

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: P475700

Luminaire Tested: **24GR-LD5-180-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475700  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-180-A19/156-UNV-L850-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17505.3 lumens  
Efficiency: N/A  
Efficacy: 138.6 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

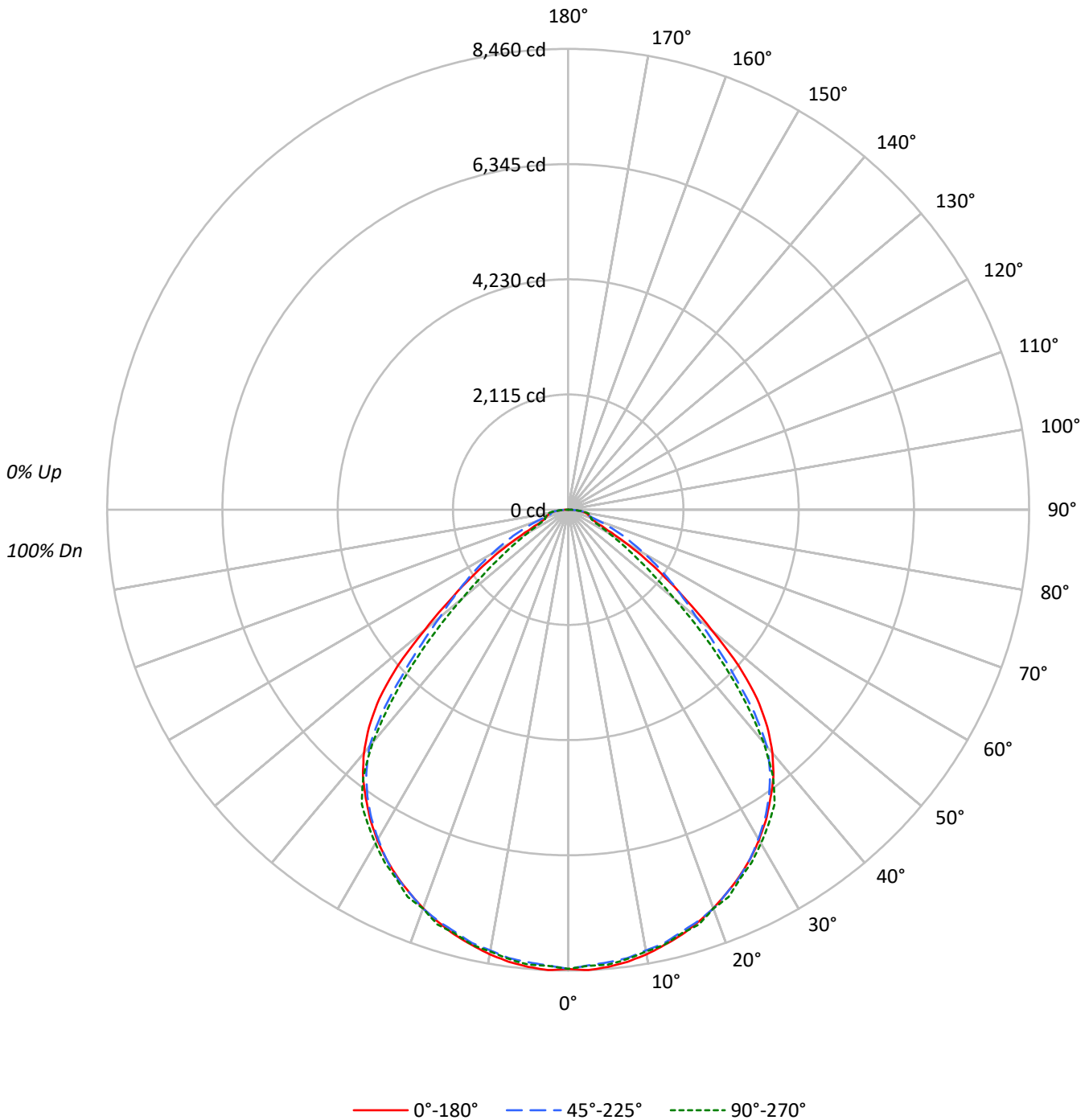
Input Watts (W): 126.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	11342	11342	11342
5°	11378	11267	11325
10°	11322	11225	11251
15°	11248	11176	11213
20°	11151	11159	11154
25°	11033	11051	11088
30°	10879	10845	10989
35°	10632	10553	10845
40°	10245	9976	9797
45°	9325	8206	7742
50°	7196	6435	5319
55°	5113	5368	3520
60°	3237	4335	2297
65°	1878	3410	1679
70°	1739	2349	1781
75°	2001	1788	2122
80°	2500	2472	2803
85°	2723	2888	3000



