

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: P294378

Luminaire Tested: **24GR-LD5-48-FGW080-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294378  
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-LD5-48-FGW080-UNV-L92765-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3617.0 lumens  
Efficiency: N/A  
Efficacy: 109.9 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

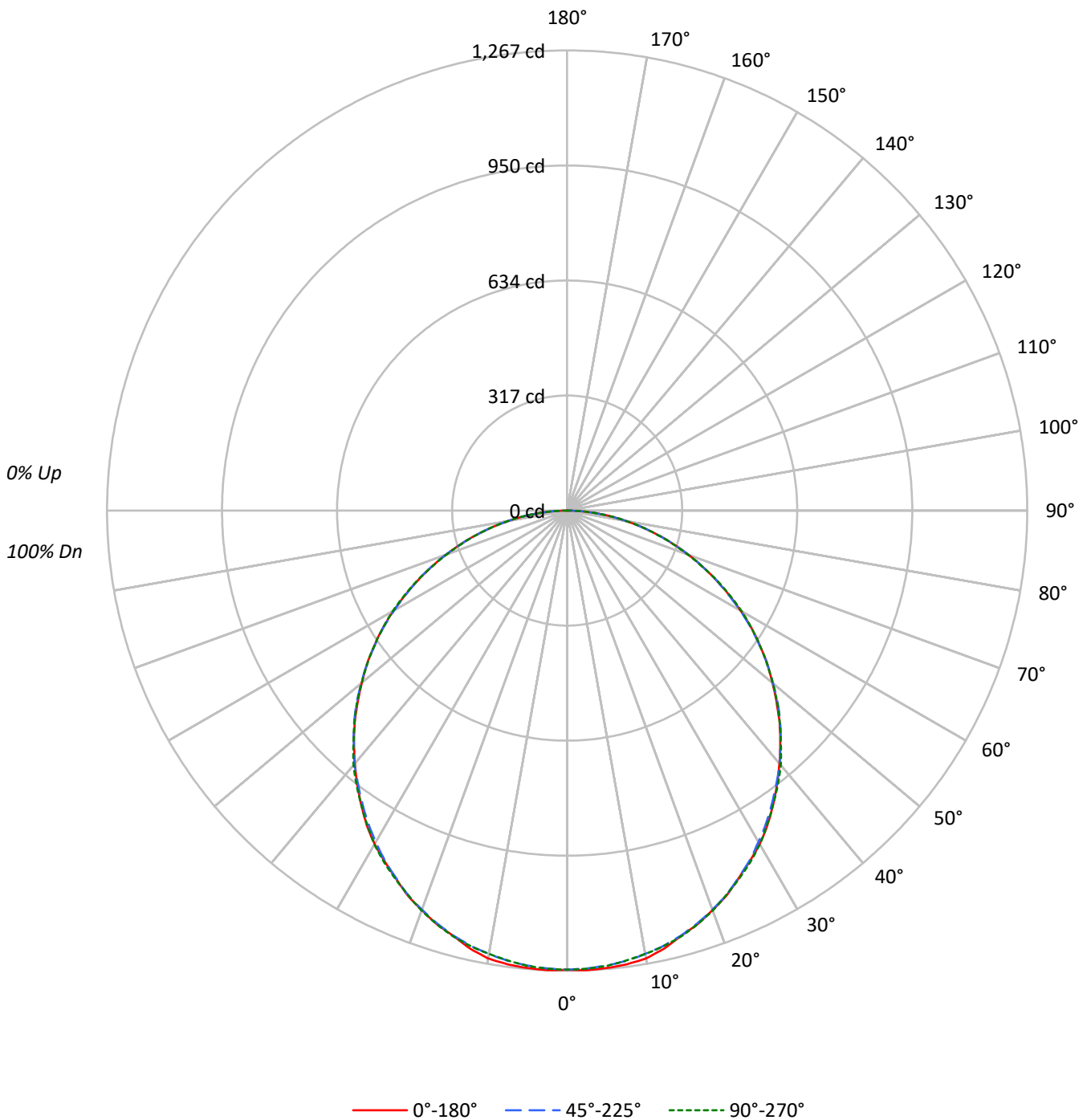
Input Watts (W): 32.922  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1701	1701	1701
5°	1707	1698	1699
10°	1711	1693	1693
15°	1688	1687	1691
20°	1676	1675	1678
25°	1658	1656	1662
30°	1647	1637	1649
35°	1624	1615	1624
40°	1597	1599	1608
45°	1574	1579	1576
50°	1545	1550	1546
55°	1521	1517	1521
60°	1485	1481	1494
65°	1439	1445	1450
70°	1393	1399	1389
75°	1344	1344	1344
80°	1269	1269	1282
85°	1172	1186	1145



