

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: P475691

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475691  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-A19/156-UNV-L850-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5517.3 lumens  
Efficiency: N/A  
Efficacy: 140.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.28  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

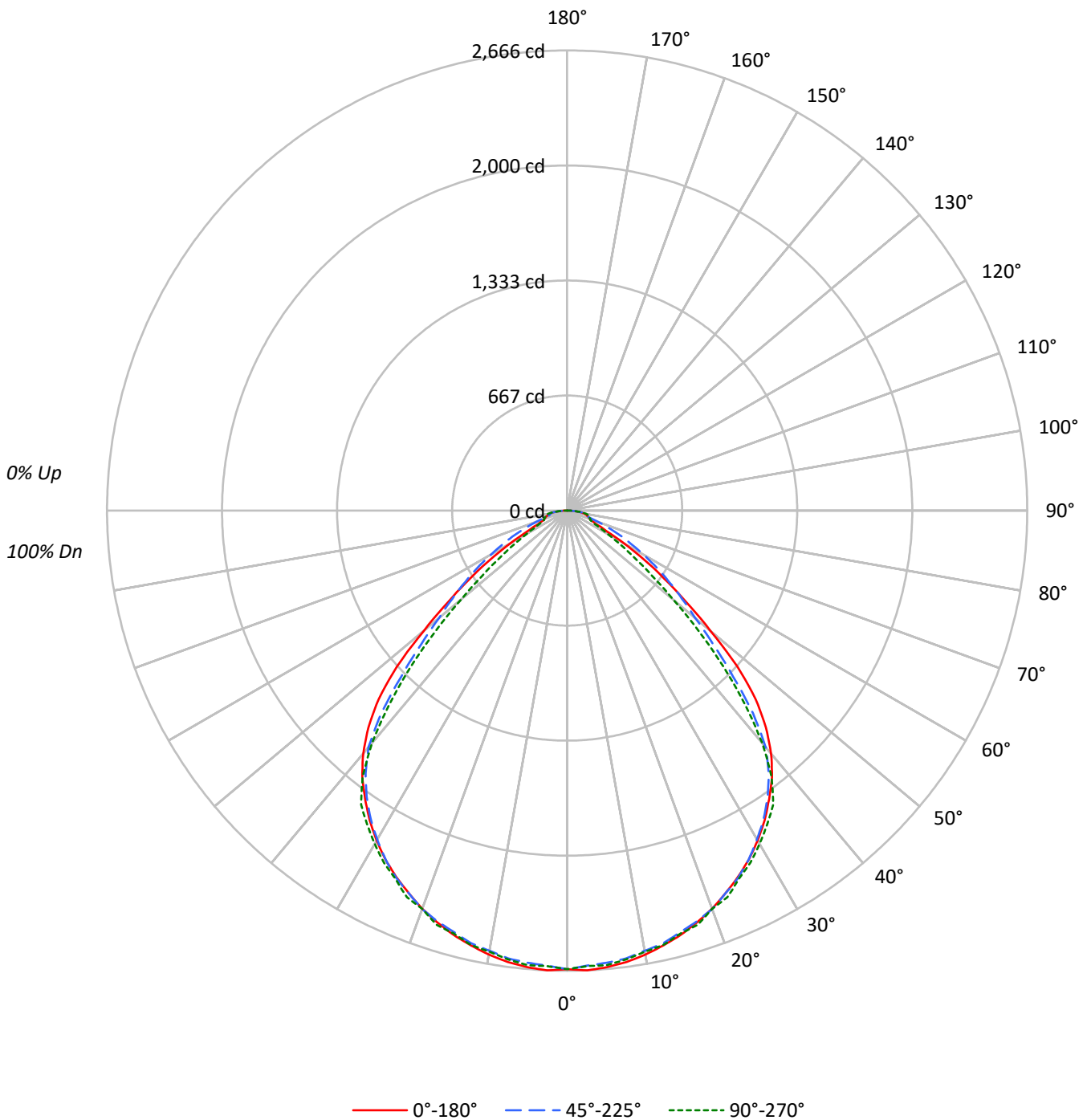
Input Watts (W): 39.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90					88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78					76				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69					67				
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61					59				
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49					47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	40					38				
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36					34				
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33					31				

