

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: P231857

Luminaire Tested: **24GR-LD5-150-A19/156-UNV-L935-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231857  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-150-A19/156-UNV-L935-CD2-U  
Description: METALUX 2X4 GRLED TROFFER  
WITH A19/156 LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12690.5 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

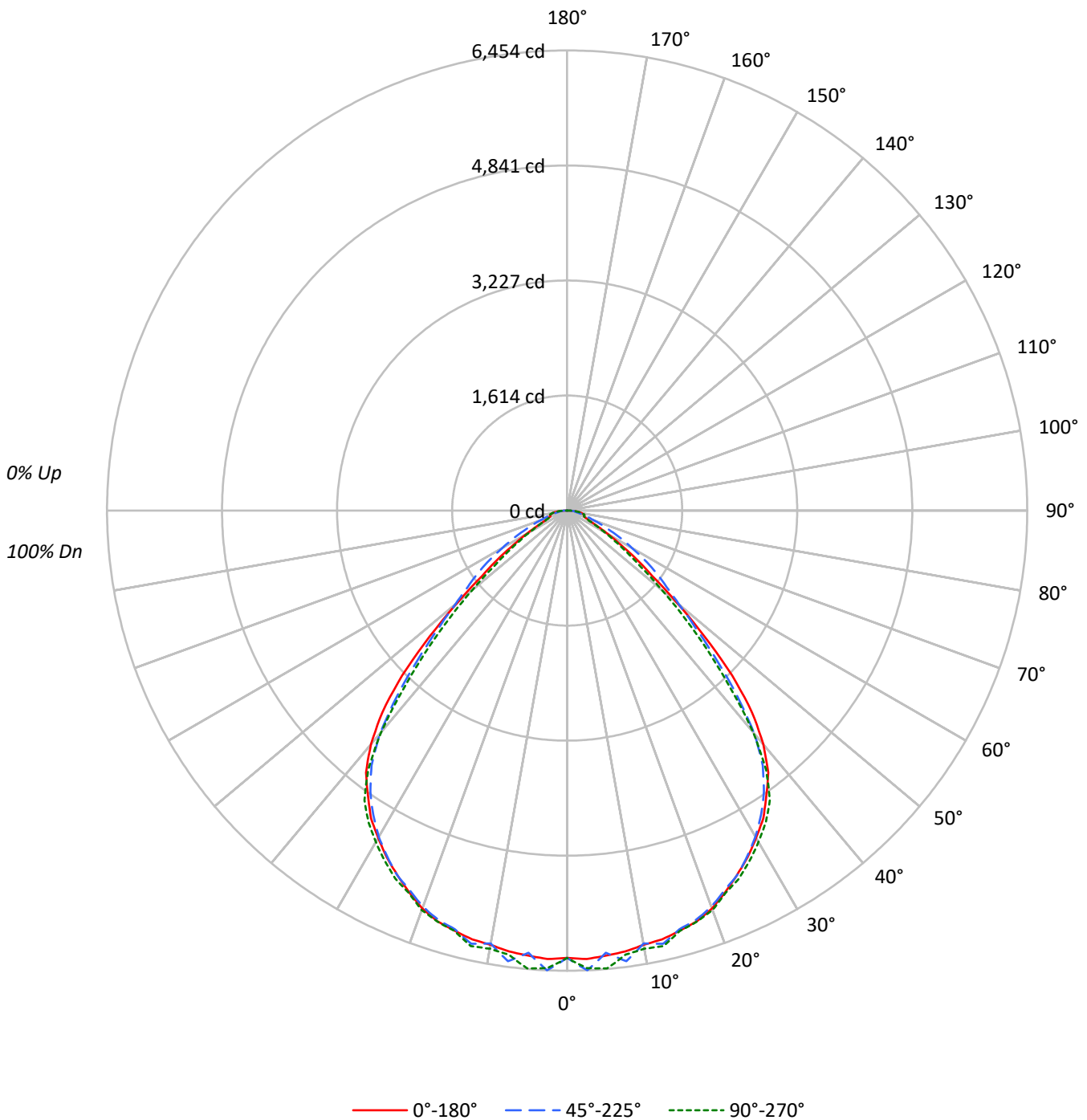
Input Watts (W): 120.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9611	9611	9611
5°	9632	9569	9908
10°	9617	9588	9705
15°	9672	9640	9679
20°	9680	9640	9720
25°	9530	9537	9630
30°	9371	9343	9494
35°	9107	8997	9268
40°	8553	8170	8125
45°	7090	6414	6083
50°	4769	4866	4157
55°	3146	4082	2726
60°	2017	3221	1867
65°	1300	2459	1263
70°	1150	1762	1150
75°	1484	1399	1495
80°	1816	1204	1906
85°	2114	1791	2221



