

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: P470124

Luminaire Tested: **VHB2-24-N-UNV-L740-CD-U**

Issue Date: 01/20/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P470124  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB2-24-N-UNV-L740-CD-U  
Description: VHB2 LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS  
Light Source: 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

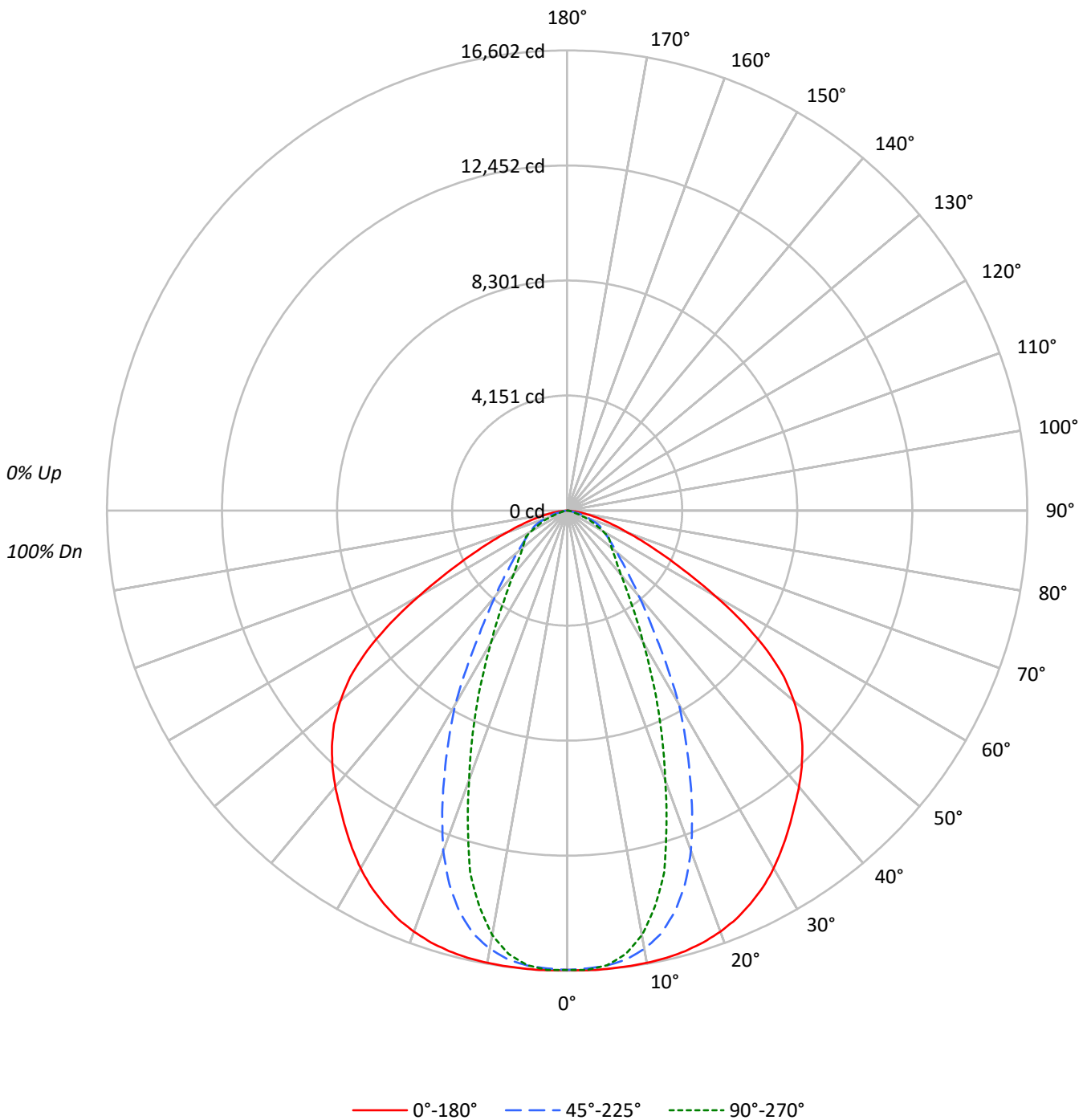
Lumens per Lamp: N/A  
Luminaire Lumens: 23934.2 lumens  
Efficiency: N/A  
Efficacy: 150.3 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 0.75 / 0.88  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 159.2  
Input Voltage (V): 120  
Input Current (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	102	102	102	100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	46
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42
9	65	53	46	41	63	52	45	41	51	45	40	50	44	40	49	44	40	38
10	61	49	42	38	60	49	42	38	48	42	37	47	41	37	46	41	37	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	101930	101930	101930
5°	102496	101748	101669
10°	103476	100295	97134
15°	104781	95478	86081
20°	105820	85505	67674
25°	106197	70997	52221
30°	105857	57165	38883
35°	104810	42050	29827
40°	104486	32287	24169
45°	104400	26090	21466
50°	102230	22393	20033
55°	94498	20045	20079
60°	75757	18926	18324
65°	56280	18462	14809
70°	42220	15182	10058
75°	31812	11497	5459
80°	23123	5611	4594
85°	14855	4799	3677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1561.4	6.5
10°-20°	4160.7	17.4
20°-30°	5096.8	21.3
30°-40°	4577.3	19.1
40°-50°	3546.3	14.8
50°-60°	2653.7	11.1
60°-70°	1592.2	6.7
70°-80°	631.4	2.6
80°-90°	114.5	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	10818.9	45.2
0°-40°	15396.2	64.3
0°-60°	21596.1	90.2
0°-90°	23934.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	23934.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	16572	16572	16572	16572	16572	
