

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: P293072

Luminaire Tested: **24GR-LD5-72-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293072  
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-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6637.0 lumens  
Efficiency: N/A  
Efficacy: 123.1 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

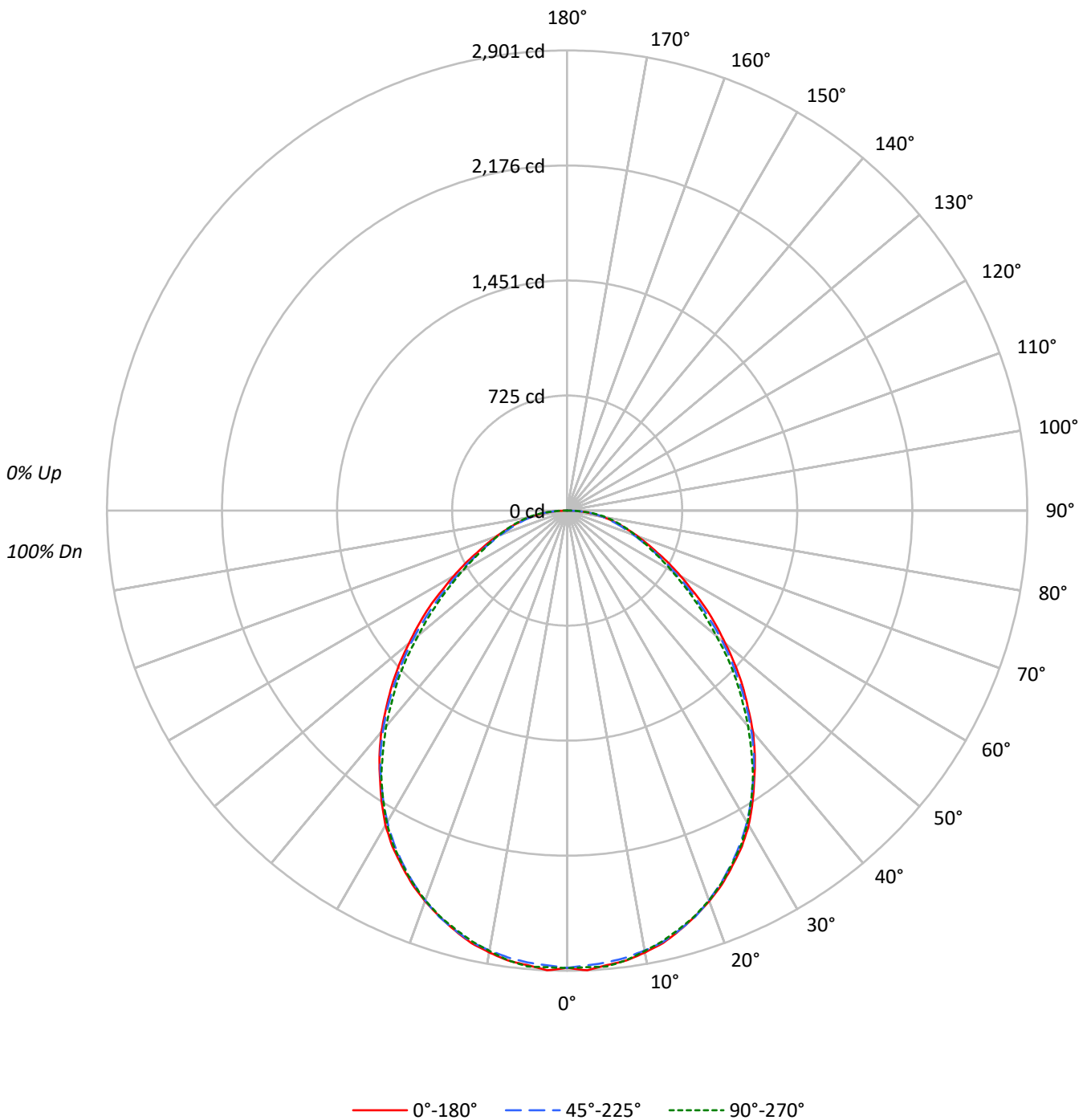
Input Watts (W): 53.91117  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	3879	3879	3879
5°	3885	3862	3896
10°	3864	3847	3851
15°	3816	3812	3802
20°	3752	3744	3744
25°	3664	3644	3652
30°	3558	3522	3533
35°	3380	3364	3355
40°	3200	3171	3116
45°	2975	2923	2865
50°	2725	2665	2565
55°	2489	2376	2296
60°	2218	2111	2056
65°	1996	1891	1865
70°	1852	1740	1810
75°	1772	1694	1836
80°	1771	1771	1963
85°	1839	1860	2072



