

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: P475910

Luminaire Tested: **22GR-LD5-40-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475910  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-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: 4188.8 lumens  
Efficiency: N/A  
Efficacy: 129.3 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

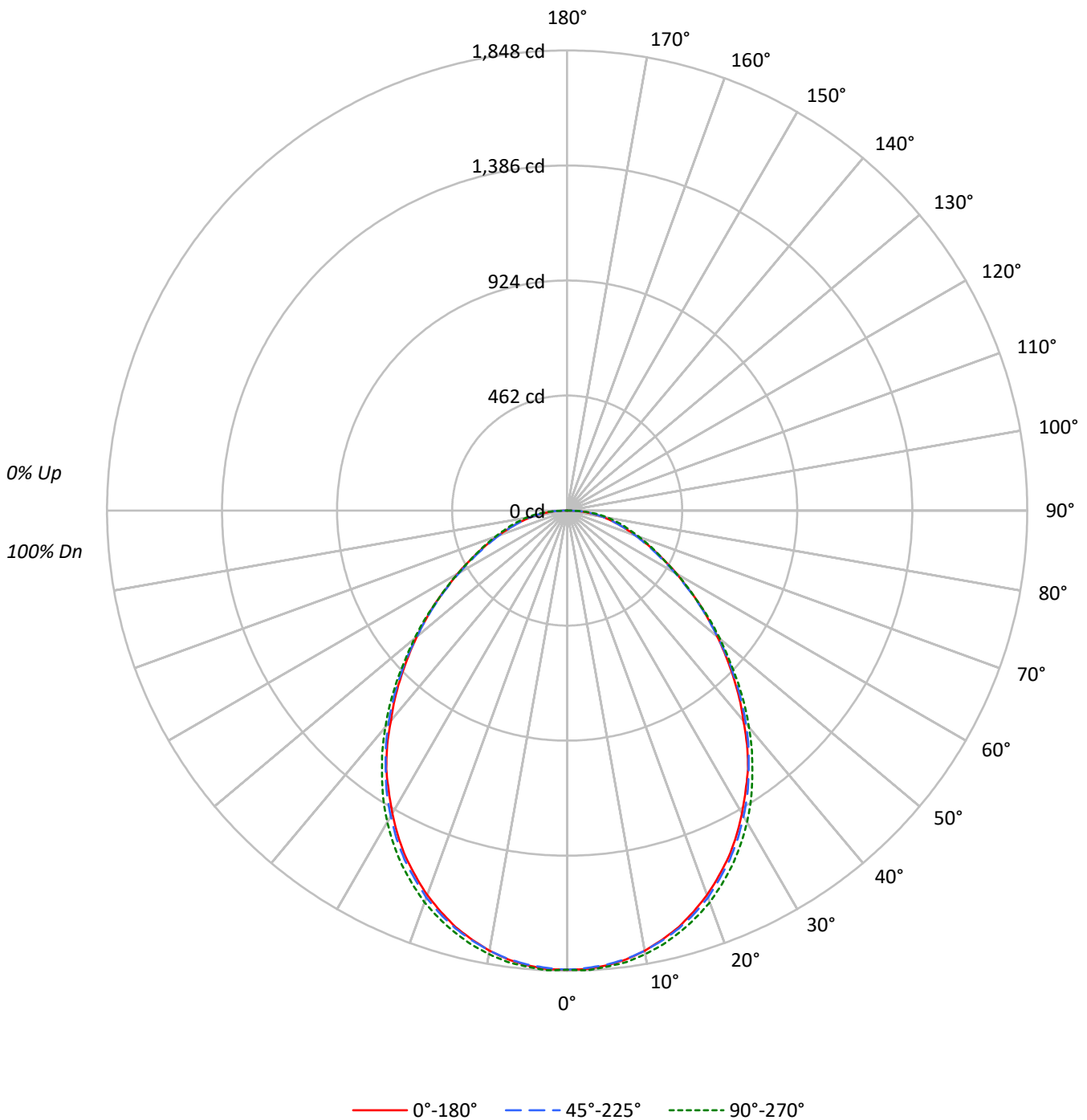
Input Watts (W): 32.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4963	4963	4963
5°	4953	4944	4967
10°	4904	4904	4943
15°	4823	4838	4882
20°	4704	4735	4796
25°	4558	4589	4663
30°	4364	4402	4490
35°	4161	4172	4259
40°	3866	3922	3990
45°	3590	3623	3677
50°	3298	3298	3350
55°	3025	2992	3008
60°	2738	2690	2729
65°	2497	2441	2520
70°	2307	2293	2404
75°	2222	2204	2425
80°	2245	2245	2574
85°	2347	2455	2946



