

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: P474828

Luminaire Tested: **22CZ2-39HE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474828
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4072.8 lumens
Efficiency: N/A
Efficacy: 142.9 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

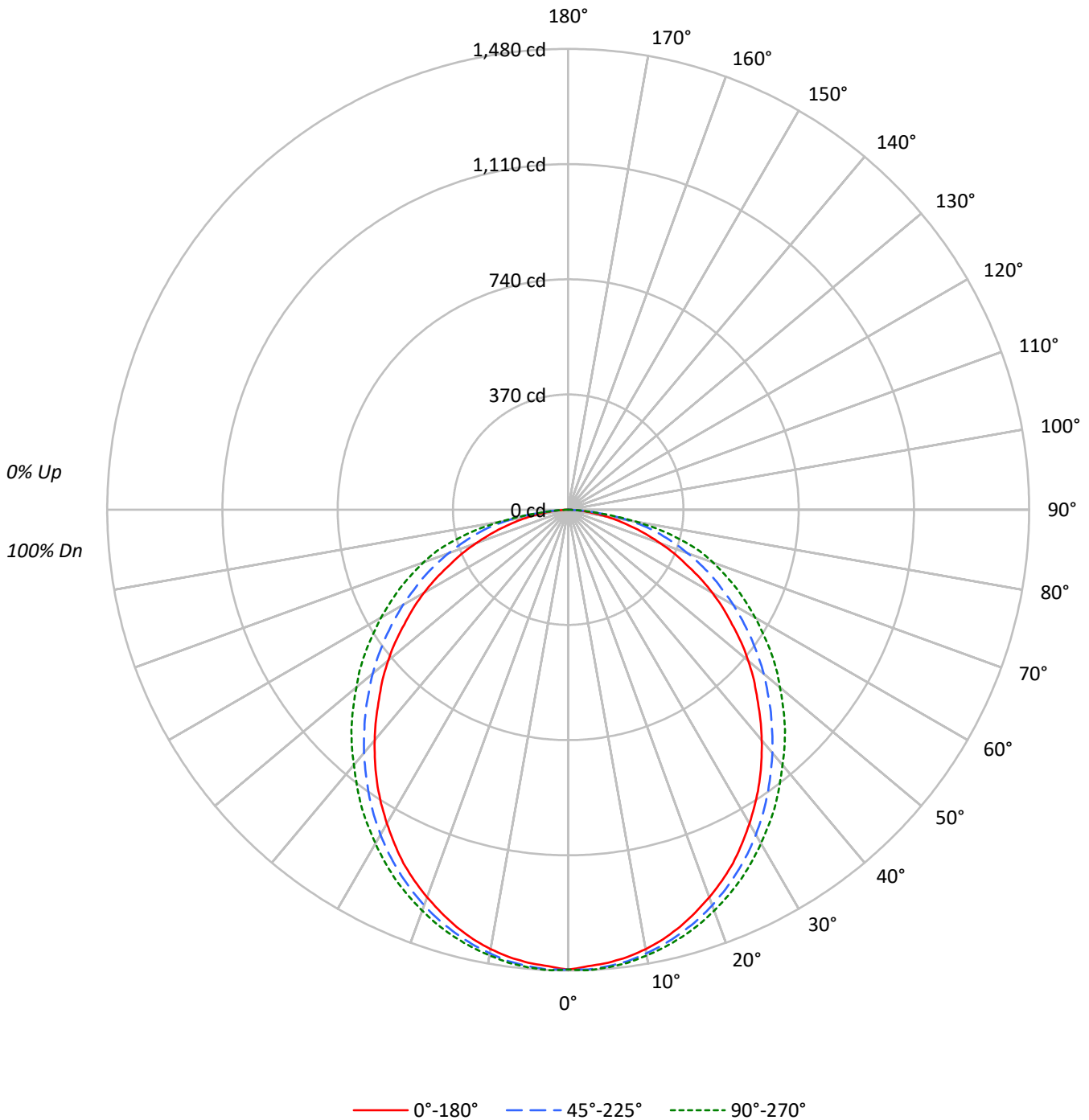
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3975	3975	3975
5°	3945	3976	3985
10°	3916	3954	3972
15°	3863	3918	3954
20°	3794	3872	3924
25°	3719	3813	3892
30°	3616	3744	3846
35°	3515	3665	3809
40°	3395	3583	3761
45°	3266	3502	3744
50°	3160	3430	3715
55°	3012	3356	3723
60°	2877	3298	3733
65°	2674	3256	3792
70°	2472	3210	3888
75°	2210	3195	3910
80°	1853	3028	3414
85°	1436	2072	1939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	3.4
10°-20°	396.1	9.7
20°-30°	590.6	14.5
30°-40°	697.3	17.1
40°-50°	710.6	17.4
50°-60°	640.9	15.7
60°-70°	503.7	12.4
70°-80°	315.4	7.7
80°-90°	78.6	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°	1126.3	27.7
0°-40°	1823.6	44.8
0°-60°	3175.1	78.0
0°-90°	4072.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4072.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1477	1477	1477	1477	1477	
5°	1461	1464	1472	1475	1475	139
15°	1387	1393	1406	1417	1419	391
25°	1252	1262	1284	1304	1311	576
35°	1070	1084	1116	1146	1159	669
45°	858	877	920	965	984	664
55°	642	662	715	770	794	576
65°	420	446	511	568	596	419
75°	213	244	307	362	376	226
