

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: P364438

Luminaire Tested: **VHB-9-N-UNV-L850-CD-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P364438  
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-9-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: 9264.0 lumens  
Efficiency: N/A  
Efficacy: 143.4 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

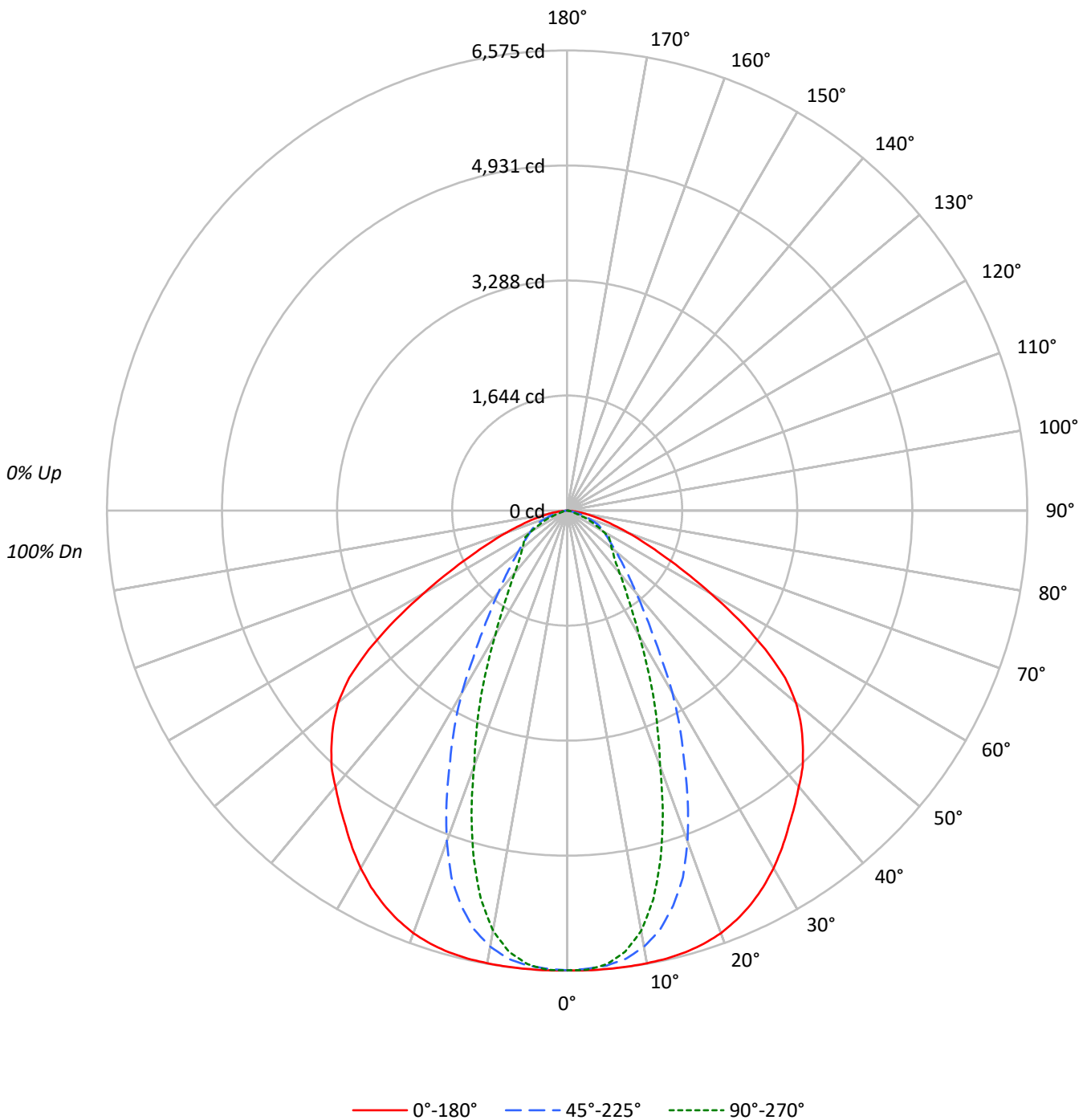
Input Watts (W): 64.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	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	74	68	64	71	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	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	57	51	47	46
8	69	57	49	44	67	56	49	44	55	49	44	54	48	44	53	47	44	42
9	65	53	46	41	63	52	45	41	51	45	41	50	45	40	49	44	40	39
10	61	49	42	38	60	49	42	38	48	42	38	47	41	37	46	41	37	36

