

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: P475676

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475676
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-56-A19/156-UNV-L840-CD1-U
Description: GR 2'X4' 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: 5511.8 lumens
Efficiency: N/A
Efficacy: 139.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

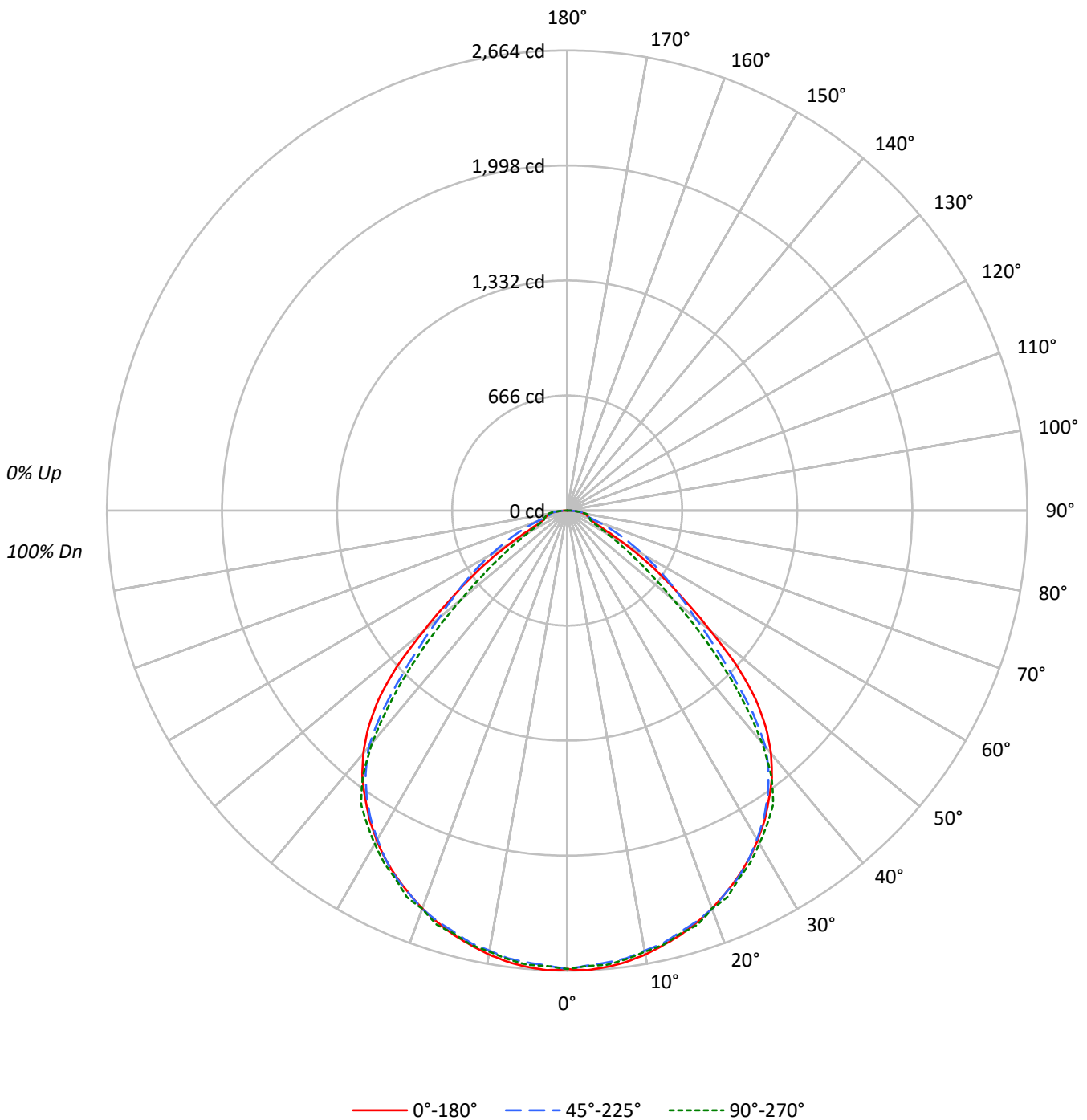
Input Watts (W): 39.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	101	98	100	98	95	96	94	92	93	91	90					88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78					76				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69					67				
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61					59				
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49					47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	40					38				
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36					34				
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3571	3571	3571
5°	3583	3548	3566
10°	3565	3534	3543
15°	3542	3519	3531
20°	3511	3514	3512
25°	3474	3480	3491
30°	3425	3415	3460
35°	3348	3323	3415
40°	3226	3141	3085
45°	2936	2584	2438
50°	2266	2026	1675
55°	1610	1690	1108
60°	1019	1365	723
65°	591	1074	529
70°	548	740	561
75°	630	563	668
80°	787	778	883
85°	858	909	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.1	4.5
10°-20°	715.4	13.0
20°-30°	1079.5	19.6
30°-40°	1267.1	23.0
40°-50°	1066.7	19.4
50°-60°	605.9	11.0
60°-70°	302.4	5.5
70°-80°	158.5	2.9
80°-90°	66.1	1.2
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°	2045.1	37.1
0°-40°	3312.1	60.1
0°-60°	4984.8	90.4
0°-90°	5511.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5511.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2654	2654	2654	2654	2654	
