

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: P475682

Luminaire Tested: **24GR-LD5-120-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475682  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-120-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: 11636.5 lumens  
Efficiency: N/A  
Efficacy: 143.0 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

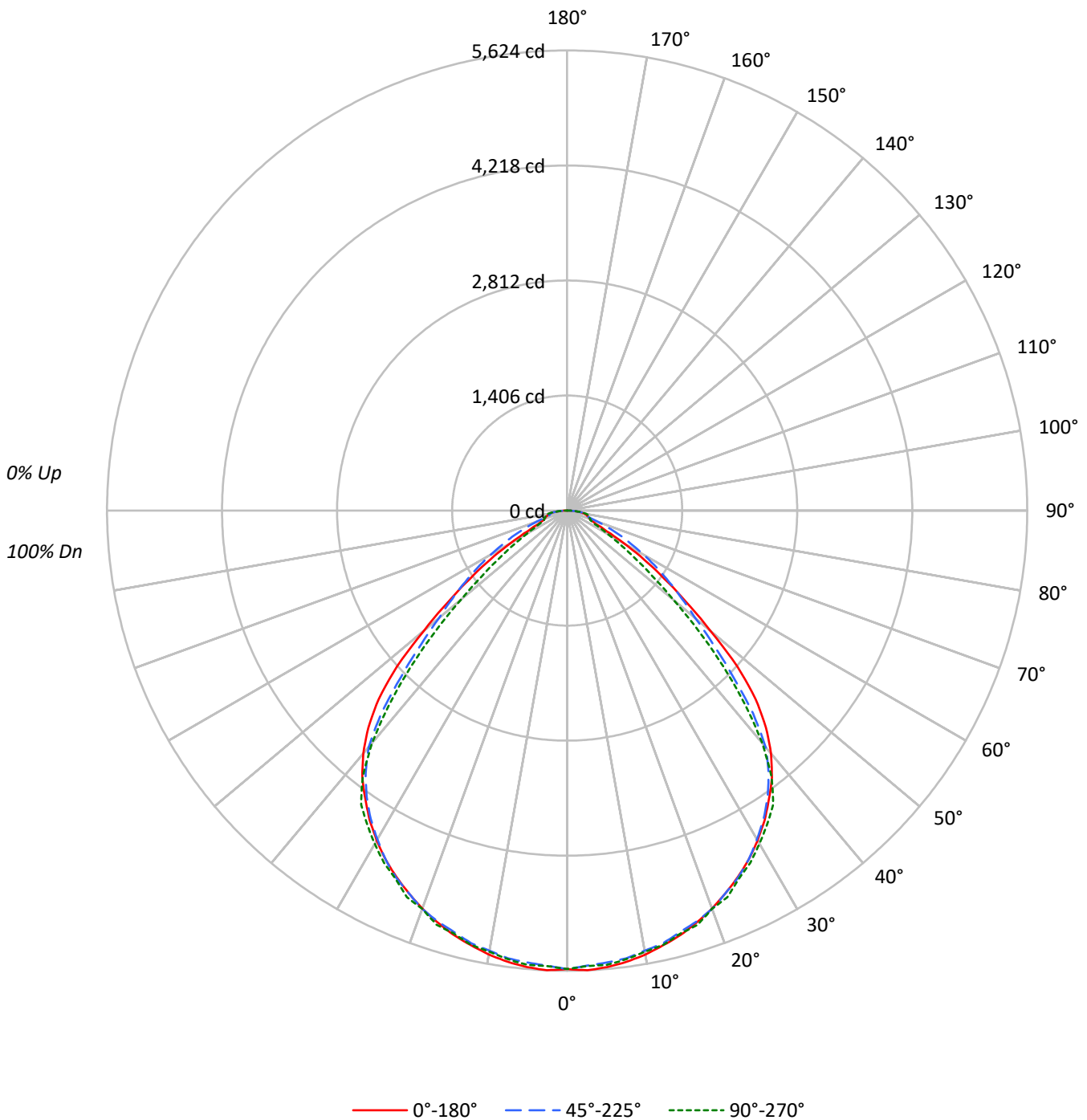
Input Watts (W): 81.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7539	7539	7539
5°	7563	7490	7528
10°	7526	7461	7479
15°	7477	7429	7454
20°	7413	7418	7414
25°	7334	7346	7371
30°	7231	7209	7305
35°	7067	7015	7209
40°	6810	6631	6513
45°	6199	5455	5146
50°	4783	4277	3536
55°	3399	3568	2340
60°	2152	2882	1527
65°	1248	2267	1117
70°	1156	1561	1184
75°	1330	1188	1410
80°	1661	1643	1863
85°	1811	1920	1993



