

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: P475280

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475280  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-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: 9520.3 lumens  
Efficiency: N/A  
Efficacy: 125.6 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

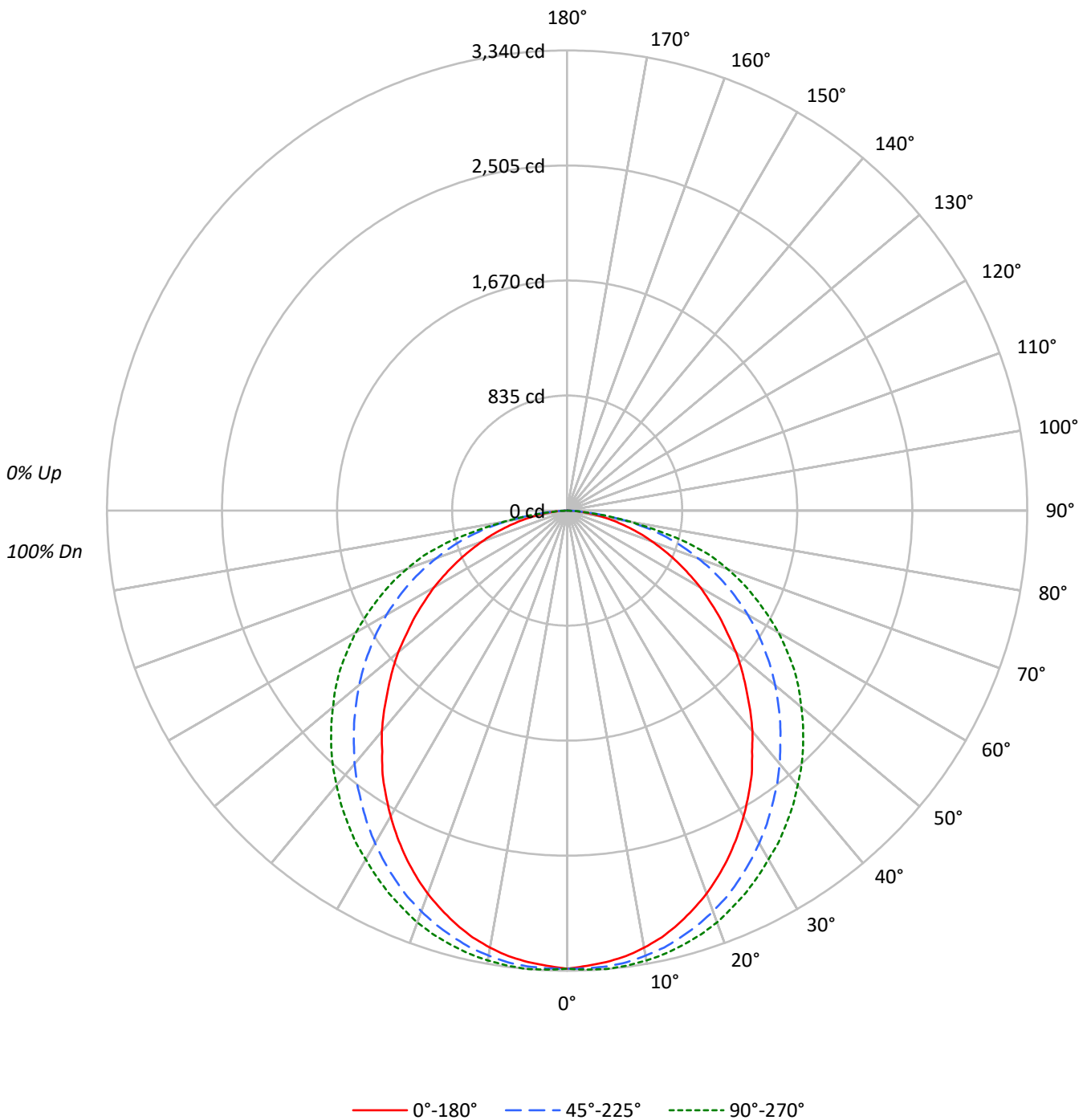
Input Watts (W): 75.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475280

