

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: P417756

Luminaire Tested: **VHB-1215-W-UNV-L940-CD-U-LEVEL1**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417756
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-L940-CD-U-LEVEL1
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10901.2 lumens
Efficiency: N/A
Efficacy: 135.3 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

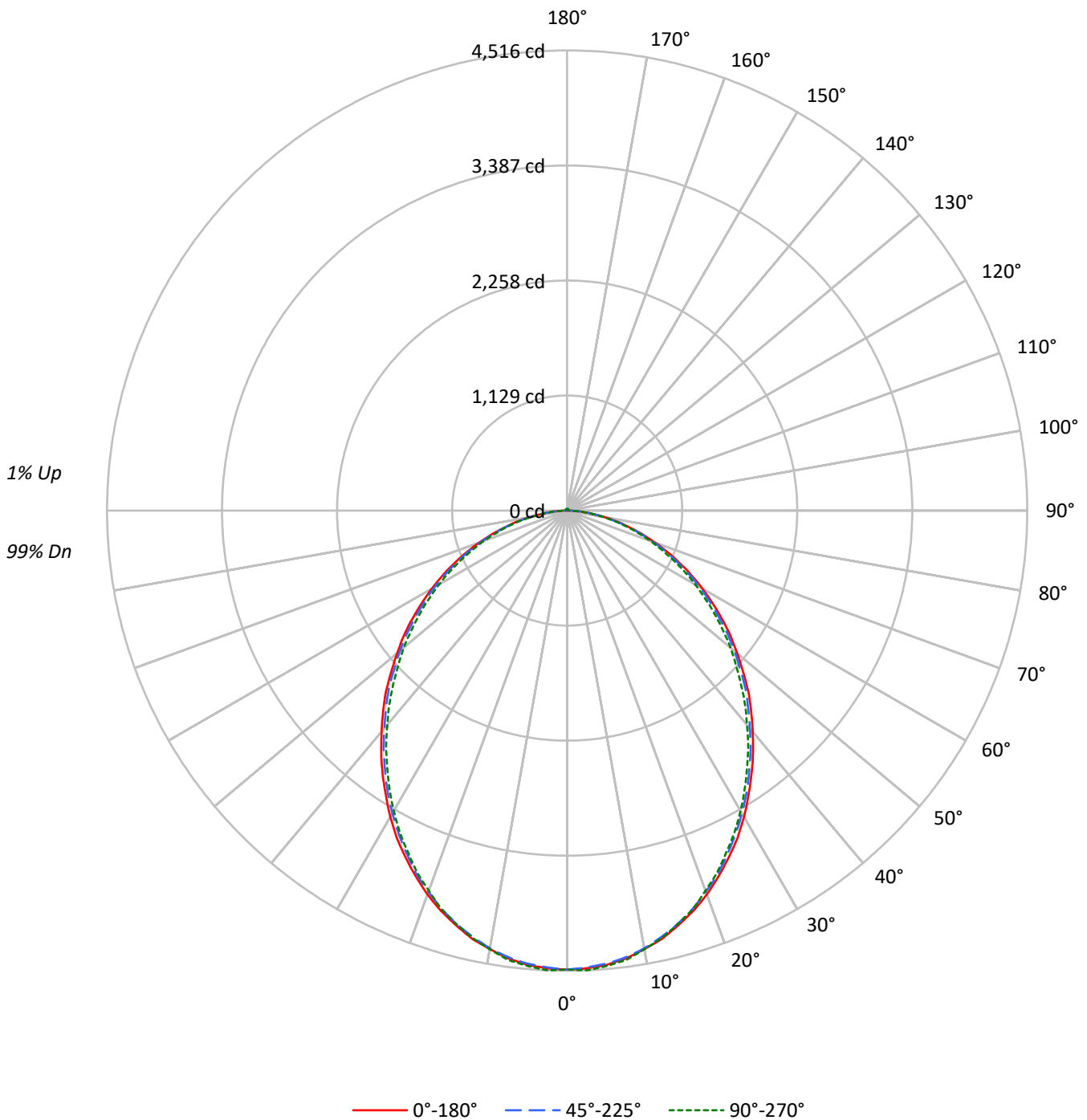
Input Watts (W): 80.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	27709	27709	27709
5°	27626	27556	27696
10°	27293	27240	27300
15°	26826	26736	26750
20°	26242	26053	25982
25°	25479	25252	25102
30°	24654	24372	24174
35°	23700	23393	23112
40°	22742	22391	22044
45°	21884	21538	21000
50°	20821	20500	20023
55°	19902	19470	18940
60°	18873	18454	17855
65°	17762	17332	16714
70°	16459	16153	15592
75°	14993	14791	14280
80°	13403	13184	12723
85°	11369	11369	11094



