

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: P292947

Luminaire Tested: **24GR-LD5-72-F1-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292947  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-72-F1-UNV-L83050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7664.0 lumens  
Efficiency: N/A  
Efficacy: 139.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

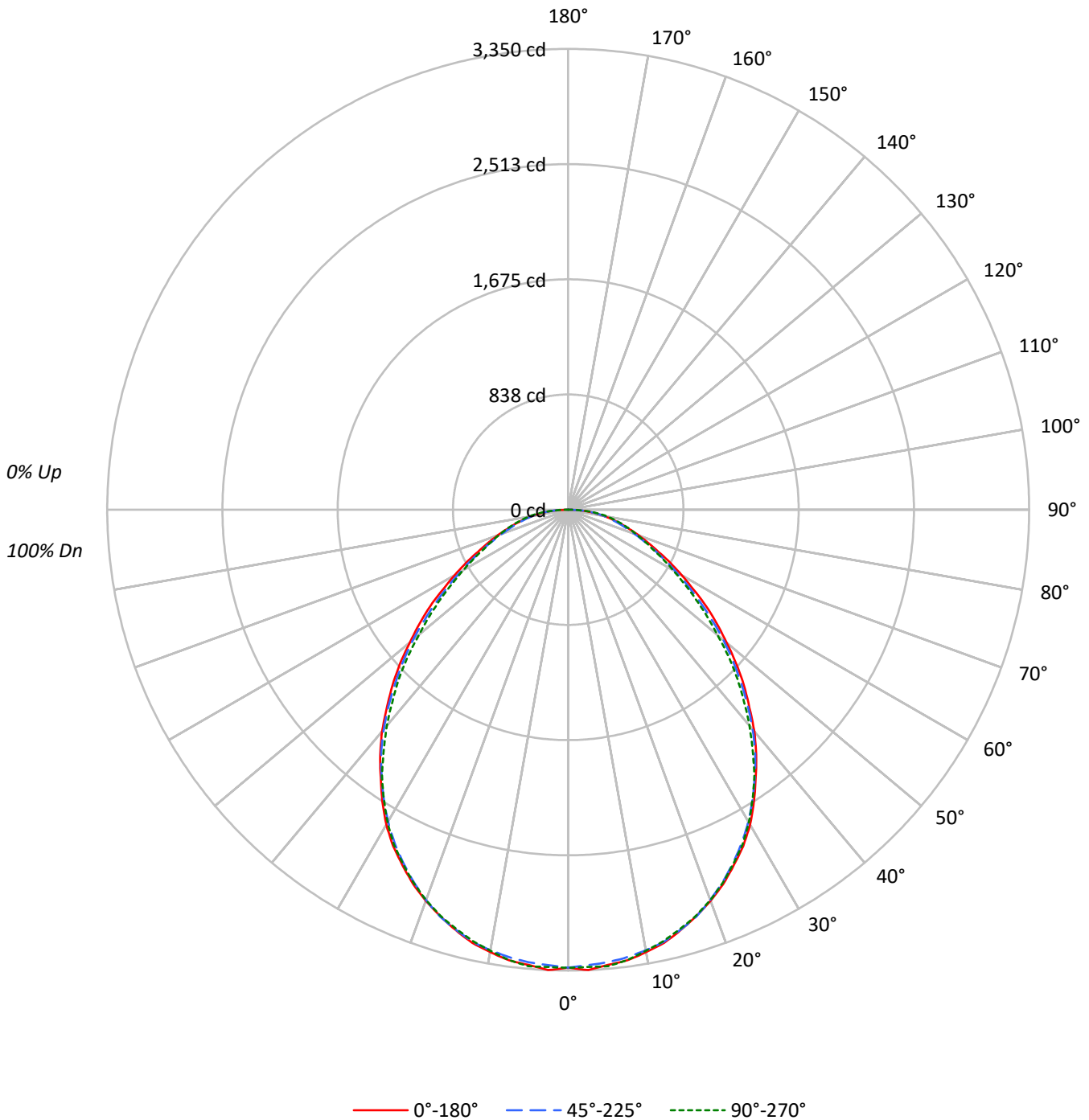
Input Watts (W): 55.149  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72																												
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62																												
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54																												
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47																												
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																												
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37																												
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34																												
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31																												
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28																												

