

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: P475183

Luminaire Tested: **22CZ2-50VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475183  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-50VHE-HRP-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP  
INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4198.9 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

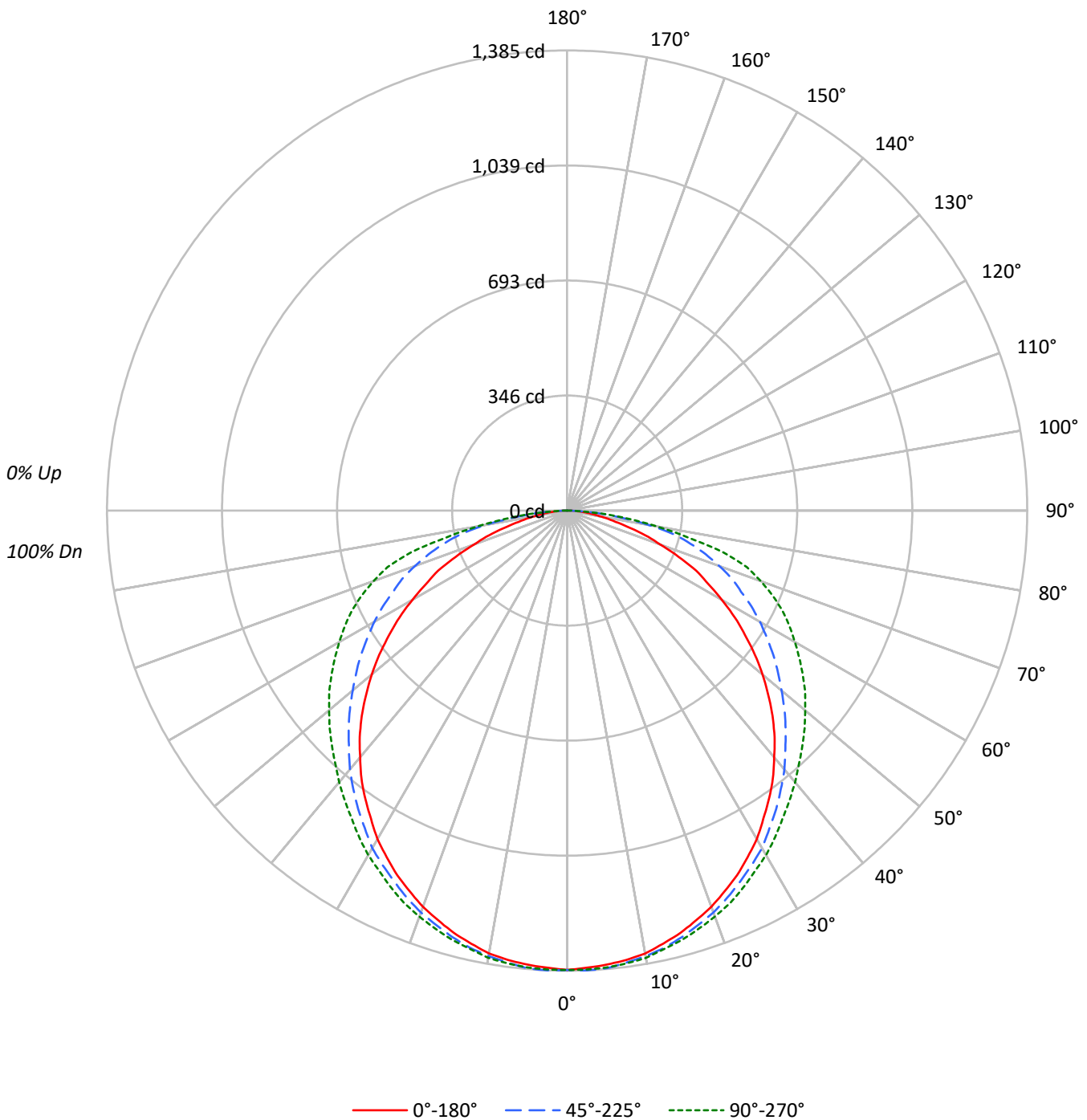
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3721	3721	3721
5°	3706	3735	3728
10°	3699	3720	3735
15°	3667	3704	3726
20°	3634	3686	3724
25°	3594	3657	3720
30°	3547	3646	3720
35°	3480	3603	3715
40°	3405	3573	3750
45°	3326	3538	3810
50°	3216	3526	3914
55°	3069	3554	4064
60°	2894	3606	4263
65°	2732	3677	4555
70°	2334	3835	4877
75°	1956	3995	5068
80°	1602	3857	4228
85°	1386	2859	3106