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	423.6	3.9
10°-20°	1183.2	10.9
20°-30°	1714.3	15.7
30°-40°	1949.9	17.9
40°-50°	1901.3	17.4
50°-60°	1623.2	14.9
60°-70°	1178.4	10.8
70°-80°	658.0	6.0
80°-90°	184.8	1.7
90°-100°	13.1	0.1
100°-110°	13.0	0.1
110°-120°	12.8	0.1
120°-130°	12.2	0.1
130°-140°	11.6	0.1
140°-150°	10.0	0.1
150°-160°	7.0	0.1
160°-170°	3.8	0.0
170°-180°	1.1	0.0
0°-30°	3321.0	30.5
0°-40°	5270.9	48.4
0°-60°	8795.4	80.7
0°-90°	10816.6	99.2
90°-120°	38.9	0.4
90°-150°	72.6	0.7
90°-180°	85.0	0.8
0°-180°	10901.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4505	4505	4505	4505	4505	
5°	4474	4464	4463	4478	4486	424
15°	4213	4205	4199	4198	4201	1187
25°	3754	3741	3721	3707	3699	1729
35°	3156	3146	3116	3086	3078	1974
45°	2516	2492	2476	2430	2414	1936
55°	1856	1848	1816	1778	1766	1660
65°	1220	1211	1191	1163	1148	1210
75°	631	634	622	607	601	675
85°	161	164	161	157	157	176
90°	11	12	15	18	16	14
95°	5	8	12	15	15	5
105°	10	10	12	15	16	10
115°	11	11	12	14	15	11
125°	12	13	13	15	15	11
135°	14	15	15	15	15	11
145°	13	15	16	18	18	8
155°	12	14	16	16	16	6
165°	10	12	14	15	15	3
175°	11	11	12	12	13	1
180°	11	11	11	11	11	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4505.0	4505.0	4505.0	4505.0	4505.0
2.5°	4495.9	4484.0	4486.3	4501.0	4515.8
5°	4474.3	4464.1	4463.0	4478.3	4485.7
7.5°	4432.4	4421.6	4421.0	4438.6	4447.1
10°	4369.9	4367.1	4361.4	4373.4	4371.1
12.5°	4304.7	4288.8	4286.0	4295.6	4296.2
15°	4212.8	4205.4	4198.6	4198.0	4200.9
17.5°	4118.6	4102.7	4098.7	4096.5	4102.1
20°	4009.1	3991.5	3980.2	3977.9	3969.4
22.5°	3884.8	3874.1	3863.3	3844.6	3846.3
25°	3754.3	3741.3	3720.9	3707.3	3698.7
27.5°	3621.0	3600.6	3579.0	3566.5	3559.2
30°	3471.2	3458.7	3431.5	3408.2	3403.7
32.5°	3312.4	3303.8	3276.6	3256.2	3242.6
35°	3156.3	3146.1	3115.5	3086.5	3078.0
37.5°	2997.5	2985.0	2958.9	2933.3	2919.2
40°	2832.4	2823.3	2788.7	2758.0	2745.5
42.5°	2672.9	2661.0	2629.8	2592.4	2585.0
45°	2515.8	2491.9	2476.0	2430.1	2414.2
47.5°	2341.6	2335.3	2301.3	2264.4	2246.8
50°	2175.9	2171.9	2142.4	2101.0	2092.5
52.5°	2023.8	2008.0	1980.7	1943.3	1924.0
55°	1855.9	1848.0	1815.6	1777.6	1766.2
57.5°	1691.4	1691.4	1656.7	1624.4	1605.1
60°	1534.2	1524.5	1500.1	1468.9	1451.4
62.5°	1375.9	1367.9	1347.0	1315.8	1299.9
65°	1220.4	1211.4	1190.9	1163.1	1148.4
67.5°	1071.8	1061.0	1047.9	1011.6	1002.0
70°	915.2	912.9	898.2	873.2	867.0
72.5°	774.5	772.2	755.2	733.1	726.2
75°	630.9	634.3	622.4	607.1	600.9
77.5°	506.1	502.7	491.3	482.3	471.5
80°	378.4	377.3	372.2	359.7	359.2
82.5°	261.6	266.1	262.1	253.1	249.6
85°	161.1	164.5	161.1	156.6	157.2
87.5°	72.1	73.2	69.2	62.4	57.9
90°	11.3	12.5	14.8	17.6	16.5
92.5°	4.0	8.5	12.5	14.8	15.3
95°	5.1	8.5	12.5	14.8	15.3
97.5°	7.4	8.5	12.5	14.8	15.9
100°	8.5	9.1	12.5	14.8	15.9
102.5°	9.1	9.1	12.5	14.8	15.9
105°	9.6	9.6	11.9	14.8	15.9
107.5°	10.2	9.6	11.9	14.8	15.9
110°	10.2	10.2	11.9	14.8	15.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.8	10.8	12.5	14.2	15.3
115°	11.3	11.3	12.5	14.2	15.3
117.5°	11.3	11.9	12.5	14.8	15.3
120°	11.9	12.5	12.5	14.8	14.8
122.5°	11.9	13.0	13.0	14.8	14.8
125°	11.9	13.0	13.0	14.8	14.8
127.5°	12.5	13.6	13.0	14.8	14.8
130°	13.0	13.6	14.2	14.8	14.8
132.5°	13.0	14.2	14.8	15.3	14.8
135°	13.6	14.8	15.3	15.3	15.3
137.5°	14.2	14.8	15.9	15.9	15.9
140°	14.2	15.3	15.9	16.5	16.5
142.5°	13.0	15.3	15.9	17.0	17.0
145°	13.0	15.3	16.5	17.6	17.6
147.5°	12.5	14.8	15.9	17.6	17.6
150°	12.5	14.2	15.9	17.0	17.0
152.5°	13.0	13.6	15.9	16.5	17.0
155°	12.5	13.6	15.9	16.5	16.5
157.5°	11.9	13.0	15.3	16.5	17.0
160°	11.3	13.0	14.8	16.5	16.5
162.5°	10.8	12.5	14.2	15.9	16.5
165°	10.2	11.9	13.6	15.3	15.3
167.5°	10.2	11.9	13.0	14.2	14.8
170°	10.8	11.3	12.5	13.0	13.6
172.5°	11.3	11.3	12.5	12.5	12.5
175°	11.3	11.3	11.9	12.5	13.0
177.5°	11.9	11.3	11.3	12.5	12.5
180°	11.3	11.3	11.3	11.3	11.3

(END OF REPORT)