

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: P475830

Luminaire Tested: **24GR-LD5-90-FGW080-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475830  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-90-FGW080-UNV-L830-CD1-U  
Description: GR 2'X4' LED TROFFER w/ FGW080 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7390.0 lumens  
Efficiency: N/A  
Efficacy: 120.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

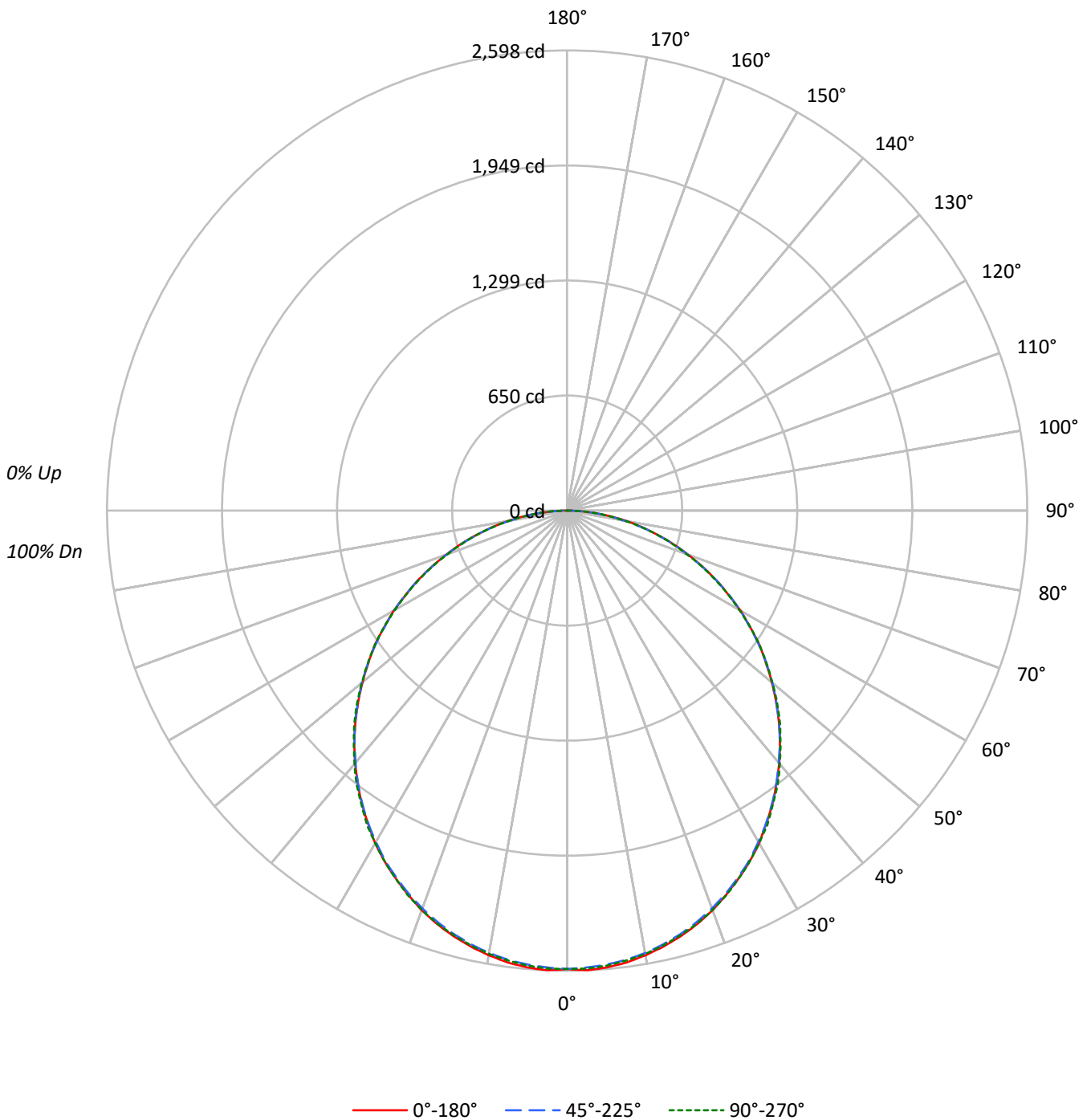
Input Watts (W): 61.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475830

CATALOG NUMBER: 24GR-LD5-90-FGW080-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475830

