

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: P294196

Luminaire Tested: **24GR-LD5-56-FGW080-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294196  
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-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5159.0 lumens  
Efficiency: N/A  
Efficacy: 129.3 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

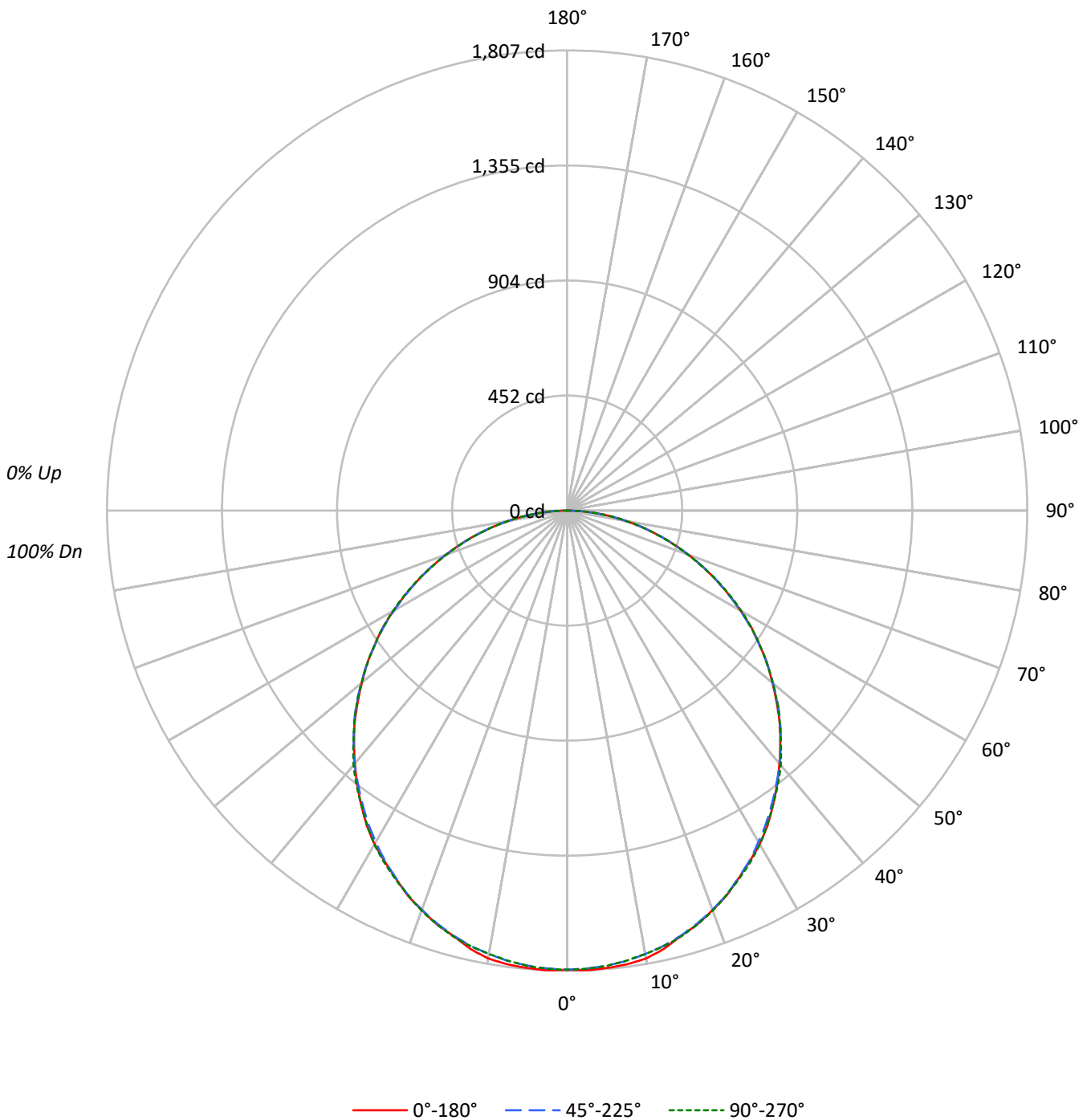
Input Watts (W): 39.897  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2426	2426	2426
5°	2435	2422	2424
10°	2440	2415	2415
15°	2408	2407	2412
20°	2390	2388	2394
25°	2364	2363	2370
30°	2350	2334	2352
35°	2316	2304	2316
40°	2278	2280	2293
45°	2246	2253	2248
50°	2203	2211	2206
55°	2169	2163	2169
60°	2118	2112	2132
65°	2053	2061	2068
70°	1986	1996	1982
75°	1917	1917	1917
80°	1810	1810	1829
85°	1672	1690	1635



