

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: P474891

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474891
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39VHE-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3858.7 lumens
Efficiency: N/A
Efficacy: 144.5 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

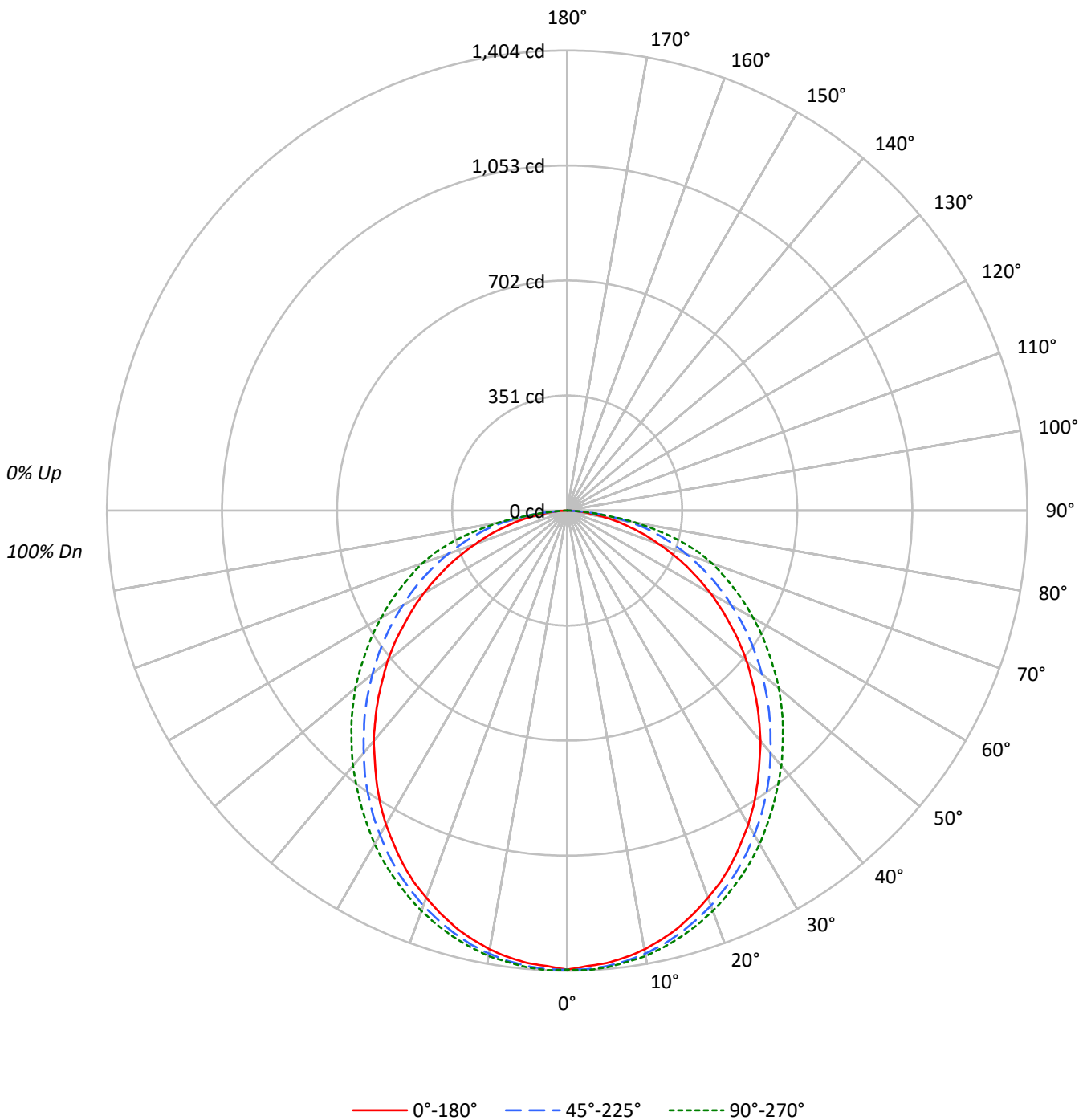
Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3769	3769	3769
5°	3743	3769	3779
10°	3715	3751	3771
15°	3668	3718	3749
20°	3599	3674	3722
25°	3527	3618	3685
30°	3435	3549	3650
35°	3328	3476	3604
40°	3224	3392	3572
45°	3106	3319	3543
50°	2995	3245	3530
55°	2852	3180	3514
60°	2724	3116	3528
65°	2557	3080	3579
70°	2336	3042	3696
75°	2097	3019	3699
80°	1765	2851	3285
85°	1328	1933	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	3.4
10°-20°	375.7	9.7
20°-30°	560.2	14.5
30°-40°	661.0	17.1
40°-50°	673.4	17.5
50°-60°	607.3	15.7
60°-70°	477.0	12.4
70°-80°	298.2	7.7
80°-90°	73.5	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°	1068.2	27.7
0°-40°	1729.2	44.8
0°-60°	3010.0	78.0
0°-90°	3858.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3858.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1401	1401	1401	1401	1401	
5°	1386	1389	1395	1398	1399	131
15°	1317	1321	1334	1344	1346	371
25°	1188	1194	1219	1236	1241	547
35°	1013	1027	1058	1087	1097	634
45°	816	830	872	914	931	630
55°	608	628	678	730	749	545
65°	402	423	484	538	562	397
75°	202	230	290	340	356	216
