

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: P475575

Luminaire Tested: **24GR-LD5-90-F1-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475575  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-90-F1-UNV-L850-CD1-U  
Description: GR 2'X4' LED TROFFER w/ F1 LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9189.9 lumens  
Efficiency: N/A  
Efficacy: 150.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

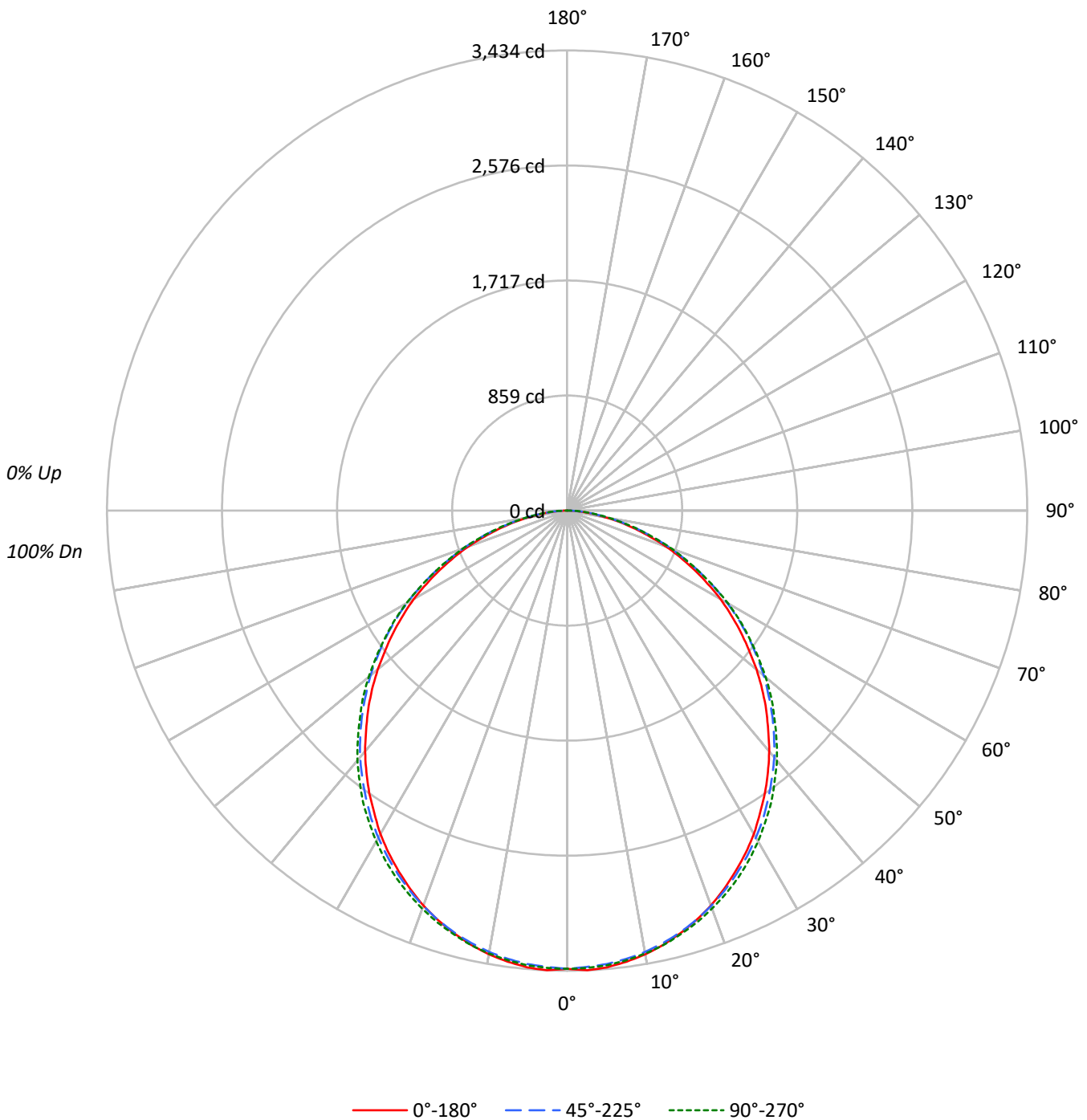
Input Watts (W): 61.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475575

CATALOG NUMBER: 24GR-LD5-90-F1-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475575

