

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: P231803

Luminaire Tested: **24GR-LD5-120-A-UNV-L950-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231803  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-120-A-UNV-L950-CD2-U  
Description: METALUX 2X4 GRLED TROFFER  
WITH A LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

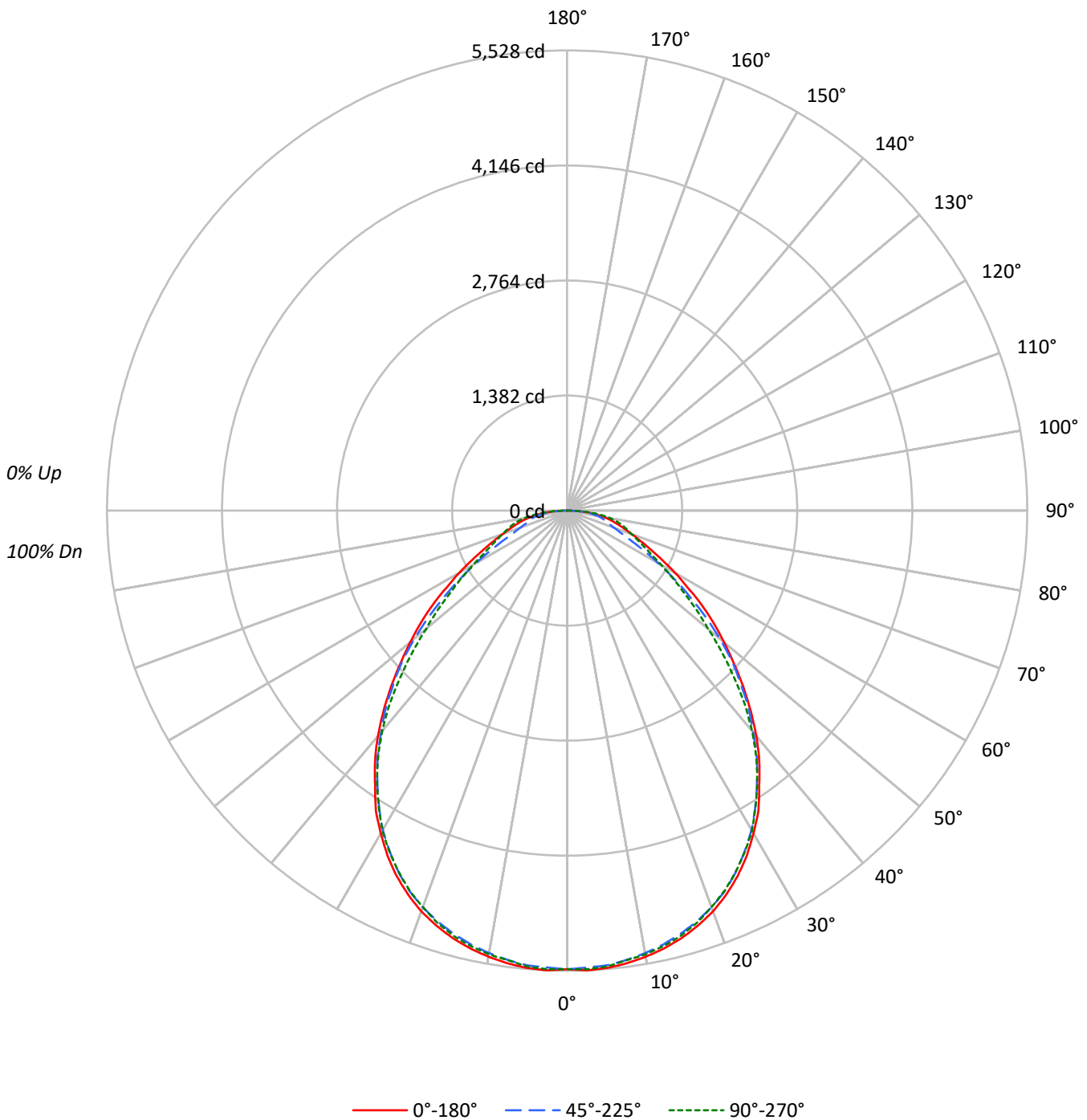
Lumens per Lamp: N/A  
Luminaire Lumens: 12416.0 lumens  
Efficiency: N/A  
Efficacy: 137.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 90.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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



