

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: P475654

Luminaire Tested: **24GR-LD5-150-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475654  
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-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: 13825.9 lumens  
Efficiency: N/A  
Efficacy: 133.7 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

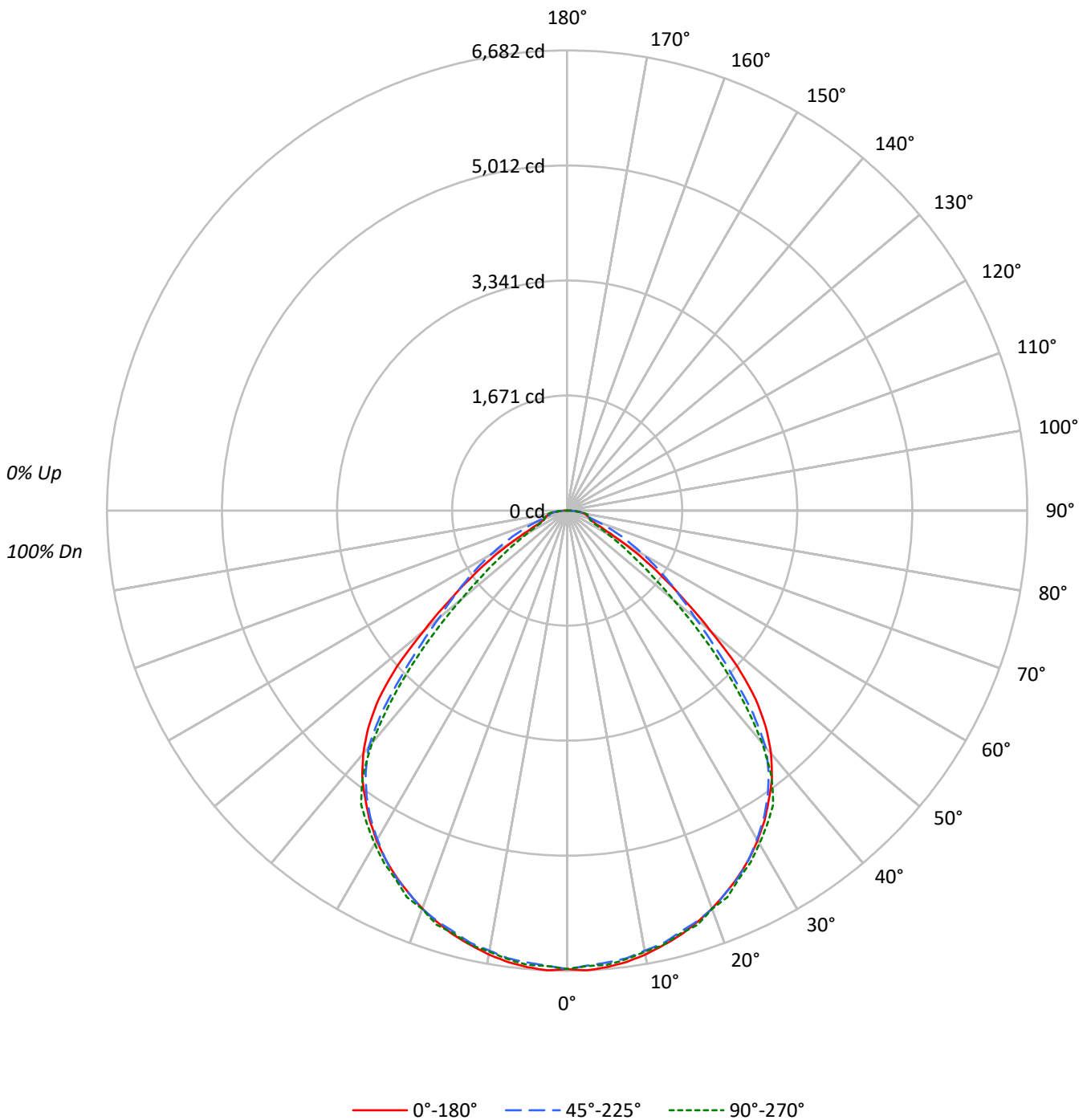
Input Watts (W): 103.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8958	8958	8958
5°	8986	8899	8945
10°	8942	8865	8886
15°	8884	8827	8856
20°	8807	8813	8809
25°	8714	8728	8758
30°	8592	8566	8680
35°	8397	8335	8566
40°	8092	7879	7738
45°	7365	6482	6115
50°	5683	5082	4201
55°	4038	4240	2780
60°	2557	3424	1814
65°	1483	2693	1326
70°	1373	1855	1406
75°	1580	1412	1675
80°	1974	1953	2214
85°	2150	2282	2368



