

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: P417706

Luminaire Tested: **VHB-1824-N-UNV-L835-CD-U-LEVEL1**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417706
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-L835-CD-U-LEVEL1
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18039.9 lumens
Efficiency: N/A
Efficacy: 143.7 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

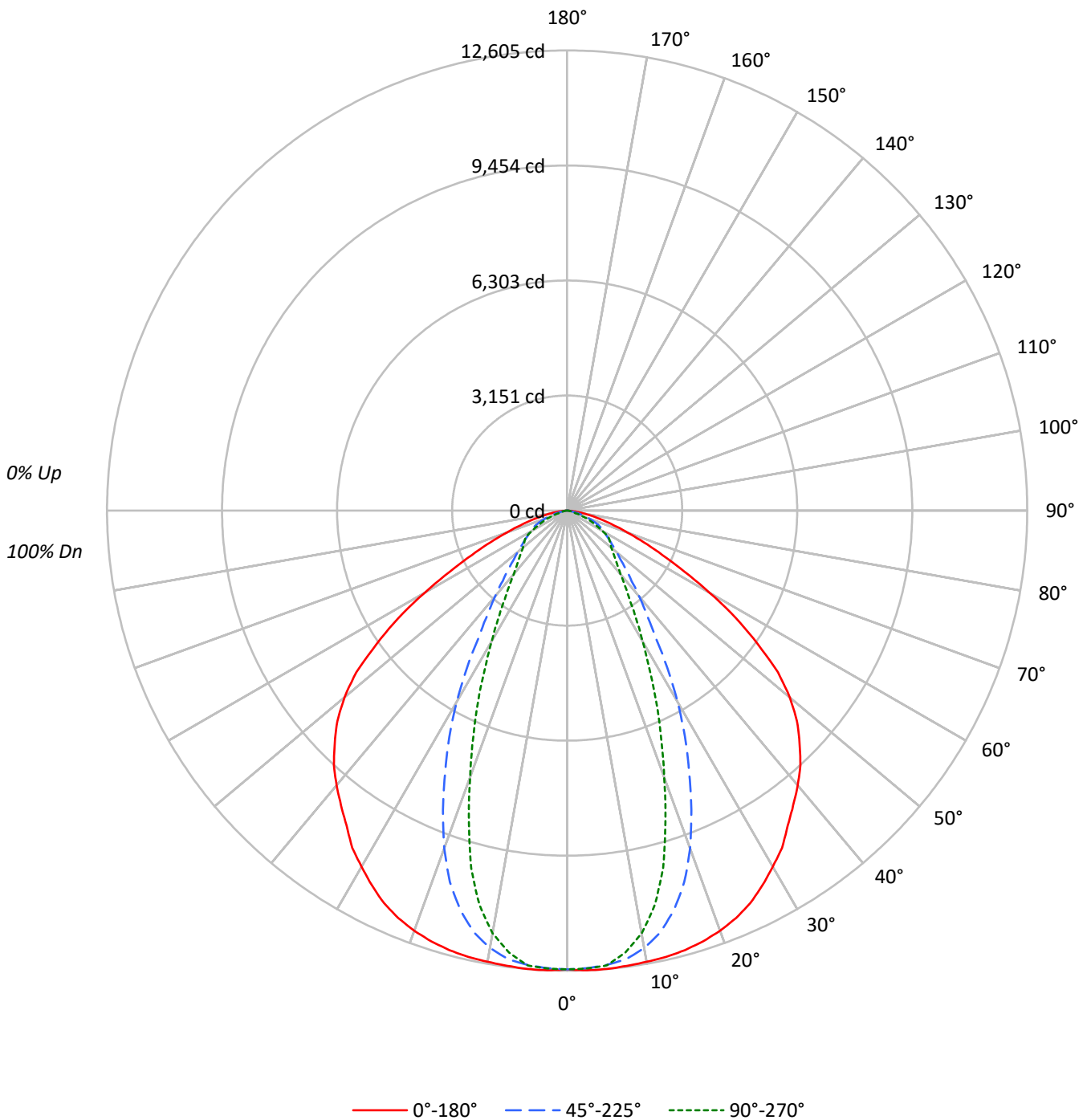
Input Watts (W): 125.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	77304	77304	77304
5°	77828	77135	77219
10°	78381	75978	73435
15°	79366	72060	64593
20°	80169	64460	50840
25°	80538	53641	39175
30°	79998	42933	29327
35°	79085	31584	22449
40°	78891	24648	18259
45°	78333	19832	16188
50°	76211	16902	15099
55°	68320	15203	15235
60°	55516	14293	13705
65°	41878	13855	11141
70°	31765	11484	7621
75°	24038	8631	4083
80°	17360	4254	3354
85°	11165	3649	2823



