

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: P291788

Luminaire Tested: **22GR-LD5-28-F1-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291788  
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-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2850.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 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

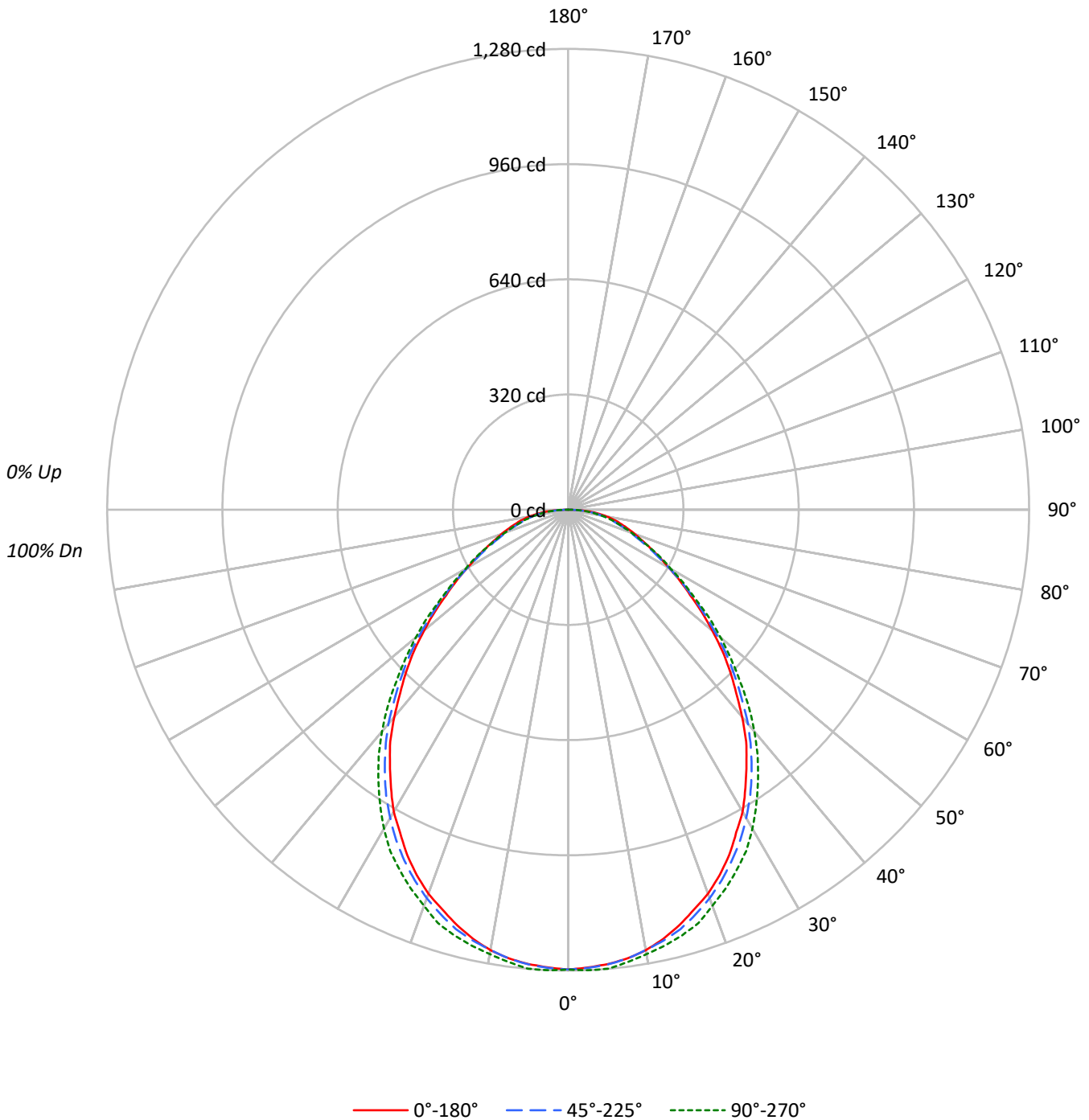
Input Watts (W): 22.134  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3437	3437	3437
5°	3422	3425	3457
10°	3395	3393	3425
15°	3326	3359	3409
20°	3251	3288	3352
25°	3143	3193	3283
30°	3010	3072	3179
35°	2834	2916	3019
40°	2637	2727	2826
45°	2422	2491	2568
50°	2184	2239	2310
55°	1938	1984	2018
60°	1737	1741	1776
65°	1601	1547	1601
70°	1545	1432	1473
75°	1572	1402	1430
80°	1694	1471	1471
85°	1880	1556	1538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.5	4.2
10°-20°	339.8	11.9
20°-30°	495.9	17.4
30°-40°	555.2	19.5
40°-50°	505.3	17.7
50°-60°	380.3	13.3
60°-70°	248.2	8.7
70°-80°	148.9	5.2
80°-90°	55.8	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°	956.2	33.6
0°-40°	1511.4	53.0
0°-60°	2397.1	84.1
0°-90°	2850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2850.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1277	1277	1277	1277	1277	
5°	1267	1265	1268	1273	1280	120
15°	1194	1195	1206	1216	1224	336
25°	1058	1062	1076	1095	1106	486
35°	863	871	888	909	919	539
45°	636	643	655	668	675	490
55°	413	419	423	429	430	373
