

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: P417711

Luminaire Tested: **VHB-1824-N-UNV-L840-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417711
Test Lab: INNOVATION CENTER(G3)
Issue Date: 11/17/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-1824-N-UNV-L840-CD-U-LEVEL2
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22334.0 lumens
Efficiency: N/A
Efficacy: 141.1 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

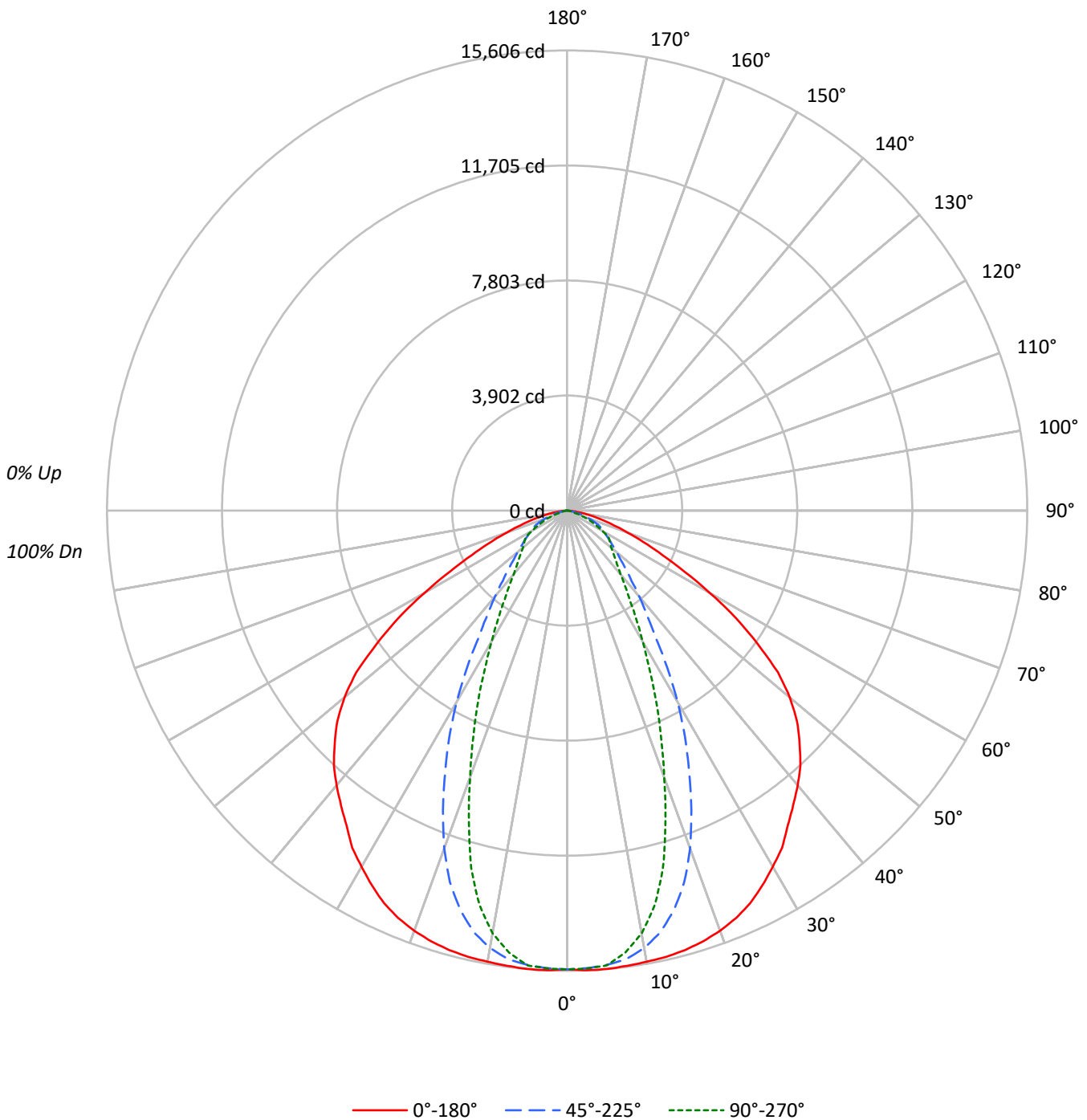
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	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	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°	95705	95705	95705
5°	96355	95496	95601
10°	97038	94064	90915
15°	98258	89213	79968
20°	99252	79804	62943
25°	99709	66409	48501
30°	99040	53152	36308
35°	97909	39102	27793
40°	97671	30515	22605
45°	96979	24552	20041
50°	94353	20924	18692
55°	84582	18822	18861
60°	68730	17696	16968
65°	51847	17153	13793
70°	39325	14218	9434
75°	29761	10687	5057
80°	21493	5267	4155
85°	13818	4524	3500



