

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: P475684

Luminaire Tested: **24GR-LD5-150-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475684  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-150-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: 14599.6 lumens  
Efficiency: N/A  
Efficacy: 141.2 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

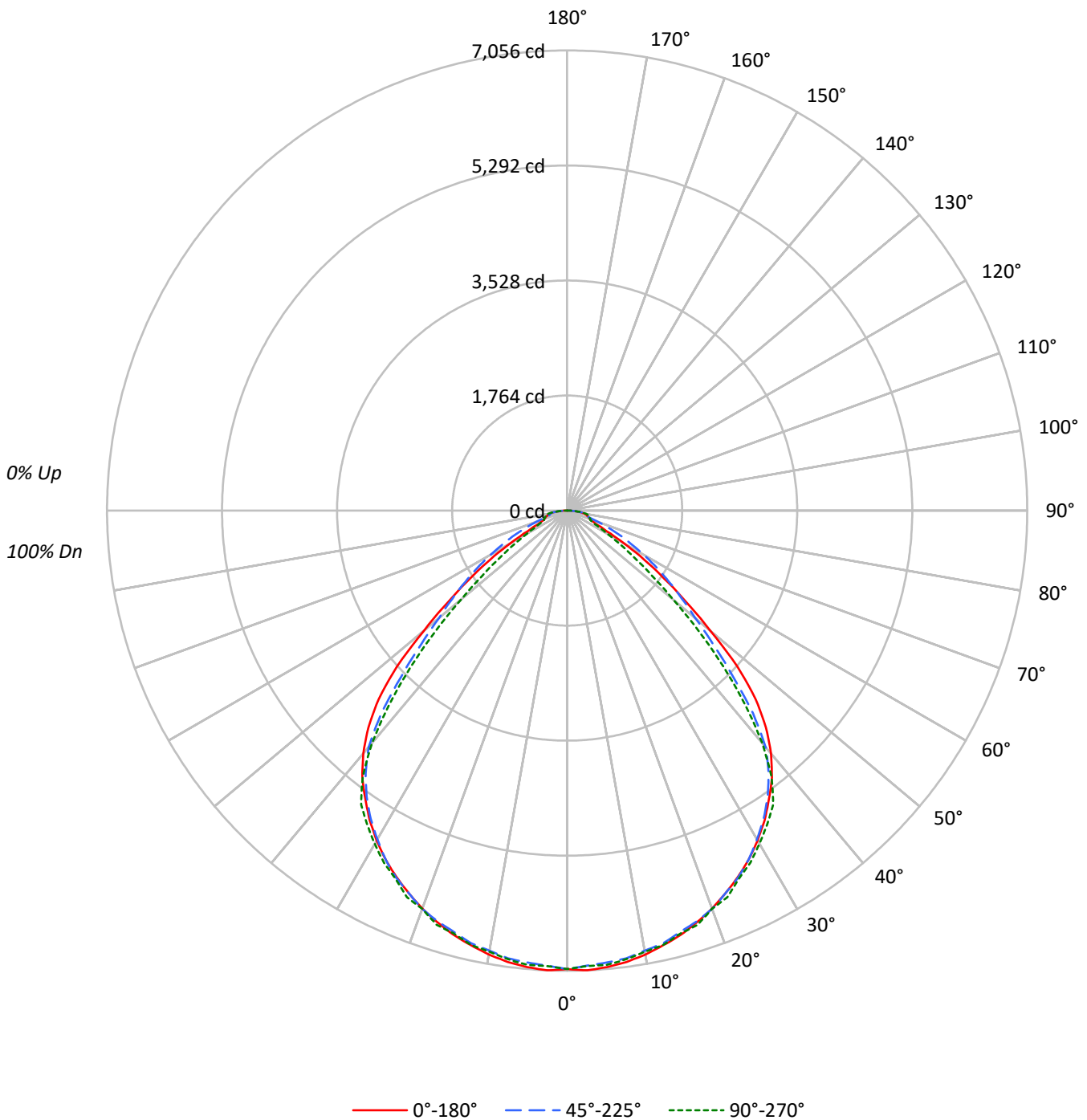
Input Watts (W): 103.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475684

CATALOG NUMBER: 24GR-LD5-150-A19/156-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475684

