

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: P294197

Luminaire Tested: **24GR-LD5-56-FGW080-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294197  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-FGW080-UNV-L83050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5208.0 lumens  
Efficiency: N/A  
Efficacy: 127.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

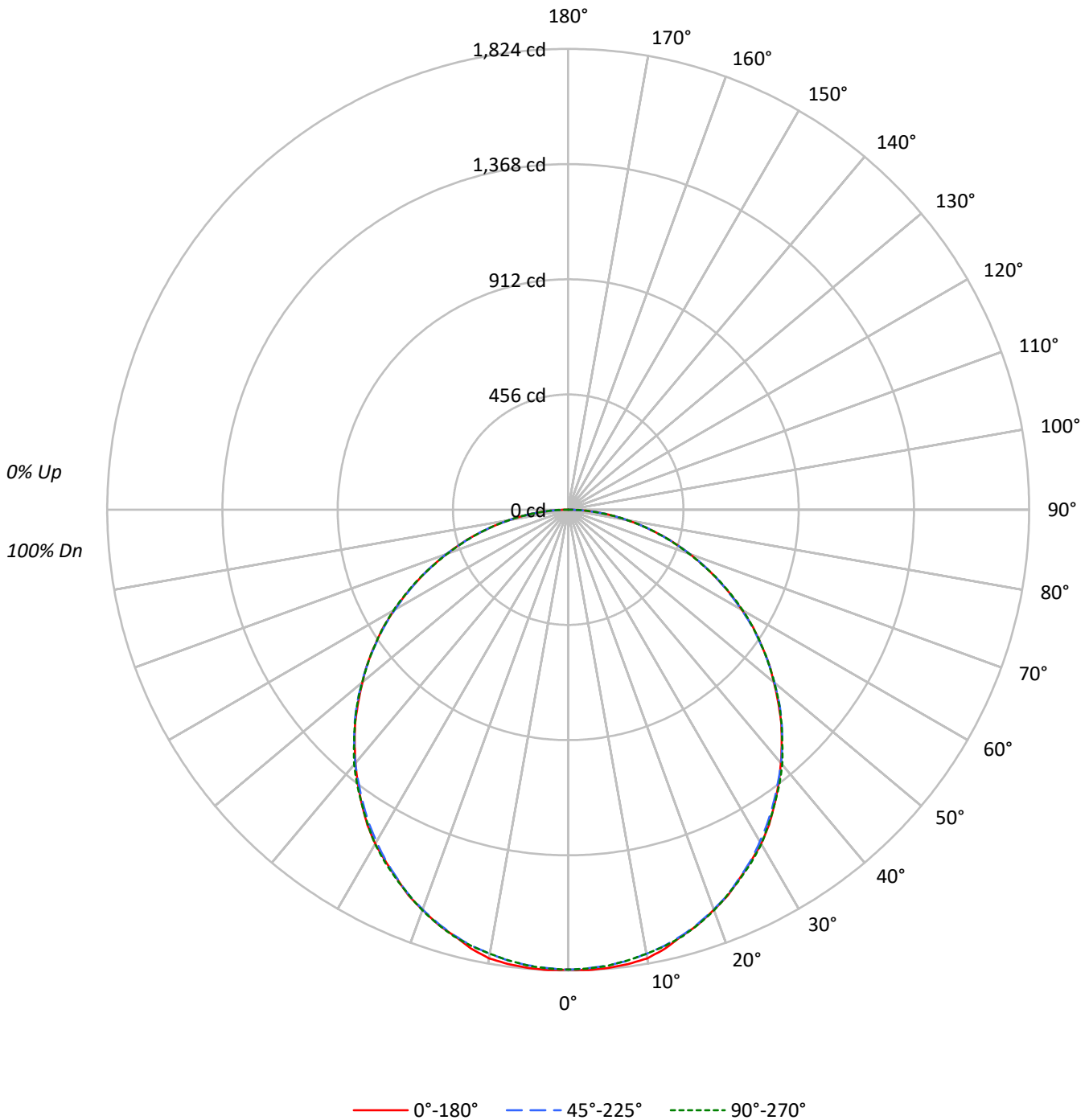
Input Watts (W): 40.92  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91		93	90	88		89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35		47	40	35		46	40	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

