

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: P475681

Luminaire Tested: **24GR-LD5-100-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475681  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-100-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: 9722.7 lumens  
Efficiency: N/A  
Efficacy: 144.9 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

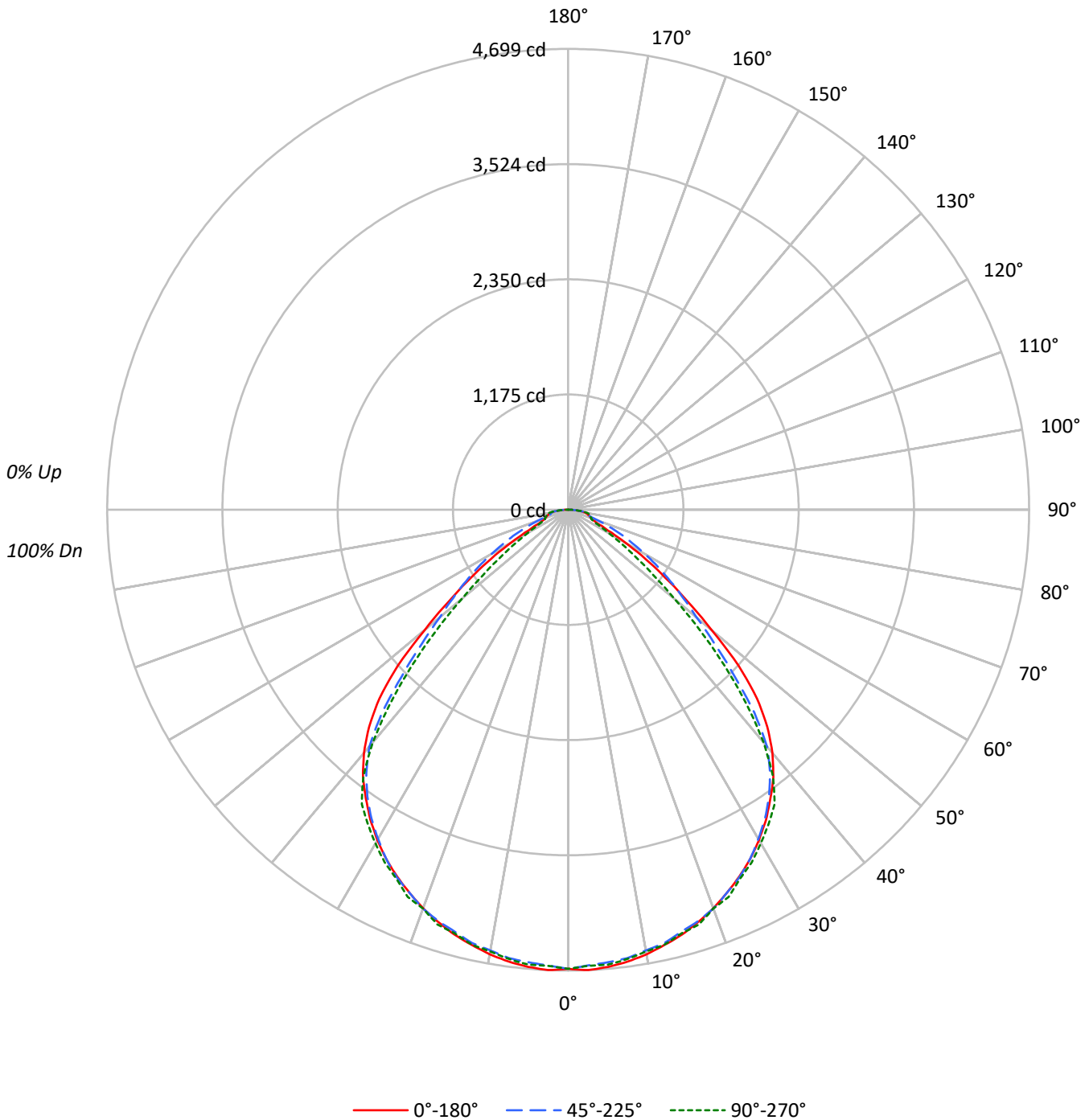
Input Watts (W): 67.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6299	6299	6299
5°	6319	6258	6290
10°	6288	6234	6249
15°	6247	6207	6228
20°	6194	6198	6195
25°	6128	6138	6159
30°	6042	6024	6104
35°	5905	5861	6024
40°	5690	5541	5442
45°	5179	4558	4300
50°	3997	3574	2955
55°	2840	2981	1955
60°	1798	2408	1276
65°	1043	1894	933
70°	966	1304	989
75°	1111	993	1179
80°	1389	1373	1557
85°	1513	1604	1666



