

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: P475328

Luminaire Tested: **22CZ2-50VHE-SQR-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475328  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-50VHE-SQR-UNV-L850-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4924.7 lumens  
Efficiency: N/A  
Efficacy: 140.7 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

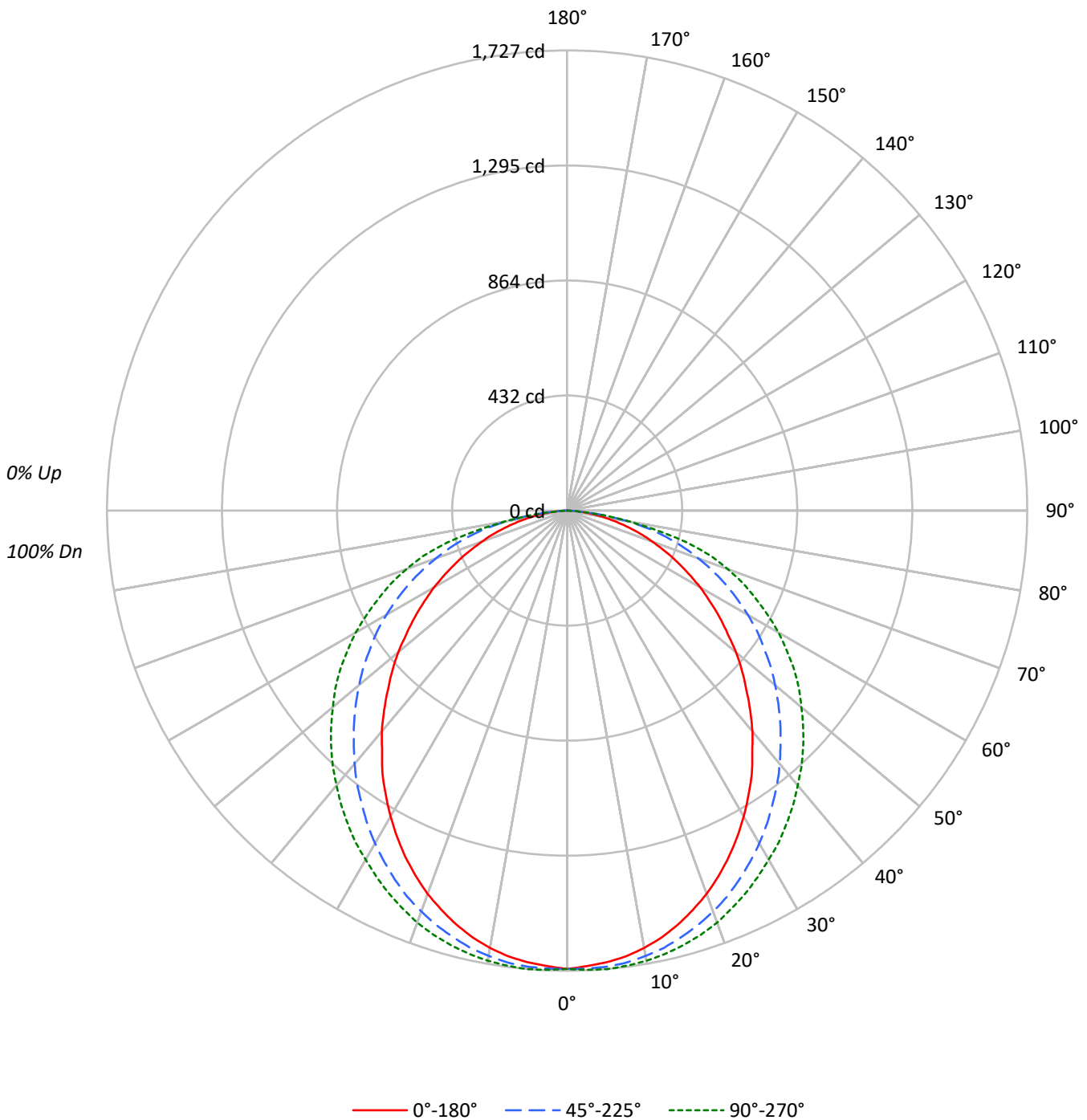
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4629	4629	4629
5°	4596	4640	4666
10°	4554	4637	4688
15°	4480	4617	4701
20°	4384	4585	4712
25°	4261	4539	4705
30°	4118	4481	4699
35°	3970	4415	4715
40°	3801	4360	4730
45°	3620	4305	4768
50°	3464	4266	4804
55°	3278	4232	4880
60°	3107	4215	4932
65°	2902	4181	4970
70°	2666	4119	5039
75°	2407	4009	4860
80°	2064	3552	3659
85°	1661	2093	1661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.1	3.3
10°-20°	466.3	9.5
20°-30°	700.4	14.2
30°-40°	835.3	17.0
40°-50°	863.6	17.5
50°-60°	793.9	16.1
60°-70°	632.1	12.8
70°-80°	386.2	7.8
80°-90°	83.9	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°	1329.7	27.0
0°-40°	2165.0	44.0
0°-60°	3822.5	77.6
0°-90°	4924.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4924.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1720	1720	1720	1720	1720	
5°	1702	1706	1718	1725	1727	161
15°	1608	1627	1657	1681	1688	453
25°	1435	1470	1529	1571	1585	660
35°	1208	1260	1344	1414	1435	754
45°	951	1019	1131	1223	1253	736
55°	699	776	902	1005	1040	625
65°	456	533	657	748	781	451
