

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: P470191

Luminaire Tested: **VHB2-12-W-UNV-L935-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470191
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-12-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

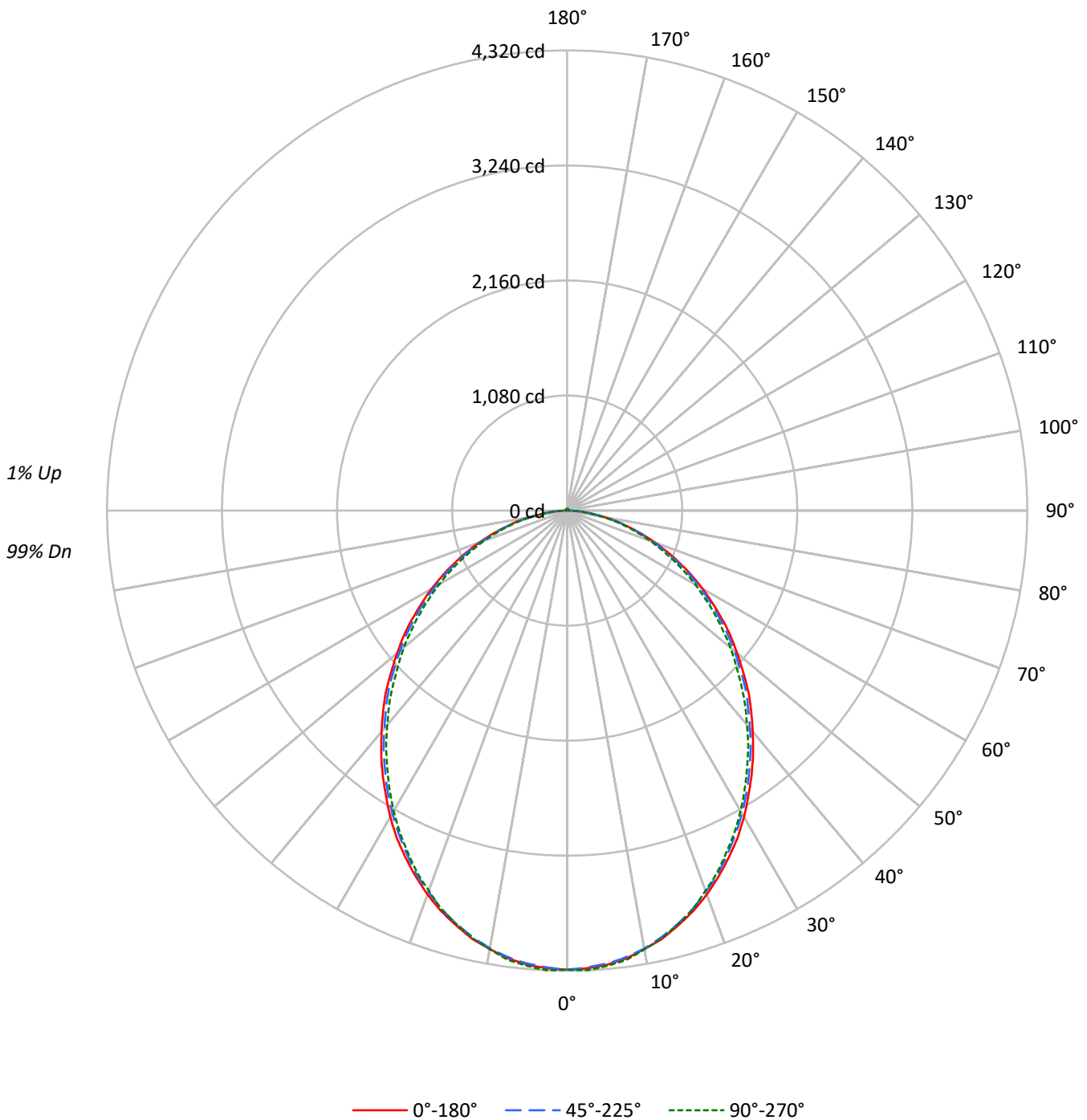
Lumens per Lamp: N/A
Luminaire Lumens: 10428.8 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 81.4
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	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°	26509	26509	26509
5°	26429	26362	26496
10°	26111	26059	26118
15°	25663	25577	25591
20°	25105	24923	24856
25°	24376	24158	24015
30°	23585	23316	23127
35°	22673	22380	22111
40°	21756	21421	21090
45°	20935	20604	20090
50°	19919	19612	19155
55°	19040	18626	18120
60°	18055	17654	17081
65°	16992	16581	15989
70°	15745	15452	14916
75°	14344	14150	13660
80°	12822	12613	12171
85°	10882	10882	10614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	405.2	3.9
10°-20°	1131.9	10.9
20°-30°	1640.0	15.7
30°-40°	1865.4	17.9
40°-50°	1818.9	17.4
50°-60°	1552.9	14.9
60°-70°	1127.4	10.8
70°-80°	629.5	6.0
80°-90°	176.8	1.7
90°-100°	12.5	0.1
100°-110°	12.4	0.1
110°-120°	12.2	0.1
120°-130°	11.7	0.1
130°-140°	11.1	0.1
140°-150°	9.5	0.1
150°-160°	6.7	0.1
160°-170°	3.7	0.0
170°-180°	1.1	0.0
0°-30°	3177.1	30.5
0°-40°	5042.5	48.4
0°-60°	8414.3	80.7
0°-90°	10347.9	99.2
90°-120°	37.1	0.4
90°-150°	69.4	0.7
90°-180°	81.0	0.8
0°-180°	10428.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4310	4310	4310	4310	4310	
5°	4280	4271	4270	4284	4291	405
15°	4030	4023	4017	4016	4019	1136
25°	3592	3579	3560	3547	3538	1654
35°	3020	3010	2980	2953	2945	1888
45°	2407	2384	2369	2325	2310	1852
55°	1776	1768	1737	1701	1690	1588
65°	1168	1159	1139	1113	1099	1158
75°	604	607	595	581	575	645
85°	154	157	154	150	150	169
90°	11	12	14	17	16	13
95°	5	8	12	14	15	5
105°	9	9	11	14	15	10
115°	11	11	12	14	15	11
125°	11	12	12	14	14	10
135°	13	14	15	15	15	10
145°	12	15	16	17	17	8
155°	12	13	15	16	16	5
165°	10	11	13	15	15	3
175°	11	11	11	12	12	1
180°	11	11	11	11	11	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4309.8	4309.8	4309.8	4309.8	4309.8
2.5°	4301.1	4289.7	4291.9	4306.0	4320.1
5°	4280.5	4270.7	4269.6	4284.3	4291.3
7.5°	4240.3	4230.0	4229.4	4246.3	4254.4
10°	4180.6	4177.9	4172.4	4183.8	4181.7
12.5°	4118.2	4103.0	4100.3	4109.5	4110.0
