

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: P475653

Luminaire Tested: **24GR-LD5-130-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475653  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-130-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: 11909.0 lumens  
Efficiency: N/A  
Efficacy: 134.3 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

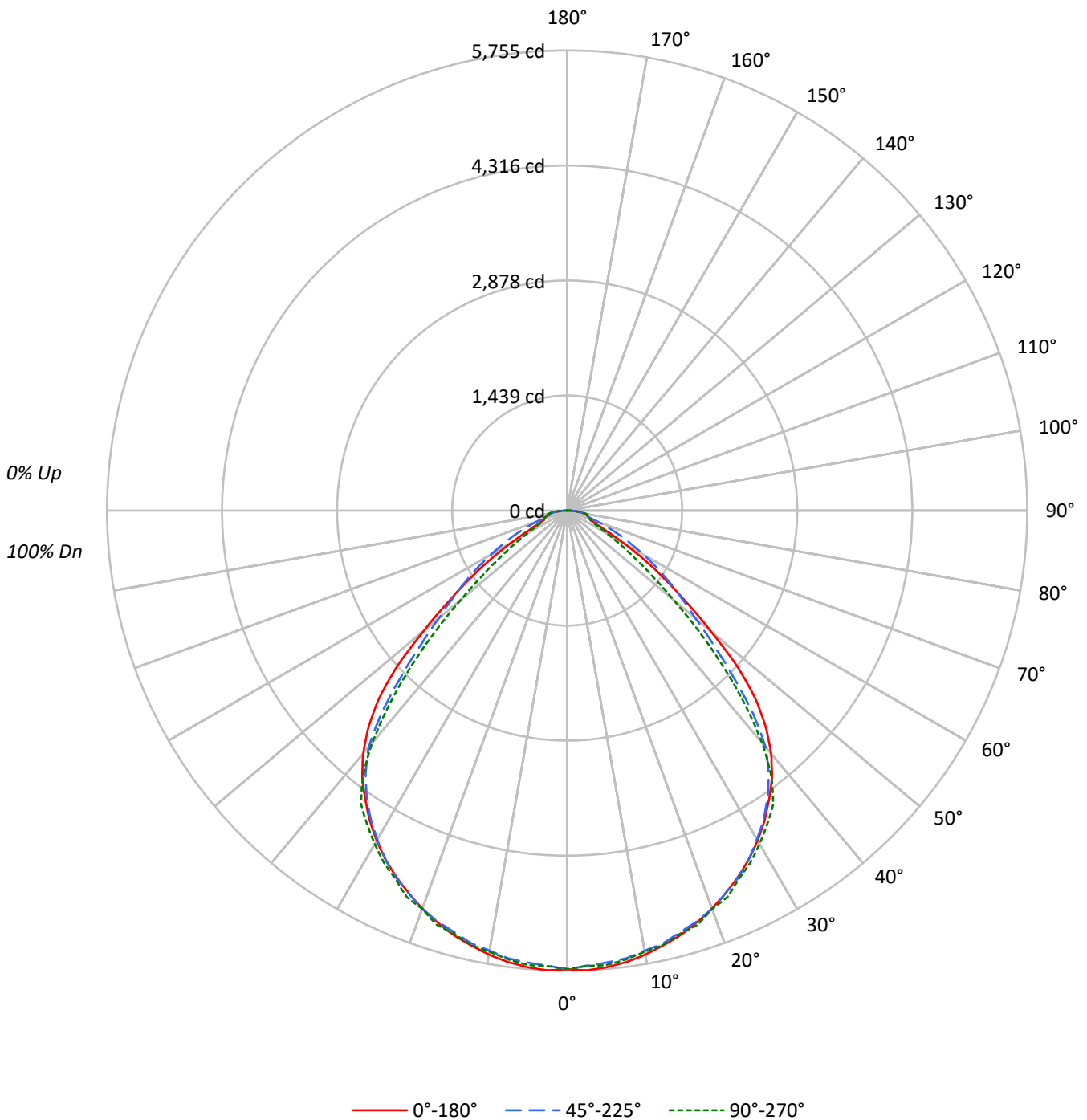
Input Watts (W): 88.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7716	7716	7716
5°	7741	7665	7705
10°	7702	7636	7654
15°	7652	7603	7629
20°	7586	7591	7588
25°	7506	7518	7543
30°	7401	7378	7476
35°	7233	7179	7378
40°	6970	6787	6665
45°	6344	5583	5267
50°	4895	4378	3619
55°	3478	3652	2395
60°	2202	2949	1563
65°	1278	2320	1143
70°	1183	1598	1212
75°	1362	1216	1443
80°	1700	1681	1907
85°	1853	1965	2041



