

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: P417744

Luminaire Tested: **VHB-1215-W-UNV-L840-CD-U-LEVEL1**

Issue Date: 11/17/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P417744  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 11/17/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB-1215-W-UNV-L840-CD-U-LEVEL1  
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12248.6 lumens  
Efficiency: N/A  
Efficacy: 152.0 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

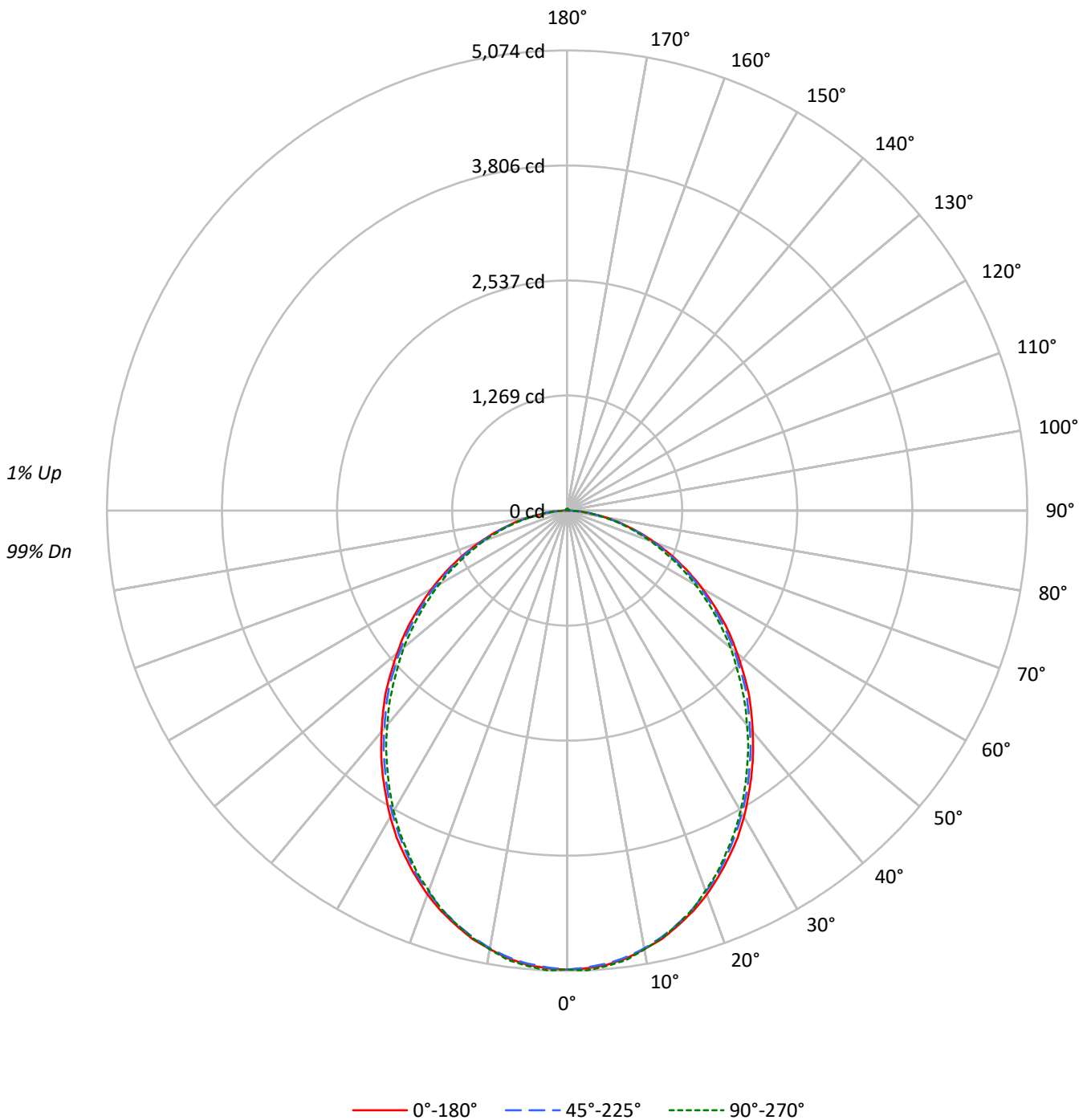
Input Watts (W): 80.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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°	31134	31134	31134
5°	31041	30962	31119
10°	30667	30607	30674
15°	30142	30040	30056
20°	29485	29272	29193
25°	28629	28374	28205
30°	27700	27384	27162
35°	26629	26284	25969
40°	25552	25158	24770
45°	24588	24200	23596
50°	23394	23034	22498
55°	22362	21876	21281
60°	21205	20736	20060
65°	19958	19475	18779
70°	18493	18149	17518
75°	16847	16619	16044
80°	15061	14813	14292
85°	12781	12781	12463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	475.9	3.9
10°-20°	1329.4	10.9
20°-30°	1926.2	15.7
30°-40°	2190.8	17.9
40°-50°	2136.3	17.4
50°-60°	1823.9	14.9
60°-70°	1324.1	10.8
70°-80°	739.3	6.0
80°-90°	207.6	1.7
90°-100°	14.8	0.1
100°-110°	14.6	0.1
110°-120°	14.3	0.1
120°-130°	13.8	0.1
130°-140°	13.0	0.1
140°-150°	11.2	0.1
150°-160°	7.8	0.1
160°-170°	4.3	0.0
170°-180°	1.3	0.0
0°-30°	3731.5	30.5
0°-40°	5922.3	48.4
0°-60°	9882.5	80.7
0°-90°	12153.5	99.2
90°-120°	43.7	0.4
90°-150°	81.6	0.7
90°-180°	95.0	0.8
0°-180°	12248.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5062	5062	5062	5062	5062	
5°	5027	5016	5015	5032	5040	476
15°	4734	4725	4718	4717	4720	1334
25°	4218	4204	4181	4166	4156	1942
35°	3546	3535	3500	3468	3458	2218
45°	2827	2800	2782	2730	2713	2175
55°	2085	2076	2040	1997	1984	1865
65°	1371	1361	1338	1307	1290	1360
75°	709	713	699	682	675	758
85°	181	185	181	176	177	198
90°	13	14	17	20	18	15
95°	6	10	14	17	17	6
105°	11	11	13	17	18	11
115°	13	13	14	16	17	12
125°	13	15	15	17	17	12
135°	15	17	17	17	17	12
145°	15	17	18	20	20	9
155°	14	15	18	18	18	6
165°	12	13	15	17	17	3
175°	13	13	13	14	15	1
180°	13	13	13	13	13	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5061.8	5061.8	5061.8	5061.8	5061.8
2.5°	5051.6	5038.2	5040.7	5057.3	5073.9
5°	5027.4	5015.9	5014.6	5031.8	5040.1
7.5°	4980.2	4968.1	4967.4	4987.2	4996.8
