

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: P475895

Luminaire Tested: **22GR-LD5-28-F1-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475895  
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-L835-CD1-U  
Description: GR 2'X2' LED TROFFER w/ F1 LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2839.1 lumens  
Efficiency: N/A  
Efficacy: 135.2 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

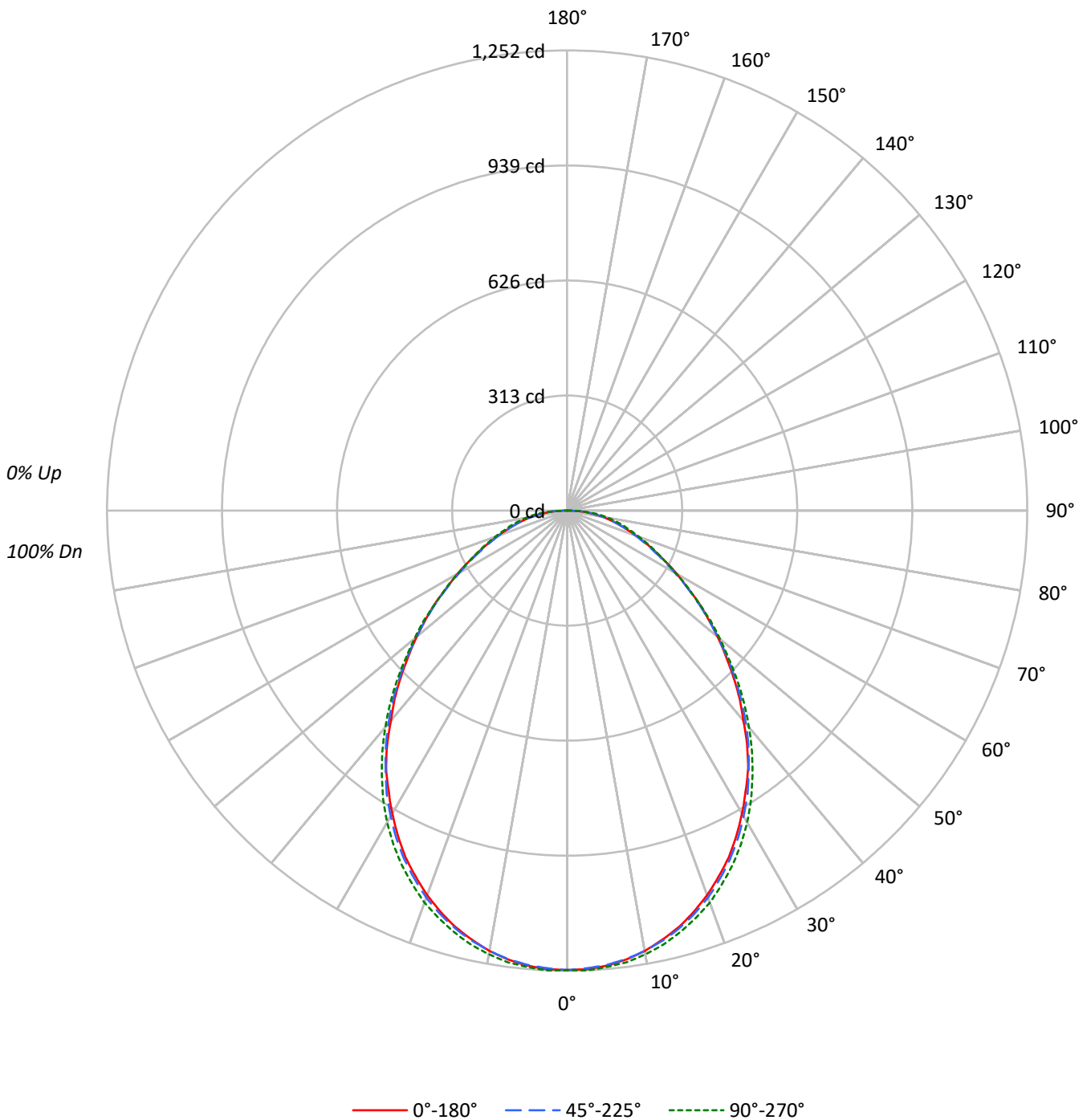
Input Watts (W): 21  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475895

