

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: P476010

Luminaire Tested: **22GR-LD5-70-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476010
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-L840-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6832.3 lumens
Efficiency: N/A
Efficacy: 130.6 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

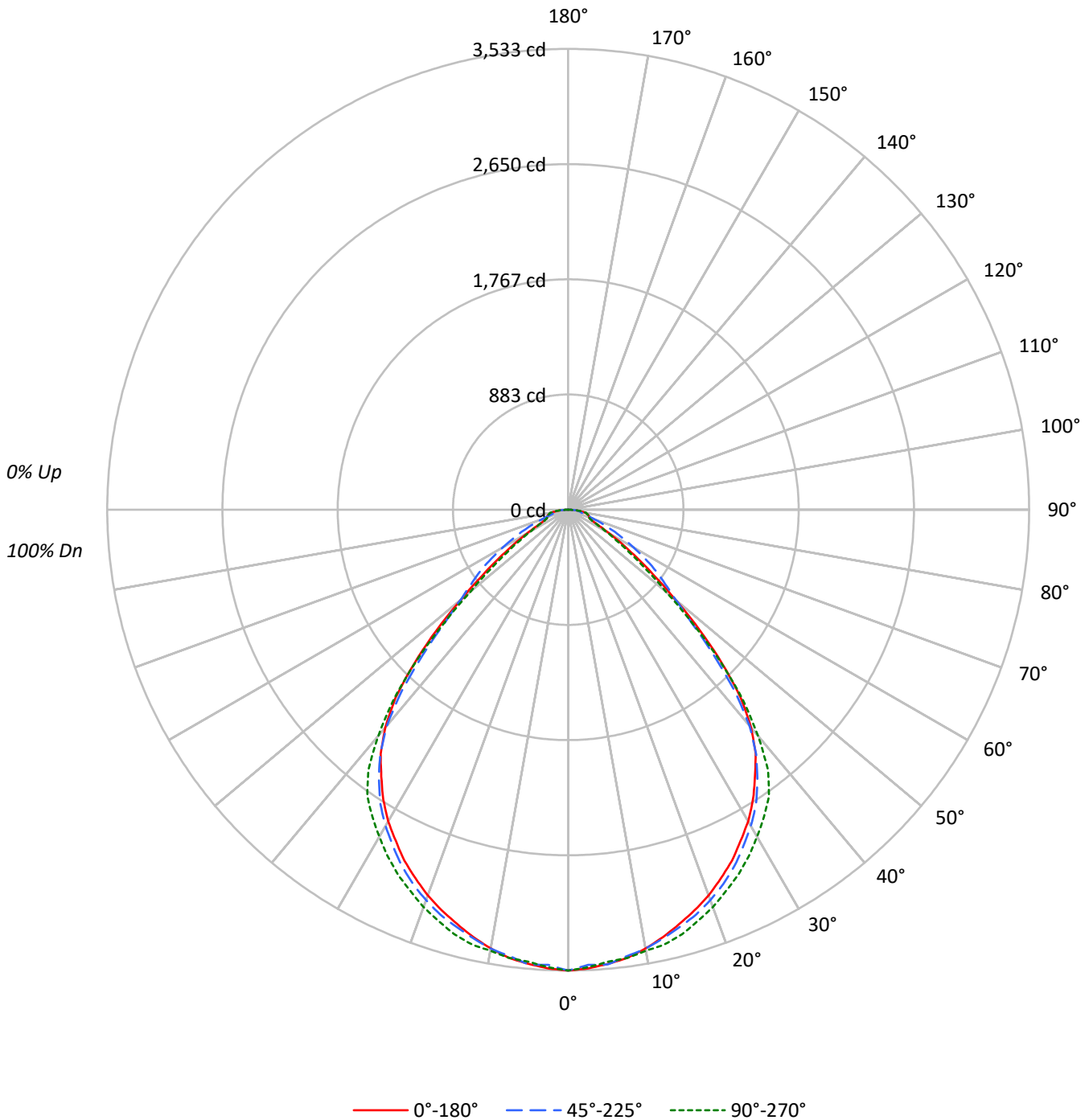
Input Watts (W): 52.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	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°	9507	9507	9507
5°	9441	9451	9398
10°	9335	9339	9381
15°	9163	9225	9389
20°	9009	9122	9283
25°	8816	8952	9162
30°	8570	8700	8997
35°	8203	8306	8815
40°	7657	7596	7951
45°	6358	5999	6303
50°	4480	4502	4106
55°	3009	3870	2707
60°	1941	3105	1800
65°	1344	2405	1294
70°	1352	1640	1341
75°	1664	1282	1650
80°	2032	1483	2154
85°	1985	2025	2186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.8	4.8
10°-20°	936.3	13.7
20°-30°	1388.6	20.3
30°-40°	1588.4	23.2
40°-50°	1257.4	18.4
50°-60°	686.1	10.0
60°-70°	358.9	5.3
70°-80°	207.3	3.0
80°-90°	78.4	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°	2655.7	38.9
0°-40°	4244.2	62.1
0°-60°	6187.7	90.6
0°-90°	6832.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6832.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3533	3533	3533	3533	3533	
5°	3495	3470	3499	3487	3479	331
15°	3289	3306	3311	3338	3370	928
25°	2969	2973	3015	3053	3086	1365
35°	2497	2497	2528	2620	2683	1557
45°	1671	1662	1576	1654	1656	1270
55°	641	801	825	768	577	595
