

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: P291884

Luminaire Tested: **22GR-LD5-28-F1-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291884  
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-L92765-W2A1-U-2700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2287.0 lumens  
Efficiency: N/A  
Efficacy: 104.2 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

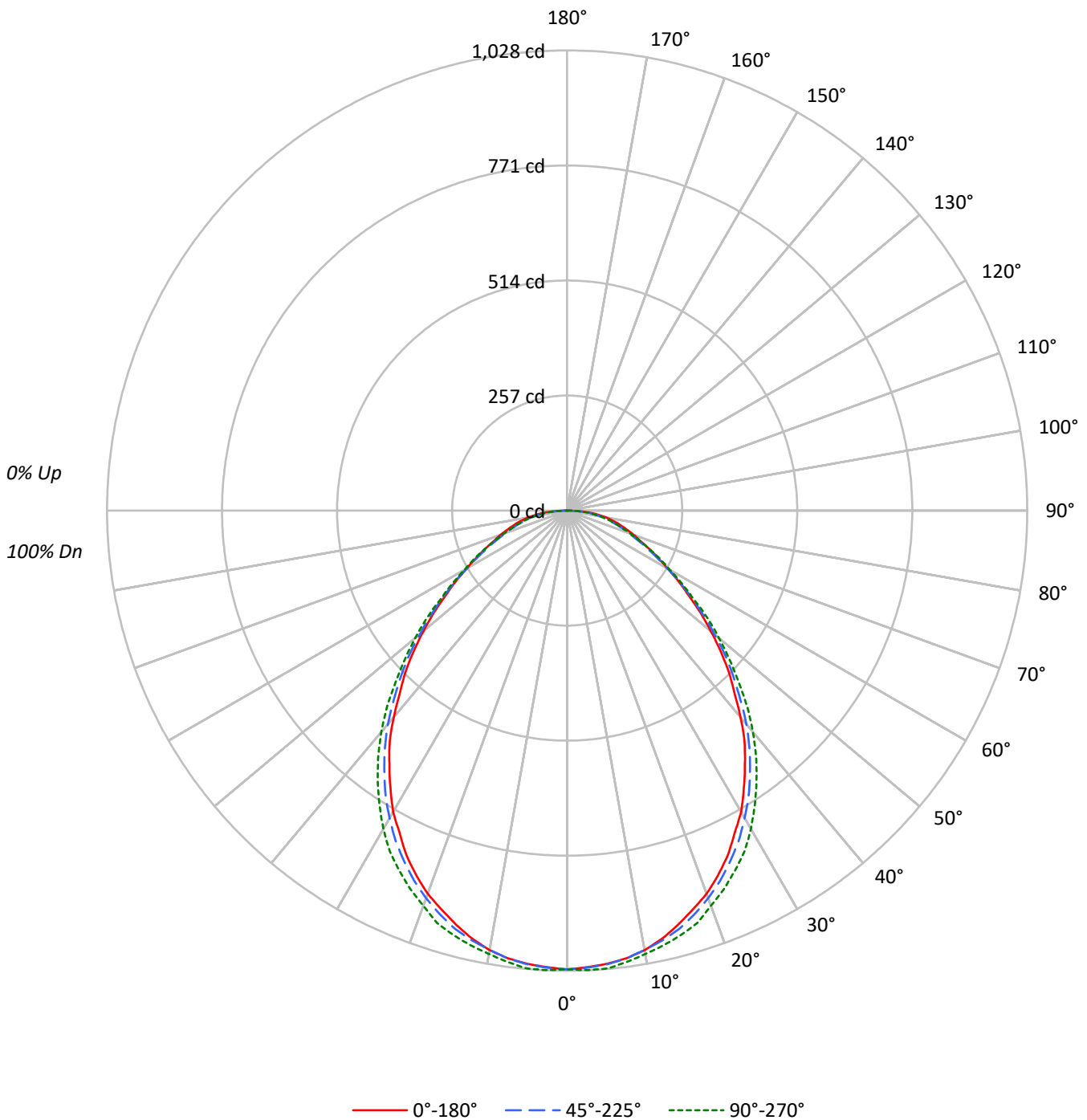
Input Watts (W): 21.948  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2758	2758	2758
5°	2746	2749	2774
10°	2724	2723	2749
15°	2669	2696	2735
20°	2609	2639	2690
25°	2522	2563	2634
30°	2416	2465	2551
35°	2274	2340	2423
40°	2116	2188	2268
45°	1943	1999	2061
50°	1753	1797	1854
55°	1555	1592	1619
60°	1394	1397	1425
65°	1284	1241	1284
70°	1240	1149	1182
75°	1261	1125	1147
80°	1359	1181	1181
85°	1510	1247	1232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.7	4.2
10°-20°	272.7	11.9
20°-30°	398.0	17.4
30°-40°	445.6	19.5
40°-50°	405.5	17.7
50°-60°	305.2	13.3
60°-70°	199.2	8.7
70°-80°	119.4	5.2
80°-90°	44.8	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°	767.3	33.6
0°-40°	1212.9	53.0
0°-60°	1923.6	84.1
0°-90°	2287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2287.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1025	1025	1025	1025	1025	
5°	1016	1015	1018	1021	1027	96
15°	958	959	968	976	982	270
25°	849	852	863	879	887	390
35°	692	699	712	729	738	433
45°	511	516	525	536	542	393
