

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: P292824

Luminaire Tested: **22GR-LD5-28-FGW080-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292824  
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-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2276.0 lumens  
Efficiency: N/A  
Efficacy: 99.1 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

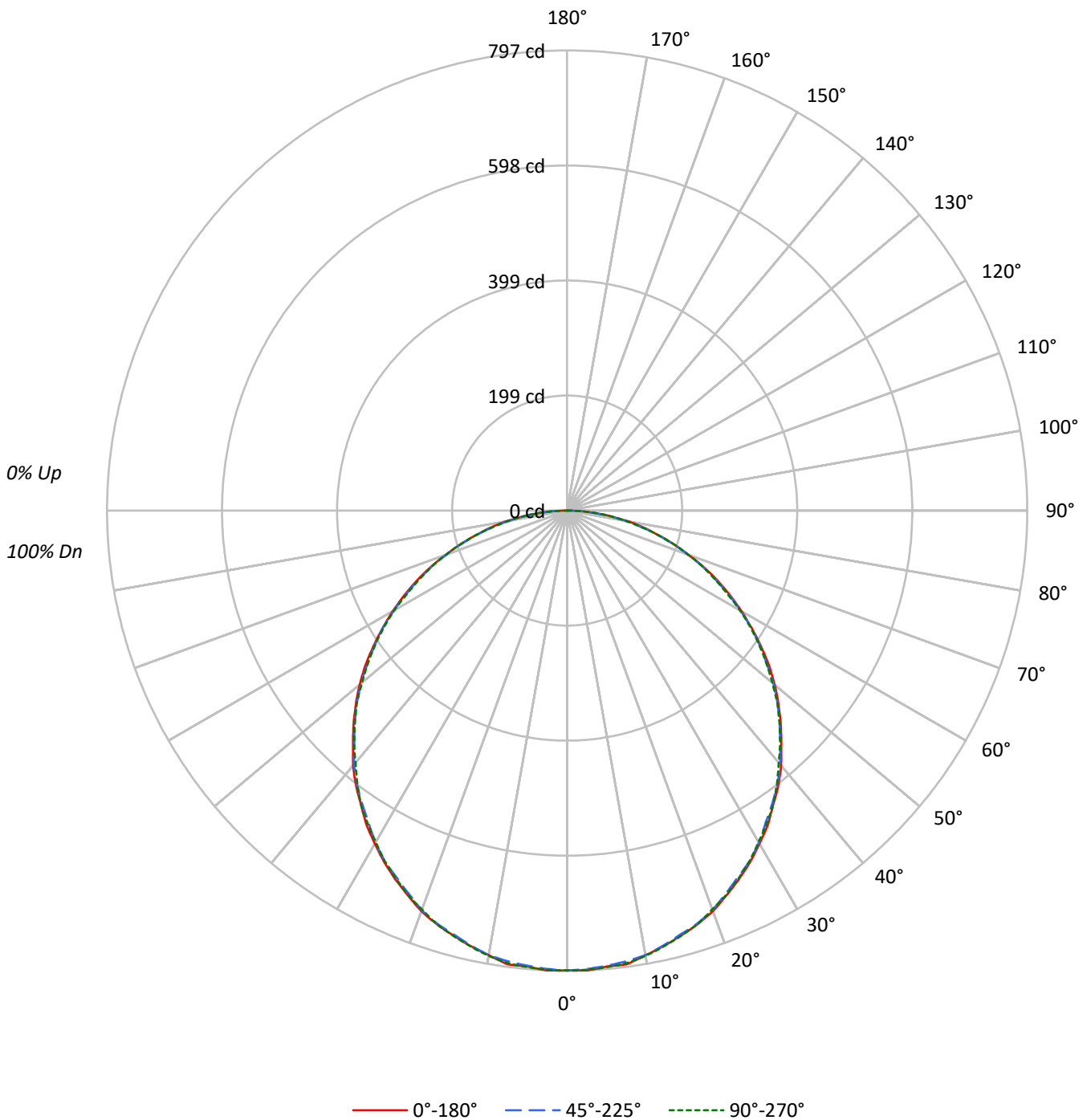
Input Watts (W): 22.971  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2144	2144	2144
5°	2141	2138	2145
10°	2137	2137	2140
15°	2123	2117	2124
20°	2115	2109	2105
25°	2091	2080	2086
30°	2070	2064	2060
35°	2044	2035	2044
40°	2026	2017	2003
45°	1991	1979	1979
50°	1964	1953	1942
55°	1922	1909	1906
60°	1878	1867	1859
65°	1830	1808	1800
70°	1756	1751	1756
75°	1696	1675	1688
80°	1678	1595	1585
85°	1485	1445	1463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.4	3.3
10°-20°	215.0	9.4
20°-30°	323.8	14.2
30°-40°	388.6	17.1
40°-50°	402.1	17.7
50°-60°	364.3	16.0
60°-70°	282.4	12.4
70°-80°	171.4	7.5
80°-90°	53.1	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°	614.2	27.0
0°-40°	1002.7	44.1
0°-60°	1769.1	77.7
0°-90°	2276.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2276.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	793	793	791	793	794	76
15°	762	762	760	763	762	215
25°	704	703	700	703	702	325
35°	622	622	620	620	622	390
45°	523	523	520	520	520	404
55°	410	409	407	406	406	366
65°	287	287	284	285	283	284
75°	163	162	161	161	162	173
85°	48	47	47	47	47	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	796.6	796.6	796.6	796.6	796.6
2.5°	797.3	793.9	794.6	796.0	796.0
5°	792.6	792.6	791.3	793.3	793.9
7.5°	792.6	789.3	787.3	789.3	790.6
10°	781.9	780.6	781.9	781.3	783.3
12.5°	772.6	771.2	771.2	773.2	773.2
15°	761.9	761.9	759.9	763.2	762.5
17.5°	751.2	751.2	749.8	749.8	751.2
20°	738.5	735.1	736.5	735.8	735.1
22.5°	721.1	719.1	717.8	719.8	720.4
25°	704.4	703.1	700.4	703.1	702.4
27.5°	686.4	685.0	684.3	683.0	684.3
30°	666.3	665.0	664.3	663.0	663.0
32.5°	646.3	643.6	640.2	643.6	642.9
35°	622.2	622.2	619.5	620.2	622.2
37.5°	600.8	599.5	598.1	596.1	596.8
40°	576.7	574.7	574.1	572.7	570.1
42.5°	548.7	548.7	546.0	546.7	546.0
45°	523.3	522.6	519.9	519.9	519.9
47.5°	496.6	495.9	493.9	492.5	493.9
50°	469.2	466.5	466.5	464.5	463.8
52.5°	440.4	438.4	435.7	436.4	435.1
55°	409.7	409.0	407.0	406.3	406.3
57.5°	378.9	379.6	378.3	375.6	376.3
60°	348.9	348.2	346.9	345.5	345.5
62.5°	318.1	318.1	315.4	315.4	312.8
65°	287.4	287.4	284.0	285.4	282.7
67.5°	256.6	256.0	254.0	253.3	254.0
70°	223.2	223.9	222.5	222.5	223.2
72.5°	193.1	192.5	191.8	191.8	193.1
75°	163.1	162.4	161.1	161.1	162.4
77.5°	135.7	132.3	131.7	133.0	131.0
80°	108.3	103.6	102.9	102.3	102.3
82.5°	76.2	74.2	74.9	74.2	75.5
85°	48.1	47.4	46.8	46.8	47.4
87.5°	22.7	21.4	21.4	20.7	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)