

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: P475241

Luminaire Tested: **22CZ2-50VHE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475241
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-50VHE-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: 4663.7 lumens
Efficiency: N/A
Efficacy: 133.2 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

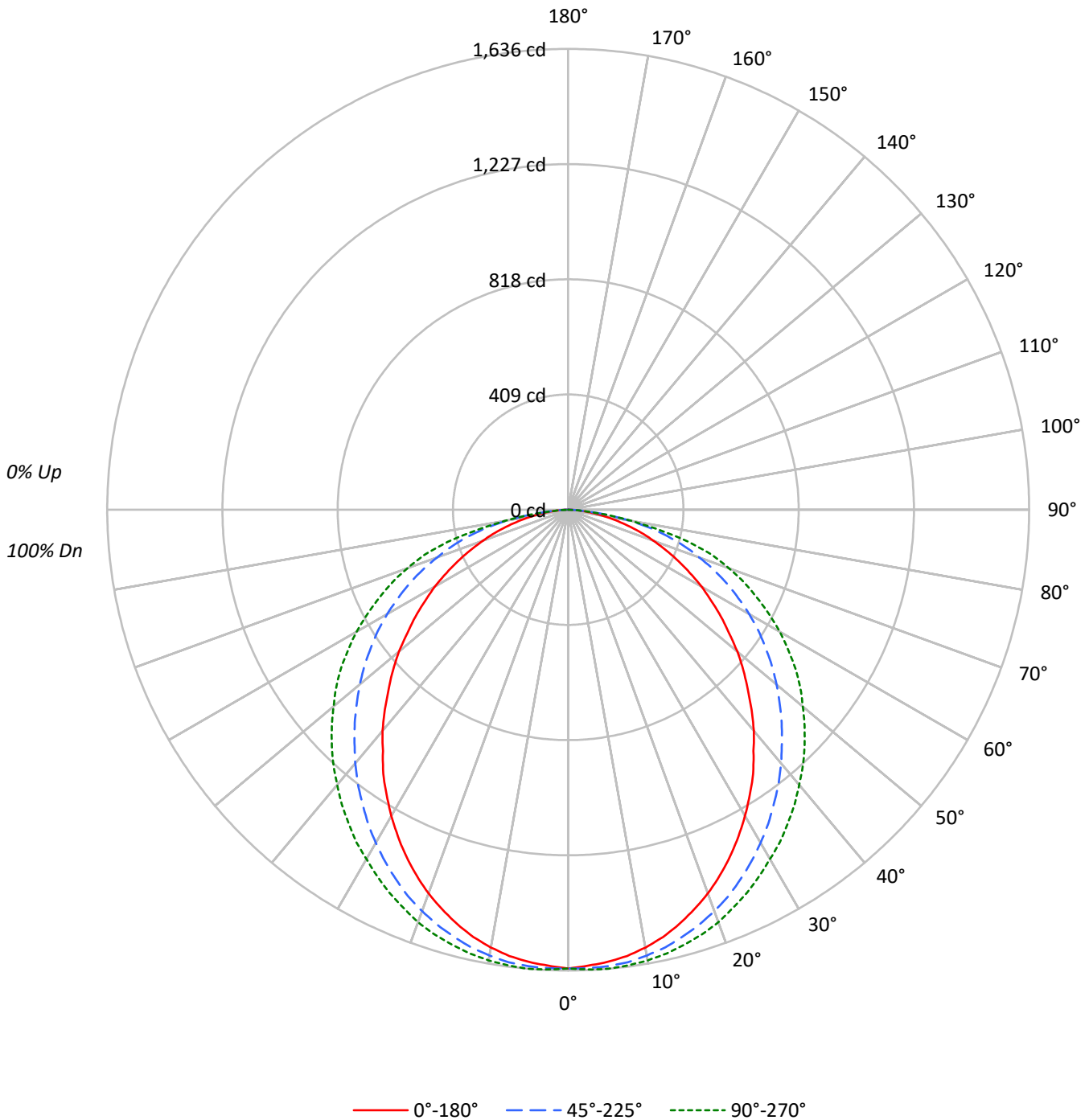
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4384	4384	4384
5°	4353	4394	4419
10°	4313	4391	4439
15°	4243	4372	4452
20°	4152	4342	4462
25°	4035	4298	4456
30°	3900	4244	4450
35°	3759	4181	4465
40°	3600	4129	4479
45°	3428	4077	4515
50°	3280	4040	4550
55°	3105	4008	4622
60°	2942	3992	4670
65°	2748	3960	4707
70°	2525	3900	4772
75°	2279	3797	4602
80°	1954	3363	3465
85°	1572	1982	1572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.4	3.3
10°-20°	441.6	9.5
20°-30°	663.2	14.2
30°-40°	791.0	17.0
40°-50°	817.8	17.5
50°-60°	751.9	16.1
60°-70°	598.6	12.8
70°-80°	365.7	7.8
80°-90°	79.5	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°	1259.3	27.0
0°-40°	2050.3	44.0
0°-60°	3619.9	77.6
0°-90°	4663.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4663.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1629	1629	1629	1629	1629	
5°	1611	1616	1627	1634	1636	153
15°	1523	1541	1569	1592	1598	429
25°	1359	1392	1448	1488	1501	625
35°	1144	1193	1273	1339	1359	714
45°	901	965	1071	1158	1186	697
55°	662	735	854	952	985	592
65°	432	505	622	708	739	428
