

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: P475908

Luminaire Tested: **22GR-LD5-32-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475908  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-32-F1-UNV-L840-CD1-U  
Description: GR 2'X2' LED TROFFER w/ F1 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3334.1 lumens  
Efficiency: N/A  
Efficacy: 133.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

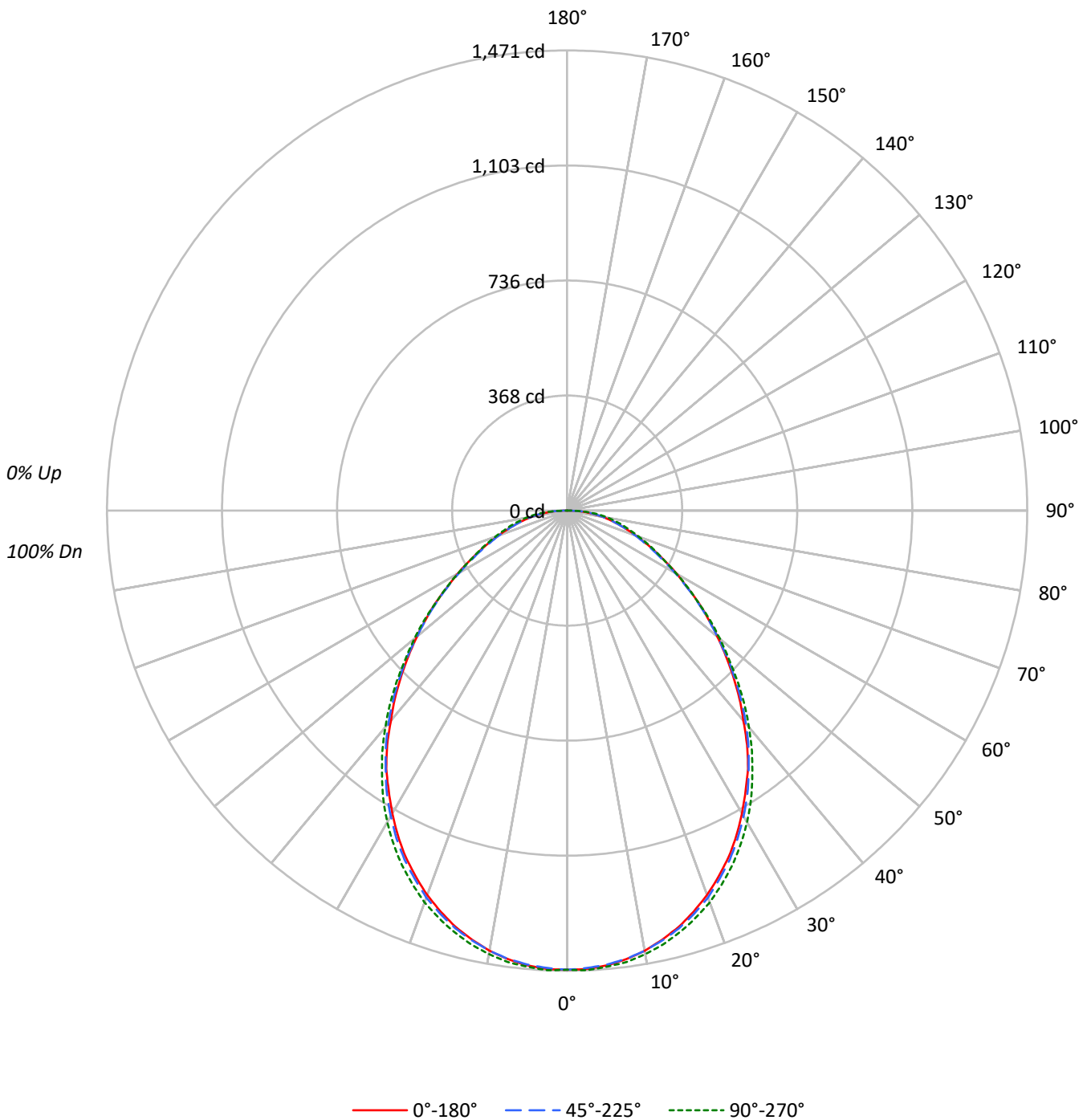
Input Watts (W): 25  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85					85			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	90	80	73	68	78	71	66	75	70	65	72	68	64	62					62			
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	31					31			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