5°	16600	16527	16479	16475	16467	###
15°	16455	16023	14994	13885	13518	4650
25°	15648	14009	10461	8365	7695	7209
35°	13958	10322	5600	4292	3972	8743
45°	12002	5378	2999	2528	2468	9228
55°	8812	2854	1869	1811	1872	7734
65°	3867	1584	1268	1077	1018	3961
75°	1339	774	484	254	230	1476
85°	210	84	68	58	52	279
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	16571.8	16571.8	16571.8	16571.8	16571.8
2.5°	16601.6	16541.0	16532.5	16573.9	16585.6
5°	16600.5	16527.2	16479.3	16475.1	16466.6
7.5°	16586.7	16490.0	16335.8	16213.5	16141.2
10°	16567.6	16397.4	16058.3	15706.3	15552.2
12.5°	16531.4	16252.8	15634.0	14956.7	14631.4
15°	16454.9	16023.2	14994.0	13885.0	13518.2
17.5°	16336.8	15678.7	14133.8	12530.4	11914.8
20°	16166.7	15243.8	13063.1	11108.8	10339.0
22.5°	15947.7	14683.5	11773.4	9588.4	8965.3
25°	15647.9	14009.4	10461.3	8364.6	7694.7
27.5°	15312.9	13251.3	9223.7	7082.3	6496.5
30°	14904.6	12329.5	8048.8	5959.5	5474.7
32.5°	14440.0	11380.0	6755.9	5004.7	4668.7
35°	13958.4	10322.0	5600.1	4292.3	3972.3
37.5°	13465.0	9121.6	4728.3	3681.0	3450.2
40°	13013.1	7783.0	4021.2	3194.0	3010.1
42.5°	12528.3	6526.2	3476.8	2804.9	2692.2
45°	12002.0	5377.9	2999.4	2528.4	2467.8
47.5°	11407.6	4536.9	2627.3	2316.8	2260.5
50°	10683.5	3853.2	2340.2	2096.7	2093.5
52.5°	9870.2	3316.3	2085.0	1937.2	1964.9
55°	8812.2	2853.8	1869.2	1810.7	1872.4
57.5°	7554.4	2476.3	1692.7	1712.9	1761.8
60°	6158.3	2136.1	1538.5	1555.5	1489.6
62.5°	4923.9	1838.4	1399.2	1309.9	1225.9
65°	3867.0	1584.2	1268.5	1077.1	1017.5
67.5°	3015.4	1349.3	1062.2	883.6	809.1
70°	2347.7	1146.2	844.2	677.3	559.3
72.5°	1793.7	953.7	665.6	415.7	315.8
75°	1338.6	774.0	483.8	254.1	229.7
77.5°	971.8	579.5	270.1	186.1	173.3
80°	652.8	391.3	158.4	136.1	129.7
82.5°	415.7	205.2	109.5	95.7	88.2
85°	210.5	84.0	68.0	58.5	52.1
87.5°	73.4	40.4	30.8	24.5	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)