10°	4910.1	4906.9	4900.5	4913.9	4911.3
12.5°	4836.7	4818.9	4815.7	4826.5	4827.2
15°	4733.5	4725.2	4717.5	4716.9	4720.1
17.5°	4627.6	4609.8	4605.3	4602.8	4609.2
20°	4504.6	4484.8	4472.1	4469.5	4460.0
22.5°	4365.0	4352.9	4340.8	4319.7	4321.6
25°	4218.4	4203.7	4180.8	4165.5	4155.9
27.5°	4068.5	4045.6	4021.4	4007.3	3999.1
30°	3900.2	3886.2	3855.6	3829.5	3824.4
32.5°	3721.7	3712.2	3681.6	3658.6	3643.3
35°	3546.4	3535.0	3500.5	3468.0	3458.5
37.5°	3367.9	3353.9	3324.6	3295.9	3280.0
40°	3182.4	3172.2	3133.3	3098.9	3084.9
42.5°	3003.3	2989.9	2954.8	2912.8	2904.5
45°	2826.7	2799.9	2782.1	2730.4	2712.6
47.5°	2631.0	2624.0	2585.7	2544.3	2524.5
50°	2444.8	2440.4	2407.2	2360.7	2351.1
52.5°	2274.0	2256.1	2225.5	2183.5	2161.8
55°	2085.3	2076.4	2040.0	1997.3	1984.5
57.5°	1900.4	1900.4	1861.5	1825.2	1803.5
60°	1723.8	1713.0	1685.6	1650.5	1630.7
62.5°	1545.9	1537.0	1513.4	1478.4	1460.5
65°	1371.3	1361.1	1338.1	1306.9	1290.3
67.5°	1204.2	1192.1	1177.5	1136.7	1125.8
70°	1028.3	1025.7	1009.2	981.1	974.1
72.5°	870.2	867.6	848.5	823.7	816.0
75°	708.9	712.7	699.3	682.1	675.1
77.5°	568.7	564.8	552.1	541.9	529.8
80°	425.2	423.9	418.2	404.2	403.5
82.5°	293.9	299.0	294.5	284.3	280.5
85°	181.1	184.9	181.1	176.0	176.6
87.5°	81.0	82.2	77.8	70.1	65.0
90°	12.8	14.0	16.6	19.8	18.5
92.5°	4.5	9.6	14.0	16.6	17.2
95°	5.7	9.6	14.0	16.6	17.2
97.5°	8.3	9.6	14.0	16.6	17.9
100°	9.6	10.2	14.0	16.6	17.9
102.5°	10.2	10.2	14.0	16.6	17.9
105°	10.8	10.8	13.4	16.6	17.9
107.5°	11.5	10.8	13.4	16.6	17.9
110°	11.5	11.5	13.4	16.6	17.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	12.1	12.1	14.0	15.9	17.2
115°	12.8	12.8	14.0	15.9	17.2
117.5°	12.8	13.4	14.0	16.6	17.2
120°	13.4	14.0	14.0	16.6	16.6
122.5°	13.4	14.7	14.7	16.6	16.6
125°	13.4	14.7	14.7	16.6	16.6
127.5°	14.0	15.3	14.7	16.6	16.6
130°	14.7	15.3	15.9	16.6	16.6
132.5°	14.7	15.9	16.6	17.2	16.6
135°	15.3	16.6	17.2	17.2	17.2
137.5°	15.9	16.6	17.9	17.9	17.9
140°	15.9	17.2	17.9	18.5	18.5
142.5°	14.7	17.2	17.9	19.1	19.1
145°	14.7	17.2	18.5	19.8	19.8
147.5°	14.0	16.6	17.9	19.8	19.8
150°	14.0	15.9	17.9	19.1	19.1
152.5°	14.7	15.3	17.9	18.5	19.1
155°	14.0	15.3	17.9	18.5	18.5
157.5°	13.4	14.7	17.2	18.5	19.1
160°	12.8	14.7	16.6	18.5	18.5
162.5°	12.1	14.0	15.9	17.9	18.5
165°	11.5	13.4	15.3	17.2	17.2
167.5°	11.5	13.4	14.7	15.9	16.6
170°	12.1	12.8	14.0	14.7	15.3
172.5°	12.8	12.8	14.0	14.0	14.0
175°	12.8	12.8	13.4	14.0	14.7
177.5°	13.4	12.8	12.8	14.0	14.0
180°	12.8	12.8	12.8	12.8	12.8

(END OF REPORT)