

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: P470174

Luminaire Tested: **VHB2-24-W-UNV-L750-CD-U**

Issue Date: 01/20/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P470174  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB2-24-W-UNV-L750-CD-U  
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS  
Light Source: 5000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

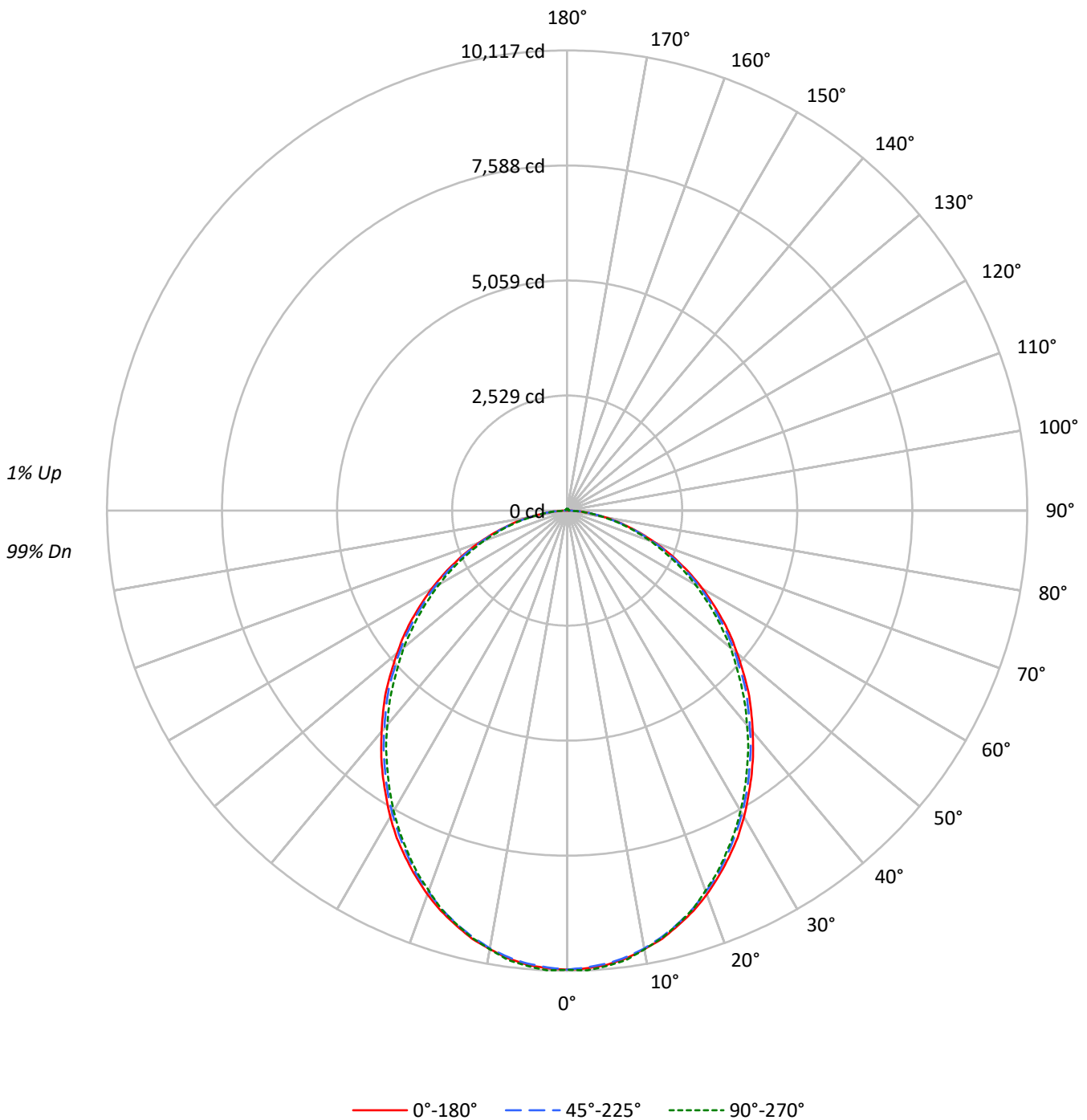
Lumens per Lamp: N/A  
Luminaire Lumens: 24422.8 lumens  
Efficiency: N/A  
Efficacy: 153.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	62079	62079	62079
5°	61893	61735	62050
10°	61148	61028	61163
15°	60101	59898	59931
20°	58791	58367	58209
25°	57084	56575	56238
30°	55234	54602	54159
35°	53097	52410	51780
40°	50951	50165	49389
45°	49028	48253	47048
50°	46647	45930	44859
55°	44588	43620	42434
60°	42283	41344	40000
65°	39794	38832	37445
70°	36874	36187	34930
75°	33592	33138	31990
80°	30033	29538	28500
85°	25477	25477	24849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	949.0	3.9
10°-20°	2650.7	10.9
20°-30°	3840.7	15.7
30°-40°	4368.4	17.9
40°-50°	4259.7	17.4
50°-60°	3636.7	14.9
60°-70°	2640.1	10.8
70°-80°	1474.2	6.0
80°-90°	413.9	1.7
90°-100°	29.4	0.1
100°-110°	29.1	0.1
110°-120°	28.6	0.1
120°-130°	27.4	0.1
130°-140°	25.9	0.1
140°-150°	22.3	0.1
150°-160°	15.6	0.1
160°-170°	8.6	0.0
170°-180°	2.6	0.0
0°-30°	7440.3	30.5
0°-40°	11808.8	48.4
0°-60°	19705.2	80.7
0°-90°	24233.4	99.2
90°-120°	87.0	0.4
90°-150°	162.6	0.7
90°-180°	189.0	0.8
0°-180°	24422.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10093	10093	10093	10093	10093	
5°	10024	10001	9999	10033	10050	949
15°	9438	9422	9406	9405	9412	2660
25°	8411	8382	8336	8306	8287	3873
35°	7071	7048	6980	6915	6896	4422
45°	5636	5583	5547	5444	5409	4337
55°	4158	4140	4068	3982	3957	3719
65°	2734	2714	2668	2606	2573	2711
75°	1414	1421	1394	1360	1346	1511
85°	361	369	361	351	352	395
90°	25	28	33	39	37	30
95°	11	19	28	33	34	11
105°	22	22	27	33	36	23
115°	25	25	28	32	34	25
125°	27	29	29	33	33	25
135°	30	33	34	34	34	24
145°	29	34	37	39	39	18
155°	28	30	36	37	37	13
165°	23	27	30	34	34	7
175°	25	25	27	28	29	2
180°	25	25	25	25	25	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10092.9	10092.9	10092.9	10092.9	10092.9
2.5°	10072.6	10045.9	10051.0	10084.0	10117.1
5°	10024.3	10001.4	9998.8	10033.2	10049.7
7.5°	9930.2	9906.0	9904.8	9944.2	9963.3
10°	9790.4	9784.0	9771.3	9798.0	9792.9
