

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: P291892

Luminaire Tested: **22GR-LD5-28-F1-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291892  
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-6500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2769.0 lumens  
Efficiency: N/A  
Efficacy: 120.1 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

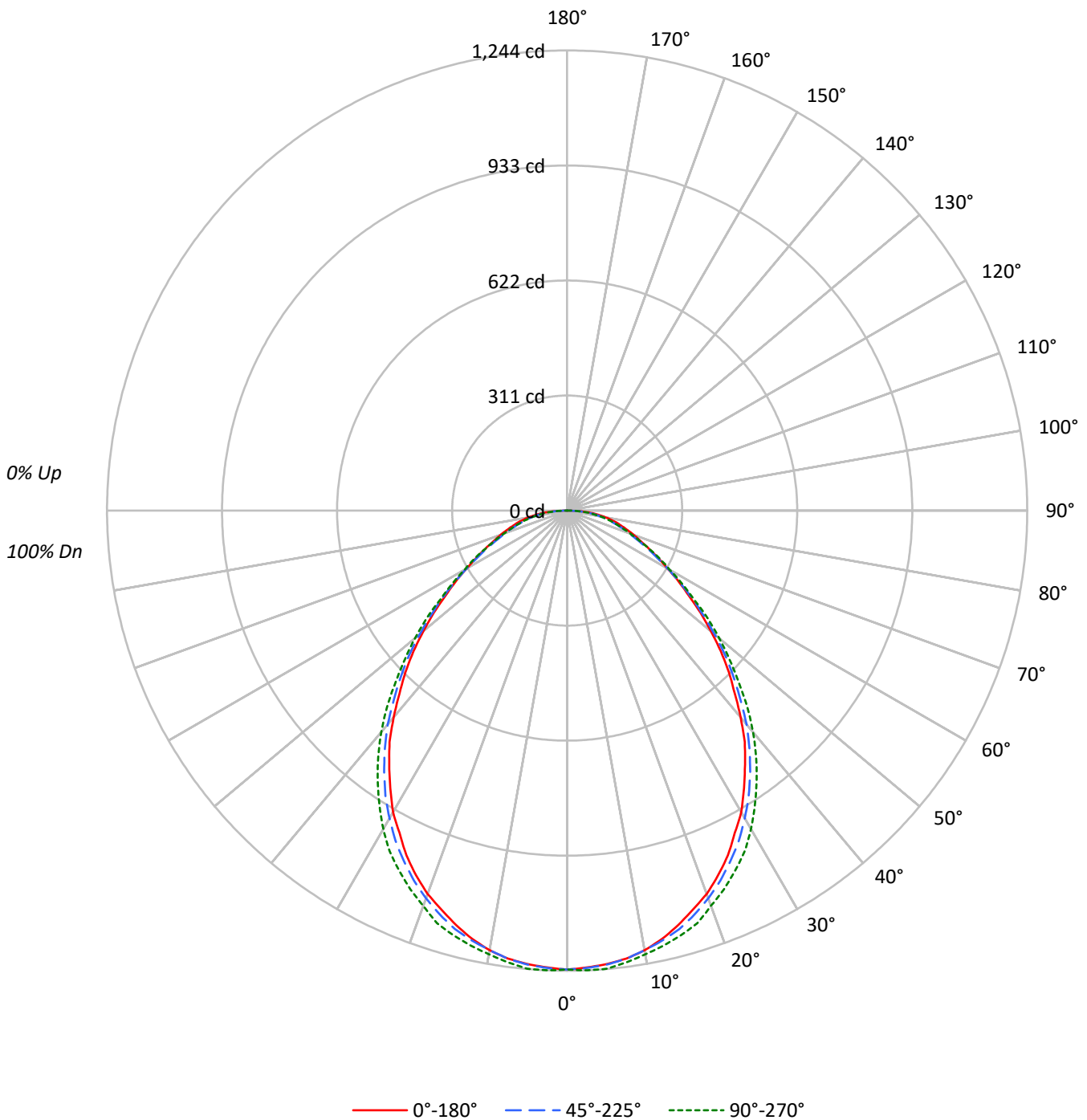
Input Watts (W): 23.064  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3339	3339	3339
5°	3324	3328	3359
10°	3298	3297	3328
15°	3232	3264	3312
20°	3158	3195	3257
25°	3053	3103	3189
30°	2925	2984	3089
35°	2754	2833	2934
40°	2563	2650	2746
45°	2353	2420	2495
50°	2122	2175	2245
55°	1883	1928	1961
60°	1688	1691	1725
65°	1555	1503	1555
70°	1501	1391	1431
75°	1527	1362	1389
80°	1646	1429	1429
85°	1825	1513	1491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.0	4.2
10°-20°	330.2	11.9
20°-30°	481.8	17.4
30°-40°	539.5	19.5
40°-50°	491.0	17.7
50°-60°	369.5	13.3
60°-70°	241.1	8.7
70°-80°	144.6	5.2
80°-90°	54.2	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°	929.0	33.6
0°-40°	1468.5	53.0
0°-60°	2329.0	84.1
0°-90°	2769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2769.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1241	1241	1241	1241	1241	
5°	1231	1229	1232	1236	1243	117
15°	1160	1161	1172	1181	1189	327
25°	1028	1032	1045	1064	1074	472
35°	838	846	862	883	893	524
45°	618	625	636	649	656	476
55°	401	407	411	417	418	363
