

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: P475063

Luminaire Tested: **22CZ2-24VHE-RDP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475063  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24VHE-RDP-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1650.9 lumens  
Efficiency: N/A  
Efficacy: 100.1 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

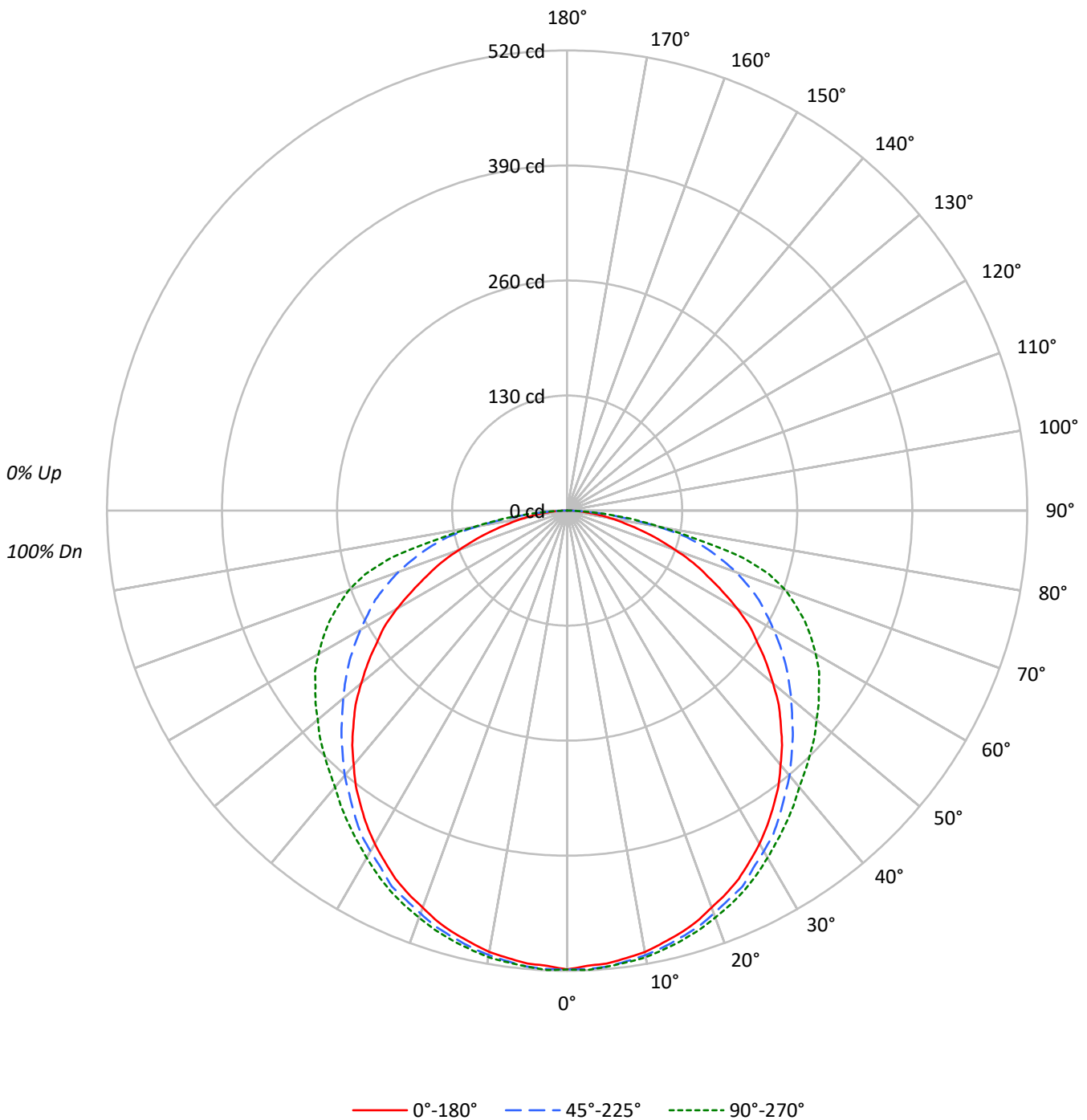
Input Watts (W): 16.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1395	1395	1395
5°	1388	1397	1397
10°	1384	1394	1400
15°	1377	1390	1400
20°	1367	1387	1402
25°	1363	1392	1406
30°	1351	1381	1408
35°	1336	1376	1417
40°	1318	1374	1433
45°	1299	1373	1479
50°	1271	1383	1540
55°	1237	1413	1629
60°	1196	1451	1745
65°	1114	1524	1887
70°	1023	1596	2064
75°	897	1679	2135
80°	772	1599	1675
85°	673	1164	1275



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.1	3.0
10°-20°	140.8	8.5
20°-30°	214.9	13.0
30°-40°	262.4	15.9
40°-50°	280.5	17.0
50°-60°	270.8	16.4
60°-70°	233.1	14.1
70°-80°	157.7	9.6
80°-90°	41.6	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°	404.8	24.5
0°-40°	667.1	40.4
0°-60°	1218.4	73.8
0°-90°	1650.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1650.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	514	515	517	517	517	49
15°	494	496	499	502	503	139
25°	459	462	469	471	474	211
35°	407	410	419	427	431	255
45°	341	347	361	379	389	263
55°	264	272	301	332	347	236
65°	175	192	239	277	296	174
75°	86	114	162	194	205	93
85°	22	30	38	39	41	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	518.5	518.5	518.5	518.5	518.5
2.5°	514.9	516.1	518.5	518.5	519.7
5°	513.7	514.9	517.3	517.3	517.3
7.5°	510.1	511.3	513.7	514.9	514.9
10°	506.4	507.7	510.1	511.3	512.5
12.5°	500.3	501.5	505.1	507.7	507.7
15°	494.3	495.5	499.1	501.5	502.7
17.5°	486.9	489.5	493.1	495.5	496.7
20°	477.3	479.7	484.5	488.3	489.5
22.5°	468.8	471.2	476.1	479.7	482.1
25°	459.0	461.5	468.8	471.2	473.7
27.5°	446.9	449.4	455.4	460.3	463.9
30°	434.8	437.2	444.4	450.6	453.0
32.5°	421.4	425.0	433.6	438.4	442.0
35°	406.8	410.4	419.0	427.4	431.2
37.5°	392.3	395.9	404.4	415.4	420.2
40°	375.3	380.1	391.0	405.6	408.0
42.5°	359.5	365.5	375.3	392.3	398.3
45°	341.3	347.3	360.7	378.9	388.6
47.5°	324.3	330.3	344.9	366.7	378.9
50°	303.6	312.1	330.3	355.9	367.9
52.5°	284.2	291.4	315.8	343.7	358.3
55°	263.6	272.0	301.2	331.5	347.3
57.5°	245.3	252.6	285.4	319.4	337.7
60°	222.3	231.9	269.6	306.0	324.3
62.5°	197.9	212.5	253.8	291.4	310.9
65°	174.9	191.9	239.3	276.8	296.4
67.5°	154.2	172.4	221.1	261.1	279.4
70°	130.0	153.0	202.9	241.7	262.3
72.5°	108.1	133.6	182.2	221.1	239.3
75°	86.3	114.2	161.5	194.3	205.3
77.5°	66.7	93.5	138.4	148.2	149.4
80°	49.8	74.1	103.2	104.4	108.1
82.5°	34.0	52.3	66.7	72.9	74.1
85°	21.8	30.4	37.7	38.9	41.3
87.5°	9.8	11.0	13.4	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)