5°	2652	2633	2627	2631	2640	252
15°	2542	2536	2526	2533	2535	717
25°	2340	2341	2344	2350	2352	1078
35°	2038	2027	2023	2057	2079	1273
45°	1543	1481	1358	1334	1281	1162
55°	686	734	720	621	472	624
65°	186	385	337	286	166	211
75°	121	187	108	163	128	128
85°	56	66	59	75	61	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2654.2	2654.2	2654.2	2654.2	2654.2
2.5°	2663.7	2650.8	2636.2	2632.3	2639.0
5°	2652.5	2633.4	2626.7	2631.2	2640.2
7.5°	2635.1	2615.5	2614.4	2606.5	2620.0
10°	2609.3	2596.4	2586.9	2591.3	2593.0
12.5°	2576.8	2572.8	2565.5	2559.4	2574.5
15°	2542.5	2536.4	2526.3	2533.0	2534.7
17.5°	2498.8	2495.4	2493.7	2498.8	2513.3
20°	2452.2	2452.2	2453.9	2455.0	2452.7
22.5°	2396.6	2394.9	2397.2	2401.7	2423.0
25°	2340.0	2341.1	2343.9	2350.1	2351.7
27.5°	2277.1	2277.7	2276.5	2282.7	2297.3
30°	2204.7	2202.5	2198.0	2211.5	2227.2
32.5°	2126.2	2121.7	2116.6	2137.4	2154.2
35°	2038.1	2026.8	2022.9	2057.1	2079.0
37.5°	1947.7	1924.7	1916.3	1941.5	1944.3
40°	1836.6	1802.4	1788.4	1763.7	1756.4
42.5°	1703.1	1667.7	1592.0	1553.8	1526.9
45°	1543.1	1481.4	1358.0	1334.4	1281.1
47.5°	1336.6	1271.0	1147.5	1097.0	1036.4
50°	1082.4	1044.3	968.0	905.1	800.2
52.5°	865.3	873.1	837.2	750.2	620.1
55°	686.3	734.0	720.5	621.2	472.5
57.5°	528.0	630.7	614.4	511.2	360.8
60°	378.8	540.4	507.3	420.9	268.8
62.5°	259.8	461.3	415.8	347.3	205.9
65°	185.7	384.9	337.2	286.2	166.1
67.5°	152.6	314.8	258.7	243.0	144.8
70°	139.2	253.6	188.0	212.1	142.5
72.5°	132.4	212.7	138.0	185.7	135.8
75°	121.2	186.9	108.3	162.7	128.5
77.5°	112.2	161.6	101.0	142.5	125.1
80°	101.6	127.9	100.4	120.6	113.9
82.5°	81.9	93.1	84.7	98.8	92.0
85°	55.6	66.2	58.9	74.6	61.2
87.5°	27.5	32.5	26.4	35.4	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)