

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: P474770

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474770
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3857.0 lumens
Efficiency: N/A
Efficacy: 135.3 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

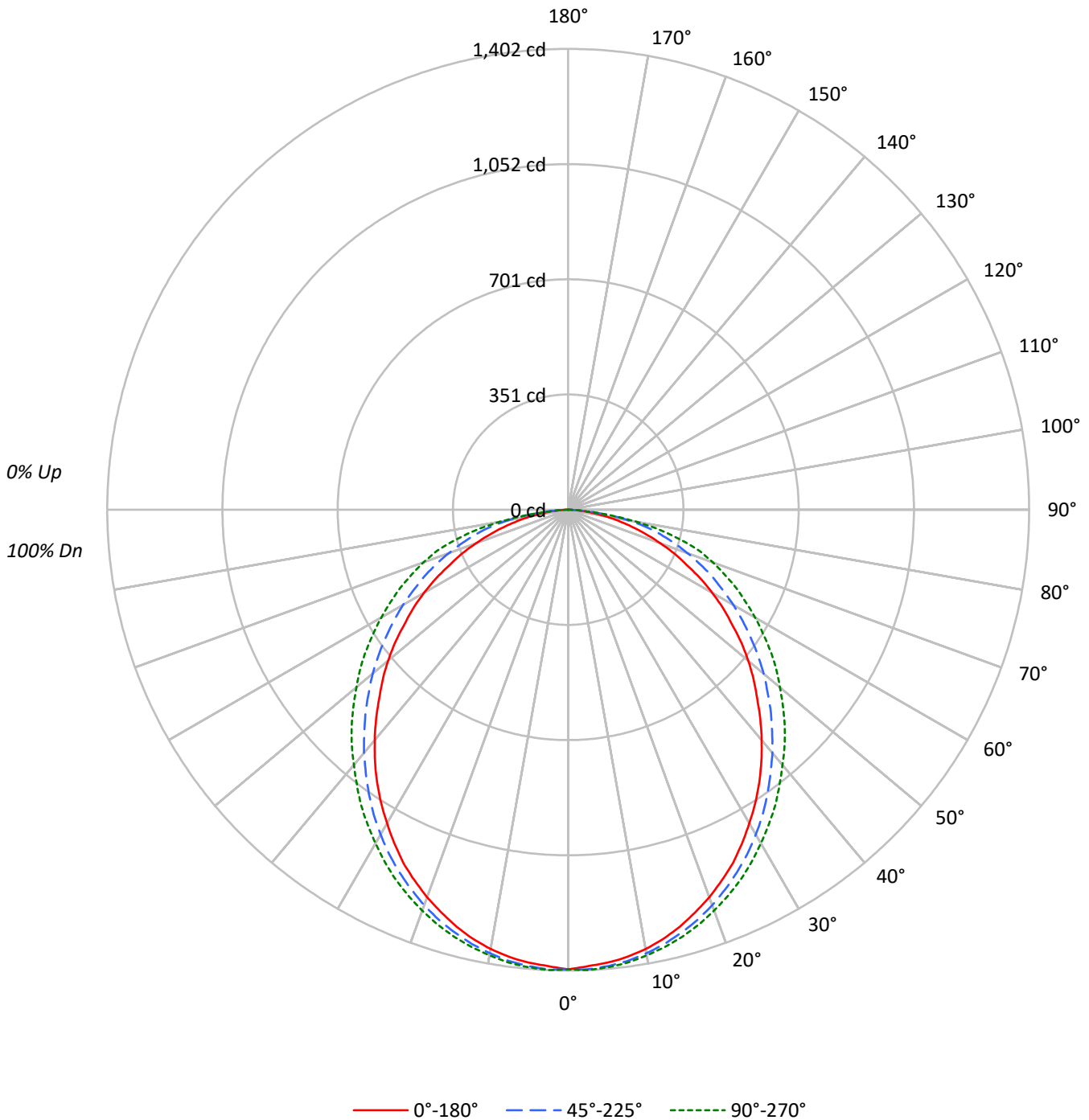
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3764	3764	3764
5°	3736	3765	3774
10°	3709	3744	3762
15°	3658	3711	3745
20°	3592	3667	3716
25°	3521	3611	3686
30°	3424	3546	3642
35°	3328	3470	3607
40°	3216	3393	3562
45°	3093	3316	3546
50°	2993	3249	3518
55°	2853	3178	3526
60°	2724	3124	3536
65°	2533	3083	3592
70°	2341	3040	3681
75°	2093	3026	3703
80°	1756	2867	3234
85°	1359	1964	1837



