

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: P290567

Luminaire Tested: **14GR-LD5-28-F1-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290567  
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-LD5-28-F1-UNV-L83050-W2A1-U-3000K  
Description: GRLED 1x4 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: 2723.0 lumens  
Efficiency: N/A  
Efficacy: 122.5 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

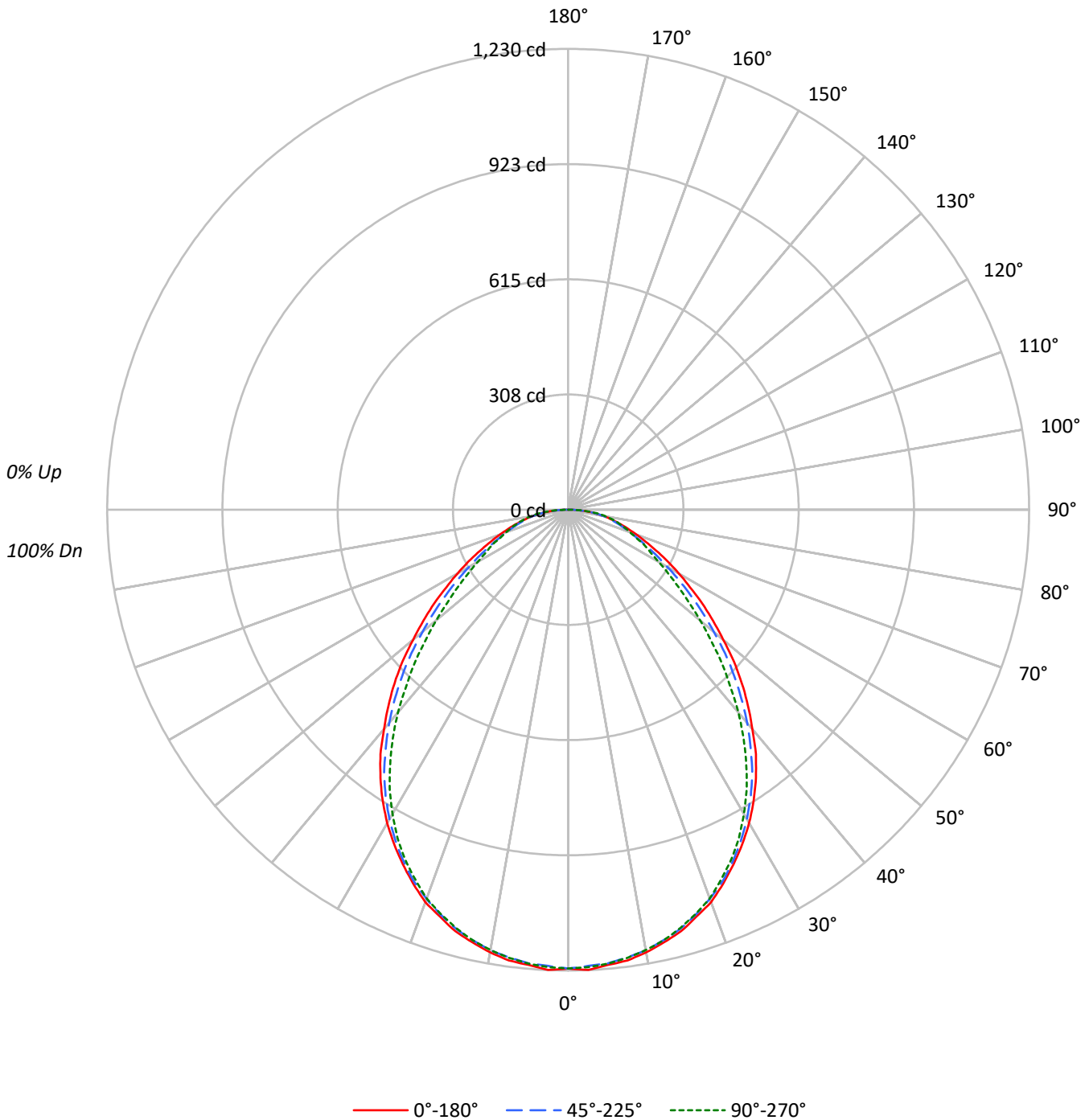
Input Watts (W): 22.227  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3295	3295	3295
5°	3294	3283	3284
10°	3278	3263	3261
15°	3245	3226	3220
20°	3192	3166	3162
25°	3100	3080	3058
30°	3000	2963	2913
35°	2869	2813	2721
40°	2686	2611	2482
45°	2494	2382	2209
50°	2263	2122	1923
55°	2047	1874	1681
60°	1837	1643	1498
65°	1649	1466	1435
70°	1522	1365	1380
75°	1454	1369	1447
80°	1471	1460	1576
85°	1522	1504	1677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.6	4.2
10°-20°	326.8	12.0
20°-30°	477.3	17.5
30°-40°	531.8	19.5
40°-50°	479.2	17.6
50°-60°	358.2	13.2
60°-70°	236.3	8.7
70°-80°	144.2	5.3
80°-90°	53.5	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°	919.7	33.8
0°-40°	1451.6	53.3
0°-60°	2289.0	84.1
0°-90°	2723.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2723.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1220	1218	1215	1222	1216	116
15°	1165	1160	1158	1165	1156	328
25°	1044	1040	1037	1039	1030	481
35°	873	866	856	841	828	544
45°	655	648	626	597	580	504
