

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: P470192

Luminaire Tested: **VHB2-15-W-UNV-L935-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470192
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-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

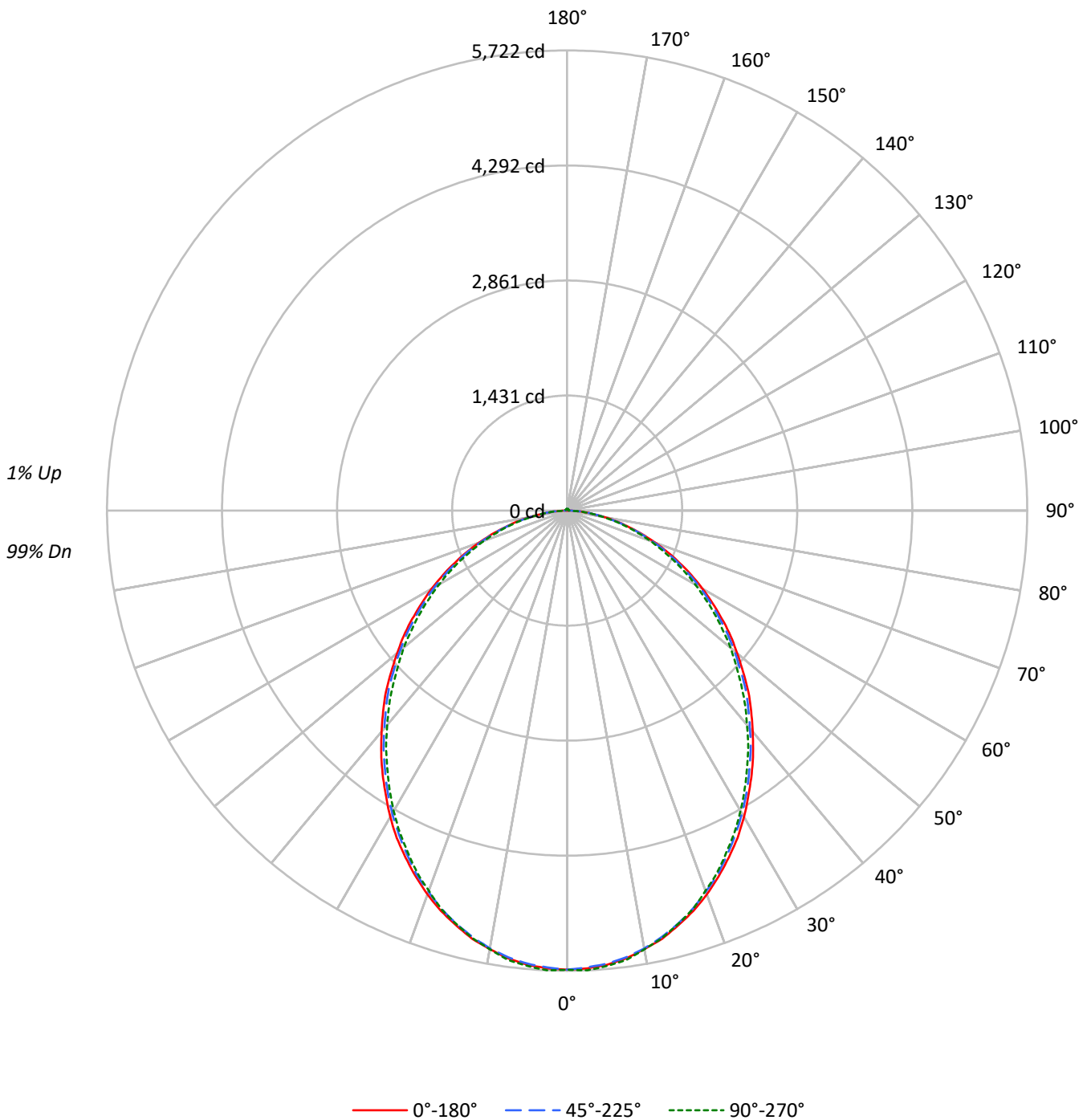
Lumens per Lamp: N/A
Luminaire Lumens: 13813.6 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	35112	35112	35112
5°	35007	34918	35095
10°	34585	34518	34594
15°	33993	33878	33897
20°	33253	33012	32923
25°	32287	31999	31808
30°	31240	30883	30633
35°	30032	29643	29287
40°	28818	28373	27935
45°	27730	27293	26611
50°	26383	25978	25372
55°	25219	24672	24000
60°	23916	23384	22624
65°	22508	21963	21179
70°	20856	20467	19757
75°	19000	18743	18095
80°	16984	16705	16120
85°	14411	14411	14058