CATALOG NUMBER: 24GR-LD5-90-FGW080-UNV-L830-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	104	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	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	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	49	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	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°	3483	3483	3483
5°	3496	3474	3482
10°	3483	3465	3472
15°	3463	3447	3456
20°	3438	3422	3436
25°	3401	3391	3403
30°	3368	3355	3368
35°	3320	3315	3327
40°	3273	3264	3282
45°	3219	3219	3234
50°	3158	3167	3167
55°	3113	3102	3111
60°	3043	3041	3020
65°	2955	2953	2934
70°	2853	2846	2829
75°	2743	2734	2739
80°	2618	2566	2579
85°	2323	2323	2350



TEST NUMBER: P475830

CATALOG NUMBER: 24GR-LD5-90-FGW080-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.8	3.3
10°-20°	699.2	9.5
20°-30°	1054.1	14.3
30°-40°	1263.3	17.1
40°-50°	1305.2	17.7
50°-60°	1182.0	16.0
60°-70°	915.6	12.4
70°-80°	555.3	7.5
80°-90°	170.5	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°	1998.1	27.0
0°-40°	3261.4	44.1
0°-60°	5748.6	77.8
0°-90°	7390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7390.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2588	2588	2588	2588	2588	
5°	2588	2578	2572	2572	2578	246
15°	2486	2479	2475	2476	2481	701
25°	2291	2286	2284	2289	2292	1056
35°	2021	2014	2018	2021	2026	1264
45°	1692	1688	1692	1694	1699	1304
55°	1327	1320	1322	1324	1326	1182
65°	928	923	928	925	922	918
75°	528	528	526	521	527	560
85°	150	153	150	148	152	173
90°	0	0	0	0	0	



TEST NUMBER: P475830

CATALOG NUMBER: 24GR-LD5-90-FGW080-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2588.4	2588.4	2588.4	2588.4	2588.4
2.5°	2597.6	2588.4	2581.7	2581.7	2587.5
5°	2588.4	2578.3	2572.5	2572.5	2578.3
7.5°	2573.3	2562.4	2557.4	2557.4	2562.4
10°	2549.1	2540.7	2536.5	2536.5	2541.5
12.5°	2520.6	2513.1	2508.1	2508.9	2513.9
15°	2486.3	2478.8	2474.6	2476.3	2481.3
17.5°	2446.2	2438.7	2435.3	2437.8	2443.7
20°	2401.0	2391.8	2390.2	2392.7	2399.4
22.5°	2346.7	2340.8	2340.0	2344.2	2350.0
25°	2290.6	2285.6	2284.0	2289.0	2292.3
27.5°	2232.9	2223.7	2227.1	2227.9	2232.9
30°	2167.7	2159.3	2159.3	2162.7	2167.7
32.5°	2092.4	2087.4	2091.6	2095.8	2103.3
35°	2021.4	2013.8	2018.0	2021.4	2025.5
37.5°	1941.1	1939.4	1940.2	1945.3	1951.9
40°	1863.3	1858.3	1858.3	1865.0	1868.3
42.5°	1778.0	1773.8	1777.2	1780.5	1782.2
45°	1691.9	1688.5	1691.9	1694.4	1699.4
47.5°	1599.9	1600.7	1601.5	1603.2	1608.2
50°	1508.7	1512.0	1512.9	1516.2	1512.9
52.5°	1414.2	1415.0	1418.4	1419.2	1420.1
55°	1327.2	1319.7	1322.2	1323.9	1326.4
57.5°	1225.2	1222.7	1222.7	1225.2	1226.9
60°	1130.7	1125.7	1129.9	1124.8	1122.3
62.5°	1025.3	1027.0	1028.7	1027.8	1023.6
65°	928.3	923.3	927.5	925.0	921.6
67.5°	826.3	822.1	823.8	822.9	822.1
70°	725.1	725.1	723.4	719.2	719.2
72.5°	629.7	624.7	626.4	621.4	621.4
75°	527.7	527.7	526.0	521.0	526.9
77.5°	432.4	429.9	428.2	424.8	424.8
80°	337.9	332.0	331.2	331.2	332.9
82.5°	245.0	240.9	239.2	239.2	240.0
85°	150.5	153.0	150.5	148.0	152.2
87.5°	71.1	67.7	67.7	70.2	71.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)