

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: P231778

Luminaire Tested: **24GR-LD5-100-F1-UNV-L940-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33304)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-100-F1-UNV-L940-CD2-U  
Description: METALUX 2X4 GRLED TROFFER  
WITH F1 LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8625.8 lumens  
Efficiency: N/A  
Efficacy: 120.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.27  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

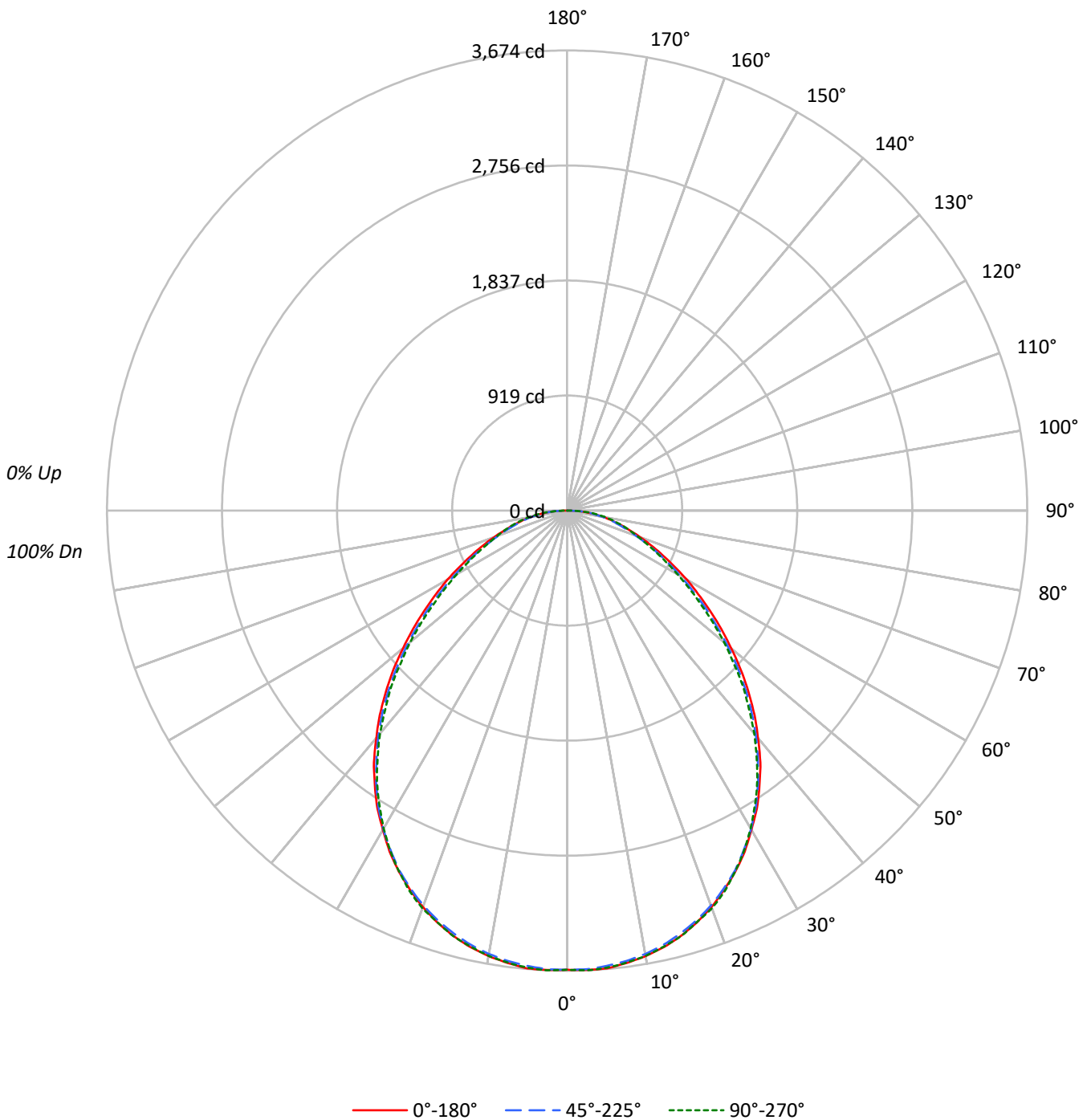
Input Watts (W): 71.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	90	80	73	68	78	71	66	75	70	65	72	68	64	62					62			
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	33					33			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

