

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: P476170

Luminaire Tested: **14GR-LD5-24-F1-UNV-L830-CD1-U**

Issue Date: 02/10/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P476170  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-24-F1-UNV-L830-CD1-U  
Description: GR 1'X4' LED TROFFER w/ F1 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

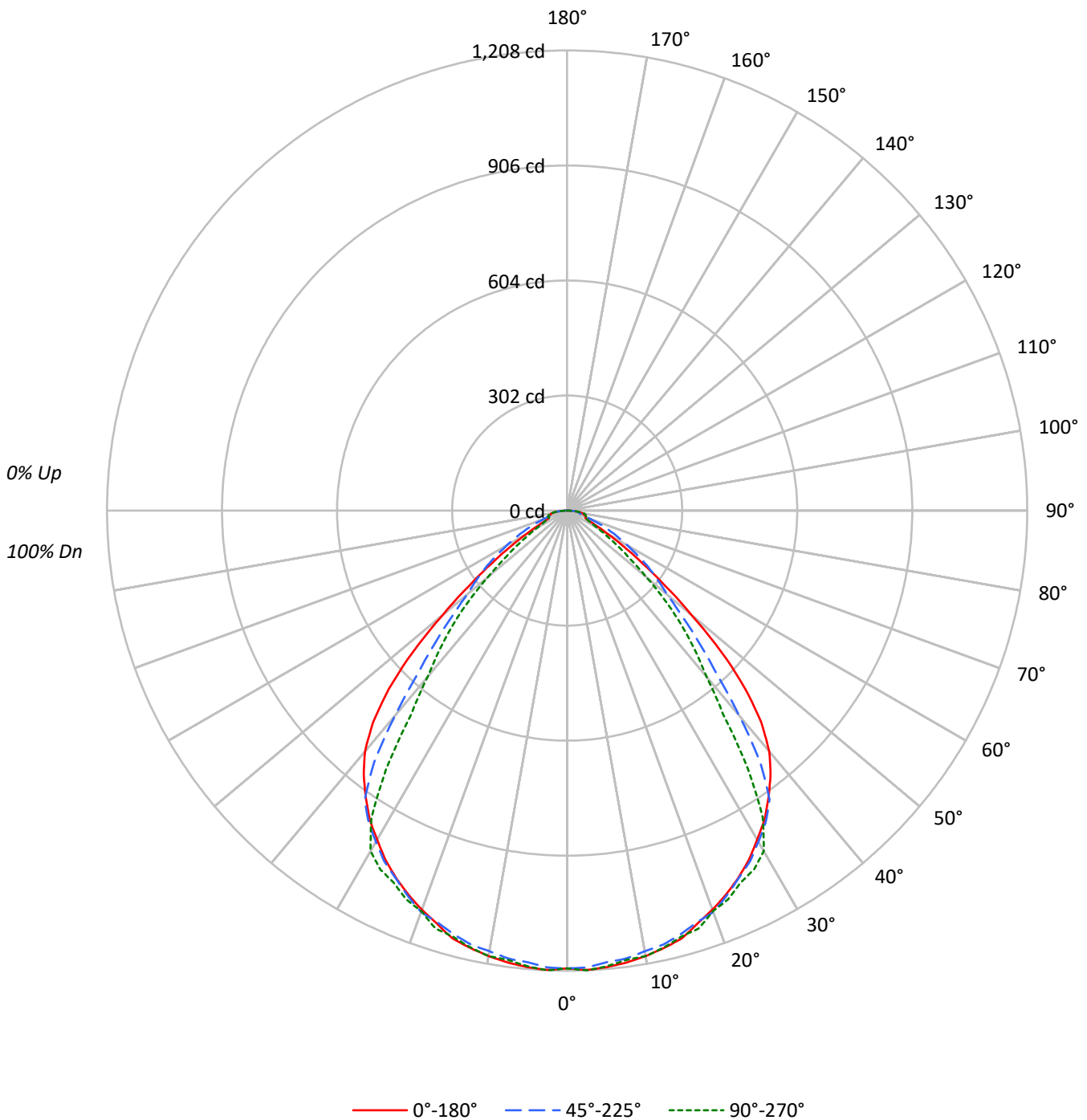
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2310.6 lumens  
Efficiency: N/A  
Efficacy: 124.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.2  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.5  
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	82	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49					49			
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	50	43	39	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33					33			

