

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: P291770

Luminaire Tested: **22GR-LD5-20-F1-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291770  
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-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: 2031.0 lumens  
Efficiency: N/A  
Efficacy: 130.8 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

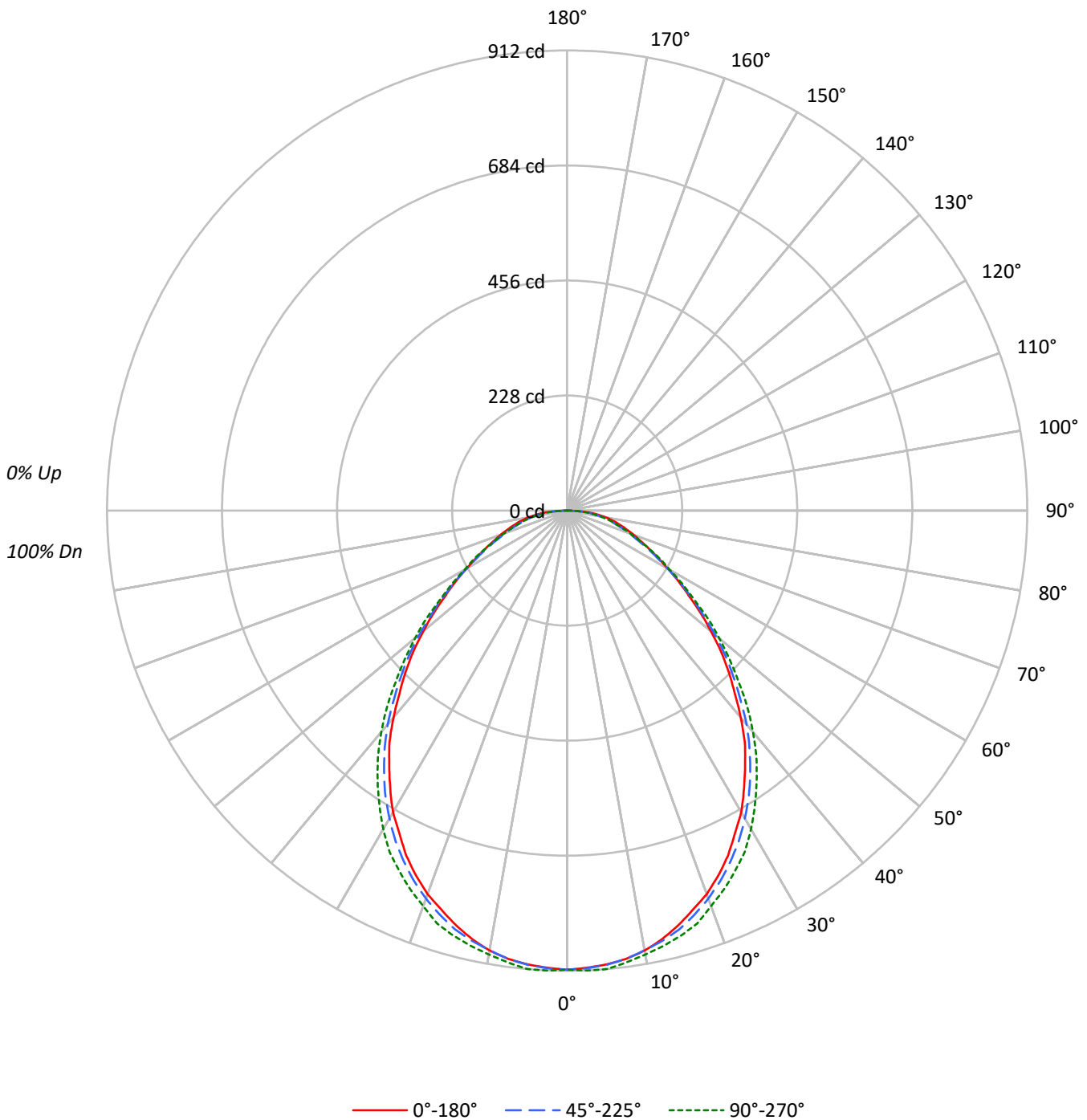
Input Watts (W): 15.531  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2449	2449	2449
5°	2438	2441	2464
10°	2419	2418	2441
15°	2371	2394	2429
20°	2316	2343	2389
25°	2240	2276	2339
30°	2145	2189	2266
35°	2020	2078	2152
40°	1880	1944	2014
45°	1725	1775	1831
50°	1557	1595	1647
55°	1381	1414	1438
60°	1238	1240	1265
65°	1140	1102	1140
70°	1101	1020	1050
75°	1121	999	1019
80°	1207	1048	1048
85°	1340	1108	1096



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.9	4.2
10°-20°	242.2	11.9
20°-30°	353.4	17.4
30°-40°	395.7	19.5
40°-50°	360.1	17.7
50°-60°	271.1	13.3
60°-70°	176.9	8.7
70°-80°	106.1	5.2
80°-90°	39.8	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°	681.4	33.6
0°-40°	1077.1	53.0
0°-60°	1708.3	84.1
0°-90°	2031.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2031.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	903	901	904	907	912	86
15°	851	852	859	866	872	240
25°	754	757	766	780	788	346
35°	615	620	633	648	655	384
45°	453	458	466	476	481	349
55°	294	299	301	306	306	266
65°	179	177	173	176	179	179
75°	108	104	96	97	98	114
85°	43	42	36	34	36	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	910.1	910.1	910.1	910.1	910.1
2.5°	906.9	906.4	907.8	910.1	912.5
5°	902.7	901.3	903.6	906.9	912.0
7.5°	896.1	896.1	896.1	902.2	903.1
10°	885.4	886.3	884.9	891.0	893.3
12.5°	870.0	870.5	873.3	879.3	883.5
15°	850.9	851.8	859.3	866.3	871.9
17.5°	829.4	832.7	839.7	850.9	857.9
20°	808.9	812.6	818.2	830.4	834.1
22.5°	782.8	787.0	794.0	804.7	812.6
25°	754.3	756.7	766.5	780.4	787.9
27.5°	720.3	725.4	737.5	752.0	762.3
30°	690.4	693.2	704.4	721.2	729.1
32.5°	652.6	661.0	670.4	685.3	692.7
35°	614.8	620.4	632.6	647.5	655.0
37.5°	578.5	581.7	593.9	606.4	615.8
40°	535.1	541.1	553.3	566.8	573.3
42.5°	491.7	500.6	508.5	522.0	529.0
45°	453.4	458.1	466.5	476.3	481.0
47.5°	413.3	415.6	425.4	431.5	436.6
50°	371.8	374.6	381.1	387.2	393.3
52.5°	333.5	335.9	340.1	345.7	351.7
55°	294.4	298.6	301.4	305.6	306.5
57.5°	262.6	262.2	264.0	267.3	270.6
60°	230.0	230.9	230.4	233.7	235.1
62.5°	202.9	202.5	199.7	204.3	208.1
65°	179.1	177.3	173.1	175.9	179.1
67.5°	157.2	156.3	149.3	151.6	154.4
70°	139.9	136.7	129.7	131.1	133.4
72.5°	123.2	119.4	112.4	112.9	114.3
75°	107.8	104.0	96.1	96.6	98.0
77.5°	93.3	88.6	81.6	80.7	81.6
80°	77.9	73.7	67.6	64.8	67.6
82.5°	62.0	59.7	52.7	49.9	50.8
85°	43.4	42.0	35.9	34.1	35.5
87.5°	20.1	21.5	18.2	16.8	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)