

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: P475264

Luminaire Tested: **22CZ2-44HE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475264  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-SQR-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4338.8 lumens  
Efficiency: N/A  
Efficacy: 132.3 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

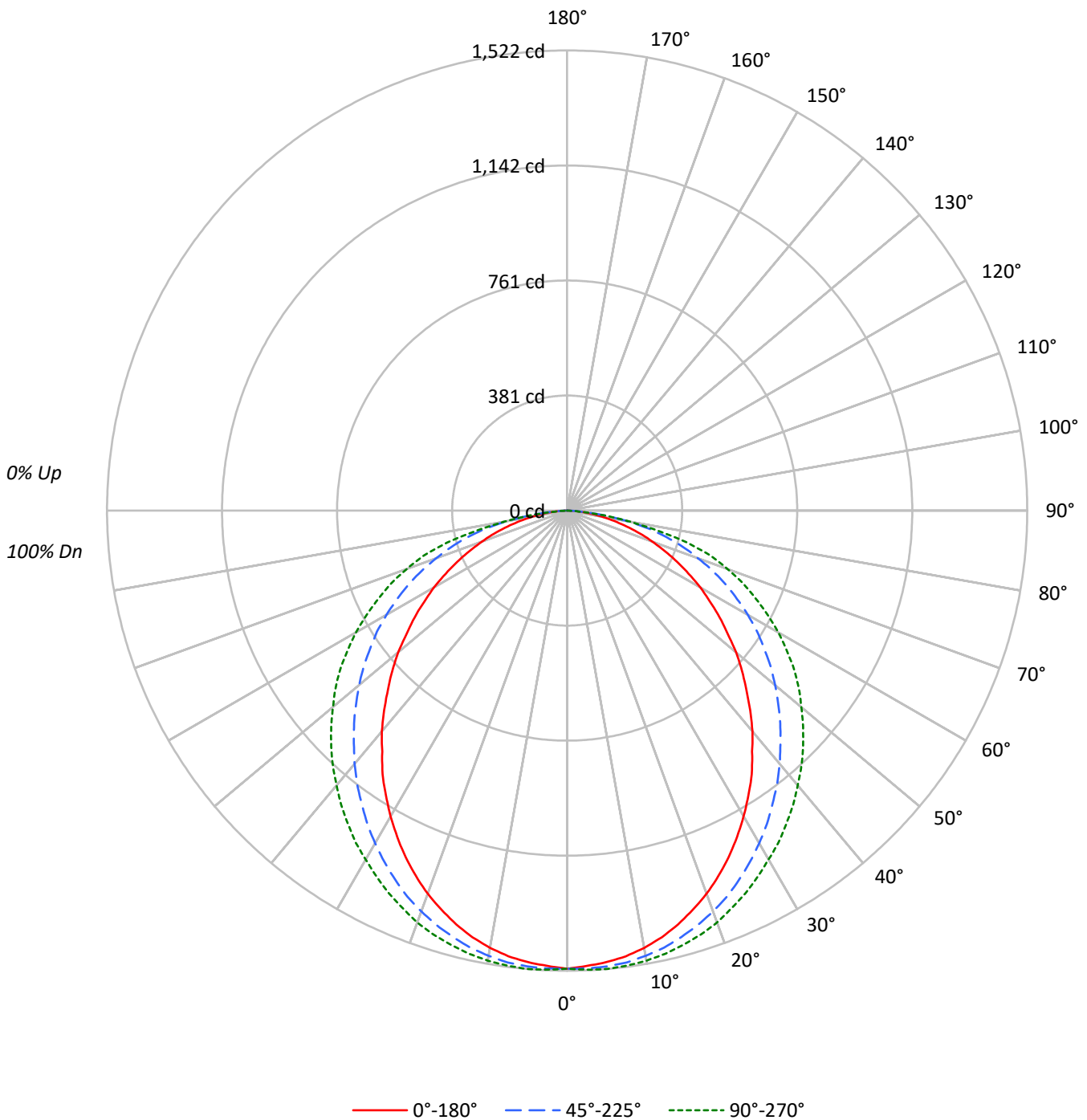
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475264