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

	0°	45°	90°
0°	3234	3234	3234
5°	3250	3214	3243
10°	3245	3209	3245
15°	3240	3207	3225
20°	3193	3212	3204
25°	3157	3161	3199
30°	3099	3119	3207
35°	3026	3043	2719
40°	2899	2467	1999
45°	2516	1861	1615
50°	1787	1430	1132
55°	1135	1226	759
60°	668	982	501
65°	395	766	387
70°	407	519	397
75°	498	403	524
80°	642	501	702
85°	679	679	679



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.0	4.9
10°-20°	326.3	14.1
20°-30°	493.4	21.4
30°-40°	549.5	23.8
40°-50°	402.2	17.4
50°-60°	221.7	9.6
60°-70°	113.3	4.9
70°-80°	64.5	2.8
80°-90°	25.7	1.1
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°	933.7	40.4
0°-40°	1483.2	64.2
0°-60°	2107.1	91.2
0°-90°	2310.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2310.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1203	1203	1190	1198	1200	114
15°	1163	1150	1151	1166	1158	327
25°	1063	1061	1065	1083	1078	489
35°	921	922	926	863	828	575
45°	661	609	489	445	424	497
55°	242	285	261	224	162	226
65°	62	148	120	115	61	71
75°	48	83	39	74	50	50
85°	22	27	22	30	22	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.7	1201.7	1201.7	1201.7	1201.7
2.5°	1206.8	1206.8	1200.4	1208.1	1208.1
5°	1203.0	1203.0	1190.0	1197.8	1200.4
7.5°	1196.5	1196.5	1186.1	1192.6	1190.0
10°	1187.4	1181.0	1174.5	1192.6	1187.4
12.5°	1175.8	1162.9	1166.7	1165.5	1174.5
15°	1162.9	1149.9	1151.2	1165.5	1157.7
17.5°	1137.0	1138.3	1133.1	1143.5	1149.9
20°	1115.0	1118.9	1121.5	1127.9	1118.9
22.5°	1090.4	1091.7	1094.3	1103.4	1104.7
25°	1063.3	1060.7	1064.6	1082.7	1077.5
27.5°	1033.5	1032.2	1038.7	1054.2	1062.0
30°	997.3	1002.5	1003.8	1032.2	1032.2
32.5°	963.7	963.7	970.1	984.4	955.9
35°	921.0	922.3	926.2	862.8	827.8
37.5°	877.0	873.1	833.0	717.9	671.3
40°	825.3	816.2	702.4	598.9	569.1
42.5°	754.1	727.0	579.5	517.4	495.4
45°	661.0	609.2	488.9	445.0	424.3
47.5°	549.7	501.9	406.2	376.4	348.0
50°	426.9	416.5	341.5	315.6	270.3
52.5°	324.7	345.4	300.1	266.5	208.3
55°	241.9	284.6	261.3	223.8	161.7
57.5°	177.2	236.7	219.9	190.1	121.6
60°	124.2	200.5	182.4	160.4	93.1
62.5°	88.0	173.3	150.0	137.1	71.1
65°	62.1	147.5	120.3	115.1	60.8
67.5°	51.7	124.2	91.8	102.2	51.7
70°	51.7	103.5	66.0	90.5	50.4
72.5°	51.7	90.5	49.2	82.8	53.0
75°	47.9	82.8	38.8	73.7	50.4
77.5°	44.0	69.8	33.6	63.4	49.2
80°	41.4	50.4	32.3	51.7	45.3
82.5°	33.6	36.2	29.8	40.1	34.9
85°	22.0	27.2	22.0	29.8	22.0
87.5°	10.3	14.2	10.3	12.9	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)