

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: P476147

Luminaire Tested: **22GR-LD5-28-FGW080-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476147  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-28-FGW080-UNV-L840-CD1-U  
Description: GR 2'X2' LED TROFFER w/ FGW080 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2459.8 lumens  
Efficiency: N/A  
Efficacy: 117.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

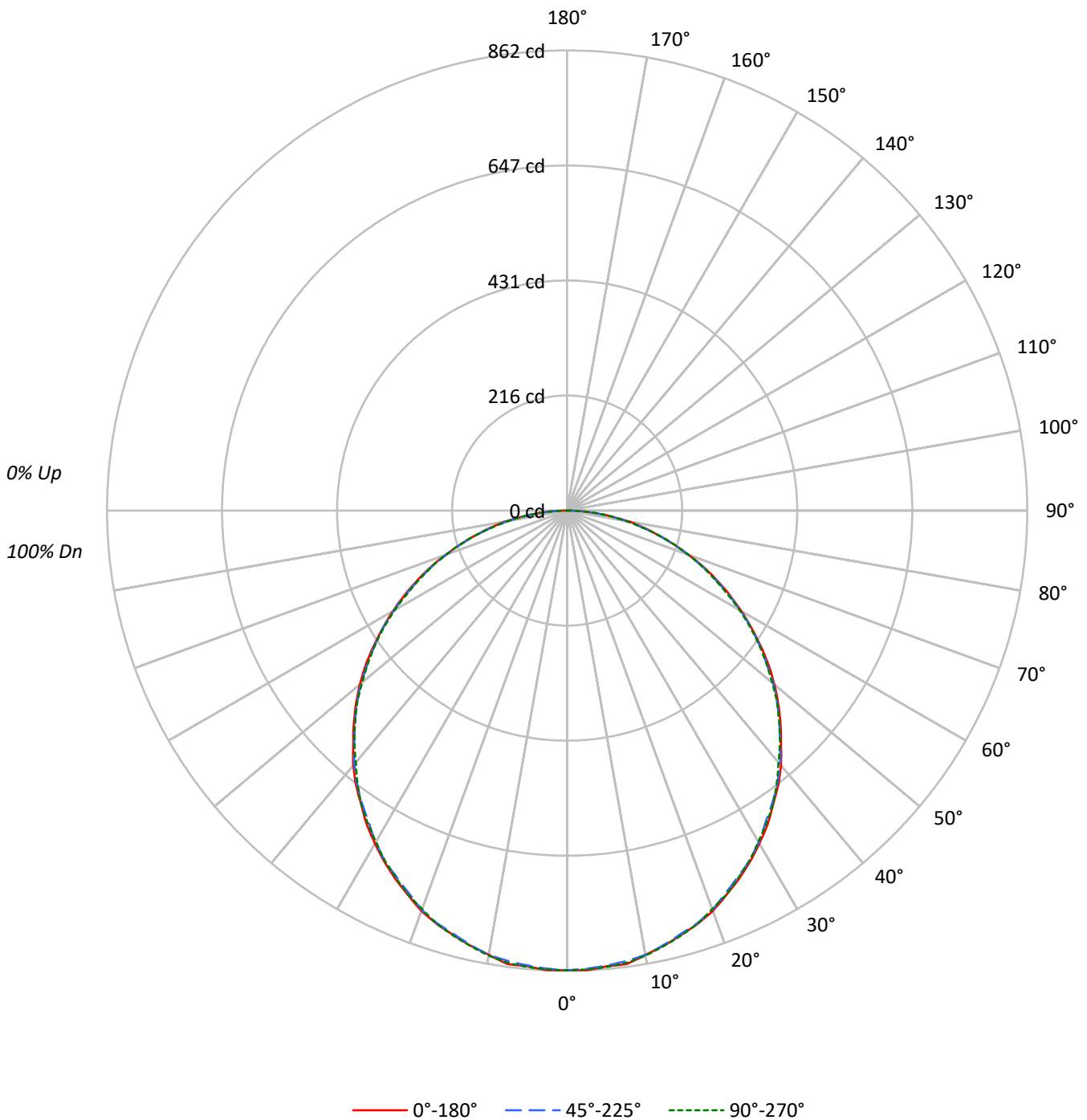
Input Watts (W): 21  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P476147

