

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: P290611

Luminaire Tested: **14GR-LD5-28-F1-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290611  
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-L82765-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: 2720.0 lumens  
Efficiency: N/A  
Efficacy: 123.4 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

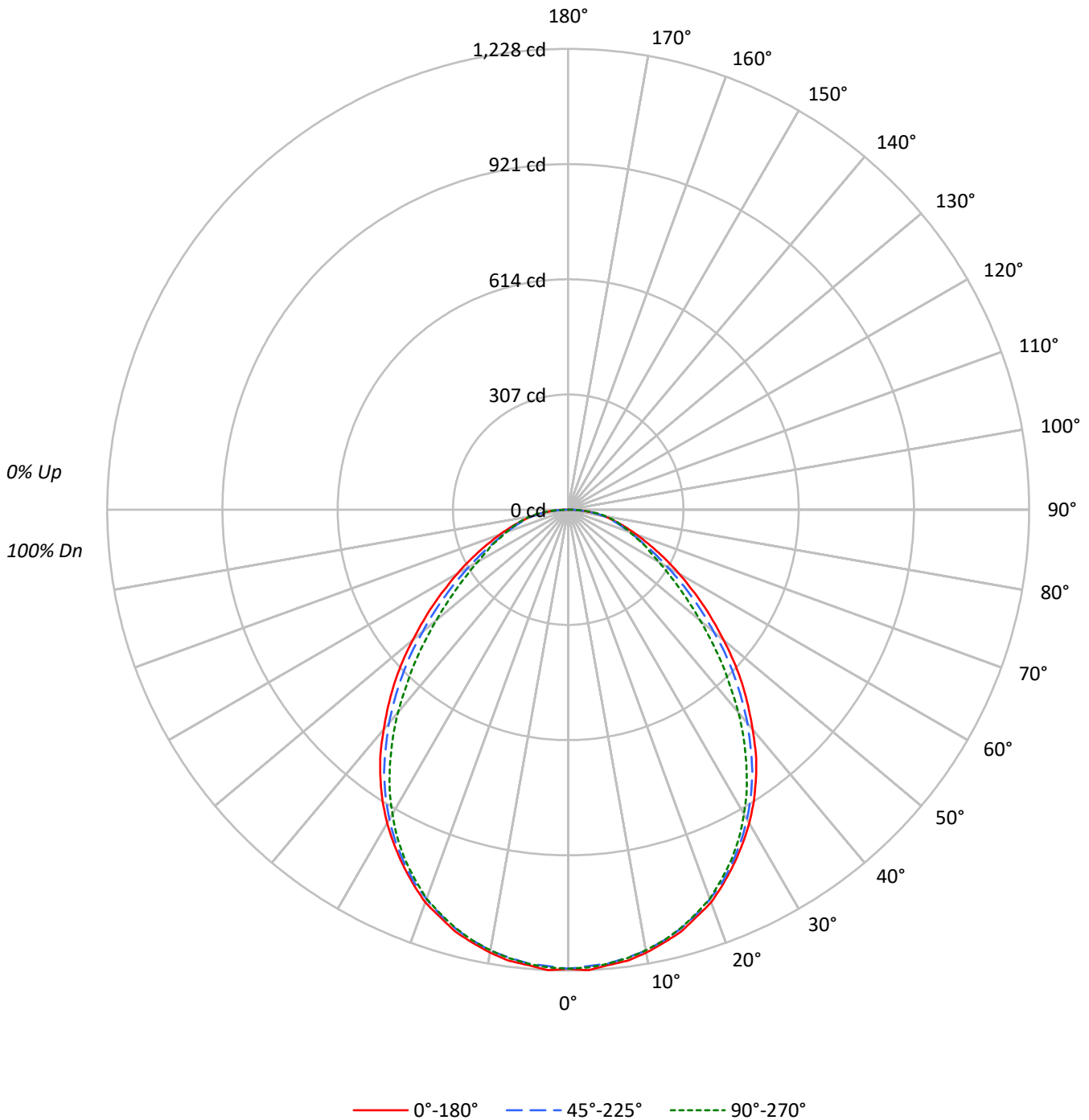
Input Watts (W): 22.041  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3292	3292	3292
5°	3291	3279	3281
10°	3274	3259	3257
15°	3241	3222	3217
20°	3189	3162	3158
25°	3097	3077	3054
30°	2997	2960	2910
35°	2865	2810	2718
40°	2683	2609	2479
45°	2491	2380	2206
50°	2260	2120	1921
55°	2045	1872	1679
60°	1835	1641	1497
65°	1647	1465	1433
70°	1521	1364	1378
75°	1452	1368	1445
80°	1469	1458	1574
85°	1522	1501	1673