85°	46	59	67	67	63	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1477.0	1477.0	1477.0	1477.0	1477.0
2.5°	1467.5	1471.0	1477.9	1480.4	1480.4
5°	1460.6	1464.1	1471.8	1475.3	1475.3
7.5°	1449.5	1452.9	1462.4	1466.7	1467.5
10°	1433.1	1437.4	1446.9	1453.8	1453.8
12.5°	1412.4	1416.8	1428.8	1437.4	1438.3
15°	1386.6	1392.7	1406.4	1416.8	1419.3
17.5°	1356.5	1366.0	1381.5	1394.4	1397.0
20°	1324.7	1334.1	1352.2	1366.8	1370.3
22.5°	1289.4	1298.0	1319.5	1337.6	1341.9
25°	1252.4	1261.8	1284.2	1304.0	1310.9
27.5°	1208.5	1219.6	1246.3	1268.7	1275.6
30°	1163.7	1177.5	1205.0	1230.0	1237.7
32.5°	1118.1	1131.0	1162.0	1188.7	1199.0
35°	1069.9	1083.7	1115.5	1146.5	1159.4
37.5°	1019.1	1032.9	1067.3	1102.6	1114.6
40°	966.6	982.9	1020.0	1057.8	1070.7
42.5°	913.2	930.4	969.2	1011.3	1028.6
45°	858.1	877.1	920.1	964.9	983.8
47.5°	808.2	823.7	868.5	917.5	935.6
50°	754.9	769.5	819.4	868.5	887.4
52.5°	700.6	714.4	767.8	819.4	842.6
55°	642.1	661.9	715.3	770.3	793.6
57.5°	590.5	608.5	663.6	719.6	741.9
60°	534.5	553.4	612.8	669.6	693.7
62.5°	478.6	499.2	559.5	620.6	643.0
65°	420.0	445.9	511.3	568.1	595.6
67.5°	370.1	395.1	459.6	519.0	543.1
70°	314.2	343.4	408.0	468.2	494.1
72.5°	261.7	290.9	357.2	417.5	443.3
75°	212.6	244.4	307.3	362.4	376.1
77.5°	165.3	195.4	258.2	290.1	304.7
80°	119.6	148.9	195.4	216.9	220.3
82.5°	80.9	105.9	132.6	138.6	135.1
85°	46.5	59.4	67.1	67.1	62.8
87.5°	18.9	18.9	16.4	10.3	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)