

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: P475669

Luminaire Tested: **24GR-LD5-150-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475669  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-150-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: 14327.4 lumens  
Efficiency: N/A  
Efficacy: 138.6 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

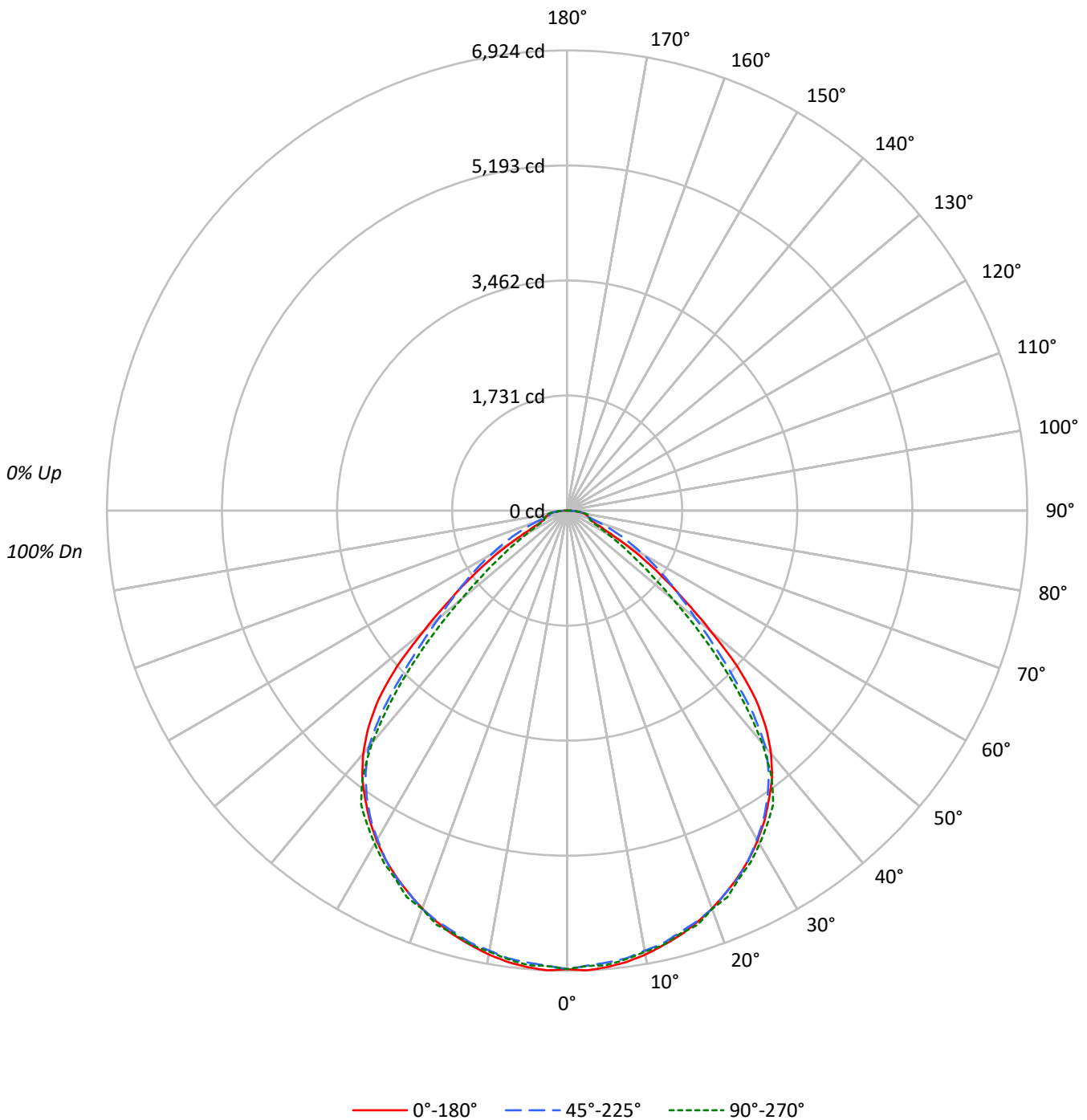
Input Watts (W): 103.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	9283	9283	9283
5°	9312	9222	9269
10°	9267	9187	9209
15°	9206	9147	9177
20°	9127	9133	9129
25°	9030	9045	9075
30°	8904	8877	8994
35°	8702	8637	8876
40°	8385	8165	8019
45°	7633	6717	6336
50°	5890	5267	4354
55°	4185	4393	2881
60°	2650	3548	1880
65°	1537	2791	1374
70°	1423	1922	1458
75°	1638	1463	1736
80°	2046	2023	2294
85°	2229	2365	2455



