

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: P291811

Luminaire Tested: **22GR-LD5-36-F1-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291811  
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-LD5-36-F1-UNV-L82765-W2A1-U-5700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3772.0 lumens  
Efficiency: N/A  
Efficacy: 130.8 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

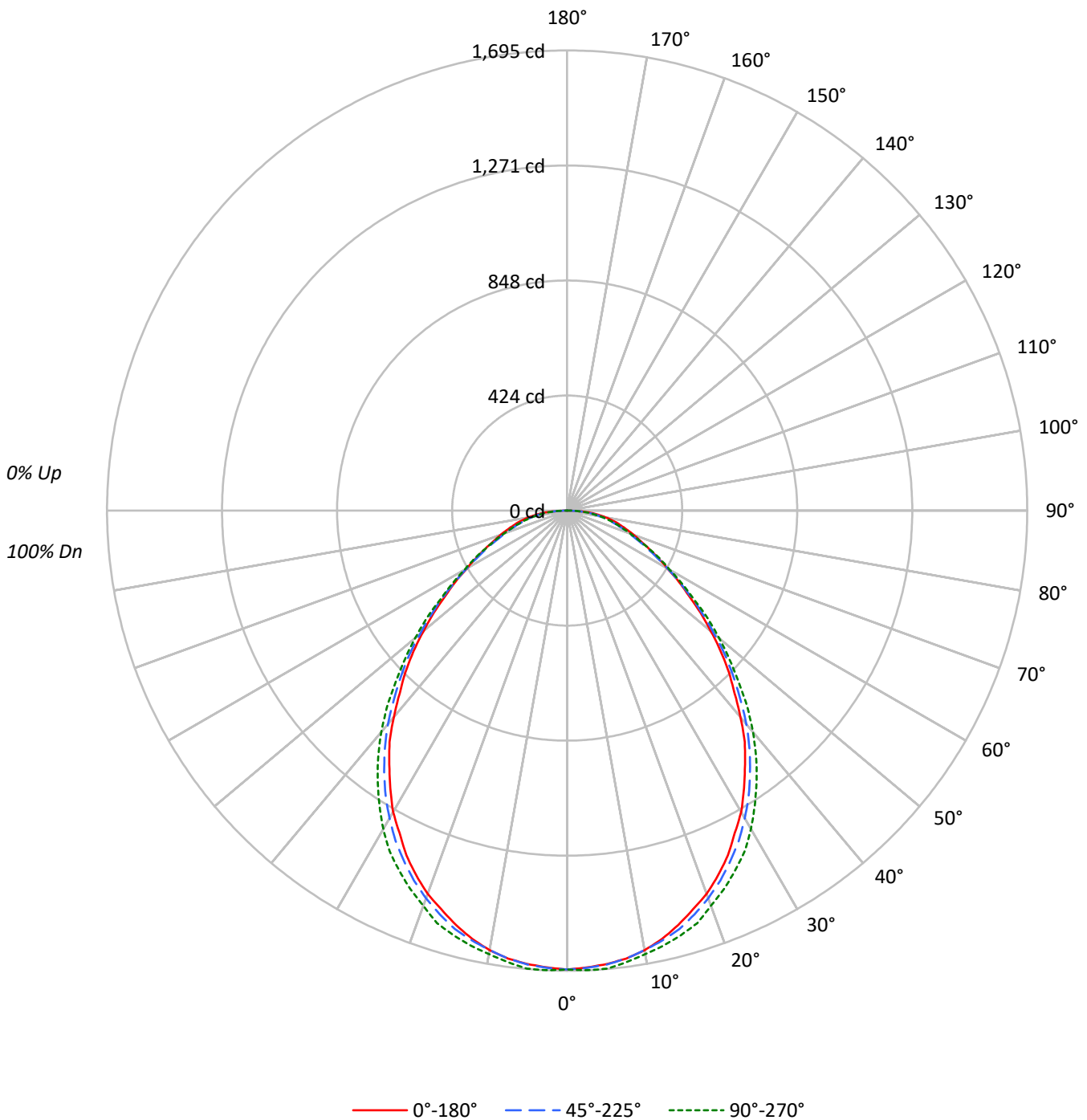
Input Watts (W): 28.83  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4549	4549	4549
5°	4529	4533	4575
10°	4493	4491	4533
15°	4403	4446	4511
20°	4302	4352	4436
25°	4160	4227	4345
30°	3984	4065	4208
35°	3751	3859	3996
40°	3491	3609	3740
45°	3205	3297	3399
50°	2891	2963	3058
55°	2565	2626	2670
60°	2299	2303	2350
65°	2118	2046	2118
70°	2045	1895	1950
75°	2080	1856	1891
80°	2242	1946	1946
85°	2489	2059	2032



