

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: P417723

Luminaire Tested: **VHB-1824-N-UNV-L940-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417723
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-L940-CD-U-LEVEL2
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19877.3 lumens
Efficiency: N/A
Efficacy: 125.6 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

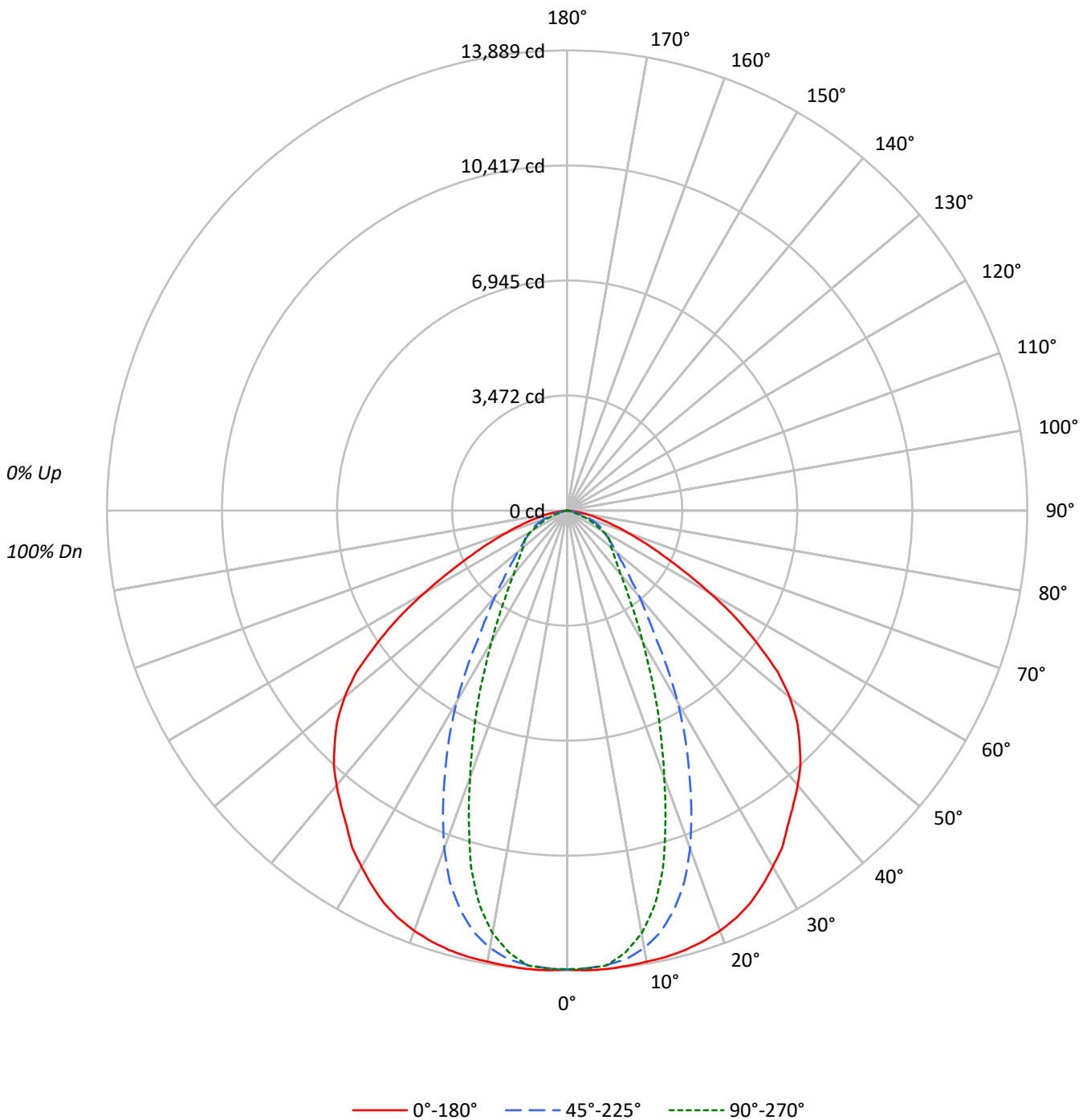
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	85177	85177	85177
5°	85755	84992	85085
10°	86364	83716	80915
15°	87449	79400	71172
20°	88335	71025	56019
25°	88741	59104	43166
30°	88146	47305	32313
35°	87140	34801	24735
40°	86927	27158	20118
45°	86311	21852	17837
50°	83973	18623	16637
55°	75278	16751	16787
60°	61170	15750	15100
65°	46143	15266	12276
70°	35000	12653	8397
75°	26488	9511	4499
80°	19131	4686	3698
85°	12301	4023	3112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1303.0	6.6
10°-20°	3462.9	17.4
20°-30°	4236.2	21.3
30°-40°	3800.7	19.1
40°-50°	2946.8	14.8
50°-60°	2187.2	11.0
60°-70°	1319.2	6.6
70°-80°	526.2	2.6
80°-90°	95.0	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°	9002.1	45.3
0°-40°	12802.8	64.4
0°-60°	17936.8	90.2
0°-90°	19877.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19877.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13848	13848	13848	13848	13848	
5°	13889	13802	13765	13726	13780	###
15°	13733	13358	12469	11542	11177	3881
25°	13076	11634	8709	6909	6360	6014
35°	11605	8529	4635	3541	3294	7283
45°	9922	4481	2512	2103	2051	7637
55°	7020	2395	1562	1509	1565	6237
65°	3170	1329	1049	895	844	3234
