

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: P417721

Luminaire Tested: **VHB-1215-N-UNV-L940-CD-U-LEVEL2**

Issue Date: 11/17/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P417721  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 11/17/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB-1215-N-UNV-L940-CD-U-LEVEL2  
Description: VHB 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: 13946.3 lumens  
Efficiency: N/A  
Efficacy: 126.9 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 0.74 / 0.88  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct

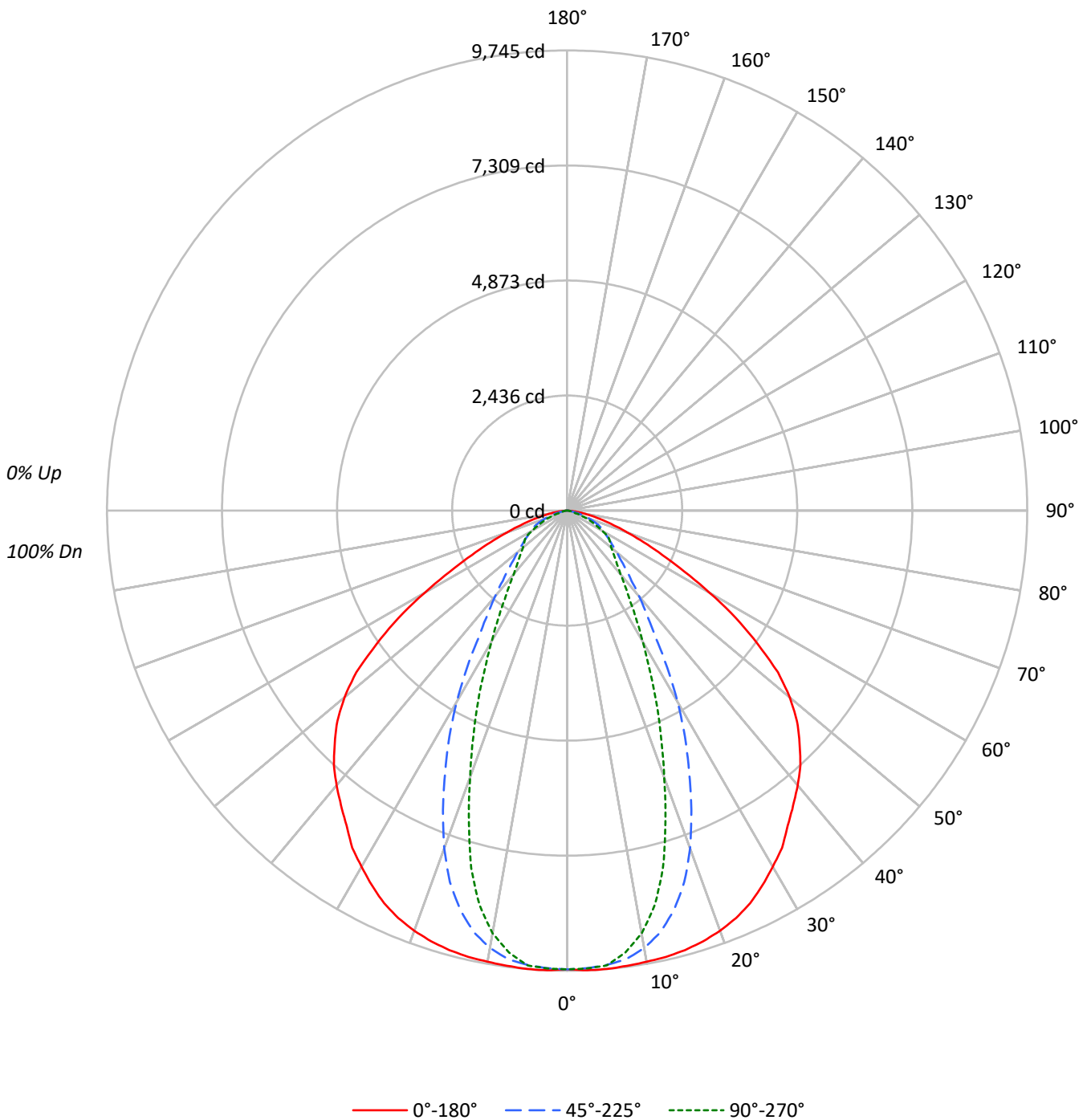
Input Watts (W): 109.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	54	48	71	61	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°	59762	59762	59762
5°	60168	59632	59697
10°	60595	58737	56771
15°	61356	55708	49936
20°	61977	49832	39304
25°	62262	41469	30286
30°	61846	33191	22672
35°	61139	24417	17355
40°	60990	19055	14115
45°	60557	15331	12515
50°	58918	13066	11672
55°	52817	11753	11778
60°	42918	11051	10595
65°	32375	10712	8613
70°	24557	8879	5891
75°	18584	6673	3158
80°	13421	3287	2593
85°	8631	2823	2181



