

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: P475916

Luminaire Tested: **22GR-LD5-90-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475916
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-90-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: 9227.1 lumens
Efficiency: N/A
Efficacy: 133.1 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

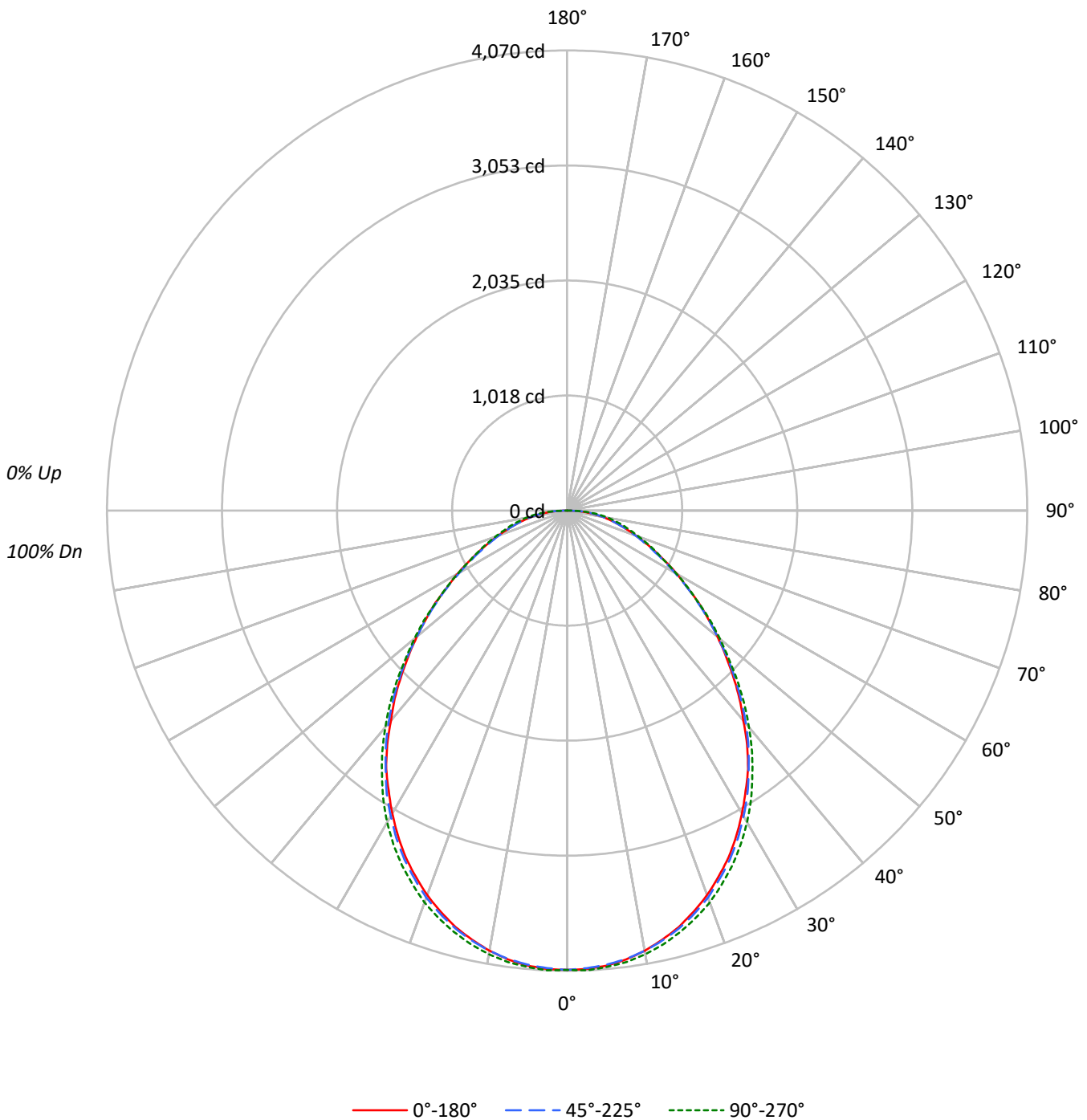
Input Watts (W): 69.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	10932	10932	10932
5°	10911	10890	10942
10°	10803	10803	10888
15°	10624	10656	10754
20°	10363	10430	10564
25°	10040	10110	10271
30°	9613	9697	9891
35°	9165	9191	9383
40°	8516	8639	8789
45°	7908	7982	8100
50°	7266	7266	7379
55°	6663	6590	6627
60°	6032	5927	6011
65°	5501	5377	5550
70°	5083	5052	5297
75°	4895	4855	5340
80°	4945	4945	5669
85°	5165	5406	6487



