

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: P563311

Luminaire Tested: **VHB-48-N-UNV-L940-CD**

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563311
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-48-N-UNV-L940-CD
Description: 48000 LUMEN, VHB LED LUMINAIRE WITH, NARROW LENS AND 90CRI, 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

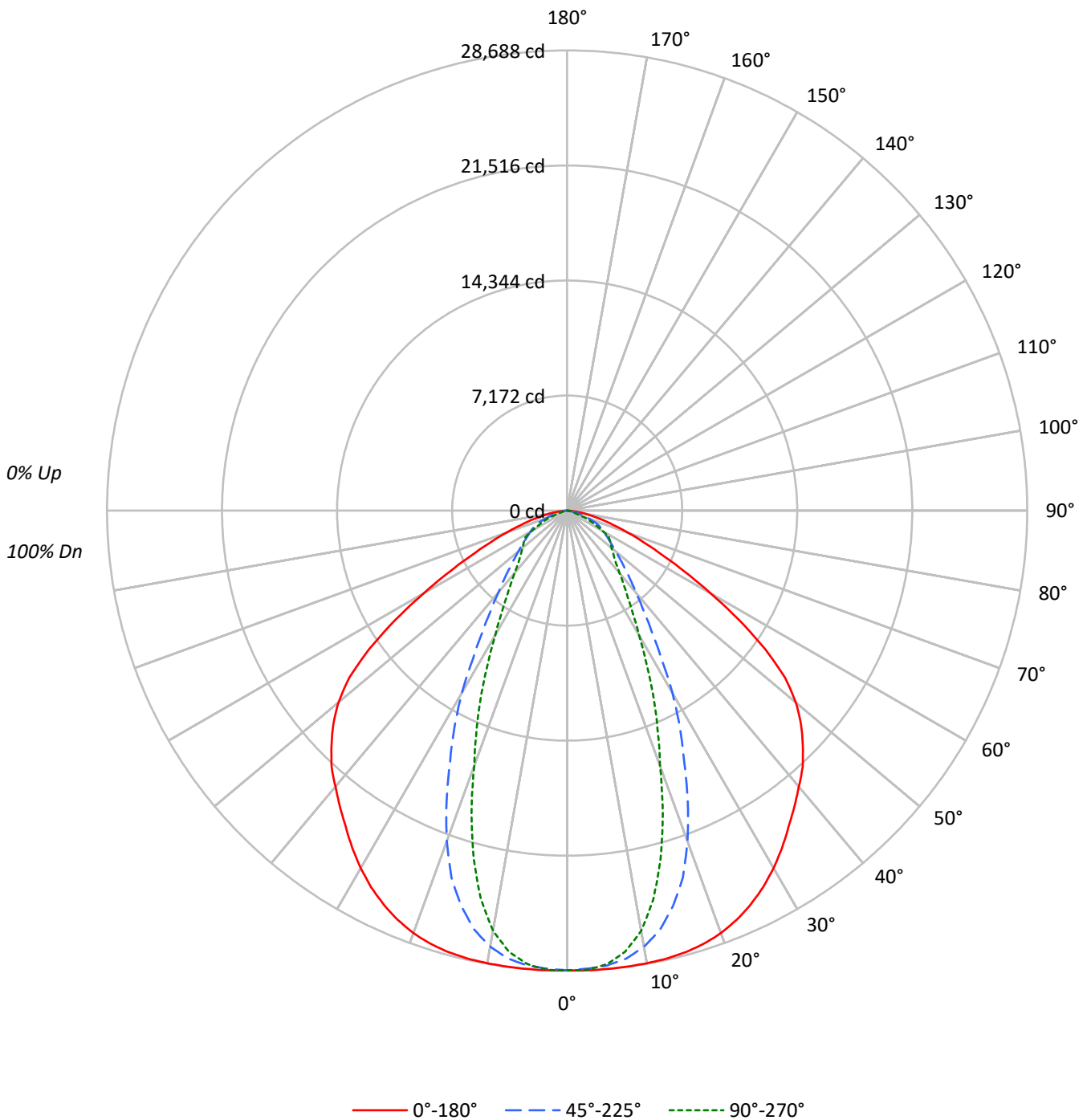
Lumens per Lamp: N/A
Luminaire Lumens: 40420.0 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.75' x L: 1.58' x H: 0')
CIE Type: Direct

Input Watts (W): 324
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: P563311

