

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: P563283

Luminaire Tested: **VHB-24-N-UNV-L935-CD**

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563283
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-L935-CD
Description: 24000 LUMEN, VHB LED LUMINAIRE WITH, NARROW LENS AND 90CRI, 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

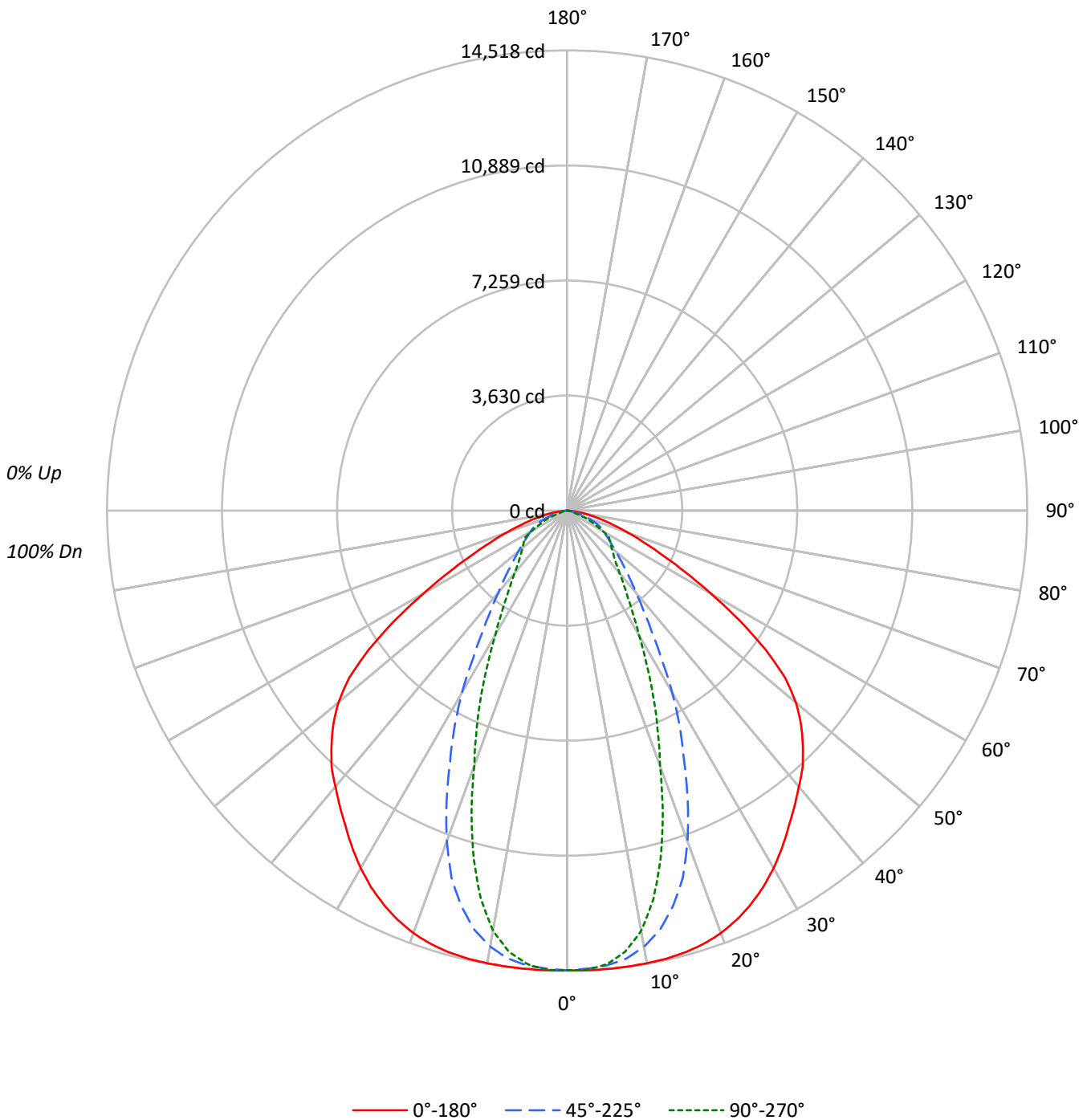
Lumens per Lamp: N/A
Luminaire Lumens: 20455.0 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.17' x L: 1.58' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P563283

