

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: P470200

Luminaire Tested: **VHB2-9-W-UNV-L950-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470200
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-L950-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

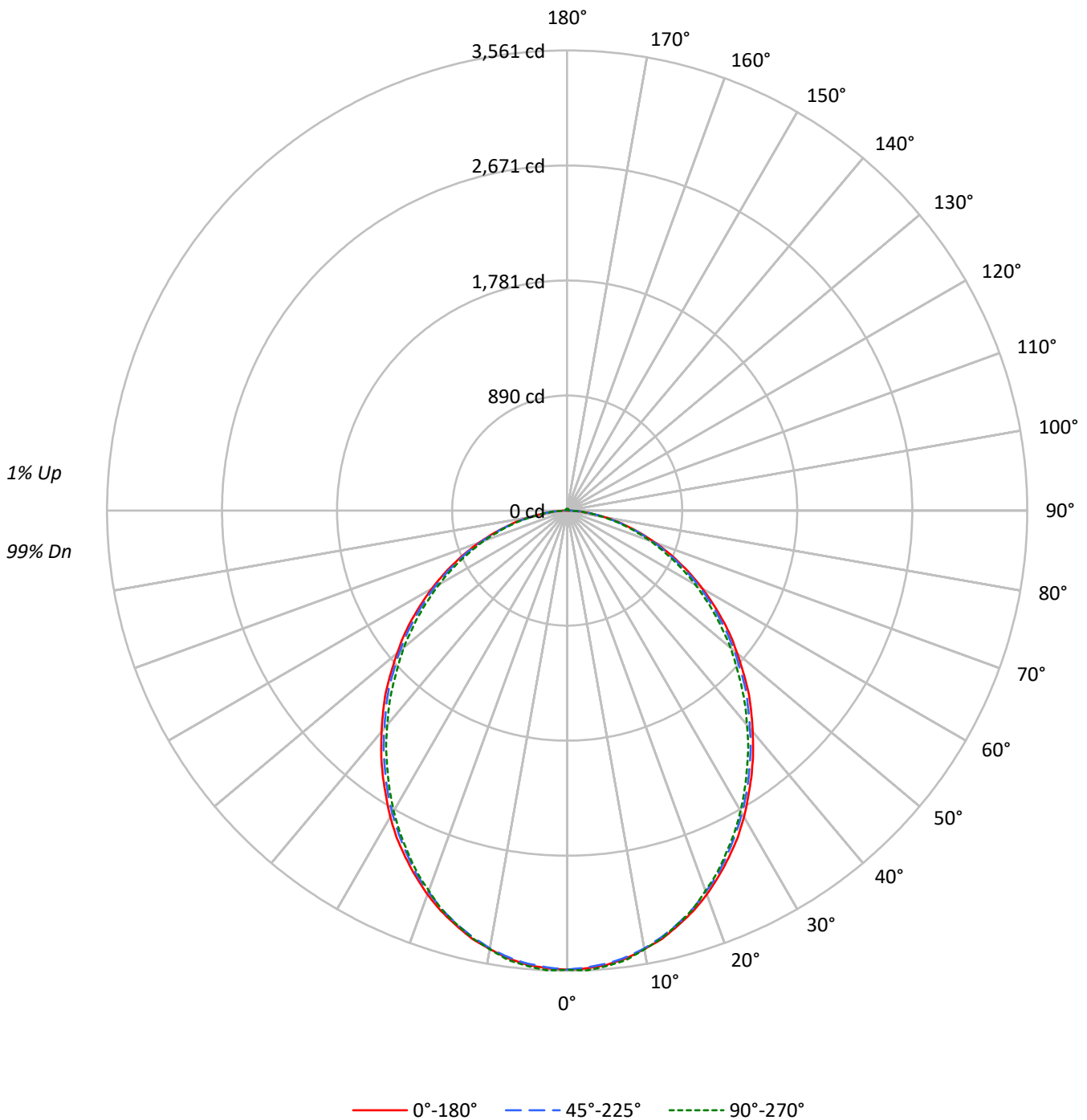
Lumens per Lamp: N/A
Luminaire Lumens: 8596.4 lumens
Efficiency: N/A
Efficacy: 133.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

