

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: P474880

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474880
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

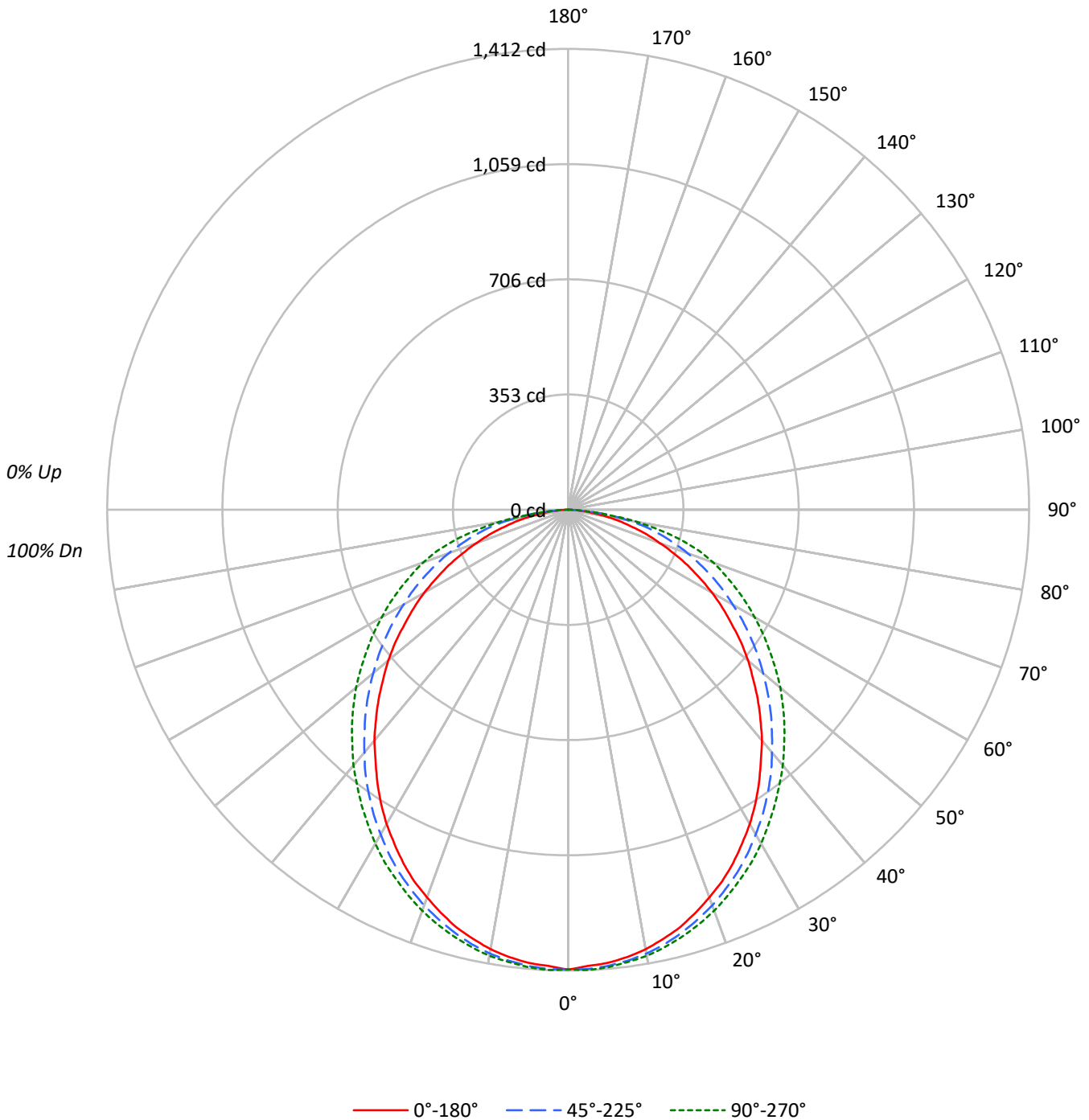
Lumens per Lamp: N/A
Luminaire Lumens: 3881.3 lumens
Efficiency: N/A
Efficacy: 132.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 29.3
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°	3791	3791	3791
5°	3765	3791	3801
10°	3737	3773	3794
15°	3690	3739	3771
20°	3621	3696	3744
25°	3548	3640	3706
30°	3456	3569	3672
35°	3348	3496	3626
40°	3243	3412	3593
45°	3124	3339	3564
50°	3012	3264	3551
55°	2869	3199	3534
60°	2740	3134	3549
65°	2572	3098	3600
70°	2350	3060	3718
75°	2110	3037	3721
80°	1776	2867	3304
85°	1334	1942	1797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	3.4
10°-20°	377.9	9.7
20°-30°	563.5	14.5
30°-40°	664.9	17.1
40°-50°	677.4	17.5
50°-60°	610.9	15.7
60°-70°	479.8	12.4
70°-80°	299.9	7.7
80°-90°	73.9	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°	1074.5	27.7
0°-40°	1739.3	44.8
0°-60°	3027.7	78.0
0°-90°	3881.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3881.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1394	1397	1403	1406	1407	132
15°	1324	1329	1342	1352	1354	373
25°	1195	1201	1226	1244	1248	550
35°	1019	1033	1064	1093	1104	637
45°	821	835	877	920	936	633
55°	612	631	682	734	753	548
65°	404	426	486	541	565	399
75°	203	231	292	342	358	217
