

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: P470190

Luminaire Tested: **VHB2-9-W-UNV-L935-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470190
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-9-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

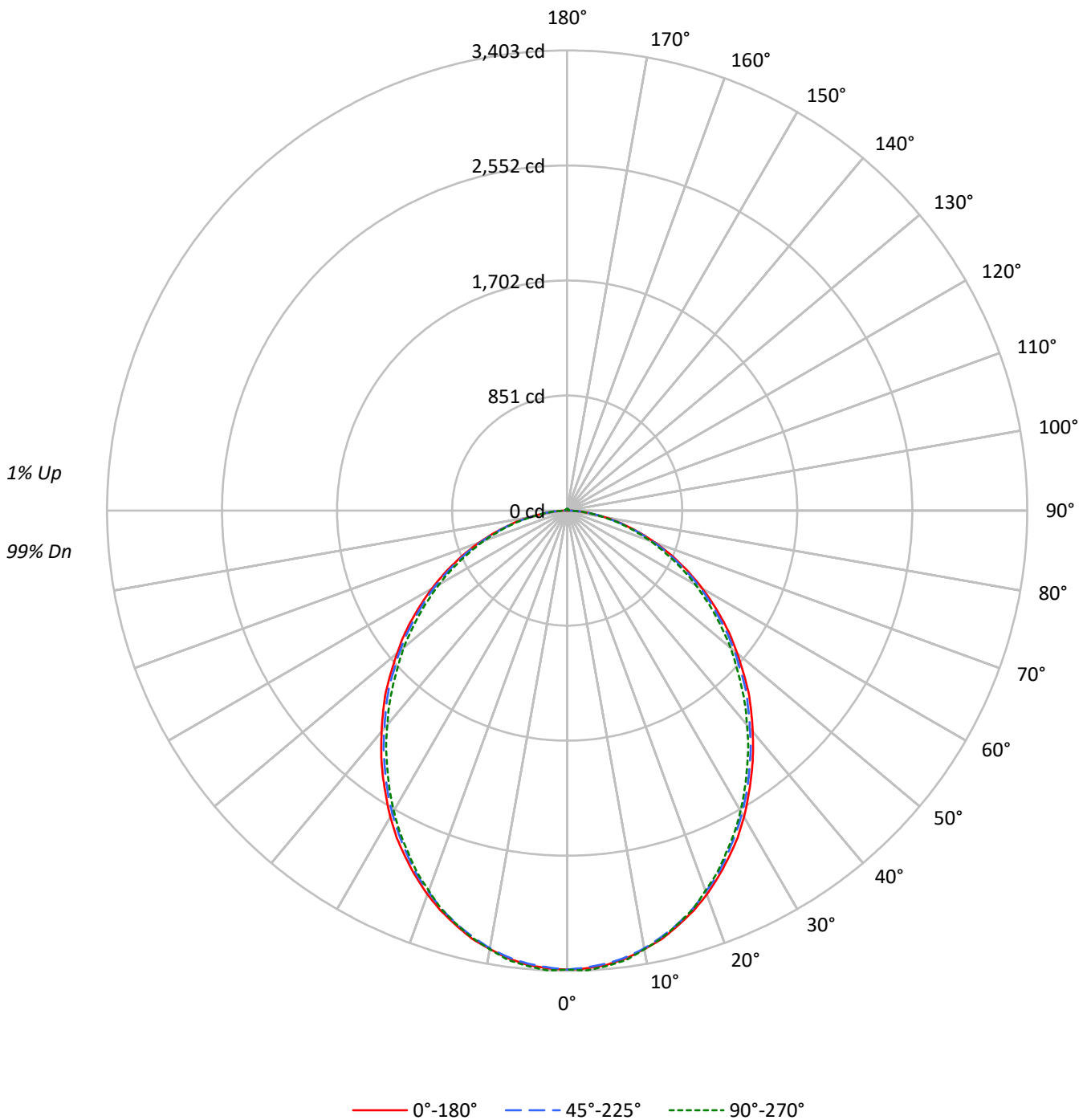
Lumens per Lamp: N/A
Luminaire Lumens: 8214.4 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 64.2
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°	20880	20880	20880
5°	20817	20764	20870
10°	20566	20526	20572
15°	20214	20146	20157
20°	19774	19631	19578
25°	19199	19028	18915
30°	18578	18365	18216
35°	17859	17627	17416
40°	17137	16873	16612
45°	16490	16230	15824
50°	15689	15448	15088
55°	14997	14671	14272
60°	14222	13906	13453
65°	13384	13061	12594
70°	12402	12171	11749
75°	11298	11146	10761
80°	10102	9936	9585
85°	8567	8567	8356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.2	3.9
10°-20°	891.5	10.9
20°-30°	1291.8	15.7
30°-40°	1469.3	17.9
40°-50°	1432.7	17.4
50°-60°	1223.2	14.9
60°-70°	888.0	10.8
70°-80°	495.8	6.0
80°-90°	139.2	1.7
90°-100°	9.9	0.1
100°-110°	9.8	0.1
110°-120°	9.6	0.1
120°-130°	9.2	0.1
130°-140°	8.7	0.1
140°-150°	7.5	0.1
150°-160°	5.3	0.1
160°-170°	2.9	0.0
170°-180°	0.9	0.0
0°-30°	2502.5	30.5
0°-40°	3971.8	48.4
0°-60°	6627.7	80.7
0°-90°	8150.7	99.2
90°-120°	29.3	0.4
90°-150°	54.7	0.7
90°-180°	64.0	0.8
0°-180°	8214.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3395	3395	3395	3395	3395	
5°	3372	3364	3363	3375	3380	319
15°	3174	3169	3164	3163	3166	895
25°	2829	2819	2804	2794	2787	1303
35°	2378	2371	2348	2326	2319	1487
45°	1896	1878	1866	1831	1819	1459
55°	1398	1392	1368	1340	1331	1251
65°	920	913	897	876	865	912
75°	475	478	469	458	453	508
85°	121	124	121	118	118	133
90°	9	9	11	13	12	10
95°	4	6	9	11	12	4
105°	7	7	9	11	12	8
115°	9	9	9	11	12	8
125°	9	10	10	11	11	8
135°	10	11	12	12	12	8
145°	10	12	12	13	13	6
155°	9	10	12	12	12	4
165°	8	9	10	12	12	2
175°	9	9	9	9	10	1
180°	9	9	9	9	9	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3394.7	3394.7	3394.7	3394.7	3394.7
2.5°	3387.8	3378.8	3380.5	3391.7	3402.8
5°	3371.6	3363.9	3363.0	3374.6	3380.1
7.5°	3339.9	3331.8	3331.4	3344.6	3351.0
10°	3292.9	3290.8	3286.5	3295.5	3293.8
12.5°	3243.7	3231.8	3229.6	3236.9	3237.3