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	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°	21851	21851	21851
5°	21785	21730	21840
10°	21523	21481	21529
15°	21154	21083	21095
20°	20694	20544	20489
25°	20093	19913	19795
30°	19441	19219	19063
35°	18689	18447	18226
40°	17933	17657	17384
45°	17257	16985	16560
50°	16419	16167	15790
55°	15694	15354	14936
60°	14882	14553	14079
65°	14007	13668	13180
70°	12979	12738	12295
75°	11823	11664	11260
80°	10570	10396	10031
85°	8970	8970	8744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.0	3.9
10°-20°	933.0	10.9
20°-30°	1351.9	15.7
30°-40°	1537.6	17.9
40°-50°	1499.4	17.4
50°-60°	1280.1	14.9
60°-70°	929.3	10.8
70°-80°	518.9	6.0
80°-90°	145.7	1.7
90°-100°	10.3	0.1
100°-110°	10.2	0.1
110°-120°	10.0	0.1
120°-130°	9.6	0.1
130°-140°	9.1	0.1
140°-150°	7.9	0.1
150°-160°	5.5	0.1
160°-170°	3.0	0.0
170°-180°	0.9	0.0
0°-30°	2618.9	30.5
0°-40°	4156.5	48.4
0°-60°	6935.9	80.7
0°-90°	8529.8	99.2
90°-120°	30.6	0.4
90°-150°	57.2	0.7
90°-180°	67.0	0.8
0°-180°	8596.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3552	3552	3552	3552	3552	
5°	3528	3520	3519	3532	3537	334
15°	3322	3316	3311	3310	3313	936
25°	2961	2950	2934	2924	2917	1363
35°	2489	2481	2457	2434	2427	1557
45°	1984	1965	1953	1916	1904	1527
55°	1464	1457	1432	1402	1393	1309
65°	962	955	939	917	906	954
75°	498	500	491	479	474	532
85°	127	130	127	124	124	139
90°	9	10	12	14	13	11
95°	4	7	10	12	12	4
105°	8	8	9	12	12	8
115°	9	9	10	11	12	9
125°	9	10	10	12	12	9
135°	11	12	12	12	12	8
145°	10	12	13	14	14	6
155°	10	11	12	13	13	5
165°	8	9	11	12	12	2
175°	9	9	9	10	10	1
180°	9	9	9	9	9	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3552.5	3552.5	3552.5	3552.5	3552.5
2.5°	3545.4	3536.0	3537.8	3549.4	3561.0
5°	3528.4	3520.3	3519.4	3531.5	3537.3
7.5°	3495.3	3486.8	3486.3	3500.2	3506.9
10°	3446.1	3443.8	3439.3	3448.7	3447.0
12.5°	3394.6	3382.1	3379.8	3387.4	3387.9
15°	3322.1	3316.3	3310.9	3310.5	3312.7
17.5°	3247.8	3235.3	3232.2	3230.4	3234.9
20°	3161.5	3147.6	3138.7	3136.9	3130.2
22.5°	3063.5	3055.0	3046.5	3031.7	3033.1
25°	2960.6	2950.3	2934.2	2923.5	2916.8
27.5°	2855.5	2839.4	2822.3	2812.5	2806.7
30°	2737.3	2727.5	2706.0	2687.7	2684.1
32.5°	2612.1	2605.3	2583.9	2567.8	2557.0
35°	2489.0	2481.0	2456.8	2434.0	2427.3
37.5°	2363.7	2353.9	2333.3	2313.2	2302.0
40°	2233.5	2226.4	2199.1	2174.9	2165.1
42.5°	2107.8	2098.4	2073.8	2044.3	2038.5
45°	1983.9	1965.1	1952.6	1916.3	1903.8
47.5°	1846.5	1841.6	1814.8	1785.7	1771.8
50°	1715.9	1712.7	1689.5	1656.8	1650.1
52.5°	1596.0	1583.4	1562.0	1532.4	1517.2
55°	1463.5	1457.3	1431.8	1401.8	1392.8
57.5°	1333.8	1333.8	1306.5	1281.0	1265.8
60°	1209.8	1202.2	1183.0	1158.4	1144.5
62.5°	1085.0	1078.7	1062.2	1037.6	1025.0
65°	962.4	955.2	939.1	917.2	905.6
67.5°	845.2	836.7	826.4	797.8	790.2
70°	721.7	719.9	708.3	688.6	683.7
72.5°	610.7	608.9	595.5	578.1	572.7
75°	497.5	500.2	490.8	478.7	473.8
77.5°	399.1	396.4	387.5	380.3	371.8
80°	298.4	297.5	293.5	283.7	283.2
82.5°	206.3	209.8	206.7	199.6	196.9
85°	127.1	129.8	127.1	123.5	123.9
87.5°	56.8	57.7	54.6	49.2	45.6
90°	8.9	9.8	11.6	13.9	13.0
92.5°	3.1	6.7	9.8	11.6	12.1
95°	4.0	6.7	9.8	11.6	12.1
97.5°	5.8	6.7	9.8	11.6	12.5
100°	6.7	7.2	9.8	11.6	12.5
102.5°	7.2	7.2	9.8	11.6	12.5
105°	7.6	7.6	9.4	11.6	12.5
107.5°	8.1	7.6	9.4	11.6	12.5
110°	8.1	8.1	9.4	11.6	12.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.5	8.5	9.8	11.2	12.1
115°	8.9	8.9	9.8	11.2	12.1
117.5°	8.9	9.4	9.8	11.6	12.1
120°	9.4	9.8	9.8	11.6	11.6
122.5°	9.4	10.3	10.3	11.6	11.6
125°	9.4	10.3	10.3	11.6	11.6
127.5°	9.8	10.7	10.3	11.6	11.6
130°	10.3	10.7	11.2	11.6	11.6
132.5°	10.3	11.2	11.6	12.1	11.6
135°	10.7	11.6	12.1	12.1	12.1
137.5°	11.2	11.6	12.5	12.5	12.5
140°	11.2	12.1	12.5	13.0	13.0
142.5°	10.3	12.1	12.5	13.4	13.4
145°	10.3	12.1	13.0	13.9	13.9
147.5°	9.8	11.6	12.5	13.9	13.9
150°	9.8	11.2	12.5	13.4	13.4
152.5°	10.3	10.7	12.5	13.0	13.4
155°	9.8	10.7	12.5	13.0	13.0
157.5°	9.4	10.3	12.1	13.0	13.4
160°	8.9	10.3	11.6	13.0	13.0
162.5°	8.5	9.8	11.2	12.5	13.0
165°	8.1	9.4	10.7	12.1	12.1
167.5°	8.1	9.4	10.3	11.2	11.6
170°	8.5	8.9	9.8	10.3	10.7
172.5°	8.9	8.9	9.8	9.8	9.8
175°	8.9	8.9	9.4	9.8	10.3
177.5°	9.4	8.9	8.9	9.8	9.8
180°	8.9	8.9	8.9	8.9	8.9

(END OF REPORT)