

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: P291807

Luminaire Tested: **22GR-LD5-36-F1-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291807  
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-4000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3611.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 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

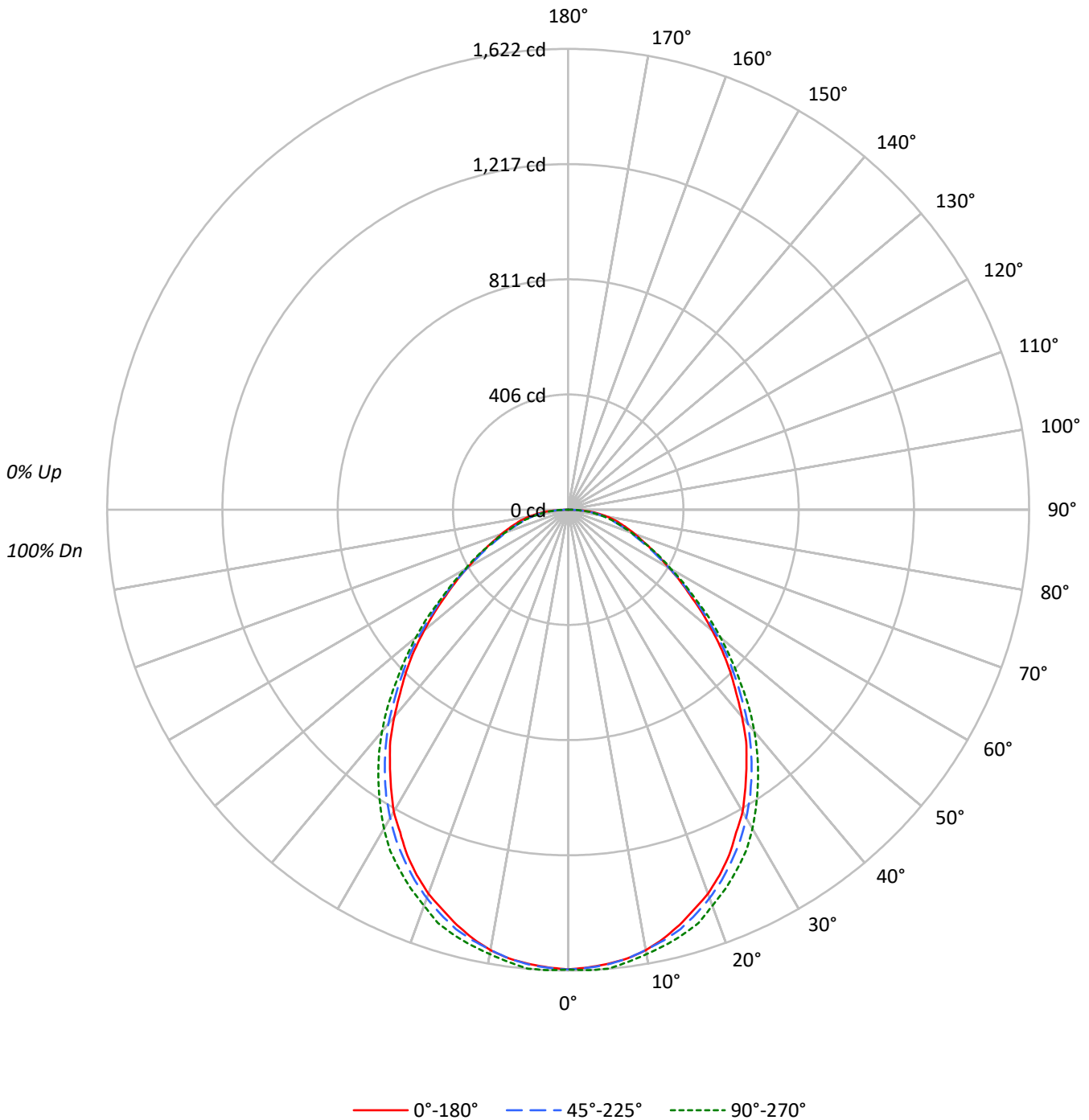
Input Watts (W): 28.458  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	4355	4355	4355
5°	4335	4340	4380
10°	4301	4299	4340
15°	4215	4256	4319
20°	4119	4166	4247
25°	3982	4046	4160
30°	3814	3892	4028
35°	3591	3695	3825
40°	3342	3456	3581
45°	3068	3156	3254
50°	2767	2837	2927
55°	2456	2514	2556
60°	2201	2205	2250
65°	2028	1959	2028
70°	1958	1814	1866
75°	1992	1777	1811
80°	2146	1864	1864
85°	2381	1973	1945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.6	4.2
10°-20°	430.5	11.9
20°-30°	628.4	17.4
30°-40°	703.5	19.5
40°-50°	640.3	17.7
50°-60°	481.9	13.3
60°-70°	314.5	8.7
70°-80°	188.6	5.2
80°-90°	70.7	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°	1211.5	33.6
0°-40°	1915.0	53.0
0°-60°	3037.2	84.1
0°-90°	3611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3611.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1605	1602	1607	1612	1622	152
15°	1513	1514	1528	1540	1550	426
25°	1341	1345	1363	1388	1401	616
35°	1093	1103	1125	1151	1164	683
45°	806	814	829	847	855	621
55°	523	531	536	543	545	473
65°	318	315	308	313	318	319
