

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: P475914

Luminaire Tested: **22GR-LD5-70-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475914  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-70-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: 7189.8 lumens  
Efficiency: N/A  
Efficacy: 137.5 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

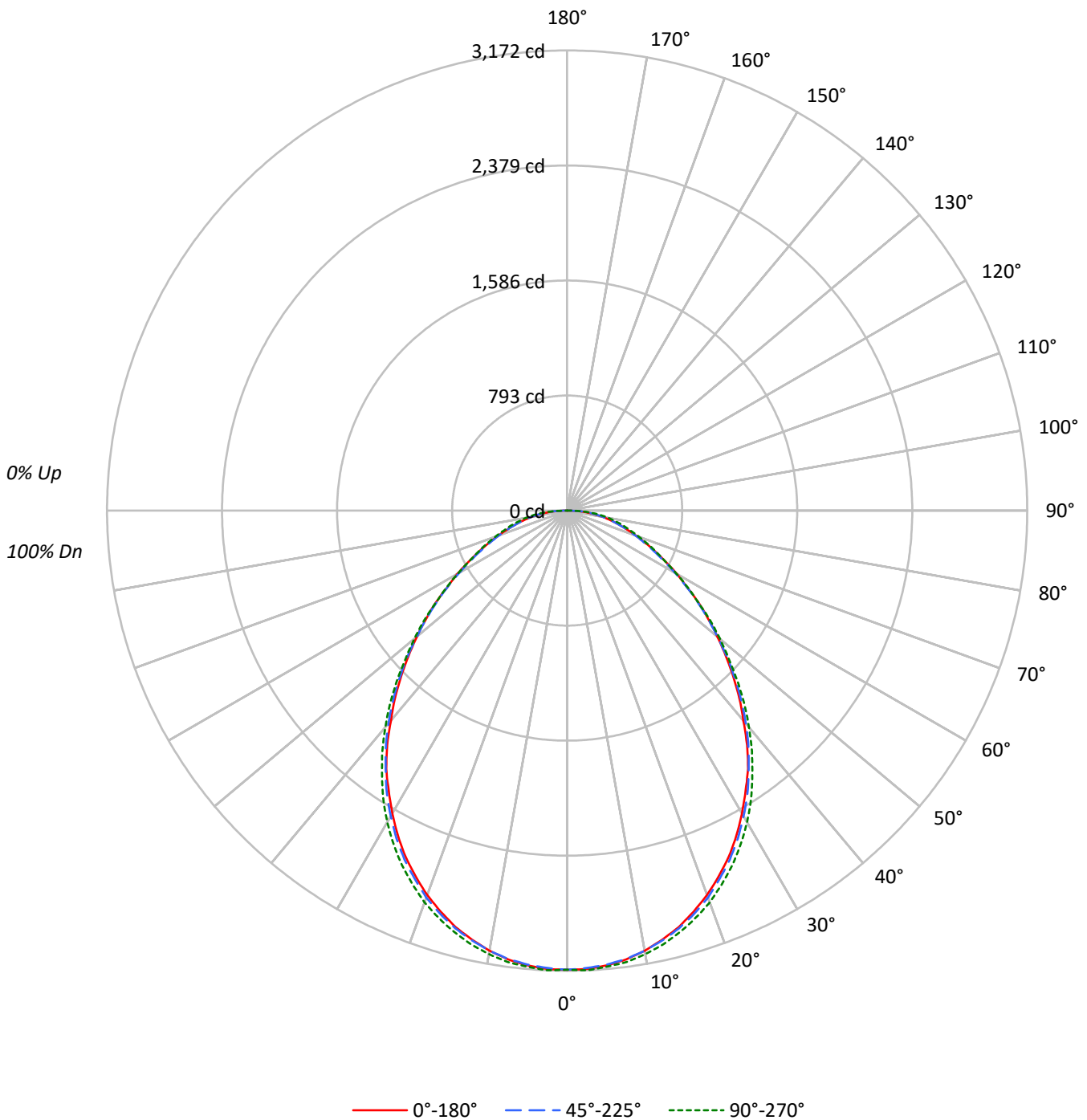
Input Watts (W): 52.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	8518	8518	8518
5°	8502	8485	8526
10°	8418	8418	8484
15°	8278	8303	8379
20°	8075	8127	8231
25°	7823	7877	8003
30°	7490	7556	7707
35°	7142	7162	7311
40°	6636	6732	6849
45°	6162	6220	6312
50°	5661	5661	5750
55°	5192	5135	5164
60°	4700	4618	4683
65°	4286	4190	4325
70°	3960	3936	4127
75°	3815	3784	4161
80°	3852	3852	4417
85°	4026	4211	5054



