

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: P470175

Luminaire Tested: **VHB2-9-W-UNV-L835-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470175
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-L835-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

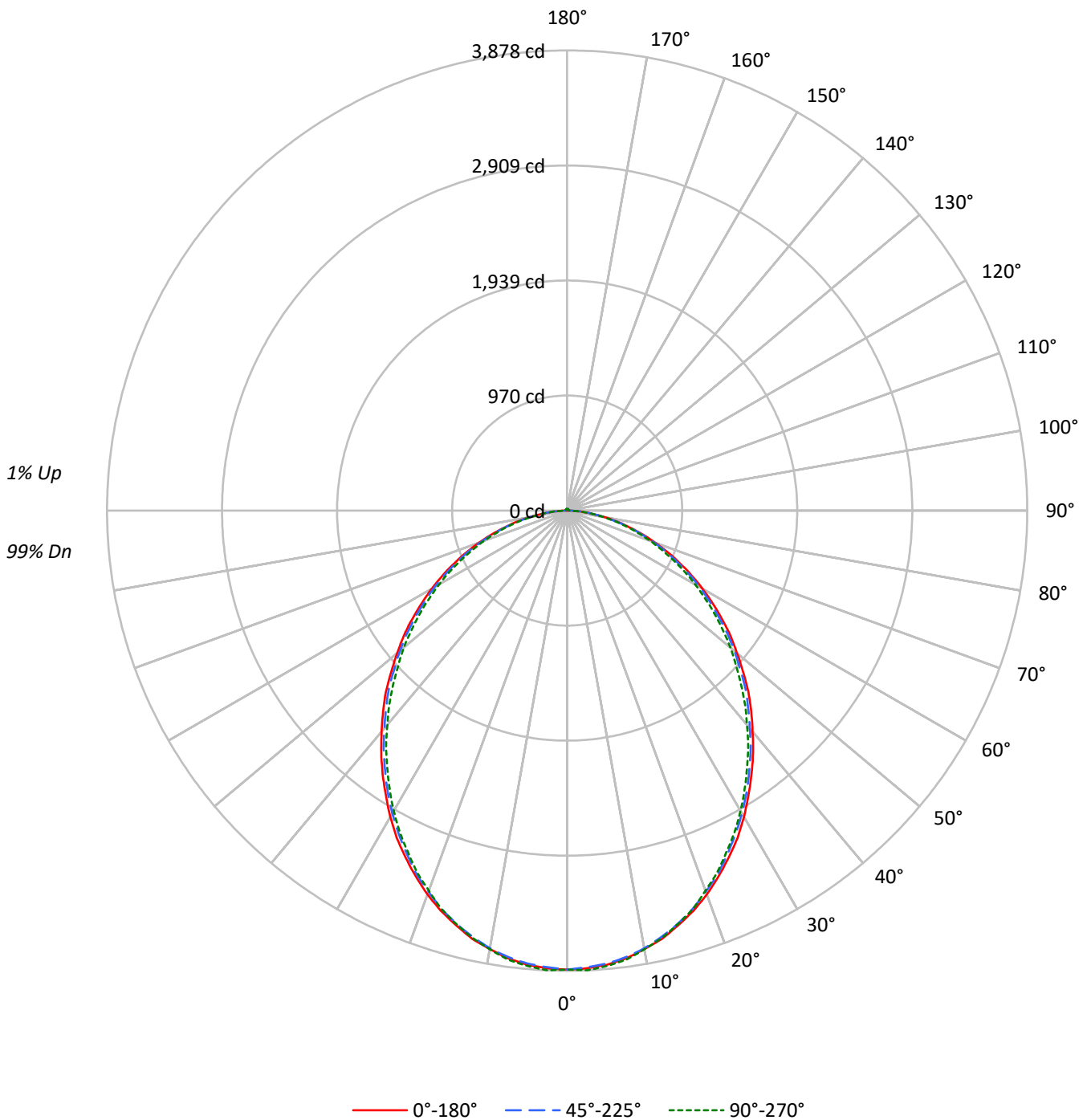
Lumens per Lamp: N/A
Luminaire Lumens: 9360.6 lumens
Efficiency: N/A
Efficacy: 145.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

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°	23793	23793	23793
5°	23722	23662	23782
10°	23436	23391	23442
15°	23035	22957	22970
20°	22533	22371	22310
25°	21879	21683	21554
30°	21170	20928	20758
35°	20351	20087	19846
40°	19528	19227	18929
45°	18791	18494	18032
50°	17879	17603	17193
55°	17089	16718	16263
60°	16206	15846	15330
65°	15253	14883	14352
70°	14132	13869	13387
75°	12876	12702	12260
80°	11512	11321	10924
85°	9767	9767	9527