85°	43	55	63	62	58	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1408.9	1408.9	1408.9	1408.9	1408.9
2.5°	1399.5	1402.3	1408.9	1411.7	1411.7
5°	1393.9	1396.7	1403.3	1406.1	1407.0
7.5°	1382.6	1386.4	1393.9	1397.6	1397.6
10°	1367.6	1372.3	1380.7	1386.4	1388.3
12.5°	1346.9	1352.6	1363.8	1370.4	1372.3
15°	1324.4	1329.1	1342.2	1351.6	1353.5
17.5°	1295.3	1302.8	1316.9	1329.1	1331.9
20°	1264.3	1272.7	1290.6	1304.7	1307.5
22.5°	1232.3	1238.9	1258.6	1275.5	1279.3
25°	1194.8	1201.3	1225.8	1243.6	1248.3
27.5°	1153.4	1164.7	1189.1	1209.8	1217.3
30°	1112.1	1123.4	1148.7	1173.2	1181.6
32.5°	1067.0	1079.2	1108.3	1133.7	1142.2
35°	1019.1	1033.2	1064.2	1093.3	1103.7
37.5°	969.3	985.3	1020.1	1051.1	1062.3
40°	923.3	934.6	971.2	1006.9	1022.9
42.5°	871.6	886.7	923.3	963.7	978.7
45°	820.9	835.0	877.3	919.6	936.5
47.5°	768.3	786.2	828.4	875.4	892.3
50°	719.5	734.5	779.6	829.4	848.2
52.5°	666.9	682.9	731.7	783.4	800.3
55°	611.5	631.2	681.9	734.5	753.3
57.5°	560.7	579.5	633.1	687.6	707.3
60°	509.1	527.9	582.4	637.8	659.4
62.5°	454.6	476.2	535.4	588.9	613.3
65°	403.9	425.5	486.5	541.0	565.4
67.5°	350.4	375.7	436.8	494.1	518.5
70°	298.7	328.7	388.9	445.2	472.5
72.5°	252.7	277.1	340.0	399.2	421.7
75°	202.9	231.1	292.1	341.9	357.9
77.5°	160.6	185.0	243.3	276.1	286.5
80°	114.6	141.8	185.0	204.8	213.2
82.5°	76.1	98.6	125.9	129.6	127.7
85°	43.2	55.4	62.9	62.0	58.2
87.5°	16.9	18.8	14.1	8.5	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)