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.3	4.1
10°-20°	770.5	11.6
20°-30°	1130.8	17.0
30°-40°	1278.5	19.3
40°-50°	1181.5	17.8
50°-60°	910.3	13.7
60°-70°	602.8	9.1
70°-80°	358.9	5.4
80°-90°	131.5	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°	2173.6	32.7
0°-40°	3452.0	52.0
0°-60°	5543.9	83.5
0°-90°	6637.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6637.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2883	2883	2883	2883	2883	
5°	2876	2876	2860	2861	2884	273
15°	2739	2734	2736	2735	2730	772
25°	2468	2461	2454	2452	2460	1136
35°	2058	2055	2048	2038	2042	1287
45°	1563	1552	1536	1509	1506	1204
55°	1061	1039	1013	986	979	946
65°	627	617	594	589	586	629
75°	341	333	326	341	353	363
85°	119	112	120	133	134	126
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2883.0	2883.0	2883.0	2883.0	2883.0
2.5°	2900.8	2885.7	2869.3	2869.3	2881.6
5°	2876.1	2876.1	2859.7	2861.1	2884.3
7.5°	2861.1	2852.8	2841.9	2841.9	2859.7
10°	2828.2	2821.4	2815.9	2813.1	2818.6
12.5°	2792.6	2781.7	2785.8	2781.7	2780.3
15°	2739.2	2733.7	2736.5	2735.1	2729.6
17.5°	2681.7	2679.0	2684.5	2674.9	2679.0
20°	2620.1	2611.9	2614.6	2609.2	2614.6
22.5°	2550.3	2544.8	2538.0	2531.1	2542.1
25°	2468.2	2461.3	2454.5	2451.7	2460.0
27.5°	2386.0	2375.1	2365.5	2362.8	2375.1
30°	2290.2	2277.9	2266.9	2264.2	2273.8
32.5°	2176.6	2173.9	2160.2	2154.7	2158.8
35°	2057.5	2054.8	2047.9	2038.3	2042.4
37.5°	1943.9	1942.5	1932.9	1916.5	1905.5
40°	1822.0	1812.5	1805.6	1782.3	1774.1
42.5°	1687.9	1685.1	1672.8	1646.8	1637.2
45°	1563.3	1552.4	1535.9	1508.6	1505.8
47.5°	1434.6	1419.6	1404.5	1370.3	1368.9
50°	1301.8	1290.9	1273.1	1238.9	1225.2
52.5°	1178.6	1163.6	1138.9	1106.1	1099.2
55°	1060.9	1039.0	1013.0	985.6	978.8
57.5°	935.0	925.4	893.9	872.0	863.8
60°	824.1	815.9	784.4	763.9	763.9
62.5°	724.2	711.8	684.5	670.8	670.8
65°	627.0	617.4	594.1	588.6	585.9
67.5°	543.5	531.1	514.7	513.3	520.2
70°	470.9	455.9	442.2	455.9	460.0
72.5°	402.5	392.9	380.6	398.4	406.6
75°	340.9	332.6	325.8	340.9	353.2
77.5°	284.7	276.5	276.5	292.9	303.9
80°	228.6	223.1	228.6	242.3	253.3
82.5°	175.2	171.1	178.0	191.6	198.5
85°	119.1	112.3	120.5	132.8	134.2
87.5°	56.1	54.8	60.2	68.4	67.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)