

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: P364432

Luminaire Tested: **VHB-18-N-UNV-L850-CD-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P364432  
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-L850-CD-U  
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS AND 5000K, 80CRI LEDS

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18787.0 lumens  
Efficiency: N/A  
Efficacy: 140.4 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

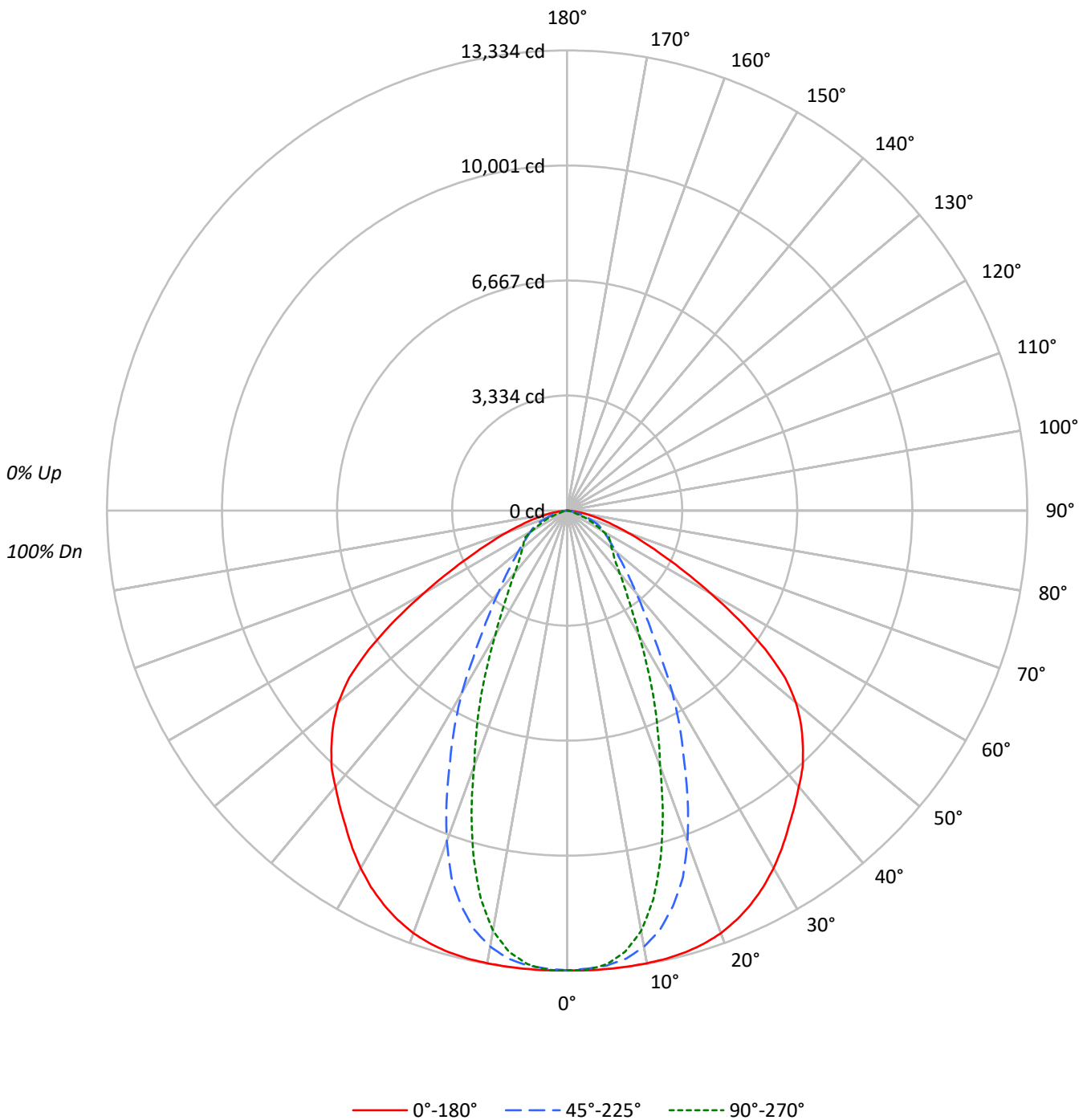
Input Watts (W): 133.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	81938	81938	81938
5°	82322	81697	81461
10°	83186	80130	77204
15°	84374	75498	66569
20°	85282	66698	51539
25°	85453	54464	39936
30°	84974	43257	29558
35°	84004	32053	22984
40°	83872	24892	18968
45°	84049	20485	16850
50°	82856	17718	16072
55°	75217	15794	16239
60°	59135	15093	14796
65°	43921	14628	11134
70°	33687	11711	6798
75°	25642	8351	3750
80°	18830	3882	3032
85°	11786	3338	2696



