

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: P293073

Luminaire Tested: **24GR-LD5-72-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293073  
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-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6753.0 lumens  
Efficiency: N/A  
Efficacy: 123.3 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

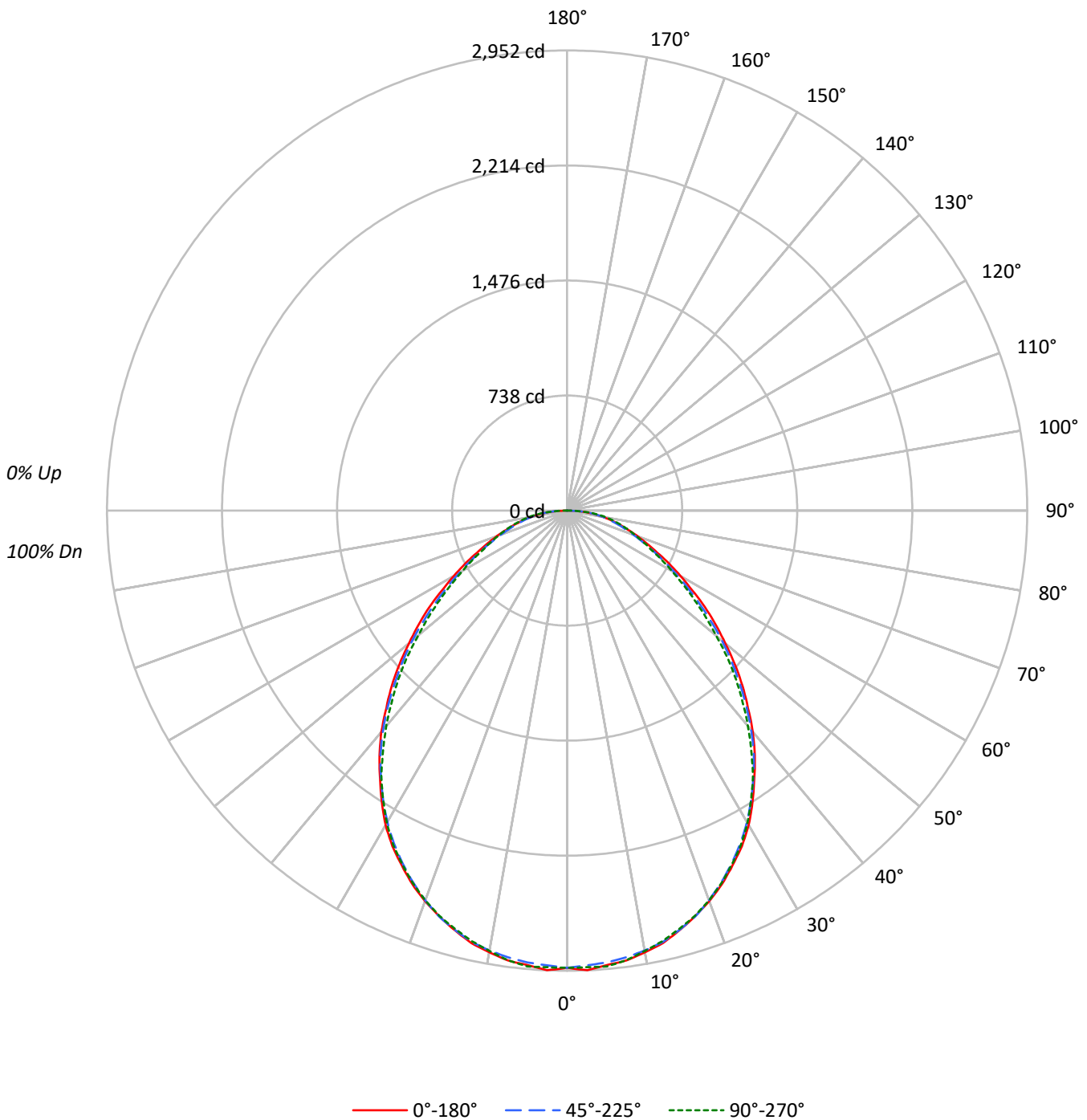
Input Watts (W): 54.75189  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293073

CATALOG NUMBER: 24GR-LD5-72-F1-UNV-L93050-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P293073