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.0	3.1
10°-20°	374.9	8.9
20°-30°	568.1	13.5
30°-40°	686.0	16.3
40°-50°	720.8	17.2
50°-60°	678.2	16.2
60°-70°	565.5	13.5
70°-80°	374.7	8.9
80°-90°	99.8	2.4
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°	1074.0	25.6
0°-40°	1760.0	41.9
0°-60°	3158.9	75.2
0°-90°	4198.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4198.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1383	1383	1383	1383	1383	
5°	1372	1375	1383	1383	1380	130
15°	1316	1322	1330	1335	1338	371
25°	1211	1219	1232	1248	1253	557
35°	1059	1070	1097	1120	1131	662
45°	874	887	930	977	1001	673
55°	654	684	758	834	866	585
65°	429	466	578	673	715	418
75°	188	262	384	464	487	204
85°	45	69	93	101	101	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1382.6	1382.6	1382.6	1382.6	1382.6
2.5°	1377.4	1380.0	1385.4	1385.4	1382.6
5°	1372.0	1374.6	1382.6	1382.6	1380.0
7.5°	1364.1	1366.9	1372.0	1377.4	1374.6
10°	1353.6	1356.1	1361.5	1366.9	1366.9
12.5°	1335.1	1337.6	1348.2	1351.0	1351.0
15°	1316.3	1321.7	1329.7	1335.1	1337.6
17.5°	1292.7	1297.9	1308.4	1319.2	1319.2
20°	1268.9	1274.0	1287.3	1297.9	1300.4
22.5°	1239.6	1247.6	1260.9	1274.0	1279.4
25°	1210.6	1218.6	1231.7	1247.6	1253.0
27.5°	1176.0	1183.9	1202.7	1221.1	1223.7
30°	1141.6	1149.5	1173.4	1189.3	1197.3
32.5°	1099.2	1109.7	1133.6	1157.5	1165.4
35°	1059.4	1070.2	1096.7	1120.5	1131.0
37.5°	1017.1	1027.6	1056.9	1086.1	1099.2
40°	969.4	982.7	1017.1	1048.9	1067.4
42.5°	924.4	937.8	972.2	1014.5	1033.0
45°	874.1	887.2	929.8	977.3	1001.2
47.5°	821.0	836.9	887.2	945.7	969.4
50°	768.1	786.6	842.3	908.5	935.0
52.5°	712.5	736.3	800.0	871.6	903.1
55°	654.2	683.5	757.6	834.4	866.2
57.5°	598.5	625.2	712.5	794.6	829.0
60°	537.7	572.1	670.1	754.8	792.0
62.5°	479.4	516.6	625.2	715.3	754.8
65°	429.1	466.1	577.5	672.7	715.3
67.5°	362.9	413.2	537.7	627.8	670.1
70°	296.7	365.5	487.4	580.0	619.8
72.5°	246.4	312.6	437.1	529.7	566.9
75°	188.1	262.3	384.2	463.5	487.4
77.5°	140.4	217.1	328.5	368.3	370.9
80°	103.4	166.8	248.9	262.3	272.8
82.5°	71.6	116.5	161.7	177.3	182.7
85°	44.9	68.8	92.6	100.6	100.6
87.5°	23.9	26.4	31.8	31.8	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)