

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: P293077

Luminaire Tested: **24GR-LD5-85-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293077  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-85-F1-UNV-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7609.0 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

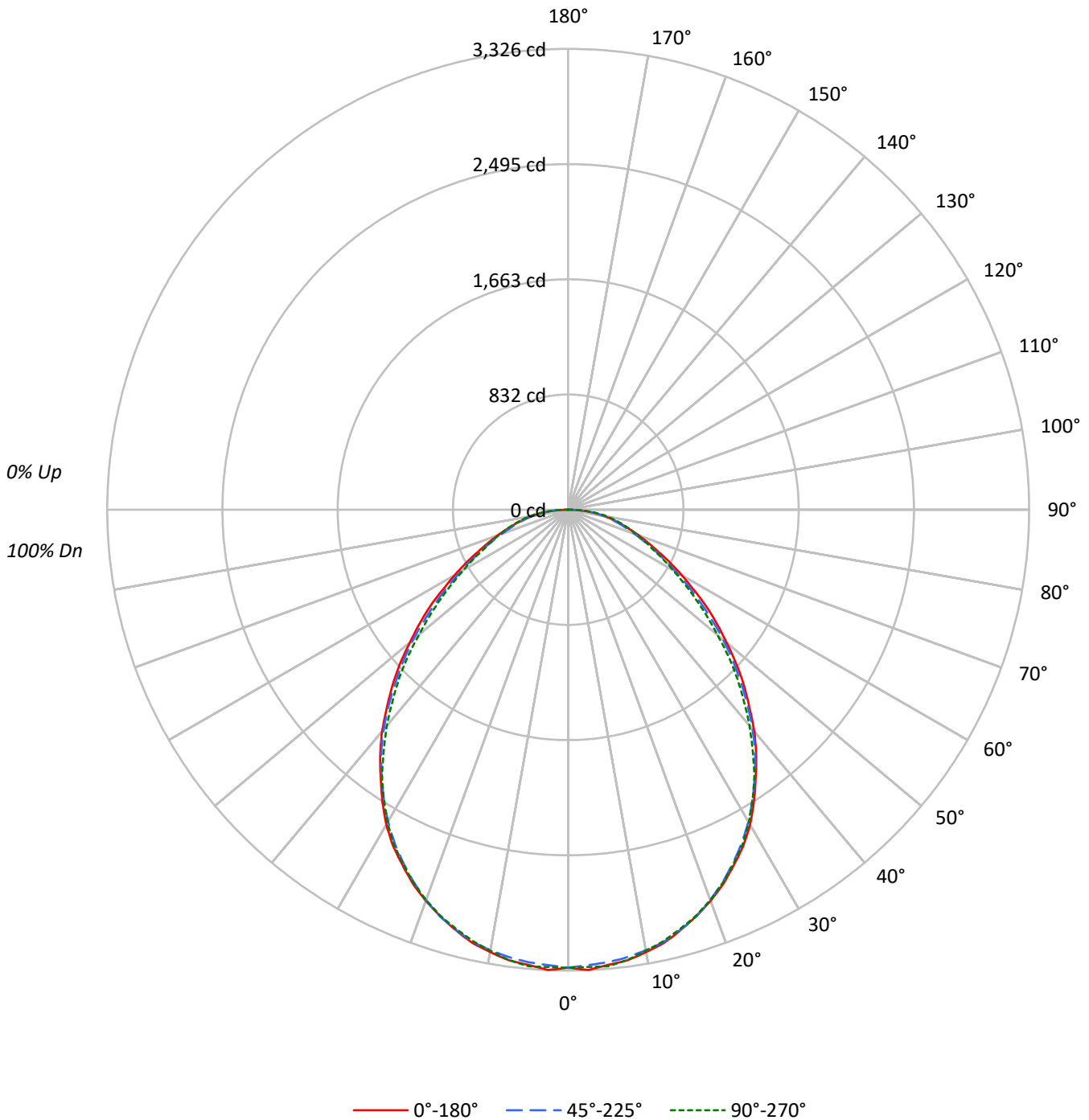
Input Watts (W): 64.025478  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72																												
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62																												
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54																												
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47																												
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																												
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37																												
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34																												
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31																												
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4447	4447	4447
5°	4453	4428	4466
10°	4430	4411	4415
15°	4374	4370	4359
20°	4301	4292	4292
25°	4201	4177	4187
30°	4079	4038	4050
35°	3874	3856	3846
40°	3669	3636	3573
45°	3410	3351	3285
50°	3124	3055	2940
55°	2853	2724	2632
60°	2542	2420	2356
65°	2288	2168	2138
70°	2124	1994	2074
75°	2032	1942	2105
80°	2031	2031	2249
85°	2107	2132	2374