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	600.8	4.7
10°-20°	1725.2	13.6
20°-30°	2597.2	20.5
30°-40°	3010.3	23.7
40°-50°	2351.6	18.5
50°-60°	1255.7	9.9
60°-70°	645.7	5.1
70°-80°	365.3	2.9
80°-90°	138.7	1.1
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°	4923.2	38.8
0°-40°	7933.6	62.5
0°-60°	11540.8	90.9
0°-90°	12690.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12690.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6275	6275	6275	6275	6275	
5°	6265	6440	6224	6395	6444	596
15°	6100	6138	6080	6118	6104	1723
25°	5639	5621	5643	5635	5698	2599
35°	4871	4848	4812	4908	4956	3037
45°	3273	3275	2961	2935	2808	2466
55°	1178	1490	1529	1378	1021	1087
65°	359	748	679	746	348	394
75°	251	471	236	440	253	254
85°	120	157	102	157	126	124
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6275.1	6275.1	6275.1	6275.1	6275.1
2.5°	6295.4	6409.6	6454.5	6399.4	6423.9
5°	6264.9	6440.2	6224.1	6395.3	6444.3
7.5°	6236.4	6218.0	6374.9	6211.9	6281.2
10°	6183.4	6195.6	6165.0	6281.2	6240.4
12.5°	6158.9	6230.2	6224.1	6165.0	6254.7
15°	6099.9	6138.5	6079.5	6118.1	6103.9
17.5°	6040.7	6022.3	6016.3	6032.5	6046.8
20°	5938.8	5877.7	5914.4	5918.5	5963.3
22.5°	5792.1	5755.3	5763.5	5800.2	5804.3
25°	5639.2	5620.9	5643.3	5635.2	5698.3
27.5°	5480.3	5455.8	5470.1	5500.6	5539.4
30°	5298.9	5292.8	5282.6	5309.1	5368.2
32.5°	5119.6	5070.6	5062.4	5117.5	5184.7
35°	4870.9	4848.5	4811.8	4907.6	4956.5
37.5°	4634.5	4565.2	4506.1	4563.1	4583.5
40°	4277.8	4224.8	4086.2	4092.3	4063.8
42.5°	3839.6	3800.9	3536.0	3489.1	3409.6
45°	3273.1	3275.1	2961.2	2934.8	2808.4
47.5°	2614.8	2731.0	2457.9	2427.3	2239.8
50°	2001.3	2211.3	2042.1	1993.2	1744.5
52.5°	1502.0	1809.7	1756.8	1650.8	1308.4
55°	1178.0	1489.8	1528.6	1377.7	1021.0
57.5°	886.6	1226.9	1290.0	1165.8	788.7
60°	658.3	1033.3	1051.6	1002.7	609.4
62.5°	489.1	878.4	853.9	860.0	452.5
65°	358.7	747.9	678.6	746.0	348.5
67.5°	293.5	648.1	527.8	646.1	283.3
70°	256.8	574.7	393.4	568.6	256.8
72.5°	248.6	527.8	311.8	505.4	250.7
75°	250.7	470.8	236.4	440.2	252.7
77.5°	230.3	387.3	179.4	375.0	240.5
80°	205.9	293.5	136.5	297.6	216.1
82.5°	175.3	214.0	110.1	220.1	181.4
85°	120.3	156.9	101.9	156.9	126.4
87.5°	57.0	93.8	63.2	89.7	65.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)