

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: P417727

Luminaire Tested: **VHB-1824-N-UNV-L950-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417727
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-L950-CD-U-LEVEL2
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20100.6 lumens
Efficiency: N/A
Efficacy: 127.0 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

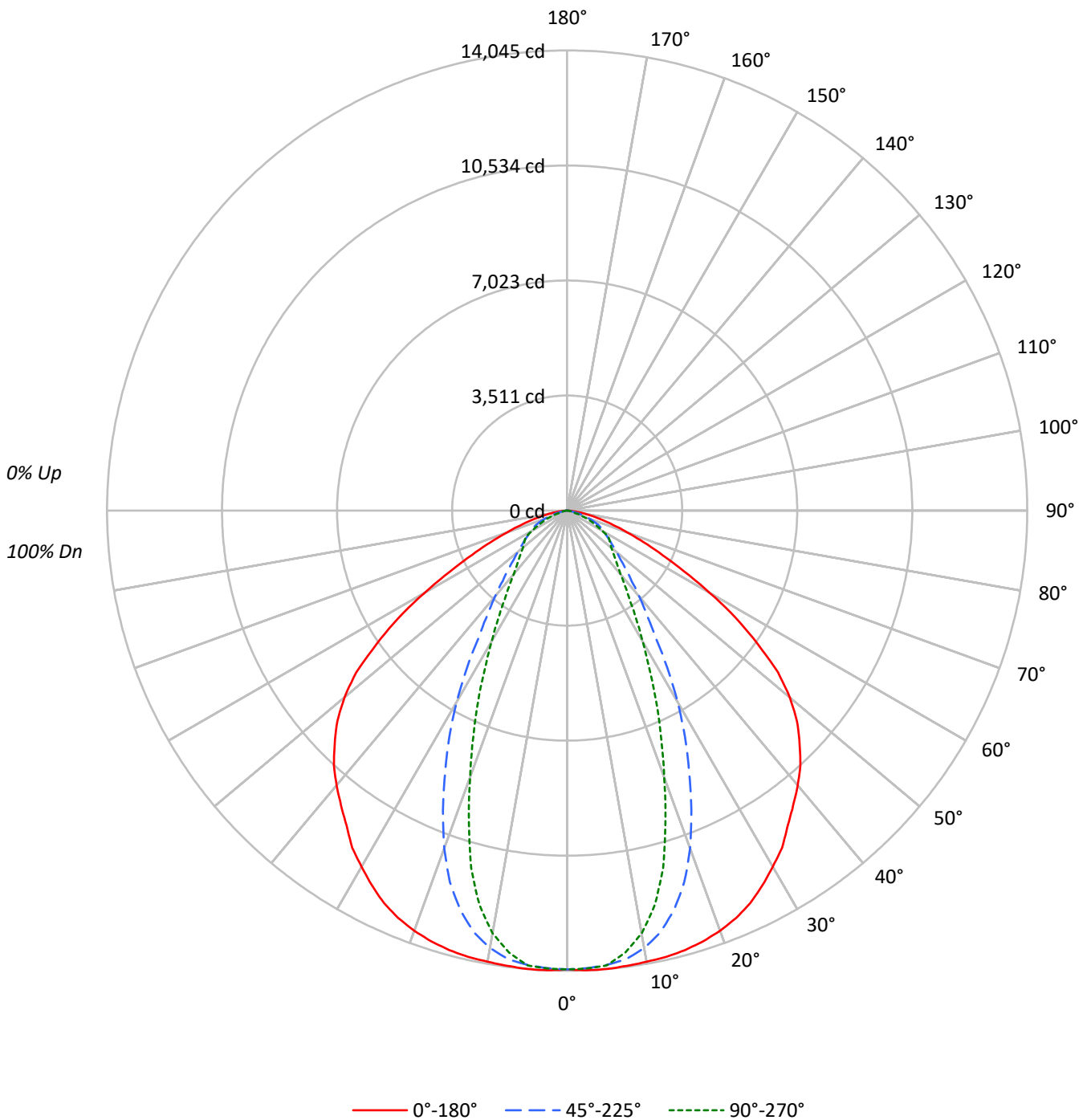
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	86134	86134	86134
5°	86719	85947	86041
10°	87335	84657	81824
15°	88432	80292	71972
20°	89327	71824	56648
25°	89738	59769	43650
30°	89137	47837	32677
35°	88119	35192	25013
40°	87903	27464	20345
45°	87281	22097	18037
50°	84917	18833	16823
55°	76123	16940	16974
60°	61857	15926	15270
65°	46662	15437	12413
70°	35394	12795	8492
75°	26785	9618	4551
80°	19343	4739	3737
85°	12435	4072	3148



