

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: P290596

Luminaire Tested: **14GR-LD5-20-F1-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290596  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-7)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-20-F1-UNV-L82765-W2A1-U-4500K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2094.0 lumens  
Efficiency: N/A  
Efficacy: 132.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.23  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

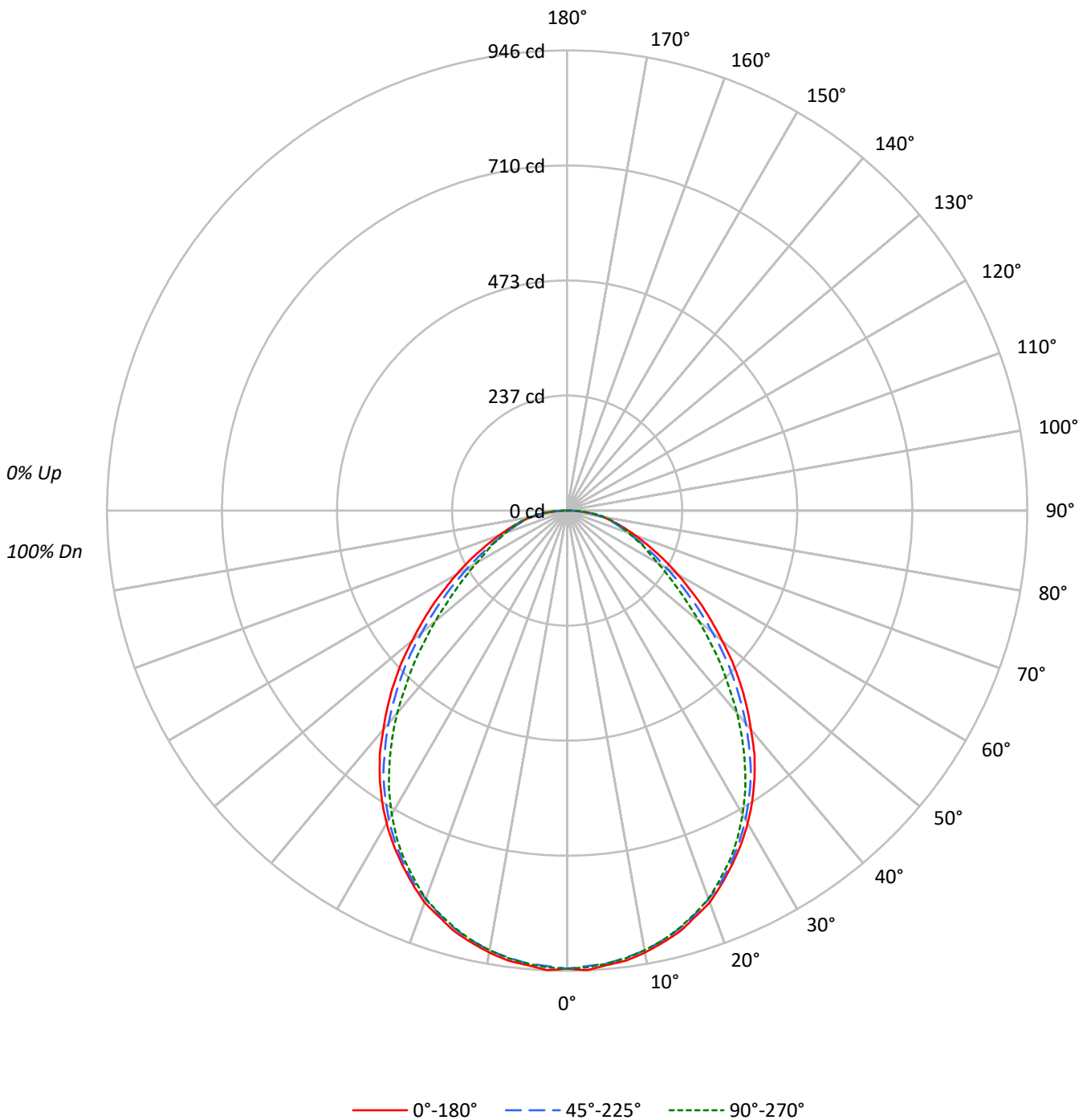
Input Watts (W): 15.81  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	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	64	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48					48			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38					38			
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34					34			
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29					29			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2534	2534	2534
5°	2534	2524	2526
10°	2521	2509	2508
15°	2495	2481	2476
20°	2455	2434	2432
25°	2384	2369	2352
30°	2307	2279	2240
35°	2206	2163	2092
40°	2066	2008	1909
45°	1918	1832	1699
50°	1740	1631	1479
55°	1574	1441	1293
60°	1413	1263	1152
65°	1268	1128	1103
70°	1171	1050	1061
75°	1118	1053	1112
80°	1131	1124	1212
85°	1170	1155	1291