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	3.4
10°-20°	375.1	9.7
20°-30°	559.4	14.5
30°-40°	660.3	17.1
40°-50°	673.0	17.4
50°-60°	606.9	15.7
60°-70°	477.0	12.4
70°-80°	298.7	7.7
80°-90°	74.5	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°	1066.6	27.7
0°-40°	1726.9	44.8
0°-60°	3006.8	78.0
0°-90°	3857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3857.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1399	1399	1399	1399	1399	
5°	1383	1386	1394	1397	1397	131
15°	1313	1319	1332	1342	1344	370
25°	1186	1195	1216	1235	1241	545
35°	1013	1026	1056	1086	1098	633
45°	813	831	871	914	932	629
55°	608	627	677	730	752	546
65°	398	422	484	538	564	397
75°	201	232	291	343	356	214
85°	44	56	64	64	60	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1398.7	1398.7	1398.7	1398.7	1398.7
2.5°	1389.8	1393.0	1399.5	1402.0	1402.0
5°	1383.2	1386.5	1393.8	1397.1	1397.1
7.5°	1372.6	1375.9	1384.9	1388.9	1389.8
10°	1357.2	1361.2	1370.2	1376.7	1376.7
12.5°	1337.6	1341.7	1353.1	1361.2	1362.1
15°	1313.1	1318.8	1331.9	1341.7	1344.1
17.5°	1284.6	1293.6	1308.3	1320.5	1322.9
20°	1254.5	1263.4	1280.5	1294.4	1297.7
22.5°	1221.0	1229.2	1249.6	1266.7	1270.8
25°	1186.0	1195.0	1216.1	1234.9	1241.4
27.5°	1144.4	1155.0	1180.3	1201.5	1208.0
30°	1102.0	1115.1	1141.2	1164.8	1172.1
32.5°	1058.8	1071.1	1100.4	1125.7	1135.4
35°	1013.2	1026.2	1056.4	1085.7	1098.0
37.5°	965.1	978.1	1010.7	1044.2	1055.6
40°	915.4	930.9	965.9	1001.8	1014.0
42.5°	864.8	881.1	917.8	957.8	974.1
45°	812.7	830.6	871.4	913.7	931.7
47.5°	765.4	780.1	822.4	868.9	886.0
50°	714.9	728.7	776.0	822.4	840.4
52.5°	663.5	676.5	727.1	776.0	798.0
55°	608.1	626.8	677.4	729.5	751.5
57.5°	559.2	576.3	628.5	681.4	702.6
60°	506.2	524.1	580.4	634.2	657.0
62.5°	453.2	472.8	529.8	587.7	608.9
65°	397.8	422.2	484.2	538.0	564.1
67.5°	350.5	374.1	435.3	491.5	514.3
70°	297.5	325.2	386.4	443.4	467.9
72.5°	247.8	275.5	338.3	395.3	419.8
75°	201.3	231.5	291.0	343.2	356.2
77.5°	156.5	185.0	244.5	274.7	288.5
80°	113.3	141.0	185.0	205.4	208.7
82.5°	76.6	100.3	125.5	131.2	128.0
85°	44.0	56.2	63.6	63.6	59.5
87.5°	17.9	17.9	15.5	9.8	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)