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.5	3.3
10°-20°	487.4	9.4
20°-30°	734.5	14.2
30°-40°	879.7	17.1
40°-50°	910.6	17.7
50°-60°	825.7	16.0
60°-70°	640.1	12.4
70°-80°	389.3	7.5
80°-90°	121.1	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°	1392.4	27.0
0°-40°	2272.1	44.0
0°-60°	4008.4	77.7
0°-90°	5159.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5159.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1803	1803	1803	1803	1803	
5°	1803	1792	1793	1791	1795	172
15°	1729	1730	1728	1722	1731	489
25°	1593	1593	1591	1596	1596	735
35°	1410	1400	1403	1409	1410	882
45°	1180	1183	1184	1179	1181	909
55°	925	920	922	926	925	827
65°	645	648	647	645	650	639
75°	369	367	369	367	369	389
85°	108	107	110	108	106	121
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1803.1	1803.1	1803.1	1803.1	1803.1
2.5°	1806.8	1799.5	1799.5	1797.0	1800.7
5°	1803.1	1792.2	1793.4	1791.0	1794.6
7.5°	1797.0	1782.4	1783.7	1781.2	1782.4
10°	1786.1	1769.1	1767.8	1766.6	1767.8
12.5°	1761.8	1752.0	1750.8	1748.4	1752.0
15°	1728.9	1730.1	1727.7	1721.6	1731.3
17.5°	1703.4	1702.1	1699.7	1693.6	1703.4
20°	1669.3	1670.5	1668.1	1665.6	1671.7
22.5°	1636.4	1632.8	1634.0	1632.8	1634.0
25°	1592.6	1592.6	1591.4	1596.3	1596.3
27.5°	1552.5	1547.6	1550.1	1554.9	1557.4
30°	1512.3	1500.2	1502.6	1507.5	1513.6
32.5°	1464.9	1452.7	1455.2	1460.0	1462.5
35°	1410.1	1400.4	1402.8	1408.9	1410.1
37.5°	1354.2	1348.1	1350.5	1355.4	1359.0
40°	1297.0	1294.6	1298.2	1297.0	1305.5
42.5°	1238.6	1237.4	1241.0	1241.0	1242.2
45°	1180.2	1182.6	1183.8	1179.0	1181.4
47.5°	1115.7	1116.9	1121.8	1119.4	1120.6
50°	1052.4	1051.2	1056.1	1057.3	1053.7
52.5°	991.6	985.5	990.4	992.8	990.4
55°	924.7	919.8	922.2	925.9	924.7
57.5°	859.0	854.1	855.3	861.4	859.0
60°	787.2	786.0	784.8	789.6	792.1
62.5°	716.6	715.4	713.0	717.8	720.3
65°	644.8	648.5	647.3	644.8	649.7
67.5°	576.7	580.4	576.7	574.3	574.3
70°	504.9	508.6	507.4	504.9	503.7
72.5°	438.0	438.0	435.6	434.4	435.6
75°	368.7	367.4	368.7	367.4	368.7
77.5°	300.5	301.7	301.7	301.7	300.5
80°	233.6	233.6	233.6	234.8	236.0
82.5°	171.6	167.9	171.6	169.1	170.3
85°	108.3	107.1	109.5	108.3	105.9
87.5°	48.7	49.9	49.9	51.1	51.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)