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1317.6	6.6
10°-20°	3501.8	17.4
20°-30°	4283.8	21.3
30°-40°	3843.4	19.1
40°-50°	2979.9	14.8
50°-60°	2211.8	11.0
60°-70°	1334.0	6.6
70°-80°	532.1	2.6
80°-90°	96.0	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°	9103.3	45.3
0°-40°	12946.7	64.4
0°-60°	18138.4	90.2
0°-90°	20100.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20100.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14004	14004	14004	14004	14004	
5°	14045	13957	13920	13880	13935	###
15°	13887	13508	12609	11671	11302	3924
25°	13223	11765	8807	6987	6432	6082
35°	11736	8625	4687	3580	3331	7365
45°	10034	4531	2540	2127	2074	7722
55°	7099	2422	1580	1526	1583	6307
65°	3206	1344	1061	905	853	3271
75°	1127	654	405	213	192	1236
85°	176	73	58	49	45	232
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14003.8	14003.8	14003.8	14003.8	14003.8
2.5°	14044.1	13960.3	13981.0	13981.0	13985.3
5°	14045.2	13957.1	13920.1	13879.8	13935.3
7.5°	14013.6	13911.4	13809.1	13638.3	13602.4
10°	13983.2	13834.1	13554.5	13227.1	13100.9
12.5°	13952.7	13725.3	13178.1	12559.1	12341.5
15°	13887.4	13507.7	12609.1	11671.3	11302.5
17.5°	13786.3	13200.9	11892.2	10542.0	9975.2
20°	13647.0	12820.2	10972.9	9279.0	8654.5
22.5°	13464.2	12367.6	9901.3	8071.4	7492.6
25°	13222.7	11764.9	8806.8	6986.7	6431.8
27.5°	12901.8	11090.4	7779.8	5974.9	5423.3
30°	12550.4	10360.4	6735.4	5017.5	4600.9
32.5°	12205.5	9565.1	5685.5	4212.5	3914.4
35°	11735.5	8625.1	4686.8	3580.4	3331.2
37.5°	11336.2	7612.2	3972.0	3083.2	2903.7
40°	10947.8	6536.3	3420.5	2695.9	2533.8
42.5°	10538.8	5471.2	2910.2	2366.2	2270.5
45°	10034.0	4531.2	2540.3	2126.9	2073.6
47.5°	9515.0	3837.1	2203.1	1946.3	1905.0
50°	8874.2	3250.7	1968.1	1767.9	1758.1
52.5°	8106.2	2791.6	1751.6	1635.2	1655.8
55°	7098.7	2421.7	1579.7	1526.4	1582.9
57.5°	6113.1	2094.3	1427.4	1443.7	1491.6
60°	5028.4	1800.5	1294.6	1322.9	1241.3
62.5°	4030.8	1563.4	1179.3	1098.8	1031.4
65°	3206.1	1343.6	1060.7	905.2	852.9
67.5°	2522.9	1145.6	895.4	740.9	675.6
70°	1968.1	966.1	711.5	576.6	472.2
72.5°	1501.3	807.2	563.5	349.2	279.6
75°	1127.1	653.8	404.7	213.2	191.5
77.5°	807.2	490.7	236.1	155.6	146.9
80°	546.1	320.9	133.8	114.2	105.5
82.5°	340.5	177.3	91.4	80.5	75.1
85°	176.2	72.9	57.7	49.0	44.6
87.5°	62.0	32.6	26.1	20.7	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)