15°	3174.5	3168.9	3163.8	3163.4	3165.5
17.5°	3103.5	3091.5	3088.5	3086.8	3091.1
20°	3021.0	3007.7	2999.2	2997.5	2991.1
22.5°	2927.4	2919.2	2911.1	2897.0	2898.3
25°	2829.0	2819.2	2803.8	2793.5	2787.1
27.5°	2728.5	2713.2	2696.9	2687.5	2681.9
30°	2615.7	2606.3	2585.8	2568.2	2564.8
32.5°	2496.0	2489.6	2469.0	2453.6	2443.4
35°	2378.4	2370.7	2347.6	2325.8	2319.4
37.5°	2258.7	2249.3	2229.6	2210.4	2199.7
40°	2134.3	2127.4	2101.4	2078.3	2068.9
42.5°	2014.1	2005.2	1981.6	1953.4	1947.9
45°	1895.7	1877.7	1865.8	1831.1	1819.2
47.5°	1764.5	1759.7	1734.1	1706.3	1693.1
50°	1639.6	1636.6	1614.4	1583.2	1576.8
52.5°	1525.0	1513.1	1492.5	1464.3	1449.8
55°	1398.5	1392.5	1368.1	1339.5	1330.9
57.5°	1274.5	1274.5	1248.4	1224.0	1209.5
60°	1156.1	1148.8	1130.4	1106.9	1093.6
62.5°	1036.8	1030.8	1015.0	991.5	979.5
65°	919.6	912.8	897.4	876.5	865.3
67.5°	807.6	799.5	789.7	762.3	755.0
70°	689.6	687.9	676.8	658.0	653.3
72.5°	583.6	581.9	569.1	552.4	547.2
75°	475.4	478.0	469.0	457.5	452.8
77.5°	381.4	378.8	370.2	363.4	355.3
80°	285.2	284.3	280.5	271.1	270.6
82.5°	197.1	200.5	197.5	190.7	188.1
85°	121.4	124.0	121.4	118.0	118.4
87.5°	54.3	55.2	52.2	47.0	43.6
90°	8.6	9.4	11.1	13.3	12.4
92.5°	3.0	6.4	9.4	11.1	11.5
95°	3.8	6.4	9.4	11.1	11.5
97.5°	5.6	6.4	9.4	11.1	12.0
100°	6.4	6.8	9.4	11.1	12.0
102.5°	6.8	6.8	9.4	11.1	12.0
105°	7.3	7.3	9.0	11.1	12.0
107.5°	7.7	7.3	9.0	11.1	12.0
110°	7.7	7.7	9.0	11.1	11.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.1	8.1	9.4	10.7	11.5
115°	8.6	8.6	9.4	10.7	11.5
117.5°	8.6	9.0	9.4	11.1	11.5
120°	9.0	9.4	9.4	11.1	11.1
122.5°	9.0	9.8	9.8	11.1	11.1
125°	9.0	9.8	9.8	11.1	11.1
127.5°	9.4	10.3	9.8	11.1	11.1
130°	9.8	10.3	10.7	11.1	11.1
132.5°	9.8	10.7	11.1	11.5	11.1
135°	10.3	11.1	11.5	11.5	11.5
137.5°	10.7	11.1	12.0	12.0	12.0
140°	10.7	11.5	12.0	12.4	12.4
142.5°	9.8	11.5	12.0	12.8	12.8
145°	9.8	11.5	12.4	13.3	13.3
147.5°	9.4	11.1	12.0	13.3	13.3
150°	9.4	10.7	12.0	12.8	12.8
152.5°	9.8	10.3	12.0	12.4	12.8
155°	9.4	10.3	12.0	12.4	12.4
157.5°	9.0	9.8	11.5	12.4	12.8
160°	8.6	9.8	11.1	12.4	12.4
162.5°	8.1	9.4	10.7	12.0	12.4
165°	7.7	9.0	10.3	11.5	11.5
167.5°	7.7	9.0	9.8	10.7	11.1
170°	8.1	8.6	9.4	9.8	10.3
172.5°	8.6	8.6	9.4	9.4	9.4
175°	8.6	8.6	9.0	9.4	9.8
177.5°	9.0	8.6	8.6	9.4	9.4
180°	8.6	8.6	8.6	8.6	8.6

(END OF REPORT)