

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: P474775

Luminaire Tested: **22CZ2-39VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474775
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

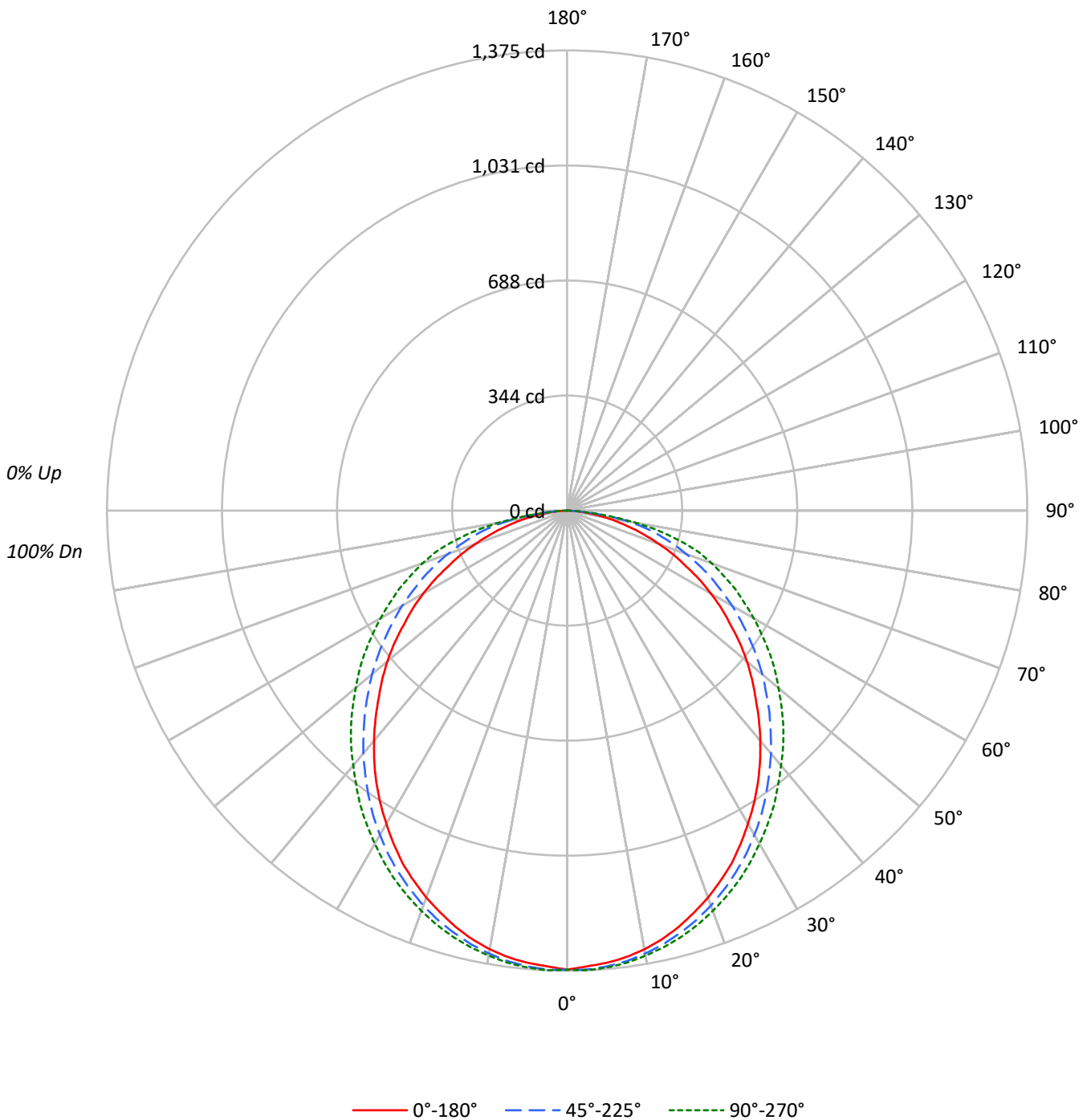
Lumens per Lamp: N/A
Luminaire Lumens: 3782.7 lumens
Efficiency: N/A
Efficacy: 141.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3691	3691	3691
5°	3665	3693	3701
10°	3637	3672	3689
15°	3588	3639	3672
20°	3523	3596	3645
25°	3453	3541	3615
30°	3358	3478	3572
35°	3264	3403	3537
40°	3153	3328	3494
45°	3033	3252	3477
50°	2935	3186	3450
55°	2798	3117	3458
60°	2672	3063	3468
65°	2484	3023	3522
70°	2296	2981	3611
75°	2053	2967	3632
80°	1722	2813	3171
85°	1334	1927	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	3.4
10°-20°	367.9	9.7
20°-30°	548.6	14.5
30°-40°	647.6	17.1
40°-50°	660.0	17.4
50°-60°	595.2	15.7
60°-70°	467.8	12.4
70°-80°	292.9	7.7
80°-90°	73.0	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°	1046.1	27.7
0°-40°	1693.7	44.8
0°-60°	2948.9	78.0
0°-90°	3782.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3782.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1357	1360	1367	1370	1370	129
15°	1288	1293	1306	1316	1318	363
25°	1163	1172	1193	1211	1218	535
35°	994	1006	1036	1065	1077	621
45°	797	815	855	896	914	617
55°	596	615	664	716	737	535
65°	390	414	475	528	553	389
75°	198	227	285	337	349	210
