

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: P475287

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475287
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

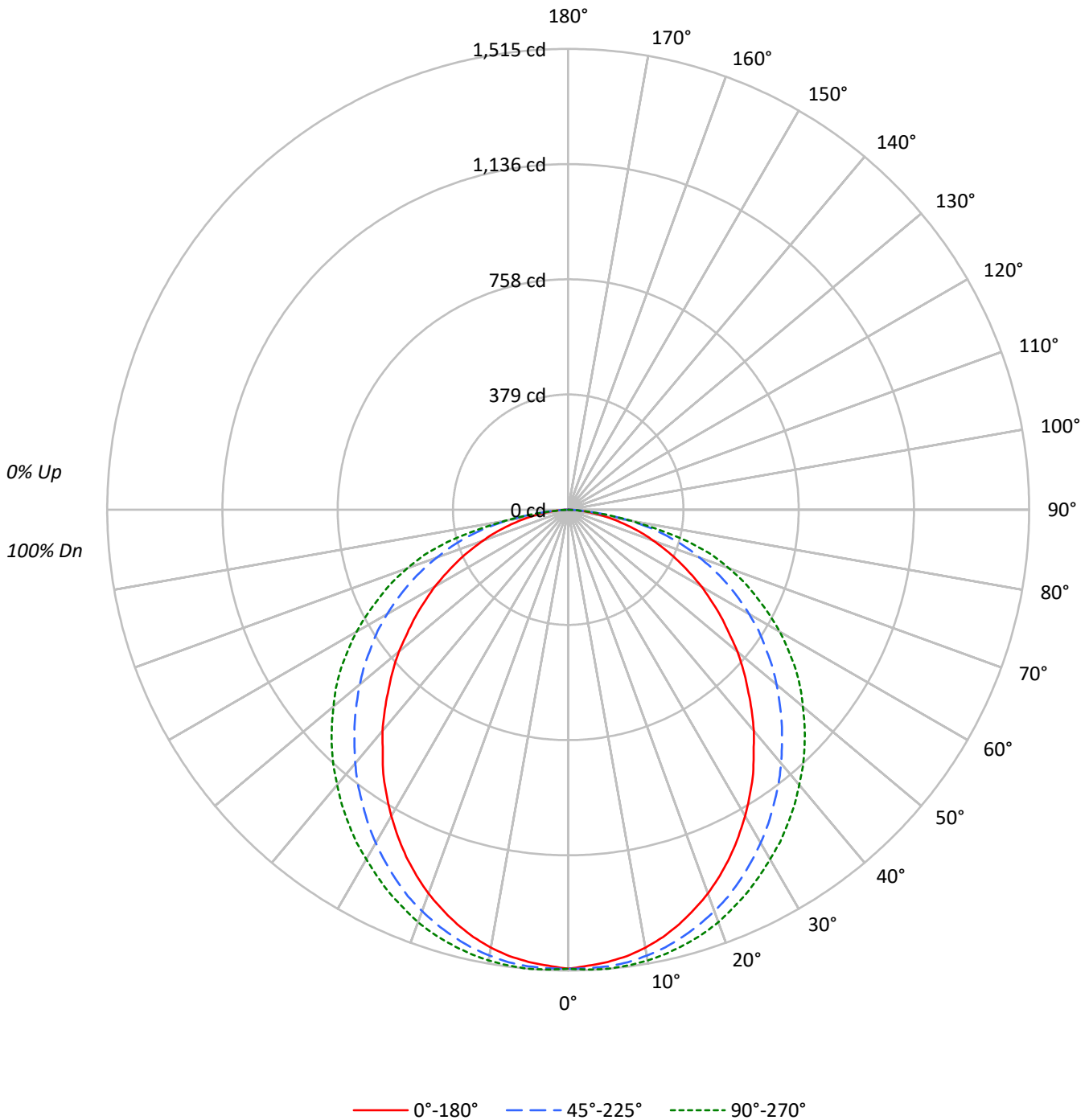
Lumens per Lamp: N/A
Luminaire Lumens: 4319.6 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.2
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



