

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: P475229

Luminaire Tested: **22CZ2-44-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475229  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44-SQR-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, SQUARE LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

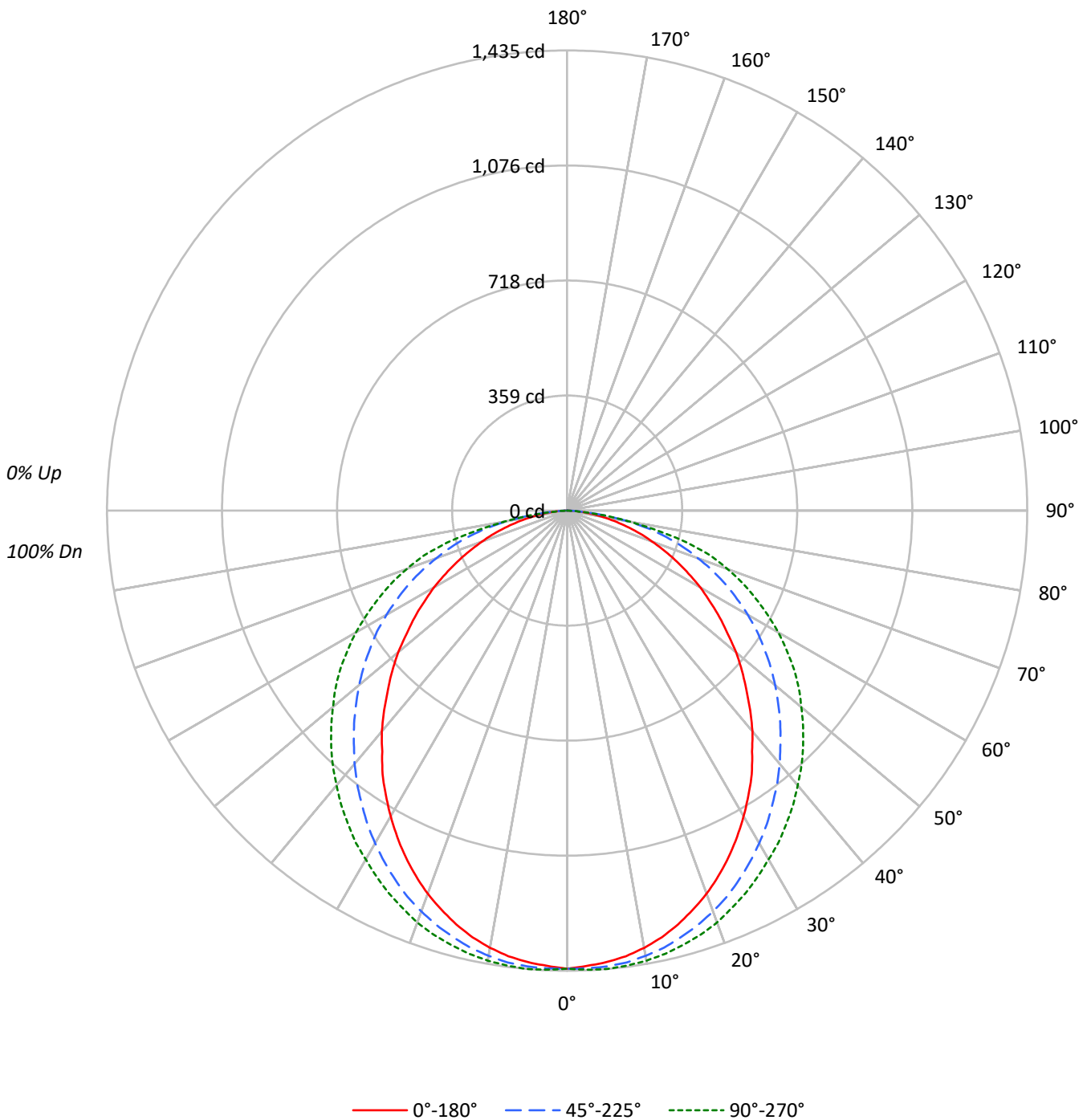
Lumens per Lamp: N/A  
Luminaire Lumens: 4090.7 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.2  
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	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°	3845	3845	3845
5°	3818	3855	3876
10°	3783	3852	3894
15°	3722	3835	3905
20°	3641	3809	3914
25°	3540	3770	3908
30°	3420	3722	3903
35°	3297	3667	3916
40°	3158	3622	3929
45°	3007	3576	3961
50°	2877	3544	3990
55°	2723	3516	4054
60°	2581	3501	4097
65°	2410	3473	4129
70°	2214	3421	4185
75°	1999	3330	4036
80°	1714	2949	3039
85°	1380	1738	1380



