

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: P292953

Luminaire Tested: **24GR-LD5-85-F1-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292953  
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-L83050-W2A1-U-5000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8786.0 lumens  
Efficiency: N/A  
Efficacy: 134.2 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

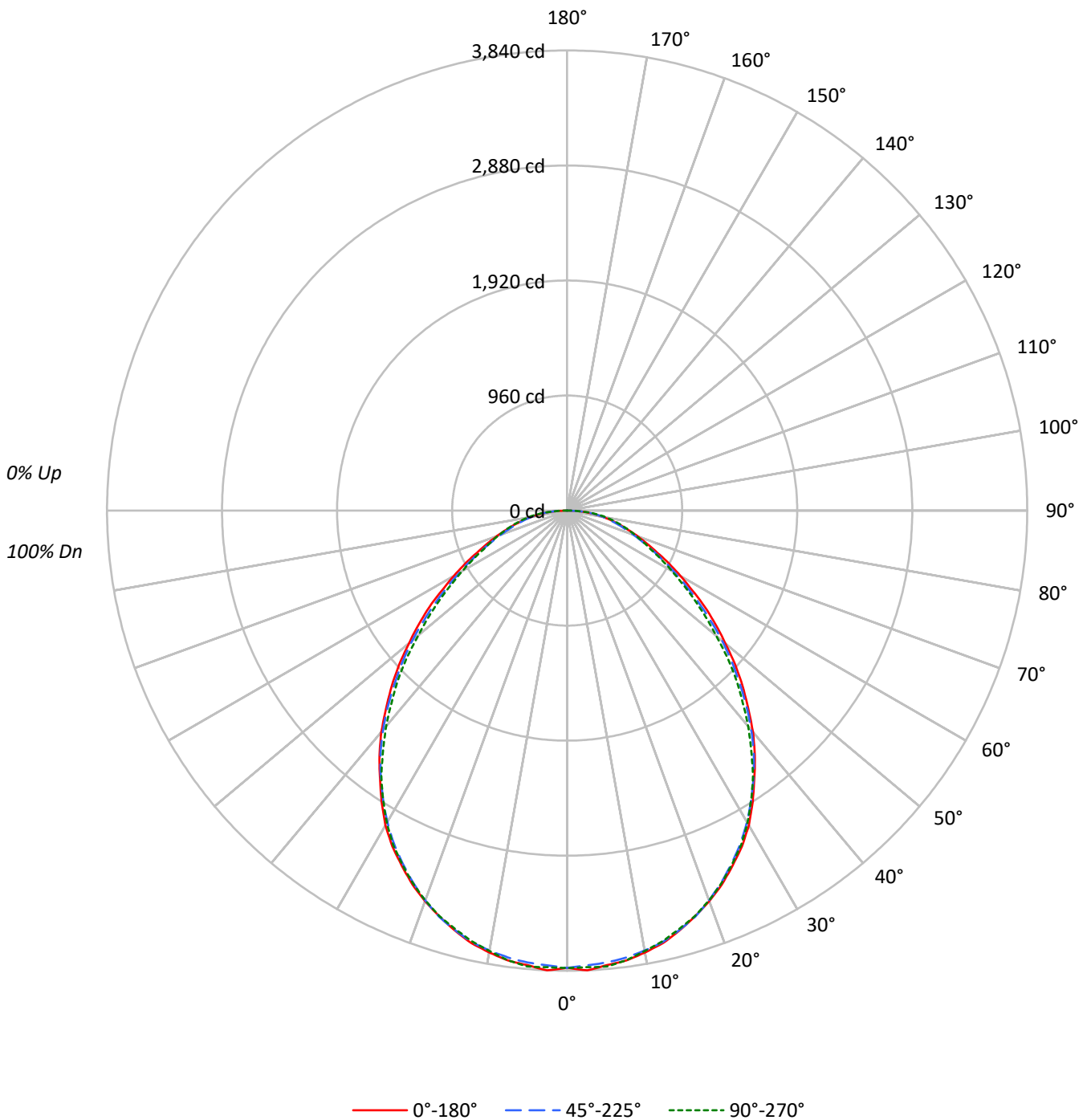
Input Watts (W): 65.472  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