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.1	4.2
10°-20°	1078.4	11.7
20°-30°	1568.0	17.0
30°-40°	1755.1	19.0
40°-50°	1619.9	17.6
50°-60°	1264.1	13.7
60°-70°	855.7	9.3
70°-80°	511.0	5.5
80°-90°	192.0	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°	3029.4	32.8
0°-40°	4784.5	51.9
0°-60°	7668.5	83.1
0°-90°	9227.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9227.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4062	4062	4062	4062	4062	
5°	4039	4031	4031	4047	4051	383
15°	3813	3813	3825	3848	3860	1073
25°	3382	3382	3405	3440	3459	1553
35°	2790	2786	2798	2841	2856	1735
45°	2078	2090	2097	2113	2128	1603
55°	1420	1409	1405	1412	1412	1267
65°	864	856	844	860	872	860
75°	471	467	467	494	514	500
85°	167	163	175	202	210	178
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4062.5	4062.5	4062.5	4062.5	4062.5
2.5°	4058.6	4050.8	4050.8	4062.5	4070.3
5°	4039.1	4031.4	4031.4	4046.9	4050.8
7.5°	4004.1	4000.2	4000.2	4015.8	4027.5
10°	3953.5	3949.6	3953.5	3969.1	3984.7
12.5°	3887.4	3887.4	3895.2	3914.6	3930.2
15°	3813.4	3813.4	3825.1	3848.5	3860.1
17.5°	3720.1	3723.9	3739.5	3766.8	3778.4
20°	3618.9	3626.7	3642.2	3665.6	3688.9
22.5°	3502.1	3509.9	3525.5	3560.5	3576.1
25°	3381.5	3381.5	3404.9	3439.9	3459.3
27.5°	3241.4	3245.3	3268.7	3307.6	3327.0
30°	3093.6	3105.2	3120.8	3155.8	3183.1
32.5°	2937.9	2949.6	2969.0	3008.0	3027.4
35°	2790.0	2786.2	2797.8	2840.6	2856.2
37.5°	2614.9	2618.8	2634.4	2665.5	2685.0
40°	2424.3	2443.7	2459.3	2482.6	2502.1
42.5°	2256.9	2268.6	2280.3	2303.6	2319.2
45°	2077.9	2089.6	2097.4	2113.0	2128.5
47.5°	1902.8	1906.7	1918.4	1926.2	1937.9
50°	1735.5	1739.4	1735.5	1747.2	1762.7
52.5°	1572.1	1568.2	1568.2	1572.1	1595.4
55°	1420.3	1408.6	1404.7	1412.5	1412.5
57.5°	1253.0	1249.1	1249.1	1245.2	1264.7
60°	1120.7	1109.0	1101.2	1109.0	1116.8
62.5°	984.5	972.8	965.0	980.6	980.6
65°	863.9	856.1	844.4	860.0	871.6
67.5°	747.1	739.3	735.5	754.9	770.5
70°	646.0	642.1	642.1	661.5	673.2
72.5°	552.6	548.7	548.7	575.9	587.6
75°	470.8	467.0	467.0	494.2	513.6
77.5°	389.1	385.2	396.9	420.3	439.7
80°	319.1	315.2	319.1	350.2	365.8
82.5°	241.3	241.3	249.0	280.2	295.7
85°	167.3	163.4	175.1	202.3	210.1
87.5°	85.6	89.5	93.4	109.0	109.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)