

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: P293069

Luminaire Tested: **24GR-LD5-64-F1-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293069  
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-LD5-64-F1-UNV-L93050-W2A1-U-5000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5977.0 lumens  
Efficiency: N/A  
Efficacy: 124.9 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

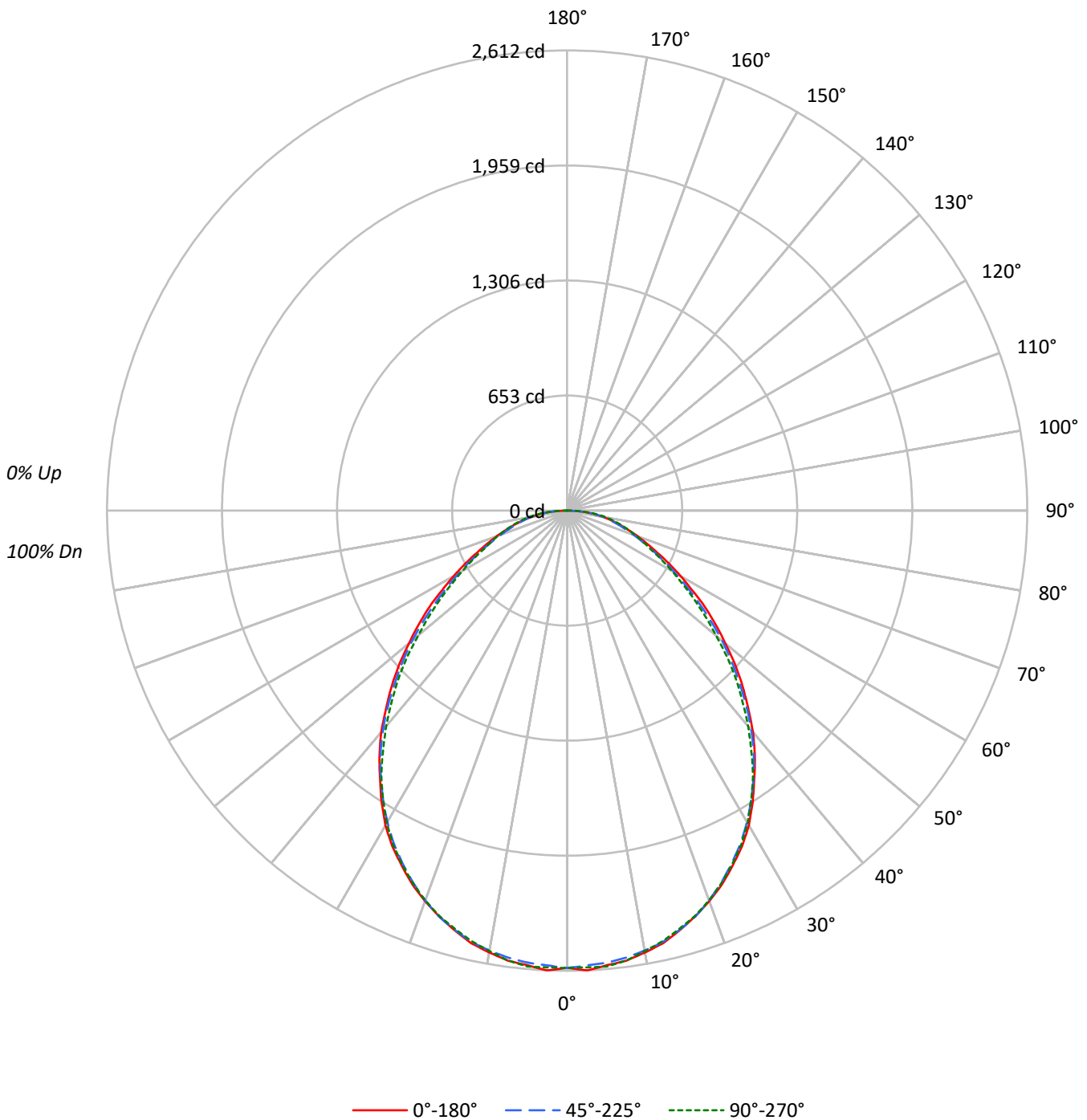
Input Watts (W): 47.871564  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3493	3493	3493
5°	3498	3478	3508
10°	3480	3465	3468
15°	3436	3433	3424
20°	3379	3371	3371
25°	3300	3282	3289
30°	3204	3172	3181
35°	3043	3029	3021
40°	2882	2856	2806
45°	2679	2632	2580
50°	2454	2400	2310
55°	2241	2140	2068
60°	1997	1901	1851
65°	1798	1703	1680
70°	1668	1566	1629
75°	1596	1525	1654
80°	1595	1595	1767
85°	1656	1675	1865