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	312.1	4.1
10°-20°	883.3	11.6
20°-30°	1296.4	17.0
30°-40°	1465.7	19.3
40°-50°	1354.6	17.8
50°-60°	1043.7	13.7
60°-70°	691.1	9.1
70°-80°	411.4	5.4
80°-90°	150.7	2.0
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°	2491.9	32.7
0°-40°	3957.6	52.0
0°-60°	6355.8	83.5
0°-90°	7609.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7609.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3305	3305	3305	3305	3305	
5°	3297	3297	3278	3280	3307	313
15°	3140	3134	3137	3136	3129	885
25°	2830	2822	2814	2811	2820	1303
35°	2359	2356	2348	2337	2342	1476
45°	1792	1780	1761	1730	1726	1381
55°	1216	1191	1161	1130	1122	1085
65°	719	708	681	675	672	721
75°	391	381	374	391	405	417
85°	136	129	138	152	154	145
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3305.2	3305.2	3305.2	3305.2	3305.2
2.5°	3325.6	3308.3	3289.5	3289.5	3303.6
5°	3297.3	3297.3	3278.5	3280.1	3306.7
7.5°	3280.1	3270.6	3258.1	3258.1	3278.5
10°	3242.4	3234.5	3228.3	3225.1	3231.4
12.5°	3201.6	3189.0	3193.7	3189.0	3187.5
15°	3140.4	3134.1	3137.2	3135.7	3129.4
17.5°	3074.5	3071.3	3077.6	3066.6	3071.3
20°	3003.8	2994.4	2997.6	2991.3	2997.6
22.5°	2923.8	2917.5	2909.7	2901.8	2914.4
25°	2829.6	2821.8	2813.9	2810.8	2820.2
27.5°	2735.5	2722.9	2711.9	2708.8	2722.9
30°	2625.6	2611.5	2598.9	2595.8	2606.8
32.5°	2495.4	2492.2	2476.5	2470.2	2475.0
35°	2358.8	2355.7	2347.8	2336.8	2341.6
37.5°	2228.6	2227.0	2216.0	2197.2	2184.6
40°	2088.9	2077.9	2070.0	2043.4	2034.0
42.5°	1935.1	1931.9	1917.8	1888.0	1877.0
45°	1792.3	1779.7	1760.9	1729.5	1726.3
47.5°	1644.7	1627.5	1610.2	1571.0	1569.4
50°	1492.5	1479.9	1459.5	1420.3	1404.6
52.5°	1351.3	1334.0	1305.7	1268.1	1260.2
55°	1216.3	1191.2	1161.4	1130.0	1122.1
57.5°	1071.9	1060.9	1024.8	999.7	990.3
60°	944.8	935.4	899.3	875.7	875.7
62.5°	830.2	816.1	784.7	769.0	769.0
65°	718.8	707.8	681.1	674.8	671.7
67.5°	623.1	608.9	590.1	588.5	596.4
70°	539.9	522.6	506.9	522.6	527.3
72.5°	461.4	450.4	436.3	456.7	466.1
75°	390.8	381.4	373.5	390.8	404.9
77.5°	326.4	317.0	317.0	335.9	348.4
80°	262.1	255.8	262.1	277.8	290.3
82.5°	200.9	196.2	204.0	219.7	227.6
85°	136.5	128.7	138.1	152.2	153.8
87.5°	64.3	62.8	69.1	78.5	76.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)