

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: P474939

Luminaire Tested: **22CZ2-44-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474939  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44-S-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

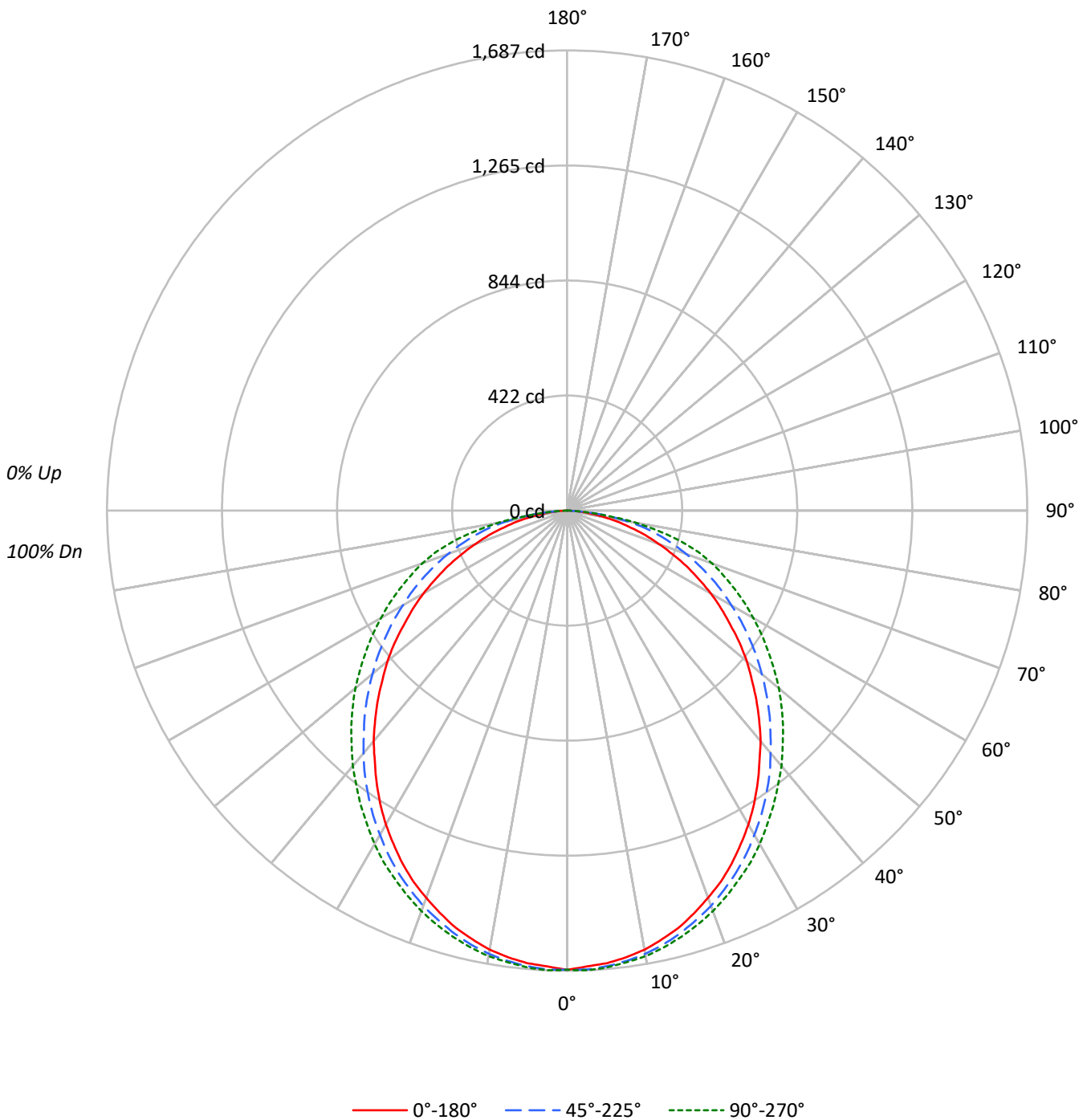
Lumens per Lamp: N/A  
Luminaire Lumens: 4638.0 lumens  
Efficiency: N/A  
Efficacy: 139.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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