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.9	4.2
10°-20°	251.3	12.0
20°-30°	367.0	17.5
30°-40°	409.0	19.5
40°-50°	368.5	17.6
50°-60°	275.5	13.2
60°-70°	181.7	8.7
70°-80°	110.9	5.3
80°-90°	41.2	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°	707.3	33.8
0°-40°	1116.2	53.3
0°-60°	1760.2	84.1
0°-90°	2094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2094.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	938	937	934	939	935	89
15°	896	892	890	896	889	252
25°	803	800	798	799	792	370
35°	672	666	658	647	637	419
45°	504	499	481	459	446	388
55°	336	330	307	282	276	300
65°	199	193	177	170	173	200
75°	108	106	101	105	107	115
85°	38	36	37	41	42	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	941.7	941.7	941.7	941.7	941.7
2.5°	945.6	941.2	937.4	943.2	939.8
5°	937.9	936.9	934.5	939.3	935.0
7.5°	933.1	929.7	926.8	932.6	927.8
10°	922.5	920.6	918.2	923.0	917.7
12.5°	909.6	907.6	905.2	911.0	905.2
15°	895.6	892.3	890.4	895.6	888.9
17.5°	875.5	874.0	871.2	876.4	869.7
20°	857.2	852.0	850.0	853.9	849.1
22.5°	830.8	827.0	826.5	828.9	820.8
25°	803.0	800.1	797.7	799.2	792.0
27.5°	773.7	769.9	767.0	766.5	758.9
30°	742.5	737.7	733.4	729.6	720.9
32.5°	708.5	702.7	696.9	690.7	681.6
35°	671.5	665.7	658.5	647.0	636.9
37.5°	632.6	625.9	614.4	600.9	590.9
40°	588.0	584.6	571.7	554.4	543.3
42.5°	546.2	542.4	526.1	506.9	492.0
45°	504.0	498.7	481.4	459.3	446.4
47.5°	460.8	455.5	436.3	408.9	397.4
50°	415.7	412.8	389.7	364.8	353.3
52.5°	374.4	371.0	347.5	322.5	312.0
55°	335.5	330.2	307.2	281.7	275.5
57.5°	296.6	290.9	269.3	247.7	243.4
60°	262.6	255.4	234.7	217.9	214.1
62.5°	230.4	222.2	205.0	192.0	190.1
65°	199.2	193.0	177.1	169.9	173.3
67.5°	172.3	166.1	154.6	151.7	150.7
70°	148.8	143.0	133.4	134.4	134.9
72.5°	127.2	123.8	116.6	119.0	121.0
75°	107.5	105.6	101.3	104.6	107.0
77.5°	89.8	88.3	86.4	89.3	93.1
80°	73.0	72.0	72.5	74.4	78.2
82.5°	56.2	54.2	55.7	59.5	61.9
85°	37.9	36.5	37.4	41.3	41.8
87.5°	17.8	17.8	17.3	20.2	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)