CATALOG NUMBER: 24GR-LD5-90-F1-UNV-L850-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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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

	0°	45°	90°
0°	4601	4601	4601
5°	4621	4588	4600
10°	4594	4570	4586
15°	4548	4540	4560
20°	4491	4496	4527
25°	4411	4441	4486
30°	4331	4379	4428
35°	4228	4299	4364
40°	4121	4223	4277
45°	3997	4119	4162
50°	3862	4011	4047
55°	3710	3875	3896
60°	3558	3715	3730
65°	3334	3492	3483
70°	3088	3230	3262
75°	2736	2896	2914
80°	2276	2444	2500
85°	1726	1893	2129



TEST NUMBER: P475575

CATALOG NUMBER: 24GR-LD5-90-F1-UNV-L850-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	323.2	3.5
10°-20°	920.1	10.0
20°-30°	1378.6	15.0
30°-40°	1635.6	17.8
40°-50°	1661.1	18.1
50°-60°	1462.8	15.9
60°-70°	1074.9	11.7
70°-80°	584.6	6.4
80°-90°	148.9	1.6
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°	2621.9	28.5
0°-40°	4257.5	46.3
0°-60°	7381.4	80.3
0°-90°	9189.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9189.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3419	3419	3419	3419	3419	
5°	3421	3407	3397	3397	3406	325
15°	3265	3259	3259	3264	3273	921
25°	2972	2975	2991	3008	3022	1369
35°	2574	2588	2617	2643	2657	1609
45°	2101	2118	2165	2190	2187	1619
55°	1582	1604	1652	1667	1661	1414
65°	1047	1064	1097	1105	1094	1038
75°	526	537	557	559	561	560
85°	112	114	123	133	138	135
90°	0	0	0	0	0	



TEST NUMBER: P475575

CATALOG NUMBER: 24GR-LD5-90-F1-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3419.4	3419.4	3419.4	3419.4	3419.4
2.5°	3433.8	3420.3	3408.6	3408.6	3416.7
5°	3421.2	3406.8	3396.9	3396.9	3405.9
7.5°	3395.1	3383.3	3375.2	3375.2	3385.2
10°	3362.6	3350.9	3344.6	3345.5	3356.3
12.5°	3319.4	3308.5	3305.8	3307.6	3321.2
15°	3265.3	3259.0	3259.0	3263.5	3273.4
17.5°	3204.9	3198.6	3203.1	3209.4	3222.0
20°	3136.4	3131.9	3140.0	3149.9	3161.6
22.5°	3058.0	3056.2	3069.7	3083.2	3094.9
25°	2971.5	2975.1	2991.3	3008.4	3021.9
27.5°	2882.2	2885.9	2908.4	2926.4	2939.9
30°	2787.6	2789.4	2818.3	2839.9	2849.8
32.5°	2677.7	2692.1	2722.7	2743.5	2752.5
35°	2574.0	2588.4	2617.3	2643.4	2656.9
37.5°	2461.4	2474.0	2511.8	2539.8	2544.3
40°	2346.0	2357.7	2404.6	2428.0	2435.2
42.5°	2219.8	2242.3	2284.7	2308.1	2312.6
45°	2100.8	2118.0	2164.8	2190.1	2187.4
47.5°	1973.8	1992.7	2038.7	2063.0	2067.5
50°	1844.9	1866.5	1916.1	1932.3	1933.2
52.5°	1709.7	1737.6	1782.7	1804.3	1797.1
55°	1581.7	1604.3	1652.0	1667.3	1661.0
57.5°	1450.1	1475.4	1519.5	1527.6	1528.5
60°	1322.2	1342.9	1380.7	1388.8	1386.1
62.5°	1181.6	1202.3	1236.5	1244.6	1238.3
65°	1047.3	1064.4	1096.8	1105.0	1094.1
67.5°	913.9	931.0	956.2	968.9	957.1
70°	785.0	798.5	821.1	828.3	829.2
72.5°	648.0	672.3	688.6	687.7	685.0
75°	526.3	537.2	557.0	558.8	560.6
77.5°	410.1	412.8	433.5	438.9	435.3
80°	293.8	303.7	315.4	321.8	322.7
82.5°	193.8	201.0	210.9	221.7	221.7
85°	111.8	114.5	122.6	133.4	137.9
87.5°	45.1	49.6	57.7	65.8	66.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)