65°	244	242	236	240	244	244
75°	147	142	131	132	134	156
85°	59	57	49	46	48	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1240.8	1240.8	1240.8	1240.8	1240.8
2.5°	1236.4	1235.8	1237.7	1240.8	1244.0
5°	1230.7	1228.8	1231.9	1236.4	1243.4
7.5°	1221.8	1221.8	1221.8	1230.0	1231.3
10°	1207.1	1208.4	1206.5	1214.8	1218.0
12.5°	1186.2	1186.8	1190.6	1198.9	1204.6
15°	1160.1	1161.3	1171.5	1181.1	1188.7
17.5°	1130.8	1135.3	1144.8	1160.1	1169.6
20°	1102.8	1107.9	1115.6	1132.1	1137.2
22.5°	1067.2	1072.9	1082.5	1097.1	1107.9
25°	1028.4	1031.6	1045.0	1064.0	1074.2
27.5°	982.0	989.0	1005.5	1025.2	1039.2
30°	941.3	945.1	960.4	983.3	994.1
32.5°	889.8	901.2	913.9	934.3	944.5
35°	838.3	845.9	862.4	882.8	893.0
37.5°	788.6	793.1	809.6	826.8	839.5
40°	729.5	737.8	754.3	772.7	781.7
42.5°	670.4	682.4	693.2	711.7	721.2
45°	618.2	624.6	636.0	649.4	655.7
47.5°	563.5	566.7	580.0	588.3	595.3
50°	506.9	510.7	519.6	527.9	536.2
52.5°	454.7	457.9	463.6	471.3	479.5
55°	401.3	407.0	410.9	416.6	417.9
57.5°	358.1	357.4	360.0	364.4	368.9
60°	313.6	314.8	314.2	318.6	320.5
62.5°	276.7	276.0	272.2	278.6	283.7
65°	244.2	241.7	236.0	239.8	244.2
67.5°	214.3	213.1	203.5	206.7	210.5
70°	190.8	186.3	176.8	178.7	181.9
72.5°	167.9	162.8	153.3	153.9	155.8
75°	146.9	141.8	131.0	131.7	133.6
77.5°	127.2	120.8	111.3	110.0	111.3
80°	106.2	100.5	92.2	88.4	92.2
82.5°	84.6	81.4	71.9	68.1	69.3
85°	59.1	57.2	49.0	46.4	48.3
87.5°	27.3	29.3	24.8	22.9	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)