

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: P475308

Luminaire Tested: **22CZ2-95VHE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475308  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-95VHE-SQR-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9198.7 lumens  
Efficiency: N/A  
Efficacy: 129.2 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

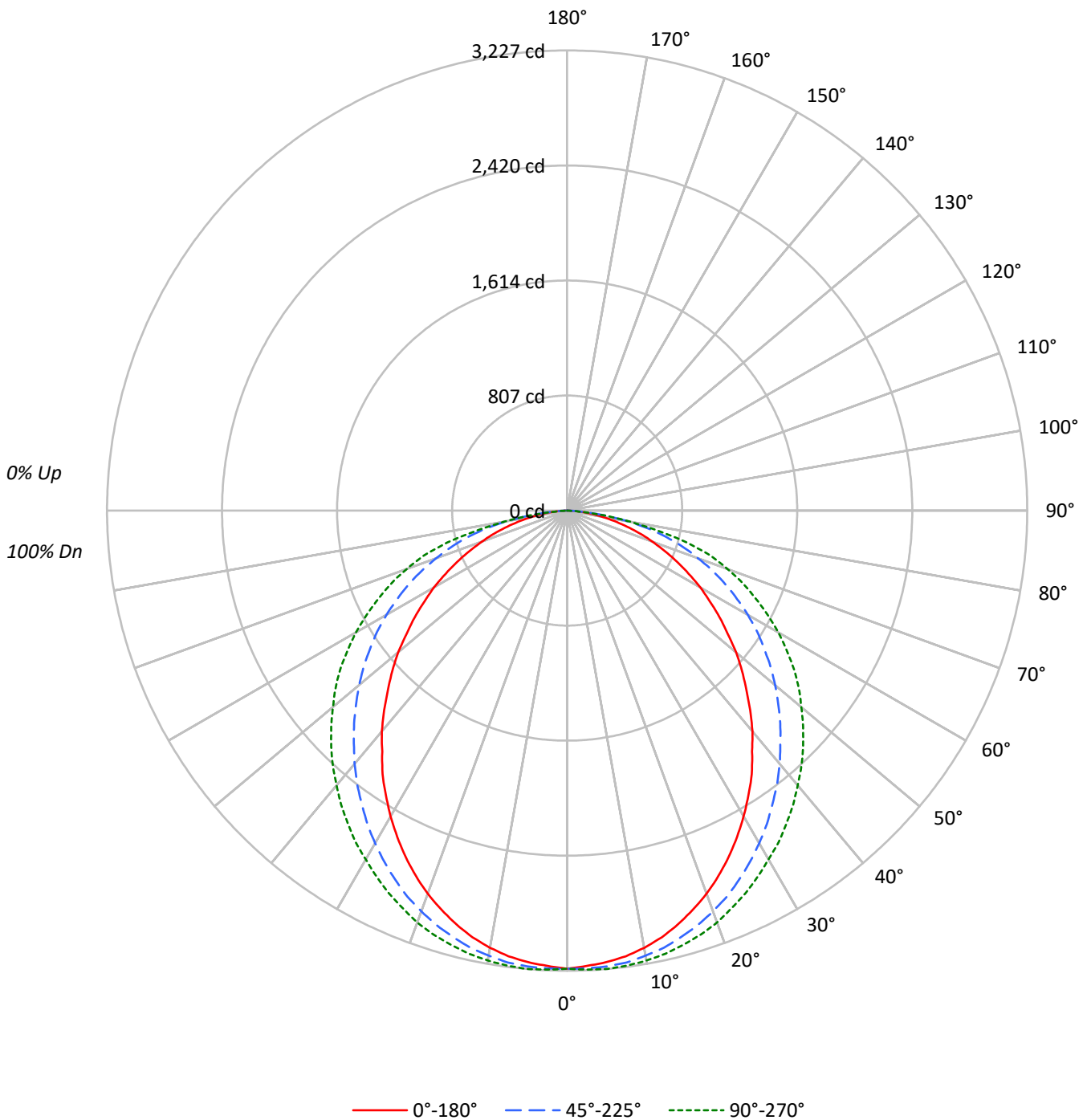
Input Watts (W): 71.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	8647	8647	8647
5°	8586	8668	8716
10°	8507	8661	8756
15°	8369	8623	8782
20°	8189	8565	8802
25°	7960	8478	8789
30°	7692	8370	8777
35°	7415	8246	8807
40°	7100	8144	8835
45°	6762	8042	8906
50°	6470	7969	8974
55°	6124	7906	9116
60°	5803	7873	9212
65°	5420	7810	9284
70°	4980	7693	9412
75°	4496	7489	9077
80°	3856	6633	6836
85°	3103	3909	3103