55°	332	336	339	344	345	300
65°	202	200	195	198	202	202
75°	121	117	108	109	110	129
85°	49	47	40	38	40	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1024.9	1024.9	1024.9	1024.9	1024.9
2.5°	1021.2	1020.7	1022.2	1024.9	1027.5
5°	1016.4	1014.9	1017.5	1021.2	1027.0
7.5°	1009.1	1009.1	1009.1	1015.9	1017.0
10°	997.0	998.1	996.5	1003.3	1005.9
12.5°	979.7	980.2	983.4	990.2	994.9
15°	958.1	959.2	967.6	975.5	981.8
17.5°	934.0	937.7	945.5	958.1	966.0
20°	910.9	915.1	921.4	935.0	939.2
22.5°	881.4	886.2	894.1	906.1	915.1
25°	849.4	852.0	863.1	878.8	887.2
27.5°	811.1	816.8	830.5	846.8	858.3
30°	777.4	780.6	793.2	812.1	821.0
32.5°	734.9	744.3	754.9	771.7	780.1
35°	692.3	698.6	712.3	729.1	737.5
37.5°	651.4	655.0	668.7	682.9	693.4
40°	602.5	609.3	623.0	638.2	645.6
42.5°	553.7	563.6	572.6	587.8	595.7
45°	510.6	515.8	525.3	536.3	541.6
47.5°	465.4	468.0	479.1	485.9	491.7
50°	418.7	421.8	429.2	436.0	442.8
52.5°	375.6	378.2	382.9	389.2	396.1
55°	331.5	336.2	339.3	344.1	345.1
57.5°	295.7	295.2	297.3	301.0	304.7
60°	259.0	260.0	259.5	263.2	264.7
62.5°	228.5	228.0	224.8	230.1	234.3
65°	201.7	199.6	194.9	198.0	201.7
67.5°	177.0	176.0	168.1	170.7	173.9
70°	157.6	153.9	146.0	147.6	150.2
72.5°	138.7	134.5	126.6	127.1	128.7
75°	121.3	117.1	108.2	108.7	110.3
77.5°	105.1	99.8	91.9	90.9	91.9
80°	87.7	83.0	76.2	73.0	76.2
82.5°	69.9	67.2	59.4	56.2	57.3
85°	48.9	47.3	40.4	38.3	39.9
87.5°	22.6	24.2	20.5	18.9	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)