

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: P475667

Luminaire Tested: **24GR-LD5-120-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475667  
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-L835-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11419.5 lumens  
Efficiency: N/A  
Efficacy: 140.3 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

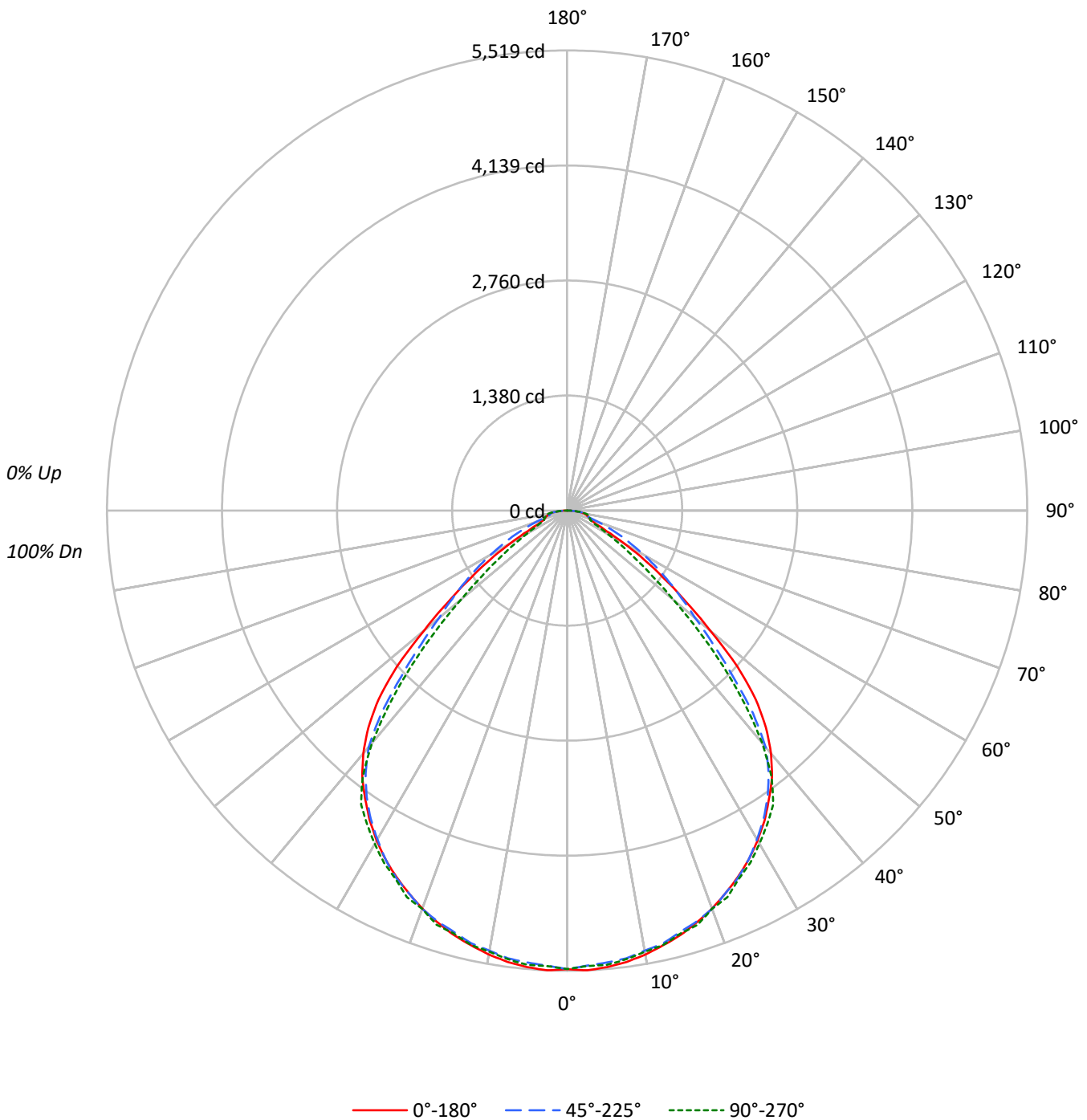
Input Watts (W): 81.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7399	7399	7399
5°	7422	7350	7388
10°	7386	7322	7340
15°	7338	7291	7315
20°	7274	7279	7276
25°	7197	7209	7233
30°	7097	7075	7169
35°	6936	6884	7075
40°	6683	6508	6391
45°	6083	5353	5050
50°	4694	4198	3470
55°	3335	3502	2296
60°	2112	2828	1499
65°	1225	2224	1096
70°	1134	1532	1162
75°	1305	1167	1384
80°	1630	1612	1829
85°	1777	1885	1956