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

	0°	45°	90°
0°	40404	40404	40404
5°	40594	40285	40169
10°	41020	39513	38070
15°	41605	37229	32825
20°	42053	32889	25414
25°	42138	26856	19693
30°	41901	21330	14575
35°	41423	15806	11334
40°	41357	12274	9353
45°	41445	10101	8309
50°	40857	8736	7925
55°	37090	7787	8007
60°	29160	7442	7296
65°	21658	7213	5491
70°	16612	5775	3352
75°	12645	4118	1849
80°	9287	1916	1495
85°	5808	1644	1327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	617.2	6.7
10°-20°	1624.6	17.5
20°-30°	1961.9	21.2
30°-40°	1754.2	18.9
40°-50°	1373.7	14.8
50°-60°	1037.9	11.2
60°-70°	616.4	6.7
70°-80°	236.9	2.6
80°-90°	41.1	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°	4203.7	45.4
0°-40°	5957.9	64.3
0°-60°	8369.5	90.3
0°-90°	9264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9264.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6569	6569	6569	6569	6569	
5°	6575	6546	6525	6516	6506	627
15°	6534	6318	5846	5358	5155	1846
25°	6209	5478	3957	3120	2902	2859
35°	5517	3926	2105	1641	1509	3459
45°	4765	2030	1161	981	955	3668
55°	3459	1101	726	723	747	3037
65°	1488	618	496	413	377	1533
75°	532	297	173	86	78	582
85°	82	29	23	20	19	110
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6568.9	6568.9	6568.9	6568.9	6568.9
2.5°	6575.1	6553.4	6551.7	6565.6	6567.7
5°	6574.7	6546.0	6524.7	6516.1	6505.8
7.5°	6572.6	6529.2	6457.5	6388.7	6356.7
10°	6567.7	6490.7	6326.4	6170.0	6095.4
12.5°	6557.0	6421.9	6131.9	5844.3	5687.8
15°	6533.7	6318.2	5846.4	5357.7	5154.9
17.5°	6491.5	6175.3	5496.6	4806.8	4545.9
20°	6424.7	5993.4	5024.7	4178.4	3882.7
22.5°	6328.9	5755.8	4504.9	3612.8	3376.4
25°	6208.9	5478.5	3957.2	3120.0	2901.7
27.5°	6066.3	5154.9	3485.4	2661.2	2446.2
30°	5899.6	4776.9	3003.3	2227.9	2052.1
32.5°	5713.2	4378.7	2499.9	1897.3	1752.7
35°	5516.6	3925.7	2105.0	1641.3	1509.4
37.5°	5331.5	3440.7	1782.6	1414.8	1322.2
40°	5150.8	2931.2	1528.7	1235.8	1164.9
42.5°	4980.5	2443.7	1334.5	1085.9	1039.6
45°	4764.6	2030.0	1161.2	981.0	955.2
47.5°	4535.6	1713.4	1023.6	895.8	886.8
50°	4269.8	1459.4	913.0	821.7	828.2
52.5°	3924.9	1258.7	808.2	769.2	788.5
55°	3458.7	1101.4	726.2	723.4	746.7
57.5°	2912.7	951.1	661.5	679.5	705.8
60°	2370.4	830.3	605.0	631.2	593.1
62.5°	1893.6	719.3	551.3	503.4	470.6
65°	1488.1	618.5	495.6	413.3	377.3
67.5°	1186.6	524.7	417.0	328.9	299.0
70°	923.7	441.2	321.1	247.0	186.4
72.5°	707.8	368.6	250.7	140.5	106.1
75°	532.1	297.4	173.3	85.6	77.8
77.5°	379.3	220.8	92.6	61.9	57.3
80°	262.2	141.7	54.1	44.6	42.2
82.5°	162.6	68.4	36.9	31.9	29.9
85°	82.3	28.7	23.3	20.5	18.8
87.5°	27.4	13.9	10.6	9.8	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)