

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: P475282

Luminaire Tested: **22CZ2-110VHE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475282  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-110VHE-SQR-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10469.4 lumens  
Efficiency: N/A  
Efficacy: 124.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

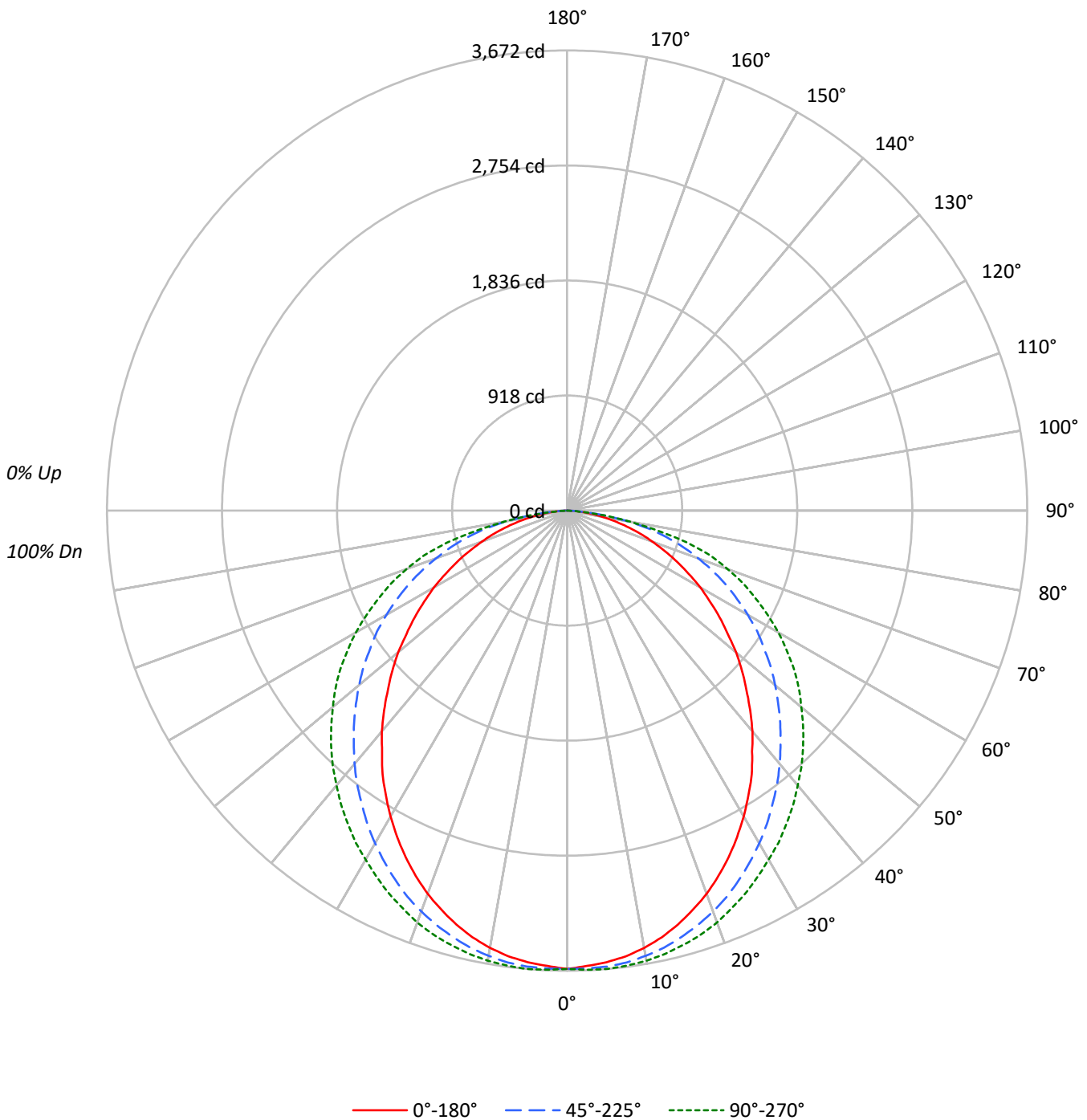
Input Watts (W): 84.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9841	9841	9841
5°	9772	9865	9920
10°	9682	9857	9966
15°	9525	9814	9995
20°	9320	9748	10017
25°	9059	9649	10003
30°	8754	9527	9990
35°	8439	9385	10023
40°	8081	9269	10055
45°	7696	9153	10136
50°	7363	9069	10214
55°	6970	8998	10375
60°	6605	8960	10485
65°	6169	8889	10566
70°	5667	8756	10711
75°	5116	8524	10331
80°	4389	7550	7779
85°	3532	4449	3532