75°	219	283	365	429	443	233
85°	51	62	64	55	51	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1629.0	1629.0	1629.0	1629.0	1629.0
2.5°	1620.2	1622.4	1629.0	1633.7	1633.7
5°	1611.4	1615.8	1626.8	1633.7	1635.9
7.5°	1598.2	1604.8	1620.2	1629.0	1631.5
10°	1578.3	1587.2	1607.0	1620.2	1624.6
12.5°	1553.8	1567.1	1591.6	1609.2	1613.6
15°	1523.0	1540.6	1569.3	1591.6	1598.2
17.5°	1487.5	1509.5	1545.0	1571.7	1580.5
20°	1449.8	1472.0	1516.4	1547.2	1558.3
22.5°	1405.7	1434.3	1485.3	1520.8	1529.6
25°	1359.1	1392.2	1447.5	1487.5	1500.7
27.5°	1308.2	1348.1	1407.9	1456.6	1467.6
30°	1255.0	1297.2	1365.7	1418.9	1432.1
32.5°	1199.7	1248.4	1321.4	1381.2	1399.1
35°	1144.3	1193.1	1272.7	1339.3	1359.1
37.5°	1080.2	1137.7	1226.4	1295.0	1319.2
40°	1024.8	1080.2	1175.4	1250.6	1275.1
42.5°	962.8	1022.6	1122.3	1204.1	1233.0
45°	900.9	965.0	1071.3	1157.8	1186.5
47.5°	843.3	907.5	1018.2	1109.1	1137.7
50°	783.5	849.9	965.0	1058.1	1086.8
52.5°	719.4	792.4	911.9	1005.0	1038.3
55°	661.8	734.8	854.3	951.8	985.1
57.5°	602.0	677.2	801.4	894.2	925.4
60°	546.7	619.7	741.7	832.3	867.8
62.5°	486.9	562.1	681.6	770.3	803.6
65°	431.6	504.8	621.9	708.3	739.2
67.5°	376.2	449.5	559.9	642.0	677.2
70°	320.9	394.1	495.7	575.6	606.5
72.5°	272.4	336.5	433.8	507.0	535.7
75°	219.2	283.4	365.2	429.4	442.6
77.5°	170.5	228.0	296.6	325.3	329.9
80°	126.1	170.5	217.0	223.6	223.6
82.5°	84.0	117.3	135.0	137.2	135.0
85°	50.9	62.0	64.2	55.4	50.9
87.5°	17.6	17.6	11.0	6.6	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)