

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: P475986

Luminaire Tested: **22GR-LD5-70-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475986
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-70-A19/156-UNV-L830-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6470.2 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

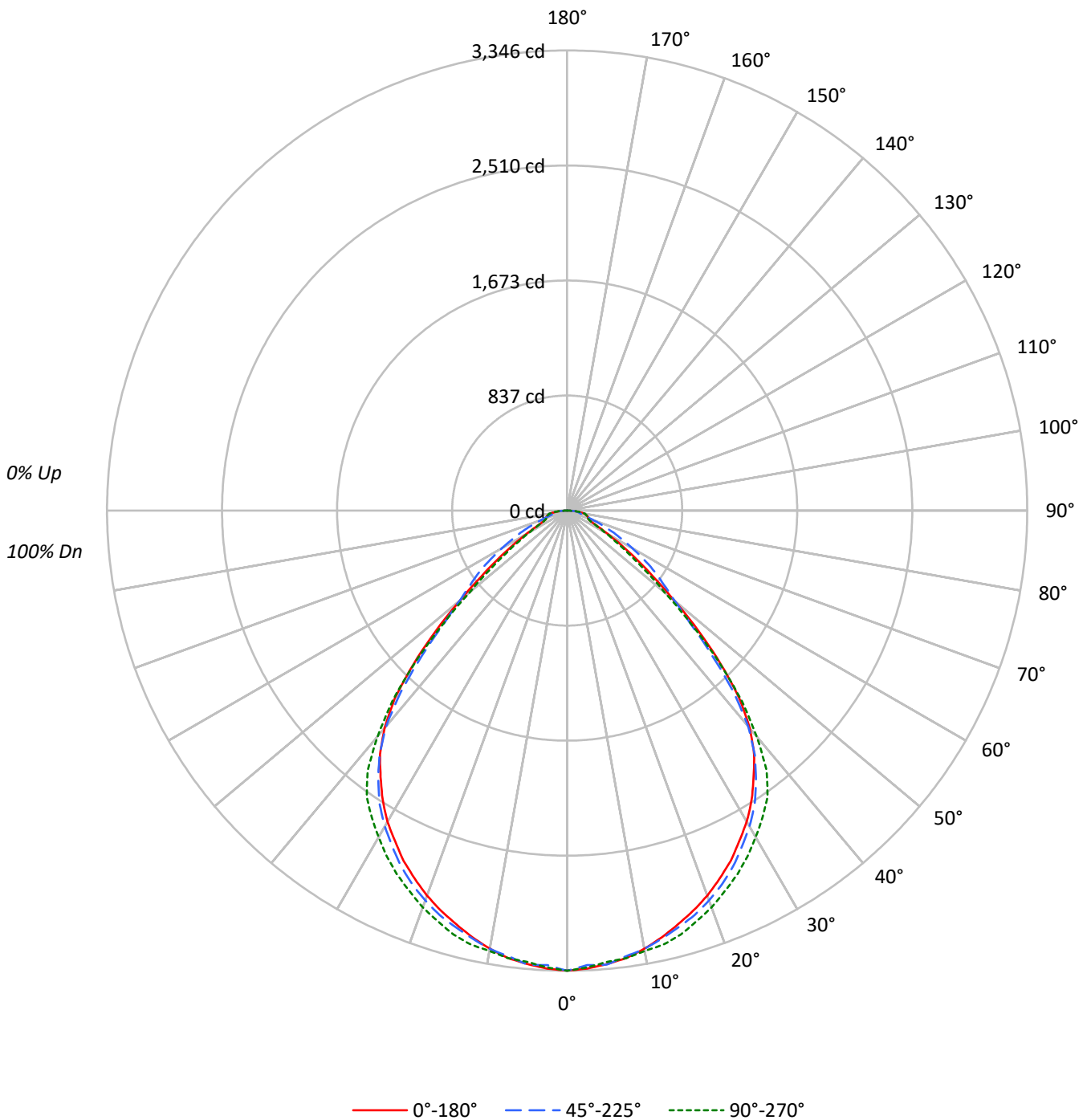
Input Watts (W): 52.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9003	9003	9003
5°	8940	8951	8900
10°	8840	8844	8884
15°	8677	8736	8892
20°	8532	8639	8791
25°	8348	8478	8676
30°	8116	8239	8521
35°	7768	7866	8347
40°	7251	7194	7530
45°	6021	5681	5969
50°	4243	4263	3889
55°	2849	3665	2563
60°	1838	2941	1704
65°	1273	2278	1226
70°	1280	1554	1271
75°	1575	1213	1563
80°	1925	1406	2039
85°	1880	1917	2072