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

	0°	45°	90°
0°	4479	4479	4479
5°	4486	4460	4498
10°	4462	4442	4447
15°	4406	4402	4391
20°	4332	4323	4323
25°	4231	4208	4217
30°	4109	4067	4079
35°	3903	3884	3874
40°	3695	3662	3598
45°	3435	3375	3309
50°	3147	3077	2961
55°	2874	2744	2651
60°	2561	2437	2374
65°	2305	2184	2154
70°	2139	2009	2089
75°	2046	1956	2120
80°	2046	2046	2266
85°	2123	2147	2391



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	314.4	4.1
10°-20°	889.7	11.6
20°-30°	1305.8	17.0
30°-40°	1476.3	19.3
40°-50°	1364.4	17.8
50°-60°	1051.2	13.7
60°-70°	696.1	9.1
70°-80°	414.4	5.4
80°-90°	151.8	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°	2509.9	32.7
0°-40°	3986.2	52.0
0°-60°	6401.7	83.5
0°-90°	7664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7664.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3329	3329	3329	3329	3329	
5°	3321	3321	3302	3304	3331	316
15°	3163	3157	3160	3158	3152	892
25°	2850	2842	2834	2831	2841	1312
35°	2376	2373	2365	2354	2358	1487
45°	1805	1793	1774	1742	1739	1391
55°	1225	1200	1170	1138	1130	1093
65°	724	713	686	680	677	726
75°	394	384	376	394	408	420
85°	138	130	139	153	155	146
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3329.1	3329.1	3329.1	3329.1	3329.1
2.5°	3349.6	3332.2	3313.3	3313.3	3327.5
5°	3321.2	3321.2	3302.2	3303.8	3330.6
7.5°	3303.8	3294.3	3281.6	3281.6	3302.2
10°	3265.8	3257.9	3251.6	3248.4	3254.8
12.5°	3224.7	3212.1	3216.8	3212.1	3210.5
15°	3163.1	3156.8	3159.9	3158.3	3152.0
17.5°	3096.7	3093.5	3099.9	3088.8	3093.5
20°	3025.6	3016.1	3019.2	3012.9	3019.2
22.5°	2944.9	2938.6	2930.7	2922.8	2935.5
25°	2850.1	2842.2	2834.3	2831.1	2840.6
27.5°	2755.2	2742.6	2731.5	2728.4	2742.6
30°	2644.6	2630.4	2617.7	2614.6	2625.6
32.5°	2513.4	2510.2	2494.4	2488.1	2492.8
35°	2375.9	2372.7	2364.8	2353.7	2358.5
37.5°	2244.7	2243.1	2232.0	2213.1	2200.4
40°	2104.0	2092.9	2085.0	2058.1	2048.7
42.5°	1949.1	1945.9	1931.7	1901.6	1890.6
45°	1805.2	1792.6	1773.6	1742.0	1738.8
47.5°	1656.6	1639.2	1621.8	1582.3	1580.8
50°	1503.3	1490.6	1470.1	1430.6	1414.8
52.5°	1361.0	1343.6	1315.2	1277.2	1269.3
55°	1225.1	1199.8	1169.8	1138.1	1130.2
57.5°	1079.7	1068.6	1032.2	1006.9	997.5
60°	951.6	942.1	905.8	882.1	882.1
62.5°	836.2	822.0	790.4	774.6	774.6
65°	724.0	712.9	686.0	679.7	676.6
67.5°	627.6	613.3	594.4	592.8	600.7
70°	543.8	526.4	510.6	526.4	531.1
72.5°	464.7	453.7	439.4	460.0	469.5
75°	393.6	384.1	376.2	393.6	407.8
77.5°	328.8	319.3	319.3	338.3	350.9
80°	264.0	257.7	264.0	279.8	292.4
82.5°	202.3	197.6	205.5	221.3	229.2
85°	137.5	129.6	139.1	153.3	154.9
87.5°	64.8	63.2	69.6	79.0	77.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)