

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: P474909

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474909  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39-S-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

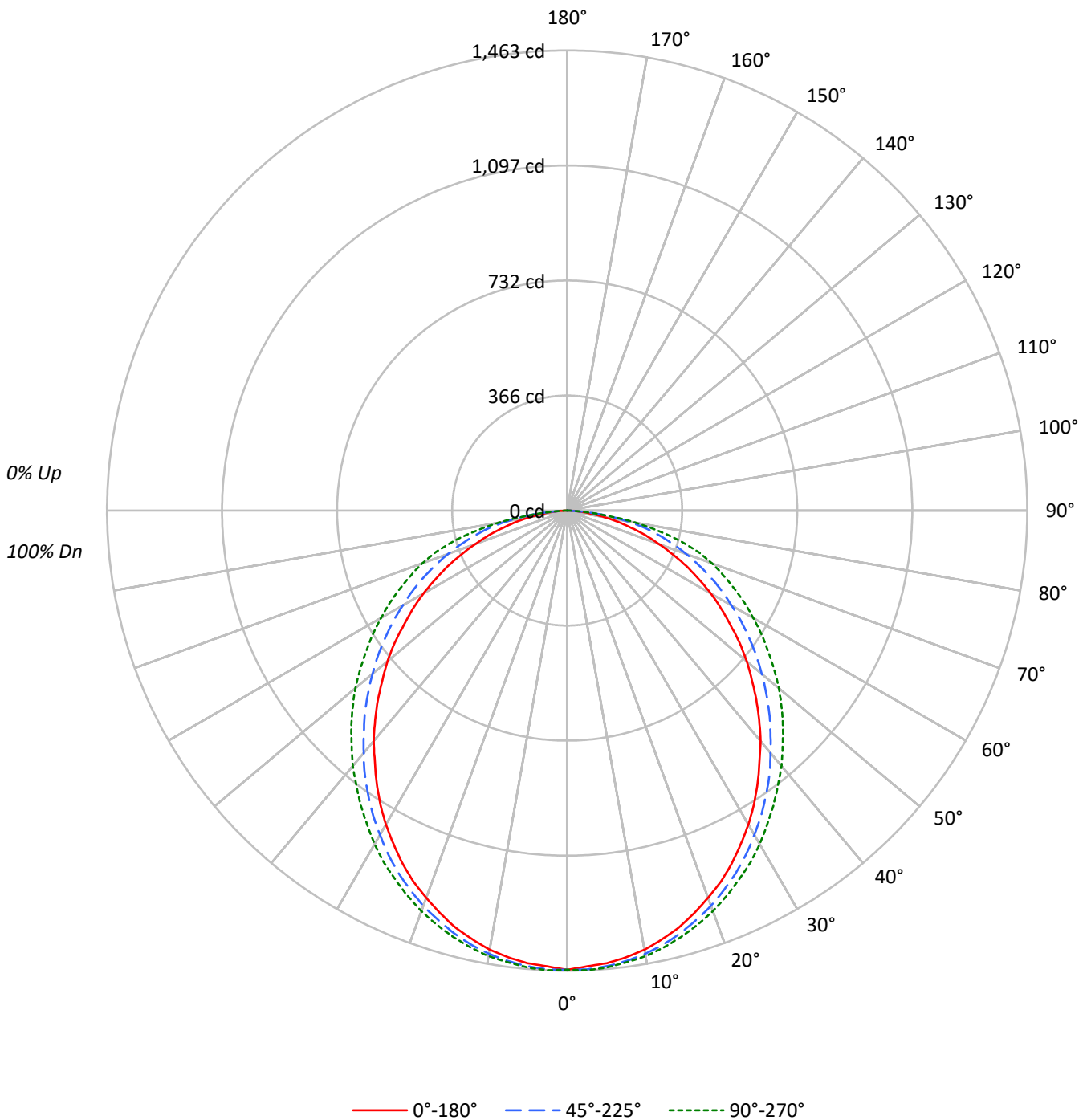
Lumens per Lamp: N/A  
Luminaire Lumens: 4022.1 lumens  
Efficiency: N/A  
Efficacy: 137.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.3  
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°	3929	3929	3929
5°	3902	3928	3939
10°	3872	3910	3931
15°	3823	3875	3908
20°	3752	3830	3880
25°	3676	3771	3841
30°	3581	3699	3805
35°	3469	3623	3757
40°	3361	3535	3724
45°	3237	3460	3693
50°	3121	3382	3679
55°	2973	3315	3662
60°	2840	3248	3677
65°	2665	3210	3731
70°	2435	3171	3852
75°	2185	3147	3855
80°	1839	2971	3423
85°	1383	2013	1862



