

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: P475905

Luminaire Tested: **22GR-LD5-20-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475905  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-20-F1-UNV-L840-CD1-U  
Description: GR 2'X2' LED TROFFER w/ F1 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2083.2 lumens  
Efficiency: N/A  
Efficacy: 138.0 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

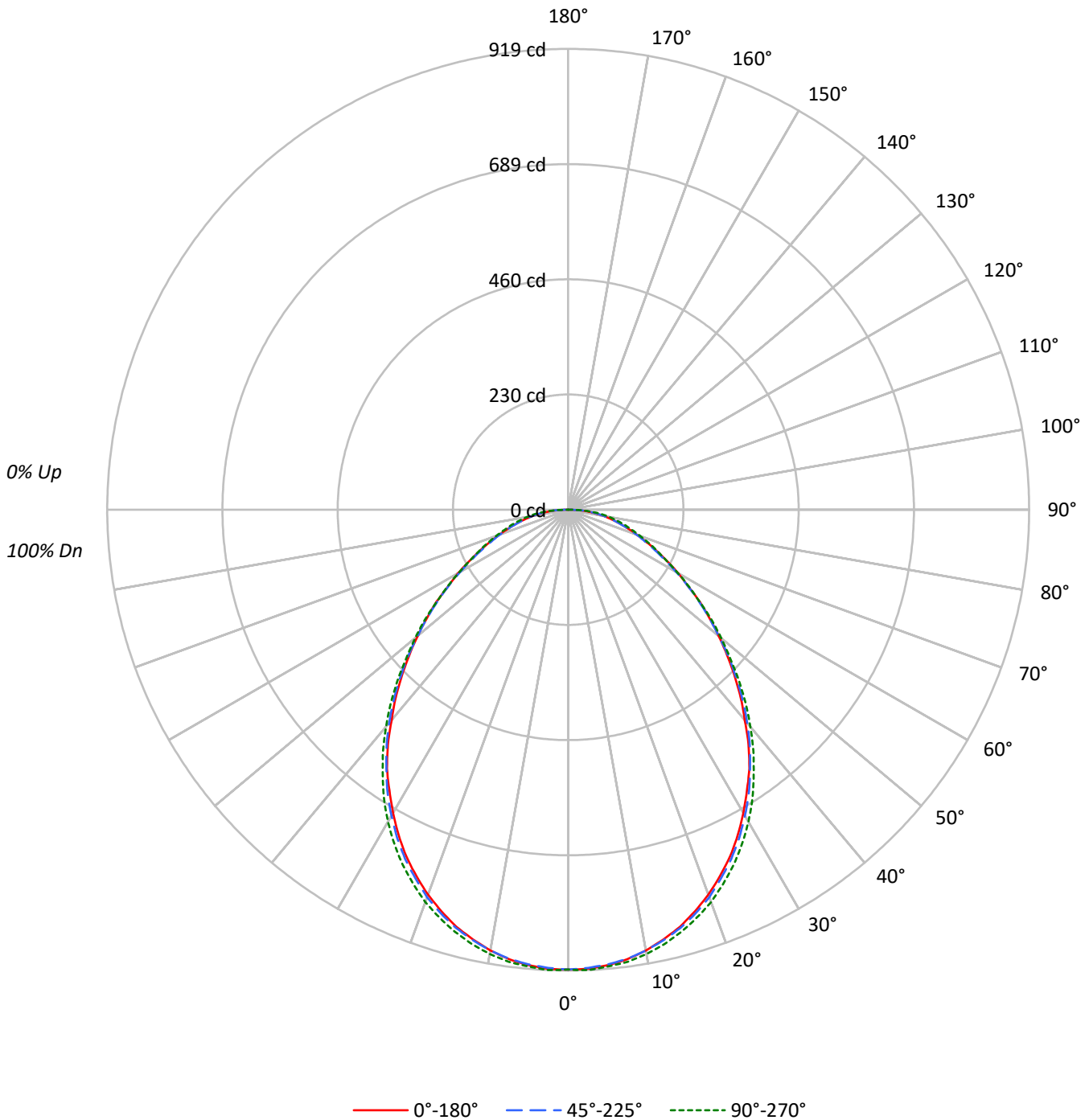
Input Watts (W): 15.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	90	80	73	68	78	71	66	75	70	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	31
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28

