

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: P291867

Luminaire Tested: **22GR-LD5-20-F1-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291867  
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-LD5-20-F1-UNV-L92765-W2A1-U-3000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1694.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 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

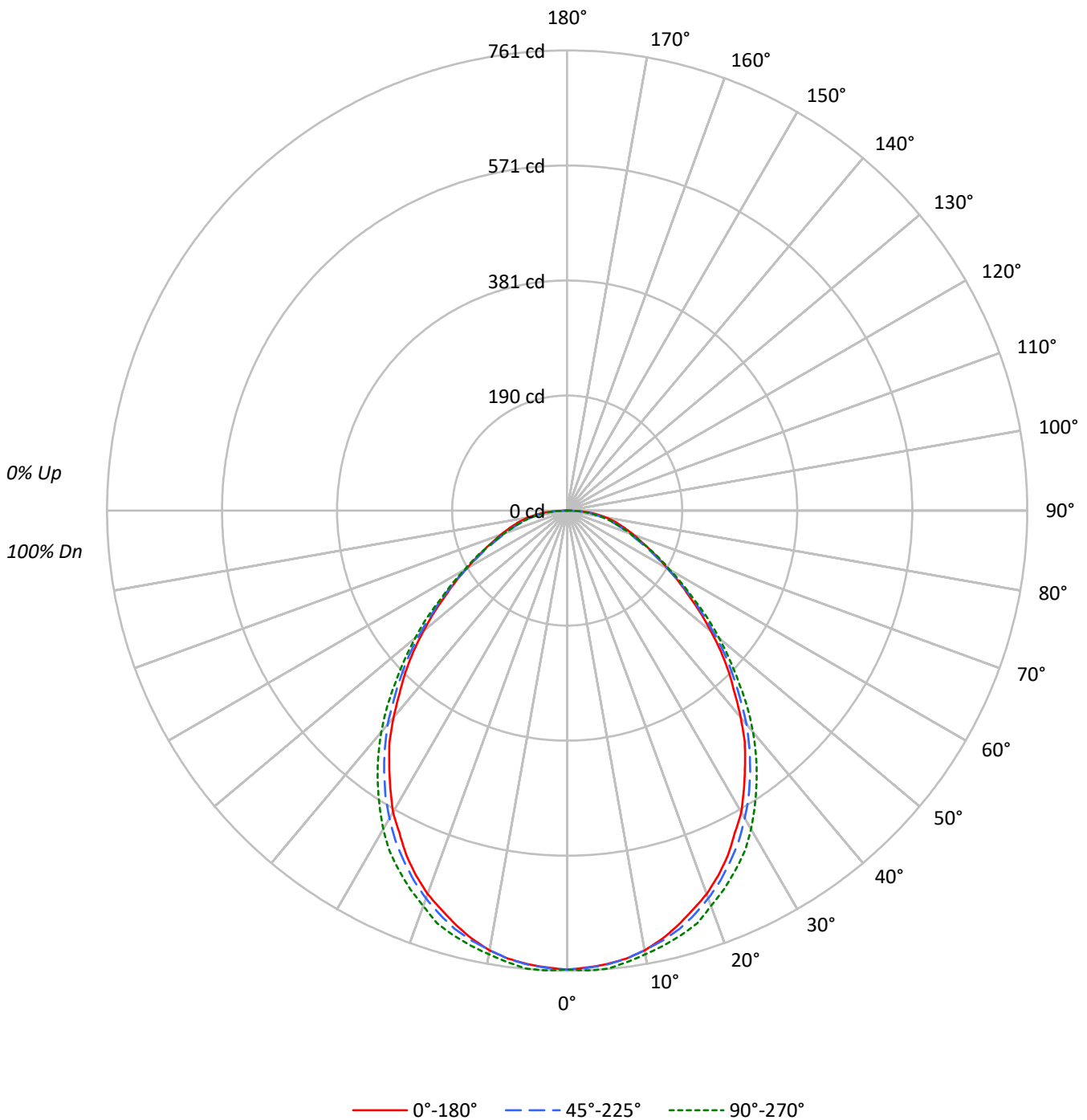
Input Watts (W): 15.252  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2043	2043	2043
5°	2034	2036	2055
10°	2018	2017	2036
15°	1977	1997	2026
20°	1932	1954	1992
25°	1868	1898	1951
30°	1789	1826	1890
35°	1685	1733	1795
40°	1568	1621	1680
45°	1439	1481	1527
50°	1298	1331	1373
55°	1152	1179	1199
60°	1032	1034	1055
65°	951	919	951
70°	918	851	876
75°	935	834	849
80°	1007	874	874
85°	1118	926	914



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.6	4.2
10°-20°	202.0	11.9
20°-30°	294.8	17.4
30°-40°	330.0	19.5
40°-50°	300.4	17.7
50°-60°	226.1	13.3
60°-70°	147.5	8.7
70°-80°	88.5	5.2
80°-90°	33.2	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°	568.4	33.6
0°-40°	898.4	53.0
0°-60°	1424.8	84.1
0°-90°	1694.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1694.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	759	759	759	759	759	
5°	753	752	754	756	761	71
15°	710	710	717	722	727	200
25°	629	631	639	651	657	289
35°	513	518	528	540	546	321
45°	378	382	389	397	401	291
55°	246	249	251	255	256	222
65°	149	148	144	147	149	149
75°	90	87	80	80	82	95
85°	36	35	30	28	30	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	759.1	759.1	759.1	759.1	759.1
2.5°	756.4	756.0	757.2	759.1	761.1
5°	752.9	751.7	753.7	756.4	760.7
7.5°	747.4	747.4	747.4	752.5	753.3
10°	738.5	739.3	738.1	743.2	745.1
12.5°	725.7	726.0	728.4	733.4	736.9
15°	709.7	710.5	716.7	722.5	727.2
17.5°	691.8	694.5	700.4	709.7	715.5
20°	674.7	677.8	682.5	692.6	695.7
22.5°	652.9	656.4	662.2	671.2	677.8
25°	629.2	631.1	639.3	651.0	657.2
27.5°	600.8	605.0	615.2	627.2	635.8
30°	575.9	578.2	587.5	601.5	608.2
32.5°	544.3	551.3	559.1	571.6	577.8
35°	512.8	517.5	527.6	540.1	546.3
37.5°	482.5	485.2	495.3	505.8	513.6
40°	446.3	451.3	461.5	472.7	478.2
42.5°	410.1	417.5	424.1	435.4	441.2
45°	378.2	382.1	389.1	397.3	401.2
47.5°	344.7	346.7	354.9	359.9	364.2
50°	310.1	312.4	317.9	322.9	328.0
52.5°	278.2	280.1	283.6	288.3	293.4
55°	245.5	249.0	251.4	254.9	255.6
57.5°	219.1	218.7	220.2	222.9	225.7
60°	191.8	192.6	192.2	194.9	196.1
62.5°	169.3	168.9	166.5	170.4	173.5
65°	149.4	147.9	144.4	146.7	149.4
67.5°	131.1	130.3	124.5	126.5	128.8
70°	116.7	114.0	108.2	109.3	111.3
72.5°	102.7	99.6	93.8	94.2	95.3
75°	89.9	86.8	80.2	80.5	81.7
77.5°	77.8	73.9	68.1	67.3	68.1
80°	65.0	61.5	56.4	54.1	56.4
82.5°	51.7	49.8	44.0	41.6	42.4
85°	36.2	35.0	30.0	28.4	29.6
87.5°	16.7	17.9	15.2	14.0	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)