

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: P291810

Luminaire Tested: **22GR-LD5-36-F1-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291810  
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-5500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3762.0 lumens  
Efficiency: N/A  
Efficacy: 130.5 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

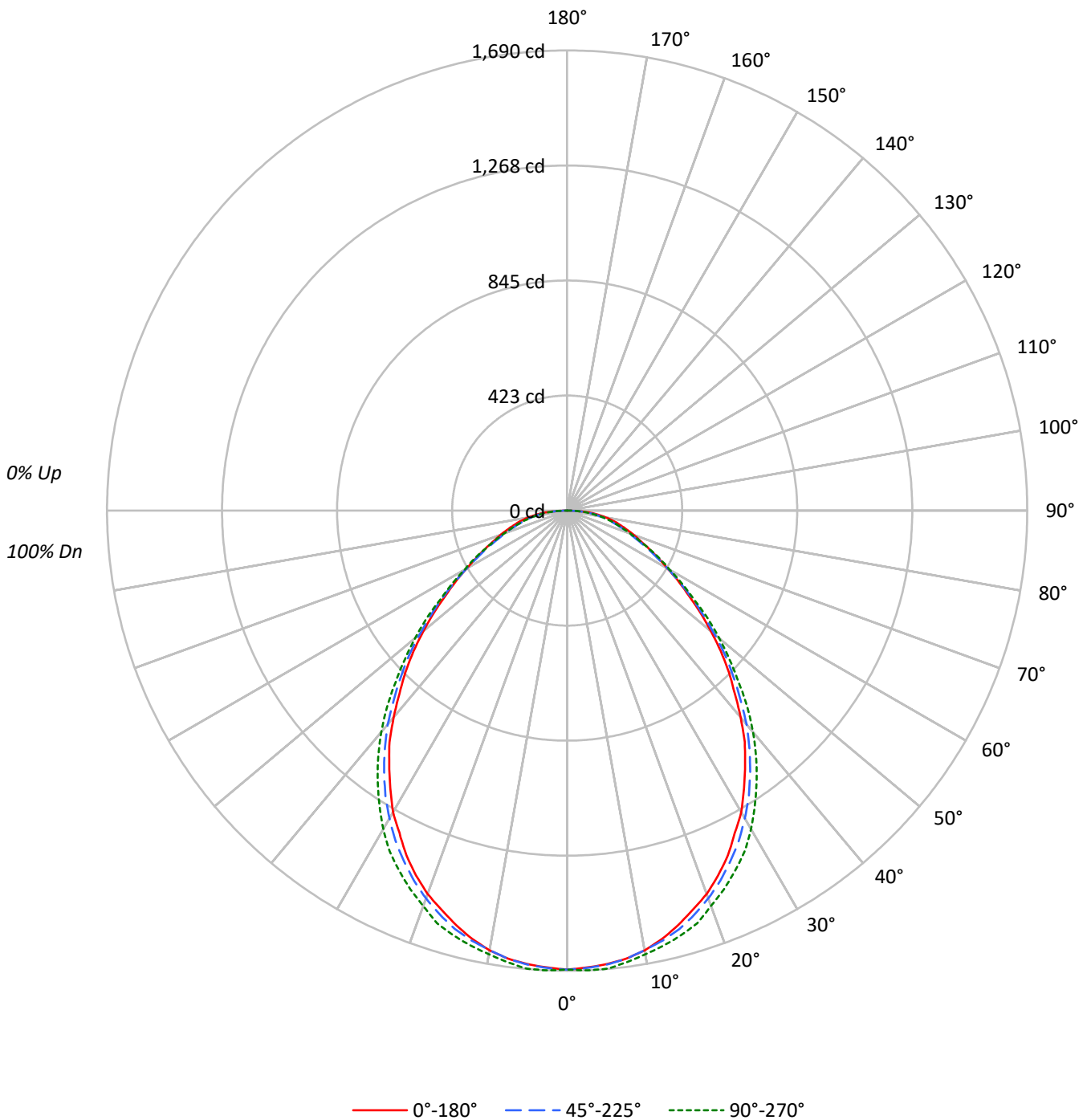
Input Watts (W): 28.83  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4536	4536	4536
5°	4517	4521	4563
10°	4481	4479	4521
15°	4391	4434	4499
20°	4291	4340	4424
25°	4149	4215	4333
30°	3974	4054	4197
35°	3741	3849	3985
40°	3482	3600	3731
45°	3196	3288	3390
50°	2883	2956	3049
55°	2558	2619	2663
60°	2293	2298	2344
65°	2113	2041	2113
70°	2039	1890	1944
75°	2075	1851	1887
80°	2236	1942	1942
85°	2482	2053	2029



