

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: P417757

Luminaire Tested: **VHB-1215-W-UNV-L940-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417757
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-LEVEL2
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: 14221.6 lumens
Efficiency: N/A
Efficacy: 129.4 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

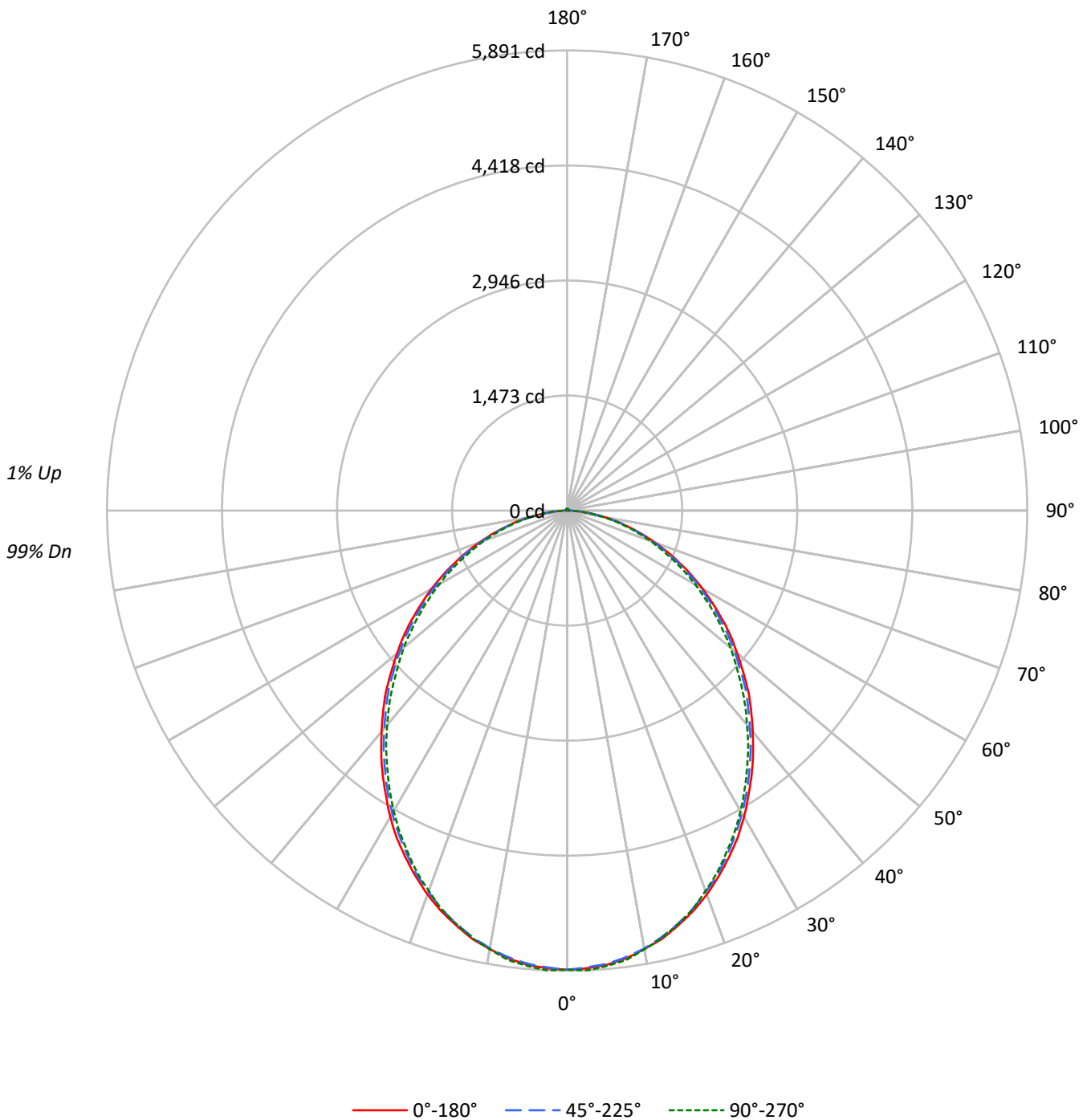
Input Watts (W): 109.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	36149	36149	36149
5°	36041	35949	36132
10°	35607	35537	35616
15°	34997	34879	34898
20°	34235	33988	33895
25°	33240	32944	32748
30°	32163	31795	31538
35°	30919	30518	30152
40°	29669	29211	28759
45°	28549	28098	27397
50°	27163	26745	26122
55°	25964	25400	24709
60°	24622	24075	23292
65°	23173	22613	21805
70°	21471	21072	20340
75°	19561	19297	18629
80°	17487	17200	16595
85°	14834	14834	14467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	552.6	3.9
10°-20°	1543.5	10.9
20°-30°	2236.5	15.7
30°-40°	2543.8	17.9
40°-50°	2480.5	17.4
50°-60°	2117.7	14.9
60°-70°	1537.4	10.8
70°-80°	858.4	6.0
80°-90°	241.0	1.7
90°-100°	17.1	0.1
100°-110°	16.9	0.1
110°-120°	16.6	0.1
120°-130°	15.9	0.1
130°-140°	15.1	0.1
140°-150°	13.0	0.1
150°-160°	9.1	0.1
160°-170°	5.0	0.0
170°-180°	1.5	0.0
0°-30°	4332.6	30.5
0°-40°	6876.4	48.4
0°-60°	11474.5	80.7
0°-90°	14111.3	99.2
90°-120°	50.6	0.4
90°-150°	94.6	0.7
90°-180°	110.0	0.8
0°-180°	14221.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5877	5877	5877	5877	5877	
5°	5837	5824	5822	5842	5852	553
15°	5496	5486	5478	5477	5480	1549
25°	4898	4881	4854	4836	4825	2255
35°	4118	4104	4064	4027	4016	2575
45°	3282	3251	3230	3170	3150	2525
55°	2421	2411	2369	2319	2304	2166
65°	1592	1580	1554	1517	1498	1579
75°	823	828	812	792	784	880
85°	210	215	210	204	205	230
90°	15	16	19	23	22	18
95°	7	11	16	19	20	7
105°	13	13	16	19	21	13
115°	15	15	16	18	20	14
125°	16	17	17	19	19	14
135°	18	19	20	20	20	14
145°	17	20	22	23	23	11
155°	16	18	21	22	22	7
165°	13	16	18	20	20	4
175°	15	15	16	16	17	1
180°	15	15	15	15	15	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5877.2	5877.2	5877.2	5877.2	5877.2
2.5°	5865.3	5849.8	5852.8	5872.0	5891.3
5°	5837.2	5823.9	5822.4	5842.4	5852.0
7.5°	5782.4	5768.4	5767.6	5790.6	5801.7
10°	5701.0	5697.3	5689.9	5705.5	5702.5
12.5°	5615.9	5595.2	5591.5	5604.1	5604.8