CATALOG NUMBER: 24GR-LD5-150-A19/156-UNV-L840-CD1-U

**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°	9459	9459	9459
5°	9489	9397	9445
10°	9443	9361	9384
15°	9381	9321	9352
20°	9300	9307	9302
25°	9201	9217	9248
30°	9073	9045	9165
35°	8867	8801	9045
40°	8544	8320	8171
45°	7778	6844	6457
50°	6001	5367	4437
55°	4264	4477	2936
60°	2700	3616	1916
65°	1566	2844	1401
70°	1450	1959	1485
75°	1669	1491	1770
80°	2084	2062	2338
85°	2271	2410	2501



TEST NUMBER: P475684

CATALOG NUMBER: 24GR-LD5-150-A19/156-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	662.5	4.5
10°-20°	1895.0	13.0
20°-30°	2859.3	19.6
30°-40°	3356.2	23.0
40°-50°	2825.4	19.4
50°-60°	1605.0	11.0
60°-70°	801.1	5.5
70°-80°	420.0	2.9
80°-90°	175.1	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°	5416.8	37.1
0°-40°	8773.0	60.1
0°-60°	13203.4	90.4
0°-90°	14599.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14599.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7030	7030	7030	7030	7030	
5°	7026	6975	6958	6969	6993	667
15°	6734	6718	6691	6709	6714	1899
25°	6198	6201	6208	6225	6229	2855
35°	5398	5369	5358	5449	5507	3371
45°	4087	3924	3597	3534	3393	3078
55°	1818	1944	1908	1645	1252	1654
65°	492	1020	893	758	440	560
75°	321	495	287	431	340	340
85°	147	175	156	198	162	156
90°	0	0	0	0	0	



TEST NUMBER: P475684

CATALOG NUMBER: 24GR-LD5-150-A19/156-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7030.3	7030.3	7030.3	7030.3	7030.3
2.5°	7055.6	7021.4	6982.7	6972.3	6990.2
5°	7025.8	6975.3	6957.5	6969.4	6993.1
7.5°	6979.8	6927.7	6924.8	6904.0	6939.6
10°	6911.4	6877.2	6851.9	6863.8	6868.3
12.5°	6825.2	6814.8	6795.5	6779.1	6819.2
15°	6734.5	6718.2	6691.4	6709.3	6713.7
17.5°	6618.6	6609.7	6605.2	6618.6	6657.2
20°	6495.2	6495.2	6499.7	6502.7	6496.7
22.5°	6348.1	6343.6	6349.6	6361.5	6417.9
25°	6198.0	6200.9	6208.4	6224.7	6229.2
27.5°	6031.5	6033.0	6030.0	6046.4	6085.0
30°	5839.8	5833.8	5821.9	5857.6	5899.2
32.5°	5631.7	5619.8	5606.4	5661.4	5706.0
35°	5398.3	5368.6	5358.2	5448.9	5506.8
37.5°	5159.0	5098.1	5075.8	5142.7	5150.1
40°	4864.7	4774.1	4736.9	4671.5	4652.2
42.5°	4511.0	4417.3	4216.7	4115.6	4044.3
45°	4087.4	3923.9	3596.9	3534.5	3393.3
47.5°	3540.4	3366.5	3039.5	2905.8	2745.2
50°	2867.1	2766.0	2563.9	2397.4	2119.5
52.5°	2291.9	2312.7	2217.6	1987.2	1642.4
55°	1817.8	1944.1	1908.4	1645.4	1251.5
57.5°	1398.6	1670.6	1627.5	1354.0	955.7
60°	1003.3	1431.3	1343.6	1114.7	711.9
62.5°	688.2	1221.8	1101.4	920.0	545.5
65°	492.0	1019.6	893.3	758.0	440.0
67.5°	404.3	833.8	685.2	643.6	383.5
70°	368.6	671.8	497.9	561.8	377.5
72.5°	350.8	563.3	365.6	492.0	359.7
75°	321.0	494.9	286.9	431.0	340.4
77.5°	297.3	428.1	267.5	377.5	331.4
80°	269.0	338.9	266.1	319.6	301.7
82.5°	217.0	246.7	224.4	261.6	243.8
85°	147.1	175.4	156.1	197.7	162.0
87.5°	72.8	86.2	69.9	93.6	71.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)