

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: P474804

Luminaire Tested: **22CZ2-39VHE-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474804  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39VHE-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

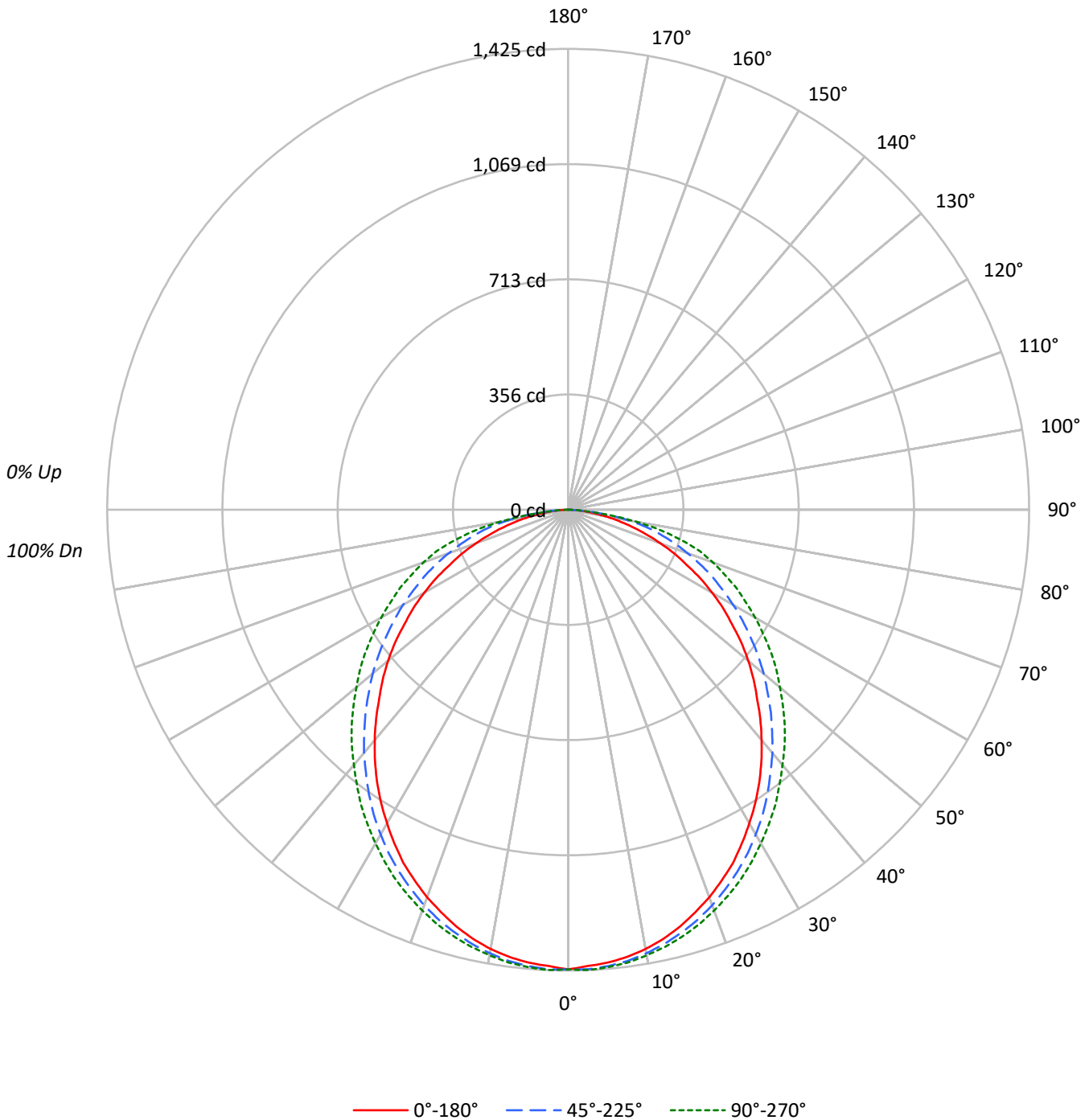
Lumens per Lamp: N/A  
Luminaire Lumens: 3919.9 lumens  
Efficiency: N/A  
Efficacy: 146.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50					50			
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	3825	3825	3825
5°	3797	3827	3836
10°	3769	3805	3823
15°	3718	3771	3806
20°	3651	3727	3777
25°	3579	3670	3746
30°	3480	3604	3701
35°	3383	3527	3666
40°	3268	3449	3620
45°	3143	3370	3604
50°	3041	3301	3576
55°	2899	3230	3583
60°	2768	3174	3594
65°	2574	3133	3650
70°	2379	3090	3741
75°	2127	3074	3764
80°	1784	2913	3287
85°	1380	1995	1868



