

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: P563284

Luminaire Tested: **VHB-24-N-UNV-L940-CD**

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563284
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P364424)
Test Lab: INNOVATION CENTER
Issue Date: 6/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-24-N-UNV-L940-CD
Description: 24000 LUMEN, VHB LED LUMINAIRE WITH, NARROW LENS AND 90CRI, 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

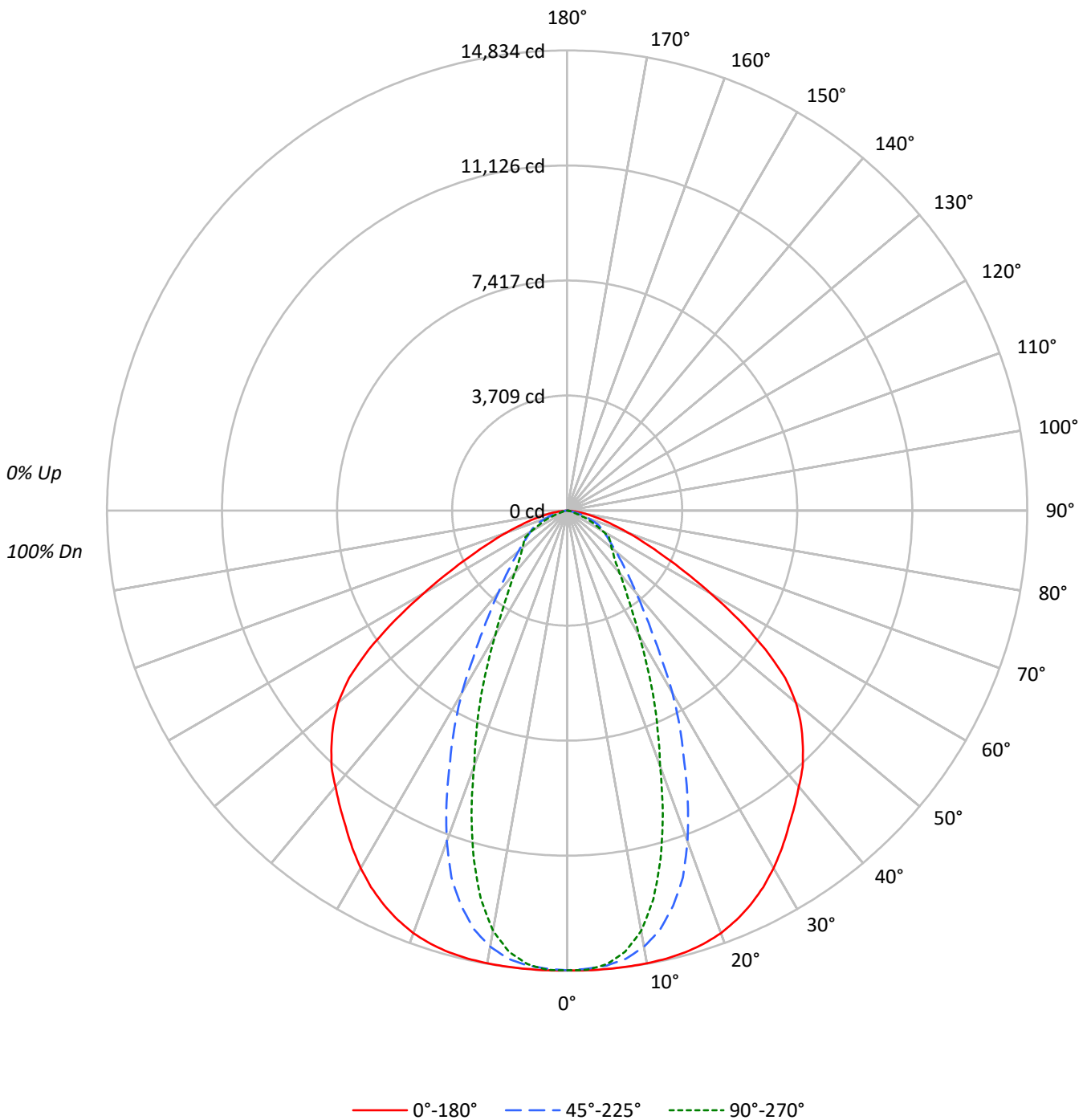
Lumens per Lamp: N/A
Luminaire Lumens: 20901.0 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.17' x L: 1.58' x H: 0')
CIE Type: Direct

