

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: P475240

Luminaire Tested: **22CZ2-44VHE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475240
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-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: 4042.1 lumens
Efficiency: N/A
Efficacy: 133.8 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

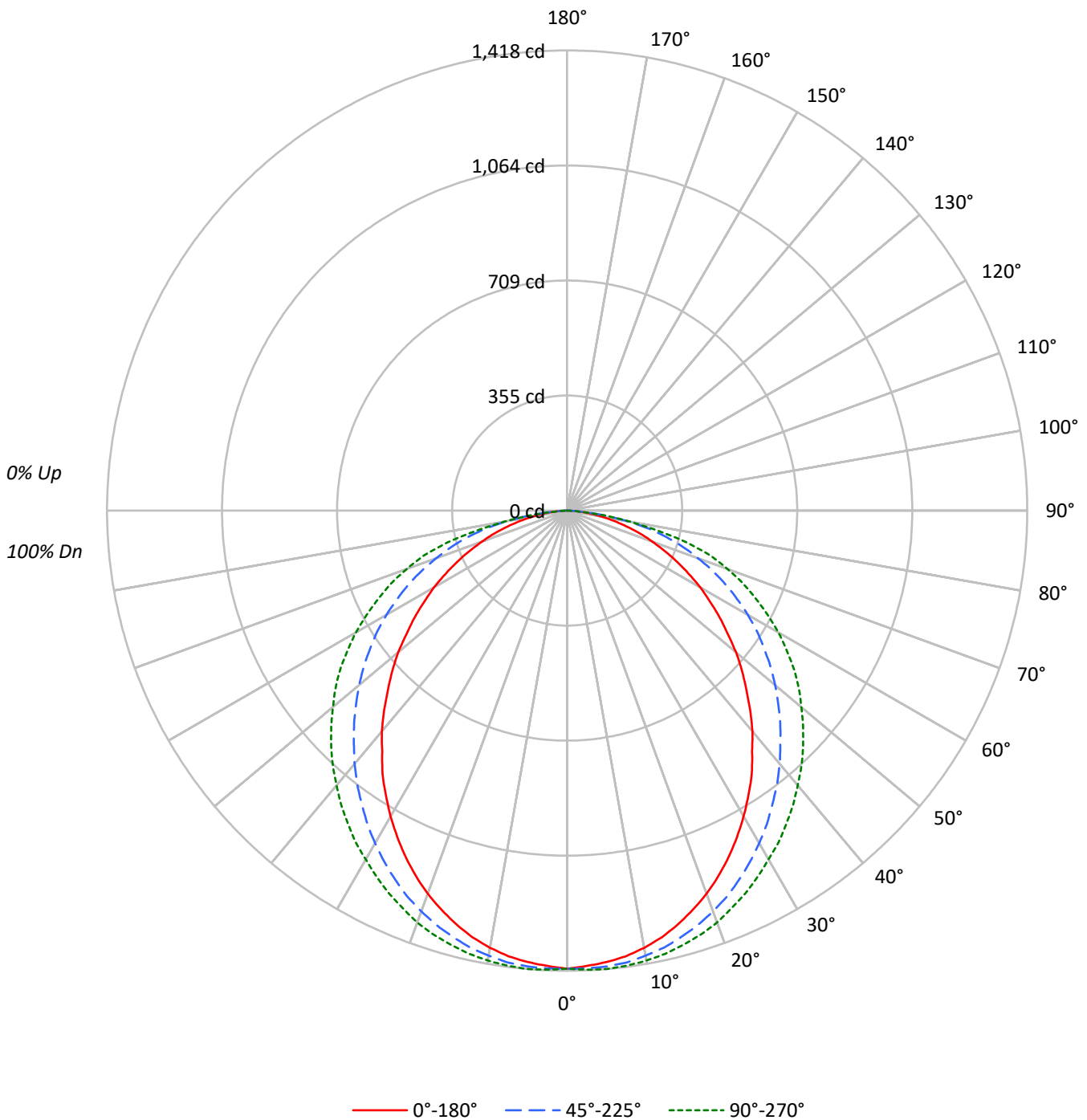
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3799	3799	3799
5°	3773	3809	3830
10°	3738	3806	3848
15°	3677	3789	3859
20°	3598	3764	3868
25°	3498	3725	3862
30°	3380	3678	3857
35°	3258	3623	3870
40°	3120	3579	3882
45°	2971	3534	3913
50°	2843	3502	3943
55°	2691	3474	4006
60°	2550	3460	4048
65°	2382	3432	4080
70°	2188	3381	4135
75°	1975	3291	3988
80°	1694	2915	3003
85°	1365	1717	1365



