

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: P475670

Luminaire Tested: **24GR-LD5-180-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475670  
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-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: 17162.0 lumens  
Efficiency: N/A  
Efficacy: 135.9 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

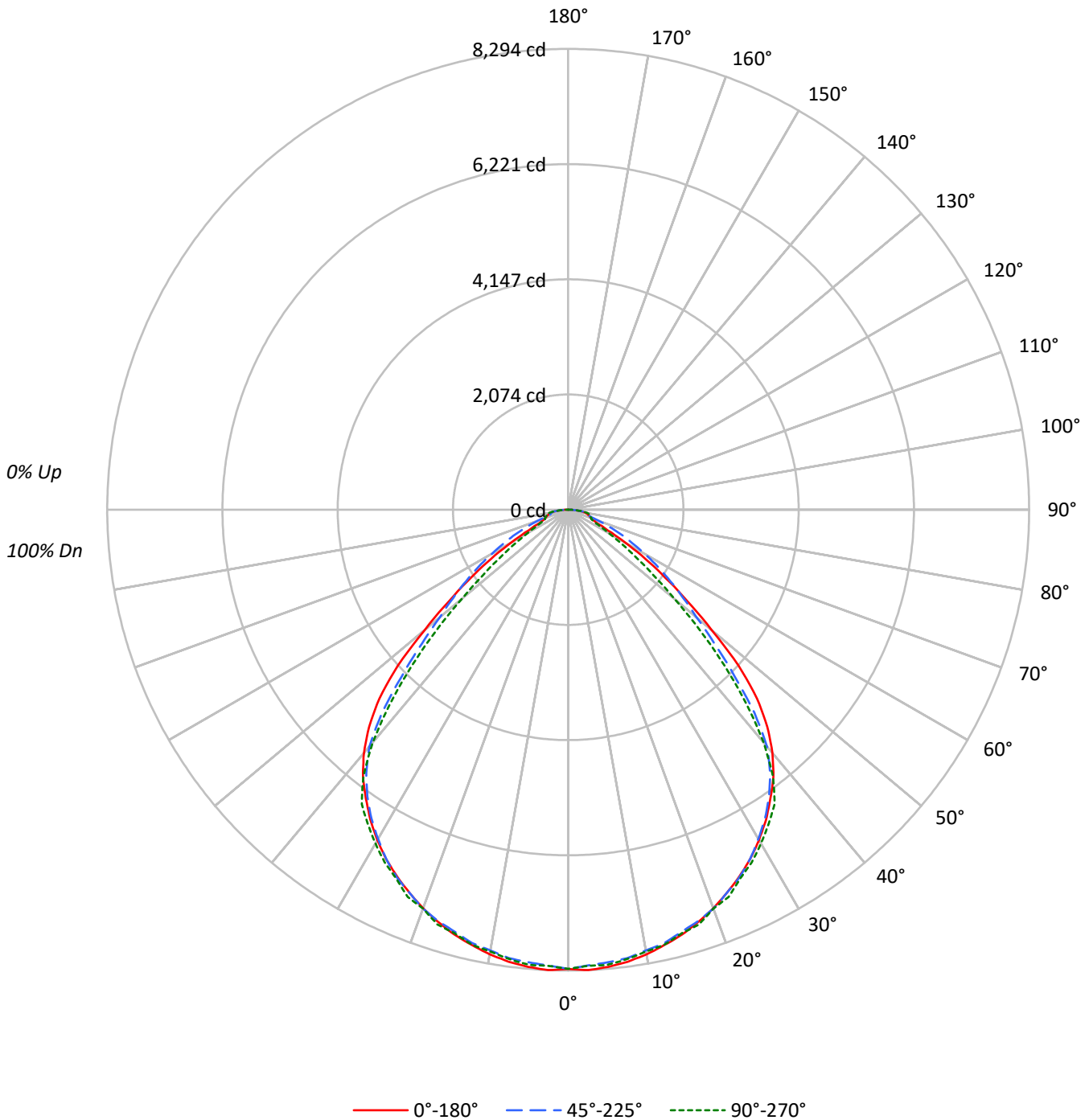
Input Watts (W): 126.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	11119	11119	11119
5°	11155	11046	11103
10°	11100	11005	11031
15°	11027	10957	10993
20°	10932	10940	10935
25°	10816	10834	10871
30°	10665	10633	10774
35°	10423	10346	10633
40°	10044	9780	9605
45°	9143	8045	7590
50°	7055	6309	5215
55°	5012	5263	3451
60°	3174	4250	2252
65°	1841	3343	1647
70°	1705	2303	1746
75°	1962	1753	2080
80°	2450	2423	2748
85°	2671	2833	2939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	778.8	4.5
10°-20°	2227.6	13.0
20°-30°	3361.2	19.6
30°-40°	3945.2	23.0
40°-50°	3321.3	19.4
50°-60°	1886.7	11.0
60°-70°	941.7	5.5
70°-80°	493.7	2.9
80°-90°	205.8	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°	6367.6	37.1
0°-40°	10312.8	60.1
0°-60°	15520.8	90.4
0°-90°	17162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17162.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8264	8264	8264	8264	8264	
5°	8259	8200	8179	8193	8221	784
15°	7916	7897	7866	7887	7892	2232
25°	7286	7289	7298	7317	7322	3356
35°	6346	6311	6299	6405	6473	3963
45°	4805	4613	4228	4155	3989	3618
55°	2137	2285	2243	1934	1471	1944
65°	578	1199	1050	891	517	658
