

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: P294211

Luminaire Tested: **24GR-LD5-85-FGW080-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294211  
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-LD5-85-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: 7588.0 lumens  
Efficiency: N/A  
Efficacy: 118.9 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

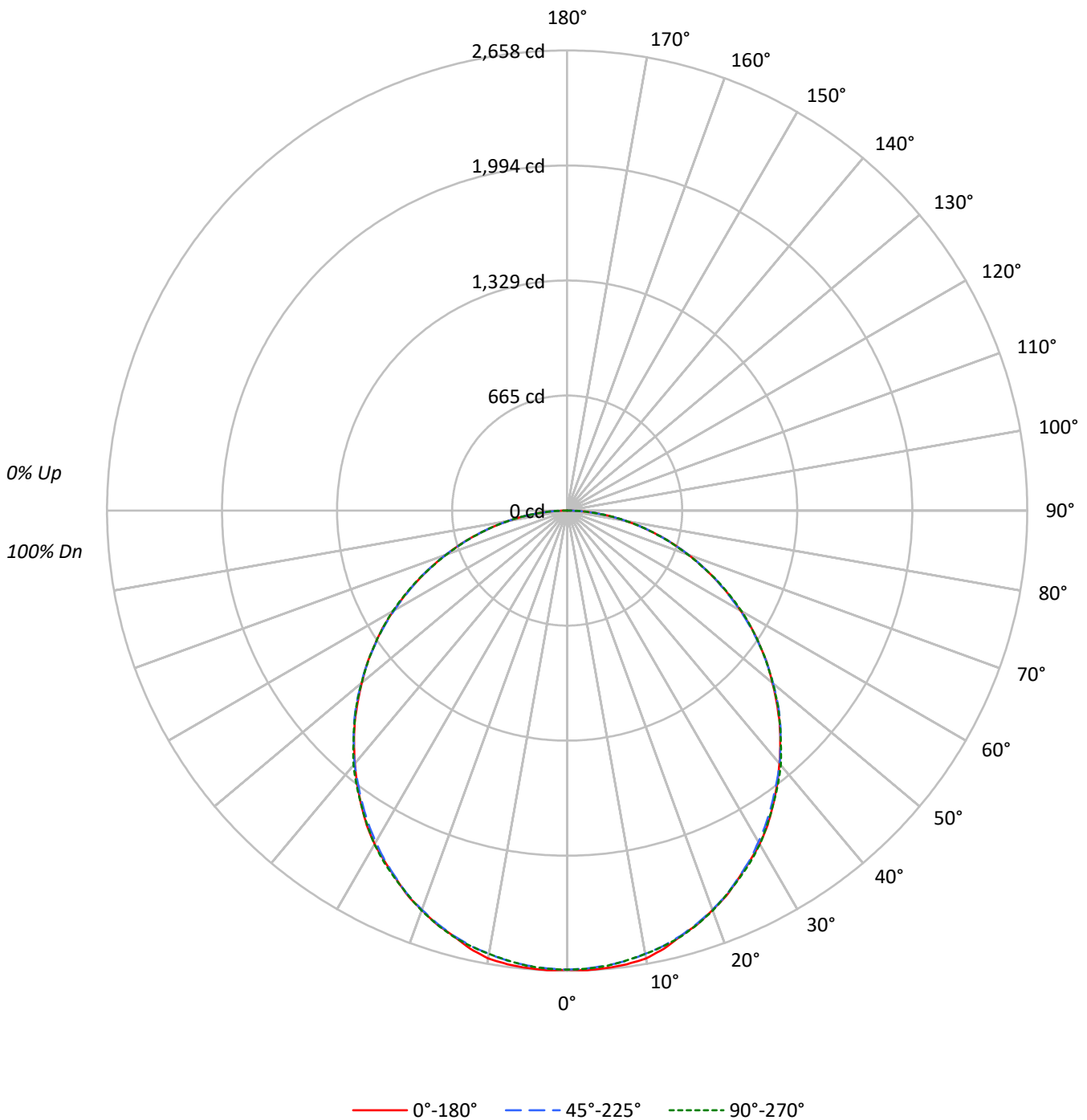
Input Watts (W): 63.798  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3568	3568	3568
5°	3582	3563	3565
10°	3589	3553	3553
15°	3542	3540	3547
20°	3515	3513	3521
25°	3478	3475	3486
30°	3456	3434	3459
35°	3407	3389	3407
40°	3351	3354	3373
45°	3303	3313	3306
50°	3240	3251	3244
55°	3190	3182	3190
60°	3116	3106	3135
65°	3020	3031	3042
70°	2922	2936	2915
75°	2819	2819	2819
80°	2662	2662	2690
85°	2459	2487	2404



