

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: P474833

Luminaire Tested: **22CZ2-39VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474833  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

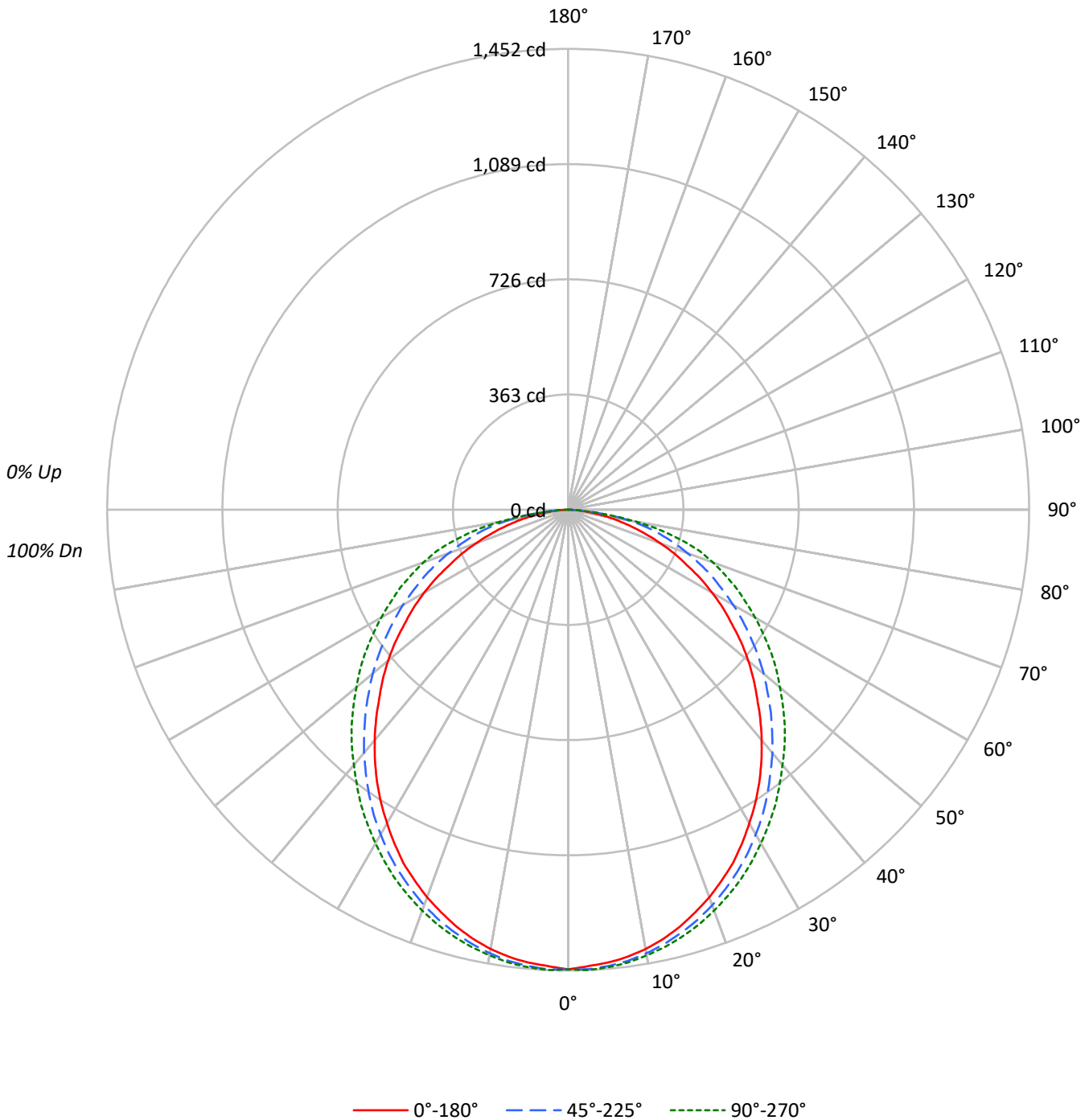
Lumens per Lamp: N/A  
Luminaire Lumens: 3994.3 lumens  
Efficiency: N/A  
Efficacy: 149.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.7  
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	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3898	3898	3898
5°	3870	3899	3908
10°	3841	3877	3896
15°	3789	3843	3878
20°	3720	3798	3848
25°	3647	3740	3817
30°	3546	3672	3772
35°	3447	3594	3735
40°	3330	3514	3689
45°	3203	3434	3672
50°	3099	3364	3643
55°	2954	3291	3651
60°	2821	3235	3662
65°	2623	3193	3719
70°	2424	3148	3812
75°	2168	3134	3836
80°	1818	2969	3349
85°	1408	2032	1902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.9	3.4
10°-20°	388.5	9.7
20°-30°	579.3	14.5
30°-40°	683.8	17.1
40°-50°	696.9	17.4
50°-60°	628.5	15.7
60°-70°	494.0	12.4
70°-80°	309.3	7.7
80°-90°	77.1	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°	1104.6	27.7
0°-40°	1788.5	44.8
0°-60°	3113.9	78.0
0°-90°	3994.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3994.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1432	1436	1444	1447	1447	136
15°	1360	1366	1379	1390	1392	383
25°	1228	1238	1260	1279	1286	565
35°	1049	1063	1094	1124	1137	656
45°	842	860	902	946	965	651
55°	630	649	702	756	778	565
65°	412	437	501	557	584	411