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.4	4.2
10°-20°	449.7	11.9
20°-30°	656.4	17.4
30°-40°	734.9	19.5
40°-50°	668.8	17.7
50°-60°	503.4	13.3
60°-70°	328.5	8.7
70°-80°	197.0	5.2
80°-90°	73.9	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°	1265.6	33.6
0°-40°	2000.4	53.0
0°-60°	3172.6	84.1
0°-90°	3772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3772.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1690	1690	1690	1690	1690	
5°	1676	1674	1678	1684	1694	159
15°	1580	1582	1596	1609	1619	445
25°	1401	1405	1424	1450	1463	643
35°	1142	1152	1175	1202	1216	714
45°	842	851	866	885	893	648
55°	547	554	560	568	569	494
65°	333	329	321	327	333	333
75°	200	193	178	179	182	212
85°	81	78	67	63	66	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1690.3	1690.3	1690.3	1690.3	1690.3
2.5°	1684.2	1683.4	1686.0	1690.3	1694.6
5°	1676.5	1673.9	1678.2	1684.2	1693.8
7.5°	1664.3	1664.3	1664.3	1675.6	1677.3
10°	1644.4	1646.1	1643.5	1654.8	1659.1
12.5°	1615.8	1616.7	1621.9	1633.1	1640.9
15°	1580.3	1582.0	1595.9	1608.9	1619.3
17.5°	1540.4	1546.5	1559.5	1580.3	1593.3
20°	1502.3	1509.2	1519.6	1542.2	1549.1
22.5°	1453.8	1461.6	1474.6	1494.5	1509.2
25°	1400.9	1405.3	1423.5	1449.5	1463.3
27.5°	1337.7	1347.2	1369.8	1396.6	1415.7
30°	1282.2	1287.4	1308.2	1339.4	1354.2
32.5°	1212.1	1227.7	1245.0	1272.7	1286.6
35°	1141.9	1152.3	1174.8	1202.5	1216.4
37.5°	1074.3	1080.4	1102.9	1126.3	1143.6
40°	993.7	1005.0	1027.5	1052.7	1064.8
42.5°	913.2	929.6	944.4	969.5	982.5
45°	842.1	850.8	866.4	884.6	893.2
47.5°	767.6	771.9	790.1	801.4	810.9
50°	690.5	695.7	707.8	719.1	730.4
52.5°	619.5	623.8	631.6	642.0	653.3
55°	546.7	554.5	559.7	567.5	569.2
57.5°	487.8	486.9	490.4	496.4	502.5
60°	427.1	428.9	428.0	434.1	436.7
62.5°	376.9	376.0	370.8	379.5	386.4
65°	332.7	329.2	321.4	326.6	332.7
67.5°	292.0	290.2	277.2	281.6	286.8
70°	259.9	253.9	240.9	243.5	247.8
72.5°	228.7	221.8	208.8	209.7	212.3
75°	200.1	193.2	178.5	179.3	181.9
77.5°	173.3	164.6	151.6	149.9	151.6
80°	144.7	136.9	125.6	120.4	125.6
82.5°	115.2	110.9	97.9	92.7	94.4
85°	80.6	78.0	66.7	63.2	65.8
87.5°	37.3	39.9	33.8	31.2	32.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)