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	536.7	3.9
10°-20°	1499.3	10.9
20°-30°	2172.3	15.7
30°-40°	2470.8	17.9
40°-50°	2409.3	17.4
50°-60°	2056.9	14.9
60°-70°	1493.3	10.8
70°-80°	833.8	6.0
80°-90°	234.1	1.7
90°-100°	16.6	0.1
100°-110°	16.4	0.1
110°-120°	16.2	0.1
120°-130°	15.5	0.1
130°-140°	14.7	0.1
140°-150°	12.6	0.1
150°-160°	8.8	0.1
160°-170°	4.9	0.0
170°-180°	1.5	0.0
0°-30°	4208.3	30.5
0°-40°	6679.1	48.4
0°-60°	11145.3	80.7
0°-90°	13706.5	99.2
90°-120°	49.2	0.4
90°-150°	92.0	0.7
90°-180°	107.0	0.8
0°-180°	13813.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5709	5709	5709	5709	5709	
5°	5670	5657	5655	5675	5684	537
15°	5338	5329	5320	5320	5323	1504
25°	4757	4741	4715	4698	4687	2190
35°	4000	3987	3948	3911	3900	2501
45°	3188	3158	3138	3079	3059	2453
55°	2352	2342	2301	2252	2238	2104
65°	1546	1535	1509	1474	1455	1534
75°	800	804	789	769	761	855
85°	204	208	204	198	199	223
90°	14	16	19	22	21	17
95°	6	11	16	19	19	6
105°	12	12	15	19	20	13
115°	14	14	16	18	19	14
125°	15	16	16	19	19	14
135°	17	19	19	19	19	13
145°	16	19	21	22	22	10
155°	16	17	20	21	21	7
165°	13	15	17	19	19	4
175°	14	14	15	16	16	1
180°	14	14	14	14	14	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5708.6	5708.6	5708.6	5708.6	5708.6
2.5°	5697.1	5682.0	5684.9	5703.5	5722.2
5°	5669.8	5656.8	5655.4	5674.8	5684.1
7.5°	5616.5	5602.9	5602.2	5624.5	5635.2
10°	5537.5	5533.9	5526.7	5541.8	5538.9
12.5°	5454.8	5434.7	5431.1	5443.3	5444.0
15°	5338.3	5329.0	5320.3	5319.6	5323.2
17.5°	5219.0	5198.8	5193.8	5190.9	5198.1
20°	5080.2	5057.9	5043.5	5040.7	5029.9
22.5°	4922.7	4909.1	4895.4	4871.7	4873.9
25°	4757.4	4740.9	4715.0	4697.7	4686.9
27.5°	4588.4	4562.5	4535.2	4519.4	4510.1
30°	4398.6	4382.8	4348.3	4318.8	4313.1
32.5°	4197.3	4186.5	4152.0	4126.1	4108.9
35°	3999.6	3986.7	3947.8	3911.2	3900.4
37.5°	3798.3	3782.5	3749.4	3717.0	3699.1
40°	3589.1	3577.6	3533.7	3494.9	3479.1
42.5°	3387.0	3371.9	3332.4	3284.9	3275.6
45°	3187.9	3157.7	3137.6	3079.3	3059.2
47.5°	2967.2	2959.3	2916.1	2869.4	2847.1
50°	2757.2	2752.2	2714.8	2662.3	2651.5
52.5°	2564.5	2544.4	2509.9	2462.5	2438.0
55°	2351.7	2341.7	2300.7	2252.5	2238.1
57.5°	2143.2	2143.2	2099.4	2058.4	2033.9
60°	1944.1	1931.9	1900.9	1861.4	1839.1
62.5°	1743.5	1733.4	1706.8	1667.3	1647.1
65°	1546.5	1535.0	1509.1	1473.9	1455.2
67.5°	1358.1	1344.5	1327.9	1281.9	1269.7
70°	1159.7	1156.8	1138.1	1106.5	1098.6
72.5°	981.4	978.5	956.9	928.9	920.3
75°	799.5	803.8	788.7	769.3	761.4
77.5°	641.3	637.0	622.6	611.1	597.5
80°	479.5	478.1	471.6	455.8	455.1
82.5°	331.4	337.2	332.2	320.7	316.3
85°	204.2	208.5	204.2	198.4	199.2
87.5°	91.3	92.7	87.7	79.1	73.3
90°	14.4	15.8	18.7	22.3	20.8
92.5°	5.0	10.8	15.8	18.7	19.4
95°	6.5	10.8	15.8	18.7	19.4
97.5°	9.3	10.8	15.8	18.7	20.1
100°	10.8	11.5	15.8	18.7	20.1
102.5°	11.5	11.5	15.8	18.7	20.1
105°	12.2	12.2	15.1	18.7	20.1
107.5°	12.9	12.2	15.1	18.7	20.1
110°	12.9	12.9	15.1	18.7	19.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	13.7	13.7	15.8	18.0	19.4
115°	14.4	14.4	15.8	18.0	19.4
117.5°	14.4	15.1	15.8	18.7	19.4
120°	15.1	15.8	15.8	18.7	18.7
122.5°	15.1	16.5	16.5	18.7	18.7
125°	15.1	16.5	16.5	18.7	18.7
127.5°	15.8	17.3	16.5	18.7	18.7
130°	16.5	17.3	18.0	18.7	18.7
132.5°	16.5	18.0	18.7	19.4	18.7
135°	17.3	18.7	19.4	19.4	19.4
137.5°	18.0	18.7	20.1	20.1	20.1
140°	18.0	19.4	20.1	20.8	20.8
142.5°	16.5	19.4	20.1	21.6	21.6
145°	16.5	19.4	20.8	22.3	22.3
147.5°	15.8	18.7	20.1	22.3	22.3
150°	15.8	18.0	20.1	21.6	21.6
152.5°	16.5	17.3	20.1	20.8	21.6
155°	15.8	17.3	20.1	20.8	20.8
157.5°	15.1	16.5	19.4	20.8	21.6
160°	14.4	16.5	18.7	20.8	20.8
162.5°	13.7	15.8	18.0	20.1	20.8
165°	12.9	15.1	17.3	19.4	19.4
167.5°	12.9	15.1	16.5	18.0	18.7
170°	13.7	14.4	15.8	16.5	17.3
172.5°	14.4	14.4	15.8	15.8	15.8
175°	14.4	14.4	15.1	15.8	16.5
177.5°	15.1	14.4	14.4	15.8	15.8
180°	14.4	14.4	14.4	14.4	14.4

(END OF REPORT)