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.8	3.3
10°-20°	716.9	9.4
20°-30°	1080.3	14.2
30°-40°	1293.9	17.1
40°-50°	1339.4	17.7
50°-60°	1214.4	16.0
60°-70°	941.5	12.4
70°-80°	572.6	7.5
80°-90°	178.2	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°	2048.0	27.0
0°-40°	3341.9	44.0
0°-60°	5895.7	77.7
0°-90°	7588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7588.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2652	2652	2652	2652	2652	
5°	2652	2636	2638	2634	2640	252
15°	2543	2545	2541	2532	2546	719
25°	2342	2342	2341	2348	2348	1081
35°	2074	2060	2063	2072	2074	1297
45°	1736	1739	1741	1734	1738	1337
55°	1360	1353	1356	1362	1360	1216
65°	948	954	952	948	956	941
75°	542	540	542	540	542	573
85°	159	158	161	159	156	178
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2652.1	2652.1	2652.1	2652.1	2652.1
2.5°	2657.5	2646.7	2646.7	2643.1	2648.5
5°	2652.1	2636.0	2637.8	2634.2	2639.6
7.5°	2643.1	2621.7	2623.5	2619.9	2621.7
10°	2627.0	2602.0	2600.2	2598.4	2600.2
12.5°	2591.2	2576.9	2575.1	2571.6	2576.9
15°	2542.9	2544.7	2541.1	2532.2	2546.5
17.5°	2505.4	2503.6	2500.0	2491.0	2505.4
20°	2455.2	2457.0	2453.5	2449.9	2458.8
22.5°	2406.9	2401.6	2403.3	2401.6	2403.3
25°	2342.5	2342.5	2340.7	2347.9	2347.9
27.5°	2283.4	2276.3	2279.9	2287.0	2290.6
30°	2224.4	2206.5	2210.1	2217.2	2226.2
32.5°	2154.6	2136.7	2140.3	2147.4	2151.0
35°	2074.1	2059.8	2063.3	2072.3	2074.1
37.5°	1991.8	1982.8	1986.4	1993.5	1998.9
40°	1907.6	1904.1	1909.4	1907.6	1920.2
42.5°	1821.7	1820.0	1825.3	1825.3	1827.1
45°	1735.9	1739.4	1741.2	1734.1	1737.6
47.5°	1641.0	1642.8	1650.0	1646.4	1648.2
50°	1547.9	1546.2	1553.3	1555.1	1549.7
52.5°	1458.5	1449.5	1456.7	1460.3	1456.7
55°	1360.0	1352.9	1356.5	1361.8	1360.0
57.5°	1263.4	1256.3	1258.0	1267.0	1263.4
60°	1157.8	1156.0	1154.3	1161.4	1165.0
62.5°	1054.0	1052.2	1048.7	1055.8	1059.4
65°	948.5	953.8	952.0	948.5	955.6
67.5°	848.2	853.6	848.2	844.7	844.7
70°	742.7	748.0	746.2	742.7	740.9
72.5°	644.2	644.2	640.7	638.9	640.7
75°	542.2	540.4	542.2	540.4	542.2
77.5°	442.0	443.8	443.8	443.8	442.0
80°	343.6	343.6	343.6	345.4	347.2
82.5°	252.3	247.0	252.3	248.7	250.5
85°	159.3	157.5	161.1	159.3	155.7
87.5°	71.6	73.4	73.4	75.2	75.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)