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	346.7	3.3
10°-20°	991.3	9.5
20°-30°	1488.9	14.2
30°-40°	1775.7	17.0
40°-50°	1835.9	17.5
50°-60°	1687.9	16.1
60°-70°	1343.7	12.8
70°-80°	821.0	7.8
80°-90°	178.4	1.7
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°	2826.9	27.0
0°-40°	4602.6	44.0
0°-60°	8126.3	77.6
0°-90°	10469.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10469.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3657	3657	3657	3657	3657	
5°	3617	3627	3652	3667	3672	343
15°	3419	3458	3523	3573	3588	963
25°	3051	3125	3250	3339	3369	1403
35°	2569	2678	2857	3006	3051	1603
45°	2022	2166	2405	2599	2663	1564
55°	1486	1650	1918	2137	2212	1329
65°	969	1133	1396	1590	1659	960
75°	492	636	820	964	994	524
85°	114	139	144	124	114	132
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3657.0	3657.0	3657.0	3657.0	3657.0
2.5°	3637.2	3642.2	3657.0	3667.4	3667.4
5°	3617.4	3627.3	3652.1	3667.4	3672.4
7.5°	3587.7	3602.6	3637.2	3657.0	3662.5
10°	3543.2	3563.0	3607.5	3637.2	3647.1
12.5°	3488.2	3517.9	3572.9	3612.5	3622.4
15°	3418.9	3458.5	3522.8	3572.9	3587.7
17.5°	3339.2	3388.7	3468.4	3528.3	3548.1
20°	3254.5	3304.6	3404.1	3473.4	3498.1
22.5°	3155.5	3219.9	3334.2	3414.0	3433.8
25°	3051.1	3125.3	3249.6	3339.2	3368.9
27.5°	2936.7	3026.3	3160.5	3269.9	3294.7
30°	2817.4	2912.0	3065.9	3185.2	3214.9
32.5°	2693.1	2802.5	2966.4	3100.6	3140.7
35°	2568.9	2678.3	2857.0	3006.5	3051.1
37.5°	2424.8	2554.0	2753.1	2907.0	2961.5
40°	2300.5	2424.8	2638.7	2807.5	2862.5
42.5°	2161.4	2295.6	2519.4	2703.0	2767.9
45°	2022.3	2166.4	2405.0	2599.1	2663.4
47.5°	1893.1	2037.2	2285.7	2489.7	2554.0
50°	1758.9	1908.0	2166.4	2375.3	2439.7
52.5°	1614.9	1778.7	2047.1	2256.0	2330.8
55°	1485.7	1649.5	1917.9	2136.7	2211.5
57.5°	1351.5	1520.3	1799.1	2007.5	2077.3
60°	1227.2	1391.1	1664.9	1868.4	1948.1
62.5°	1093.1	1261.9	1530.2	1729.3	1804.0
65°	968.8	1133.2	1396.0	1590.1	1659.4
67.5°	844.6	1009.0	1256.9	1441.1	1520.3
70°	720.3	884.7	1112.9	1292.1	1361.4
72.5°	611.4	755.5	973.8	1138.2	1202.5
75°	492.1	636.2	819.8	963.9	993.6
77.5°	382.7	511.9	665.9	730.2	740.6
80°	283.2	382.7	487.2	502.0	502.0
82.5°	188.6	263.4	303.0	307.9	303.0
85°	114.4	139.1	144.1	124.3	114.4
87.5°	39.6	39.6	24.7	14.8	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)