

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: P291882

Luminaire Tested: **22GR-LD5-24-F1-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291882  
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-5700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2300.0 lumens  
Efficiency: N/A  
Efficacy: 123.0 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

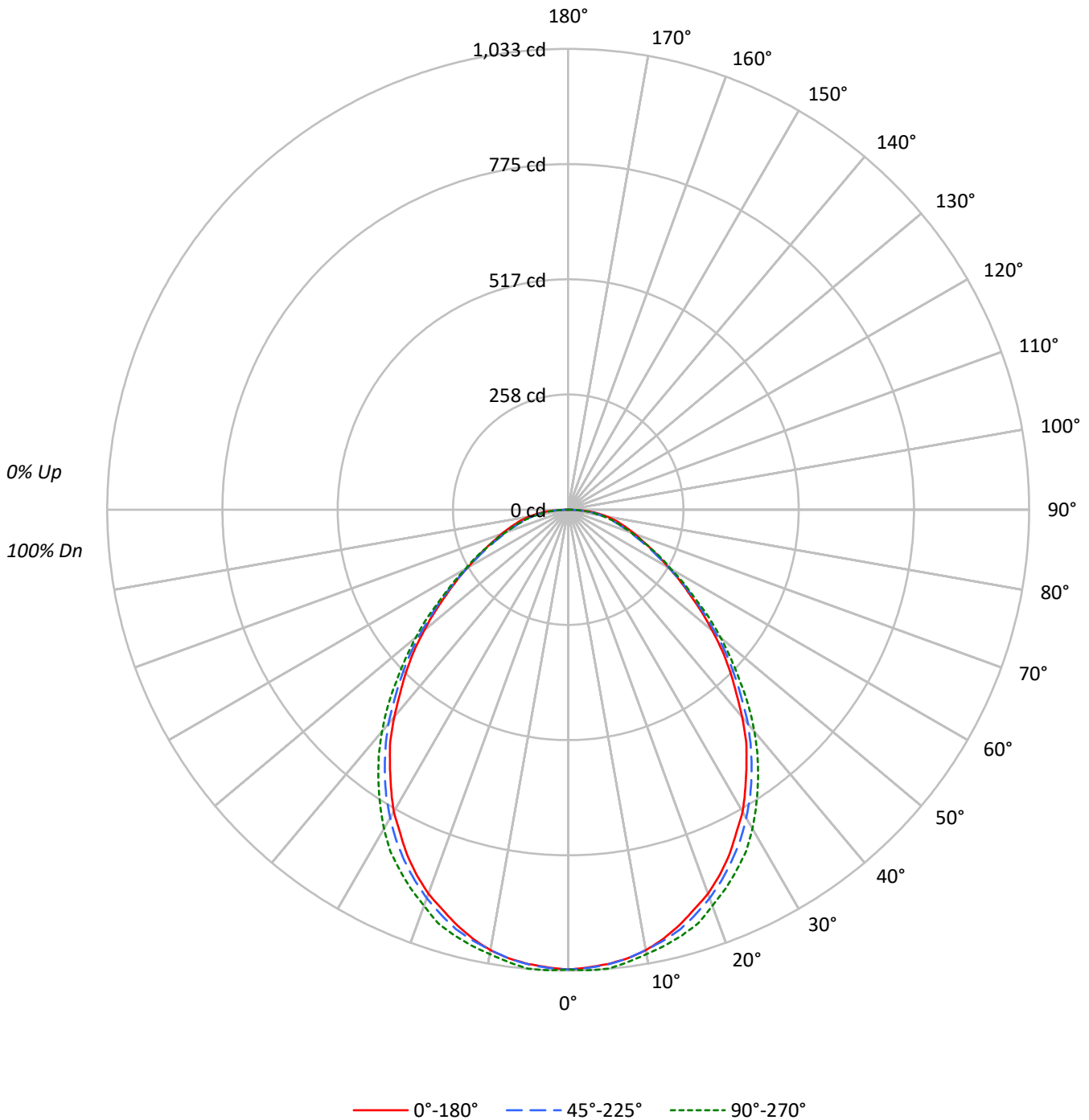
Input Watts (W): 18.693  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2774	2774	2774
5°	2761	2764	2790
10°	2740	2739	2764
15°	2684	2711	2751
20°	2623	2653	2705
25°	2536	2577	2649
30°	2430	2479	2566
35°	2287	2353	2437
40°	2128	2201	2281
45°	1954	2011	2073
50°	1762	1807	1864
55°	1564	1601	1628
60°	1401	1405	1433
65°	1292	1248	1292
70°	1247	1156	1189
75°	1268	1131	1153
80°	1367	1187	1187
85°	1516	1257	1238



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.2	4.2
10°-20°	274.2	11.9
20°-30°	400.2	17.4
30°-40°	448.1	19.5
40°-50°	407.8	17.7
50°-60°	306.9	13.3
60°-70°	200.3	8.7
70°-80°	120.1	5.2
80°-90°	45.0	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°	771.7	33.6
0°-40°	1219.8	53.0
0°-60°	1934.5	84.1
0°-90°	2300.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2300.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	1022	1021	1023	1027	1033	97
15°	964	965	973	981	987	271
25°	854	857	868	884	892	392
35°	696	703	716	733	742	435
45°	514	519	528	539	545	395
55°	333	338	341	346	347	301
65°	203	201	196	199	203	203
75°	122	118	109	109	111	129
85°	49	48	41	39	40	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1030.7	1030.7	1030.7	1030.7	1030.7
2.5°	1027.0	1026.5	1028.0	1030.7	1033.3
5°	1022.2	1020.6	1023.3	1027.0	1032.8
7.5°	1014.8	1014.8	1014.8	1021.7	1022.8
10°	1002.7	1003.7	1002.2	1009.0	1011.7
12.5°	985.2	985.8	988.9	995.8	1000.6
15°	963.6	964.6	973.1	981.0	987.4
17.5°	939.3	943.0	950.9	963.6	971.5
20°	916.0	920.3	926.6	940.3	944.6
22.5°	886.5	891.2	899.1	911.3	920.3
25°	854.2	856.9	868.0	883.8	892.3
27.5°	815.7	821.5	835.2	851.6	863.2
30°	781.9	785.0	797.7	816.7	825.7
32.5°	739.1	748.6	759.1	776.0	784.5
35°	696.3	702.6	716.4	733.3	741.7
37.5°	655.1	658.8	672.5	686.8	697.3
40°	605.9	612.8	626.5	641.9	649.3
42.5°	556.8	566.8	575.8	591.1	599.1
45°	513.5	518.8	528.3	539.4	544.7
47.5°	468.1	470.7	481.8	488.7	494.5
50°	421.0	424.2	431.6	438.5	445.3
52.5°	377.7	380.4	385.1	391.5	398.3
55°	333.3	338.1	341.3	346.0	347.1
57.5°	297.4	296.9	299.0	302.7	306.4
60°	260.4	261.5	261.0	264.7	266.3
62.5°	229.8	229.3	226.1	231.4	235.6
65°	202.9	200.7	196.0	199.2	202.9
67.5°	178.0	177.0	169.1	171.7	174.9
70°	158.5	154.8	146.9	148.4	151.1
72.5°	139.5	135.2	127.3	127.8	129.4
75°	122.0	117.8	108.8	109.4	110.9
77.5°	105.7	100.4	92.4	91.4	92.4
80°	88.2	83.5	76.6	73.4	76.6
82.5°	70.3	67.6	59.7	56.5	57.6
85°	49.1	47.5	40.7	38.6	40.1
87.5°	22.7	24.3	20.6	19.0	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)