

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: P291779

Luminaire Tested: **22GR-LD5-24-F1-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291779  
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-LD5-24-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: 2383.0 lumens  
Efficiency: N/A  
Efficacy: 130.7 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

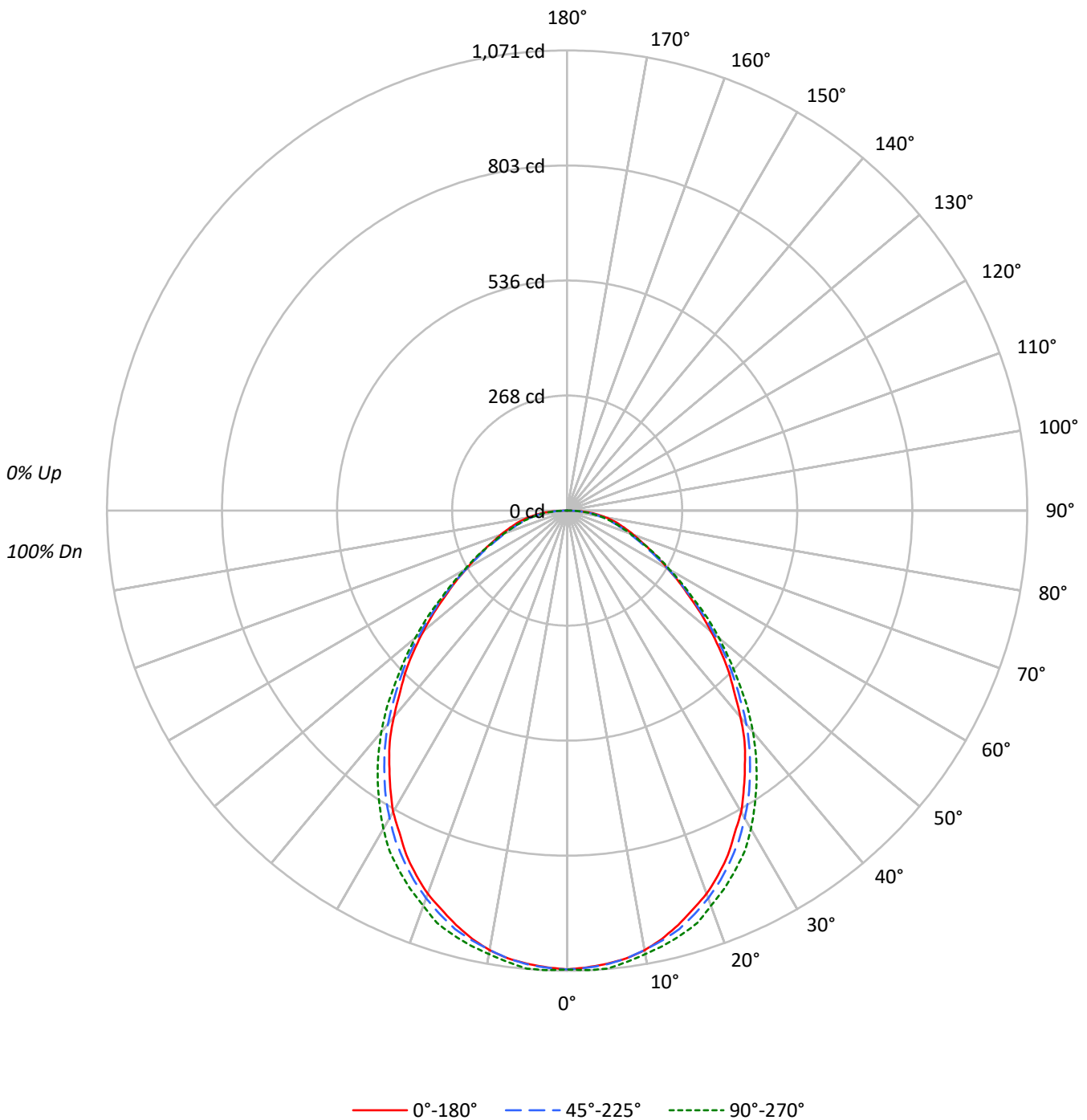
Input Watts (W): 18.228  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2874	2874	2874
5°	2861	2864	2891
10°	2839	2837	2864
15°	2781	2809	2850
20°	2718	2749	2803
25°	2628	2670	2745
30°	2517	2568	2658
35°	2370	2438	2525
40°	2205	2281	2363
45°	2025	2083	2148
50°	1826	1872	1932
55°	1620	1659	1687
60°	1452	1455	1485
65°	1338	1293	1338
70°	1292	1197	1231
75°	1314	1173	1195
80°	1416	1230	1230
85°	1572	1300	1284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.7	4.2
10°-20°	284.1	11.9
20°-30°	414.7	17.4
30°-40°	464.3	19.5
40°-50°	422.5	17.7
50°-60°	318.0	13.3
60°-70°	207.5	8.7
70°-80°	124.5	5.2
80°-90°	46.7	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°	799.5	33.6
0°-40°	1263.8	53.0
0°-60°	2004.3	84.1
0°-90°	2383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2383.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1059	1058	1060	1064	1070	100
15°	998	1000	1008	1016	1023	281
25°	885	888	899	916	924	406
35°	721	728	742	760	768	451
45°	532	538	547	559	564	410
55°	345	350	354	358	360	312
