

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: P470203

Luminaire Tested: **VHB2-18-W-UNV-L950-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470203
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-L950-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

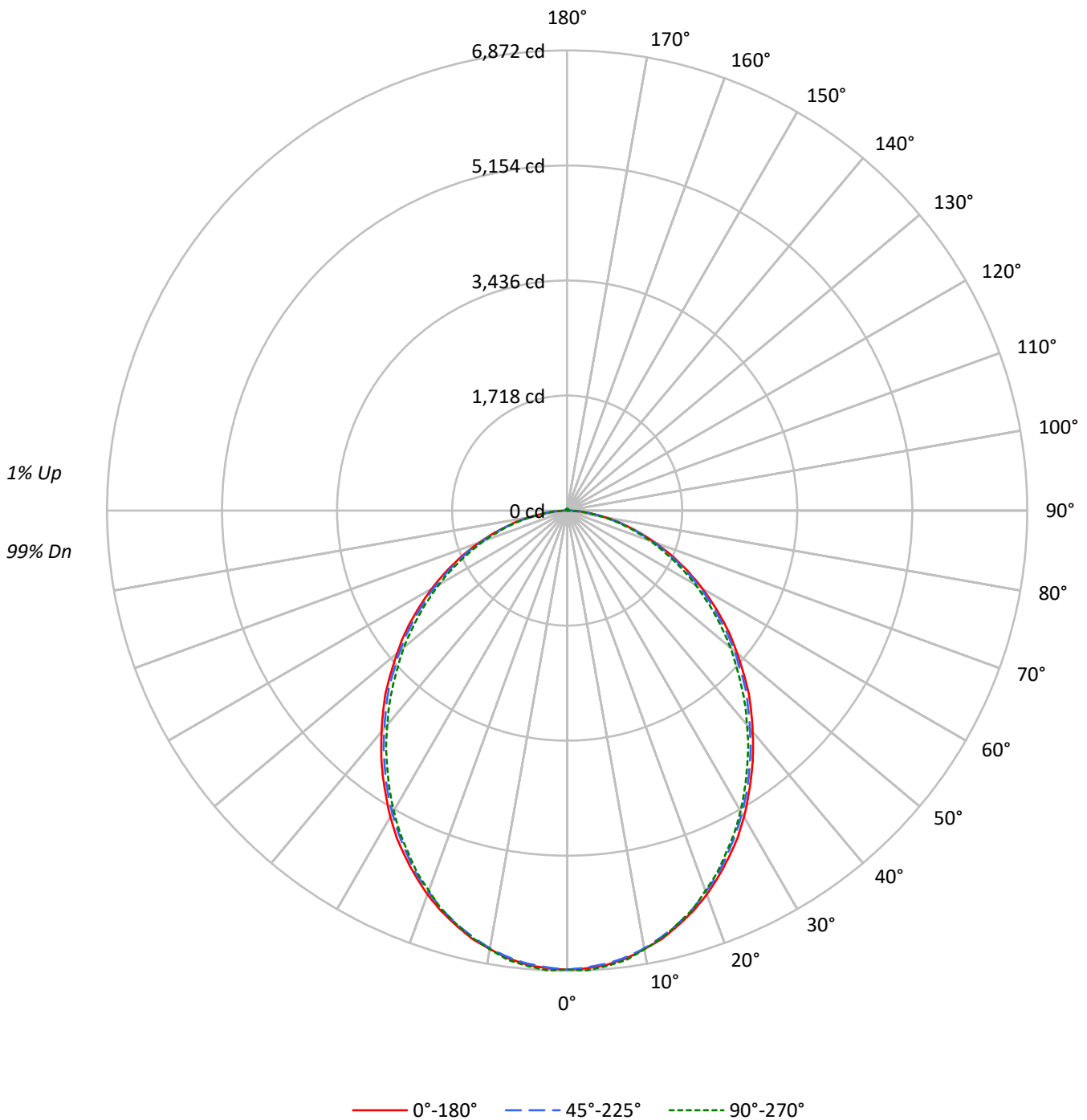
Lumens per Lamp: N/A
Luminaire Lumens: 16588.1 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

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



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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°	42165	42165	42165
5°	42038	41931	42144
10°	41532	41451	41542
15°	40821	40683	40705
20°	39932	39643	39536
25°	38771	38426	38197
30°	37515	37086	36786
35°	36064	35597	35169
40°	34605	34072	33545
45°	33300	32773	31955
50°	31683	31196	30468
55°	30284	29627	28822
60°	28719	28082	27168
65°	27028	26375	25433
70°	25044	24578	23724
75°	22817	22508	21728
80°	20399	20062	19358
85°	17304	17304	16881



