

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: P474956

Luminaire Tested: **22CZ2-75VHE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474956  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-75VHE-S-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7888.3 lumens  
Efficiency: N/A  
Efficacy: 142.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

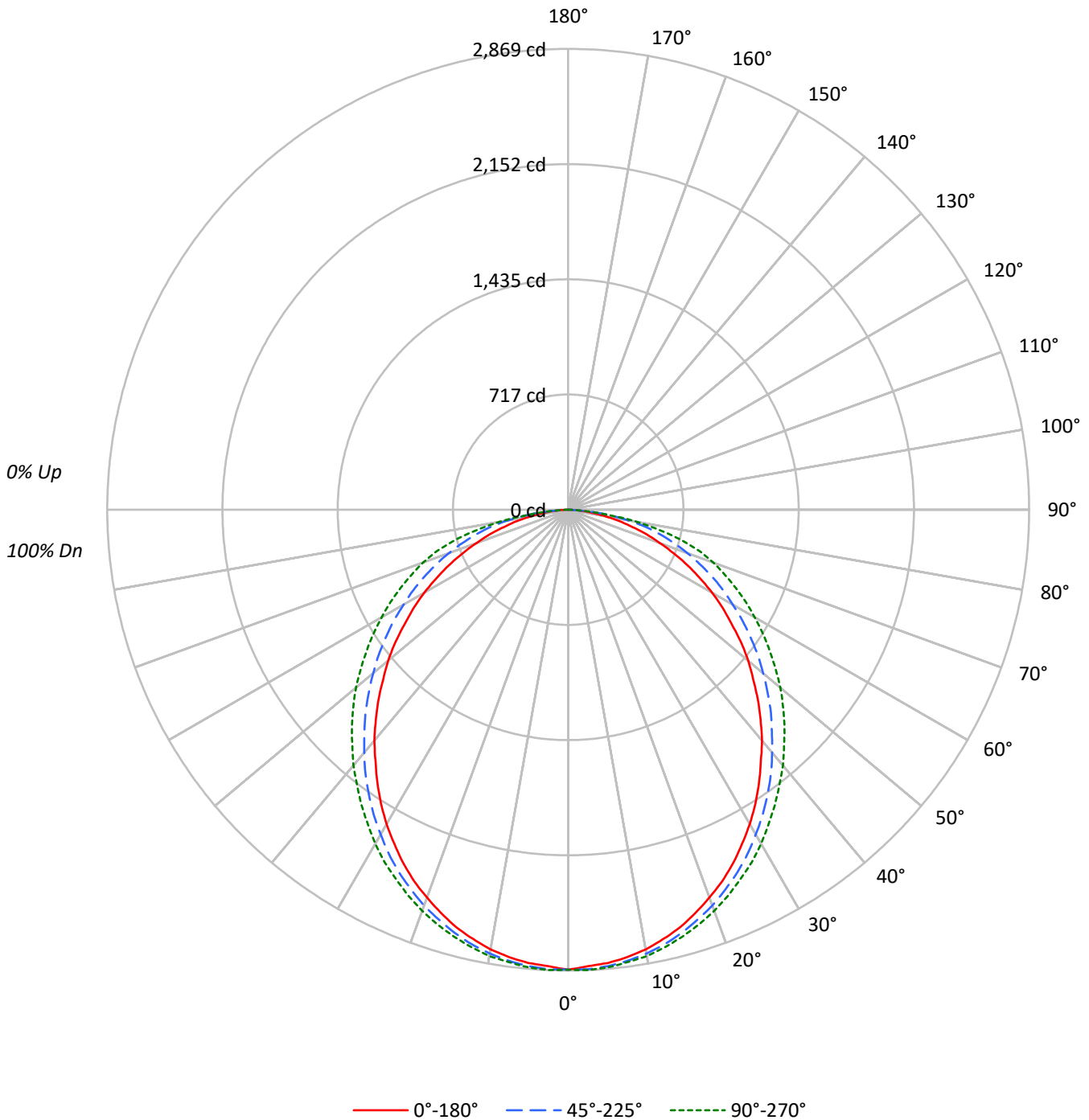
Input Watts (W): 55.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P474956

CATALOG NUMBER: 22CZ2-75VHE-S-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P474956

