

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: P475013

Luminaire Tested: **22CZ2-70VHE-RDP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475013  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-70VHE-RDP-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4508.5 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

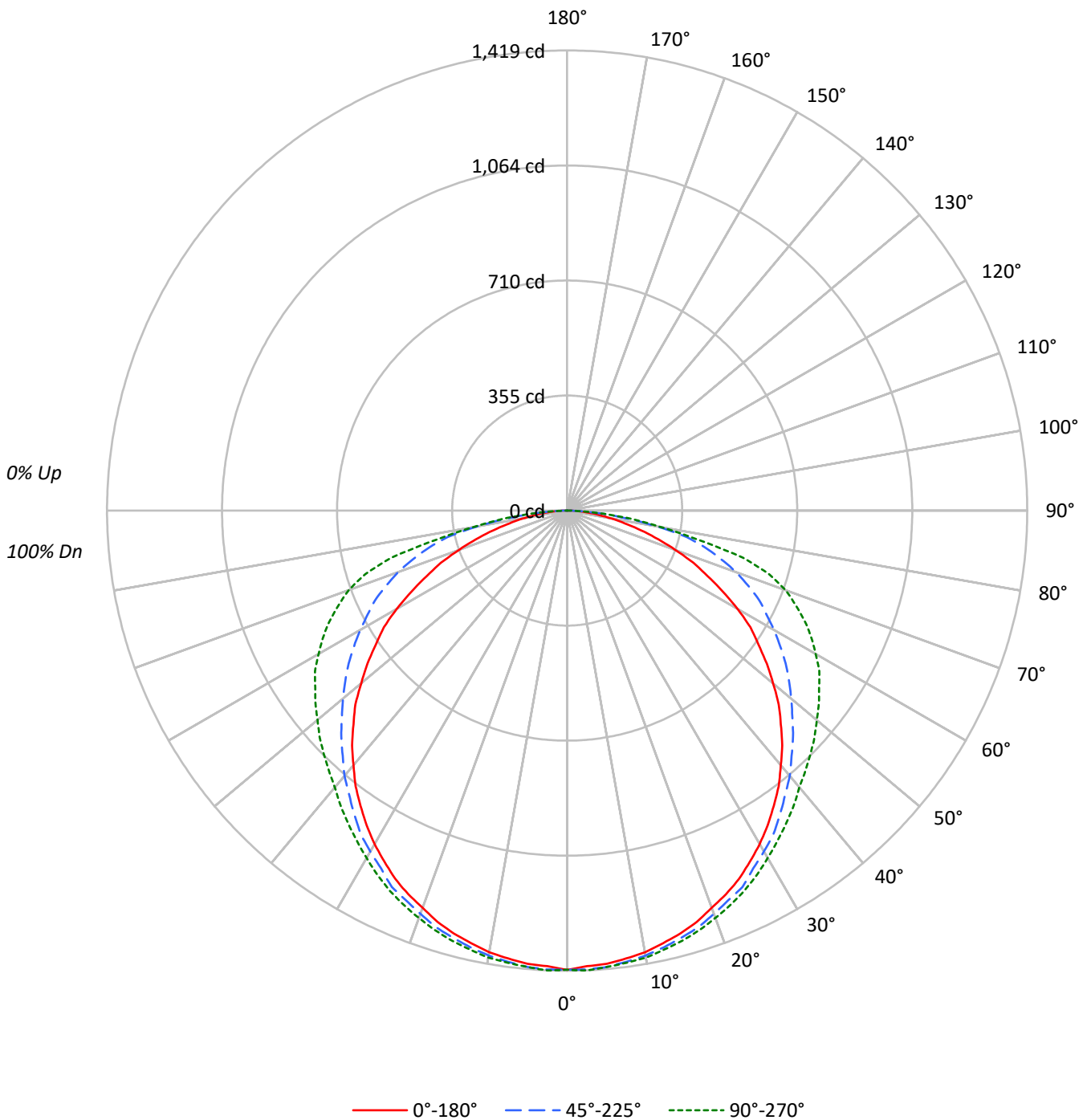
Input Watts (W): 49.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	3811	3811	3811
5°	3790	3816	3816
10°	3778	3807	3824
15°	3761	3797	3825
20°	3733	3789	3828
25°	3722	3801	3841
30°	3690	3772	3844
35°	3649	3759	3868
40°	3600	3751	3914
45°	3547	3749	4039
50°	3471	3776	4207
55°	3377	3859	4450
60°	3267	3962	4766
65°	3040	4161	5154
70°	2792	4359	5637
75°	2450	4585	5829
80°	2109	4367	4576
85°	1843	3174	3480