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

	0°	45°	90°
0°	2468	2468	2468
5°	2463	2458	2470
10°	2439	2439	2458
15°	2399	2406	2428
20°	2340	2355	2385
25°	2267	2282	2319
30°	2170	2189	2233
35°	2069	2075	2118
40°	1923	1950	1984
45°	1785	1802	1829
50°	1640	1640	1666
55°	1505	1488	1496
60°	1362	1338	1357
65°	1242	1214	1253
70°	1147	1141	1196
75°	1105	1096	1206
80°	1116	1116	1280
85°	1167	1220	1463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.5	4.2
10°-20°	243.5	11.7
20°-30°	354.0	17.0
30°-40°	396.2	19.0
40°-50°	365.7	17.6
50°-60°	285.4	13.7
60°-70°	193.2	9.3
70°-80°	115.4	5.5
80°-90°	43.3	2.1
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°	683.9	32.8
0°-40°	1080.2	51.9
0°-60°	1731.3	83.1
0°-90°	2083.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2083.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	912	910	910	914	914	86
15°	861	861	864	869	872	242
25°	763	763	769	777	781	351
35°	630	629	632	641	645	392
45°	469	472	474	477	481	362
55°	321	318	317	319	319	286
65°	195	193	191	194	197	194
75°	106	105	105	112	116	113
85°	38	37	40	46	47	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	917.2	917.2	917.2	917.2	917.2
2.5°	916.3	914.5	914.5	917.2	918.9
5°	911.9	910.1	910.1	913.7	914.5
7.5°	904.0	903.1	903.1	906.6	909.3
10°	892.6	891.7	892.6	896.1	899.6
12.5°	877.6	877.6	879.4	883.8	887.3
15°	861.0	861.0	863.6	868.9	871.5
17.5°	839.9	840.7	844.3	850.4	853.0
20°	817.0	818.8	822.3	827.6	832.8
22.5°	790.7	792.4	795.9	803.8	807.4
25°	763.4	763.4	768.7	776.6	781.0
27.5°	731.8	732.7	738.0	746.7	751.1
30°	698.4	701.1	704.6	712.5	718.6
32.5°	663.3	665.9	670.3	679.1	683.5
35°	629.9	629.0	631.7	641.3	644.8
37.5°	590.4	591.2	594.8	601.8	606.2
40°	547.3	551.7	555.2	560.5	564.9
42.5°	509.5	512.2	514.8	520.1	523.6
45°	469.1	471.8	473.5	477.0	480.6
47.5°	429.6	430.5	433.1	434.9	437.5
50°	391.8	392.7	391.8	394.5	398.0
52.5°	354.9	354.0	354.0	354.9	360.2
55°	320.7	318.0	317.1	318.9	318.9
57.5°	282.9	282.0	282.0	281.1	285.5
60°	253.0	250.4	248.6	250.4	252.1
62.5°	222.3	219.6	217.9	221.4	221.4
65°	195.0	193.3	190.6	194.2	196.8
67.5°	168.7	166.9	166.0	170.4	173.9
70°	145.8	145.0	145.0	149.3	152.0
72.5°	124.8	123.9	123.9	130.0	132.7
75°	106.3	105.4	105.4	111.6	116.0
77.5°	87.9	87.0	89.6	94.9	99.3
80°	72.0	71.2	72.0	79.1	82.6
82.5°	54.5	54.5	56.2	63.3	66.8
85°	37.8	36.9	39.5	45.7	47.4
87.5°	19.3	20.2	21.1	24.6	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)