

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: P291880

Luminaire Tested: **22GR-LD5-24-F1-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291880  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-24-F1-UNV-L92765-W2A1-U-5000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2256.0 lumens  
Efficiency: N/A  
Efficacy: 121.3 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

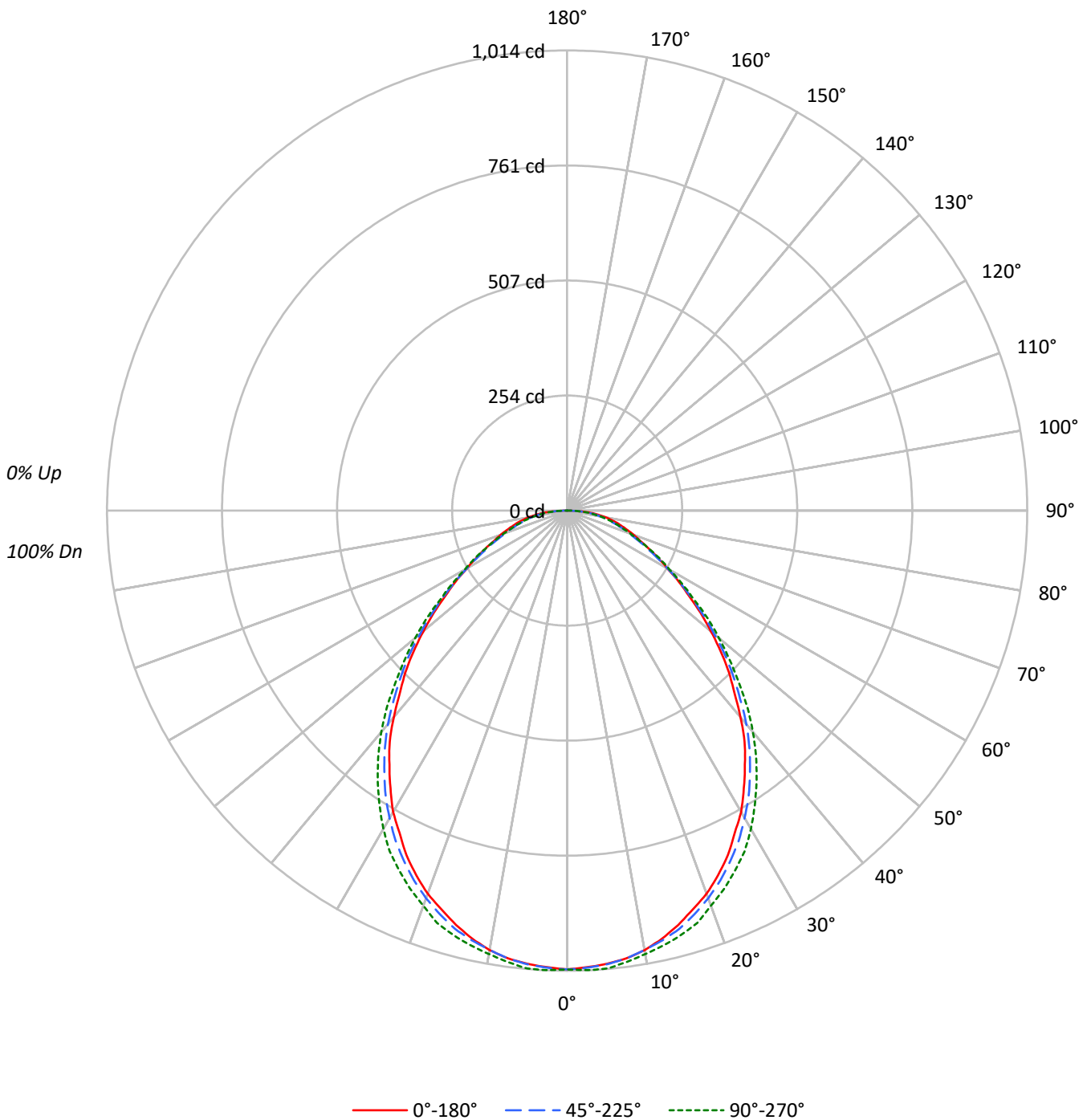
Input Watts (W): 18.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