55°	436	429	400	366	358	391
65°	259	251	230	221	225	260
75°	140	137	132	136	139	149
85°	49	47	49	54	54	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1224.6	1224.6	1224.6	1224.6	1224.6
2.5°	1229.6	1224.0	1219.0	1226.5	1222.1
5°	1219.6	1218.4	1215.2	1221.5	1215.9
7.5°	1213.4	1209.0	1205.3	1212.7	1206.5
10°	1199.6	1197.1	1194.0	1200.3	1193.4
12.5°	1182.8	1180.3	1177.2	1184.7	1177.2
15°	1164.7	1160.3	1157.8	1164.7	1155.9
17.5°	1138.5	1136.6	1132.9	1139.7	1131.0
20°	1114.7	1107.9	1105.4	1110.4	1104.1
22.5°	1080.4	1075.4	1074.8	1077.9	1067.3
25°	1044.2	1040.5	1037.4	1039.2	1029.9
27.5°	1006.1	1001.2	997.4	996.8	986.8
30°	965.6	959.3	953.7	948.7	937.5
32.5°	921.3	913.8	906.3	898.2	886.3
35°	873.2	865.7	856.3	841.4	828.3
37.5°	822.6	813.9	798.9	781.4	768.3
40°	764.6	760.2	743.4	720.9	706.5
42.5°	710.3	705.3	684.1	659.1	639.8
45°	655.4	648.5	626.0	597.3	580.5
47.5°	599.2	592.3	567.4	531.8	516.8
50°	540.5	536.8	506.8	474.4	459.4
52.5°	486.8	482.5	451.9	419.4	405.7
55°	436.3	429.4	399.5	366.4	358.3
57.5°	385.7	378.2	350.2	322.1	316.4
60°	341.4	332.1	305.2	283.4	278.4
62.5°	299.6	289.0	266.5	249.7	247.2
65°	259.0	250.9	230.3	221.0	225.3
67.5°	224.1	216.0	201.0	197.2	196.0
70°	193.5	186.0	173.5	174.8	175.4
72.5°	165.4	161.0	151.7	154.8	157.3
75°	139.8	137.3	131.7	136.1	139.2
77.5°	116.7	114.8	112.3	116.1	121.1
80°	94.9	93.6	94.2	96.7	101.7
82.5°	73.0	70.5	72.4	77.4	80.5
85°	49.3	47.4	48.7	53.7	54.3
87.5°	23.1	23.1	22.5	26.2	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)