

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: P470152

Luminaire Tested: **VHB2-15-N-UNV-L940-CD-U**

Issue Date: 01/20/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P470152  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB2-15-N-UNV-L940-CD-U  
Description: VHB2 LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

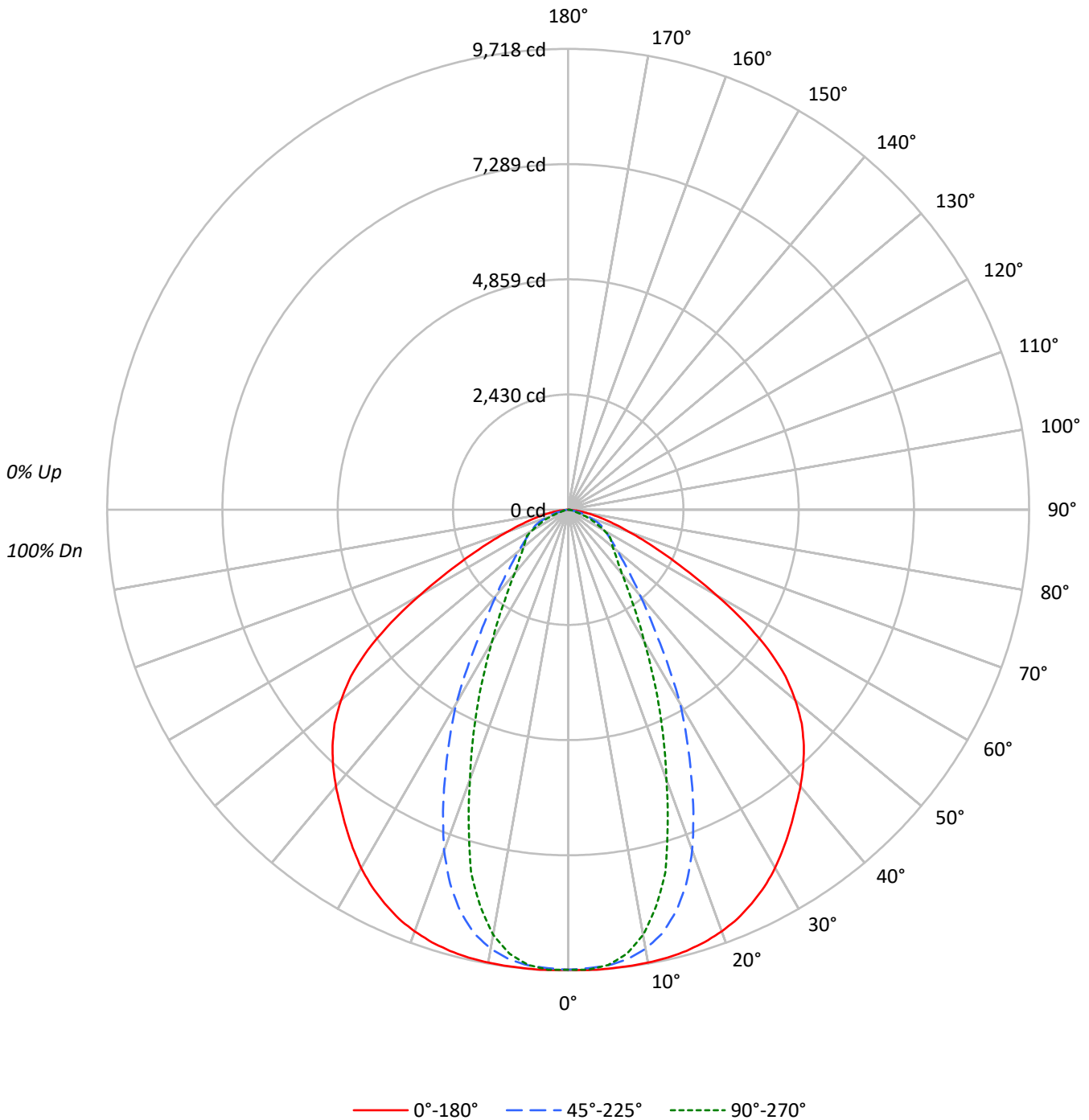
Lumens per Lamp: N/A  
Luminaire Lumens: 14010.0 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 0.75 / 0.88  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 110.6  
Input Voltage (V): 120  
Input Current (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	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					100			
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89					89			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55					55			
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	46					46			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42					42			
9	65	53	46	41	63	52	45	41	51	45	40	50	44	40	49	44	40	38					38			
10	61	49	42	38	60	49	42	38	48	42	37	47	41	37	46	41	37	36					36			

