

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: P475649

Luminaire Tested: **24GR-LD5-85-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475649  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-85-A19/156-UNV-L830-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7827.8 lumens  
Efficiency: N/A  
Efficacy: 132.2 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

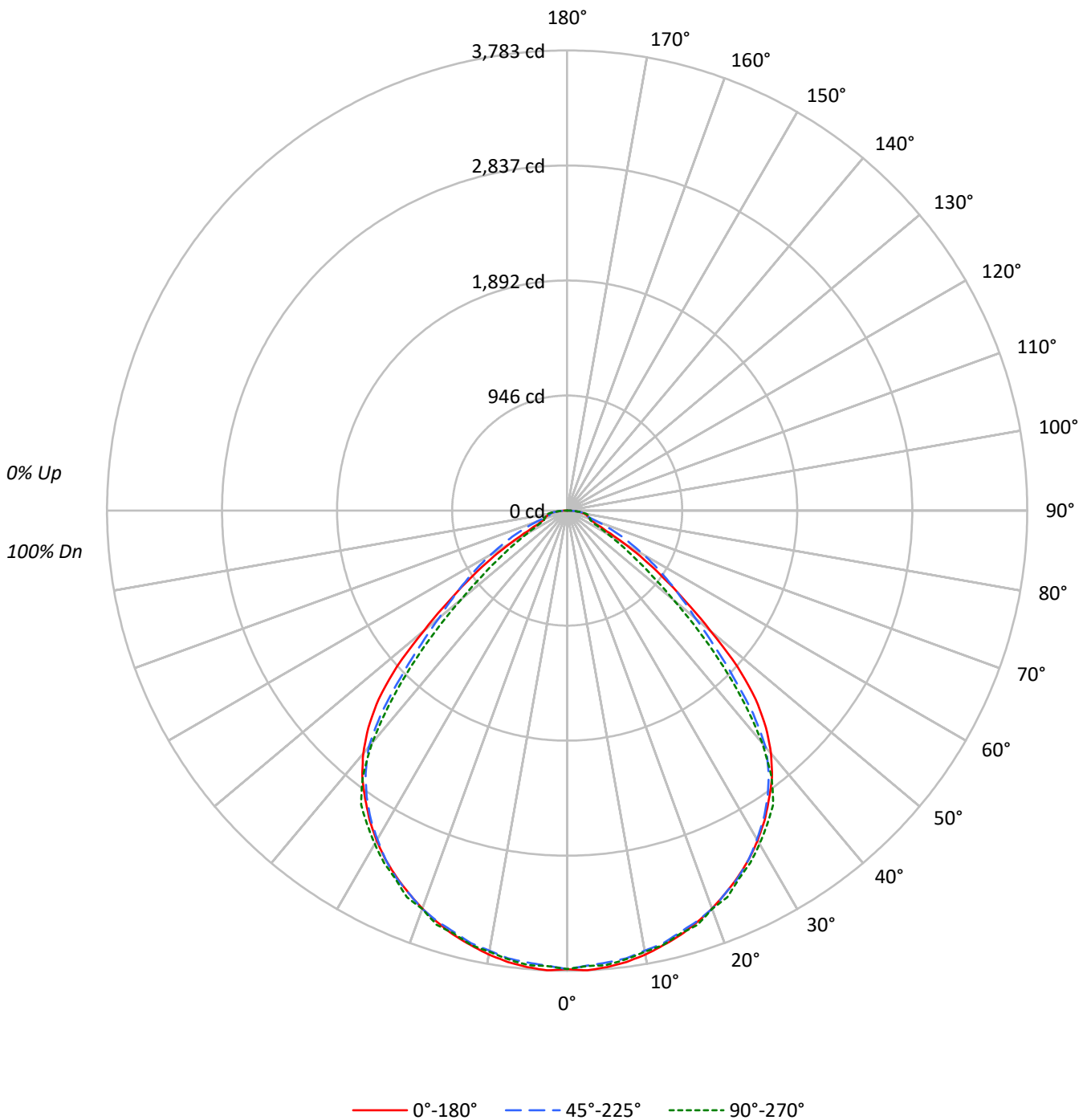
Input Watts (W): 59.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5072	5072	5072
5°	5088	5038	5064
10°	5063	5019	5031
15°	5030	4997	5014
20°	4986	4990	4988
25°	4933	4942	4958
30°	4865	4850	4914
35°	4754	4719	4850
40°	4581	4461	4381
45°	4170	3670	3462
50°	3218	2878	2379
55°	2286	2400	1574
60°	1447	1939	1027
65°	840	1525	751
70°	777	1050	796
75°	895	800	949
80°	1117	1105	1254
85°	1218	1292	1342