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.9	3.3
10°-20°	382.7	9.5
20°-30°	574.8	14.2
30°-40°	685.6	17.0
40°-50°	708.8	17.5
50°-60°	651.7	16.1
60°-70°	518.8	12.8
70°-80°	317.0	7.8
80°-90°	68.9	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°	1091.4	27.0
0°-40°	1777.0	44.0
0°-60°	3137.5	77.6
0°-90°	4042.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4042.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1412	1412	1412	1412	1412	
5°	1397	1400	1410	1416	1418	132
15°	1320	1335	1360	1379	1385	372
25°	1178	1207	1255	1289	1301	542
35°	992	1034	1103	1161	1178	619
45°	781	836	928	1004	1028	604
55°	574	637	740	825	854	513
65°	374	438	539	614	641	371
75°	190	246	316	372	384	202
85°	44	54	56	48	44	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1411.9	1411.9	1411.9	1411.9	1411.9
2.5°	1404.3	1406.2	1411.9	1416.0	1416.0
5°	1396.6	1400.5	1410.0	1416.0	1417.9
7.5°	1385.2	1390.9	1404.3	1411.9	1414.0
10°	1368.0	1375.6	1392.8	1404.3	1408.1
12.5°	1346.8	1358.2	1379.4	1394.7	1398.5
15°	1320.0	1335.3	1360.1	1379.4	1385.2
17.5°	1289.2	1308.3	1339.1	1362.2	1369.9
20°	1256.5	1275.8	1314.3	1341.0	1350.6
22.5°	1218.3	1243.2	1287.3	1318.1	1325.7
25°	1178.0	1206.6	1254.6	1289.2	1300.7
27.5°	1133.8	1168.4	1220.2	1262.5	1272.0
30°	1087.8	1124.3	1183.7	1229.8	1241.2
32.5°	1039.8	1082.0	1145.3	1197.1	1212.6
35°	991.8	1034.1	1103.0	1160.8	1178.0
37.5°	936.2	986.1	1062.9	1122.4	1143.4
40°	888.2	936.2	1018.8	1083.9	1105.2
42.5°	834.5	886.3	972.7	1043.6	1068.7
45°	780.8	836.4	928.5	1003.5	1028.3
47.5°	730.9	786.5	882.5	961.2	986.1
50°	679.1	736.6	836.4	917.1	941.9
52.5°	623.5	686.7	790.3	871.0	899.9
55°	573.6	636.9	740.5	824.9	853.8
57.5°	521.8	587.0	694.6	775.1	802.0
60°	473.8	537.1	642.8	721.4	752.1
62.5°	422.0	487.2	590.8	667.6	696.5
65°	374.1	437.5	539.0	613.9	640.7
67.5°	326.1	389.5	485.3	556.4	587.0
70°	278.1	341.6	429.7	498.9	525.6
72.5°	236.1	291.7	376.0	439.4	464.3
75°	190.0	245.6	316.5	372.1	383.6
77.5°	147.8	197.6	257.1	281.9	286.0
80°	109.3	147.8	188.1	193.8	193.8
82.5°	72.8	101.7	117.0	118.9	117.0
85°	44.2	53.7	55.6	48.0	44.2
87.5°	15.3	15.3	9.6	5.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)