85°	43	55	63	62	58	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1400.7	1400.7	1400.7	1400.7	1400.7
2.5°	1391.4	1394.2	1400.7	1403.5	1403.5
5°	1385.8	1388.6	1395.1	1397.9	1398.8
7.5°	1374.6	1378.3	1385.8	1389.5	1389.5
10°	1359.6	1364.3	1372.7	1378.3	1380.2
12.5°	1339.1	1344.7	1355.9	1362.4	1364.3
15°	1316.7	1321.3	1334.4	1343.7	1345.6
17.5°	1287.7	1295.2	1309.2	1321.3	1324.1
20°	1256.9	1265.3	1283.0	1297.0	1299.8
22.5°	1225.1	1231.7	1251.3	1268.1	1271.8
25°	1187.8	1194.3	1218.6	1236.3	1241.0
27.5°	1146.7	1157.9	1182.2	1202.7	1210.2
30°	1105.6	1116.8	1142.0	1166.3	1174.7
32.5°	1060.8	1072.9	1101.9	1127.1	1135.5
35°	1013.2	1027.2	1058.0	1086.9	1097.2
37.5°	963.7	979.6	1014.1	1044.9	1056.1
40°	917.9	929.1	965.5	1001.0	1016.9
42.5°	866.6	881.5	917.9	958.1	973.0
45°	816.1	830.1	872.2	914.2	931.0
47.5°	763.8	781.6	823.6	870.3	887.1
50°	715.3	730.2	775.1	824.5	843.2
52.5°	663.0	678.9	727.4	778.8	795.6
55°	607.9	627.5	677.9	730.2	748.9
57.5°	557.5	576.2	629.4	683.5	703.2
60°	506.1	524.8	579.0	634.0	655.5
62.5°	452.0	473.4	532.3	585.5	609.8
65°	401.5	423.0	483.7	537.9	562.1
67.5°	348.3	373.5	434.2	491.2	515.5
70°	296.9	326.8	386.6	442.6	469.7
72.5°	251.2	275.5	338.0	396.9	419.3
75°	201.7	229.7	290.4	339.9	355.8
77.5°	159.7	184.0	241.9	274.5	284.8
80°	113.9	141.0	184.0	203.6	212.0
82.5°	75.6	98.0	125.1	128.9	127.0
85°	43.0	55.1	62.6	61.6	57.9
87.5°	16.8	18.7	14.0	8.4	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)