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

	0°	45°	90°
0°	3950	3950	3950
5°	3942	3935	3954
10°	3904	3904	3934
15°	3839	3851	3886
20°	3745	3769	3817
25°	3628	3653	3711
30°	3473	3504	3574
35°	3312	3321	3391
40°	3077	3121	3176
45°	2857	2884	2927
50°	2625	2625	2666
55°	2408	2381	2395
60°	2179	2141	2172
65°	1987	1943	2006
70°	1836	1825	1913
75°	1769	1754	1930
80°	1787	1787	2049
85°	1868	1954	2343



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.4	4.2
10°-20°	389.7	11.7
20°-30°	566.6	17.0
30°-40°	634.2	19.0
40°-50°	585.3	17.6
50°-60°	456.8	13.7
60°-70°	309.2	9.3
70°-80°	184.6	5.5
80°-90°	69.4	2.1
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°	1094.7	32.8
0°-40°	1728.8	51.9
0°-60°	2770.9	83.1
0°-90°	3334.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3334.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1460	1457	1457	1462	1464	138
15°	1378	1378	1382	1391	1395	388
25°	1222	1222	1230	1243	1250	561
35°	1008	1007	1011	1026	1032	627
45°	751	755	758	764	769	579
55°	513	509	508	510	510	458
65°	312	309	305	311	315	311
75°	170	169	169	179	186	181
85°	60	59	63	73	76	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1467.9	1467.9	1467.9	1467.9	1467.9
2.5°	1466.5	1463.7	1463.7	1467.9	1470.7
5°	1459.5	1456.7	1456.7	1462.3	1463.7
7.5°	1446.8	1445.4	1445.4	1451.1	1455.3
10°	1428.6	1427.2	1428.6	1434.2	1439.8
12.5°	1404.7	1404.7	1407.5	1414.5	1420.1
15°	1377.9	1377.9	1382.2	1390.6	1394.8
17.5°	1344.2	1345.6	1351.2	1361.1	1365.3
20°	1307.6	1310.5	1316.1	1324.5	1332.9
22.5°	1265.5	1268.3	1273.9	1286.5	1292.2
25°	1221.9	1221.9	1230.3	1243.0	1250.0
27.5°	1171.3	1172.7	1181.1	1195.2	1202.2
30°	1117.8	1122.0	1127.7	1140.3	1150.2
32.5°	1061.6	1065.8	1072.8	1086.9	1093.9
35°	1008.1	1006.7	1011.0	1026.4	1032.1
37.5°	944.9	946.3	951.9	963.2	970.2
40°	876.0	883.0	888.6	897.1	904.1
42.5°	815.5	819.7	824.0	832.4	838.0
45°	750.8	755.1	757.9	763.5	769.1
47.5°	687.6	689.0	693.2	696.0	700.2
50°	627.1	628.5	627.1	631.3	636.9
52.5°	568.1	566.6	566.6	568.1	576.5
55°	513.2	509.0	507.6	510.4	510.4
57.5°	452.8	451.3	451.3	449.9	457.0
60°	404.9	400.7	397.9	400.7	403.5
62.5°	355.7	351.5	348.7	354.3	354.3
65°	312.1	309.3	305.1	310.7	315.0
67.5°	270.0	267.2	265.7	272.8	278.4
70°	233.4	232.0	232.0	239.0	243.2
72.5°	199.7	198.3	198.3	208.1	212.3
75°	170.1	168.7	168.7	178.6	185.6
77.5°	140.6	139.2	143.4	151.9	158.9
80°	115.3	113.9	115.3	126.5	132.2
82.5°	87.2	87.2	90.0	101.2	106.9
85°	60.5	59.1	63.3	73.1	75.9
87.5°	30.9	32.3	33.7	39.4	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)