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	518.2	4.5
10°-20°	1482.2	13.0
20°-30°	2236.5	19.6
30°-40°	2625.1	23.0
40°-50°	2210.0	19.4
50°-60°	1255.4	11.0
60°-70°	626.6	5.5
70°-80°	328.5	2.9
80°-90°	137.0	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°	4237.0	37.1
0°-40°	6862.1	60.1
0°-60°	10327.5	90.4
0°-90°	11419.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11419.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5499	5499	5499	5499	5499	
5°	5496	5456	5442	5451	5470	522
15°	5268	5255	5234	5248	5251	1485
25°	4848	4850	4856	4869	4872	2233
35°	4222	4199	4191	4262	4307	2637
45°	3197	3069	2813	2765	2654	2407
55°	1422	1521	1493	1287	979	1294
65°	385	798	699	593	344	438
75°	251	387	224	337	266	266
85°	115	137	122	155	127	122
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5499.0	5499.0	5499.0	5499.0	5499.0
2.5°	5518.7	5492.0	5461.8	5453.6	5467.6
5°	5495.5	5456.0	5442.0	5451.3	5469.9
7.5°	5459.4	5418.8	5416.4	5400.1	5428.1
10°	5406.0	5379.2	5359.5	5368.8	5372.2
12.5°	5338.5	5330.4	5315.3	5302.5	5333.9
15°	5267.6	5254.8	5233.9	5247.9	5251.3
17.5°	5176.9	5170.0	5166.5	5176.9	5207.2
20°	5080.4	5080.4	5083.9	5086.3	5081.6
22.5°	4965.3	4961.9	4966.5	4975.8	5020.0
25°	4847.9	4850.3	4856.1	4868.9	4872.3
27.5°	4717.7	4718.9	4716.6	4729.3	4759.6
30°	4567.7	4563.1	4553.8	4581.7	4614.3
32.5°	4405.0	4395.7	4385.2	4428.2	4463.1
35°	4222.5	4199.2	4191.1	4262.0	4307.3
37.5°	4035.3	3987.6	3970.2	4022.5	4028.3
40°	3805.1	3734.2	3705.1	3654.0	3638.9
42.5°	3528.4	3455.2	3298.2	3219.2	3163.4
45°	3197.1	3069.2	2813.4	2764.6	2654.2
47.5°	2769.2	2633.2	2377.5	2272.8	2147.3
50°	2242.6	2163.5	2005.4	1875.2	1657.8
52.5°	1792.7	1809.0	1734.6	1554.4	1284.6
55°	1421.8	1520.6	1492.7	1287.0	978.9
57.5°	1094.0	1306.7	1273.0	1059.1	747.5
60°	784.7	1119.6	1051.0	871.9	556.9
62.5°	538.3	955.6	861.5	719.6	426.7
65°	384.8	797.5	698.7	592.9	344.1
67.5°	316.2	652.2	535.9	503.4	299.9
70°	288.3	525.5	389.5	439.5	295.3
72.5°	274.4	440.6	286.0	384.8	281.3
75°	251.1	387.1	224.4	337.1	266.2
77.5°	232.5	334.8	209.3	295.3	259.3
80°	210.4	265.1	208.1	250.0	236.0
82.5°	169.7	193.0	175.5	204.6	190.7
85°	115.1	137.2	122.1	154.6	126.7
87.5°	57.0	67.4	54.6	73.2	55.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)