75°	377	582	337	507	400	400
85°	173	206	184	232	190	183
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8264.2	8264.2	8264.2	8264.2	8264.2
2.5°	8293.9	8253.8	8208.3	8196.1	8217.1
5°	8259.0	8199.6	8178.6	8192.6	8220.6
7.5°	8204.8	8143.7	8140.2	8115.7	8157.7
10°	8124.5	8084.3	8054.6	8068.5	8073.8
12.5°	8023.1	8010.9	7988.2	7969.0	8016.1
15°	7916.5	7897.3	7865.9	7886.8	7892.1
17.5°	7780.3	7769.8	7764.5	7780.3	7825.7
20°	7635.2	7635.2	7640.5	7644.0	7637.0
22.5°	7462.3	7457.0	7464.0	7478.0	7544.4
25°	7285.8	7289.3	7298.0	7317.3	7322.5
27.5°	7090.1	7091.9	7088.4	7107.6	7153.0
30°	6864.7	6857.7	6843.8	6885.7	6934.6
32.5°	6620.1	6606.1	6590.4	6655.1	6707.5
35°	6345.8	6310.9	6298.6	6405.2	6473.4
37.5°	6064.5	5992.9	5966.7	6045.3	6054.0
40°	5718.6	5612.0	5568.3	5491.4	5468.7
42.5°	5302.7	5192.7	4956.8	4838.0	4754.1
45°	4804.8	4612.6	4228.2	4154.8	3988.8
47.5°	4161.8	3957.4	3573.0	3415.8	3227.1
50°	3370.3	3251.5	3013.9	2818.2	2491.5
52.5°	2694.2	2718.6	2606.8	2336.0	1930.7
55°	2136.8	2285.3	2243.4	1934.1	1471.1
57.5°	1644.1	1963.8	1913.2	1591.7	1123.4
60°	1179.4	1682.5	1579.5	1310.4	836.9
62.5°	809.0	1436.2	1294.7	1081.5	641.2
65°	578.3	1198.6	1050.1	891.1	517.2
67.5°	475.2	980.2	805.5	756.5	450.8
70°	433.3	789.7	585.3	660.4	443.8
72.5°	412.3	662.2	429.8	578.3	422.8
75°	377.4	581.8	337.2	506.7	400.1
77.5°	349.4	503.2	314.5	443.8	389.6
80°	316.2	398.4	312.7	375.6	354.7
82.5°	255.1	290.0	263.8	307.5	286.5
85°	173.0	206.2	183.5	232.4	190.4
87.5°	85.6	101.3	82.1	110.1	83.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)