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	355.2	4.5
10°-20°	1016.0	13.0
20°-30°	1533.1	19.6
30°-40°	1799.5	23.0
40°-50°	1514.9	19.4
50°-60°	860.5	11.0
60°-70°	429.5	5.5
70°-80°	225.2	2.9
80°-90°	93.9	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°	2904.3	37.1
0°-40°	4703.8	60.1
0°-60°	7079.3	90.4
0°-90°	7827.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7827.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3769	3769	3769	3769	3769	
5°	3767	3740	3730	3737	3750	358
15°	3611	3602	3588	3597	3600	1018
25°	3323	3325	3329	3338	3340	1531
35°	2894	2878	2873	2922	2953	1808
45°	2192	2104	1928	1895	1819	1650
55°	975	1042	1023	882	671	887
65°	264	547	479	406	236	300
75°	172	265	154	231	182	182
85°	79	94	84	106	87	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3769.4	3769.4	3769.4	3769.4	3769.4
2.5°	3783.0	3764.6	3743.9	3738.3	3747.9
5°	3767.0	3739.9	3730.4	3736.7	3749.5
7.5°	3742.3	3714.4	3712.8	3701.7	3720.8
10°	3705.7	3687.3	3673.8	3680.2	3682.6
12.5°	3659.4	3653.9	3643.5	3634.7	3656.3
15°	3610.8	3602.1	3587.7	3597.3	3599.7
17.5°	3548.7	3543.9	3541.5	3548.7	3569.4
20°	3482.5	3482.5	3484.9	3486.5	3483.3
22.5°	3403.6	3401.2	3404.4	3410.8	3441.1
25°	3323.1	3324.7	3328.7	3337.5	3339.9
27.5°	3233.9	3234.7	3233.1	3241.9	3262.6
30°	3131.1	3127.9	3121.5	3140.7	3163.0
32.5°	3019.5	3013.1	3006.0	3035.5	3059.4
35°	2894.4	2878.5	2872.9	2921.5	2952.6
37.5°	2766.1	2733.4	2721.5	2757.3	2761.3
40°	2608.3	2559.7	2539.8	2504.7	2494.4
42.5°	2418.6	2368.4	2260.9	2206.7	2168.4
45°	2191.5	2103.9	1928.5	1895.1	1819.4
47.5°	1898.3	1805.0	1629.7	1558.0	1471.9
50°	1537.3	1483.1	1374.7	1285.4	1136.4
52.5°	1228.8	1240.0	1189.0	1065.5	880.6
55°	974.6	1042.4	1023.2	882.2	671.0
57.5°	749.9	895.7	872.6	726.0	512.4
60°	537.9	767.4	720.4	597.7	381.7
62.5°	369.0	655.1	590.5	493.3	292.5
65°	263.8	546.7	478.9	406.4	235.9
67.5°	216.8	447.1	367.4	345.1	205.6
70°	197.6	360.2	267.0	301.2	202.4
72.5°	188.1	302.0	196.0	263.8	192.9
75°	172.1	265.4	153.8	231.1	182.5
77.5°	159.4	229.5	143.4	202.4	177.7
80°	144.2	181.7	142.6	171.3	161.8
82.5°	116.4	132.3	120.3	140.3	130.7
85°	78.9	94.0	83.7	106.0	86.9
87.5°	39.0	46.2	37.5	50.2	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)