

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: P475652

Luminaire Tested: **24GR-LD5-120-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475652  
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-L830-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11019.8 lumens  
Efficiency: N/A  
Efficacy: 135.4 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

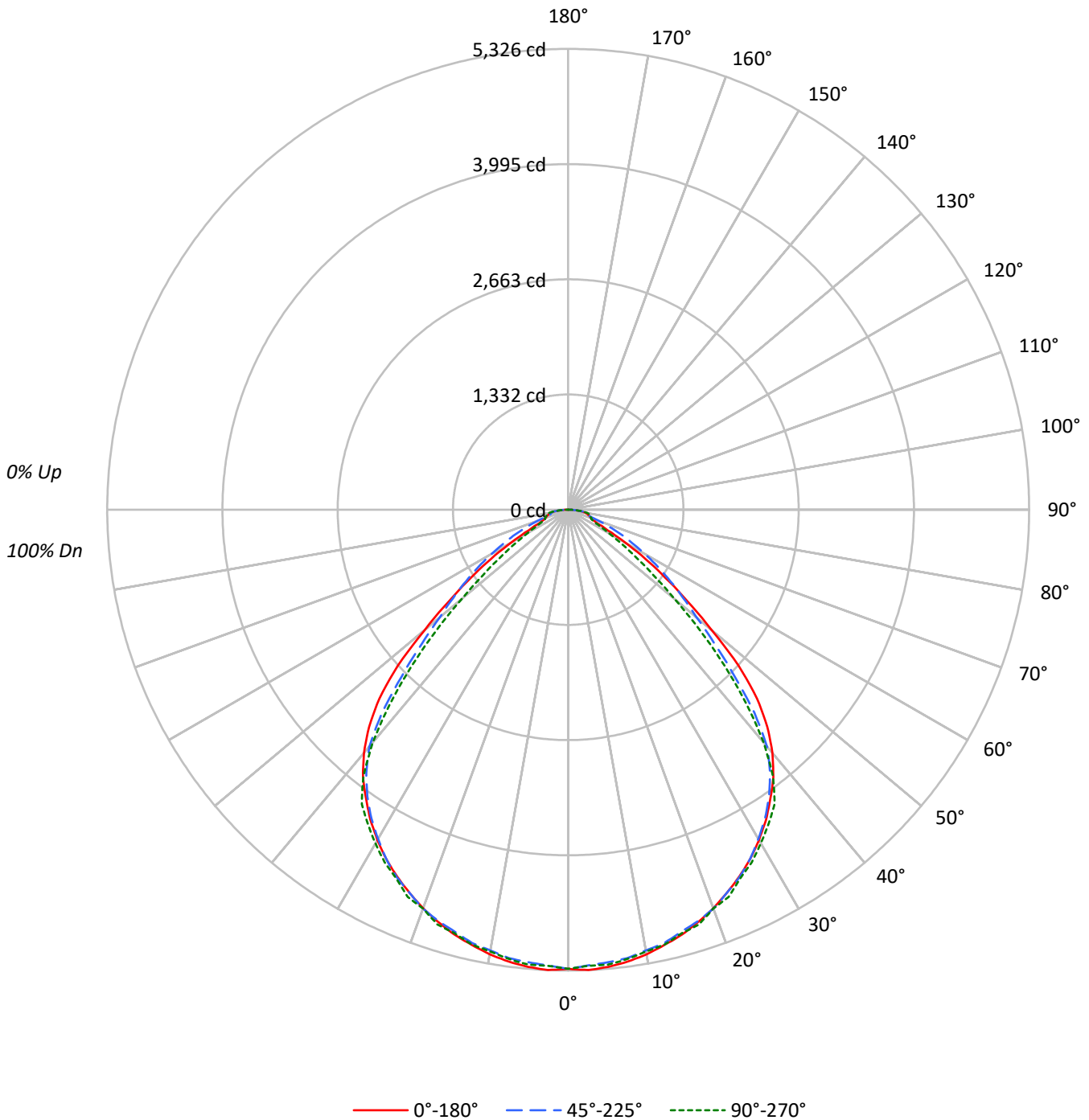
Input Watts (W): 81.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7140	7140	7140
5°	7163	7093	7129
10°	7127	7066	7083
15°	7081	7035	7059
20°	7020	7025	7021
25°	6945	6957	6980
30°	6848	6827	6918
35°	6693	6643	6827
40°	6449	6280	6168
45°	5871	5166	4874
50°	4530	4051	3349
55°	3219	3379	2216
60°	2038	2729	1446
65°	1182	2147	1057
70°	1094	1478	1121
75°	1260	1125	1336
80°	1574	1556	1764
85°	1715	1819	1888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	500.1	4.5
10°-20°	1430.4	13.0
20°-30°	2158.2	19.6
30°-40°	2533.2	23.0
40°-50°	2132.7	19.4
50°-60°	1211.5	11.0
60°-70°	604.6	5.5
70°-80°	317.0	2.9
80°-90°	132.2	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°	4088.7	37.1
0°-40°	6621.9	60.1
0°-60°	9966.0	90.4
0°-90°	11019.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11019.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5306	5306	5306	5306	5306	
5°	5303	5265	5252	5260	5278	503
15°	5083	5071	5051	5064	5068	1433
25°	4678	4680	4686	4698	4702	2155
35°	4075	4052	4044	4113	4157	2545
45°	3085	2962	2715	2668	2561	2323
55°	1372	1467	1440	1242	945	1248
65°	371	770	674	572	332	422
