

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: P475239

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475239
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-SQR-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3593.8 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

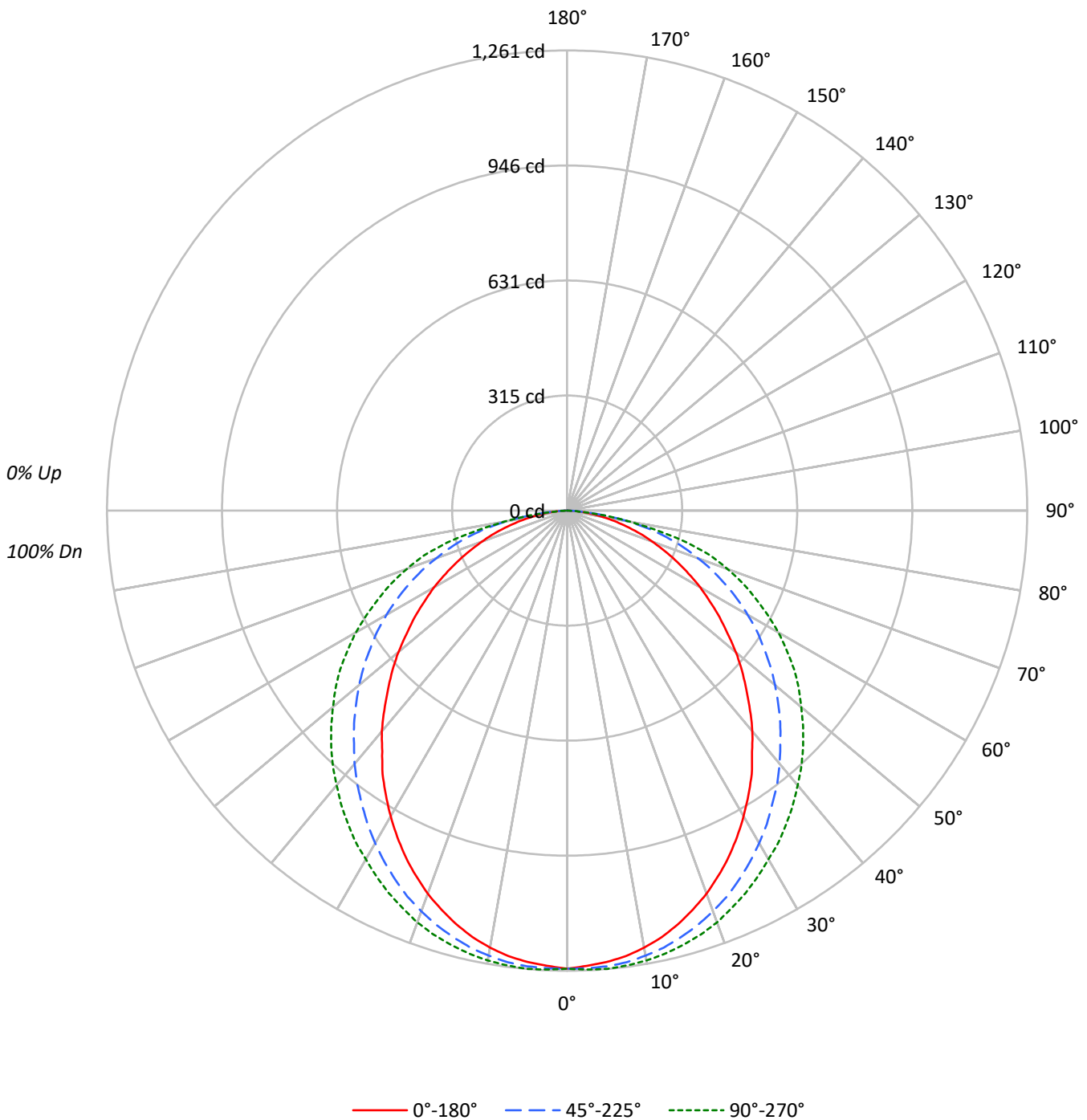
Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71					69				
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60					58				
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51					49				
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45					43				
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39					37				
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35					33				
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31					29				
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28					26				
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26					24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3378	3378	3378
5°	3354	3386	3405
10°	3324	3384	3421
15°	3270	3369	3431
20°	3199	3346	3439
25°	3110	3312	3434
30°	3005	3270	3429
35°	2897	3222	3440
40°	2774	3182	3452
45°	2642	3142	3479
50°	2528	3113	3506
55°	2393	3088	3561
60°	2267	3076	3599
65°	2118	3051	3627
70°	1946	3006	3677
75°	1756	2926	3546
80°	1506	2591	2670
85°	1213	1528	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	3.3
10°-20°	340.3	9.5
20°-30°	511.1	14.2
30°-40°	609.5	17.0
40°-50°	630.2	17.5
50°-60°	579.4	16.1
60°-70°	461.2	12.8
70°-80°	281.8	7.8
80°-90°	61.3	1.7
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°	970.4	27.0
0°-40°	1579.9	44.0
0°-60°	2789.5	77.6
0°-90°	3593.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3593.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1255	1255	1255	1255	1255	