CATALOG NUMBER: 22CZ2-75VHE-S-UNV-L840-CD1-U

**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	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	88	86	83				83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69				69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58				58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50				50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43				43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38				38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30				30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24				24

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

	0°	45°	90°
0°	7706	7706	7706
5°	7652	7704	7725
10°	7595	7668	7710
15°	7499	7600	7663
20°	7358	7511	7610
25°	7210	7397	7533
30°	7023	7255	7462
35°	6804	7105	7368
40°	6592	6934	7303
45°	6349	6785	7243
50°	6122	6633	7217
55°	5830	6502	7183
60°	5569	6370	7212
65°	5227	6296	7317
70°	4777	6218	7555
75°	4287	6173	7562
80°	3609	5828	6715
85°	2711	3949	3656



TEST NUMBER: P474956

CATALOG NUMBER: 22CZ2-75VHE-S-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.5	3.4
10°-20°	768.1	9.7
20°-30°	1145.2	14.5
30°-40°	1351.3	17.1
40°-50°	1376.7	17.5
50°-60°	1241.6	15.7
60°-70°	975.1	12.4
70°-80°	609.6	7.7
80°-90°	150.3	1.9
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°	2183.7	27.7
0°-40°	3535.0	44.8
0°-60°	6153.3	78.0
0°-90°	7888.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7888.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2864	2864	2864	2864	2864	
5°	2833	2839	2852	2858	2860	269
15°	2692	2701	2728	2747	2751	758
25°	2428	2442	2491	2528	2537	1117
35°	2071	2100	2163	2222	2243	1295
45°	1668	1697	1783	1869	1903	1287
55°	1243	1283	1386	1493	1531	1115
65°	821	865	989	1100	1149	811
75°	412	470	594	695	727	441
85°	88	113	128	126	118	107
90°	0	0	0	0	0	



TEST NUMBER: P474956

CATALOG NUMBER: 22CZ2-75VHE-S-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2863.5	2863.5	2863.5	2863.5	2863.5
2.5°	2844.4	2850.1	2863.5	2869.2	2869.2
5°	2832.9	2838.6	2852.0	2857.7	2859.6
7.5°	2810.0	2817.6	2832.9	2840.5	2840.5
10°	2779.5	2789.0	2806.2	2817.6	2821.5
12.5°	2737.5	2748.9	2771.8	2785.2	2789.0
15°	2691.6	2701.2	2727.9	2747.0	2750.8
17.5°	2632.5	2647.7	2676.4	2701.2	2706.9
20°	2569.5	2586.7	2622.9	2651.6	2657.3
22.5°	2504.6	2517.9	2558.0	2592.4	2600.0
25°	2428.2	2441.6	2491.2	2527.5	2537.0
27.5°	2344.2	2367.1	2416.8	2458.8	2474.0
30°	2260.2	2283.1	2334.7	2384.3	2401.5
32.5°	2168.6	2193.4	2252.6	2304.1	2321.3
35°	2071.2	2099.9	2162.9	2222.0	2243.0
37.5°	1970.1	2002.5	2073.1	2136.1	2159.0
40°	1876.5	1899.4	1973.9	2046.4	2078.9
42.5°	1771.5	1802.1	1876.5	1958.6	1989.1
45°	1668.4	1697.1	1783.0	1868.9	1903.2
47.5°	1561.5	1597.8	1683.7	1779.2	1813.5
50°	1462.3	1492.8	1584.4	1685.6	1723.8
52.5°	1355.4	1387.8	1487.1	1592.1	1626.4
55°	1242.7	1282.8	1385.9	1492.8	1531.0
57.5°	1139.7	1177.8	1286.6	1397.4	1437.5
60°	1034.7	1072.8	1183.6	1296.2	1340.1
62.5°	923.9	967.8	1088.1	1196.9	1246.6
65°	820.9	864.8	988.8	1099.6	1149.2
67.5°	712.0	763.6	887.7	1004.1	1053.8
70°	607.1	668.1	790.3	904.9	960.2
72.5°	513.5	563.1	691.0	811.3	857.1
75°	412.3	469.6	593.7	694.9	727.3
77.5°	326.4	376.1	494.4	561.2	582.2
80°	232.9	288.3	376.1	416.2	433.3
82.5°	154.6	200.4	255.8	263.4	259.6
85°	87.8	112.6	127.9	126.0	118.4
87.5°	34.4	38.2	28.6	17.2	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)