65°	210	208	203	206	210	210
75°	126	122	113	113	115	134
85°	51	49	42	40	42	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1067.9	1067.9	1067.9	1067.9	1067.9
2.5°	1064.0	1063.5	1065.1	1067.9	1070.6
5°	1059.1	1057.5	1060.2	1064.0	1070.1
7.5°	1051.5	1051.5	1051.5	1058.6	1059.7
10°	1038.9	1040.0	1038.3	1045.4	1048.2
12.5°	1020.8	1021.3	1024.6	1031.7	1036.7
15°	998.4	999.5	1008.2	1016.4	1023.0
17.5°	973.2	977.0	985.2	998.4	1006.6
20°	949.1	953.5	960.0	974.3	978.7
22.5°	918.4	923.4	931.6	944.2	953.5
25°	885.1	887.8	899.3	915.7	924.5
27.5°	845.1	851.1	865.4	882.3	894.4
30°	810.1	813.4	826.5	846.2	855.5
32.5°	765.7	775.6	786.5	804.1	812.8
35°	721.4	728.0	742.2	759.7	768.5
37.5°	678.7	682.5	696.8	711.6	722.5
40°	627.8	634.9	649.2	665.0	672.7
42.5°	576.9	587.3	596.6	612.5	620.7
45°	532.0	537.5	547.3	558.8	564.3
47.5°	484.9	487.7	499.2	506.3	512.3
50°	436.2	439.5	447.2	454.3	461.4
52.5°	391.4	394.1	399.0	405.6	412.7
55°	345.4	350.3	353.6	358.5	359.6
57.5°	308.2	307.6	309.8	313.6	317.5
60°	269.8	270.9	270.4	274.2	275.9
62.5°	238.1	237.5	234.3	239.7	244.1
65°	210.2	208.0	203.1	206.3	210.2
67.5°	184.5	183.4	175.2	177.9	181.2
70°	164.2	160.4	152.2	153.8	156.5
72.5°	144.5	140.1	131.9	132.5	134.1
75°	126.4	122.1	112.8	113.3	114.9
77.5°	109.5	104.0	95.8	94.7	95.8
80°	91.4	86.5	79.4	76.1	79.4
82.5°	72.8	70.1	61.9	58.6	59.7
85°	50.9	49.3	42.1	40.0	41.6
87.5°	23.5	25.2	21.3	19.7	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)