CATALOG NUMBER: VHB-48-N-UNV-L940-CD

Luminous Intensity Polar Plot





TEST NUMBER: P563311

CATALOG NUMBER: VHB-48-N-UNV-L940-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	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°	111342	111342	111342
5°	111865	111015	110694
10°	113039	108887	104911
15°	114652	102592	90457
20°	115887	90634	70035
25°	116119	74009	54267
30°	115468	58780	40164
35°	114150	43557	31232
40°	113971	33824	25776
45°	114211	27836	22898
50°	112590	24075	21839
55°	102211	21460	22067
60°	80357	20509	20107
65°	59685	19878	15132
70°	45777	15913	9238
75°	34845	11349	5096
80°	25584	5280	4116
85°	16006	4538	3664



TEST NUMBER: P563311

CATALOG NUMBER: VHB-48-N-UNV-L940-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2692.8	6.7
10°-20°	7088.5	17.5
20°-30°	8560.1	21.2
30°-40°	7653.8	18.9
40°-50°	5993.5	14.8
50°-60°	4528.5	11.2
60°-70°	2689.6	6.7
70°-80°	1033.6	2.6
80°-90°	179.6	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°	18341.4	45.4
0°-40°	25995.2	64.3
0°-60°	36517.1	90.3
0°-90°	40420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	40420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	28661	28661	28661	28661	28661	
5°	28686	28561	28468	28431	28386	###
15°	28507	27567	25509	23376	22492	8055
25°	27090	23904	17266	13613	12660	12473
35°	24070	17128	9184	7161	6586	15094
45°	20789	8857	5067	4280	4168	16002
55°	15091	4806	3168	3156	3258	13252
65°	6493	2698	2162	1803	1646	6690
75°	2322	1298	756	374	340	2541
85°	359	125	102	89	82	479
90°	0	0	0	0	0	



TEST NUMBER: P563311

CATALOG NUMBER: VHB-48-N-UNV-L940-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	28660.9	28660.9	28660.9	28660.9	28660.9
2.5°	28687.9	28593.2	28585.8	28646.7	28655.8
5°	28685.9	28560.8	28468.1	28430.6	28385.6
7.5°	28677.1	28487.7	28174.9	27874.7	27735.3
10°	28655.8	28319.7	27603.1	26920.4	26595.1
12.5°	28609.1	28019.4	26754.0	25499.4	24816.7
15°	28507.4	27567.3	25508.6	23376.2	22491.5
17.5°	28323.1	26943.4	23982.1	20972.5	19834.0
20°	28031.9	26150.1	21923.4	18231.1	16940.7
22.5°	27613.6	25113.6	19655.4	15762.9	14731.8
25°	27090.1	23903.7	17266.0	13612.9	12660.3
27.5°	26468.3	22491.5	15206.9	11611.3	10672.9
30°	25740.9	20842.0	13103.6	9720.3	8953.7
32.5°	24927.6	19104.9	10907.3	8278.1	7647.4
35°	24069.7	17128.4	9184.4	7161.2	6585.6
37.5°	23261.9	15012.2	7778.0	6173.1	5769.0
40°	22473.9	12789.1	6669.8	5391.9	5082.8
42.5°	21730.3	10662.4	5822.7	4737.9	4535.7
45°	20788.6	8857.4	5066.6	4280.4	4167.8
47.5°	19789.3	7475.6	4466.0	3908.4	3869.2
50°	18629.4	6367.8	3983.5	3585.1	3613.6
52.5°	17124.6	5492.0	3526.0	3356.2	3440.4
55°	15091.0	4805.9	3168.5	3156.0	3258.1
57.5°	12708.6	4149.9	2886.2	2965.0	3079.3
60°	10342.5	3622.7	2639.7	2754.0	2587.9
62.5°	8262.2	3138.4	2405.7	2196.3	2053.6
65°	6493.0	2698.5	2162.5	1803.4	1646.2
67.5°	5177.5	2289.3	1819.3	1435.1	1304.6
70°	4030.2	1924.8	1401.0	1077.7	813.3
72.5°	3088.4	1608.6	1093.6	613.1	462.9
75°	2321.5	1297.5	756.1	373.7	339.5
77.5°	1654.9	963.4	403.8	269.8	250.2
80°	1143.6	618.5	236.0	194.8	184.0
82.5°	709.5	298.6	161.0	139.3	130.5
85°	359.1	125.1	101.8	89.3	82.2
87.5°	119.7	60.9	46.3	42.9	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)