75°	242	374	216	325	257	257
85°	111	132	118	149	122	117
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5306.5	5306.5	5306.5	5306.5	5306.5
2.5°	5325.6	5299.8	5270.6	5262.8	5276.2
5°	5303.1	5265.0	5251.5	5260.5	5278.5
7.5°	5268.4	5229.1	5226.9	5211.1	5238.1
10°	5216.8	5191.0	5171.9	5180.9	5184.2
12.5°	5151.7	5143.8	5129.2	5116.9	5147.2
15°	5083.2	5070.9	5050.7	5064.2	5067.5
17.5°	4995.7	4989.0	4985.6	4995.7	5024.9
20°	4902.6	4902.6	4906.0	4908.2	4903.7
22.5°	4791.6	4788.2	4792.7	4801.7	4844.3
25°	4678.3	4680.5	4686.1	4698.4	4701.8
27.5°	4552.6	4553.7	4551.5	4563.8	4593.0
30°	4407.9	4403.4	4394.4	4421.3	4452.8
32.5°	4250.8	4241.8	4231.7	4273.3	4306.9
35°	4074.7	4052.2	4044.4	4112.8	4156.6
37.5°	3894.1	3848.1	3831.2	3881.7	3887.3
40°	3671.9	3603.5	3575.4	3526.1	3511.5
42.5°	3404.9	3334.2	3182.8	3106.5	3052.6
45°	3085.2	2961.8	2715.0	2667.8	2561.3
47.5°	2672.3	2541.1	2294.2	2193.3	2072.1
50°	2164.1	2087.8	1935.2	1809.6	1599.8
52.5°	1729.9	1745.6	1673.8	1500.0	1239.7
55°	1372.1	1467.4	1440.5	1241.9	944.6
57.5°	1055.7	1261.0	1228.5	1022.0	721.4
60°	757.3	1080.4	1014.2	841.4	537.4
62.5°	519.4	922.2	831.3	694.4	411.7
65°	371.3	769.6	674.3	572.2	332.1
67.5°	305.2	629.4	517.2	485.8	289.4
70°	278.2	507.1	375.8	424.1	285.0
72.5°	264.8	425.2	276.0	371.3	271.5
75°	242.3	373.6	216.5	325.3	256.9
77.5°	224.4	323.1	201.9	285.0	250.2
80°	203.1	255.8	200.8	241.2	227.7
82.5°	163.8	186.2	169.4	197.5	184.0
85°	111.1	132.4	117.8	149.2	122.3
87.5°	55.0	65.1	52.7	70.7	53.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)