

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: P290571

Luminaire Tested: **14GR-LD5-28-F1-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290571  
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-5000K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3053.9 lumens  
Efficiency: N/A  
Efficacy: 130.8 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

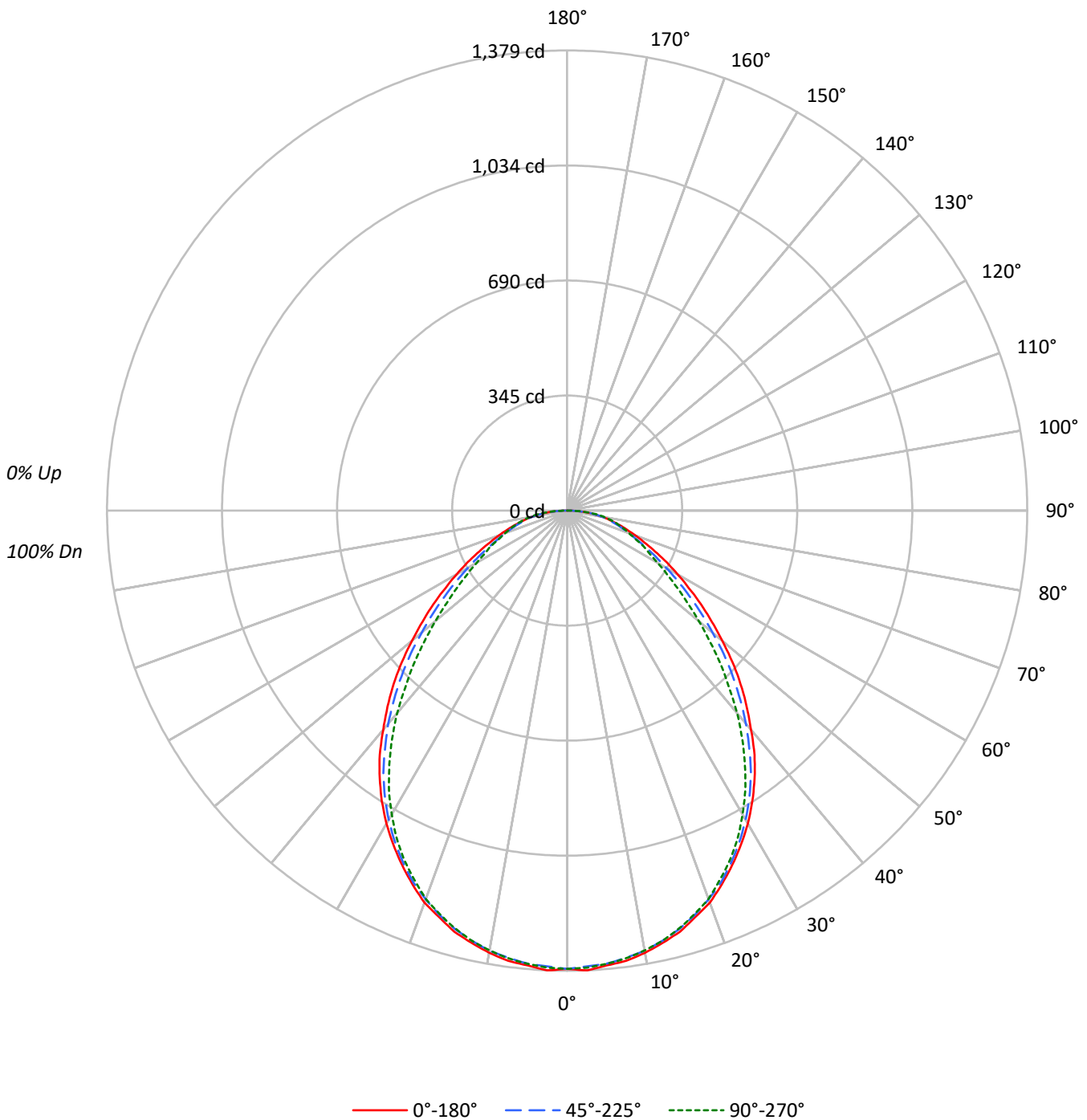
Input Watts (W): 23.343  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57					55				
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50					48				
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45					43				
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40					38				
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36					34				
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33					31				
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30					29				