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1182.6	6.6
10°-20°	3142.8	17.4
20°-30°	3844.6	21.3
30°-40°	3449.4	19.1
40°-50°	2674.4	14.8
50°-60°	1985.0	11.0
60°-70°	1197.3	6.6
70°-80°	477.6	2.6
80°-90°	86.2	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°	8170.0	45.3
0°-40°	11619.4	64.4
0°-60°	16278.8	90.2
0°-90°	18039.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18039.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12568	12568	12568	12568	12568	
5°	12605	12526	12493	12457	12507	###
15°	12464	12123	11316	10475	10144	3522
25°	11867	10559	7904	6270	5772	5458
35°	10532	7741	4206	3213	2990	6610
45°	9005	4067	2280	1909	1861	6931
55°	6371	2174	1418	1370	1421	5661
65°	2877	1206	952	812	766	2935
75°	1012	587	363	191	172	1109
85°	158	65	52	44	40	208
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	12568.1	12568.1	12568.1	12568.1	12568.1
2.5°	12604.3	12529.1	12547.6	12547.6	12551.5
5°	12605.2	12526.1	12493.0	12456.8	12506.6
7.5°	12576.9	12485.1	12393.4	12240.1	12207.8
10°	12549.6	12415.8	12164.9	11871.0	11757.7
12.5°	12522.2	12318.2	11827.1	11271.5	11076.2
15°	12463.7	12122.9	11316.4	10474.7	10143.7
17.5°	12372.9	11847.6	10673.0	9461.2	8952.5
20°	12247.9	11505.8	9847.9	8327.7	7767.2
22.5°	12083.8	11099.6	8886.2	7243.9	6724.4
25°	11867.1	10558.7	7903.9	6270.4	5772.4
27.5°	11579.0	9953.4	6982.2	5362.4	4867.3
30°	11263.7	9298.2	6044.9	4503.1	4129.2
32.5°	10954.2	8584.4	5102.6	3780.6	3513.1
35°	10532.4	7740.8	4206.3	3213.3	2989.7
37.5°	10174.0	6831.8	3564.8	2767.1	2606.0
40°	9825.4	5866.2	3069.8	2419.5	2274.0
42.5°	9458.3	4910.3	2611.9	2123.7	2037.7
45°	9005.3	4066.7	2279.9	1908.8	1861.0
47.5°	8539.5	3443.7	1977.2	1746.8	1709.7
50°	7964.4	2917.5	1766.3	1586.6	1577.9
52.5°	7275.1	2505.4	1572.0	1467.5	1486.1
55°	6371.0	2173.5	1417.7	1369.9	1420.7
57.5°	5486.4	1879.6	1281.0	1295.7	1338.6
60°	4512.9	1615.9	1161.9	1187.3	1114.1
62.5°	3617.5	1403.1	1058.4	986.2	925.6
65°	2877.4	1205.8	952.0	812.4	765.5
67.5°	2264.3	1028.1	803.6	664.9	606.3
70°	1766.3	867.0	638.6	517.5	423.8
72.5°	1347.4	724.5	505.8	313.4	250.9
75°	1011.5	586.8	363.2	191.4	171.8
77.5°	724.5	440.4	211.9	139.6	131.8
80°	490.1	288.0	120.1	102.5	94.7
82.5°	305.6	159.2	82.0	72.3	67.4
85°	158.2	65.4	51.7	43.9	40.0
87.5°	55.7	29.3	23.4	18.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)