

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: P475298

Luminaire Tested: **22CZ2-44VHE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475298
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44VHE-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4268.3 lumens
Efficiency: N/A
Efficacy: 141.3 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

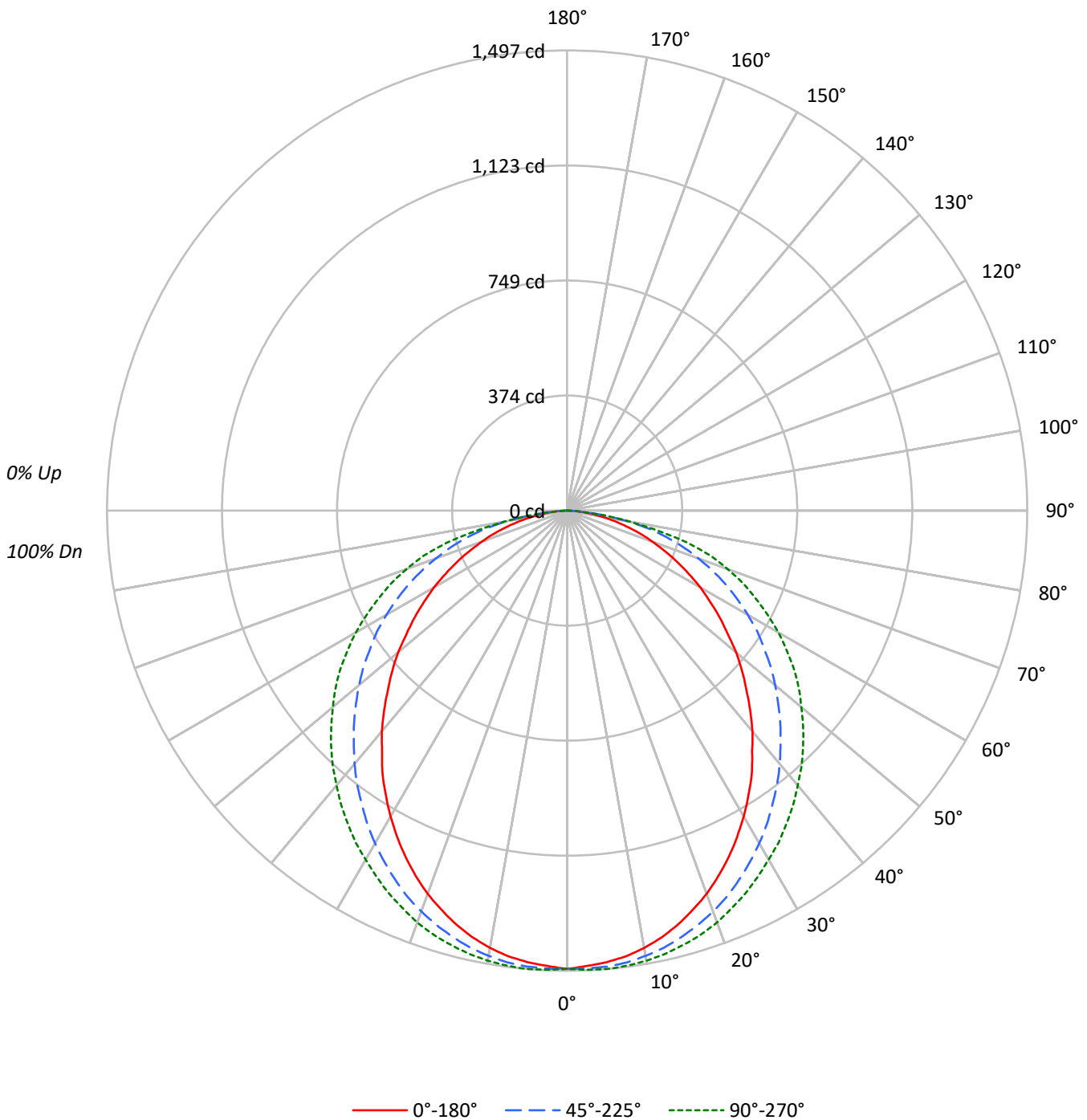
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475298