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.3	3.4
10°-20°	381.3	9.7
20°-30°	568.5	14.5
30°-40°	671.1	17.1
40°-50°	684.0	17.4
50°-60°	616.8	15.7
60°-70°	484.8	12.4
70°-80°	303.5	7.7
80°-90°	75.7	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°	1084.0	27.7
0°-40°	1755.1	44.8
0°-60°	3055.8	78.0
0°-90°	3919.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3919.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1422	1422	1422	1422	1422	
5°	1406	1409	1417	1420	1420	133
15°	1335	1340	1354	1364	1366	376
25°	1205	1214	1236	1255	1262	554
35°	1030	1043	1074	1103	1116	643
45°	826	844	886	929	947	639
55°	618	637	688	741	764	555
65°	404	429	492	547	573	403
75°	205	235	296	349	362	217
85°	45	57	65	65	60	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1421.5	1421.5	1421.5	1421.5	1421.5
2.5°	1412.4	1415.7	1422.4	1424.9	1424.9
5°	1405.8	1409.1	1416.6	1419.9	1419.9
7.5°	1395.0	1398.3	1407.5	1411.6	1412.4
10°	1379.3	1383.4	1392.5	1399.2	1399.2
12.5°	1359.4	1363.6	1375.1	1383.4	1384.3
15°	1334.6	1340.4	1353.6	1363.6	1366.0
17.5°	1305.6	1314.7	1329.6	1342.0	1344.5
20°	1274.9	1284.0	1301.4	1315.5	1318.8
22.5°	1240.9	1249.2	1269.9	1287.3	1291.5
25°	1205.3	1214.4	1236.0	1255.0	1261.7
27.5°	1163.1	1173.8	1199.5	1221.1	1227.7
30°	1120.0	1133.3	1159.8	1183.8	1191.2
32.5°	1076.1	1088.5	1118.3	1144.0	1154.0
35°	1029.7	1043.0	1073.6	1103.4	1115.9
37.5°	980.8	994.1	1027.2	1061.2	1072.8
40°	930.3	946.0	981.7	1018.1	1030.5
42.5°	878.9	895.5	932.8	973.4	989.9
45°	825.9	844.1	885.6	928.6	946.9
47.5°	777.9	792.8	835.9	883.1	900.5
50°	726.5	740.6	788.6	835.9	854.1
52.5°	674.3	687.6	738.9	788.6	811.0
55°	618.0	637.0	688.4	741.4	763.8
57.5°	568.3	585.7	638.7	692.5	714.1
60°	514.4	532.7	589.8	644.5	667.7
62.5°	460.6	480.5	538.5	597.3	618.8
65°	404.3	429.1	492.1	546.7	573.3
67.5°	356.2	380.2	442.4	499.5	522.7
70°	302.4	330.5	392.7	450.7	475.5
72.5°	251.8	280.0	343.8	401.8	426.6
75°	204.6	235.3	295.7	348.8	362.0
77.5°	159.1	188.0	248.5	279.2	293.3
80°	115.1	143.3	188.0	208.8	212.1
82.5°	77.9	101.9	127.6	133.4	130.1
85°	44.7	57.2	64.6	64.6	60.5
87.5°	18.2	18.2	15.7	9.9	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)