15°	5496.0	5486.4	5477.5	5476.7	5480.4
17.5°	5373.1	5352.4	5347.2	5344.2	5351.6
20°	5230.3	5207.3	5192.5	5189.5	5178.4
22.5°	5068.1	5054.1	5040.0	5015.6	5017.8
25°	4897.9	4880.9	4854.2	4836.5	4825.4
27.5°	4724.0	4697.3	4669.2	4652.9	4643.3
30°	4528.5	4512.3	4476.7	4446.4	4440.5
32.5°	4321.3	4310.2	4274.7	4248.0	4230.2
35°	4117.7	4104.4	4064.4	4026.7	4015.6
37.5°	3910.5	3894.2	3860.1	3826.8	3808.3
40°	3695.1	3683.2	3638.1	3598.1	3581.8
42.5°	3487.1	3471.5	3430.8	3382.0	3372.4
45°	3282.0	3251.0	3230.2	3170.3	3149.6
47.5°	3054.8	3046.7	3002.3	2954.1	2931.2
50°	2838.7	2833.5	2795.0	2741.0	2729.9
52.5°	2640.3	2619.6	2584.0	2535.2	2510.0
55°	2421.2	2410.8	2368.6	2319.0	2304.2
57.5°	2206.5	2206.5	2161.4	2119.2	2094.0
60°	2001.5	1988.9	1957.1	1916.4	1893.4
62.5°	1795.0	1784.6	1757.2	1716.5	1695.8
65°	1592.2	1580.3	1553.7	1517.4	1498.2
67.5°	1398.2	1384.2	1367.1	1319.8	1307.2
70°	1193.9	1191.0	1171.7	1139.2	1131.0
72.5°	1010.4	1007.4	985.2	956.3	947.5
75°	823.1	827.5	812.0	792.0	783.9
77.5°	660.3	655.8	641.0	629.2	615.1
80°	493.7	492.2	485.6	469.3	468.5
82.5°	341.2	347.2	342.0	330.1	325.7
85°	210.2	214.7	210.2	204.3	205.0
87.5°	94.0	95.5	90.3	81.4	75.5
90°	14.8	16.3	19.2	22.9	21.5
92.5°	5.2	11.1	16.3	19.2	20.0
95°	6.7	11.1	16.3	19.2	20.0
97.5°	9.6	11.1	16.3	19.2	20.7
100°	11.1	11.8	16.3	19.2	20.7
102.5°	11.8	11.8	16.3	19.2	20.7
105°	12.6	12.6	15.5	19.2	20.7
107.5°	13.3	12.6	15.5	19.2	20.7
110°	13.3	13.3	15.5	19.2	20.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	14.1	14.1	16.3	18.5	20.0
115°	14.8	14.8	16.3	18.5	20.0
117.5°	14.8	15.5	16.3	19.2	20.0
120°	15.5	16.3	16.3	19.2	19.2
122.5°	15.5	17.0	17.0	19.2	19.2
125°	15.5	17.0	17.0	19.2	19.2
127.5°	16.3	17.8	17.0	19.2	19.2
130°	17.0	17.8	18.5	19.2	19.2
132.5°	17.0	18.5	19.2	20.0	19.2
135°	17.8	19.2	20.0	20.0	20.0
137.5°	18.5	19.2	20.7	20.7	20.7
140°	18.5	20.0	20.7	21.5	21.5
142.5°	17.0	20.0	20.7	22.2	22.2
145°	17.0	20.0	21.5	22.9	22.9
147.5°	16.3	19.2	20.7	22.9	22.9
150°	16.3	18.5	20.7	22.2	22.2
152.5°	17.0	17.8	20.7	21.5	22.2
155°	16.3	17.8	20.7	21.5	21.5
157.5°	15.5	17.0	20.0	21.5	22.2
160°	14.8	17.0	19.2	21.5	21.5
162.5°	14.1	16.3	18.5	20.7	21.5
165°	13.3	15.5	17.8	20.0	20.0
167.5°	13.3	15.5	17.0	18.5	19.2
170°	14.1	14.8	16.3	17.0	17.8
172.5°	14.8	14.8	16.3	16.3	16.3
175°	14.8	14.8	15.5	16.3	17.0
177.5°	15.5	14.8	14.8	16.3	16.3
180°	14.8	14.8	14.8	14.8	14.8

(END OF REPORT)