

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: P475263

Luminaire Tested: **22CZ2-39HE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475263
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-SQR-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3797.3 lumens
Efficiency: N/A
Efficacy: 133.2 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

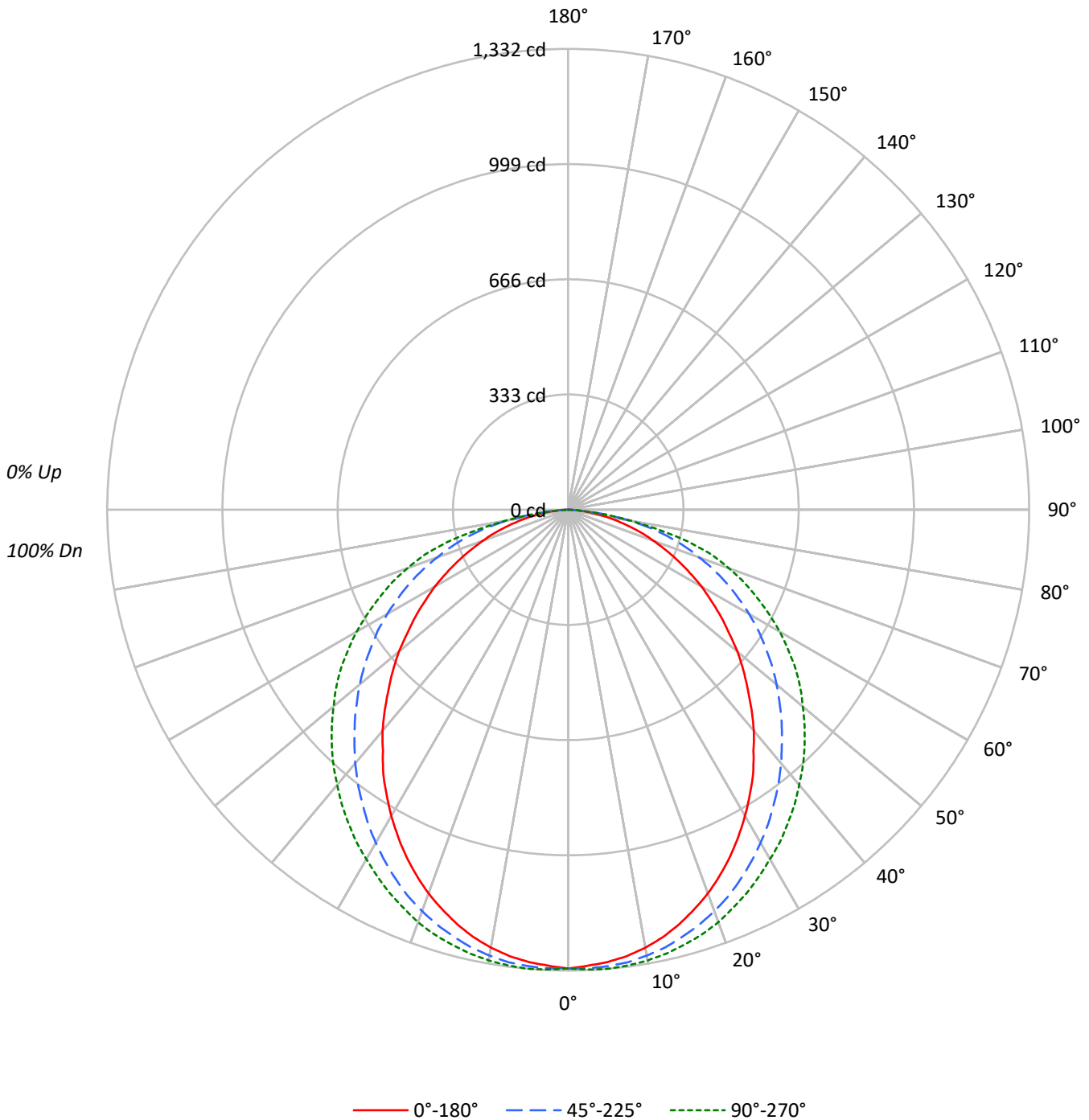
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3569	3569	3569
5°	3544	3578	3598
10°	3512	3575	3615
15°	3455	3560	3625
20°	3380	3536	3633
25°	3286	3499	3628
30°	3175	3455	3623
35°	3061	3404	3635
40°	2931	3362	3647
45°	2791	3320	3676
50°	2671	3290	3705
55°	2528	3263	3763
60°	2396	3250	3803
65°	2238	3224	3833
70°	2056	3175	3885
75°	1856	3092	3747
80°	1592	2738	2822
85°	1281	1615	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.8	3.3
10°-20°	359.5	9.5
20°-30°	540.0	14.2
30°-40°	644.0	17.0
40°-50°	665.9	17.5
50°-60°	612.2	16.1
60°-70°	487.4	12.8
70°-80°	297.8	7.8
80°-90°	64.7	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°	1025.3	27.0
0°-40°	1669.4	44.0
0°-60°	2947.4	77.6
0°-90°	3797.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3797.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1312	1316	1325	1330	1332	124
15°	1240	1254	1278	1296	1301	349
25°	1107	1134	1179	1211	1222	509
35°	932	971	1036	1090	1107	581
45°	734	786	872	943	966	567
55°	539	598	696	775	802	482
65°	351	411	506	577	602	348
75°	178	231	297	350	360	190