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	298.5	4.2
10°-20°	840.3	11.7
20°-30°	1221.8	17.0
30°-40°	1367.6	19.0
40°-50°	1262.2	17.6
50°-60°	985.0	13.7
60°-70°	666.8	9.3
70°-80°	398.2	5.5
80°-90°	149.6	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°	2360.5	32.8
0°-40°	3728.1	51.9
0°-60°	5975.3	83.1
0°-90°	7189.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7189.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3166	3166	3166	3166	3166	
5°	3147	3141	3141	3153	3156	298
15°	2971	2971	2980	2999	3008	836
25°	2635	2635	2653	2680	2696	1210
35°	2174	2171	2180	2213	2226	1352
45°	1619	1628	1634	1646	1658	1249
55°	1107	1098	1095	1101	1101	987
65°	673	667	658	670	679	670
75°	367	364	364	385	400	390
85°	130	127	136	158	164	139
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3165.5	3165.5	3165.5	3165.5	3165.5
2.5°	3162.5	3156.4	3156.4	3165.5	3171.6
5°	3147.3	3141.2	3141.2	3153.4	3156.4
7.5°	3120.0	3117.0	3117.0	3129.1	3138.2
10°	3080.6	3077.6	3080.6	3092.7	3104.9
12.5°	3029.1	3029.1	3035.1	3050.3	3062.4
15°	2971.4	2971.4	2980.5	2998.7	3007.8
17.5°	2898.7	2901.7	2913.8	2935.1	2944.2
20°	2819.8	2825.9	2838.0	2856.2	2874.4
22.5°	2728.9	2734.9	2747.1	2774.4	2786.5
25°	2634.9	2634.9	2653.1	2680.4	2695.5
27.5°	2525.7	2528.8	2547.0	2577.3	2592.4
30°	2410.5	2419.6	2431.7	2459.0	2480.2
32.5°	2289.2	2298.3	2313.5	2343.8	2359.0
35°	2174.0	2171.0	2180.1	2213.4	2225.5
37.5°	2037.6	2040.6	2052.7	2077.0	2092.1
40°	1889.0	1904.1	1916.3	1934.5	1949.6
42.5°	1758.6	1767.7	1776.8	1795.0	1807.1
45°	1619.1	1628.2	1634.3	1646.4	1658.5
47.5°	1482.7	1485.7	1494.8	1500.9	1510.0
50°	1352.3	1355.3	1352.3	1361.4	1373.5
52.5°	1225.0	1221.9	1221.9	1225.0	1243.2
55°	1106.7	1097.6	1094.6	1100.6	1100.6
57.5°	976.3	973.3	973.3	970.3	985.4
60°	873.2	864.1	858.1	864.1	870.2
62.5°	767.1	758.0	752.0	764.1	764.1
65°	673.1	667.1	658.0	670.1	679.2
67.5°	582.2	576.1	573.1	588.2	600.4
70°	503.3	500.3	500.3	515.5	524.6
72.5°	430.6	427.5	427.5	448.7	457.8
75°	366.9	363.9	363.9	385.1	400.2
77.5°	303.2	300.2	309.3	327.5	342.6
80°	248.6	245.6	248.6	272.9	285.0
82.5°	188.0	188.0	194.1	218.3	230.4
85°	130.4	127.3	136.4	157.7	163.7
87.5°	66.7	69.7	72.8	84.9	84.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)