75°	208	240	301	355	369	221
85°	46	58	66	66	62	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1448.5	1448.5	1448.5	1448.5	1448.5
2.5°	1439.3	1442.6	1449.4	1451.9	1451.9
5°	1432.5	1435.9	1443.5	1446.9	1446.9
7.5°	1421.5	1424.9	1434.2	1438.4	1439.3
10°	1405.5	1409.7	1419.0	1425.8	1425.8
12.5°	1385.2	1389.5	1401.3	1409.7	1410.6
15°	1359.9	1365.8	1379.3	1389.5	1392.0
17.5°	1330.4	1339.7	1354.8	1367.5	1370.0
20°	1299.1	1308.4	1326.1	1340.5	1343.9
22.5°	1264.5	1273.0	1294.1	1311.8	1316.0
25°	1228.2	1237.5	1259.5	1278.9	1285.6
27.5°	1185.2	1196.1	1222.3	1244.3	1251.0
30°	1141.3	1154.8	1181.8	1206.3	1213.9
32.5°	1096.5	1109.2	1139.6	1165.8	1175.9
35°	1049.3	1062.8	1094.0	1124.4	1137.1
37.5°	999.5	1013.0	1046.7	1081.3	1093.2
40°	948.0	964.0	1000.3	1037.5	1050.1
42.5°	895.6	912.5	950.5	991.9	1008.7
45°	841.6	860.2	902.4	946.3	964.9
47.5°	792.6	807.8	851.7	899.9	917.6
50°	740.3	754.7	803.6	851.7	870.3
52.5°	687.1	700.6	753.0	803.6	826.4
55°	629.7	649.1	701.5	755.5	778.3
57.5°	579.1	596.8	650.8	705.7	727.7
60°	524.2	542.8	601.0	656.7	680.4
62.5°	469.3	489.6	548.7	608.6	630.6
65°	411.9	437.3	501.4	557.1	584.1
67.5°	363.0	387.5	450.8	509.0	532.7
70°	308.1	336.8	400.1	459.2	484.5
72.5°	256.6	285.3	350.3	409.4	434.7
75°	208.5	239.7	301.4	355.4	368.9
77.5°	162.1	191.6	253.2	284.5	298.8
80°	117.3	146.0	191.6	212.7	216.1
82.5°	79.3	103.8	130.0	135.9	132.5
85°	45.6	58.2	65.8	65.8	61.6
87.5°	18.6	18.6	16.0	10.1	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)