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.3	4.8
10°-20°	886.7	13.7
20°-30°	1315.0	20.3
30°-40°	1504.3	23.2
40°-50°	1190.8	18.4
50°-60°	649.7	10.0
60°-70°	339.9	5.3
70°-80°	196.3	3.0
80°-90°	74.2	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°	2515.0	38.9
0°-40°	4019.2	62.1
0°-60°	5859.7	90.6
0°-90°	6470.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6470.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3346	3346	3346	3346	3346	
5°	3310	3286	3314	3302	3295	314
15°	3115	3131	3136	3161	3192	879
25°	2812	2815	2855	2891	2922	1293
35°	2365	2365	2394	2481	2541	1475
45°	1582	1574	1493	1566	1568	1203
55°	607	759	781	728	546	563
65°	200	402	358	382	192	216
75°	152	242	117	238	150	157
85°	61	80	62	81	67	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3345.7	3345.7	3345.7	3345.7	3345.7
2.5°	3333.3	3313.5	3308.5	3318.4	3324.6
5°	3309.7	3286.1	3313.5	3302.3	3294.8
7.5°	3282.4	3273.7	3268.7	3286.1	3282.4
10°	3235.2	3222.8	3236.5	3246.4	3251.4
12.5°	3178.1	3184.3	3186.8	3217.8	3232.7
15°	3114.7	3130.9	3135.9	3160.7	3191.7
17.5°	3050.2	3053.9	3083.7	3116.0	3130.9
20°	2979.4	2985.6	3016.6	3046.4	3070.0
22.5°	2896.2	2903.6	2942.1	2975.6	2995.5
25°	2811.7	2815.4	2855.2	2891.2	2922.2
27.5°	2709.9	2729.7	2753.3	2803.0	2836.6
30°	2611.8	2624.2	2651.5	2706.2	2742.2
32.5°	2496.3	2501.2	2536.0	2595.6	2644.1
35°	2364.6	2364.6	2394.4	2481.4	2541.0
37.5°	2234.2	2216.8	2240.4	2339.8	2382.0
40°	2064.1	2051.7	2047.9	2116.2	2143.6
42.5°	1855.4	1831.8	1789.6	1859.2	1881.5
45°	1582.2	1573.5	1492.8	1566.1	1568.5
47.5°	1296.6	1302.8	1212.1	1285.4	1230.7
50°	1013.4	1078.0	1018.4	1049.4	929.0
52.5°	788.6	909.1	886.7	874.3	710.4
55°	607.3	758.8	781.2	727.8	546.4
57.5°	463.2	647.0	660.7	623.4	416.0
60°	341.5	546.4	546.4	529.1	316.7
62.5°	254.6	469.4	444.6	449.6	242.2
65°	199.9	402.4	357.7	382.5	192.5
67.5°	167.7	335.3	270.7	330.4	167.7
70°	162.7	291.9	197.5	298.1	161.5
72.5°	161.5	268.3	147.8	270.7	162.7
75°	151.5	242.2	116.7	238.4	150.3
77.5°	139.1	201.2	96.9	201.2	140.3
80°	124.2	152.8	90.7	156.5	131.6
82.5°	95.6	109.3	80.7	110.5	101.8
85°	60.9	79.5	62.1	80.7	67.1
87.5°	27.3	42.2	27.3	43.5	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)