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475280

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L835-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	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°	8949	8949	8949
5°	8886	8971	9021
10°	8804	8964	9062
15°	8661	8925	9089
20°	8475	8865	9109
25°	8238	8774	9096
30°	7961	8663	9084
35°	7674	8535	9114
40°	7349	8429	9144
45°	6999	8323	9217
50°	6696	8247	9288
55°	6338	8182	9435
60°	6006	8148	9534
65°	5610	8083	9608
70°	5153	7962	9740
75°	4653	7751	9394
80°	3990	6865	7074
85°	3211	4045	3211



TEST NUMBER: P475280

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.3	3.3
10°-20°	901.4	9.5
20°-30°	1353.9	14.2
30°-40°	1614.7	17.0
40°-50°	1669.5	17.5
50°-60°	1534.9	16.1
60°-70°	1221.9	12.8
70°-80°	746.6	7.8
80°-90°	162.2	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°	2570.6	27.0
0°-40°	4185.3	44.0
0°-60°	7389.7	77.6
0°-90°	9520.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9520.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3326	3326	3326	3326	3326	
5°	3290	3298	3321	3335	3340	312
15°	3109	3145	3204	3249	3262	875
25°	2774	2842	2955	3036	3064	1276
35°	2336	2436	2598	2734	2774	1457
45°	1839	1970	2187	2364	2422	1422
55°	1351	1500	1744	1943	2011	1208
65°	881	1030	1270	1446	1509	873
75°	448	578	746	876	904	477
85°	104	126	131	113	104	120
90°	0	0	0	0	0	



TEST NUMBER: P475280

CATALOG NUMBER: 22CZ2-100VHE-SQR-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3325.5	3325.5	3325.5	3325.5	3325.5
2.5°	3307.5	3312.0	3325.5	3335.0	3335.0
5°	3289.5	3298.5	3321.0	3335.0	3339.5
7.5°	3262.5	3276.0	3307.5	3325.5	3330.5
10°	3222.0	3240.0	3280.5	3307.5	3316.5
12.5°	3172.0	3199.0	3249.0	3285.0	3294.0
15°	3109.0	3145.0	3203.5	3249.0	3262.5
17.5°	3036.5	3081.5	3154.0	3208.5	3226.5
20°	2959.5	3005.0	3095.5	3158.5	3181.0
22.5°	2869.5	2928.0	3032.0	3104.5	3122.5
25°	2774.5	2842.0	2955.0	3036.5	3063.5
27.5°	2670.5	2752.0	2874.0	2973.5	2996.0
30°	2562.0	2648.0	2788.0	2896.5	2923.5
32.5°	2449.0	2548.5	2697.5	2819.5	2856.0
35°	2336.0	2435.5	2598.0	2734.0	2774.5
37.5°	2205.0	2322.5	2503.5	2643.5	2693.0
40°	2092.0	2205.0	2399.5	2553.0	2603.0
42.5°	1965.5	2087.5	2291.0	2458.0	2517.0
45°	1839.0	1970.0	2187.0	2363.5	2422.0
47.5°	1721.5	1852.5	2078.5	2264.0	2322.5
50°	1599.5	1735.0	1970.0	2160.0	2218.5
52.5°	1468.5	1617.5	1861.5	2051.5	2119.5
55°	1351.0	1500.0	1744.0	1943.0	2011.0
57.5°	1229.0	1382.5	1636.0	1825.5	1889.0
60°	1116.0	1265.0	1514.0	1699.0	1771.5
62.5°	994.0	1147.5	1391.5	1572.5	1640.5
65°	881.0	1030.5	1269.5	1446.0	1509.0
67.5°	768.0	917.5	1143.0	1310.5	1382.5
70°	655.0	804.5	1012.0	1175.0	1238.0
72.5°	556.0	687.0	885.5	1035.0	1093.5
75°	447.5	578.5	745.5	876.5	903.5
77.5°	348.0	465.5	605.5	664.0	673.5
80°	257.5	348.0	443.0	456.5	456.5
82.5°	171.5	239.5	275.5	280.0	275.5
85°	104.0	126.5	131.0	113.0	104.0
87.5°	36.0	36.0	22.5	13.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)