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475264

CATALOG NUMBER: 22CZ2-44HE-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°	4078	4078	4078
5°	4050	4088	4111
10°	4012	4085	4130
15°	3947	4067	4142
20°	3863	4040	4151
25°	3755	3999	4146
30°	3628	3948	4140
35°	3497	3890	4154
40°	3349	3841	4167
45°	3189	3793	4201
50°	3052	3759	4233
55°	2889	3729	4300
60°	2737	3714	4345
65°	2557	3684	4379
70°	2349	3629	4439
75°	2120	3533	4282
80°	1819	3129	3223
85°	1463	1843	1463



TEST NUMBER: P475264

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.7	3.3
10°-20°	410.8	9.5
20°-30°	617.0	14.2
30°-40°	735.9	17.0
40°-50°	760.8	17.5
50°-60°	699.5	16.1
60°-70°	556.9	12.8
70°-80°	340.2	7.8
80°-90°	73.9	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°	1171.5	27.0
0°-40°	1907.4	44.0
0°-60°	3367.8	77.6
0°-90°	4338.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4338.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1499	1503	1514	1520	1522	142
15°	1417	1433	1460	1481	1487	399
25°	1264	1295	1347	1384	1396	582
35°	1065	1110	1184	1246	1264	664
45°	838	898	997	1077	1104	648
55°	616	684	795	886	916	551
65°	402	470	579	659	688	398
75°	204	264	340	400	412	217
85°	47	58	60	52	47	55
90°	0	0	0	0	0	



TEST NUMBER: P475264

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1515.6	1515.6	1515.6	1515.6	1515.6
2.5°	1507.4	1509.4	1515.6	1519.9	1519.9
5°	1499.2	1503.3	1513.5	1519.9	1521.9
7.5°	1486.9	1493.0	1507.4	1515.6	1517.8
10°	1468.4	1476.6	1495.1	1507.4	1511.5
12.5°	1445.6	1457.9	1480.7	1497.1	1501.2
15°	1416.9	1433.3	1460.0	1480.7	1486.9
17.5°	1383.9	1404.4	1437.4	1462.2	1470.4
20°	1348.8	1369.5	1410.7	1439.5	1449.7
22.5°	1307.7	1334.4	1381.8	1414.8	1423.0
25°	1264.5	1295.2	1346.7	1383.9	1396.2
27.5°	1217.1	1254.2	1309.8	1355.1	1365.4
30°	1167.6	1206.8	1270.6	1320.1	1332.4
32.5°	1116.1	1161.5	1229.4	1285.0	1301.6
35°	1064.6	1110.0	1184.0	1246.0	1264.5
37.5°	1004.9	1058.5	1140.9	1204.8	1227.3
40°	953.4	1004.9	1093.5	1163.5	1186.3
42.5°	895.8	951.4	1044.1	1120.2	1147.1
45°	838.1	897.8	996.7	1077.1	1103.8
47.5°	784.6	844.3	947.3	1031.8	1058.5
50°	729.0	790.7	897.8	984.4	1011.1
52.5°	669.3	737.2	848.4	935.0	965.9
55°	615.7	683.6	794.8	885.5	916.5
57.5°	560.1	630.1	745.6	832.0	860.9
60°	508.6	576.5	690.0	774.3	807.3
62.5°	453.0	523.0	634.2	716.7	747.6
65°	401.5	469.6	578.6	659.0	687.7
67.5°	350.0	418.1	520.9	597.2	630.1
70°	298.5	366.6	461.2	535.5	564.2
72.5°	253.4	313.1	403.6	471.7	498.4
75°	203.9	263.6	339.8	399.5	411.8
77.5°	158.6	212.1	276.0	302.6	306.9
80°	117.4	158.6	201.9	208.0	208.0
82.5°	78.2	109.1	125.6	127.6	125.6
85°	47.4	57.7	59.7	51.5	47.4
87.5°	16.4	16.4	10.3	6.2	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)