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.5	4.2
10°-20°	326.5	12.0
20°-30°	476.8	17.5
30°-40°	531.3	19.5
40°-50°	478.7	17.6
50°-60°	357.8	13.2
60°-70°	236.0	8.7
70°-80°	144.1	5.3
80°-90°	53.4	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°	918.7	33.8
0°-40°	1450.0	53.3
0°-60°	2286.4	84.1
0°-90°	2720.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2720.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1223	1223	1223	1223	1223	
5°	1218	1217	1214	1220	1214	116
15°	1163	1159	1156	1163	1155	327
25°	1043	1039	1036	1038	1029	480
35°	872	865	855	840	827	544
45°	655	648	625	597	580	504
55°	436	429	399	366	358	390
65°	259	251	230	221	225	259
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°	1223.3	1223.3	1223.3	1223.3	1223.3
2.5°	1228.2	1222.6	1217.6	1225.1	1220.8
5°	1218.3	1217.0	1213.9	1220.1	1214.5
7.5°	1212.0	1207.7	1203.9	1211.4	1205.2
10°	1198.3	1195.8	1192.7	1198.9	1192.1
12.5°	1181.5	1179.0	1175.9	1183.4	1175.9
15°	1163.4	1159.0	1156.5	1163.4	1154.7
17.5°	1137.2	1135.3	1131.6	1138.5	1129.7
20°	1113.5	1106.7	1104.2	1109.2	1102.9
22.5°	1079.2	1074.2	1073.6	1076.7	1066.1
25°	1043.1	1039.3	1036.2	1038.1	1028.7
27.5°	1005.0	1000.0	996.3	995.7	985.7
30°	964.5	958.3	952.7	947.7	936.5
32.5°	920.2	912.8	905.3	897.2	885.3
35°	872.2	864.8	855.4	840.4	827.3
37.5°	821.7	813.0	798.0	780.6	767.5
40°	763.8	759.4	742.6	720.1	705.8
42.5°	709.5	704.5	683.3	658.4	639.1
45°	654.6	647.8	625.3	596.7	579.8
47.5°	598.5	591.7	566.7	531.2	516.2
50°	539.9	536.2	506.3	473.8	458.9
52.5°	486.3	481.9	451.4	419.0	405.3
55°	435.8	428.9	399.0	366.0	357.9
57.5°	385.3	377.8	349.8	321.7	316.1
60°	341.0	331.7	304.9	283.1	278.1
62.5°	299.3	288.7	266.2	249.4	246.9
65°	258.7	250.6	230.1	220.7	225.1
67.5°	223.8	215.7	200.8	197.0	195.8
70°	193.3	185.8	173.3	174.6	175.2
72.5°	165.2	160.9	151.5	154.6	157.1
75°	139.7	137.2	131.6	135.9	139.0
77.5°	116.6	114.7	112.2	116.0	121.0
80°	94.8	93.5	94.1	96.6	101.6
82.5°	72.9	70.5	72.3	77.3	80.4
85°	49.3	47.4	48.6	53.6	54.2
87.5°	23.1	23.1	22.4	26.2	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)