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475298

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L840-CD1-U

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	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°	4012	4012	4012
5°	3984	4022	4044
10°	3947	4019	4063
15°	3883	4001	4075
20°	3800	3974	4084
25°	3693	3934	4078
30°	3569	3884	4073
35°	3440	3826	4086
40°	3295	3779	4099
45°	3138	3731	4133
50°	3002	3697	4164
55°	2842	3668	4230
60°	2693	3653	4274
65°	2515	3624	4308
70°	2311	3570	4367
75°	2086	3475	4212
80°	1788	3078	3172
85°	1439	1812	1439



TEST NUMBER: P475298

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	3.3
10°-20°	404.1	9.5
20°-30°	607.0	14.2
30°-40°	723.9	17.0
40°-50°	748.5	17.5
50°-60°	688.1	16.1
60°-70°	547.8	12.8
70°-80°	334.7	7.8
80°-90°	72.7	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°	1152.5	27.0
0°-40°	1876.4	44.0
0°-60°	3313.0	77.6
0°-90°	4268.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4268.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1491	1491	1491	1491	1491	
5°	1475	1479	1489	1495	1497	140
15°	1394	1410	1436	1457	1463	393
25°	1244	1274	1325	1361	1374	572
35°	1047	1092	1165	1226	1244	653
45°	824	883	980	1060	1086	638
55°	606	672	782	871	902	542
65°	395	462	569	648	676	391
75°	201	259	334	393	405	214
85°	47	57	59	51	47	54
90°	0	0	0	0	0	



TEST NUMBER: P475298

CATALOG NUMBER: 22CZ2-44VHE-SQR-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1490.9	1490.9	1490.9	1490.9	1490.9
2.5°	1482.9	1484.9	1490.9	1495.2	1495.2
5°	1474.8	1478.8	1488.9	1495.2	1497.2
7.5°	1462.7	1468.7	1482.9	1490.9	1493.2
10°	1444.5	1452.6	1470.8	1482.9	1486.9
12.5°	1422.1	1434.2	1456.6	1472.8	1476.8
15°	1393.9	1410.0	1436.2	1456.6	1462.7
17.5°	1361.4	1381.5	1414.0	1438.5	1446.5
20°	1326.8	1347.2	1387.8	1416.1	1426.1
22.5°	1286.5	1312.7	1359.3	1391.9	1399.9
25°	1243.9	1274.2	1324.8	1361.4	1373.5
27.5°	1197.3	1233.8	1288.5	1333.1	1343.2
30°	1148.6	1187.2	1250.0	1298.6	1310.7
32.5°	1098.0	1142.6	1209.4	1264.1	1280.4
35°	1047.3	1091.9	1164.8	1225.7	1243.9
37.5°	988.6	1041.3	1122.4	1185.2	1207.4
40°	937.9	988.6	1075.8	1144.6	1167.0
42.5°	881.2	935.9	1027.1	1102.0	1128.5
45°	824.5	883.2	980.5	1059.6	1085.9
47.5°	771.8	830.5	931.9	1015.0	1041.3
50°	717.1	777.9	883.2	968.4	994.6
52.5°	658.4	725.2	834.6	919.8	950.2
55°	605.7	672.5	781.9	871.1	901.6
57.5°	551.0	619.8	733.5	818.4	846.9
60°	500.3	567.1	678.8	761.7	794.2
62.5°	445.6	514.5	623.9	705.0	735.5
65°	395.0	462.0	569.2	648.3	676.5
67.5°	344.3	411.3	512.4	587.5	619.8
70°	293.7	360.7	453.7	526.8	555.0
72.5°	249.3	308.0	397.0	464.0	490.3
75°	200.6	259.4	334.2	393.0	405.1
77.5°	156.0	208.7	271.5	297.7	302.0
80°	115.4	156.0	198.6	204.7	204.7
82.5°	76.9	107.4	123.5	125.5	123.5
85°	46.6	56.7	58.7	50.7	46.6
87.5°	16.1	16.1	10.1	6.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)