°	3658	3623	3600	3534	3510	2815
55°	2699	2687	2640	2585	2568	2414
65°	1775	1761	1732	1691	1670	1760
75°	917	922	905	883	874	981
85°	234	239	234	228	228	256
90°	16	18	21	26	24	20
95°	7	12	18	21	22	7
105°	14	14	17	21	23	15
115°	16	16	18	21	22	16
125°	17	19	19	21	21	16
135°	20	21	22	22	22	15
145°	19	22	24	26	26	12
155°	18	20	23	24	24	8
165°	15	17	20	22	22	4
175°	16	16	17	18	19	2
180°	16	16	16	16	16	



TEST NUMBER: P470193

CATALOG NUMBER: VHB2-18-W-UNV-L935-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6550.5	6550.5	6550.5	6550.5	6550.5
2.5°	6537.3	6520.0	6523.3	6544.7	6566.2
5°	6505.9	6491.1	6489.4	6511.7	6522.4
7.5°	6444.9	6429.2	6428.4	6454.0	6466.3
10°	6354.1	6350.0	6341.8	6359.1	6355.8
12.5°	6259.3	6236.2	6232.0	6246.1	6246.9
15°	6125.6	6114.9	6105.0	6104.2	6108.3
17.5°	5988.7	5965.6	5959.8	5956.5	5964.7
20°	5829.4	5803.9	5787.4	5784.1	5771.7
22.5°	5648.8	5633.1	5617.4	5590.2	5592.7
25°	5459.0	5440.0	5410.3	5390.5	5378.2
27.5°	5265.1	5235.4	5204.1	5185.9	5175.2
30°	5047.3	5029.2	4989.6	4955.8	4949.2
32.5°	4816.3	4804.0	4764.4	4734.7	4714.9
35°	4589.5	4574.6	4530.1	4488.0	4475.6
37.5°	4358.5	4340.3	4302.4	4265.2	4244.6
40°	4118.4	4105.2	4054.9	4010.3	3992.2
42.5°	3886.6	3869.2	3823.9	3769.4	3758.7
45°	3658.0	3623.4	3600.3	3533.5	3510.4
47.5°	3404.8	3395.7	3346.2	3292.6	3267.0
50°	3163.9	3158.1	3115.2	3055.0	3042.6
52.5°	2942.8	2919.7	2880.1	2825.6	2797.6
55°	2698.6	2687.0	2640.0	2584.7	2568.2
57.5°	2459.3	2459.3	2409.0	2362.0	2333.9
60°	2230.8	2216.8	2181.3	2135.9	2110.3
62.5°	2000.6	1989.1	1958.5	1913.2	1890.1
65°	1774.6	1761.4	1731.7	1691.2	1669.8
67.5°	1558.4	1542.7	1523.8	1471.0	1456.9
70°	1330.7	1327.4	1306.0	1269.7	1260.6
72.5°	1126.1	1122.8	1098.1	1065.9	1056.0
75°	917.4	922.3	905.0	882.7	873.7
77.5°	735.9	730.9	714.4	701.2	685.6
80°	550.3	548.6	541.2	523.0	522.2
82.5°	380.3	386.9	381.1	367.9	363.0
85°	234.3	239.2	234.3	227.7	228.5
87.5°	104.8	106.4	100.6	90.7	84.1
90°	16.5	18.1	21.4	25.6	23.9
92.5°	5.8	12.4	18.1	21.4	22.3
95°	7.4	12.4	18.1	21.4	22.3
97.5°	10.7	12.4	18.1	21.4	23.1
100°	12.4	13.2	18.1	21.4	23.1
102.5°	13.2	13.2	18.1	21.4	23.1
105°	14.0	14.0	17.3	21.4	23.1
107.5°	14.8	14.0	17.3	21.4	23.1
110°	14.8	14.8	17.3	21.4	22.3



TEST NUMBER: P470193

CATALOG NUMBER: VHB2-18-W-UNV-L935-CD-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	15.7	15.7	18.1	20.6	22.3
115°	16.5	16.5	18.1	20.6	22.3
117.5°	16.5	17.3	18.1	21.4	22.3
120°	17.3	18.1	18.1	21.4	21.4
122.5°	17.3	19.0	19.0	21.4	21.4
125°	17.3	19.0	19.0	21.4	21.4
127.5°	18.1	19.8	19.0	21.4	21.4
130°	19.0	19.8	20.6	21.4	21.4
132.5°	19.0	20.6	21.4	22.3	21.4
135°	19.8	21.4	22.3	22.3	22.3
137.5°	20.6	21.4	23.1	23.1	23.1
140°	20.6	22.3	23.1	23.9	23.9
142.5°	19.0	22.3	23.1	24.7	24.7
145°	19.0	22.3	23.9	25.6	25.6
147.5°	18.1	21.4	23.1	25.6	25.6
150°	18.1	20.6	23.1	24.7	24.7
152.5°	19.0	19.8	23.1	23.9	24.7
155°	18.1	19.8	23.1	23.9	23.9
157.5°	17.3	19.0	22.3	23.9	24.7
160°	16.5	19.0	21.4	23.9	23.9
162.5°	15.7	18.1	20.6	23.1	23.9
165°	14.8	17.3	19.8	22.3	22.3
167.5°	14.8	17.3	19.0	20.6	21.4
170°	15.7	16.5	18.1	19.0	19.8
172.5°	16.5	16.5	18.1	18.1	18.1
175°	16.5	16.5	17.3	18.1	19.0
177.5°	17.3	16.5	16.5	18.1	18.1
180°	16.5	16.5	16.5	16.5	16.5

(END OF REPORT)