5°	1242	1245	1254	1259	1261	118
15°	1174	1187	1209	1226	1232	330
25°	1047	1073	1116	1146	1156	482
35°	882	919	981	1032	1047	550
45°	694	744	826	892	914	537
55°	510	566	658	734	759	456
65°	333	389	479	546	570	329
75°	169	218	281	331	341	180
85°	39	48	50	43	39	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1255.3	1255.3	1255.3	1255.3	1255.3
2.5°	1248.5	1250.2	1255.3	1258.9	1258.9
5°	1241.7	1245.1	1253.6	1258.9	1260.6
7.5°	1231.5	1236.6	1248.5	1255.3	1257.2
10°	1216.3	1223.1	1238.3	1248.5	1251.9
12.5°	1197.4	1207.6	1226.4	1240.0	1243.4
15°	1173.6	1187.2	1209.3	1226.4	1231.5
17.5°	1146.2	1163.2	1190.6	1211.2	1218.0
20°	1117.2	1134.3	1168.5	1192.3	1200.8
22.5°	1083.2	1105.3	1144.5	1171.9	1178.7
25°	1047.3	1072.8	1115.5	1146.2	1156.4
27.5°	1008.1	1038.8	1084.9	1122.5	1130.9
30°	967.1	999.6	1052.4	1093.4	1103.6
32.5°	924.5	962.0	1018.3	1064.3	1078.1
35°	881.8	919.4	980.7	1032.0	1047.3
37.5°	832.4	876.7	945.0	997.9	1016.6
40°	789.7	832.4	905.8	963.7	982.6
42.5°	741.9	788.0	864.8	927.9	950.1
45°	694.2	743.6	825.6	892.2	914.3
47.5°	649.8	699.3	784.6	854.6	876.7
50°	603.8	654.9	743.6	815.4	837.5
52.5°	554.3	610.6	702.7	774.4	800.1
55°	510.0	566.2	658.3	733.5	759.1
57.5°	463.9	521.9	617.6	689.1	713.1
60°	421.3	477.5	571.5	641.3	668.7
62.5°	375.2	433.2	525.3	593.6	619.3
65°	332.6	389.0	479.2	545.8	569.6
67.5°	289.9	346.3	431.5	494.7	521.9
70°	247.3	303.7	382.0	443.5	467.3
72.5°	209.9	259.3	334.3	390.7	412.8
75°	168.9	218.4	281.4	330.9	341.1
77.5°	131.4	175.7	228.6	250.7	254.2
80°	97.2	131.4	167.2	172.3	172.3
82.5°	64.7	90.4	104.0	105.7	104.0
85°	39.3	47.8	49.5	42.7	39.3
87.5°	13.6	13.6	8.5	5.1	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)