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.9	3.4
10°-20°	391.6	9.7
20°-30°	583.9	14.5
30°-40°	689.0	17.1
40°-50°	702.0	17.5
50°-60°	633.1	15.7
60°-70°	497.2	12.4
70°-80°	310.8	7.7
80°-90°	76.6	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°	1113.4	27.7
0°-40°	1802.4	44.8
0°-60°	3137.5	78.0
0°-90°	4022.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4022.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1444	1447	1454	1457	1458	137
15°	1372	1377	1391	1401	1403	386
25°	1238	1245	1270	1289	1294	570
35°	1056	1071	1103	1133	1144	660
45°	851	865	909	953	970	656
55°	634	654	707	761	781	568
65°	418	441	504	561	586	413
75°	210	239	303	354	371	225
85°	45	57	65	64	60	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1460.0	1460.0	1460.0	1460.0	1460.0
2.5°	1450.3	1453.2	1460.0	1462.9	1462.9
5°	1444.4	1447.4	1454.2	1457.1	1458.1
7.5°	1432.8	1436.7	1444.4	1448.3	1448.3
10°	1417.2	1422.1	1430.8	1436.7	1438.6
12.5°	1395.8	1401.6	1413.3	1420.1	1422.1
15°	1372.4	1377.3	1390.9	1400.6	1402.6
17.5°	1342.2	1350.0	1364.6	1377.3	1380.2
20°	1310.1	1318.9	1337.4	1352.0	1354.9
22.5°	1277.0	1283.8	1304.3	1321.8	1325.7
25°	1238.1	1244.9	1270.2	1288.7	1293.6
27.5°	1195.3	1206.9	1232.3	1253.7	1261.5
30°	1152.4	1164.1	1190.4	1215.7	1224.5
32.5°	1105.7	1118.4	1148.5	1174.8	1183.6
35°	1056.1	1070.7	1102.8	1133.0	1143.7
37.5°	1004.5	1021.0	1057.1	1089.2	1100.9
40°	956.8	968.5	1006.4	1043.4	1060.0
42.5°	903.3	918.8	956.8	998.7	1014.2
45°	850.7	865.3	909.1	952.9	970.4
47.5°	796.2	814.7	858.5	907.2	924.7
50°	745.6	761.2	807.9	859.5	878.9
52.5°	691.1	707.6	758.2	811.8	829.3
55°	633.6	654.1	706.6	761.2	780.6
57.5°	581.1	600.6	656.0	712.5	732.9
60°	527.6	547.0	603.5	660.9	683.3
62.5°	471.1	493.5	554.8	610.3	635.6
65°	418.5	440.9	504.2	560.6	586.0
67.5°	363.1	389.3	452.6	512.0	537.3
70°	309.5	340.7	403.0	461.4	489.6
72.5°	261.8	287.1	352.4	413.7	437.0
75°	210.2	239.4	302.7	354.3	370.8
77.5°	166.4	191.7	252.1	286.2	296.9
80°	118.7	147.0	191.7	212.2	220.9
82.5°	78.8	102.2	130.4	134.3	132.4
85°	44.8	57.4	65.2	64.2	60.3
87.5°	17.5	19.5	14.6	8.8	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)