TEST NUMBER: P231803  
CATALOG NUMBER: 24GR-LD5-120-A-UNV-L950-CD2-U

### Luminous Intensity Polar Plot





TEST NUMBER: P231803

CATALOG NUMBER: 24GR-LD5-120-A-UNV-L950-CD2-U

**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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29

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

	0°	45°	90°
0°	8438	8438	8438
5°	8479	8431	8452
10°	8463	8395	8419
15°	8431	8346	8382
20°	8351	8266	8263
25°	8188	8101	8094
30°	7918	7836	7853
35°	7521	7435	7446
40°	7072	6949	6907
45°	6481	6394	6141
50°	5859	5699	5270
55°	5260	4789	4543
60°	4607	3854	3995
65°	4018	3031	3677
70°	3677	2646	3677
75°	3677	2815	4052
80°	3992	3316	4618
85°	4381	3741	4956



TEST NUMBER: P231803

CATALOG NUMBER: 24GR-LD5-120-A-UNV-L950-CD2-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	521.7	4.2
10°-20°	1488.8	12.0
20°-30°	2207.5	17.8
30°-40°	2490.3	20.1
40°-50°	2255.5	18.2
50°-60°	1627.2	13.1
60°-70°	971.6	7.8
70°-80°	600.5	4.8
80°-90°	253.0	2.0
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°	4217.9	34.0
0°-40°	6708.3	54.0
0°-60°	10591.0	85.3
0°-90°	12416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12416.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5509	5509	5509	5509	5509	
5°	5515	5507	5484	5478	5497	524
15°	5317	5284	5263	5265	5286	1499
25°	4845	4818	4793	4776	4790	2226
35°	4022	4017	3976	3978	3982	2517
45°	2992	2973	2952	2879	2835	2306
55°	1970	1908	1793	1705	1701	1759
65°	1109	976	836	950	1015	1115
75°	621	539	476	593	685	664
85°	249	219	213	278	282	260
90°	0	0	0	0	0	



TEST NUMBER: P231803

CATALOG NUMBER: 24GR-LD5-120-A-UNV-L950-CD2-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5508.9	5508.9	5508.9	5508.9	5508.9
2.5°	5528.1	5512.7	5493.5	5505.0	5514.6
5°	5514.6	5507.0	5483.9	5478.2	5497.3
7.5°	5485.8	5466.6	5445.5	5455.2	5447.4
10°	5441.7	5424.4	5397.6	5399.5	5413.0
12.5°	5388.0	5366.9	5338.2	5345.8	5357.4
15°	5317.0	5284.5	5263.3	5265.3	5286.4
17.5°	5226.9	5201.9	5175.1	5180.8	5190.5
20°	5123.3	5109.9	5071.5	5060.1	5069.6
22.5°	4992.9	4968.0	4946.9	4941.1	4943.0
25°	4845.2	4818.4	4793.4	4776.1	4789.5
27.5°	4672.6	4649.6	4616.9	4611.2	4622.7
30°	4476.9	4459.6	4430.9	4423.2	4440.4
32.5°	4277.5	4248.6	4208.4	4208.4	4212.2
35°	4022.3	4016.6	3976.2	3978.2	3982.1
37.5°	3792.2	3765.3	3742.3	3719.3	3730.7
40°	3537.0	3506.3	3475.7	3460.3	3454.5
42.5°	3262.7	3239.7	3226.3	3170.6	3157.2
45°	2992.3	2973.1	2951.9	2879.1	2835.0
47.5°	2716.1	2712.3	2695.0	2566.5	2522.3
50°	2459.0	2453.3	2391.9	2255.7	2211.6
52.5°	2215.4	2177.1	2096.5	1962.2	1954.6
55°	1969.9	1908.5	1793.4	1705.2	1701.3
57.5°	1711.0	1638.1	1521.1	1473.1	1498.0
60°	1503.8	1392.6	1258.3	1264.1	1304.3
62.5°	1289.0	1164.3	1031.9	1089.5	1137.4
65°	1108.7	976.3	836.3	949.5	1014.6
67.5°	951.4	828.6	694.3	845.9	909.2
70°	821.0	721.2	590.8	750.0	821.0
72.5°	717.4	625.4	523.6	673.2	755.8
75°	621.4	539.0	475.7	592.7	684.8
77.5°	539.0	458.5	429.7	523.6	613.8
80°	452.6	379.8	375.9	456.5	523.6
82.5°	352.9	303.0	303.0	381.7	422.0
85°	249.3	218.7	212.9	278.1	282.0
87.5°	128.5	122.8	111.3	145.8	145.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)