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	627.4	4.5
10°-20°	1794.6	13.0
20°-30°	2707.8	19.6
30°-40°	3178.3	23.0
40°-50°	2675.7	19.4
50°-60°	1519.9	11.0
60°-70°	758.6	5.5
70°-80°	397.7	2.9
80°-90°	165.8	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°	5129.8	37.1
0°-40°	8308.1	60.1
0°-60°	12503.7	90.4
0°-90°	13825.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13825.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6658	6658	6658	6658	6658	
5°	6654	6606	6589	6600	6623	632
15°	6378	6362	6337	6354	6358	1798
25°	5870	5872	5879	5895	5899	2703
35°	5112	5084	5074	5160	5215	3193
45°	3871	3716	3406	3347	3214	2915
55°	1721	1841	1807	1558	1185	1566
65°	466	966	846	718	417	530
75°	304	469	272	408	322	322
85°	139	166	148	187	153	147
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6657.7	6657.7	6657.7	6657.7	6657.7
2.5°	6681.7	6649.3	6612.7	6602.8	6619.7
5°	6653.5	6605.7	6588.8	6600.0	6622.6
7.5°	6609.9	6560.6	6557.8	6538.1	6571.9
10°	6545.1	6512.8	6488.8	6500.1	6504.3
12.5°	6463.5	6453.6	6435.3	6419.9	6457.9
15°	6377.6	6362.2	6336.8	6353.7	6357.9
17.5°	6267.8	6259.4	6255.2	6267.8	6304.4
20°	6151.0	6151.0	6155.2	6158.1	6152.4
22.5°	6011.7	6007.4	6013.1	6024.3	6077.8
25°	5869.5	5872.3	5879.4	5894.8	5899.1
27.5°	5711.9	5713.3	5710.5	5725.9	5762.5
30°	5530.3	5524.7	5513.4	5547.2	5586.6
32.5°	5333.2	5322.0	5309.3	5361.4	5403.6
35°	5112.2	5084.1	5074.2	5160.1	5215.0
37.5°	4885.6	4827.9	4806.8	4870.1	4877.2
40°	4606.9	4521.1	4485.9	4423.9	4405.7
42.5°	4271.9	4183.3	3993.2	3897.5	3830.0
45°	3870.8	3715.9	3406.3	3347.2	3213.5
47.5°	3352.8	3188.1	2878.5	2751.8	2599.8
50°	2715.2	2619.5	2428.0	2270.4	2007.2
52.5°	2170.5	2190.2	2100.1	1881.9	1555.3
55°	1721.4	1841.1	1807.3	1558.2	1185.2
57.5°	1324.5	1582.1	1541.3	1282.3	905.1
60°	950.1	1355.5	1272.4	1055.7	674.2
62.5°	651.7	1157.0	1043.0	871.3	516.6
65°	465.9	965.6	845.9	717.9	416.6
67.5°	382.9	789.6	648.9	609.5	363.1
70°	349.1	636.2	471.5	532.1	357.5
72.5°	332.2	533.5	346.3	465.9	340.6
75°	304.0	468.7	271.7	408.2	322.3
77.5°	281.5	405.4	253.4	357.5	313.9
80°	254.8	320.9	252.0	302.6	285.7
82.5°	205.5	233.7	212.5	247.7	230.8
85°	139.3	166.1	147.8	187.2	153.4
87.5°	69.0	81.6	66.2	88.7	67.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)