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.0	4.2
10°-20°	448.5	11.9
20°-30°	654.6	17.4
30°-40°	732.9	19.5
40°-50°	667.0	17.7
50°-60°	502.0	13.3
60°-70°	327.6	8.7
70°-80°	196.5	5.2
80°-90°	73.7	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°	1262.2	33.6
0°-40°	1995.1	53.0
0°-60°	3164.2	84.1
0°-90°	3762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3762.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1686	1686	1686	1686	1686	
5°	1672	1669	1674	1680	1689	159
15°	1576	1578	1592	1605	1615	444
25°	1397	1402	1420	1446	1459	641
35°	1139	1149	1172	1199	1213	712
45°	840	848	864	882	891	647
55°	545	553	558	566	568	493
65°	332	328	321	326	332	332
75°	200	193	178	179	182	212
85°	80	78	66	63	66	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1685.8	1685.8	1685.8	1685.8	1685.8
2.5°	1679.8	1678.9	1681.5	1685.8	1690.2
5°	1672.0	1669.4	1673.7	1679.8	1689.3
7.5°	1659.9	1659.9	1659.9	1671.1	1672.9
10°	1640.0	1641.8	1639.2	1650.4	1654.7
12.5°	1611.5	1612.4	1617.6	1628.8	1636.6
15°	1576.1	1577.8	1591.6	1604.6	1615.0
17.5°	1536.3	1542.4	1555.4	1576.1	1589.1
20°	1498.3	1505.2	1515.6	1538.1	1545.0
22.5°	1449.9	1457.7	1470.7	1490.5	1505.2
25°	1397.2	1401.5	1419.7	1445.6	1459.4
27.5°	1334.2	1343.7	1366.1	1392.9	1411.9
30°	1278.8	1284.0	1304.8	1335.9	1350.6
32.5°	1208.9	1224.4	1241.7	1269.3	1283.2
35°	1138.9	1149.2	1171.7	1199.4	1213.2
37.5°	1071.5	1077.5	1100.0	1123.3	1140.6
40°	991.1	1002.3	1024.8	1049.9	1062.0
42.5°	910.7	927.2	941.9	966.9	979.9
45°	839.9	848.5	864.1	882.2	890.9
47.5°	765.6	769.9	788.0	799.3	808.8
50°	688.7	693.9	706.0	717.2	728.4
52.5°	617.8	622.1	629.9	640.3	651.5
55°	545.2	553.0	558.2	566.0	567.7
57.5°	486.5	485.6	489.1	495.1	501.2
60°	426.0	427.7	426.9	432.9	435.5
62.5°	375.9	375.0	369.8	378.5	385.4
65°	331.8	328.4	320.6	325.8	331.8
67.5°	291.2	289.5	276.5	280.8	286.0
70°	259.2	253.2	240.2	242.8	247.1
72.5°	228.1	221.2	208.2	209.1	211.7
75°	199.6	192.7	178.0	178.9	181.5
77.5°	172.8	164.2	151.2	149.5	151.2
80°	144.3	136.5	125.3	120.1	125.3
82.5°	114.9	110.6	97.6	92.5	94.2
85°	80.4	77.8	66.5	63.1	65.7
87.5°	37.2	39.7	33.7	31.1	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)