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.5	3.3
10°-20°	341.7	9.4
20°-30°	515.0	14.2
30°-40°	616.8	17.1
40°-50°	638.4	17.7
50°-60°	578.9	16.0
60°-70°	448.8	12.4
70°-80°	273.0	7.5
80°-90°	84.9	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°	976.2	27.0
0°-40°	1593.0	44.0
0°-60°	2810.4	77.7
0°-90°	3617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3617.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1264	1256	1257	1256	1258	120
15°	1212	1213	1211	1207	1214	343
25°	1117	1117	1116	1119	1119	515
35°	989	982	984	988	989	618
45°	827	829	830	827	828	637
55°	648	645	647	649	648	579
65°	452	455	454	452	456	448
75°	258	258	258	258	258	273
85°	76	75	77	76	74	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1264.2	1264.2	1264.2	1264.2	1264.2
2.5°	1266.7	1261.6	1261.6	1259.9	1262.5
5°	1264.2	1256.5	1257.4	1255.7	1258.2
7.5°	1259.9	1249.7	1250.5	1248.8	1249.7
10°	1252.2	1240.3	1239.4	1238.6	1239.4
12.5°	1235.2	1228.4	1227.5	1225.8	1228.4
15°	1212.1	1213.0	1211.3	1207.0	1213.9
17.5°	1194.2	1193.4	1191.7	1187.4	1194.2
20°	1170.4	1171.2	1169.5	1167.8	1172.1
22.5°	1147.3	1144.8	1145.6	1144.8	1145.6
25°	1116.6	1116.6	1115.8	1119.2	1119.2
27.5°	1088.5	1085.0	1086.8	1090.2	1091.9
30°	1060.3	1051.8	1053.5	1056.9	1061.2
32.5°	1027.0	1018.5	1020.2	1023.6	1025.3
35°	988.7	981.8	983.5	987.8	988.7
37.5°	949.4	945.2	946.9	950.3	952.8
40°	909.3	907.6	910.2	909.3	915.3
42.5°	868.4	867.5	870.1	870.1	870.9
45°	827.4	829.1	830.0	826.6	828.3
47.5°	782.2	783.1	786.5	784.8	785.6
50°	737.9	737.0	740.4	741.3	738.7
52.5°	695.2	691.0	694.4	696.1	694.4
55°	648.3	644.9	646.6	649.2	648.3
57.5°	602.2	598.8	599.7	603.9	602.2
60°	551.9	551.1	550.2	553.6	555.3
62.5°	502.4	501.6	499.9	503.3	505.0
65°	452.1	454.7	453.8	452.1	455.5
67.5°	404.3	406.9	404.3	402.6	402.6
70°	354.0	356.6	355.7	354.0	353.2
72.5°	307.1	307.1	305.4	304.5	305.4
75°	258.5	257.6	258.5	257.6	258.5
77.5°	210.7	211.6	211.6	211.6	210.7
80°	163.8	163.8	163.8	164.6	165.5
82.5°	120.3	117.7	120.3	118.6	119.4
85°	75.9	75.1	76.8	75.9	74.2
87.5°	34.1	35.0	35.0	35.8	35.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)