85°	42	50	52	45	42	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1326.4	1326.4	1326.4	1326.4	1326.4
2.5°	1319.2	1321.0	1326.4	1330.2	1330.2
5°	1312.1	1315.6	1324.6	1330.2	1332.0
7.5°	1301.3	1306.7	1319.2	1326.4	1328.4
10°	1285.1	1292.3	1308.5	1319.2	1322.8
12.5°	1265.2	1276.0	1295.9	1310.3	1313.8
15°	1240.1	1254.4	1277.7	1295.9	1301.3
17.5°	1211.1	1229.1	1258.0	1279.7	1286.9
20°	1180.4	1198.6	1234.7	1259.8	1268.8
22.5°	1144.5	1167.9	1209.3	1238.3	1245.4
25°	1106.6	1133.6	1178.6	1211.1	1221.9
27.5°	1065.2	1097.7	1146.3	1186.0	1195.0
30°	1021.9	1056.2	1112.0	1155.3	1166.1
32.5°	976.8	1016.5	1075.9	1124.6	1139.1
35°	931.7	971.4	1036.2	1090.5	1106.6
37.5°	879.5	926.4	998.5	1054.4	1074.1
40°	834.4	879.5	957.1	1018.3	1038.2
42.5°	784.0	832.6	913.8	980.4	1003.9
45°	733.5	785.8	872.3	942.7	966.0
47.5°	686.6	738.9	829.0	903.0	926.4
50°	638.0	692.0	785.8	861.5	884.9
52.5°	585.7	645.2	742.5	818.3	845.4
55°	538.9	598.3	695.6	775.0	802.1
57.5°	490.2	551.4	652.5	728.1	753.4
60°	445.1	504.6	603.9	677.7	706.6
62.5°	396.5	457.7	555.0	627.2	654.3
65°	351.4	411.0	506.4	576.8	601.9
67.5°	306.3	366.0	455.9	522.7	551.4
70°	261.3	320.9	403.6	468.7	493.8
72.5°	221.8	274.0	353.2	412.8	436.2
75°	178.5	230.7	297.4	349.6	360.4
77.5°	138.8	185.7	241.5	264.8	268.6
80°	102.7	138.8	176.7	182.1	182.1
82.5°	68.4	95.5	109.9	111.7	109.9
85°	41.5	50.5	52.3	45.1	41.5
87.5°	14.4	14.4	9.0	5.4	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)