

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: P470154

Luminaire Tested: **VHB2-24-N-UNV-L940-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470154
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-24-N-UNV-L940-CD-U
Description: VHB2 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: 19907.9 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.75 / 0.88
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

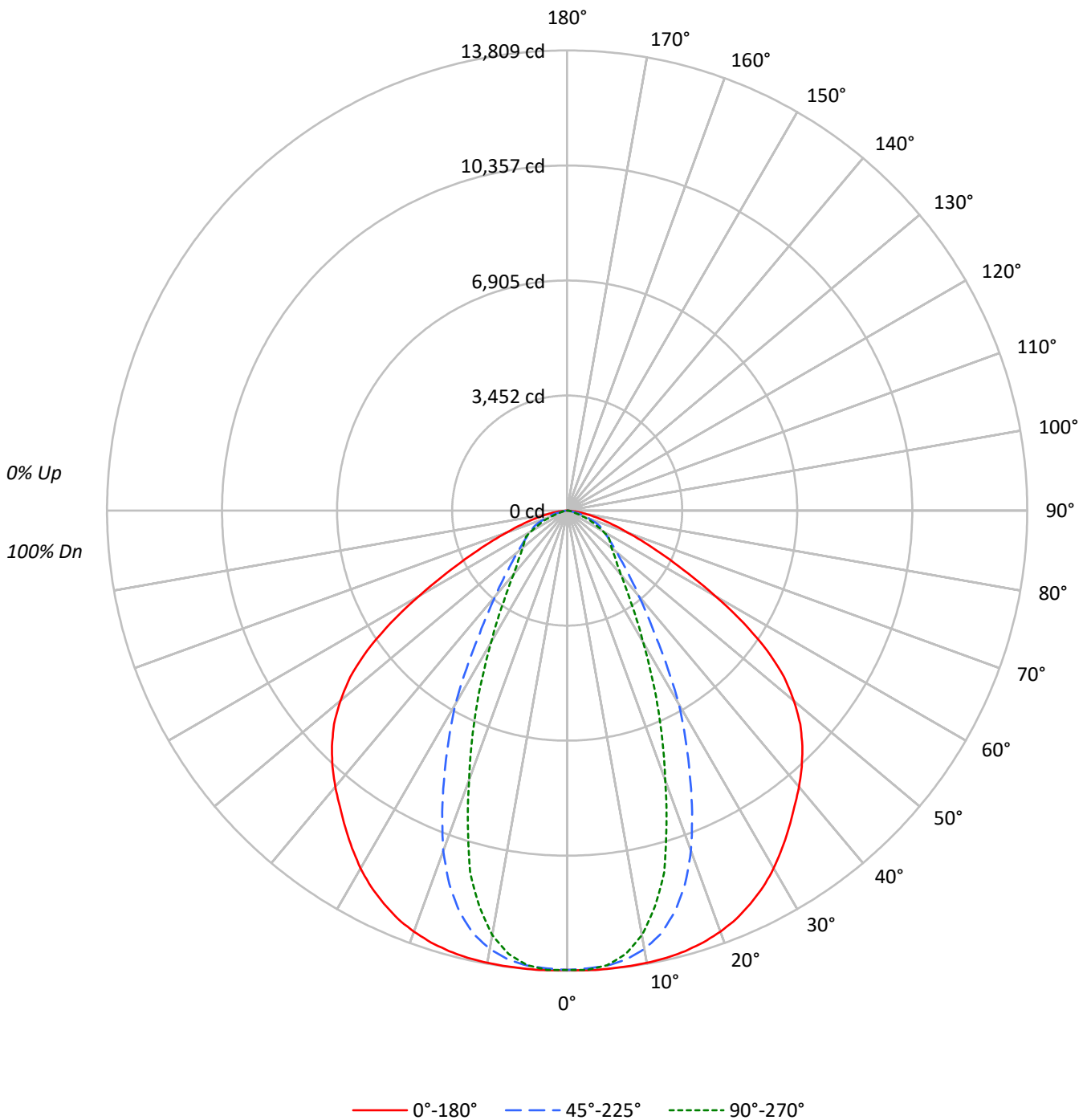
Input Watts (W): 159.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P470154

CATALOG NUMBER: VHB2-24-N-UNV-L940-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P470154

