

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: P470177

Luminaire Tested: **VHB2-15-W-UNV-L835-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470177
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-15-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

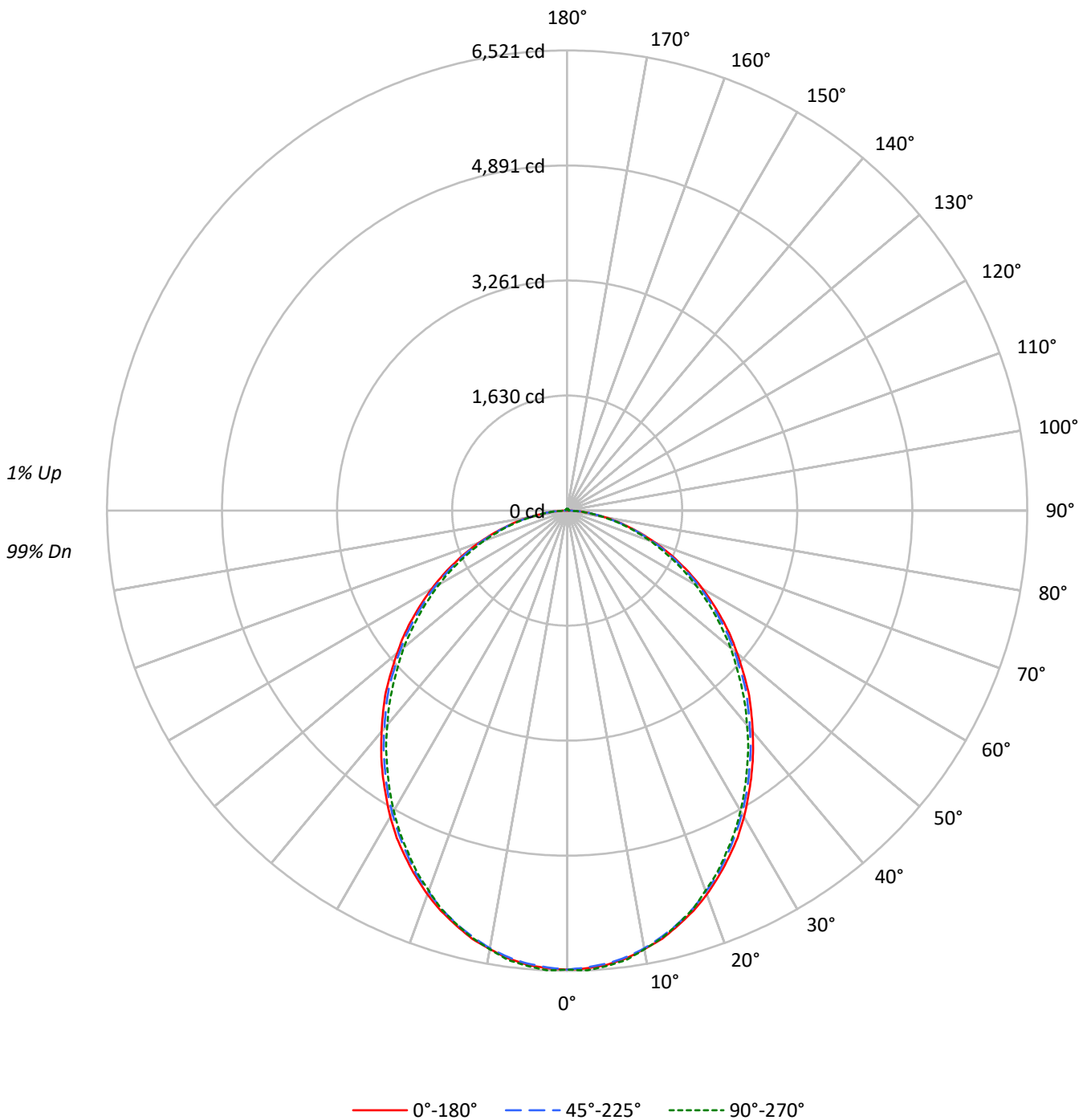
Lumens per Lamp: N/A
Luminaire Lumens: 15741.1 lumens
Efficiency: N/A
Efficacy: 142.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 110.6
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	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°	40012	40012	40012
5°	39891	39790	39993
10°	39411	39334	39421
15°	38736	38606	38627
20°	37893	37619	37517
25°	36792	36464	36247
30°	35600	35192	34907
35°	34223	33780	33373
40°	32839	32332	31832
45°	31599	31101	30324
50°	30066	29602	28913
55°	28738	28114	27349
60°	27252	26648	25780
65°	25649	25029	24133
70°	23765	23323	22514
75°	21650	21360	20618
80°	19358	19039	18369
85°	16422	16422	16013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	611.6	3.9
10°-20°	1708.5	10.9
20°-30°	2475.4	15.7
30°-40°	2815.6	17.9
40°-50°	2745.5	17.4
50°-60°	2343.9	14.9
60°-70°	1701.6	10.8
70°-80°	950.1	6.0
80°-90°	266.8	1.7
90°-100°	18.9	0.1
100°-110°	18.7	0.1
110°-120°	18.4	0.1
120°-130°	17.6	0.1
130°-140°	16.7	0.1
140°-150°	14.4	0.1
150°-160°	10.1	0.1
160°-170°	5.5	0.0
170°-180°	1.7	0.0
0°-30°	4795.5	30.5
0°-40°	7611.0	48.4
0°-60°	12700.5	80.7
0°-90°	15619.0	99.2
90°-120°	56.1	0.4
90°-150°	104.8	0.7
90°-180°	122.0	0.8
0°-180°	15741.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6505	6505	6505	6505	6505	
5°	6461	6446	6444	6467	6477	612
15°	6083	6072	6063	6062	6066	1714
25°	5421	5402	5373	5353	5341	2496
35°	4558	4543	4499	4457	4445	2850
45°	3633	3598	3575	3509	3486	2795
55°	2680	2668	2622	2567	2550	2397
65°	1762	1749	1720	1680	1658	1748
75°	911	916	899	877	868	974
85°	233	238	233	226	227	254
90°	16	18	21	25	24	20
95°	7	12	18	21	22	7
105°	14	14	17	21	23	15
115°	16	16	18	20	22	16
125°	17	19	19	21	21	16
135°	20	21	22	22	22	15
145°	19	22	24	25	25	12
155°	18	20	23	24	24	8
165°	15	17	20	22	22	4
175°	16	16	17	18	19	2
180°	16	16	16	16	16	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6505.1	6505.1	6505.1	6505.1	6505.1
2.5°	6492.0	6474.8	6478.1	6499.4	6520.7
5°	6460.9	6446.1	6444.5	6466.6	6477.3
7.5°	6400.3	6384.7	6383.9	6409.3	6421.6
10°	6310.1	6306.0	6297.8	6315.0	6311.8
12.5°	6215.9	6193.0	6188.9	6202.8	6203.6
