

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: P291738

Luminaire Tested: **22GR-LD5-24-F1-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291738  
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-L83050-W2A1-U-3000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2306.0 lumens  
Efficiency: N/A  
Efficacy: 127.2 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

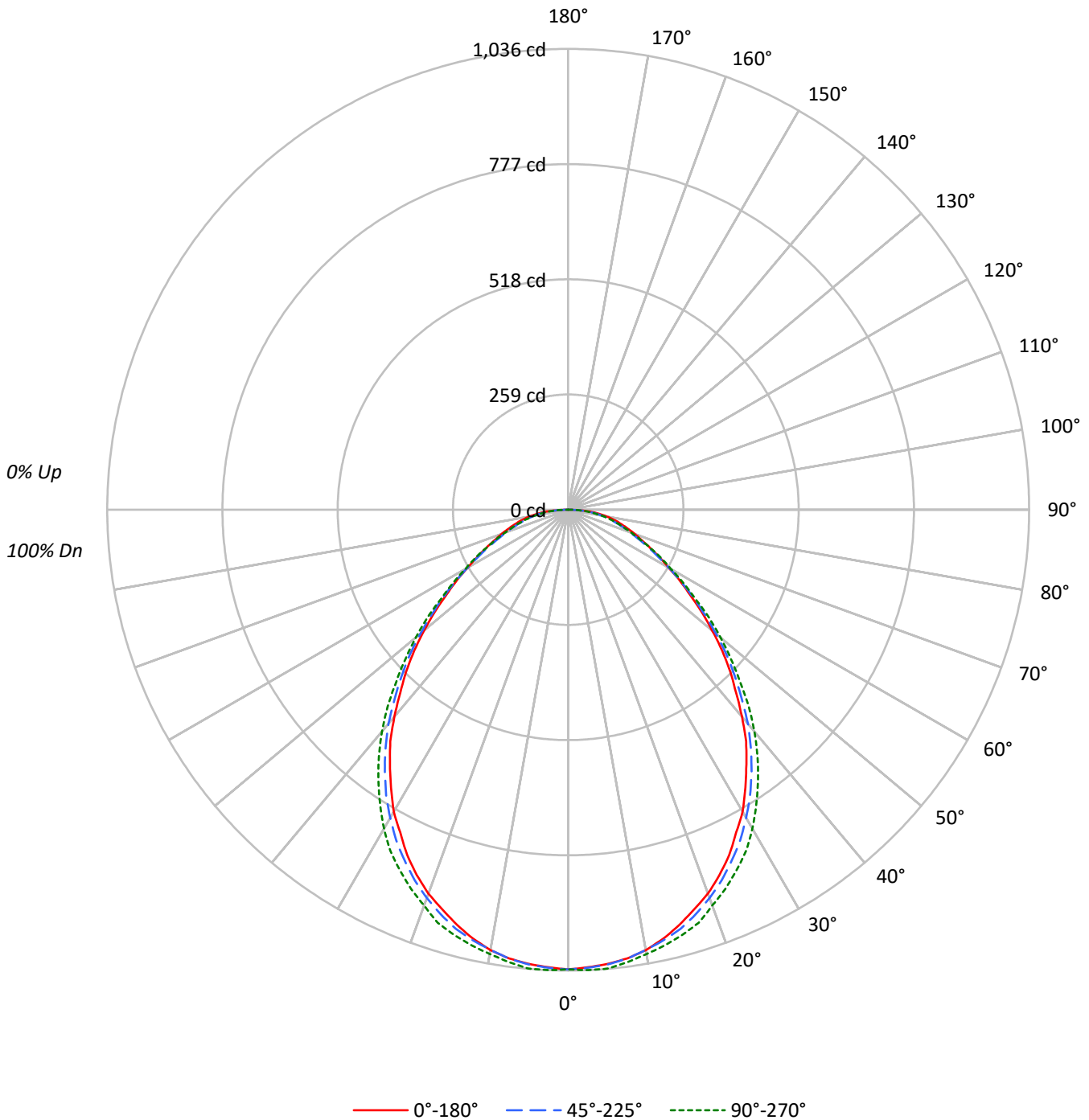
Input Watts (W): 18.135  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2781	2781	2781
5°	2769	2771	2797
10°	2747	2746	2772
15°	2691	2718	2758
20°	2630	2660	2712
25°	2543	2584	2656
30°	2436	2485	2573
35°	2293	2359	2443
40°	2134	2207	2287
45°	1959	2016	2078
50°	1767	1811	1869
55°	1568	1605	1633
60°	1405	1408	1436
65°	1295	1251	1295
70°	1250	1158	1192
75°	1273	1134	1156
80°	1371	1190	1190
85°	1522	1260	1244



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.5	4.2
10°-20°	274.9	11.9
20°-30°	401.3	17.4
30°-40°	449.3	19.5
40°-50°	408.9	17.7
50°-60°	307.7	13.3
60°-70°	200.8	8.7
70°-80°	120.4	5.2
80°-90°	45.2	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°	773.7	33.6
0°-40°	1223.0	53.0
0°-60°	1939.6	84.1
0°-90°	2306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2306.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1025	1023	1026	1030	1036	97
15°	966	967	976	984	990	272
25°	856	859	870	886	895	393
35°	698	704	718	735	744	436
45°	515	520	530	541	546	396
55°	334	339	342	347	348	302
65°	203	201	196	200	203	203
75°	122	118	109	110	111	130
85°	49	48	41	39	40	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1033.4	1033.4	1033.4	1033.4	1033.4
2.5°	1029.7	1029.1	1030.7	1033.4	1036.0
5°	1024.9	1023.3	1026.0	1029.7	1035.5
7.5°	1017.5	1017.5	1017.5	1024.4	1025.4
10°	1005.3	1006.4	1004.8	1011.7	1014.3
12.5°	987.8	988.3	991.5	998.4	1003.2
15°	966.1	967.2	975.6	983.6	989.9
17.5°	941.7	945.4	953.4	966.1	974.0
20°	918.4	922.7	929.0	942.8	947.0
22.5°	888.8	893.5	901.5	913.7	922.7
25°	856.5	859.1	870.2	886.1	894.6
27.5°	817.8	823.6	837.4	853.8	865.5
30°	783.9	787.1	799.8	818.9	827.9
32.5°	741.0	750.5	761.1	778.1	786.5
35°	698.1	704.4	718.2	735.2	743.6
37.5°	656.8	660.5	674.3	688.6	699.2
40°	607.5	614.4	628.2	643.5	651.0
42.5°	558.3	568.3	577.3	592.7	600.6
45°	514.8	520.1	529.7	540.8	546.1
47.5°	469.3	471.9	483.1	489.9	495.8
50°	422.1	425.3	432.7	439.6	446.5
52.5°	378.7	381.4	386.1	392.5	399.4
55°	334.2	339.0	342.2	346.9	348.0
57.5°	298.2	297.7	299.8	303.5	307.2
60°	261.1	262.2	261.7	265.4	266.9
62.5°	230.4	229.9	226.7	232.0	236.2
65°	203.4	201.3	196.5	199.7	203.4
67.5°	178.5	177.4	169.5	172.1	175.3
70°	158.9	155.2	147.2	148.8	151.5
72.5°	139.8	135.6	127.6	128.2	129.8
75°	122.4	118.1	109.1	109.6	111.2
77.5°	105.9	100.6	92.7	91.6	92.7
80°	88.5	83.7	76.8	73.6	76.8
82.5°	70.4	67.8	59.9	56.7	57.7
85°	49.3	47.7	40.8	38.7	40.3
87.5°	22.8	24.4	20.7	19.1	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)