CATALOG NUMBER: VHB-24-N-UNV-L935-CD

Luminous Intensity Polar Plot





TEST NUMBER: P563283

CATALOG NUMBER: VHB-24-N-UNV-L935-CD

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	74	68	64	71	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	57	51	47	46
8	69	57	49	44	67	56	49	44	55	49	44	54	48	44	53	47	44	42
9	65	53	46	41	63	52	45	41	51	45	41	50	44	40	49	44	40	39
10	61	49	42	38	60	49	42	38	48	42	38	47	41	37	46	41	37	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	84519	84519	84519
5°	84915	84271	84027
10°	85807	82655	79636
15°	87031	77876	68665
20°	87969	68799	53163
25°	88145	56179	41194
30°	87651	44619	30488
35°	86650	33063	23708
40°	86514	25675	19566
45°	86697	21130	17382
50°	85466	18275	16578
55°	77586	16291	16751
60°	60999	15568	15263
65°	45306	15090	11487
70°	34748	12080	7013
75°	26450	8614	3868
80°	19423	4007	3124
85°	12148	3443	2781



TEST NUMBER: P563283

CATALOG NUMBER: VHB-24-N-UNV-L935-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1362.7	6.7
10°-20°	3587.2	17.5
20°-30°	4331.9	21.2
30°-40°	3873.3	18.9
40°-50°	3033.1	14.8
50°-60°	2291.7	11.2
60°-70°	1361.1	6.7
70°-80°	523.1	2.6
80°-90°	90.9	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°	9281.9	45.4
0°-40°	13155.1	64.3
0°-60°	18479.9	90.3
0°-90°	20455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20455.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14504	14504	14504	14504	14504	
5°	14517	14454	14407	14388	14365	###
15°	14426	13951	12909	11830	11382	4076
25°	13709	12097	8738	6889	6407	6312
35°	12181	8668	4648	3624	3333	7639
45°	10520	4482	2564	2166	2109	8098
55°	7637	2432	1604	1597	1649	6706
65°	3286	1366	1094	913	833	3386
75°	1175	657	383	189	172	1286
85°	182	63	52	45	42	242
90°	0	0	0	0	0	



TEST NUMBER: P563283

CATALOG NUMBER: VHB-24-N-UNV-L935-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14504.2	14504.2	14504.2	14504.2	14504.2
2.5°	14517.9	14469.9	14466.2	14497.0	14501.6
5°	14516.8	14453.5	14406.6	14387.6	14364.9
7.5°	14512.4	14416.5	14258.3	14106.3	14035.8
10°	14501.6	14331.5	13968.9	13623.4	13458.7
12.5°	14478.0	14179.5	13539.2	12904.3	12558.8
15°	14426.5	13950.7	12908.9	11829.8	11382.1
17.5°	14333.2	13635.0	12136.4	10613.4	10037.2
20°	14185.9	13233.5	11094.6	9226.0	8573.0
22.5°	13974.2	12709.0	9946.8	7977.0	7455.2
25°	13709.3	12096.7	8737.6	6888.9	6406.9
27.5°	13394.6	11382.1	7695.6	5876.0	5401.2
30°	13026.5	10547.3	6631.2	4919.1	4531.1
32.5°	12614.9	9668.2	5519.7	4189.2	3870.1
35°	12180.8	8668.0	4647.8	3624.0	3332.7
37.5°	11771.9	7597.1	3936.1	3123.9	2919.5
40°	11373.2	6472.1	3375.3	2728.6	2572.2
42.5°	10996.9	5395.9	2946.7	2397.7	2295.3
45°	10520.3	4482.4	2564.0	2166.1	2109.2
47.5°	10014.6	3783.1	2260.1	1977.9	1958.1
50°	9427.6	3222.5	2015.9	1814.3	1828.7
52.5°	8666.1	2779.3	1784.4	1698.4	1741.1
55°	7636.9	2432.1	1603.5	1597.1	1648.8
57.5°	6431.3	2100.1	1460.6	1500.5	1558.3
60°	5234.0	1833.3	1335.8	1393.7	1309.6
62.5°	4181.2	1588.2	1217.4	1111.5	1039.3
65°	3285.8	1365.6	1094.4	912.6	833.1
67.5°	2620.1	1158.5	920.7	726.3	660.2
70°	2039.5	974.1	709.0	545.4	411.6
72.5°	1562.9	814.1	553.4	310.3	234.3
75°	1174.8	656.6	382.6	189.1	171.8
77.5°	837.5	487.5	204.3	136.6	126.6
80°	578.8	313.0	119.4	98.6	93.1
82.5°	359.0	151.1	81.5	70.5	66.1
85°	181.7	63.3	51.5	45.2	41.6
87.5°	60.6	30.8	23.4	21.7	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)