

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: P475883

Luminaire Tested: **22GR-LD5-28-F1-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475883  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-28-F1-UNV-L830-CD1-U  
Description: GR 2'X2' LED TROFFER w/ F1 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2739.7 lumens  
Efficiency: N/A  
Efficacy: 130.5 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

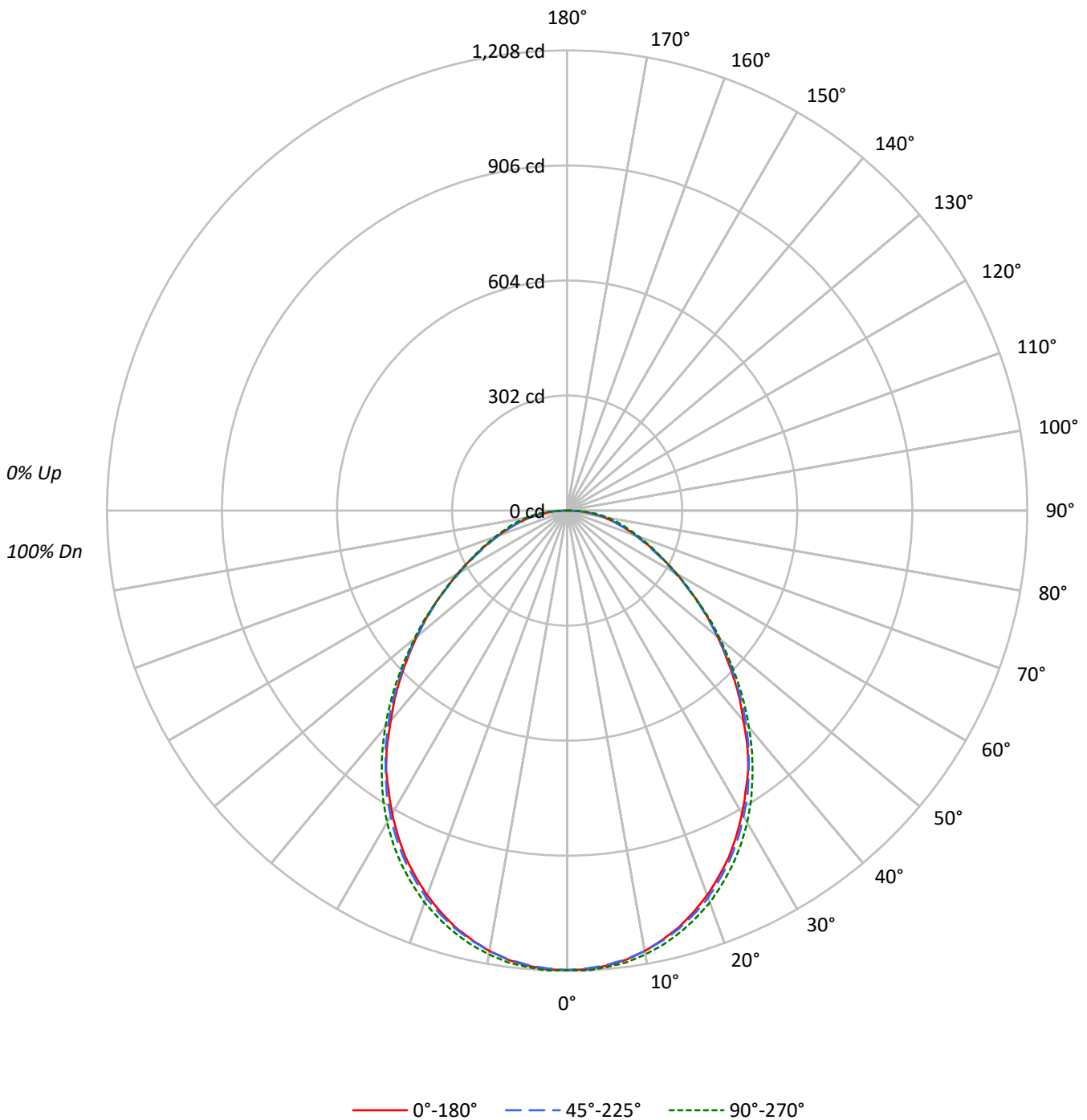
Input Watts (W): 21  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3246	3246	3246
5°	3240	3233	3249
10°	3208	3208	3233
15°	3154	3164	3193
20°	3077	3097	3137
25°	2981	3002	3050
30°	2854	2879	2937
35°	2721	2729	2786
40°	2529	2565	2610
45°	2348	2370	2405
50°	2157	2157	2191
55°	1978	1957	1968
60°	1791	1760	1785
65°	1633	1596	1648
70°	1509	1500	1573
75°	1454	1441	1586
80°	1468	1468	1683
85°	1535	1606	1927