Input Watts (W): 165
Input Voltage (V): NR
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: 25 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	108	104	101	109	105	102	100	101	99	96	97	95	94	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	74	68	64	71	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	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	57	51	47	46					46			
8	69	57	49	44	67	56	49	44	55	49	44	54	48	44	53	47	44	42					42			
9	65	53	46	41	63	52	45	41	51	45	41	50	44	40	49	44	40	39					39			
10	61	49	42	38	60	49	42	38	48	42	38	47	41	37	46	41	37	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	86361	86361	86361
5°	86767	86108	85859
10°	87678	84457	81373
15°	88929	79574	70163
20°	89887	70299	54322
25°	90067	57405	42092
30°	89562	45592	31153
35°	88539	33784	24225
40°	88401	26235	19993
45°	88587	21590	17760
50°	87330	18673	16940
55°	79279	16645	17117
60°	62329	15908	15596
65°	46294	15418	11737
70°	35506	12342	7164
75°	27026	8803	3954
80°	19846	4097	3191
85°	12416	3517	2842



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1392.4	6.7
10°-20°	3665.4	17.5
20°-30°	4426.4	21.2
30°-40°	3957.7	18.9
40°-50°	3099.2	14.8
50°-60°	2341.7	11.2
60°-70°	1390.8	6.7
70°-80°	534.5	2.6
80°-90°	92.9	0.4
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°	9484.2	45.4
0°-40°	13442.0	64.3
0°-60°	18882.9	90.3
0°-90°	20901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14820	14820	14820	14820	14820	
5°	14833	14769	14721	14701	14678	###
15°	14741	14255	13190	12088	11630	4165
25°	14008	12360	8928	7039	6547	6450
35°	12446	8857	4749	3703	3405	7805
45°	10750	4580	2620	2213	2155	8275
55°	7804	2485	1638	1632	1685	6853
65°	3358	1395	1118	932	851	3459
75°	1200	671	391	193	176	1314
85°	186	65	53	46	42	247
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14820.4	14820.4	14820.4	14820.4	14820.4
2.5°	14834.4	14785.4	14781.6	14813.1	14817.8
5°	14833.3	14768.7	14720.7	14701.3	14678.1
7.5°	14828.8	14730.9	14569.1	14413.9	14341.8
10°	14817.8	14644.0	14273.4	13920.4	13752.2
12.5°	14793.7	14488.7	13834.4	13185.6	12832.6
15°	14741.0	14254.9	13190.4	12087.7	11630.3
17.5°	14645.7	13932.3	12401.1	10844.8	10256.0
20°	14495.2	13522.1	11336.5	9427.2	8759.9
22.5°	14278.9	12986.1	10163.7	8150.9	7617.8
25°	14008.2	12360.5	8928.2	7039.2	6546.6
27.5°	13686.6	11630.3	7863.4	6004.2	5518.9
30°	13310.5	10777.3	6775.8	5026.3	4629.9
32.5°	12890.0	9879.0	5640.1	4280.6	3954.5
35°	12446.3	8857.0	4749.2	3703.0	3405.4
37.5°	12028.6	7762.7	4021.9	3192.1	2983.1
40°	11621.2	6613.2	3448.9	2788.1	2628.3
42.5°	11236.7	5513.5	3010.9	2450.0	2345.4
45°	10749.7	4580.1	2619.9	2213.4	2155.1
47.5°	10233.0	3865.6	2309.4	2021.0	2000.7
50°	9633.2	3292.8	2059.8	1853.9	1868.6
52.5°	8855.1	2839.9	1823.3	1735.5	1779.0
55°	7803.5	2485.1	1638.4	1632.0	1684.8
57.5°	6571.6	2145.9	1492.4	1533.2	1592.3
60°	5348.1	1873.3	1365.0	1424.1	1338.2
62.5°	4272.3	1622.9	1244.0	1135.7	1061.9
65°	3357.5	1395.4	1118.2	932.5	851.2
67.5°	2677.3	1183.8	940.7	742.1	674.6
70°	2084.0	995.3	724.4	557.3	420.5
72.5°	1597.0	831.8	565.5	317.0	239.4
75°	1200.4	670.9	391.0	193.2	175.6
77.5°	855.8	498.2	208.8	139.5	129.4
80°	591.4	319.8	122.1	100.7	95.1
82.5°	366.9	154.4	83.2	72.0	67.5
85°	185.7	64.7	52.6	46.2	42.5
87.5°	61.9	31.5	24.0	22.2	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)