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

	0°	45°	90°
0°	3575	3575	3575
5°	3586	3551	3569
10°	3568	3538	3546
15°	3545	3522	3534
20°	3515	3517	3515
25°	3477	3483	3495
30°	3429	3418	3464
35°	3351	3326	3418
40°	3229	3144	3088
45°	2939	2586	2440
50°	2268	2028	1677
55°	1611	1692	1109
60°	1020	1366	724
65°	592	1075	529
70°	548	740	561
75°	631	564	669
80°	788	779	883
85°	858	911	945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.4	4.5
10°-20°	716.1	13.0
20°-30°	1080.6	19.6
30°-40°	1268.3	23.0
40°-50°	1067.7	19.4
50°-60°	606.5	11.0
60°-70°	302.7	5.5
70°-80°	158.7	2.9
80°-90°	66.2	1.2
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°	2047.1	37.1
0°-40°	3315.4	60.1
0°-60°	4989.7	90.4
0°-90°	5517.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5517.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2657	2657	2657	2657	2657	
5°	2655	2636	2629	2634	2643	252
15°	2545	2539	2529	2536	2537	718
25°	2342	2343	2346	2352	2354	1079
35°	2040	2029	2025	2059	2081	1274
45°	1545	1483	1359	1336	1282	1163
55°	687	735	721	622	473	625
65°	186	385	338	286	166	211
75°	121	187	108	163	129	129
85°	56	66	59	75	61	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2656.8	2656.8	2656.8	2656.8	2656.8
2.5°	2666.3	2653.4	2638.8	2634.9	2641.6
5°	2655.1	2636.0	2629.3	2633.8	2642.8
7.5°	2637.7	2618.0	2616.9	2609.1	2622.5
10°	2611.9	2598.9	2589.4	2593.9	2595.6
12.5°	2579.3	2575.4	2568.0	2561.9	2577.0
15°	2545.0	2538.8	2528.7	2535.5	2537.2
17.5°	2501.2	2497.8	2496.2	2501.2	2515.8
20°	2454.6	2454.6	2456.3	2457.4	2455.1
22.5°	2399.0	2397.3	2399.5	2404.0	2425.4
25°	2342.2	2343.4	2346.2	2352.4	2354.0
27.5°	2279.3	2279.9	2278.8	2285.0	2299.6
30°	2206.9	2204.6	2200.1	2213.6	2229.3
32.5°	2128.2	2123.8	2118.7	2139.5	2156.3
35°	2040.1	2028.8	2024.9	2059.2	2081.1
37.5°	1949.6	1926.6	1918.2	1943.4	1946.3
40°	1838.4	1804.1	1790.1	1765.4	1758.1
42.5°	1704.7	1669.3	1593.5	1555.3	1528.4
45°	1544.6	1482.9	1359.3	1335.7	1282.3
47.5°	1337.9	1272.2	1148.7	1098.1	1037.4
50°	1083.5	1045.3	968.9	906.0	801.0
52.5°	866.1	874.0	838.0	751.0	620.7
55°	686.9	734.7	721.2	621.8	472.9
57.5°	528.6	631.3	615.1	511.7	361.2
60°	379.1	540.9	507.8	421.3	269.0
62.5°	260.1	461.7	416.2	347.7	206.1
65°	185.9	385.3	337.6	286.5	166.3
67.5°	152.8	315.1	258.9	243.2	144.9
70°	139.3	253.9	188.2	212.3	142.7
72.5°	132.6	212.9	138.2	185.9	135.9
75°	121.3	187.0	108.4	162.9	128.6
77.5°	112.3	161.8	101.1	142.7	125.3
80°	101.7	128.1	100.5	120.8	114.0
82.5°	82.0	93.2	84.8	98.9	92.1
85°	55.6	66.3	59.0	74.7	61.2
87.5°	27.5	32.6	26.4	35.4	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)