

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: P291794

Luminaire Tested: **22GR-LD5-28-F1-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291794  
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-LD5-28-F1-UNV-L82765-W2A1-U-6500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3050.0 lumens  
Efficiency: N/A  
Efficacy: 132.2 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

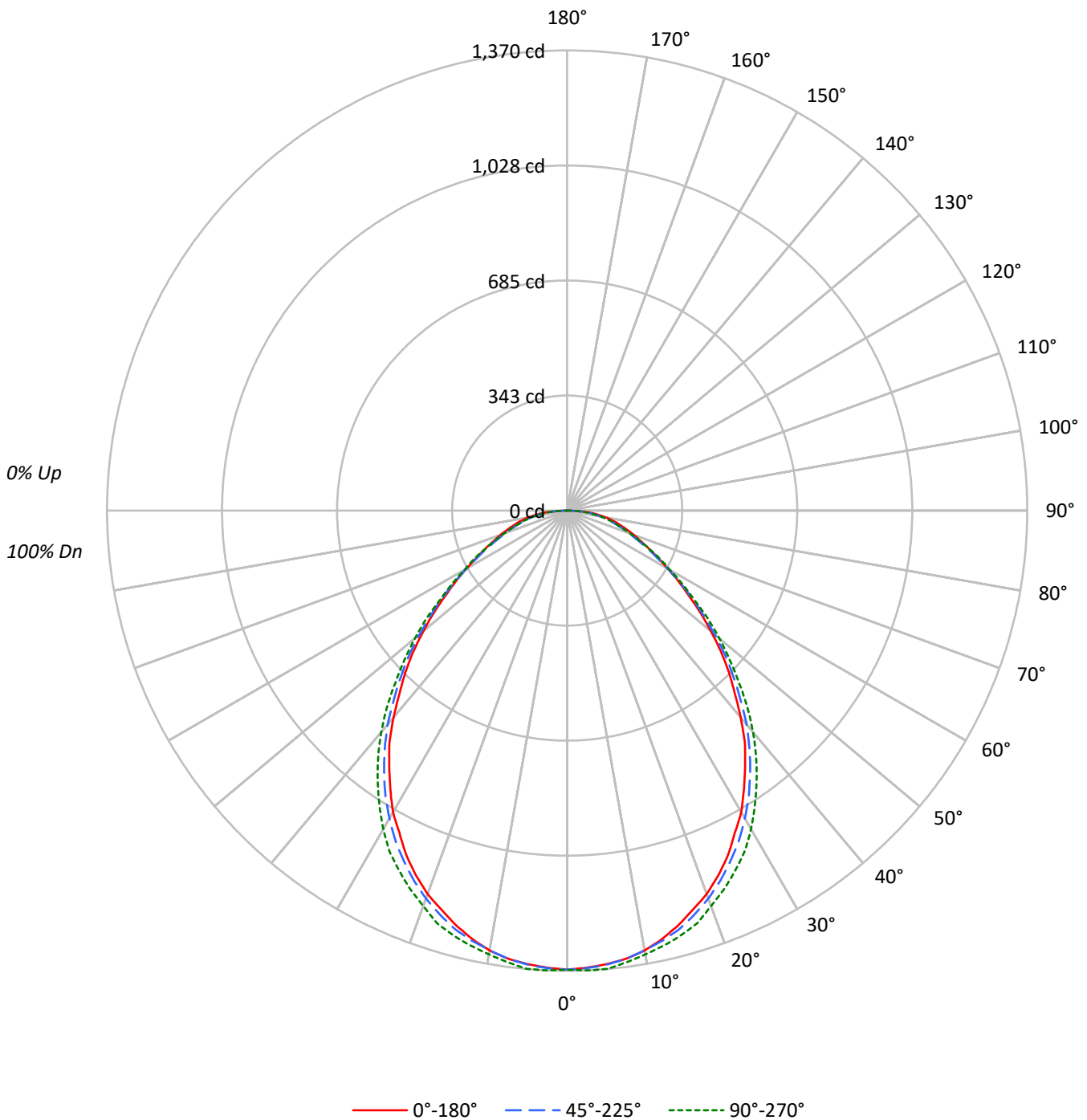
Input Watts (W): 23.064  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3678	3678	3678
5°	3662	3666	3700
10°	3633	3631	3666
15°	3560	3595	3648
20°	3479	3519	3587
25°	3363	3418	3513
30°	3222	3287	3402
35°	3033	3120	3231
40°	2823	2919	3025
45°	2591	2666	2749
50°	2337	2396	2472
55°	2074	2123	2160
60°	1859	1863	1900
65°	1713	1655	1713
70°	1654	1533	1577
75°	1682	1500	1529
80°	1813	1574	1574
85°	2013	1664	1643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.9	4.2
10°-20°	363.7	11.9
20°-30°	530.7	17.4
30°-40°	594.2	19.5
40°-50°	540.8	17.7
50°-60°	407.0	13.3
60°-70°	265.6	8.7
70°-80°	159.3	5.2
80°-90°	59.7	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°	1023.3	33.6
0°-40°	1617.5	53.0
0°-60°	2565.3	84.1
0°-90°	3050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3050.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1367	1367	1367	1367	1367	
5°	1356	1354	1357	1362	1370	129
15°	1278	1279	1290	1301	1309	360
25°	1133	1136	1151	1172	1183	520
35°	923	932	950	972	984	577
45°	681	688	700	715	722	524
55°	442	448	453	459	460	399