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	650.2	4.5
10°-20°	1859.7	13.0
20°-30°	2806.0	19.6
30°-40°	3293.6	23.0
40°-50°	2772.8	19.4
50°-60°	1575.1	11.0
60°-70°	786.1	5.5
70°-80°	412.2	2.9
80°-90°	171.8	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°	5315.8	37.1
0°-40°	8609.4	60.1
0°-60°	12957.3	90.4
0°-90°	14327.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14327.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6899	6899	6899	6899	6899	
5°	6895	6845	6828	6839	6863	655
15°	6609	6593	6567	6584	6588	1864
25°	6082	6085	6093	6109	6113	2801
35°	5298	5268	5258	5347	5404	3308
45°	4011	3851	3530	3469	3330	3020
55°	1784	1908	1873	1615	1228	1623
65°	483	1001	877	744	432	549
75°	315	486	282	423	334	334
85°	144	172	153	194	159	153
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6899.2	6899.2	6899.2	6899.2	6899.2
2.5°	6924.0	6890.5	6852.5	6842.3	6859.8
5°	6894.8	6845.2	6827.7	6839.4	6862.7
7.5°	6849.6	6798.6	6795.7	6775.2	6810.2
10°	6782.5	6749.0	6724.2	6735.8	6740.2
12.5°	6697.9	6687.7	6668.8	6652.7	6692.1
15°	6608.9	6592.9	6566.7	6584.2	6588.5
17.5°	6495.2	6486.4	6482.1	6495.2	6533.1
20°	6374.1	6374.1	6378.5	6381.4	6375.6
22.5°	6229.7	6225.3	6231.2	6242.8	6298.3
25°	6082.4	6085.3	6092.6	6108.6	6113.0
27.5°	5919.0	5920.5	5917.6	5933.6	5971.5
30°	5730.9	5725.0	5713.4	5748.4	5789.2
32.5°	5526.7	5515.0	5501.9	5555.8	5599.6
35°	5297.7	5268.5	5258.3	5347.3	5404.1
37.5°	5062.8	5003.0	4981.1	5046.8	5054.1
40°	4774.0	4685.0	4648.6	4584.4	4565.4
42.5°	4426.9	4335.0	4138.1	4038.9	3968.9
45°	4011.2	3850.7	3529.8	3468.6	3330.0
47.5°	3474.4	3303.7	2982.9	2851.6	2694.0
50°	2813.7	2714.5	2516.1	2352.7	2080.0
52.5°	2249.2	2269.6	2176.2	1950.2	1611.8
55°	1783.9	1907.9	1872.9	1614.7	1228.1
57.5°	1372.5	1639.5	1597.2	1328.8	937.9
60°	984.6	1404.6	1318.6	1094.0	698.7
62.5°	675.3	1199.0	1080.8	902.9	535.3
65°	482.8	1000.6	876.6	743.9	431.7
67.5°	396.7	818.3	672.4	631.6	376.3
70°	361.7	659.3	488.6	551.4	370.5
72.5°	344.2	552.8	358.8	482.8	353.0
75°	315.1	485.7	281.5	423.0	334.0
77.5°	291.7	420.1	262.5	370.5	325.3
80°	264.0	332.6	261.1	313.6	296.1
82.5°	213.0	242.1	220.2	256.7	239.2
85°	144.4	172.1	153.2	194.0	159.0
87.5°	71.5	84.6	68.6	91.9	70.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)