12.5°	9644.2	9608.6	9602.2	9623.9	9625.1
15°	9438.3	9421.7	9406.5	9405.2	9411.6
17.5°	9227.3	9191.7	9182.8	9177.7	9190.4
20°	8981.9	8942.5	8917.1	8912.0	8892.9
22.5°	8703.5	8679.4	8655.2	8613.3	8617.1
25°	8411.2	8381.9	8336.2	8305.7	8286.6
27.5°	8112.5	8066.7	8018.4	7990.4	7973.9
30°	7776.9	7748.9	7687.9	7635.8	7625.6
32.5°	7421.0	7401.9	7340.9	7295.1	7264.6
35°	7071.4	7048.5	6979.9	6915.0	6896.0
37.5°	6715.5	6687.5	6629.0	6571.8	6540.1
40°	6345.6	6325.2	6247.7	6179.0	6151.1
42.5°	5988.4	5961.7	5891.8	5807.9	5791.3
45°	5636.3	5582.9	5547.3	5444.3	5408.7
47.5°	5246.0	5232.0	5155.8	5073.1	5033.7
50°	4874.8	4866.0	4799.9	4707.1	4688.0
52.5°	4534.2	4498.6	4437.6	4353.7	4310.5
55°	4157.9	4140.1	4067.7	3982.5	3957.1
57.5°	3789.3	3789.3	3711.7	3639.3	3596.1
60°	3437.2	3415.6	3360.9	3291.0	3251.6
62.5°	3082.5	3064.7	3017.7	2947.8	2912.2
65°	2734.2	2713.9	2668.1	2605.9	2572.8
67.5°	2401.2	2377.0	2347.8	2266.5	2244.8
70°	2050.4	2045.3	2012.2	1956.3	1942.3
72.5°	1735.1	1730.0	1691.9	1642.3	1627.1
75°	1413.5	1421.1	1394.4	1360.1	1346.1
77.5°	1133.9	1126.2	1100.8	1080.5	1056.3
80°	847.9	845.3	833.9	805.9	804.6
82.5°	586.0	596.2	587.3	566.9	559.3
85°	361.0	368.6	361.0	350.8	352.1
87.5°	161.4	164.0	155.1	139.8	129.7
90°	25.4	28.0	33.0	39.4	36.9
92.5°	8.9	19.1	28.0	33.0	34.3
95°	11.4	19.1	28.0	33.0	34.3
97.5°	16.5	19.1	28.0	33.0	35.6
100°	19.1	20.3	28.0	33.0	35.6
102.5°	20.3	20.3	28.0	33.0	35.6
105°	21.6	21.6	26.7	33.0	35.6
107.5°	22.9	21.6	26.7	33.0	35.6
110°	22.9	22.9	26.7	33.0	34.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	24.2	24.2	28.0	31.8	34.3
115°	25.4	25.4	28.0	31.8	34.3
117.5°	25.4	26.7	28.0	33.0	34.3
120°	26.7	28.0	28.0	33.0	33.0
122.5°	26.7	29.2	29.2	33.0	33.0
125°	26.7	29.2	29.2	33.0	33.0
127.5°	28.0	30.5	29.2	33.0	33.0
130°	29.2	30.5	31.8	33.0	33.0
132.5°	29.2	31.8	33.0	34.3	33.0
135°	30.5	33.0	34.3	34.3	34.3
137.5°	31.8	33.0	35.6	35.6	35.6
140°	31.8	34.3	35.6	36.9	36.9
142.5°	29.2	34.3	35.6	38.1	38.1
145°	29.2	34.3	36.9	39.4	39.4
147.5°	28.0	33.0	35.6	39.4	39.4
150°	28.0	31.8	35.6	38.1	38.1
152.5°	29.2	30.5	35.6	36.9	38.1
155°	28.0	30.5	35.6	36.9	36.9
157.5°	26.7	29.2	34.3	36.9	38.1
160°	25.4	29.2	33.0	36.9	36.9
162.5°	24.2	28.0	31.8	35.6	36.9
165°	22.9	26.7	30.5	34.3	34.3
167.5°	22.9	26.7	29.2	31.8	33.0
170°	24.2	25.4	28.0	29.2	30.5
172.5°	25.4	25.4	28.0	28.0	28.0
175°	25.4	25.4	26.7	28.0	29.2
177.5°	26.7	25.4	25.4	28.0	28.0
180°	25.4	25.4	25.4	25.4	25.4

(END OF REPORT)