

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: P292821

Luminaire Tested: **22GR-LD5-28-FGW080-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-26)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-28-FGW080-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1896.0 lumens  
Efficiency: N/A  
Efficacy: 84.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

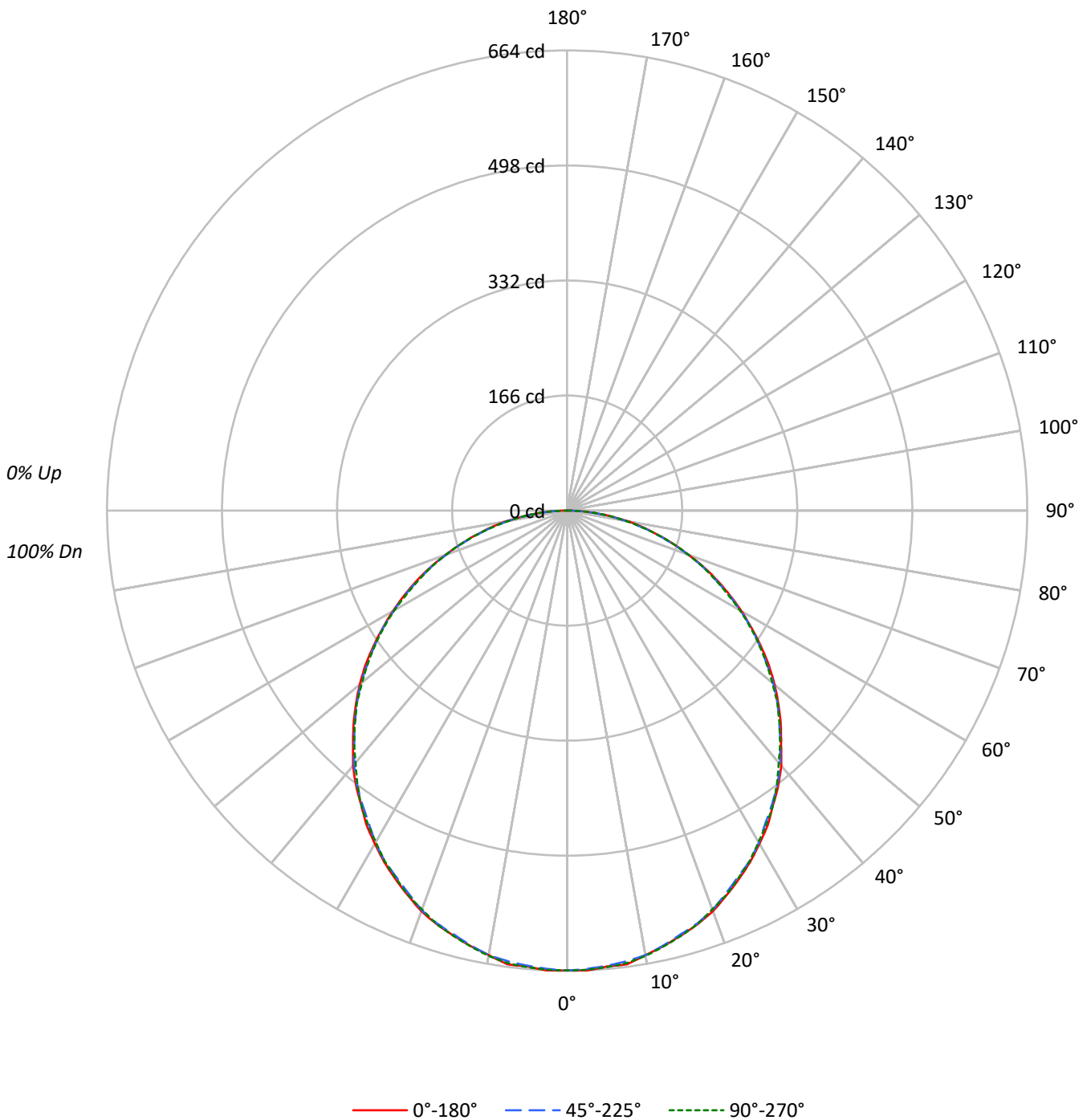
Input Watts (W): 22.506  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	85	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°	1786	1786	1786
5°	1784	1781	1787
10°	1780	1780	1783
15°	1768	1763	1770
20°	1762	1757	1754
25°	1742	1732	1737
30°	1725	1720	1716
35°	1703	1695	1703
40°	1688	1680	1668
45°	1659	1648	1648
50°	1636	1627	1618
55°	1601	1590	1588
60°	1564	1555	1549
65°	1524	1507	1500
70°	1463	1459	1463
75°	1412	1395	1407
80°	1398	1328	1320
85°	1238	1204	1220



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.8	3.3
10°-20°	179.1	9.4
20°-30°	269.7	14.2
30°-40°	323.7	17.1
40°-50°	334.9	17.7
50°-60°	303.5	16.0
60°-70°	235.3	12.4
70°-80°	142.8	7.5
80°-90°	44.2	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°	511.6	27.0
0°-40°	835.3	44.1
0°-60°	1473.7	77.7
0°-90°	1896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1896.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	660	660	659	661	661	63
15°	635	635	633	636	635	179
25°	587	586	583	586	585	270
35°	518	518	516	517	518	325
45°	436	435	433	433	433	336
55°	341	341	339	338	338	305
65°	239	239	237	238	236	237
75°	136	135	134	134	135	144
85°	40	40	39	39	40	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	663.6	663.6	663.6	663.6	663.6
2.5°	664.2	661.4	661.9	663.1	663.1
5°	660.3	660.3	659.2	660.8	661.4
7.5°	660.3	657.5	655.8	657.5	658.6
10°	651.4	650.3	651.4	650.8	652.5
12.5°	643.6	642.5	642.5	644.1	644.1
15°	634.7	634.7	633.0	635.8	635.2
17.5°	625.8	625.8	624.6	624.6	625.8
20°	615.2	612.4	613.5	613.0	612.4
22.5°	600.7	599.0	597.9	599.6	600.2
25°	586.8	585.7	583.4	585.7	585.1
27.5°	571.8	570.6	570.1	569.0	570.1
30°	555.1	553.9	553.4	552.3	552.3
32.5°	538.4	536.1	533.3	536.1	535.6
35°	518.3	518.3	516.1	516.6	518.3
37.5°	500.5	499.4	498.3	496.6	497.2
40°	480.5	478.8	478.2	477.1	474.9
42.5°	457.1	457.1	454.8	455.4	454.8
45°	435.9	435.4	433.1	433.1	433.1
47.5°	413.6	413.1	411.4	410.3	411.4
50°	390.8	388.6	388.6	386.9	386.4
52.5°	366.9	365.2	363.0	363.5	362.4
55°	341.3	340.7	339.0	338.5	338.5
57.5°	315.7	316.2	315.1	312.9	313.4
60°	290.6	290.1	288.9	287.8	287.8
62.5°	265.0	265.0	262.8	262.8	260.5
65°	239.4	239.4	236.6	237.7	235.5
67.5°	213.8	213.2	211.6	211.0	211.6
70°	185.9	186.5	185.4	185.4	185.9
72.5°	160.9	160.3	159.8	159.8	160.9
75°	135.8	135.3	134.2	134.2	135.3
77.5°	113.0	110.2	109.7	110.8	109.1
80°	90.2	86.3	85.7	85.2	85.2
82.5°	63.5	61.8	62.4	61.8	62.9
85°	40.1	39.5	39.0	39.0	39.5
87.5°	18.9	17.8	17.8	17.3	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)