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	914.2	6.6
10°-20°	2429.6	17.4
20°-30°	2972.2	21.3
30°-40°	2666.7	19.1
40°-50°	2067.6	14.8
50°-60°	1534.6	11.0
60°-70°	925.6	6.6
70°-80°	369.2	2.6
80°-90°	66.6	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°	6316.1	45.3
0°-40°	8982.7	64.4
0°-60°	12584.9	90.2
0°-90°	13946.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13946.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9716	9716	9716	9716	9716	
5°	9745	9684	9658	9630	9669	928
15°	9635	9372	8748	8098	7842	2723
25°	9174	8163	6110	4848	4463	4220
35°	8142	5984	3252	2484	2311	5110
45°	6962	3144	1762	1476	1439	5358
55°	4925	1680	1096	1059	1098	4376
65°	2224	932	736	628	592	2269
75°	782	454	281	148	133	857
85°	122	51	40	34	31	161
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9716.2	9716.2	9716.2	9716.2	9716.2
2.5°	9744.1	9686.0	9700.4	9700.4	9703.4
5°	9744.9	9683.8	9658.1	9630.2	9668.7
7.5°	9723.0	9652.1	9581.1	9462.6	9437.7
10°	9701.9	9598.5	9404.5	9177.3	9089.7
12.5°	9680.7	9523.0	9143.3	8713.8	8562.8
15°	9635.4	9372.0	8748.5	8097.9	7842.0
17.5°	9565.2	9159.1	8251.1	7314.3	6921.1
20°	9468.6	8895.0	7613.2	6438.0	6004.7
22.5°	9341.8	8580.9	6869.7	5600.1	5198.5
25°	9174.2	8162.8	6110.4	4847.5	4462.6
27.5°	8951.6	7694.8	5397.8	4145.5	3762.8
30°	8707.8	7188.3	4673.2	3481.3	3192.2
32.5°	8468.5	6636.5	3944.8	2922.7	2715.9
35°	8142.4	5984.3	3251.8	2484.2	2311.3
37.5°	7865.4	5281.6	2755.9	2139.2	2014.7
40°	7595.9	4535.0	2373.2	1870.5	1758.0
42.5°	7312.1	3796.1	2019.2	1641.8	1575.3
45°	6961.8	3143.9	1762.5	1475.7	1438.7
47.5°	6601.8	2662.3	1528.5	1350.4	1321.7
50°	6157.2	2255.4	1365.5	1226.6	1219.8
52.5°	5624.3	1936.9	1215.3	1134.5	1148.9
55°	4925.3	1680.3	1096.0	1059.0	1098.3
57.5°	4241.4	1453.1	990.3	1001.7	1034.9
60°	3488.8	1249.2	898.3	917.9	861.3
62.5°	2796.7	1084.7	818.2	762.4	715.6
65°	2224.5	932.2	736.0	628.0	591.8
67.5°	1750.5	794.8	621.2	514.0	468.8
70°	1365.5	670.3	493.7	400.1	327.6
72.5°	1041.7	560.1	391.0	242.3	194.0
75°	782.0	453.7	280.8	147.9	132.9
77.5°	560.1	340.4	163.8	107.9	101.9
80°	378.9	222.7	92.8	79.3	73.2
82.5°	236.3	123.0	63.4	55.9	52.1
85°	122.3	50.6	40.0	34.0	30.9
87.5°	43.0	22.6	18.1	14.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)