CATALOG NUMBER: 22GR-LD5-28-FGW080-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P476147

CATALOG NUMBER: 22GR-LD5-28-FGW080-UNV-L840-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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	2317	2317	2317
5°	2314	2310	2318
10°	2309	2309	2313
15°	2294	2288	2296
20°	2286	2279	2275
25°	2260	2247	2254
30°	2238	2231	2226
35°	2209	2200	2209
40°	2190	2180	2164
45°	2152	2138	2138
50°	2123	2110	2098
55°	2077	2064	2061
60°	2029	2018	2010
65°	1977	1954	1945
70°	1899	1893	1899
75°	1832	1810	1825
80°	1812	1723	1711
85°	1609	1562	1584



TEST NUMBER: P476147

CATALOG NUMBER: 22GR-LD5-28-FGW080-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.4	3.3
10°-20°	232.4	9.4
20°-30°	349.9	14.2
30°-40°	420.0	17.1
40°-50°	434.5	17.7
50°-60°	393.8	16.0
60°-70°	305.2	12.4
70°-80°	185.3	7.5
80°-90°	57.4	2.3
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°	663.8	27.0
0°-40°	1083.7	44.1
0°-60°	1912.0	77.7
0°-90°	2459.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2459.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	857	857	855	857	858	82
15°	823	823	821	825	824	233
25°	761	760	757	760	759	351
35°	672	672	670	670	672	422
45°	566	565	562	562	562	436
55°	443	442	440	439	439	396
65°	310	310	307	308	305	307
75°	176	176	174	174	176	187
85°	52	51	51	51	51	59
90°	0	0	0	0	0	



TEST NUMBER: P476147

CATALOG NUMBER: 22GR-LD5-28-FGW080-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	861.0	861.0	861.0	861.0	861.0
2.5°	861.8	858.2	858.9	860.3	860.3
5°	856.7	856.7	855.3	857.4	858.2
7.5°	856.7	853.1	850.9	853.1	854.5
10°	845.1	843.7	845.1	844.4	846.6
12.5°	835.0	833.6	833.6	835.7	835.7
15°	823.4	823.4	821.3	824.9	824.2
17.5°	811.9	811.9	810.4	810.4	811.9
20°	798.1	794.5	796.0	795.3	794.5
22.5°	779.3	777.2	775.7	777.9	778.6
25°	761.3	759.8	756.9	759.8	759.1
27.5°	741.8	740.3	739.6	738.1	739.6
30°	720.1	718.6	717.9	716.5	716.5
32.5°	698.4	695.5	691.9	695.5	694.8
35°	672.5	672.5	669.6	670.4	672.5
37.5°	649.4	648.0	646.5	644.3	645.1
40°	623.4	621.2	620.5	619.0	616.1
42.5°	593.0	593.0	590.1	590.8	590.1
45°	565.5	564.8	561.9	561.9	561.9
47.5°	536.6	535.9	533.7	532.3	533.7
50°	507.0	504.1	504.1	501.9	501.2
52.5°	476.1	473.9	471.0	471.7	470.3
55°	442.8	442.1	439.9	439.2	439.2
57.5°	409.6	410.3	408.8	405.9	406.7
60°	377.0	376.3	374.9	373.4	373.4
62.5°	343.8	343.8	340.9	340.9	338.0
65°	310.5	310.5	306.9	308.3	305.4
67.5°	277.4	276.7	274.5	273.8	274.5
70°	241.3	242.0	240.6	240.6	241.3
72.5°	208.8	208.0	207.3	207.3	208.8
75°	176.2	175.5	174.1	174.1	175.5
77.5°	146.6	143.0	142.2	143.7	141.5
80°	116.9	111.9	111.2	110.4	110.4
82.5°	82.4	80.2	81.0	80.2	81.7
85°	52.1	51.3	50.6	50.6	51.3
87.5°	24.6	23.1	23.1	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)