

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: P475661

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475661  
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-L835-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5409.1 lumens  
Efficiency: N/A  
Efficacy: 137.3 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

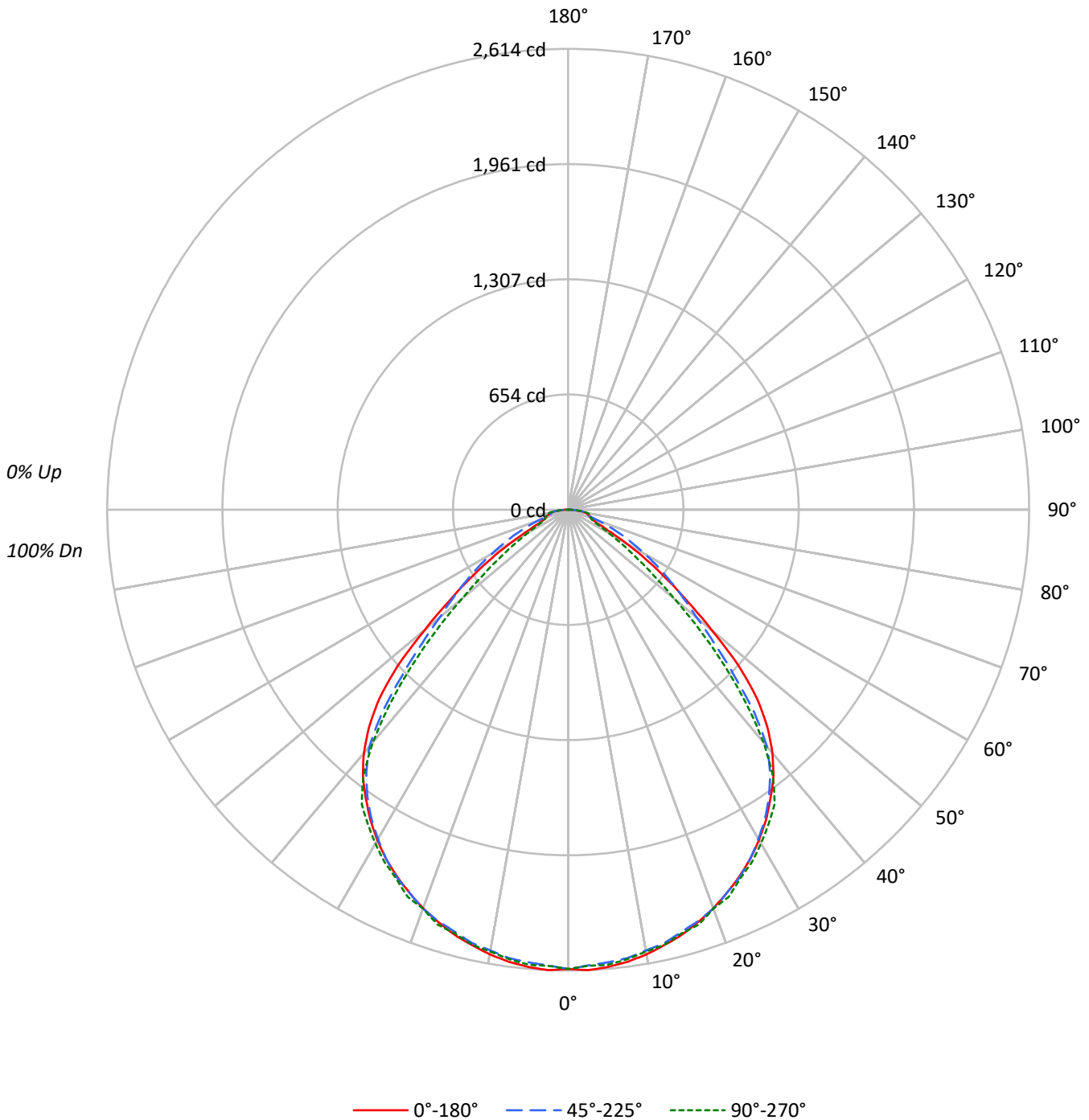
Input Watts (W): 39.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	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°	3505	3505	3505
5°	3516	3482	3499
10°	3498	3468	3477
15°	3476	3453	3465
20°	3446	3448	3446
25°	3409	3415	3426
30°	3361	3351	3396
35°	3285	3261	3351
40°	3166	3083	3027
45°	2882	2536	2392
50°	2224	1988	1644
55°	1580	1659	1088
60°	1000	1340	710
65°	580	1054	519
70°	537	726	550
75°	618	553	656
80°	773	764	866
85°	841	892	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.5	4.5
10°-20°	702.1	13.0
20°-30°	1059.4	19.6
30°-40°	1243.4	23.0
40°-50°	1046.8	19.4
50°-60°	594.7	11.0
60°-70°	296.8	5.5
70°-80°	155.6	2.9
80°-90°	64.9	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°	2006.9	37.1
0°-40°	3250.4	60.1
0°-60°	4891.8	90.4
0°-90°	5409.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5409.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2605	2605	2605	2605	2605	
5°	2603	2584	2578	2582	2591	247
15°	2495	2489	2479	2486	2487	704
25°	2296	2297	2300	2306	2308	1058
35°	2000	1989	1985	2019	2040	1249
45°	1514	1454	1333	1310	1257	1140
55°	674	720	707	610	464	613