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.0	3.0
10°-20°	384.6	8.5
20°-30°	586.8	13.0
30°-40°	716.5	15.9
40°-50°	766.1	17.0
50°-60°	739.5	16.4
60°-70°	636.6	14.1
70°-80°	430.7	9.6
80°-90°	113.7	2.5
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°	1105.4	24.5
0°-40°	1821.9	40.4
0°-60°	3327.5	73.8
0°-90°	4508.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4508.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1403	1406	1413	1413	1413	133
15°	1350	1353	1363	1370	1373	381
25°	1254	1260	1280	1287	1294	577
35°	1111	1121	1144	1167	1178	695
45°	932	948	985	1035	1061	719
55°	720	743	823	905	948	645
65°	478	524	654	756	809	475
75°	236	312	441	531	561	253
85°	60	83	103	106	113	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1416.1	1416.1	1416.1	1416.1	1416.1
2.5°	1406.2	1409.5	1416.1	1416.1	1419.4
5°	1402.9	1406.2	1412.8	1412.8	1412.8
7.5°	1393.1	1396.3	1402.9	1406.2	1406.2
10°	1382.8	1386.5	1393.1	1396.3	1399.6
12.5°	1366.4	1369.7	1379.5	1386.5	1386.5
15°	1349.9	1353.2	1363.1	1369.7	1373.0
17.5°	1329.8	1336.7	1346.6	1353.2	1356.5
20°	1303.4	1310.0	1323.2	1333.4	1336.7
22.5°	1280.3	1286.9	1300.1	1310.0	1316.6
25°	1253.6	1260.2	1280.3	1286.9	1293.5
27.5°	1220.4	1227.3	1243.8	1256.9	1266.8
30°	1187.4	1194.0	1213.8	1230.6	1237.2
32.5°	1150.8	1160.7	1184.1	1197.3	1207.2
35°	1110.9	1120.8	1144.2	1167.3	1177.5
37.5°	1071.4	1081.3	1104.4	1134.3	1147.5
40°	1024.9	1038.1	1067.8	1107.7	1114.2
42.5°	981.8	998.2	1024.9	1071.4	1087.9
45°	932.0	948.5	985.1	1034.8	1061.2
47.5°	885.5	902.0	941.9	1001.5	1034.8
50°	829.2	852.2	902.0	971.9	1004.8
52.5°	776.1	795.9	862.5	938.6	978.5
55°	719.8	742.8	822.6	905.3	948.5
57.5°	670.0	689.8	779.4	872.3	922.1
60°	607.1	633.4	736.2	835.8	885.5
62.5°	540.5	580.4	693.1	795.9	848.9
65°	477.5	524.0	653.5	756.0	809.4
67.5°	421.2	470.9	603.8	713.2	762.9
70°	354.9	417.9	554.0	660.1	716.5
72.5°	295.3	364.8	497.6	603.8	653.5
75°	235.6	311.8	441.0	530.6	560.6
77.5°	182.2	255.4	378.0	404.7	408.0
80°	136.1	202.4	281.8	285.1	295.3
82.5°	92.9	142.7	182.2	199.1	202.4
85°	59.7	83.0	102.8	106.1	112.7
87.5°	26.7	30.0	36.6	33.3	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)