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	644.5	3.9
10°-20°	1800.4	10.9
20°-30°	2608.6	15.7
30°-40°	2967.1	17.9
40°-50°	2893.2	17.4
50°-60°	2470.0	14.9
60°-70°	1793.2	10.8
70°-80°	1001.3	6.0
80°-90°	281.1	1.7
90°-100°	20.0	0.1
100°-110°	19.7	0.1
110°-120°	19.4	0.1
120°-130°	18.6	0.1
130°-140°	17.6	0.1
140°-150°	15.2	0.1
150°-160°	10.6	0.1
160°-170°	5.8	0.0
170°-180°	1.7	0.0
0°-30°	5053.5	30.5
0°-40°	8020.6	48.4
0°-60°	13383.9	80.7
0°-90°	16459.5	99.2
90°-120°	59.1	0.4
90°-150°	110.4	0.7
90°-180°	129.0	0.8
0°-180°	16588.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6855	6855	6855	6855	6855	
5°	6808	6793	6791	6815	6826	645
15°	6410	6399	6389	6388	6392	1806
25°	5713	5693	5662	5641	5628	2630
35°	4803	4787	4741	4697	4684	3004
45°	3828	3792	3768	3698	3674	2946
55°	2824	2812	2763	2705	2688	2526
65°	1857	1843	1812	1770	1748	1842
75°	960	965	947	924	914	1026
85°	245	250	245	238	239	268
90°	17	19	22	27	25	21
95°	8	13	19	22	23	8
105°	15	15	18	22	24	15
115°	17	17	19	22	23	17
125°	18	20	20	22	22	17
135°	21	22	23	23	23	16
145°	20	23	25	27	27	12
155°	19	21	24	25	25	9
165°	16	18	21	23	23	5
175°	17	17	18	19	20	2
180°	17	17	17	17	17	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6855.2	6855.2	6855.2	6855.2	6855.2
2.5°	6841.3	6823.2	6826.7	6849.1	6871.6
5°	6808.5	6793.0	6791.3	6814.6	6825.8
7.5°	6744.7	6728.2	6727.4	6754.1	6767.1
10°	6649.7	6645.4	6636.7	6654.9	6651.4
12.5°	6550.4	6526.2	6521.9	6536.6	6537.4
15°	6410.5	6399.3	6388.9	6388.1	6392.4
17.5°	6267.2	6243.0	6237.0	6233.5	6242.2
20°	6100.6	6073.8	6056.5	6053.1	6040.1
22.5°	5911.5	5895.1	5878.7	5850.2	5852.8
25°	5712.9	5693.1	5662.0	5641.3	5628.3
27.5°	5510.0	5478.9	5446.1	5427.1	5415.9
30°	5282.1	5263.1	5221.7	5186.3	5179.4
32.5°	5040.4	5027.4	4986.0	4954.9	4934.2
35°	4802.9	4787.4	4740.8	4696.7	4683.8
37.5°	4561.2	4542.2	4502.5	4463.6	4442.0
40°	4309.9	4296.1	4243.5	4196.8	4177.8
42.5°	4067.3	4049.2	4001.7	3944.7	3933.5
45°	3828.2	3791.9	3767.7	3697.8	3673.6
47.5°	3563.1	3553.6	3501.8	3445.7	3418.9
50°	3311.0	3305.0	3260.1	3197.1	3184.1
52.5°	3079.6	3055.5	3014.0	2957.0	2927.7
55°	2824.1	2812.0	2762.8	2704.9	2687.7
57.5°	2573.7	2573.7	2521.0	2471.8	2442.5
60°	2334.6	2319.9	2282.8	2235.3	2208.5
62.5°	2093.7	2081.6	2049.6	2002.2	1978.0
65°	1857.1	1843.3	1812.2	1769.9	1747.5
67.5°	1630.9	1614.5	1594.6	1539.4	1524.7
70°	1392.6	1389.2	1366.7	1328.7	1319.2
72.5°	1178.5	1175.0	1149.1	1115.5	1105.1
75°	960.1	965.2	947.1	923.8	914.3
77.5°	770.1	764.9	747.7	733.9	717.5
80°	575.9	574.1	566.4	547.4	546.5
82.5°	398.0	404.9	398.9	385.1	379.9
85°	245.2	250.4	245.2	238.3	239.2
87.5°	109.6	111.4	105.3	95.0	88.1
90°	17.3	19.0	22.4	26.8	25.0
92.5°	6.0	13.0	19.0	22.4	23.3
95°	7.8	13.0	19.0	22.4	23.3
97.5°	11.2	13.0	19.0	22.4	24.2
100°	13.0	13.8	19.0	22.4	24.2
102.5°	13.8	13.8	19.0	22.4	24.2
105°	14.7	14.7	18.1	22.4	24.2
107.5°	15.5	14.7	18.1	22.4	24.2
110°	15.5	15.5	18.1	22.4	23.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	16.4	16.4	19.0	21.6	23.3
115°	17.3	17.3	19.0	21.6	23.3
117.5°	17.3	18.1	19.0	22.4	23.3
120°	18.1	19.0	19.0	22.4	22.4
122.5°	18.1	19.9	19.9	22.4	22.4
125°	18.1	19.9	19.9	22.4	22.4
127.5°	19.0	20.7	19.9	22.4	22.4
130°	19.9	20.7	21.6	22.4	22.4
132.5°	19.9	21.6	22.4	23.3	22.4
135°	20.7	22.4	23.3	23.3	23.3
137.5°	21.6	22.4	24.2	24.2	24.2
140°	21.6	23.3	24.2	25.0	25.0
142.5°	19.9	23.3	24.2	25.9	25.9
145°	19.9	23.3	25.0	26.8	26.8
147.5°	19.0	22.4	24.2	26.8	26.8
150°	19.0	21.6	24.2	25.9	25.9
152.5°	19.9	20.7	24.2	25.0	25.9
155°	19.0	20.7	24.2	25.0	25.0
157.5°	18.1	19.9	23.3	25.0	25.9
160°	17.3	19.9	22.4	25.0	25.0
162.5°	16.4	19.0	21.6	24.2	25.0
165°	15.5	18.1	20.7	23.3	23.3
167.5°	15.5	18.1	19.9	21.6	22.4
170°	16.4	17.3	19.0	19.9	20.7
172.5°	17.3	17.3	19.0	19.0	19.0
175°	17.3	17.3	18.1	19.0	19.9
177.5°	18.1	17.3	17.3	19.0	19.0
180°	17.3	17.3	17.3	17.3	17.3

(END OF REPORT)