CATALOG NUMBER: 24GR-LD5-72-F1-UNV-L93050-W2A1-U-4500K

**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°	3947	3947	3947
5°	3952	3930	3964
10°	3932	3914	3918
15°	3882	3878	3869
20°	3817	3809	3809
25°	3728	3708	3716
30°	3620	3584	3594
35°	3439	3423	3413
40°	3256	3227	3170
45°	3027	2974	2915
50°	2773	2712	2609
55°	2532	2418	2336
60°	2256	2148	2091
65°	2031	1925	1898
70°	1885	1770	1841
75°	1803	1723	1868
80°	1802	1802	1997
85°	1871	1893	2107



TEST NUMBER: P293073

CATALOG NUMBER: 24GR-LD5-72-F1-UNV-L93050-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	277.0	4.1
10°-20°	784.0	11.6
20°-30°	1150.6	17.0
30°-40°	1300.8	19.3
40°-50°	1202.2	17.8
50°-60°	926.2	13.7
60°-70°	613.3	9.1
70°-80°	365.1	5.4
80°-90°	133.8	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°	2211.5	32.7
0°-40°	3512.3	52.0
0°-60°	5640.8	83.5
0°-90°	6753.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6753.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2933	2933	2933	2933	2933	
5°	2926	2926	2910	2911	2935	278
15°	2787	2782	2784	2783	2777	786
25°	2511	2504	2497	2495	2503	1156
35°	2094	2091	2084	2074	2078	1310
45°	1591	1580	1563	1535	1532	1225
55°	1080	1057	1031	1003	996	963
65°	638	628	604	599	596	640
75°	347	338	332	347	359	370
85°	121	114	123	135	136	129
90°	0	0	0	0	0	



TEST NUMBER: P293073

CATALOG NUMBER: 24GR-LD5-72-F1-UNV-L93050-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2933.3	2933.3	2933.3	2933.3	2933.3
2.5°	2951.5	2936.1	2919.4	2919.4	2932.0
5°	2926.4	2926.4	2909.7	2911.1	2934.7
7.5°	2911.1	2902.7	2891.6	2891.6	2909.7
10°	2877.6	2870.7	2865.1	2862.3	2867.9
12.5°	2841.4	2830.3	2834.5	2830.3	2828.9
15°	2787.1	2781.5	2784.3	2782.9	2777.3
17.5°	2728.6	2725.8	2731.4	2721.6	2725.8
20°	2665.9	2657.6	2660.3	2654.8	2660.3
22.5°	2594.9	2589.3	2582.3	2575.4	2586.5
25°	2511.3	2504.3	2497.4	2494.6	2503.0
27.5°	2427.7	2416.6	2406.8	2404.1	2416.6
30°	2330.2	2317.7	2306.6	2303.8	2313.5
32.5°	2214.6	2211.8	2197.9	2192.3	2196.5
35°	2093.5	2090.7	2083.7	2074.0	2078.1
37.5°	1977.8	1976.5	1966.7	1950.0	1938.8
40°	1853.9	1844.1	1837.2	1813.5	1805.1
42.5°	1717.4	1714.6	1702.1	1675.6	1665.8
45°	1590.6	1579.5	1562.8	1534.9	1532.1
47.5°	1459.7	1444.4	1429.1	1394.2	1392.9
50°	1324.6	1313.5	1295.4	1260.5	1246.6
52.5°	1199.2	1183.9	1158.9	1125.4	1118.5
55°	1079.5	1057.2	1030.7	1002.9	995.9
57.5°	951.3	941.6	909.5	887.2	878.9
60°	838.5	830.1	798.1	777.2	777.2
62.5°	736.8	724.3	696.4	682.5	682.5
65°	637.9	628.2	604.5	598.9	596.1
67.5°	553.0	540.4	523.7	522.3	529.3
70°	479.1	463.8	449.9	463.8	468.0
72.5°	409.5	399.7	387.2	405.3	413.7
75°	346.8	338.5	331.5	346.8	359.4
77.5°	289.7	281.4	281.4	298.1	309.2
80°	232.6	227.0	232.6	246.5	257.7
82.5°	178.3	174.1	181.1	195.0	202.0
85°	121.2	114.2	122.6	135.1	136.5
87.5°	57.1	55.7	61.3	69.6	68.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)