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.2	4.1
10°-20°	693.9	11.6
20°-30°	1018.4	17.0
30°-40°	1151.3	19.3
40°-50°	1064.1	17.8
50°-60°	819.8	13.7
60°-70°	542.9	9.1
70°-80°	323.2	5.4
80°-90°	118.4	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°	1957.4	32.7
0°-40°	3108.7	52.0
0°-60°	4992.6	83.5
0°-90°	5977.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5977.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2596	2596	2596	2596	2596	
5°	2590	2590	2575	2576	2598	246
15°	2467	2462	2464	2463	2458	695
25°	2223	2217	2210	2208	2215	1023
35°	1853	1850	1844	1836	1839	1159
45°	1408	1398	1383	1358	1356	1084
55°	955	936	912	888	881	852
65°	565	556	535	530	528	566
75°	307	300	293	307	318	327
85°	107	101	108	120	121	114
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2596.3	2596.3	2596.3	2596.3	2596.3
2.5°	2612.3	2598.7	2583.9	2583.9	2595.0
5°	2590.1	2590.1	2575.3	2576.5	2597.5
7.5°	2576.5	2569.1	2559.3	2559.3	2575.3
10°	2547.0	2540.8	2535.9	2533.4	2538.3
12.5°	2514.9	2505.0	2508.7	2505.0	2503.8
15°	2466.8	2461.9	2464.4	2463.1	2458.2
17.5°	2415.0	2412.6	2417.5	2408.9	2412.6
20°	2359.6	2352.2	2354.6	2349.7	2354.6
22.5°	2296.7	2291.8	2285.6	2279.4	2289.3
25°	2222.7	2216.6	2210.4	2207.9	2215.3
27.5°	2148.8	2138.9	2130.3	2127.8	2138.9
30°	2062.5	2051.4	2041.5	2039.0	2047.7
32.5°	1960.1	1957.7	1945.4	1940.4	1944.1
35°	1852.9	1850.4	1844.3	1835.6	1839.3
37.5°	1750.6	1749.3	1740.7	1725.9	1716.1
40°	1640.9	1632.2	1626.1	1605.1	1597.7
42.5°	1520.0	1517.6	1506.5	1483.1	1474.4
45°	1407.9	1398.0	1383.2	1358.5	1356.1
47.5°	1292.0	1278.4	1264.8	1234.0	1232.8
50°	1172.4	1162.5	1146.5	1115.7	1103.4
52.5°	1061.4	1047.9	1025.7	996.1	989.9
55°	955.4	935.7	912.3	887.6	881.4
57.5°	842.0	833.4	805.0	785.3	777.9
60°	742.1	734.7	706.4	687.9	687.9
62.5°	652.1	641.1	616.4	604.1	604.1
65°	564.6	556.0	535.0	530.1	527.6
67.5°	489.4	478.3	463.5	462.3	468.5
70°	424.1	410.5	398.2	410.5	414.2
72.5°	362.4	353.8	342.7	358.7	366.1
75°	307.0	299.6	293.4	307.0	318.1
77.5°	256.4	249.0	249.0	263.8	273.7
80°	205.9	200.9	205.9	218.2	228.1
82.5°	157.8	154.1	160.3	172.6	178.8
85°	107.3	101.1	108.5	119.6	120.8
87.5°	50.5	49.3	54.2	61.6	60.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)