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.7	4.2
10°-20°	320.2	11.7
20°-30°	465.6	17.0
30°-40°	521.1	19.0
40°-50°	481.0	17.6
50°-60°	375.3	13.7
60°-70°	254.1	9.3
70°-80°	151.7	5.5
80°-90°	57.0	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°	899.5	32.8
0°-40°	1420.6	51.9
0°-60°	2276.9	83.1
0°-90°	2739.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2739.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1199	1197	1197	1202	1203	114
15°	1132	1132	1136	1143	1146	319
25°	1004	1004	1011	1021	1027	461
35°	828	827	831	843	848	515
45°	617	620	623	627	632	476
55°	422	418	417	419	419	376
65°	256	254	251	255	259	255
75°	140	139	139	147	152	148
85°	50	48	52	60	62	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1206.2	1206.2	1206.2	1206.2	1206.2
2.5°	1205.1	1202.8	1202.8	1206.2	1208.5
5°	1199.3	1197.0	1197.0	1201.6	1202.8
7.5°	1188.9	1187.7	1187.7	1192.4	1195.8
10°	1173.9	1172.7	1173.9	1178.5	1183.1
12.5°	1154.2	1154.2	1156.6	1162.3	1167.0
15°	1132.3	1132.3	1135.8	1142.7	1146.2
17.5°	1104.6	1105.7	1110.3	1118.4	1121.9
20°	1074.5	1076.8	1081.5	1088.4	1095.3
22.5°	1039.9	1042.2	1046.8	1057.2	1061.8
25°	1004.0	1004.0	1011.0	1021.4	1027.1
27.5°	962.4	963.6	970.5	982.1	987.9
30°	918.5	922.0	926.6	937.0	945.1
32.5°	872.3	875.8	881.6	893.1	898.9
35°	828.4	827.3	830.7	843.4	848.1
37.5°	776.4	777.6	782.2	791.4	797.2
40°	719.8	725.6	730.2	737.1	742.9
42.5°	670.1	673.6	677.1	684.0	688.6
45°	617.0	620.4	622.8	627.4	632.0
47.5°	565.0	566.1	569.6	571.9	575.4
50°	515.3	516.5	515.3	518.8	523.4
52.5°	466.8	465.6	465.6	466.8	473.7
55°	421.7	418.3	417.1	419.4	419.4
57.5°	372.0	370.9	370.9	369.7	375.5
60°	332.8	329.3	327.0	329.3	331.6
62.5°	292.3	288.8	286.5	291.2	291.2
65°	256.5	254.2	250.7	255.3	258.8
67.5°	221.8	219.5	218.4	224.1	228.8
70°	191.8	190.6	190.6	196.4	199.9
72.5°	164.1	162.9	162.9	171.0	174.5
75°	139.8	138.6	138.6	146.7	152.5
77.5°	115.5	114.4	117.9	124.8	130.6
80°	94.7	93.6	94.7	104.0	108.6
82.5°	71.6	71.6	73.9	83.2	87.8
85°	49.7	48.5	52.0	60.1	62.4
87.5°	25.4	26.6	27.7	32.4	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)