75°	232	299	386	453	467	247
85°	54	65	68	58	54	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1720.2	1720.2	1720.2	1720.2	1720.2
2.5°	1710.9	1713.2	1720.2	1725.1	1725.1
5°	1701.6	1706.2	1717.9	1725.1	1727.4
7.5°	1687.6	1694.6	1710.9	1720.2	1722.8
10°	1666.7	1676.0	1696.9	1710.9	1715.5
12.5°	1640.8	1654.8	1680.6	1699.3	1703.9
15°	1608.2	1626.8	1657.1	1680.6	1687.6
17.5°	1570.7	1594.0	1631.5	1659.7	1669.0
20°	1530.9	1554.4	1601.2	1633.8	1645.5
22.5°	1484.3	1514.6	1568.4	1605.9	1615.2
25°	1435.2	1470.1	1528.6	1570.7	1584.7
27.5°	1381.4	1423.5	1486.7	1538.1	1549.8
30°	1325.3	1369.7	1442.2	1498.3	1512.3
32.5°	1266.8	1318.3	1395.4	1458.5	1477.3
35°	1208.4	1259.8	1343.9	1414.2	1435.2
37.5°	1140.6	1201.4	1295.0	1367.4	1393.0
40°	1082.1	1140.6	1241.2	1320.6	1346.5
42.5°	1016.7	1079.8	1185.1	1271.5	1302.0
45°	951.3	1019.0	1131.3	1222.6	1252.8
47.5°	890.5	958.3	1075.2	1171.1	1201.4
50°	827.4	897.5	1019.0	1117.3	1147.6
52.5°	759.6	836.7	962.9	1061.2	1096.4
55°	698.8	775.9	902.1	1005.1	1040.2
57.5°	635.7	715.1	846.3	944.3	977.1
60°	577.3	654.4	783.2	878.9	916.4
62.5°	514.2	593.6	719.8	813.4	848.6
65°	455.7	533.1	656.7	748.0	780.6
67.5°	397.3	474.6	591.2	677.9	715.1
70°	338.8	416.1	523.5	607.8	640.4
72.5°	287.6	355.4	458.0	535.4	565.6
75°	231.5	299.2	385.6	453.4	467.4
77.5°	180.0	240.8	313.2	343.5	348.4
80°	133.2	180.0	229.2	236.1	236.1
82.5°	88.7	123.9	142.5	144.8	142.5
85°	53.8	65.4	67.8	58.5	53.8
87.5°	18.6	18.6	11.6	7.0	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)