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	441.2	4.5
10°-20°	1262.0	13.0
20°-30°	1904.2	19.6
30°-40°	2235.1	23.0
40°-50°	1881.6	19.4
50°-60°	1068.9	11.0
60°-70°	533.5	5.5
70°-80°	279.7	2.9
80°-90°	116.6	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°	3607.4	37.1
0°-40°	5842.5	60.1
0°-60°	8792.9	90.4
0°-90°	9722.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9722.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4682	4682	4682	4682	4682	
5°	4679	4645	4633	4641	4657	444
15°	4485	4474	4456	4468	4471	1265
25°	4128	4130	4134	4145	4148	1901
35°	3595	3575	3568	3629	3667	2245
45°	2722	2613	2395	2354	2260	2050
55°	1211	1295	1271	1096	833	1101
65°	328	679	595	505	293	373
75°	214	330	191	287	227	227
85°	98	117	104	132	108	104
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4681.9	4681.9	4681.9	4681.9	4681.9
2.5°	4698.7	4676.0	4650.2	4643.3	4655.2
5°	4678.9	4645.3	4633.4	4641.3	4657.1
7.5°	4648.2	4613.6	4611.6	4597.8	4621.5
10°	4602.7	4579.9	4563.1	4571.0	4574.0
12.5°	4545.3	4538.4	4525.5	4514.6	4541.3
15°	4484.9	4474.0	4456.2	4468.1	4471.1
17.5°	4407.7	4401.8	4398.8	4407.7	4433.4
20°	4325.6	4325.6	4328.5	4330.5	4326.5
22.5°	4227.6	4224.6	4228.6	4236.5	4274.1
25°	4127.6	4129.6	4134.5	4145.4	4148.4
27.5°	4016.7	4017.7	4015.7	4026.6	4052.4
30°	3889.0	3885.1	3877.2	3900.9	3928.6
32.5°	3750.5	3742.5	3733.6	3770.3	3800.0
35°	3595.1	3575.3	3568.3	3628.7	3667.3
37.5°	3435.7	3395.1	3380.3	3424.8	3429.8
40°	3239.7	3179.3	3154.6	3111.0	3098.2
42.5°	3004.1	2941.8	2808.1	2740.8	2693.3
45°	2722.0	2613.1	2395.4	2353.8	2259.8
47.5°	2357.8	2242.0	2024.2	1935.1	1828.2
50°	1909.4	1842.1	1707.5	1596.6	1411.5
52.5°	1526.3	1540.2	1476.8	1323.4	1093.8
55°	1210.6	1294.7	1270.9	1095.7	833.4
57.5°	931.4	1112.6	1083.9	901.7	636.5
60°	668.1	953.2	894.8	742.4	474.1
62.5°	458.3	813.6	733.5	612.7	363.3
65°	327.6	679.0	594.9	504.8	293.0
67.5°	269.2	555.3	456.3	428.6	255.4
70°	245.5	447.4	331.6	374.2	251.4
72.5°	233.6	375.1	243.5	327.6	239.5
75°	213.8	329.6	191.0	287.1	226.7
77.5°	198.0	285.1	178.2	251.4	220.7
80°	179.2	225.7	177.2	212.8	200.9
82.5°	144.5	164.3	149.5	174.2	162.3
85°	98.0	116.8	103.9	131.6	107.9
87.5°	48.5	57.4	46.5	62.4	47.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)