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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	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°	4060	4060	4060
5°	4032	4070	4093
10°	3995	4067	4112
15°	3930	4049	4124
20°	3845	4022	4133
25°	3738	3981	4127
30°	3612	3931	4122
35°	3482	3872	4136
40°	3334	3824	4149
45°	3175	3776	4182
50°	3038	3742	4214
55°	2876	3712	4281
60°	2725	3697	4326
65°	2545	3668	4360
70°	2338	3613	4419
75°	2111	3517	4262
80°	1810	3115	3209
85°	1457	1834	1457



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	3.3
10°-20°	409.0	9.5
20°-30°	614.3	14.2
30°-40°	732.6	17.0
40°-50°	757.5	17.5
50°-60°	696.4	16.1
60°-70°	554.4	12.8
70°-80°	338.7	7.8
80°-90°	73.6	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°	1166.4	27.0
0°-40°	1899.0	44.0
0°-60°	3352.9	77.6
0°-90°	4319.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4319.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1492	1497	1507	1513	1515	142
15°	1411	1427	1454	1474	1480	397
25°	1259	1290	1341	1378	1390	579
35°	1060	1105	1179	1240	1259	661
45°	834	894	992	1072	1099	645
55°	613	681	791	882	912	548
65°	400	468	576	656	685	396
75°	203	262	338	398	410	216
85°	47	57	59	51	47	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1508.9	1508.9	1508.9	1508.9	1508.9
2.5°	1500.7	1502.7	1508.9	1513.2	1513.2
5°	1492.5	1496.6	1506.8	1513.2	1515.2
7.5°	1480.3	1486.4	1500.7	1508.9	1511.1
10°	1461.9	1470.1	1488.4	1500.7	1504.8
12.5°	1439.2	1451.5	1474.1	1490.5	1494.6
15°	1410.6	1427.0	1453.5	1474.1	1480.3
17.5°	1377.7	1398.1	1431.0	1455.8	1463.9
20°	1342.8	1363.4	1404.5	1433.1	1443.3
22.5°	1302.0	1328.5	1375.7	1408.6	1416.7
25°	1258.9	1289.5	1340.8	1377.7	1390.0
27.5°	1211.7	1248.6	1304.0	1349.1	1359.4
30°	1162.4	1201.5	1265.0	1314.2	1326.5
32.5°	1111.2	1156.3	1223.9	1279.3	1295.8
35°	1059.9	1105.0	1178.8	1240.5	1258.9
37.5°	1000.5	1053.8	1135.9	1199.4	1221.9
40°	949.2	1000.5	1088.7	1158.4	1181.0
42.5°	891.8	947.1	1039.5	1115.3	1142.0
45°	834.4	893.8	992.3	1072.4	1098.9
47.5°	781.1	840.5	943.1	1027.2	1053.8
50°	725.7	787.2	893.8	980.0	1006.6
52.5°	666.3	733.9	844.6	930.8	961.7
55°	613.0	680.6	791.3	881.6	912.4
57.5°	557.6	627.3	742.3	828.3	857.1
60°	506.4	574.0	686.9	770.9	803.8
62.5°	451.0	520.6	631.4	713.5	744.3
65°	399.7	467.6	576.0	656.1	684.7
67.5°	348.5	416.3	518.6	594.6	627.3
70°	297.2	365.0	459.2	533.1	561.7
72.5°	252.3	311.7	401.8	469.6	496.1
75°	203.0	262.5	338.3	397.7	409.9
77.5°	157.9	211.2	274.7	301.3	305.6
80°	116.8	157.9	201.0	207.1	207.1
82.5°	77.8	108.7	125.0	127.0	125.0
85°	47.2	57.4	59.4	51.3	47.2
87.5°	16.3	16.3	10.2	6.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)