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

	0°	45°	90°
0°	5615	5615	5615
5°	5641	5609	5632
10°	5618	5590	5616
15°	5574	5544	5578
20°	5492	5470	5509
25°	5373	5359	5371
30°	5203	5194	5182
35°	5007	4969	4949
40°	4739	4685	4647
45°	4433	4352	4299
50°	4074	3964	3897
55°	3715	3579	3474
60°	3374	3193	3110
65°	3039	2869	2820
70°	2783	2602	2675
75°	2601	2481	2665
80°	2581	2533	2783
85°	2629	2654	3033



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	347.0	4.0
10°-20°	986.4	11.4
20°-30°	1457.2	16.9
30°-40°	1656.7	19.2
40°-50°	1547.1	17.9
50°-60°	1203.1	13.9
60°-70°	798.3	9.3
70°-80°	462.0	5.4
80°-90°	168.0	1.9
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°	2790.5	32.4
0°-40°	4447.2	51.6
0°-60°	7197.5	83.4
0°-90°	8625.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8625.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3666	3666	3666	3666	3666	
5°	3669	3650	3648	3655	3663	348
15°	3515	3497	3496	3495	3518	990
25°	3179	3166	3171	3164	3178	1462
35°	2678	2664	2658	2639	2647	1672
45°	2047	2030	2009	1983	1985	1577
55°	1391	1371	1340	1305	1301	1248
65°	839	813	792	777	778	838
75°	440	429	419	438	450	470
85°	150	147	151	171	173	163
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3665.9	3665.9	3665.9	3665.9	3665.9
2.5°	3671.3	3660.6	3665.9	3661.9	3674.1
5°	3668.7	3649.8	3648.5	3655.2	3663.3
7.5°	3643.0	3622.8	3626.9	3626.9	3640.4
10°	3612.0	3591.8	3594.5	3595.8	3610.7
12.5°	3570.2	3550.0	3551.4	3550.0	3564.9
15°	3515.0	3497.4	3496.1	3494.7	3517.7
17.5°	3447.6	3423.3	3431.4	3432.7	3444.8
20°	3369.3	3350.5	3355.9	3354.5	3380.1
22.5°	3276.3	3262.8	3266.9	3264.2	3288.5
25°	3179.2	3165.7	3171.2	3164.4	3177.9
27.5°	3070.0	3060.6	3055.2	3051.1	3060.6
30°	2942.0	2936.6	2936.6	2919.0	2929.8
32.5°	2820.6	2803.1	2803.1	2796.3	2789.6
35°	2677.7	2664.2	2657.5	2638.6	2646.6
37.5°	2534.8	2503.7	2501.1	2486.3	2486.3
40°	2370.2	2352.7	2343.3	2327.2	2324.4
42.5°	2213.9	2196.4	2180.2	2153.2	2147.8
45°	2046.7	2030.5	2009.0	1983.3	1984.6
47.5°	1880.8	1857.9	1837.7	1806.7	1802.6
50°	1709.6	1693.4	1663.8	1636.8	1635.5
52.5°	1549.2	1523.6	1496.6	1464.2	1464.2
55°	1391.4	1371.2	1340.2	1305.1	1301.1
57.5°	1240.4	1221.5	1186.5	1160.8	1154.1
60°	1101.6	1074.6	1042.2	1020.6	1015.2
62.5°	962.7	938.4	914.1	892.6	891.2
65°	838.6	813.0	791.5	776.6	778.0
67.5°	726.7	705.1	680.9	676.8	678.2
70°	621.5	598.6	581.1	590.6	597.3
72.5°	521.8	509.6	497.5	511.0	520.5
75°	439.5	428.7	419.3	438.2	450.3
77.5°	364.0	356.0	354.6	370.7	381.6
80°	292.6	283.1	287.2	306.1	315.5
82.5°	222.5	215.7	217.1	240.0	246.7
85°	149.6	147.0	151.0	171.2	172.6
87.5°	79.6	79.6	82.2	94.3	90.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)