75°	192	185	171	172	174	203
85°	77	75	64	60	63	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1618.2	1618.2	1618.2	1618.2	1618.2
2.5°	1612.4	1611.5	1614.0	1618.2	1622.3
5°	1604.9	1602.4	1606.6	1612.4	1621.5
7.5°	1593.3	1593.3	1593.3	1604.1	1605.7
10°	1574.2	1575.9	1573.4	1584.2	1588.3
12.5°	1546.8	1547.7	1552.6	1563.4	1570.9
15°	1512.8	1514.5	1527.8	1540.2	1550.2
17.5°	1474.7	1480.5	1492.9	1512.8	1525.3
20°	1438.2	1444.8	1454.8	1476.3	1483.0
22.5°	1391.7	1399.2	1411.6	1430.7	1444.8
25°	1341.1	1345.3	1362.7	1387.6	1400.9
27.5°	1280.6	1289.7	1311.3	1337.0	1355.2
30°	1227.5	1232.5	1252.4	1282.3	1296.4
32.5°	1160.3	1175.3	1191.9	1218.4	1231.7
35°	1093.2	1103.1	1124.7	1151.2	1164.5
37.5°	1028.5	1034.3	1055.8	1078.2	1094.8
40°	951.3	962.1	983.7	1007.7	1019.3
42.5°	874.2	890.0	904.1	928.1	940.5
45°	806.2	814.5	829.4	846.8	855.1
47.5°	734.9	739.0	756.4	767.2	776.3
50°	661.0	666.0	677.6	688.4	699.2
52.5°	593.0	597.2	604.6	614.6	625.4
55°	523.4	530.8	535.8	543.3	544.9
57.5°	467.0	466.1	469.4	475.2	481.1
60°	408.9	410.6	409.7	415.5	418.0
62.5°	360.8	360.0	355.0	363.3	369.9
65°	318.5	315.2	307.7	312.7	318.5
67.5°	279.5	277.9	265.4	269.6	274.5
70°	248.8	243.0	230.6	233.1	237.2
72.5°	219.0	212.3	199.9	200.7	203.2
75°	191.6	185.0	170.9	171.7	174.2
77.5°	165.9	157.6	145.1	143.5	145.1
80°	138.5	131.0	120.3	115.3	120.3
82.5°	110.3	106.2	93.7	88.7	90.4
85°	77.1	74.6	63.9	60.5	63.0
87.5°	35.7	38.2	32.3	29.9	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)