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.7	3.9
10°-20°	1015.9	10.9
20°-30°	1472.0	15.7
30°-40°	1674.3	17.9
40°-50°	1632.6	17.4
50°-60°	1393.8	14.9
60°-70°	1011.9	10.8
70°-80°	565.0	6.0
80°-90°	158.7	1.7
90°-100°	11.3	0.1
100°-110°	11.1	0.1
110°-120°	11.0	0.1
120°-130°	10.5	0.1
130°-140°	9.9	0.1
140°-150°	8.5	0.1
150°-160°	6.0	0.1
160°-170°	3.3	0.0
170°-180°	1.0	0.0
0°-30°	2851.7	30.5
0°-40°	4526.0	48.4
0°-60°	7552.4	80.7
0°-90°	9288.0	99.2
90°-120°	33.4	0.4
90°-150°	62.4	0.7
90°-180°	73.0	0.8
0°-180°	9360.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3868	3868	3868	3868	3868	
5°	3842	3833	3832	3845	3852	364
15°	3617	3611	3605	3605	3607	1019
25°	3224	3213	3195	3183	3176	1484
35°	2710	2702	2675	2650	2643	1695
45°	2160	2140	2126	2087	2073	1662
55°	1594	1587	1559	1526	1517	1425
65°	1048	1040	1023	999	986	1039
75°	542	545	534	521	516	579
85°	138	141	138	134	135	151
90°	10	11	13	15	14	12
95°	4	7	11	13	13	4
105°	8	8	10	13	14	9
115°	10	10	11	12	13	9
125°	10	11	11	13	13	9
135°	12	13	13	13	13	9
145°	11	13	14	15	15	7
155°	11	12	14	14	14	5
165°	9	10	12	13	13	3
175°	10	10	10	11	11	1
180°	10	10	10	10	10	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3868.3	3868.3	3868.3	3868.3	3868.3
2.5°	3860.5	3850.3	3852.2	3864.9	3877.6
5°	3842.0	3833.2	3832.3	3845.4	3851.8
7.5°	3806.0	3796.7	3796.2	3811.3	3818.6
10°	3752.4	3749.9	3745.1	3755.3	3753.3
12.5°	3696.3	3682.7	3680.3	3688.6	3689.0
15°	3617.4	3611.1	3605.2	3604.8	3607.2
17.5°	3536.5	3522.9	3519.5	3517.5	3522.4
20°	3442.5	3427.4	3417.7	3415.7	3408.4
22.5°	3335.8	3326.6	3317.3	3301.2	3302.7
25°	3223.8	3212.6	3195.0	3183.3	3176.0
27.5°	3109.3	3091.7	3073.2	3062.5	3056.2
30°	2980.7	2969.9	2946.6	2926.6	2922.7
32.5°	2844.2	2836.9	2813.5	2796.0	2784.3
35°	2710.3	2701.5	2675.2	2650.3	2643.0
37.5°	2573.8	2563.1	2540.7	2518.8	2506.6
40°	2432.1	2424.3	2394.6	2368.3	2357.5
42.5°	2295.2	2284.9	2258.1	2226.0	2219.7
45°	2160.2	2139.8	2126.1	2086.7	2073.0
47.5°	2010.7	2005.3	1976.1	1944.4	1929.3
50°	1868.4	1865.0	1839.6	1804.1	1796.8
52.5°	1737.8	1724.2	1700.8	1668.6	1652.1
55°	1593.6	1586.8	1559.0	1526.4	1516.6
57.5°	1452.3	1452.3	1422.6	1394.8	1378.3
60°	1317.4	1309.1	1288.1	1261.3	1246.2
62.5°	1181.4	1174.6	1156.6	1129.8	1116.2
65°	1048.0	1040.2	1022.6	998.7	986.1
67.5°	920.3	911.1	899.8	868.7	860.4
70°	785.8	783.9	771.2	749.8	744.4
72.5°	665.0	663.1	648.5	629.5	623.6
75°	541.8	544.7	534.5	521.3	515.9
77.5°	434.6	431.7	421.9	414.1	404.9
80°	325.0	324.0	319.6	308.9	308.4
82.5°	224.6	228.5	225.1	217.3	214.4
85°	138.4	141.3	138.4	134.5	135.0
87.5°	61.9	62.8	59.4	53.6	49.7
90°	9.7	10.7	12.7	15.1	14.1
92.5°	3.4	7.3	10.7	12.7	13.2
95°	4.4	7.3	10.7	12.7	13.2
97.5°	6.3	7.3	10.7	12.7	13.6
100°	7.3	7.8	10.7	12.7	13.6
102.5°	7.8	7.8	10.7	12.7	13.6
105°	8.3	8.3	10.2	12.7	13.6
107.5°	8.8	8.3	10.2	12.7	13.6
110°	8.8	8.8	10.2	12.7	13.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.3	9.3	10.7	12.2	13.2
115°	9.7	9.7	10.7	12.2	13.2
117.5°	9.7	10.2	10.7	12.7	13.2
120°	10.2	10.7	10.7	12.7	12.7
122.5°	10.2	11.2	11.2	12.7	12.7
125°	10.2	11.2	11.2	12.7	12.7
127.5°	10.7	11.7	11.2	12.7	12.7
130°	11.2	11.7	12.2	12.7	12.7
132.5°	11.2	12.2	12.7	13.2	12.7
135°	11.7	12.7	13.2	13.2	13.2
137.5°	12.2	12.7	13.6	13.6	13.6
140°	12.2	13.2	13.6	14.1	14.1
142.5°	11.2	13.2	13.6	14.6	14.6
145°	11.2	13.2	14.1	15.1	15.1
147.5°	10.7	12.7	13.6	15.1	15.1
150°	10.7	12.2	13.6	14.6	14.6
152.5°	11.2	11.7	13.6	14.1	14.6
155°	10.7	11.7	13.6	14.1	14.1
157.5°	10.2	11.2	13.2	14.1	14.6
160°	9.7	11.2	12.7	14.1	14.1
162.5°	9.3	10.7	12.2	13.6	14.1
165°	8.8	10.2	11.7	13.2	13.2
167.5°	8.8	10.2	11.2	12.2	12.7
170°	9.3	9.7	10.7	11.2	11.7
172.5°	9.7	9.7	10.7	10.7	10.7
175°	9.7	9.7	10.2	10.7	11.2
177.5°	10.2	9.7	9.7	10.7	10.7
180°	9.7	9.7	9.7	9.7	9.7

(END OF REPORT)