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

	0°	45°	90°
0°	59665	59665	59665
5°	59997	59559	59513
10°	60570	58708	56858
15°	61334	55889	50388
20°	61942	50051	39614
25°	62163	41559	30568
30°	61964	33462	22760
35°	61351	24614	17459
40°	61161	18899	14148
45°	61111	15272	12565
50°	59841	13108	11727
55°	55315	11733	11753
60°	44345	11079	10727
65°	32944	10806	8668
70°	24713	8888	5888
75°	18622	6730	3194
80°	13534	3284	2688
85°	8695	2809	2152



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	914.0	6.5
10°-20°	2435.5	17.4
20°-30°	2983.4	21.3
30°-40°	2679.3	19.1
40°-50°	2075.8	14.8
50°-60°	1553.4	11.1
60°-70°	932.0	6.7
70°-80°	369.6	2.6
80°-90°	67.0	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°	6332.9	45.2
0°-40°	9012.2	64.3
0°-60°	12641.4	90.2
0°-90°	14010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14010.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9700	9700	9700	9700	9700	
5°	9717	9674	9646	9644	9639	927
15°	9632	9379	8777	8128	7913	2722
25°	9160	8200	6124	4896	4504	4220
35°	8171	6042	3278	2512	2325	5118
45°	7025	3148	1756	1480	1444	5402
55°	5158	1670	1094	1060	1096	4527
65°	2264	927	742	630	596	2319
75°	784	453	283	149	134	864
85°	123	49	40	34	30	163
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9700.4	9700.4	9700.4	9700.4	9700.4
2.5°	9717.8	9682.4	9677.4	9701.6	9708.5
5°	9717.2	9674.3	9646.3	9643.8	9638.8
7.5°	9709.1	9652.5	9562.2	9490.7	9448.3
10°	9697.9	9598.3	9399.8	9193.8	9103.5
12.5°	9676.8	9513.7	9151.5	8755.0	8564.6
15°	9631.9	9379.3	8776.8	8127.7	7912.9
17.5°	9562.9	9177.6	8273.3	7334.7	6974.4
20°	9463.3	8923.1	7646.6	6502.6	6052.0
22.5°	9335.1	8595.1	6891.6	5612.6	5247.9
25°	9159.6	8200.5	6123.6	4896.3	4504.2
27.5°	8963.5	7756.7	5399.1	4145.7	3802.7
30°	8724.5	7217.1	4711.4	3488.4	3204.6
32.5°	8452.5	6661.3	3954.6	2929.5	2732.9
35°	8170.6	6042.1	3278.1	2512.5	2325.2
37.5°	7881.8	5339.4	2767.7	2154.7	2019.6
40°	7617.3	4555.8	2353.8	1869.6	1762.0
42.5°	7333.5	3820.2	2035.2	1641.8	1575.9
45°	7025.4	3148.0	1755.7	1480.0	1444.5
47.5°	6677.5	2655.7	1537.9	1356.2	1323.2
50°	6253.7	2255.5	1369.9	1227.3	1225.5
52.5°	5777.5	1941.2	1220.5	1134.0	1150.2
55°	5158.3	1670.5	1094.1	1059.9	1096.0
57.5°	4422.0	1449.5	990.8	1002.7	1031.3
60°	3604.8	1250.4	900.6	910.5	872.0
62.5°	2882.2	1076.1	819.1	766.8	717.6
65°	2263.6	927.3	742.5	630.5	595.6
67.5°	1765.1	789.8	621.8	517.2	473.6
70°	1374.2	670.9	494.2	396.5	327.4
72.5°	1050.0	558.3	389.6	243.4	184.8
75°	783.6	453.1	283.2	148.7	134.4
77.5°	568.9	339.2	158.1	108.9	101.4
80°	382.1	229.0	92.7	79.7	75.9
82.5°	243.4	120.1	64.1	56.0	51.7
85°	123.2	49.2	39.8	34.2	30.5
87.5°	42.9	23.7	18.0	14.3	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)