

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: P475678

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475678  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-72-A19/156-UNV-L840-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6887.4 lumens  
Efficiency: N/A  
Efficacy: 141.4 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

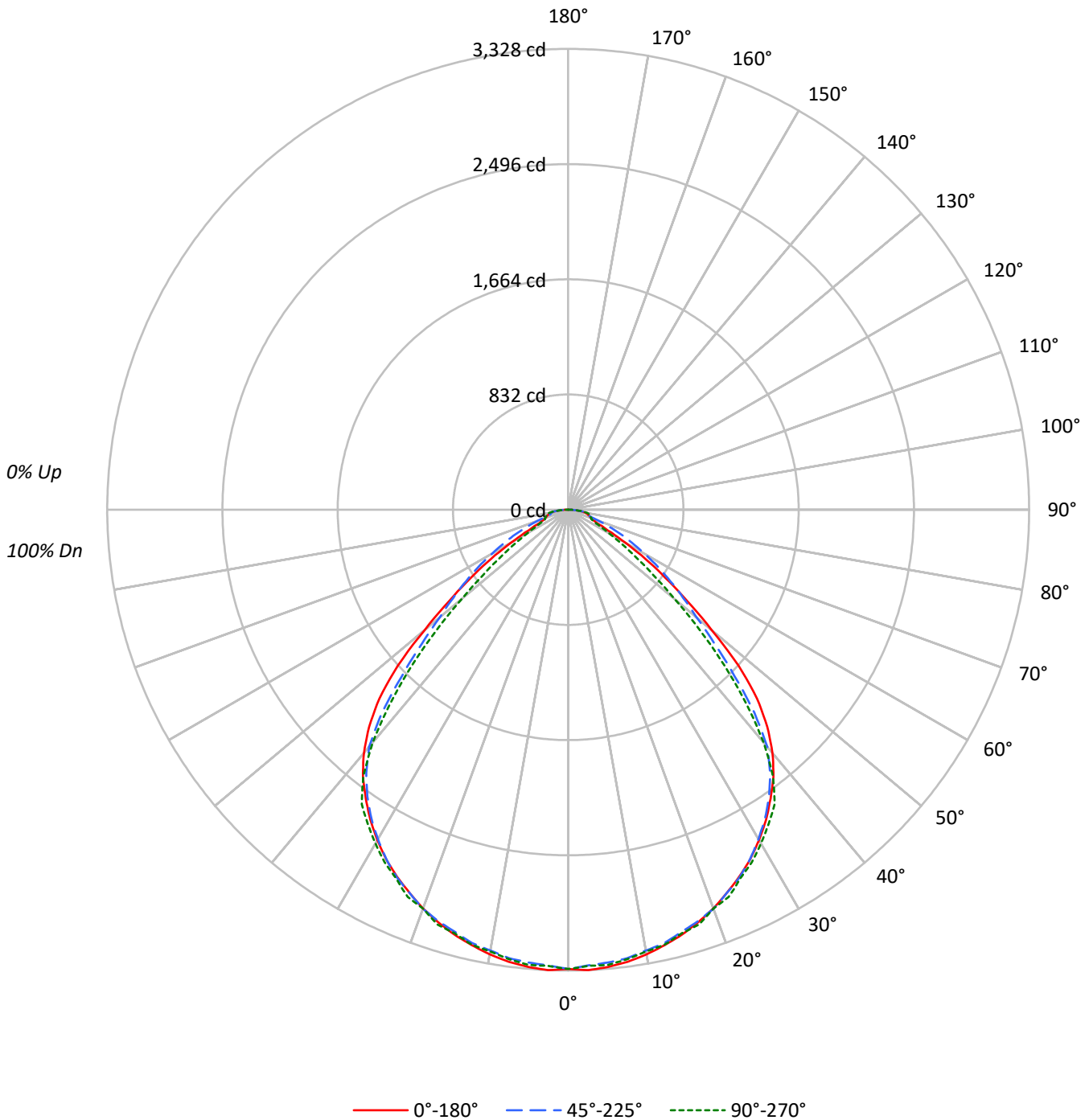
Input Watts (W): 48.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4462	4462	4462
5°	4477	4433	4456
10°	4455	4416	4427
15°	4425	4397	4412
20°	4387	4390	4388
25°	4341	4348	4363
30°	4280	4267	4324
35°	4183	4152	4267
40°	4031	3925	3855
45°	3669	3229	3046
50°	2831	2532	2093
55°	2012	2112	1385
60°	1274	1706	904
65°	739	1342	661
70°	684	924	701
75°	788	703	835
80°	983	972	1103
85°	1071	1136	1179