65°	269	266	260	264	269	269
75°	162	156	144	145	147	172
85°	65	63	54	51	53	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1366.8	1366.8	1366.8	1366.8	1366.8
2.5°	1361.9	1361.2	1363.3	1366.8	1370.3
5°	1355.6	1353.5	1357.0	1361.9	1369.6
7.5°	1345.8	1345.8	1345.8	1354.9	1356.3
10°	1329.6	1331.0	1328.9	1338.0	1341.6
12.5°	1306.5	1307.2	1311.4	1320.5	1326.8
15°	1277.8	1279.2	1290.4	1300.9	1309.3
17.5°	1245.6	1250.5	1261.0	1277.8	1288.3
20°	1214.8	1220.4	1228.8	1247.0	1252.6
22.5°	1175.5	1181.8	1192.3	1208.4	1220.4
25°	1132.8	1136.3	1151.0	1172.0	1183.2
27.5°	1081.6	1089.4	1107.6	1129.3	1144.7
30°	1036.8	1041.0	1057.8	1083.0	1095.0
32.5°	980.1	992.7	1006.7	1029.1	1040.3
35°	923.3	931.7	949.9	972.4	983.6
37.5°	868.7	873.6	891.8	910.7	924.7
40°	803.5	812.6	830.9	851.2	861.0
42.5°	738.4	751.7	763.6	783.9	794.4
45°	680.9	687.9	700.5	715.3	722.3
47.5°	620.7	624.2	638.9	648.0	655.7
50°	558.3	562.5	572.3	581.5	590.6
52.5°	500.9	504.4	510.7	519.1	528.2
55°	442.0	448.4	452.6	458.9	460.3
57.5°	394.4	393.7	396.5	401.4	406.3
60°	345.4	346.8	346.1	351.0	353.1
62.5°	304.7	304.0	299.8	306.8	312.4
65°	269.0	266.2	259.9	264.1	269.0
67.5°	236.1	234.7	224.2	227.7	231.9
70°	210.2	205.3	194.8	196.9	200.4
72.5°	184.9	179.3	168.8	169.5	171.6
75°	161.8	156.2	144.3	145.0	147.1
77.5°	140.1	133.1	122.6	121.2	122.6
80°	117.0	110.7	101.6	97.4	101.6
82.5°	93.2	89.7	79.2	75.0	76.4
85°	65.2	63.0	53.9	51.1	53.2
87.5°	30.1	32.2	27.3	25.2	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)