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

	0°	45°	90°
0°	3696	3696	3696
5°	3695	3682	3684
10°	3677	3659	3657
15°	3639	3618	3612
20°	3580	3550	3546
25°	3477	3455	3430
30°	3365	3324	3267
35°	3217	3155	3052
40°	3012	2929	2784
45°	2797	2672	2477
50°	2538	2380	2157
55°	2296	2102	1885
60°	2061	1842	1680
65°	1850	1645	1609
70°	1707	1531	1548
75°	1630	1536	1623
80°	1649	1638	1768
85°	1707	1686	1880



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.7	4.2
10°-20°	366.6	12.0
20°-30°	535.3	17.5
30°-40°	596.5	19.5
40°-50°	537.4	17.6
50°-60°	401.7	13.2
60°-70°	265.0	8.7
70°-80°	161.8	5.3
80°-90°	60.0	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°	1031.5	33.8
0°-40°	1628.0	53.3
0°-60°	2567.2	84.1
0°-90°	3053.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3053.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1368	1366	1363	1370	1364	130
15°	1306	1301	1299	1306	1296	368
25°	1171	1167	1164	1166	1155	539
35°	979	971	960	944	929	611
45°	735	727	702	670	651	566
55°	489	482	448	411	402	438
65°	290	281	258	248	253	291
75°	157	154	148	153	156	167
85°	55	53	55	60	61	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1373.5	1373.5	1373.5	1373.5	1373.5
2.5°	1379.1	1372.8	1367.2	1375.6	1370.7
5°	1367.9	1366.5	1363.0	1370.0	1363.7
7.5°	1360.9	1356.0	1351.8	1360.2	1353.2
10°	1345.5	1342.7	1339.2	1346.2	1338.5
12.5°	1326.6	1323.8	1320.3	1328.7	1320.3
15°	1306.3	1301.4	1298.6	1306.3	1296.5
17.5°	1276.9	1274.8	1270.6	1278.3	1268.5
20°	1250.3	1242.6	1239.8	1245.4	1238.4
22.5°	1211.8	1206.2	1205.5	1209.0	1197.1
25°	1171.2	1167.0	1163.5	1165.6	1155.1
27.5°	1128.5	1122.8	1118.6	1117.9	1106.7
30°	1082.9	1075.9	1069.6	1064.0	1051.4
32.5°	1033.2	1024.8	1016.4	1007.3	994.0
35°	979.3	970.9	960.4	943.6	928.9
37.5°	922.6	912.8	896.0	876.4	861.7
40°	857.5	852.6	833.7	808.5	792.4
42.5°	796.6	791.0	767.2	739.2	717.5
45°	735.0	727.3	702.1	669.9	651.0
47.5°	672.0	664.3	636.3	596.4	579.6
50°	606.2	602.0	568.4	532.0	515.2
52.5°	546.0	541.1	506.8	470.4	455.0
55°	489.3	481.6	448.0	410.9	401.8
57.5°	432.6	424.2	392.7	361.2	354.9
60°	382.9	372.4	342.3	317.8	312.2
62.5°	336.0	324.1	298.9	280.0	277.2
65°	290.5	281.4	258.3	247.8	252.7
67.5°	251.3	242.2	225.4	221.2	219.8
70°	217.0	208.6	194.6	196.0	196.7
72.5°	185.5	180.6	170.1	173.6	176.4
75°	156.8	154.0	147.7	152.6	156.1
77.5°	130.9	128.8	126.0	130.2	135.8
80°	106.4	105.0	105.7	108.5	114.1
82.5°	81.9	79.1	81.2	86.8	90.3
85°	55.3	53.2	54.6	60.2	60.9
87.5°	25.9	25.9	25.2	29.4	29.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)