CATALOG NUMBER: VHB2-24-N-UNV-L940-CD-U

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	65	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	60	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°	84783	84783	84783
5°	85254	84632	84566
10°	86069	83423	80793
15°	87154	79416	71600
20°	88018	71121	56290
25°	88332	59054	43437
30°	88050	47549	32342
35°	87178	34976	24810
40°	86909	26856	20103
45°	86837	21702	17855
50°	85032	18626	16663
55°	78602	16673	16701
60°	63014	15742	15242
65°	46813	15356	12319
70°	35117	12628	8366
75°	26460	9563	4539
80°	19234	4668	3822
85°	12357	3994	3056



TEST NUMBER: P470154

CATALOG NUMBER: VHB2-24-N-UNV-L940-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1298.8	6.5
10°-20°	3460.8	17.4
20°-30°	4239.4	21.3
30°-40°	3807.3	19.1
40°-50°	2949.7	14.8
50°-60°	2207.3	11.1
60°-70°	1324.4	6.7
70°-80°	525.2	2.6
80°-90°	95.3	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°	8998.9	45.2
0°-40°	12806.2	64.3
0°-60°	17963.2	90.2
0°-90°	19907.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19907.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13784	13784	13784	13784	13784	
5°	13808	13747	13707	13704	13696	###
15°	13687	13328	12472	11549	11244	3867
25°	13016	11653	8702	6958	6400	5996
35°	11610	8586	4658	3570	3304	7273
45°	9983	4473	2495	2103	2053	7675
55°	7330	2374	1555	1506	1557	6433
65°	3216	1318	1055	896	846	3295
75°	1113	644	402	211	191	1227
85°	175	70	57	49	43	232
90°	0	0	0	0	0	



TEST NUMBER: P470154

CATALOG NUMBER: VHB2-24-N-UNV-L940-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13784.0	13784.0	13784.0	13784.0	13784.0
2.5°	13808.8	13758.4	13751.3	13785.8	13795.5
5°	13807.9	13746.9	13707.1	13703.6	13696.5
7.5°	13796.4	13715.9	13587.7	13486.0	13425.9
10°	13780.5	13639.0	13356.9	13064.1	12935.9
12.5°	13750.4	13518.7	13004.0	12440.7	12170.0
15°	13686.8	13327.7	12471.6	11549.2	11244.1
17.5°	13588.6	13041.2	11756.1	10422.5	9910.4
20°	13447.1	12679.4	10865.6	9240.1	8599.8
22.5°	13264.9	12213.4	9792.8	7975.4	7457.1
25°	13015.5	11652.7	8701.5	6957.5	6400.3
27.5°	12736.9	11022.1	7672.0	5890.9	5403.6
30°	12397.3	10255.3	6694.8	4957.0	4553.7
32.5°	12010.8	9465.6	5619.4	4162.8	3883.3
35°	11610.2	8585.6	4658.1	3570.3	3304.1
37.5°	11199.9	7587.1	3932.9	3061.7	2869.8
40°	10824.0	6473.7	3344.7	2656.7	2503.7
42.5°	10420.7	5428.4	2891.9	2333.0	2239.3
45°	9982.9	4473.2	2494.9	2103.1	2052.7
47.5°	9488.6	3773.7	2185.3	1927.1	1880.2
50°	8886.3	3205.0	1946.5	1744.0	1741.4
52.5°	8209.8	2758.4	1734.3	1611.4	1634.3
55°	7329.8	2373.7	1554.8	1506.1	1557.4
57.5°	6283.6	2059.7	1407.9	1424.7	1465.4
60°	5122.4	1776.7	1279.7	1293.9	1239.0
62.5°	4095.6	1529.1	1163.9	1089.6	1019.7
65°	3216.5	1317.7	1055.1	895.9	846.4
67.5°	2508.1	1122.3	883.5	734.9	673.0
70°	1952.7	953.4	702.2	563.4	465.2
72.5°	1492.0	793.3	553.6	345.8	262.7
75°	1113.4	643.8	402.4	211.4	191.0
77.5°	808.3	482.0	224.6	154.8	144.2
80°	543.0	325.5	131.8	113.2	107.9
82.5°	345.8	170.7	91.1	79.6	73.4
85°	175.1	69.9	56.6	48.6	43.3
87.5°	61.0	33.6	25.6	20.3	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)