15°	6083.2	6072.5	6062.7	6061.9	6066.0
17.5°	5947.2	5924.2	5918.5	5915.2	5923.4
20°	5789.1	5763.7	5747.3	5744.0	5731.7
22.5°	5609.6	5594.1	5578.5	5551.5	5553.9
25°	5421.2	5402.4	5372.9	5353.2	5340.9
27.5°	5228.7	5199.2	5168.0	5150.0	5139.4
30°	5012.4	4994.4	4955.0	4921.4	4914.9
32.5°	4783.0	4770.7	4731.4	4701.9	4682.2
35°	4557.7	4542.9	4498.7	4456.9	4444.6
37.5°	4328.3	4310.3	4272.6	4235.7	4215.2
40°	4089.9	4076.8	4026.8	3982.5	3964.5
42.5°	3859.7	3842.4	3797.4	3743.3	3732.7
45°	3632.7	3598.3	3575.4	3509.0	3486.1
47.5°	3381.2	3372.2	3323.0	3269.8	3244.4
50°	3142.0	3136.2	3093.6	3033.8	3021.5
52.5°	2922.4	2899.4	2860.1	2806.1	2778.2
55°	2679.9	2668.4	2621.7	2566.8	2550.4
57.5°	2442.3	2442.3	2392.3	2345.6	2317.8
60°	2215.3	2201.4	2166.2	2121.1	2095.7
62.5°	1986.8	1975.3	1945.0	1899.9	1877.0
65°	1762.3	1749.2	1719.7	1679.5	1658.2
67.5°	1547.6	1532.1	1513.2	1460.8	1446.9
70°	1321.5	1318.2	1296.9	1260.9	1251.9
72.5°	1118.3	1115.0	1090.5	1058.5	1048.7
75°	911.0	916.0	898.8	876.6	867.6
77.5°	730.8	725.9	709.5	696.4	680.8
80°	546.5	544.8	537.5	519.4	518.6
82.5°	377.7	384.2	378.5	365.4	360.5
85°	232.7	237.6	232.7	226.1	226.9
87.5°	104.0	105.7	100.0	90.1	83.6
90°	16.4	18.0	21.3	25.4	23.8
92.5°	5.7	12.3	18.0	21.3	22.1
95°	7.4	12.3	18.0	21.3	22.1
97.5°	10.7	12.3	18.0	21.3	22.9
100°	12.3	13.1	18.0	21.3	22.9
102.5°	13.1	13.1	18.0	21.3	22.9
105°	13.9	13.9	17.2	21.3	22.9
107.5°	14.7	13.9	17.2	21.3	22.9
110°	14.7	14.7	17.2	21.3	22.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	15.6	15.6	18.0	20.5	22.1
115°	16.4	16.4	18.0	20.5	22.1
117.5°	16.4	17.2	18.0	21.3	22.1
120°	17.2	18.0	18.0	21.3	21.3
122.5°	17.2	18.8	18.8	21.3	21.3
125°	17.2	18.8	18.8	21.3	21.3
127.5°	18.0	19.7	18.8	21.3	21.3
130°	18.8	19.7	20.5	21.3	21.3
132.5°	18.8	20.5	21.3	22.1	21.3
135°	19.7	21.3	22.1	22.1	22.1
137.5°	20.5	21.3	22.9	22.9	22.9
140°	20.5	22.1	22.9	23.8	23.8
142.5°	18.8	22.1	22.9	24.6	24.6
145°	18.8	22.1	23.8	25.4	25.4
147.5°	18.0	21.3	22.9	25.4	25.4
150°	18.0	20.5	22.9	24.6	24.6
152.5°	18.8	19.7	22.9	23.8	24.6
155°	18.0	19.7	22.9	23.8	23.8
157.5°	17.2	18.8	22.1	23.8	24.6
160°	16.4	18.8	21.3	23.8	23.8
162.5°	15.6	18.0	20.5	22.9	23.8
165°	14.7	17.2	19.7	22.1	22.1
167.5°	14.7	17.2	18.8	20.5	21.3
170°	15.6	16.4	18.0	18.8	19.7
172.5°	16.4	16.4	18.0	18.0	18.0
175°	16.4	16.4	17.2	18.0	18.8
177.5°	17.2	16.4	16.4	18.0	18.0
180°	16.4	16.4	16.4	16.4	16.4

(END OF REPORT)