

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: P364431

Luminaire Tested: **VHB-18-N-UNV-L840-CD-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P364431  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1909-491-2)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB-18-N-UNV-L840-CD-U  
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS AND 4000K, 80CRI LEDS

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18284.0 lumens  
Efficiency: N/A  
Efficacy: 136.7 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct

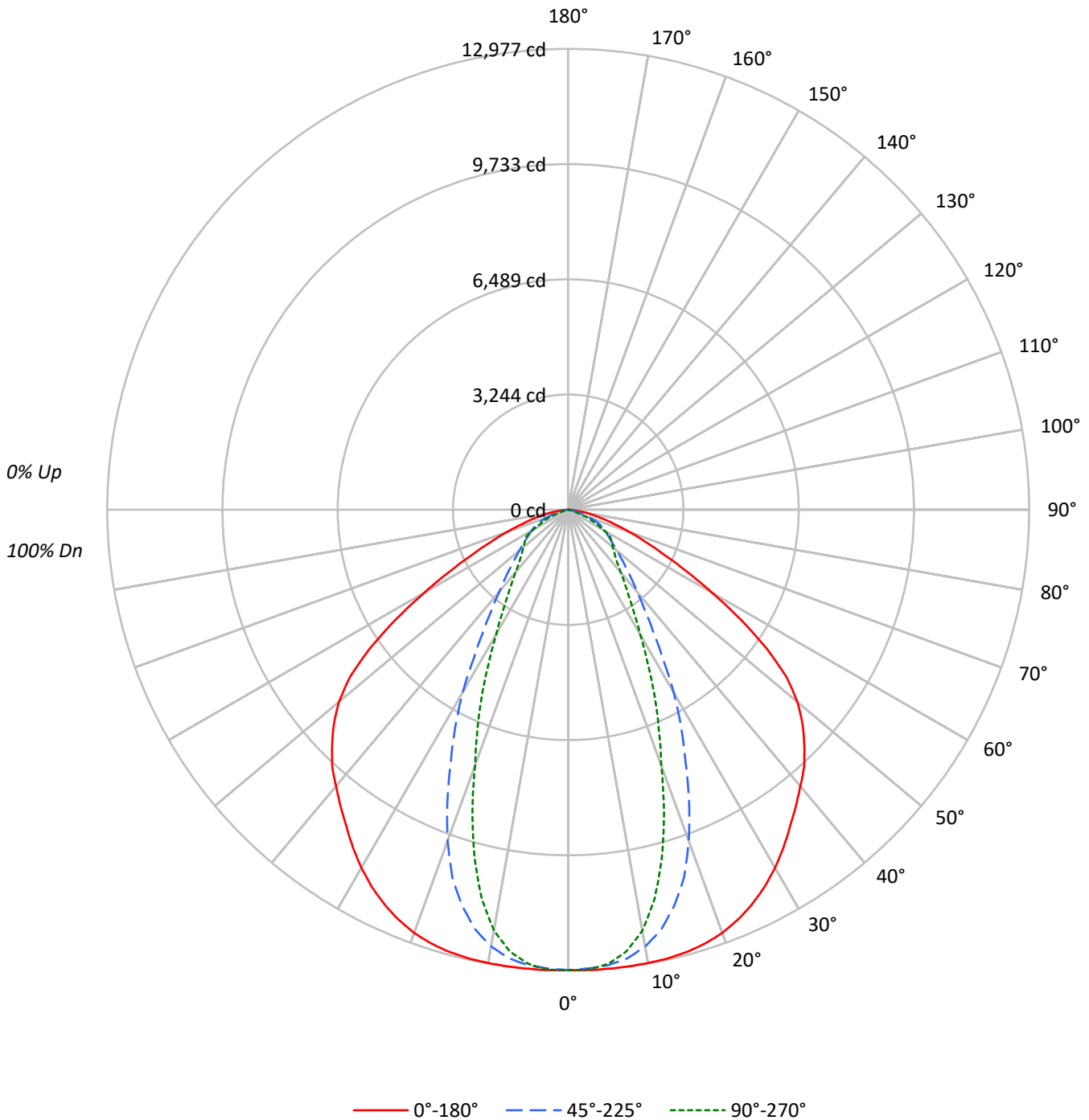
Input Watts (W): 133.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	96	97	95	94	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	74	68	64	71	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	57	51	47	46					46			
8	69	57	49	44	67	56	49	44	55	49	44	54	48	44	53	47	44	42					42			
9	65	53	46	41	63	52	45	41	51	45	41	50	44	40	49	44	40	39					39			
10	61	49	42	38	60	49	42	38	48	42	38	47	41	37	46	41	37	36					36			