75°	1115	647	400	211	189	1222
85°	174	72	57	48	44	229
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13848.2	13848.2	13848.2	13848.2	13848.2
2.5°	13888.0	13805.2	13825.6	13825.6	13830.0
5°	13889.1	13802.0	13765.4	13725.6	13780.5
7.5°	13857.9	13756.8	13655.7	13486.8	13451.3
10°	13827.8	13680.4	13403.9	13080.1	12955.3
12.5°	13797.7	13572.8	13031.7	12419.5	12204.4
15°	13733.1	13357.7	12469.0	11541.6	11176.9
17.5°	13633.1	13054.3	11760.0	10424.9	9864.4
20°	13495.4	12677.7	10850.9	9175.9	8558.3
22.5°	13314.6	12230.2	9791.2	7981.7	7409.3
25°	13075.8	11634.2	8708.9	6909.1	6360.4
27.5°	12758.4	10967.1	7693.3	5908.5	5363.1
30°	12410.9	10245.2	6660.5	4961.8	4549.7
32.5°	12069.9	9458.8	5622.4	4165.7	3870.9
35°	11605.1	8529.3	4634.7	3540.6	3294.2
37.5°	11210.3	7527.7	3927.9	3048.9	2871.4
40°	10826.2	6463.7	3382.4	2665.9	2505.6
42.5°	10421.7	5410.4	2877.9	2340.0	2245.3
45°	9922.5	4480.9	2512.1	2103.3	2050.6
47.5°	9409.3	3794.5	2178.6	1924.7	1883.8
50°	8775.6	3214.6	1946.2	1748.2	1738.6
52.5°	8016.1	2760.6	1732.1	1617.0	1637.4
55°	7019.9	2394.8	1562.1	1509.4	1565.4
57.5°	6045.2	2071.0	1411.5	1427.6	1475.0
60°	4972.5	1780.5	1280.3	1308.2	1227.5
62.5°	3986.0	1546.0	1166.2	1086.6	1019.9
65°	3170.5	1328.7	1048.9	895.1	843.5
67.5°	2494.9	1132.9	885.4	732.6	668.1
70°	1946.2	955.3	703.6	570.2	466.9
72.5°	1484.7	798.3	557.3	345.3	276.5
75°	1114.6	646.6	400.2	210.9	189.3
77.5°	798.3	485.2	233.5	153.8	145.2
80°	540.1	317.4	132.3	113.0	104.4
82.5°	336.7	175.4	90.4	79.6	74.2
85°	174.3	72.1	57.0	48.4	44.1
87.5°	61.3	32.3	25.8	20.4	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)