

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: P474764

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474764
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3804.8 lumens
Efficiency: N/A
Efficacy: 129.9 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

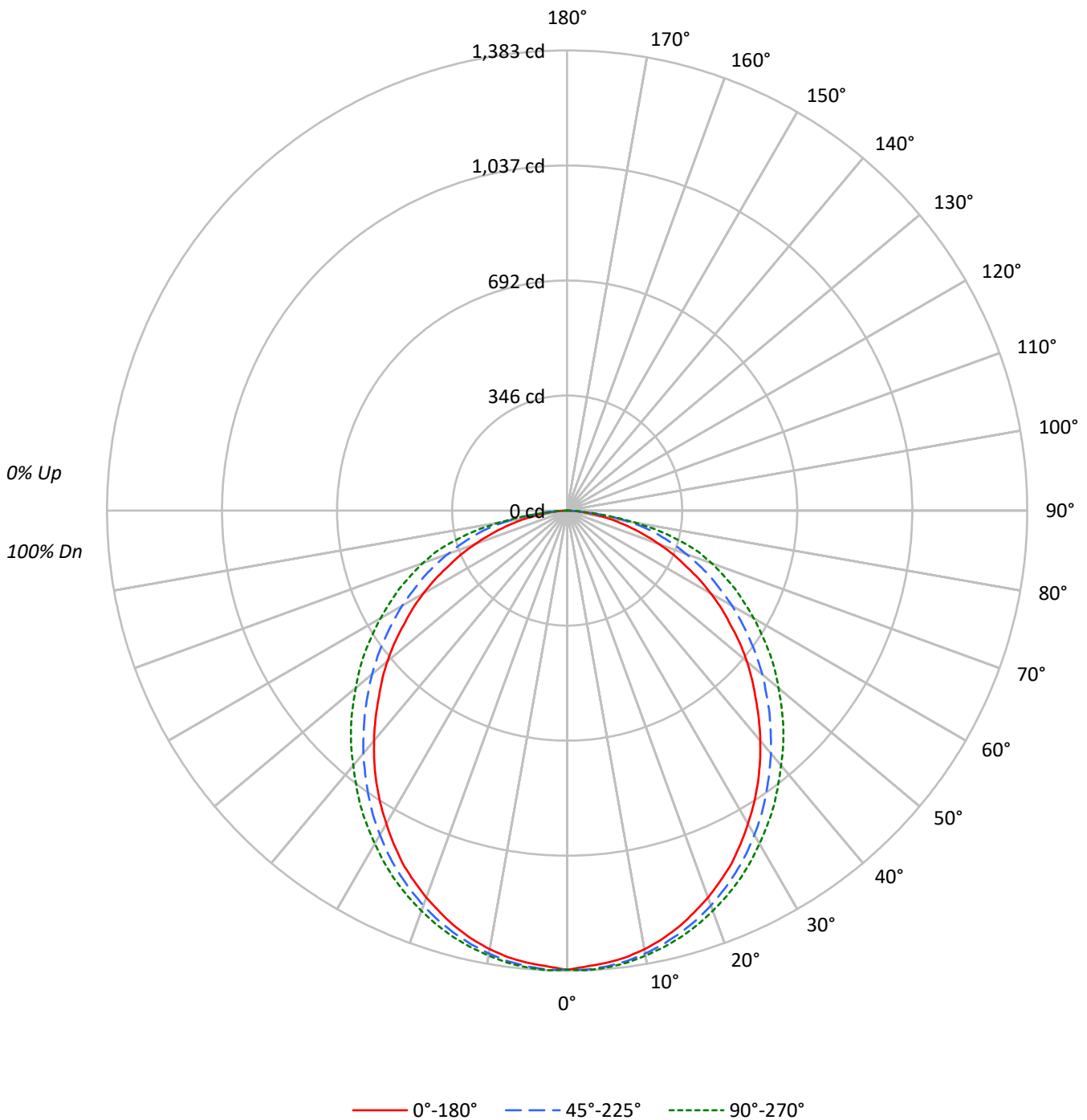
Input Watts (W): 29.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50					50			
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3713	3713	3713
5°	3686	3714	3723
10°	3658	3694	3711
15°	3609	3660	3694
20°	3544	3617	3666
25°	3474	3562	3636
30°	3378	3498	3593
35°	3283	3423	3558
40°	3172	3347	3514
45°	3051	3271	3498
50°	2952	3205	3471
55°	2814	3135	3478
60°	2687	3081	3488
65°	2499	3041	3543
70°	2309	2998	3632
75°	2065	2985	3654
80°	1733	2828	3189
85°	1340	1936	1812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.4	3.4
10°-20°	370.1	9.7
20°-30°	551.8	14.5
30°-40°	651.4	17.1
40°-50°	663.9	17.4
50°-60°	598.7	15.7
60°-70°	470.6	12.4
70°-80°	294.6	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°	1052.2	27.7
0°-40°	1703.6	44.8
0°-60°	2966.2	78.0
0°-90°	3804.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3804.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1365	1368	1375	1378	1378	129
15°	1295	1301	1314	1324	1326	365
25°	1170	1179	1200	1218	1225	538
35°	1000	1012	1042	1071	1083	625
45°	802	819	860	901	919	620
55°	600	618	668	720	741	538
65°	392	416	478	531	556	391
75°	199	228	287	338	351	211
