

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: P475860

Luminaire Tested: **24GR-LD5-90-FGW080-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475860  
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-L840-CD1-U  
Description: GR 2'X4' LED TROFFER w/ FGW080 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7803.5 lumens  
Efficiency: N/A  
Efficacy: 127.5 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

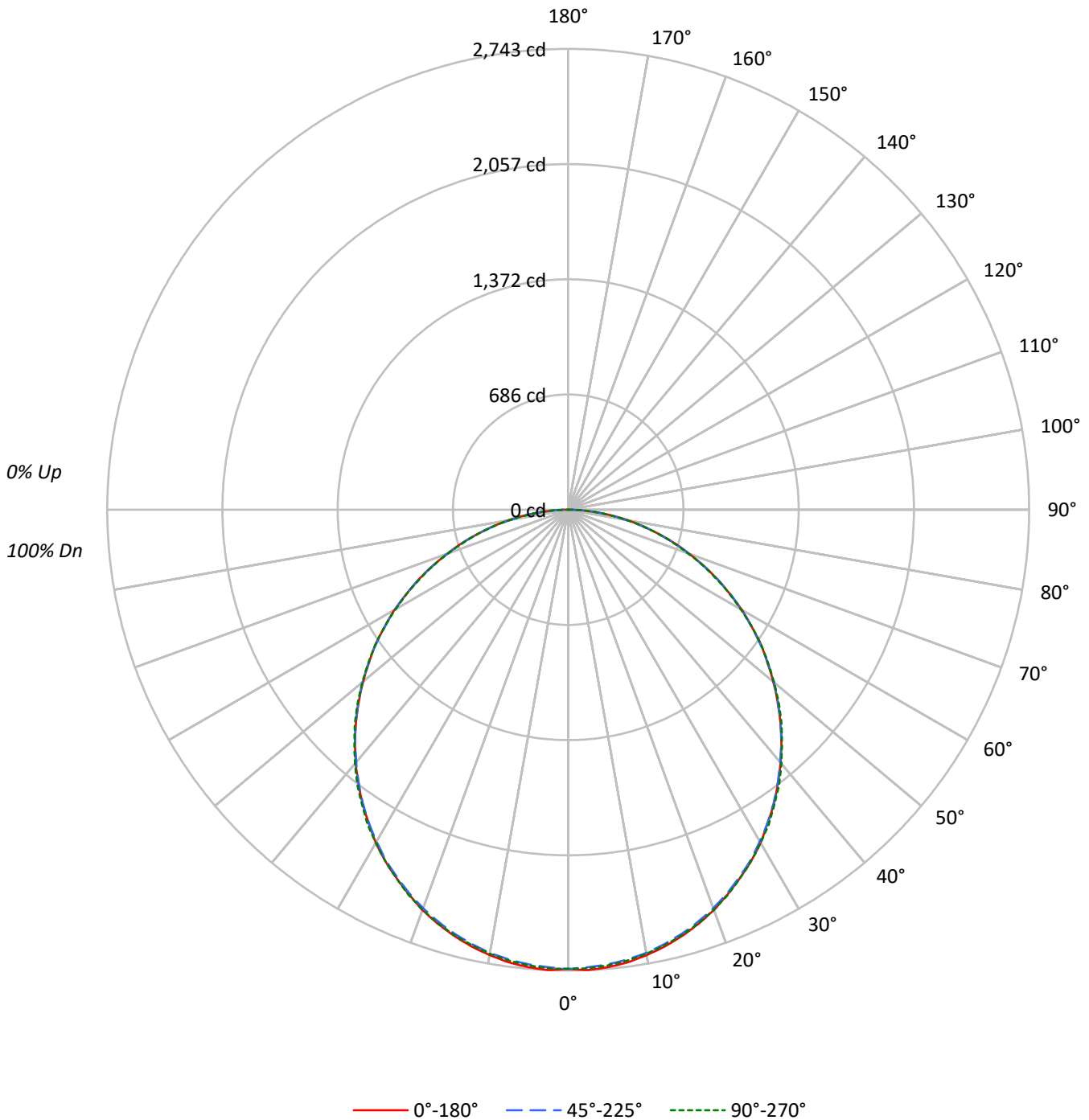
Input Watts (W): 61.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	35	47	40	35	46	40	35	33					33			
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	3677	3677	3677
5°	3692	3669	3677
10°	3678	3659	3667
15°	3657	3640	3650
20°	3630	3614	3628
25°	3591	3581	3594
30°	3556	3543	3556
35°	3506	3500	3513
40°	3456	3447	3465
45°	3399	3399	3415
50°	3335	3344	3344
55°	3288	3275	3286
60°	3213	3211	3189
65°	3121	3118	3098
70°	3012	3005	2988
75°	2897	2888	2892
80°	2765	2710	2724
85°	2455	2455	2481