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475895

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L835-CD1-U

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

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

	0°	45°	90°
0°	3364	3364	3364
5°	3357	3351	3367
10°	3324	3324	3350
15°	3269	3279	3309
20°	3189	3209	3250
25°	3089	3110	3160
30°	2958	2984	3043
35°	2820	2828	2887
40°	2620	2658	2705
45°	2433	2456	2492
50°	2236	2236	2271
55°	2050	2028	2039
60°	1856	1823	1849
65°	1692	1654	1708
70°	1564	1555	1629
75°	1507	1494	1643
80°	1522	1522	1743
85°	1590	1664	1998



TEST NUMBER: P475895

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.9	4.2
10°-20°	331.8	11.7
20°-30°	482.4	17.0
30°-40°	540.0	19.0
40°-50°	498.4	17.6
50°-60°	388.9	13.7
60°-70°	263.3	9.3
70°-80°	157.2	5.5
80°-90°	59.1	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°	932.1	32.8
0°-40°	1472.2	51.9
0°-60°	2359.5	83.1
0°-90°	2839.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2839.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1250	1250	1250	1250	1250	
5°	1243	1240	1240	1245	1246	118
15°	1173	1173	1177	1184	1188	330
25°	1040	1040	1048	1058	1064	478
35°	858	857	861	874	879	534
45°	639	643	645	650	655	493
55°	437	433	432	435	435	390
65°	266	263	260	265	268	265
75°	145	144	144	152	158	154
85°	52	50	54	62	65	55
90°	0	0	0	0	0	



TEST NUMBER: P475895

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1250.0	1250.0	1250.0	1250.0	1250.0
2.5°	1248.8	1246.4	1246.4	1250.0	1252.4
5°	1242.8	1240.4	1240.4	1245.2	1246.4
7.5°	1232.0	1230.8	1230.8	1235.6	1239.2
10°	1216.5	1215.3	1216.5	1221.2	1226.0
12.5°	1196.1	1196.1	1198.5	1204.5	1209.3
15°	1173.4	1173.4	1176.9	1184.1	1187.7
17.5°	1144.6	1145.8	1150.6	1159.0	1162.6
20°	1113.5	1115.9	1120.7	1127.9	1135.0
22.5°	1077.6	1080.0	1084.8	1095.5	1100.3
25°	1040.5	1040.5	1047.6	1058.4	1064.4
27.5°	997.4	998.5	1005.7	1017.7	1023.7
30°	951.9	955.4	960.2	971.0	979.4
32.5°	904.0	907.6	913.5	925.5	931.5
35°	858.5	857.3	860.9	874.0	878.8
37.5°	804.6	805.8	810.6	820.2	826.1
40°	745.9	751.9	756.7	763.9	769.9
42.5°	694.4	698.0	701.6	708.8	713.6
45°	639.4	643.0	645.3	650.1	654.9
47.5°	585.5	586.7	590.3	592.7	596.3
50°	534.0	535.2	534.0	537.6	542.4
52.5°	483.7	482.5	482.5	483.7	490.9
55°	437.0	433.4	432.2	434.6	434.6
57.5°	385.5	384.3	384.3	383.1	389.1
60°	344.8	341.2	338.8	341.2	343.6
62.5°	302.9	299.3	296.9	301.7	301.7
65°	265.8	263.4	259.8	264.6	268.2
67.5°	229.9	227.5	226.3	232.3	237.1
70°	198.8	197.6	197.6	203.5	207.1
72.5°	170.0	168.8	168.8	177.2	180.8
75°	144.9	143.7	143.7	152.1	158.0
77.5°	119.7	118.5	122.1	129.3	135.3
80°	98.2	97.0	98.2	107.8	112.5
82.5°	74.2	74.2	76.6	86.2	91.0
85°	51.5	50.3	53.9	62.3	64.7
87.5°	26.3	27.5	28.7	33.5	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)