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.5	3.3
10°-20°	387.3	9.5
20°-30°	581.7	14.2
30°-40°	693.8	17.0
40°-50°	717.3	17.5
50°-60°	659.5	16.1
60°-70°	525.0	12.8
70°-80°	320.8	7.8
80°-90°	69.7	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°	1104.5	27.0
0°-40°	1798.4	44.0
0°-60°	3175.2	77.6
0°-90°	4090.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4090.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1413	1417	1427	1433	1435	134
15°	1336	1351	1376	1396	1402	376
25°	1192	1221	1270	1305	1316	548
35°	1004	1046	1116	1175	1192	626
45°	790	846	940	1016	1041	611
55°	580	644	749	835	864	519
65°	378	443	546	621	648	375
75°	192	249	320	377	388	205
85°	45	54	56	49	45	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1428.9	1428.9	1428.9	1428.9	1428.9
2.5°	1421.2	1423.1	1428.9	1433.0	1433.0
5°	1413.4	1417.3	1427.0	1433.0	1434.9
7.5°	1401.8	1407.6	1421.2	1428.9	1431.0
10°	1384.4	1392.2	1409.6	1421.2	1425.0
12.5°	1362.9	1374.5	1396.0	1411.5	1415.4
15°	1335.9	1351.3	1376.5	1396.0	1401.8
17.5°	1304.7	1324.1	1355.2	1378.6	1386.4
20°	1271.6	1291.2	1330.1	1357.1	1366.8
22.5°	1233.0	1258.1	1302.8	1333.9	1341.7
25°	1192.1	1221.1	1269.7	1304.7	1316.3
27.5°	1147.5	1182.5	1234.9	1277.6	1287.3
30°	1100.8	1137.8	1197.9	1244.6	1256.2
32.5°	1052.3	1095.0	1159.1	1211.5	1227.2
35°	1003.7	1046.5	1116.3	1174.7	1192.1
37.5°	947.4	997.9	1075.7	1135.9	1157.1
40°	898.9	947.4	1031.0	1097.0	1118.5
42.5°	844.5	897.0	984.4	1056.1	1081.5
45°	790.2	846.5	939.7	1015.5	1040.7
47.5°	739.7	796.0	893.1	972.8	997.9
50°	687.3	745.5	846.5	928.1	953.2
52.5°	631.0	695.0	799.8	881.5	910.7
55°	580.5	644.5	749.4	834.9	864.1
57.5°	528.1	594.0	703.0	784.4	811.7
60°	479.5	543.5	650.5	730.0	761.2
62.5°	427.1	493.1	597.9	675.7	704.9
65°	378.5	442.8	545.5	621.3	648.4
67.5°	330.0	394.2	491.1	563.1	594.0
70°	281.4	345.7	434.8	504.9	531.9
72.5°	238.9	295.2	380.5	444.7	469.9
75°	192.3	248.6	320.3	376.6	388.2
77.5°	149.5	200.0	260.2	285.3	289.4
80°	110.6	149.5	190.3	196.1	196.1
82.5°	73.7	102.9	118.4	120.3	118.4
85°	44.7	54.4	56.3	48.6	44.7
87.5°	15.5	15.5	9.7	5.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)