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

	0°	45°	90°
0°	2449	2449	2449
5°	2459	2445	2447
10°	2463	2438	2438
15°	2431	2429	2435
20°	2413	2411	2416
25°	2387	2385	2392
30°	2372	2357	2374
35°	2338	2326	2338
40°	2300	2302	2315
45°	2267	2274	2269
50°	2224	2232	2227
55°	2190	2184	2190
60°	2139	2132	2152
65°	2073	2080	2088
70°	2005	2015	2000
75°	1935	1935	1935
80°	1827	1827	1846
85°	1687	1706	1650



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.1	3.3
10°-20°	492.0	9.4
20°-30°	741.5	14.2
30°-40°	888.1	17.1
40°-50°	919.3	17.7
50°-60°	833.5	16.0
60°-70°	646.2	12.4
70°-80°	393.0	7.5
80°-90°	122.3	2.3
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°	1405.6	27.0
0°-40°	2293.7	44.0
0°-60°	4046.5	77.7
0°-90°	5208.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5208.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1820	1809	1810	1808	1812	173
15°	1745	1747	1744	1738	1748	493
25°	1608	1608	1606	1612	1612	742
35°	1424	1414	1416	1422	1424	890
45°	1191	1194	1195	1190	1193	918
55°	934	929	931	935	934	834
65°	651	655	653	651	656	646
75°	372	371	372	371	372	393
85°	109	108	110	109	107	122
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1820.3	1820.3	1820.3	1820.3	1820.3
2.5°	1823.9	1816.6	1816.6	1814.1	1817.8
5°	1820.3	1809.2	1810.4	1808.0	1811.7
7.5°	1814.1	1799.4	1800.6	1798.1	1799.4
10°	1803.1	1785.9	1784.6	1783.4	1784.6
12.5°	1778.5	1768.7	1767.4	1765.0	1768.7
15°	1745.3	1746.6	1744.1	1738.0	1747.8
17.5°	1719.5	1718.3	1715.9	1709.7	1719.5
20°	1685.1	1686.4	1683.9	1681.5	1687.6
22.5°	1652.0	1648.3	1649.5	1648.3	1649.5
25°	1607.8	1607.8	1606.5	1611.5	1611.5
27.5°	1567.2	1562.3	1564.8	1569.7	1572.2
30°	1526.7	1514.4	1516.9	1521.8	1527.9
32.5°	1478.8	1466.5	1469.0	1473.9	1476.3
35°	1423.5	1413.7	1416.2	1422.3	1423.5
37.5°	1367.0	1360.9	1363.3	1368.3	1371.9
40°	1309.3	1306.9	1310.5	1309.3	1317.9
42.5°	1250.4	1249.1	1252.8	1252.8	1254.0
45°	1191.4	1193.9	1195.1	1190.2	1192.6
47.5°	1126.3	1127.5	1132.4	1130.0	1131.2
50°	1062.4	1061.2	1066.1	1067.3	1063.7
52.5°	1001.0	994.9	999.8	1002.2	999.8
55°	933.5	928.6	931.0	934.7	933.5
57.5°	867.1	862.2	863.5	869.6	867.1
60°	794.7	793.4	792.2	797.1	799.6
62.5°	723.4	722.2	719.8	724.7	727.1
65°	651.0	654.7	653.4	651.0	655.9
67.5°	582.2	585.9	582.2	579.7	579.7
70°	509.7	513.4	512.2	509.7	508.5
72.5°	442.2	442.2	439.7	438.5	439.7
75°	372.2	370.9	372.2	370.9	372.2
77.5°	303.4	304.6	304.6	304.6	303.4
80°	235.8	235.8	235.8	237.1	238.3
82.5°	173.2	169.5	173.2	170.7	172.0
85°	109.3	108.1	110.5	109.3	106.9
87.5°	49.1	50.4	50.4	51.6	51.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)