65°	211	425	378	404	203	228
75°	160	256	123	252	159	166
85°	64	84	66	85	71	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3533.0	3533.0	3533.0	3533.0	3533.0
2.5°	3519.9	3498.9	3493.6	3504.1	3510.7
5°	3494.9	3470.0	3498.9	3487.1	3479.2
7.5°	3466.1	3456.9	3451.7	3470.0	3466.1
10°	3416.2	3403.1	3417.6	3428.1	3433.3
12.5°	3355.9	3362.5	3365.1	3397.9	3413.6
15°	3289.0	3306.1	3311.3	3337.6	3370.3
17.5°	3220.8	3224.8	3256.3	3290.4	3306.1
20°	3146.1	3152.7	3185.4	3216.9	3241.8
22.5°	3058.2	3066.1	3106.8	3142.2	3163.1
25°	2969.1	2973.0	3015.0	3053.0	3085.8
27.5°	2861.5	2882.5	2907.4	2959.9	2995.3
30°	2757.9	2771.0	2799.9	2857.6	2895.6
32.5°	2636.0	2641.2	2677.9	2740.9	2792.0
35°	2496.9	2496.9	2528.4	2620.2	2683.2
37.5°	2359.2	2340.9	2365.8	2470.7	2515.3
40°	2179.6	2166.5	2162.5	2234.7	2263.5
42.5°	1959.3	1934.3	1889.8	1963.2	1986.8
45°	1670.7	1661.6	1576.3	1653.7	1656.3
47.5°	1369.1	1375.7	1279.9	1357.3	1299.6
50°	1070.1	1138.3	1075.4	1108.1	980.9
52.5°	832.8	960.0	936.4	923.2	750.1
55°	641.3	801.3	824.9	768.5	577.0
57.5°	489.2	683.2	697.7	658.3	439.3
60°	360.6	577.0	577.0	558.7	334.4
62.5°	268.8	495.7	469.5	474.7	255.7
65°	211.1	424.9	377.7	403.9	203.3
67.5°	177.0	354.1	285.9	348.8	177.0
70°	171.8	308.2	208.5	314.7	170.5
72.5°	170.5	283.3	156.1	285.9	171.8
75°	160.0	255.7	123.3	251.8	158.7
77.5°	146.9	212.4	102.3	212.4	148.2
80°	131.1	161.3	95.7	165.2	139.0
82.5°	101.0	115.4	85.2	116.7	107.5
85°	64.3	83.9	65.6	85.2	70.8
87.5°	28.9	44.6	28.9	45.9	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)