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	528.1	4.5
10°-20°	1510.4	13.0
20°-30°	2279.0	19.6
30°-40°	2675.0	23.0
40°-50°	2252.0	19.4
50°-60°	1279.2	11.0
60°-70°	638.5	5.5
70°-80°	334.7	2.9
80°-90°	139.6	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°	4317.5	37.1
0°-40°	6992.5	60.1
0°-60°	10523.7	90.4
0°-90°	11636.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11636.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5603	5603	5603	5603	5603	
5°	5600	5560	5545	5555	5574	532
15°	5368	5355	5333	5348	5351	1514
25°	4940	4942	4948	4961	4965	2275
35°	4303	4279	4271	4343	4389	2687
45°	3258	3128	2867	2817	2705	2453
55°	1449	1550	1521	1311	998	1318
65°	392	813	712	604	351	446
75°	256	394	229	344	271	271
85°	117	140	124	158	129	124
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5603.4	5603.4	5603.4	5603.4	5603.4
2.5°	5623.6	5596.3	5565.5	5557.2	5571.5
5°	5599.9	5559.6	5545.4	5554.9	5573.8
7.5°	5563.2	5521.7	5519.3	5502.8	5531.2
10°	5508.7	5481.4	5461.3	5470.8	5474.3
12.5°	5440.0	5431.7	5416.3	5403.2	5435.2
15°	5367.7	5354.7	5333.3	5347.6	5351.1
17.5°	5275.3	5268.2	5264.6	5275.3	5306.1
20°	5177.0	5177.0	5180.5	5182.9	5178.2
22.5°	5059.7	5056.1	5060.9	5070.4	5115.4
25°	4940.0	4942.4	4948.3	4961.4	4964.9
27.5°	4807.4	4808.5	4806.2	4819.2	4850.0
30°	4654.5	4649.8	4640.3	4668.8	4701.9
32.5°	4488.7	4479.2	4468.5	4512.4	4547.9
35°	4302.7	4279.0	4270.7	4343.0	4389.2
37.5°	4112.0	4063.4	4045.6	4098.9	4104.9
40°	3877.4	3805.1	3775.5	3723.4	3708.0
42.5°	3595.4	3520.8	3360.9	3280.3	3223.5
45°	3257.8	3127.5	2866.9	2817.1	2704.6
47.5°	2821.9	2683.3	2422.6	2316.0	2188.1
50°	2285.2	2204.7	2043.5	1910.9	1689.3
52.5°	1826.7	1843.3	1767.5	1583.9	1309.1
55°	1448.8	1549.5	1521.1	1311.4	997.5
57.5°	1114.8	1331.6	1297.2	1079.2	761.7
60°	799.6	1140.8	1070.9	888.5	567.5
62.5°	548.5	973.8	877.8	733.3	434.8
65°	392.1	812.7	712.0	604.2	350.7
67.5°	322.2	664.6	546.1	513.0	305.6
70°	293.8	535.5	396.9	447.8	300.9
72.5°	279.6	449.0	291.4	392.1	286.7
75°	255.9	394.5	228.6	343.6	271.3
77.5°	236.9	341.2	213.2	300.9	264.2
80°	214.4	270.1	212.1	254.7	240.5
82.5°	173.0	196.7	178.9	208.5	194.3
85°	117.3	139.8	124.4	157.6	129.1
87.5°	58.0	68.7	55.7	74.6	56.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)