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

	0°	45°	90°
0°	79744	79744	79744
5°	80118	79509	79280
10°	80959	77985	75137
15°	82114	73476	64786
20°	82999	64912	50159
25°	83165	53006	38866
30°	82698	42098	28766
35°	81755	31195	22369
40°	81626	24225	18461
45°	81798	19936	16399
50°	80638	17243	15641
55°	73203	15370	15804
60°	57552	14689	14400
65°	42745	14237	10837
70°	32784	11398	6614
75°	24958	8128	3650
80°	18327	3779	2951
85°	11468	3253	2625



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1218.1	6.7
10°-20°	3206.5	17.5
20°-30°	3872.2	21.2
30°-40°	3462.2	18.9
40°-50°	2711.2	14.8
50°-60°	2048.5	11.2
60°-70°	1216.6	6.7
70°-80°	467.6	2.6
80°-90°	81.2	0.4
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°	8296.7	45.4
0°-40°	11758.9	64.3
0°-60°	16518.6	90.3
0°-90°	18284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18284.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12965	12965	12965	12965	12965	
5°	12976	12920	12878	12860	12840	###
15°	12895	12470	11539	10574	10174	3644
25°	12254	10813	7810	6158	5727	5642
35°	10888	7748	4154	3239	2979	6828
45°	9404	4007	2292	1936	1885	7238
55°	6826	2174	1433	1428	1474	5995
65°	2937	1221	978	816	745	3026
75°	1050	587	342	169	154	1150
85°	162	57	46	40	37	216
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12964.8	12964.8	12964.8	12964.8	12964.8
2.5°	12976.9	12934.1	12930.9	12958.4	12962.4
5°	12976.1	12919.6	12877.5	12860.5	12840.3
7.5°	12972.1	12886.4	12744.9	12609.1	12546.1
10°	12962.4	12810.4	12486.2	12177.4	12030.3
12.5°	12941.4	12674.6	12102.2	11534.7	11225.9
15°	12895.3	12470.1	11538.7	10574.3	10174.1
17.5°	12812.0	12187.9	10848.3	9486.9	8972.0
20°	12680.3	11829.0	9917.0	8246.8	7663.1
22.5°	12491.1	11360.1	8891.1	7130.4	6663.9
25°	12254.2	10812.8	7810.3	6157.8	5726.9
27.5°	11972.9	10174.1	6878.9	5252.4	4828.0
30°	11643.8	9427.9	5927.4	4397.1	4050.2
32.5°	11276.0	8642.1	4933.9	3744.7	3459.3
35°	10888.0	7748.0	4154.5	3239.4	2979.1
37.5°	10522.6	6790.8	3518.3	2792.3	2609.6
40°	10166.0	5785.1	3017.1	2439.0	2299.2
42.5°	9829.7	4823.1	2633.9	2143.2	2051.8
45°	9403.7	4006.6	2291.9	1936.2	1885.3
47.5°	8951.8	3381.7	2020.3	1768.0	1750.3
50°	8427.1	2880.4	1802.0	1621.7	1634.6
52.5°	7746.4	2484.3	1595.0	1518.2	1556.2
55°	6826.4	2173.9	1433.3	1427.7	1473.8
57.5°	5748.8	1877.2	1305.6	1341.2	1392.9
60°	4678.4	1638.7	1194.1	1245.8	1170.6
62.5°	3737.4	1419.6	1088.1	993.6	928.9
65°	2937.0	1220.7	978.2	815.7	744.6
67.5°	2342.0	1035.6	823.0	649.2	590.2
70°	1823.0	870.7	633.8	487.5	367.8
72.5°	1397.0	727.6	494.8	277.3	209.4
75°	1050.2	586.9	342.0	169.0	153.6
77.5°	748.6	435.7	182.7	122.1	113.2
80°	517.4	279.7	106.7	88.1	83.3
82.5°	320.9	135.0	72.8	63.1	59.0
85°	162.5	56.6	46.1	40.4	37.2
87.5°	54.2	27.5	21.0	19.4	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)