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	304.6	3.3
10°-20°	871.0	9.5
20°-30°	1308.2	14.2
30°-40°	1560.2	17.0
40°-50°	1613.1	17.5
50°-60°	1483.0	16.1
60°-70°	1180.6	12.8
70°-80°	721.3	7.8
80°-90°	156.7	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°	2483.8	27.0
0°-40°	4044.0	44.0
0°-60°	7140.0	77.6
0°-90°	9198.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9198.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3213	3213	3213	3213	3213	
5°	3178	3187	3209	3222	3227	301
15°	3004	3039	3095	3139	3152	846
25°	2681	2746	2855	2934	2960	1233
35°	2257	2353	2510	2642	2681	1408
45°	1777	1904	2113	2284	2340	1374
55°	1305	1449	1685	1877	1943	1168
65°	851	996	1227	1397	1458	843
75°	432	559	720	847	873	460
85°	100	122	127	109	100	116
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3213.2	3213.2	3213.2	3213.2	3213.2
2.5°	3195.8	3200.1	3213.2	3222.3	3222.3
5°	3178.4	3187.1	3208.8	3222.3	3226.7
7.5°	3152.3	3165.3	3195.8	3213.2	3218.0
10°	3113.2	3130.6	3169.7	3195.8	3204.5
12.5°	3064.8	3090.9	3139.2	3174.0	3182.7
15°	3004.0	3038.8	3095.3	3139.2	3152.3
17.5°	2933.9	2977.4	3047.5	3100.1	3117.5
20°	2859.5	2903.5	2990.9	3051.8	3073.5
22.5°	2772.6	2829.1	2929.6	2999.6	3017.0
25°	2680.8	2746.0	2855.2	2933.9	2960.0
27.5°	2580.3	2659.0	2776.9	2873.1	2894.8
30°	2475.5	2558.5	2693.8	2798.7	2824.7
32.5°	2366.3	2462.4	2606.4	2724.3	2759.5
35°	2257.1	2353.2	2510.2	2641.6	2680.8
37.5°	2130.5	2244.0	2418.9	2554.2	2602.0
40°	2021.3	2130.5	2318.4	2466.8	2515.1
42.5°	1899.1	2017.0	2213.6	2375.0	2432.0
45°	1776.9	1903.5	2113.1	2283.7	2340.2
47.5°	1663.3	1789.9	2008.3	2187.5	2244.0
50°	1545.5	1676.4	1903.5	2087.0	2143.6
52.5°	1418.9	1562.9	1798.6	1982.2	2047.9
55°	1305.4	1449.3	1685.1	1877.4	1943.1
57.5°	1187.5	1335.8	1580.7	1763.8	1825.2
60°	1078.3	1222.3	1462.9	1641.6	1711.7
62.5°	960.4	1108.7	1344.5	1519.4	1585.1
65°	851.2	995.7	1226.6	1397.2	1458.0
67.5°	742.1	886.5	1104.4	1266.2	1335.8
70°	632.9	777.3	977.8	1135.3	1196.2
72.5°	537.2	663.8	855.6	1000.0	1056.6
75°	432.4	559.0	720.3	846.9	873.0
77.5°	336.2	449.8	585.0	641.6	650.7
80°	248.8	336.2	428.0	441.1	441.1
82.5°	165.7	231.4	266.2	270.5	266.2
85°	100.5	122.2	126.6	109.2	100.5
87.5°	34.8	34.8	21.7	13.0	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)