65°	182	378	331	281	163	207
75°	119	183	106	160	126	126
85°	54	65	58	73	60	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2604.7	2604.7	2604.7	2604.7	2604.7
2.5°	2614.1	2601.4	2587.1	2583.2	2589.8
5°	2603.1	2584.3	2577.7	2582.1	2590.9
7.5°	2586.0	2566.7	2565.6	2557.9	2571.1
10°	2560.6	2548.0	2538.6	2543.0	2544.7
12.5°	2528.7	2524.9	2517.7	2511.6	2526.5
15°	2495.1	2489.1	2479.1	2485.8	2487.4
17.5°	2452.2	2448.9	2447.2	2452.2	2466.5
20°	2406.5	2406.5	2408.1	2409.2	2407.0
22.5°	2351.9	2350.3	2352.5	2356.9	2377.8
25°	2296.3	2297.4	2300.2	2306.2	2307.9
27.5°	2234.6	2235.2	2234.1	2240.2	2254.5
30°	2163.6	2161.4	2157.0	2170.2	2185.6
32.5°	2086.5	2082.1	2077.2	2097.5	2114.0
35°	2000.1	1989.0	1985.2	2018.8	2040.3
37.5°	1911.4	1888.8	1880.6	1905.3	1908.1
40°	1802.4	1768.8	1755.0	1730.8	1723.6
42.5°	1671.3	1636.6	1562.3	1524.8	1498.4
45°	1514.4	1453.8	1332.6	1309.5	1257.2
47.5°	1311.7	1247.3	1126.1	1076.6	1017.1
50°	1062.3	1024.8	949.9	888.2	785.3
52.5°	849.1	856.9	821.6	736.3	608.5
55°	673.5	720.3	707.1	609.6	463.7
57.5°	518.2	619.0	603.0	501.7	354.1
60°	371.7	530.3	497.8	413.0	263.8
62.5°	255.0	452.7	408.1	340.9	202.1
65°	182.3	377.8	331.0	280.8	163.0
67.5°	149.8	308.9	253.9	238.4	142.1
70°	136.6	248.9	184.5	208.2	139.9
72.5°	130.0	208.7	135.5	182.3	133.3
75°	118.9	183.4	106.3	159.7	126.1
77.5°	110.1	158.6	99.1	139.9	122.8
80°	99.7	125.6	98.6	118.4	111.8
82.5°	80.4	91.4	83.2	96.9	90.3
85°	54.5	65.0	57.8	73.2	60.0
87.5°	27.0	31.9	25.9	34.7	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)