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1464.0	6.6
10°-20°	3890.9	17.4
20°-30°	4759.8	21.3
30°-40°	4270.5	19.1
40°-50°	3311.1	14.8
50°-60°	2457.5	11.0
60°-70°	1482.3	6.6
70°-80°	591.3	2.6
80°-90°	106.7	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°	10114.7	45.3
0°-40°	14385.2	64.4
0°-60°	20153.8	90.2
0°-90°	22334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15560	15560	15560	15560	15560	
5°	15606	15508	15467	15422	15484	###
15°	15430	15009	14010	12968	12558	4360
25°	14692	13072	9785	7763	7146	6758
35°	13039	9584	5208	3978	3701	8184
45°	11149	5035	2823	2363	2304	8581
55°	7888	2691	1755	1696	1759	7008
65°	3562	1493	1179	1006	948	3634
75°	1252	726	450	237	213	1373
85°	196	81	64	54	50	257
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15559.8	15559.8	15559.8	15559.8	15559.8
2.5°	15604.5	15511.5	15534.4	15534.4	15539.3
5°	15605.8	15507.8	15466.7	15422.0	15483.7
7.5°	15570.7	15457.1	15343.4	15153.7	15113.8
10°	15536.9	15371.2	15060.6	14696.7	14556.5
12.5°	15503.0	15250.4	14642.3	13954.5	13712.8
15°	15430.5	15008.6	14010.1	12968.1	12558.3
17.5°	15318.1	14667.7	13213.5	11713.4	11083.6
20°	15163.3	14244.6	12192.1	10310.0	9616.1
22.5°	14960.3	13741.8	11001.4	8968.2	8325.1
25°	14691.9	13072.1	9785.3	7763.0	7146.5
27.5°	14335.3	12322.6	8644.2	6638.8	6025.9
30°	13944.8	11511.5	7483.8	5575.0	5112.1
32.5°	13561.7	10627.9	6317.2	4680.5	4349.3
35°	13039.4	9583.5	5207.6	3978.2	3701.4
37.5°	12595.8	8458.1	4413.4	3425.8	3226.3
40°	12164.3	7262.5	3800.5	2995.4	2815.3
42.5°	11709.8	6079.1	3233.6	2629.2	2522.8
45°	11148.9	5034.7	2822.6	2363.2	2304.0
47.5°	10572.3	4263.5	2447.8	2162.6	2116.6
50°	9860.3	3611.9	2186.7	1964.3	1953.4
52.5°	9006.9	3101.8	1946.2	1816.8	1839.8
55°	7887.5	2690.8	1755.2	1696.0	1758.8
57.5°	6792.3	2327.0	1586.0	1604.1	1657.3
60°	5587.1	2000.6	1438.5	1469.9	1379.3
62.5°	4478.6	1737.1	1310.4	1220.9	1146.0
65°	3562.4	1492.9	1178.6	1005.7	947.7
67.5°	2803.2	1272.9	994.9	823.2	750.7
70°	2186.7	1073.4	790.6	640.7	524.6
72.5°	1668.2	896.9	626.2	388.0	310.7
75°	1252.3	726.5	449.7	236.9	212.8
77.5°	896.9	545.2	262.3	172.9	163.2
80°	606.8	356.6	148.7	126.9	117.3
82.5°	378.4	197.0	101.5	89.5	83.4
85°	195.8	81.0	64.1	54.4	49.6
87.5°	68.9	36.3	29.0	23.0	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)