85°	43	56	63	63	59	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1379.8	1379.8	1379.8	1379.8	1379.8
2.5°	1371.0	1374.2	1380.6	1383.0	1383.0
5°	1364.6	1367.8	1375.0	1378.2	1378.2
7.5°	1354.1	1357.3	1366.2	1370.2	1371.0
10°	1338.8	1342.8	1351.7	1358.1	1358.1
12.5°	1319.5	1323.5	1334.8	1342.8	1343.6
15°	1295.4	1301.0	1313.9	1323.5	1326.0
17.5°	1267.3	1276.1	1290.6	1302.6	1305.1
20°	1237.5	1246.4	1263.2	1276.9	1280.1
22.5°	1204.5	1212.6	1232.7	1249.6	1253.6
25°	1170.0	1178.8	1199.7	1218.2	1224.6
27.5°	1129.0	1139.4	1164.3	1185.2	1191.7
30°	1087.1	1100.0	1125.7	1149.1	1156.3
32.5°	1044.5	1056.6	1085.5	1110.5	1120.1
35°	999.5	1012.4	1042.1	1071.1	1083.1
37.5°	952.1	964.9	997.1	1030.1	1041.3
40°	903.0	918.3	952.9	988.2	1000.3
42.5°	853.1	869.2	905.4	944.8	960.9
45°	801.7	819.4	859.6	901.4	919.1
47.5°	755.0	769.5	811.3	857.2	874.1
50°	705.2	718.9	765.5	811.3	829.0
52.5°	654.5	667.4	717.3	765.5	787.2
55°	599.9	618.4	668.2	719.7	741.4
57.5°	551.6	568.5	620.0	672.2	693.1
60°	499.3	517.0	572.5	625.6	648.1
62.5°	447.1	466.4	522.7	579.8	600.7
65°	392.4	416.5	477.6	530.7	556.4
67.5°	345.8	369.1	429.4	484.9	507.4
70°	293.5	320.8	381.1	437.4	461.6
72.5°	244.4	271.8	333.7	390.0	414.1
75°	198.6	228.4	287.1	338.5	351.4
77.5°	154.4	182.5	241.2	271.0	284.7
80°	111.8	139.1	182.5	202.6	205.8
82.5°	75.6	98.9	123.8	129.5	126.2
85°	43.4	55.5	62.7	62.7	58.7
87.5°	17.7	17.7	15.3	9.6	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)