65°	251	249	243	247	251	251
75°	151	146	135	136	138	160
85°	61	59	50	48	50	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1277.1	1277.1	1277.1	1277.1	1277.1
2.5°	1272.6	1271.9	1273.9	1277.1	1280.4
5°	1266.7	1264.7	1268.0	1272.6	1279.8
7.5°	1257.5	1257.5	1257.5	1266.0	1267.3
10°	1242.5	1243.8	1241.8	1250.3	1253.6
12.5°	1220.8	1221.5	1225.4	1233.9	1239.8
15°	1194.0	1195.3	1205.8	1215.6	1223.5
17.5°	1163.9	1168.5	1178.3	1194.0	1203.8
20°	1135.1	1140.3	1148.2	1165.2	1170.4
22.5°	1098.4	1104.3	1114.1	1129.2	1140.3
25°	1058.5	1061.8	1075.5	1095.2	1105.6
27.5°	1010.7	1017.9	1034.9	1055.2	1069.6
30°	968.8	972.8	988.5	1012.0	1023.2
32.5°	915.8	927.6	940.7	961.6	972.1
35°	862.8	870.6	887.7	908.6	919.1
37.5°	811.7	816.3	833.3	851.0	864.1
40°	750.8	759.3	776.4	795.4	804.5
42.5°	690.0	702.4	713.5	732.5	742.3
45°	636.3	642.8	654.6	668.4	674.9
47.5°	580.0	583.3	597.0	605.5	612.7
50°	521.7	525.7	534.8	543.3	551.8
52.5°	468.0	471.3	477.2	485.1	493.6
55°	413.1	419.0	422.9	428.8	430.1
57.5°	368.5	367.9	370.5	375.1	379.7
60°	322.7	324.0	323.4	328.0	329.9
62.5°	284.8	284.1	280.2	286.7	292.0
65°	251.4	248.8	242.9	246.8	251.4
67.5°	220.6	219.3	209.5	212.7	216.7
70°	196.4	191.8	182.0	183.9	187.2
72.5°	172.8	167.6	157.8	158.4	160.4
75°	151.2	146.0	134.8	135.5	137.5
77.5°	130.9	124.4	114.6	113.2	114.6
80°	109.3	103.4	94.9	91.0	94.9
82.5°	87.1	83.8	74.0	70.0	71.4
85°	60.9	58.9	50.4	47.8	49.8
87.5°	28.1	30.1	25.5	23.6	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)