85°	43	55	62	62	58	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.8	1371.8	1371.8	1371.8	1371.8
2.5°	1363.0	1366.2	1372.6	1375.0	1375.0
5°	1356.6	1359.8	1367.0	1370.2	1370.2
7.5°	1346.2	1349.4	1358.2	1362.2	1363.0
10°	1331.0	1335.0	1343.8	1350.2	1350.2
12.5°	1311.8	1315.8	1327.0	1335.0	1335.8
15°	1287.8	1293.4	1306.2	1315.8	1318.2
17.5°	1259.9	1268.7	1283.1	1295.0	1297.4
20°	1230.3	1239.1	1255.9	1269.5	1272.7
22.5°	1197.5	1205.5	1225.5	1242.3	1246.3
25°	1163.1	1171.9	1192.7	1211.1	1217.5
27.5°	1122.4	1132.8	1157.5	1178.3	1184.7
30°	1080.8	1093.6	1119.2	1142.4	1149.5
32.5°	1038.4	1050.4	1079.2	1104.0	1113.6
35°	993.7	1006.5	1036.0	1064.8	1076.8
37.5°	946.5	959.3	991.3	1024.0	1035.2
40°	897.7	912.9	947.3	982.5	994.5
42.5°	848.2	864.2	900.1	939.3	955.3
45°	797.0	814.6	854.6	896.1	913.7
47.5°	750.6	765.0	806.6	852.2	869.0
50°	701.1	714.7	761.0	806.6	824.2
52.5°	650.7	663.5	713.1	761.0	782.6
55°	596.4	614.7	664.3	715.5	737.1
57.5°	548.4	565.2	616.3	668.3	689.1
60°	496.4	514.0	569.2	621.9	644.3
62.5°	444.5	463.7	519.6	576.4	597.2
65°	390.1	414.1	474.8	527.6	553.2
67.5°	343.7	366.9	426.9	482.0	504.4
70°	291.8	319.0	378.9	434.9	458.9
72.5°	243.0	270.2	331.8	387.7	411.7
75°	197.5	227.0	285.4	336.6	349.3
77.5°	153.5	181.5	239.8	269.4	283.0
80°	111.1	138.3	181.5	201.5	204.6
82.5°	75.1	98.3	123.1	128.7	125.5
85°	43.2	55.2	62.4	62.4	58.4
87.5°	17.6	17.6	15.2	9.6	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)