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	794.4	4.5
10°-20°	2272.2	13.0
20°-30°	3428.4	19.6
30°-40°	4024.1	23.0
40°-50°	3387.8	19.4
50°-60°	1924.4	11.0
60°-70°	960.5	5.5
70°-80°	503.6	2.9
80°-90°	210.0	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°	6494.9	37.1
0°-40°	10519.1	60.1
0°-60°	15831.3	90.4
0°-90°	17505.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17505.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8430	8430	8430	8430	8430	
5°	8424	8364	8342	8356	8385	800
15°	8075	8055	8023	8045	8050	2277
25°	7432	7435	7444	7464	7469	3423
35°	6473	6437	6425	6533	6603	4042
45°	4901	4705	4313	4238	4069	3690
55°	2180	2331	2288	1973	1501	1983
65°	590	1222	1071	909	528	671
75°	385	594	344	517	408	408
85°	176	210	187	237	194	186
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8429.5	8429.5	8429.5	8429.5	8429.5
2.5°	8459.8	8418.8	8372.5	8360.0	8381.4
5°	8424.2	8363.6	8342.2	8356.5	8385.0
7.5°	8368.9	8306.6	8303.0	8278.0	8320.8
10°	8286.9	8246.0	8215.7	8229.9	8235.3
12.5°	8183.6	8171.1	8147.9	8128.3	8176.5
15°	8074.9	8055.3	8023.2	8044.6	8049.9
17.5°	7935.9	7925.2	7919.8	7935.9	7982.2
20°	7787.9	7787.9	7793.3	7796.9	7789.7
22.5°	7611.5	7606.2	7613.3	7627.6	7695.3
25°	7431.5	7435.1	7444.0	7463.6	7468.9
27.5°	7231.9	7233.7	7230.1	7249.7	7296.1
30°	7002.0	6994.9	6980.6	7023.4	7073.3
32.5°	6752.5	6738.3	6722.2	6788.2	6841.6
35°	6472.7	6437.1	6424.6	6533.3	6602.8
37.5°	6185.8	6112.7	6086.0	6166.2	6175.1
40°	5832.9	5724.2	5679.7	5601.3	5578.1
42.5°	5408.8	5296.5	5055.9	4934.7	4849.2
45°	4900.9	4704.8	4312.8	4237.9	4068.6
47.5°	4245.1	4036.5	3644.5	3484.1	3291.6
50°	3437.7	3316.6	3074.2	2874.6	2541.3
52.5°	2748.1	2773.0	2659.0	2382.7	1969.3
55°	2179.6	2331.0	2288.3	1972.8	1500.6
57.5°	1677.0	2003.1	1951.4	1623.5	1145.9
60°	1202.9	1716.2	1611.1	1336.6	853.6
62.5°	825.1	1464.9	1320.6	1103.1	654.0
65°	589.9	1222.5	1071.1	908.9	527.5
67.5°	484.7	999.8	821.6	771.7	459.8
70°	442.0	805.5	597.0	673.6	452.7
72.5°	420.6	675.4	438.4	589.9	431.3
75°	384.9	593.5	344.0	516.8	408.1
77.5°	356.4	513.3	320.8	452.7	397.4
80°	322.6	406.3	319.0	383.2	361.8
82.5°	260.2	295.8	269.1	313.7	292.3
85°	176.4	210.3	187.1	237.0	194.3
87.5°	87.3	103.4	83.8	112.3	85.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)