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.5	3.3
10°-20°	738.3	9.5
20°-30°	1113.1	14.3
30°-40°	1334.0	17.1
40°-50°	1378.2	17.7
50°-60°	1248.1	16.0
60°-70°	966.8	12.4
70°-80°	586.4	7.5
80°-90°	180.0	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°	2109.9	27.0
0°-40°	3443.9	44.1
0°-60°	6070.2	77.8
0°-90°	7803.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7803.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2733	2733	2733	2733	2733	
5°	2733	2723	2716	2716	2723	260
15°	2626	2618	2613	2615	2620	741
25°	2419	2414	2412	2417	2421	1115
35°	2134	2126	2131	2134	2139	1334
45°	1786	1783	1786	1789	1794	1377
55°	1402	1394	1396	1398	1401	1249
65°	980	975	979	977	973	969
75°	557	557	556	550	556	591
85°	159	162	159	156	161	183
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2733.2	2733.2	2733.2	2733.2	2733.2
2.5°	2742.9	2733.2	2726.1	2726.1	2732.3
5°	2733.2	2722.6	2716.4	2716.4	2722.6
7.5°	2717.3	2705.8	2700.5	2700.5	2705.8
10°	2691.7	2682.9	2678.5	2678.5	2683.8
12.5°	2661.7	2653.7	2648.4	2649.3	2654.6
15°	2625.5	2617.5	2613.1	2614.9	2620.2
17.5°	2583.1	2575.1	2571.6	2574.3	2580.4
20°	2535.4	2525.7	2523.9	2526.6	2533.6
22.5°	2478.0	2471.8	2470.9	2475.3	2481.5
25°	2418.8	2413.5	2411.8	2417.1	2420.6
27.5°	2357.9	2348.2	2351.7	2352.6	2357.9
30°	2289.0	2280.2	2280.2	2283.7	2289.0
32.5°	2209.5	2204.2	2208.6	2213.1	2221.0
35°	2134.5	2126.5	2130.9	2134.5	2138.9
37.5°	2049.7	2047.9	2048.8	2054.1	2061.2
40°	1967.6	1962.3	1962.3	1969.3	1972.9
42.5°	1877.5	1873.1	1876.6	1880.1	1881.9
45°	1786.5	1783.0	1786.5	1789.2	1794.5
47.5°	1689.4	1690.3	1691.1	1692.9	1698.2
50°	1593.1	1596.7	1597.5	1601.1	1597.5
52.5°	1493.3	1494.2	1497.7	1498.6	1499.5
55°	1401.5	1393.5	1396.2	1398.0	1400.6
57.5°	1293.8	1291.1	1291.1	1293.8	1295.5
60°	1194.0	1188.7	1193.1	1187.8	1185.1
62.5°	1082.7	1084.5	1086.2	1085.3	1080.9
65°	980.2	974.9	979.4	976.7	973.2
67.5°	872.5	868.1	869.9	869.0	868.1
70°	765.7	765.7	763.9	759.5	759.5
72.5°	665.0	659.7	661.4	656.1	656.1
75°	557.2	557.2	555.5	550.2	556.4
77.5°	456.6	453.9	452.2	448.6	448.6
80°	356.8	350.6	349.7	349.7	351.5
82.5°	258.8	254.3	252.6	252.6	253.5
85°	159.0	161.6	159.0	156.3	160.7
87.5°	75.1	71.5	71.5	74.2	75.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)