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

	0°	45°	90°
0°	4531	4531	4531
5°	4499	4529	4542
10°	4465	4508	4533
15°	4409	4468	4506
20°	4326	4416	4474
25°	4239	4349	4429
30°	4129	4265	4387
35°	4001	4178	4332
40°	3876	4077	4294
45°	3733	3989	4258
50°	3599	3900	4243
55°	3428	3823	4223
60°	3274	3745	4240
65°	3073	3702	4302
70°	2808	3656	4442
75°	2520	3630	4446
80°	2122	3426	3949
85°	1593	2322	2149



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.0	3.4
10°-20°	451.6	9.7
20°-30°	673.3	14.5
30°-40°	794.5	17.1
40°-50°	809.5	17.5
50°-60°	730.0	15.7
60°-70°	573.3	12.4
70°-80°	358.4	7.7
80°-90°	88.4	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°	1283.9	27.7
0°-40°	2078.4	44.8
0°-60°	3617.9	78.0
0°-90°	4638.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4638.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1684	1684	1684	1684	1684	
5°	1666	1669	1677	1680	1681	158
15°	1583	1588	1604	1615	1617	446
25°	1428	1436	1465	1486	1492	657
35°	1218	1235	1272	1306	1319	762
45°	981	998	1048	1099	1119	757
55°	731	754	815	878	900	655
65°	483	508	581	646	676	477
75°	242	276	349	408	428	259
85°	52	66	75	74	70	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1683.6	1683.6	1683.6	1683.6	1683.6
2.5°	1672.4	1675.7	1683.6	1687.0	1687.0
5°	1665.6	1669.0	1676.8	1680.2	1681.3
7.5°	1652.2	1656.6	1665.6	1670.1	1670.1
10°	1634.2	1639.8	1649.9	1656.6	1658.9
12.5°	1609.5	1616.2	1629.7	1637.6	1639.8
15°	1582.6	1588.2	1603.9	1615.1	1617.4
17.5°	1547.8	1556.8	1573.6	1588.2	1591.5
20°	1510.7	1520.8	1542.2	1559.0	1562.4
22.5°	1472.6	1480.4	1504.0	1524.2	1528.7
25°	1427.7	1435.5	1464.7	1486.0	1491.7
27.5°	1378.3	1391.8	1420.9	1445.6	1454.6
30°	1328.9	1342.4	1372.7	1401.9	1412.0
32.5°	1275.0	1289.6	1324.4	1354.7	1364.8
35°	1217.8	1234.6	1271.7	1306.5	1318.8
37.5°	1158.3	1177.4	1218.9	1256.0	1269.4
40°	1103.3	1116.8	1160.6	1203.2	1222.3
42.5°	1041.6	1059.5	1103.3	1151.6	1169.5
45°	981.0	997.8	1048.3	1098.8	1119.0
47.5°	918.1	939.4	989.9	1046.1	1066.3
50°	859.8	877.7	931.6	991.1	1013.5
52.5°	796.9	816.0	874.3	936.1	956.3
55°	730.7	754.2	814.9	877.7	900.2
57.5°	670.1	692.5	756.5	821.6	845.2
60°	608.3	630.8	695.9	762.1	787.9
62.5°	543.2	569.1	639.8	703.7	732.9
65°	482.6	508.4	581.4	646.5	675.7
67.5°	418.7	449.0	521.9	590.4	619.6
70°	356.9	392.8	464.7	532.0	564.6
72.5°	301.9	331.1	406.3	477.0	504.0
75°	242.4	276.1	349.1	408.5	427.6
77.5°	191.9	221.1	290.7	330.0	342.3
80°	136.9	169.5	221.1	244.7	254.8
82.5°	90.9	117.9	150.4	154.9	152.6
85°	51.6	66.2	75.2	74.1	69.6
87.5°	20.2	22.4	16.8	10.1	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)