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1251.6	6.7
10°-20°	3294.7	17.5
20°-30°	3978.7	21.2
30°-40°	3557.4	18.9
40°-50°	2785.7	14.8
50°-60°	2104.8	11.2
60°-70°	1250.1	6.7
70°-80°	480.4	2.6
80°-90°	83.5	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°	8525.0	45.4
0°-40°	12082.4	64.3
0°-60°	16973.0	90.3
0°-90°	18787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18787.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13322	13322	13322	13322	13322	
5°	13333	13275	13232	13214	13194	###
15°	13250	12813	11856	10865	10454	3744
25°	12591	11110	8025	6327	5884	5797
35°	11188	7961	4269	3328	3061	7016
45°	9662	4117	2355	1990	1937	7438
55°	7014	2234	1473	1467	1514	6160
65°	3018	1254	1005	838	765	3109
75°	1079	603	351	174	158	1181
85°	167	58	47	42	38	222
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13321.5	13321.5	13321.5	13321.5	13321.5
2.5°	13334.0	13289.9	13286.6	13314.8	13319.0
5°	13333.1	13275.0	13231.8	13214.3	13193.6
7.5°	13329.0	13240.9	13095.5	12956.0	12891.2
10°	13319.0	13162.8	12829.7	12512.4	12361.2
12.5°	13297.4	13023.3	12435.2	11852.0	11534.7
15°	13250.1	12813.1	11856.2	10865.2	10454.0
17.5°	13164.5	12523.2	11146.8	9747.9	9218.8
20°	13029.1	12154.4	10189.9	8473.7	7873.9
22.5°	12834.7	11672.6	9135.7	7326.5	6847.2
25°	12591.3	11110.2	8025.1	6327.2	5884.5
27.5°	12302.3	10454.0	7068.2	5396.9	4960.8
30°	11964.2	9687.3	6090.5	4518.0	4161.7
32.5°	11586.2	8879.9	5069.6	3847.7	3554.4
35°	11187.5	7961.2	4268.8	3328.5	3061.0
37.5°	10812.0	6977.6	3615.1	2869.1	2681.4
40°	10445.7	5944.3	3100.1	2506.1	2362.4
42.5°	10100.1	4955.8	2706.3	2202.1	2108.2
45°	9662.4	4116.8	2355.0	1989.5	1937.1
47.5°	9198.0	3474.7	2075.8	1816.7	1798.4
50°	8658.9	2959.7	1851.6	1666.3	1679.6
52.5°	7959.5	2552.7	1638.9	1560.0	1599.0
55°	7014.2	2233.7	1472.8	1467.0	1514.3
57.5°	5906.9	1928.8	1341.5	1378.1	1431.2
60°	4807.1	1683.8	1226.9	1280.1	1202.8
62.5°	3840.2	1458.7	1118.1	1020.9	954.4
65°	3017.8	1254.3	1005.1	838.1	765.0
67.5°	2406.5	1064.1	845.6	667.0	606.4
70°	1873.2	894.6	651.2	500.9	378.0
72.5°	1435.4	747.6	508.4	284.9	215.1
75°	1079.0	603.1	351.4	173.6	157.8
77.5°	769.2	447.7	187.7	125.4	116.3
80°	531.6	287.4	109.6	90.5	85.6
82.5°	329.8	138.7	74.8	64.8	60.6
85°	167.0	58.1	47.3	41.5	38.2
87.5°	55.7	28.2	21.6	19.9	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)