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	312.5	4.5
10°-20°	894.0	13.0
20°-30°	1348.9	19.6
30°-40°	1583.3	23.0
40°-50°	1332.9	19.4
50°-60°	757.2	11.0
60°-70°	377.9	5.5
70°-80°	198.1	2.9
80°-90°	82.6	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°	2555.4	37.1
0°-40°	4138.7	60.1
0°-60°	6228.8	90.4
0°-90°	6887.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6887.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3317	3317	3317	3317	3317	
5°	3314	3291	3282	3288	3299	315
15°	3177	3169	3157	3165	3167	896
25°	2924	2925	2929	2936	2939	1347
35°	2547	2533	2528	2570	2598	1590
45°	1928	1851	1697	1667	1601	1452
55°	858	917	900	776	590	780
65°	232	481	421	358	208	264
75°	152	234	135	203	161	161
85°	69	83	74	93	76	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3316.6	3316.6	3316.6	3316.6	3316.6
2.5°	3328.5	3312.4	3294.1	3289.2	3297.6
5°	3314.5	3290.6	3282.2	3287.8	3299.0
7.5°	3292.7	3268.2	3266.8	3257.0	3273.8
10°	3260.5	3244.4	3232.4	3238.0	3240.1
12.5°	3219.8	3214.9	3205.8	3198.1	3217.0
15°	3177.0	3169.3	3156.7	3165.1	3167.2
17.5°	3122.3	3118.1	3116.0	3122.3	3140.6
20°	3064.1	3064.1	3066.3	3067.7	3064.9
22.5°	2994.7	2992.6	2995.4	3001.0	3027.7
25°	2923.9	2925.3	2928.8	2936.5	2938.6
27.5°	2845.4	2846.1	2844.7	2852.4	2870.6
30°	2754.9	2752.1	2746.5	2763.3	2783.0
32.5°	2656.8	2651.2	2644.8	2670.8	2691.8
35°	2546.7	2532.7	2527.7	2570.5	2597.9
37.5°	2433.8	2405.0	2394.5	2426.1	2429.6
40°	2295.0	2252.2	2234.7	2203.8	2194.7
42.5°	2128.1	2083.9	1989.2	1941.6	1907.9
45°	1928.2	1851.1	1696.9	1667.4	1600.8
47.5°	1670.2	1588.2	1433.9	1370.8	1295.1
50°	1352.6	1304.9	1209.5	1131.0	999.9
52.5°	1081.2	1091.0	1046.2	937.5	774.8
55°	857.5	917.1	900.3	776.2	590.4
57.5°	659.8	788.1	767.8	638.8	450.9
60°	473.3	675.2	633.9	525.9	335.9
62.5°	324.6	576.4	519.6	434.0	257.3
65°	232.1	481.0	421.4	357.6	207.5
67.5°	190.7	393.4	323.2	303.6	180.9
70°	173.9	316.9	234.9	265.0	178.1
72.5°	165.5	265.7	172.5	232.1	169.7
75°	151.5	233.5	135.3	203.3	160.6
77.5°	140.2	201.9	126.2	178.1	156.4
80°	126.9	159.9	125.5	150.8	142.3
82.5°	102.4	116.4	105.9	123.4	115.0
85°	69.4	82.7	73.6	93.3	76.4
87.5°	34.4	40.7	33.0	44.2	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)