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.9	4.2
10°-20°	489.6	11.7
20°-30°	711.8	17.0
30°-40°	796.7	19.0
40°-50°	735.4	17.6
50°-60°	573.9	13.7
60°-70°	388.5	9.3
70°-80°	232.0	5.5
80°-90°	87.2	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°	1375.3	32.8
0°-40°	2172.0	51.9
0°-60°	3481.2	83.1
0°-90°	4188.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4188.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1834	1830	1830	1837	1839	174
15°	1731	1731	1736	1747	1752	487
25°	1535	1535	1546	1562	1570	705
35°	1267	1265	1270	1290	1297	788
45°	943	949	952	959	966	728
55°	645	640	638	641	641	575
65°	392	389	383	390	396	391
75°	214	212	212	224	233	227
85°	76	74	80	92	95	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1844.2	1844.2	1844.2	1844.2	1844.2
2.5°	1842.5	1838.9	1838.9	1844.2	1847.8
5°	1833.6	1830.1	1830.1	1837.2	1838.9
7.5°	1817.7	1816.0	1816.0	1823.0	1828.3
10°	1794.8	1793.0	1794.8	1801.8	1808.9
12.5°	1764.7	1764.7	1768.3	1777.1	1784.2
15°	1731.2	1731.2	1736.5	1747.1	1752.4
17.5°	1688.8	1690.5	1697.6	1710.0	1715.3
20°	1642.8	1646.4	1653.4	1664.0	1674.6
22.5°	1589.8	1593.4	1600.4	1616.3	1623.4
25°	1535.1	1535.1	1545.7	1561.6	1570.4
27.5°	1471.5	1473.3	1483.9	1501.5	1510.4
30°	1404.4	1409.7	1416.7	1432.6	1445.0
32.5°	1333.7	1339.0	1347.8	1365.5	1374.3
35°	1266.6	1264.8	1270.1	1289.5	1296.6
37.5°	1187.1	1188.9	1195.9	1210.0	1218.9
40°	1100.5	1109.4	1116.4	1127.0	1135.9
42.5°	1024.6	1029.9	1035.2	1045.8	1052.8
45°	943.3	948.6	952.1	959.2	966.3
47.5°	863.8	865.6	870.9	874.4	879.7
50°	787.9	789.6	787.9	793.2	800.2
52.5°	713.7	711.9	711.9	713.7	724.3
55°	644.8	639.5	637.7	641.2	641.2
57.5°	568.8	567.0	567.0	565.3	574.1
60°	508.8	503.5	499.9	503.5	507.0
62.5°	446.9	441.6	438.1	445.2	445.2
65°	392.2	388.6	383.3	390.4	395.7
67.5°	339.2	335.6	333.9	342.7	349.8
70°	293.2	291.5	291.5	300.3	305.6
72.5°	250.8	249.1	249.1	261.4	266.7
75°	213.7	212.0	212.0	224.3	233.2
77.5°	176.6	174.9	180.2	190.8	199.6
80°	144.9	143.1	144.9	159.0	166.1
82.5°	109.5	109.5	113.1	127.2	134.3
85°	76.0	74.2	79.5	91.9	95.4
87.5°	38.9	40.6	42.4	49.5	49.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)