15°	4030.2	4023.2	4016.7	4016.1	4018.8
17.5°	3940.1	3924.9	3921.1	3919.0	3924.4
20°	3835.4	3818.5	3807.7	3805.5	3797.4
22.5°	3716.5	3706.2	3695.9	3678.0	3679.6
25°	3591.7	3579.2	3559.6	3546.6	3538.5
27.5°	3464.1	3444.6	3423.9	3412.0	3404.9
30°	3320.8	3308.9	3282.8	3260.6	3256.2
32.5°	3168.8	3160.7	3134.6	3115.1	3102.1
35°	3019.6	3009.8	2980.5	2952.8	2944.7
37.5°	2867.6	2855.6	2830.7	2806.2	2792.7
40°	2709.6	2700.9	2667.8	2638.5	2626.6
42.5°	2557.1	2545.7	2515.8	2480.0	2473.0
45°	2406.7	2383.9	2368.7	2324.8	2309.6
47.5°	2240.1	2234.1	2201.6	2166.3	2149.5
50°	2081.6	2077.8	2049.6	2010.0	2001.8
52.5°	1936.1	1920.9	1894.9	1859.1	1840.6
55°	1775.5	1767.9	1736.9	1700.6	1689.7
57.5°	1618.1	1618.1	1585.0	1554.0	1535.6
60°	1467.7	1458.5	1435.1	1405.3	1388.5
62.5°	1316.3	1308.7	1288.6	1258.7	1243.5
65°	1167.5	1158.9	1139.3	1112.7	1098.6
67.5°	1025.3	1015.0	1002.5	967.8	958.6
70°	875.5	873.4	859.2	835.4	829.4
72.5°	740.9	738.7	722.5	701.3	694.8
75°	603.6	606.8	595.4	580.8	574.8
77.5°	484.2	480.9	470.1	461.4	451.1
80°	362.0	361.0	356.1	344.1	343.6
82.5°	250.2	254.6	250.8	242.1	238.8
85°	154.2	157.4	154.2	149.8	150.4
87.5°	68.9	70.0	66.2	59.7	55.4
90°	10.9	11.9	14.1	16.8	15.7
92.5°	3.8	8.1	11.9	14.1	14.7
95°	4.9	8.1	11.9	14.1	14.7
97.5°	7.1	8.1	11.9	14.1	15.2
100°	8.1	8.7	11.9	14.1	15.2
102.5°	8.7	8.7	11.9	14.1	15.2
105°	9.2	9.2	11.4	14.1	15.2
107.5°	9.8	9.2	11.4	14.1	15.2
110°	9.8	9.8	11.4	14.1	14.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.3	10.3	11.9	13.6	14.7
115°	10.9	10.9	11.9	13.6	14.7
117.5°	10.9	11.4	11.9	14.1	14.7
120°	11.4	11.9	11.9	14.1	14.1
122.5°	11.4	12.5	12.5	14.1	14.1
125°	11.4	12.5	12.5	14.1	14.1
127.5°	11.9	13.0	12.5	14.1	14.1
130°	12.5	13.0	13.6	14.1	14.1
132.5°	12.5	13.6	14.1	14.7	14.1
135°	13.0	14.1	14.7	14.7	14.7
137.5°	13.6	14.1	15.2	15.2	15.2
140°	13.6	14.7	15.2	15.7	15.7
142.5°	12.5	14.7	15.2	16.3	16.3
145°	12.5	14.7	15.7	16.8	16.8
147.5°	11.9	14.1	15.2	16.8	16.8
150°	11.9	13.6	15.2	16.3	16.3
152.5°	12.5	13.0	15.2	15.7	16.3
155°	11.9	13.0	15.2	15.7	15.7
157.5°	11.4	12.5	14.7	15.7	16.3
160°	10.9	12.5	14.1	15.7	15.7
162.5°	10.3	11.9	13.6	15.2	15.7
165°	9.8	11.4	13.0	14.7	14.7
167.5°	9.8	11.4	12.5	13.6	14.1
170°	10.3	10.9	11.9	12.5	13.0
172.5°	10.9	10.9	11.9	11.9	11.9
175°	10.9	10.9	11.4	11.9	12.5
177.5°	11.4	10.9	10.9	11.9	11.9
180°	10.9	10.9	10.9	10.9	10.9

(END OF REPORT)