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

	0°	45°	90°
0°	2721	2721	2721
5°	2709	2711	2736
10°	2687	2686	2711
15°	2633	2659	2698
20°	2573	2603	2653
25°	2488	2528	2599
30°	2383	2431	2517
35°	2244	2308	2390
40°	2088	2159	2237
45°	1917	1972	2033
50°	1729	1773	1829
55°	1534	1570	1597
60°	1375	1378	1406
65°	1267	1224	1267
70°	1223	1134	1166
75°	1245	1109	1131
80°	1340	1164	1164
85°	1488	1232	1216



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.4	4.2
10°-20°	269.0	11.9
20°-30°	392.6	17.4
30°-40°	439.5	19.5
40°-50°	400.0	17.7
50°-60°	301.1	13.3
60°-70°	196.5	8.7
70°-80°	117.8	5.2
80°-90°	44.2	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°	756.9	33.6
0°-40°	1196.4	53.0
0°-60°	1897.5	84.1
0°-90°	2256.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2256.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1003	1001	1004	1007	1013	95
15°	945	946	954	962	968	266
25°	838	840	851	867	875	385
35°	683	689	703	719	728	427
45°	504	509	518	529	534	388
55°	327	332	335	339	340	295
65°	199	197	192	195	199	199
75°	120	116	107	107	109	127
85°	48	47	40	38	39	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1011.0	1011.0	1011.0	1011.0	1011.0
2.5°	1007.3	1006.8	1008.4	1011.0	1013.6
5°	1002.7	1001.1	1003.7	1007.3	1013.0
7.5°	995.4	995.4	995.4	1002.2	1003.2
10°	983.5	984.5	983.0	989.7	992.3
12.5°	966.4	966.9	970.0	976.8	981.4
15°	945.2	946.2	954.5	962.3	968.5
17.5°	921.3	924.9	932.7	945.2	952.9
20°	898.5	902.7	908.9	922.4	926.5
22.5°	869.5	874.2	881.9	893.9	902.7
25°	837.9	840.5	851.4	866.9	875.2
27.5°	800.1	805.8	819.2	835.3	846.7
30°	766.9	770.0	782.4	801.1	809.9
32.5°	724.9	734.3	744.6	761.2	769.5
35°	683.0	689.2	702.6	719.2	727.5
37.5°	642.5	646.2	659.6	673.6	684.0
40°	594.3	601.1	614.6	629.6	636.8
42.5°	546.2	556.0	564.8	579.8	587.6
45°	503.7	508.8	518.2	529.1	534.2
47.5°	459.1	461.7	472.6	479.3	485.0
50°	413.0	416.1	423.4	430.1	436.8
52.5°	370.5	373.1	377.8	384.0	390.7
55°	327.0	331.6	334.7	339.4	340.4
57.5°	291.7	291.2	293.3	296.9	300.5
60°	255.5	256.5	256.0	259.6	261.2
62.5°	225.4	224.9	221.8	227.0	231.1
65°	199.0	196.9	192.2	195.4	199.0
67.5°	174.6	173.6	165.8	168.4	171.5
70°	155.5	151.8	144.1	145.6	148.2
72.5°	136.8	132.7	124.9	125.4	127.0
75°	119.7	115.6	106.7	107.3	108.8
77.5°	103.6	98.5	90.7	89.6	90.7
80°	86.5	81.9	75.1	72.0	75.1
82.5°	68.9	66.3	58.6	55.4	56.5
85°	48.2	46.6	39.9	37.8	39.4
87.5°	22.3	23.8	20.2	18.7	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)