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	540.4	4.5
10°-20°	1545.8	13.0
20°-30°	2332.4	19.6
30°-40°	2737.7	23.0
40°-50°	2304.7	19.4
50°-60°	1309.2	11.0
60°-70°	653.4	5.5
70°-80°	342.6	2.9
80°-90°	142.8	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°	4418.6	37.1
0°-40°	7156.2	60.1
0°-60°	10770.2	90.4
0°-90°	11909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11909.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5735	5735	5735	5735	5735	
5°	5731	5690	5675	5685	5704	544
15°	5493	5480	5458	5473	5476	1549
25°	5056	5058	5064	5078	5081	2329
35°	4404	4379	4371	4445	4492	2750
45°	3334	3201	2934	2883	2768	2511
55°	1483	1586	1557	1342	1021	1349
65°	401	832	729	618	359	456
75°	262	404	234	352	278	278
85°	120	143	127	161	132	127
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5734.7	5734.7	5734.7	5734.7	5734.7
2.5°	5755.3	5727.4	5695.9	5687.4	5702.0
5°	5731.1	5689.8	5675.3	5685.0	5704.4
7.5°	5693.5	5651.0	5648.6	5631.6	5660.7
10°	5637.7	5609.8	5589.2	5598.9	5602.5
12.5°	5567.4	5558.9	5543.1	5529.8	5562.5
15°	5493.4	5480.1	5458.3	5472.8	5476.5
17.5°	5398.9	5391.6	5387.9	5398.9	5430.4
20°	5298.2	5298.2	5301.9	5304.3	5299.4
22.5°	5178.2	5174.6	5179.4	5189.1	5235.2
25°	5055.7	5058.2	5064.2	5077.6	5081.2
27.5°	4920.0	4921.2	4918.7	4932.1	4963.6
30°	4763.6	4758.7	4749.0	4778.1	4812.1
32.5°	4593.8	4584.1	4573.2	4618.1	4654.4
35°	4403.5	4379.2	4370.7	4444.7	4492.0
37.5°	4208.3	4158.6	4140.4	4194.9	4201.0
40°	3968.2	3894.3	3863.9	3810.6	3794.8
42.5°	3679.7	3603.3	3439.6	3357.2	3299.0
45°	3334.1	3200.8	2934.0	2883.1	2767.9
47.5°	2888.0	2746.1	2479.4	2370.3	2239.3
50°	2338.7	2256.3	2091.4	1955.6	1728.9
52.5°	1869.5	1886.5	1808.9	1621.0	1339.7
55°	1482.8	1585.8	1556.7	1342.1	1020.8
57.5°	1140.9	1362.7	1327.6	1104.5	779.6
60°	818.4	1167.6	1096.0	909.3	580.7
62.5°	561.3	996.6	898.4	750.5	445.0
65°	401.3	831.7	728.7	618.3	358.9
67.5°	329.8	680.2	558.9	525.0	312.8
70°	300.7	548.0	406.2	458.3	308.0
72.5°	286.1	459.5	298.3	401.3	293.4
75°	261.9	403.7	234.0	351.6	277.6
77.5°	242.5	349.2	218.2	308.0	270.4
80°	219.4	276.4	217.0	260.7	246.1
82.5°	177.0	201.3	183.1	213.4	198.8
85°	120.0	143.1	127.3	161.3	132.2
87.5°	59.4	70.3	57.0	76.4	58.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)