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

	0°	45°	90°
0°	5135	5135	5135
5°	5142	5113	5157
10°	5115	5093	5098
15°	5051	5046	5033
20°	4966	4956	4956
25°	4851	4824	4835
30°	4710	4662	4676
35°	4474	4453	4441
40°	4236	4198	4125
45°	3938	3869	3793
50°	3607	3528	3395
55°	3294	3146	3039
60°	2936	2794	2721
65°	2642	2504	2469
70°	2452	2303	2395
75°	2346	2242	2430
80°	2345	2345	2598
85°	2435	2462	2742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	360.4	4.1
10°-20°	1020.0	11.6
20°-30°	1496.9	17.0
30°-40°	1692.4	19.3
40°-50°	1564.1	17.8
50°-60°	1205.1	13.7
60°-70°	798.0	9.1
70°-80°	475.0	5.4
80°-90°	174.0	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°	2877.3	32.7
0°-40°	4569.7	52.0
0°-60°	7339.0	83.5
0°-90°	8786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3816	3816	3816	3816	3816	
5°	3807	3807	3786	3787	3818	362
15°	3626	3619	3622	3621	3614	1022
25°	3267	3258	3249	3246	3256	1504
35°	2724	2720	2711	2698	2704	1704
45°	2070	2055	2033	1997	1993	1594
55°	1404	1375	1341	1305	1296	1253
65°	830	817	786	779	776	832
75°	451	440	431	451	468	481
85°	158	149	160	176	178	167
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3816.4	3816.4	3816.4	3816.4	3816.4
2.5°	3840.0	3820.1	3798.3	3798.3	3814.6
5°	3807.4	3807.4	3785.6	3787.4	3818.2
7.5°	3787.4	3776.6	3762.1	3762.1	3785.6
10°	3743.9	3734.9	3727.6	3724.0	3731.3
12.5°	3696.8	3682.3	3687.8	3682.3	3680.5
15°	3626.2	3618.9	3622.5	3620.7	3613.5
17.5°	3550.0	3546.4	3553.7	3541.0	3546.4
20°	3468.5	3457.6	3461.2	3454.0	3461.2
22.5°	3376.1	3368.8	3359.8	3350.7	3365.2
25°	3267.3	3258.3	3249.2	3245.6	3256.5
27.5°	3158.6	3144.1	3131.4	3127.8	3144.1
30°	3031.8	3015.5	3001.0	2997.3	3010.0
32.5°	2881.4	2877.7	2859.6	2852.4	2857.8
35°	2723.7	2720.1	2711.0	2698.3	2703.8
37.5°	2573.3	2571.5	2558.8	2537.0	2522.5
40°	2412.0	2399.3	2390.3	2359.4	2348.6
42.5°	2234.4	2230.8	2214.5	2180.0	2167.4
45°	2069.5	2055.0	2033.3	1997.0	1993.4
47.5°	1899.2	1879.2	1859.3	1814.0	1812.2
50°	1723.4	1708.9	1685.3	1640.0	1621.9
52.5°	1560.3	1540.3	1507.7	1464.2	1455.2
55°	1404.4	1375.4	1341.0	1304.8	1295.7
57.5°	1237.7	1225.0	1183.3	1154.4	1143.5
60°	1090.9	1080.1	1038.4	1011.2	1011.2
62.5°	958.6	942.3	906.1	888.0	888.0
65°	830.0	817.3	786.5	779.2	775.6
67.5°	719.4	703.1	681.4	679.6	688.6
70°	623.4	603.5	585.3	603.5	608.9
72.5°	532.8	520.1	503.8	527.3	538.2
75°	451.2	440.4	431.3	451.2	467.5
77.5°	376.9	366.1	366.1	387.8	402.3
80°	302.6	295.4	302.6	320.8	335.3
82.5°	232.0	226.5	235.6	253.7	262.8
85°	157.7	148.6	159.5	175.8	177.6
87.5°	74.3	72.5	79.7	90.6	88.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)