

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: P476241

Luminaire Tested: **14GR-LD5-20-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P476241  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-20-A19/156-UNV-L830-CD1-U  
Description: GR 1'X4' LED TROFFER w/ A19/156 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

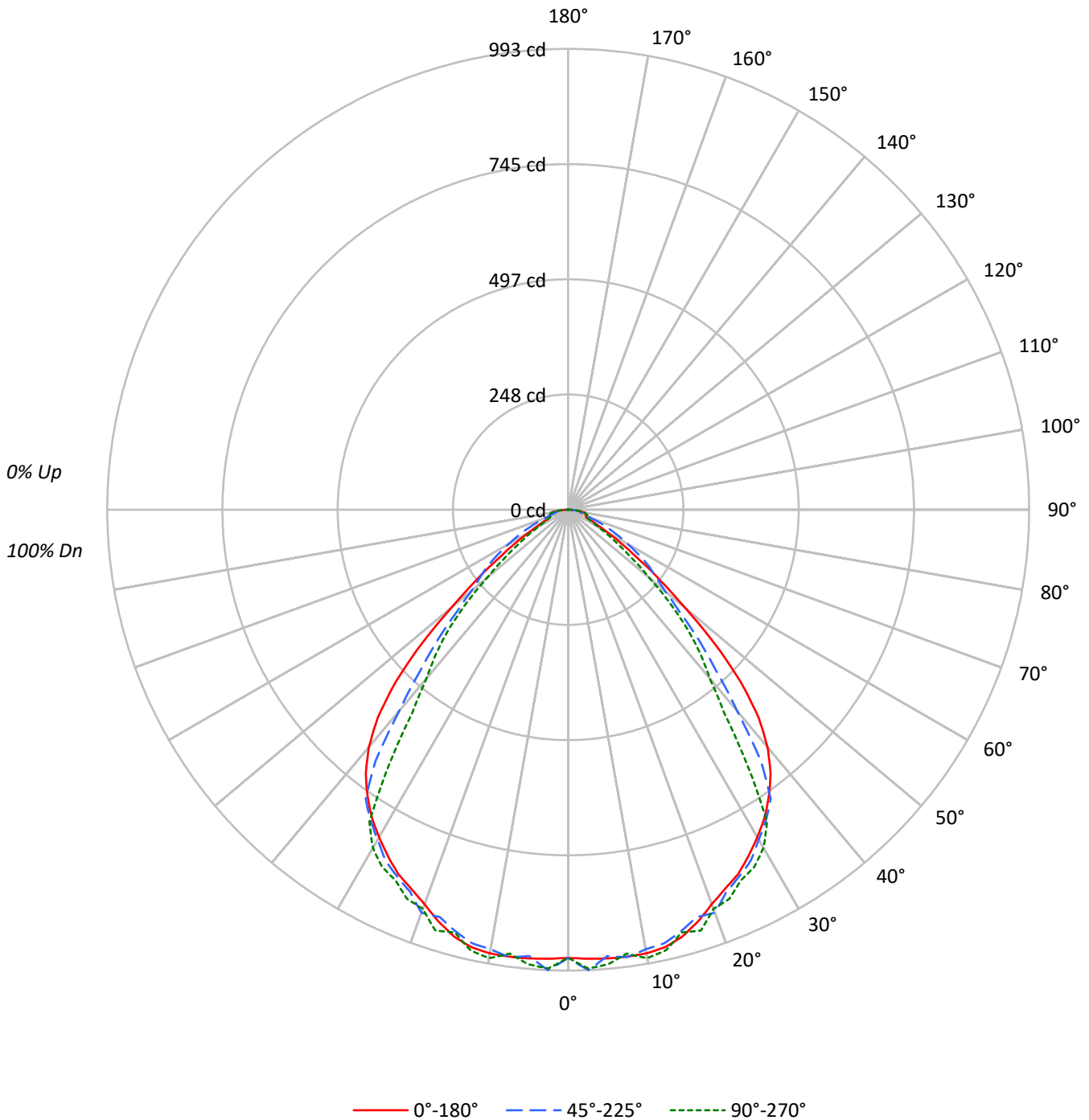
Lumens per Lamp: N/A  
Luminaire Lumens: 1884.3 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.2  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16  
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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78					78			
3	96	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49					49			
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	43	39	49	43	38	48	43	38	48	42	38	36					36			
10	60	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33					33			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2598	2598	2598
5°	2622	2608	2656
10°	2652	2628	2682
15°	2652	2619	2627
20°	2590	2647	2621
25°	2571	2589	2615
30°	2531	2550	2614
35°	2476	2498	2216
40°	2346	1989	1666
45°	2001	1517	1381
50°	1367	1135	954
55°	861	995	634
60°	520	797	408
65°	327	616	314
70°	326	411	334
75°	411	329	430
80°	535	397	566
85°	519	550	550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.2	4.9
10°-20°	267.0	14.2
20°-30°	403.0	21.4
30°-40°	449.5	23.9
40°-50°	326.9	17.3
50°-60°	179.3	9.5
60°-70°	91.2	4.8
70°-80°	53.6	2.8
80°-90°	20.7	1.1
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°	763.2	40.5
0°-40°	1212.7	64.4
0°-60°	1718.9	91.2
0°-90°	1884.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1884.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	971	991	966	983	983	93
15°	952	948	940	960	943	267
25°	866	866	872	889	881	398
35°	754	753	760	709	675	469
45°	526	485	398	370	363	395
55°	184	227	212	189	135	173
65°	51	110	97	100	49	57
75°	40	70	32	63	41	41
85°	17	22	18	23	18	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	965.6	965.6	965.6	965.6	965.6
2.5°	968.6	988.3	993.3	993.3	989.3
5°	970.6	991.3	965.6	983.4	983.4
7.5°	971.6	974.5	972.5	976.5	964.6
10°	970.6	963.7	961.7	986.3	981.4
12.5°	965.6	939.0	956.8	948.9	972.5
15°	951.8	947.9	940.0	959.7	942.9
17.5°	930.1	932.1	920.3	930.1	950.8
20°	904.5	913.4	924.2	927.2	915.3
22.5°	883.8	886.7	890.7	900.5	907.4
25°	866.0	866.0	871.9	888.7	880.8
27.5°	841.4	843.3	852.2	857.1	868.0
30°	814.7	816.7	820.6	843.3	841.4
32.5°	787.1	789.1	793.0	807.8	797.0
35°	753.6	752.6	760.5	709.2	674.7
37.5°	716.1	715.1	680.6	583.9	551.4
40°	667.8	663.8	566.2	490.2	474.4
42.5°	606.6	589.8	473.4	429.1	421.2
45°	525.7	485.3	398.5	369.9	363.0
47.5°	430.0	399.5	324.5	311.7	294.9
50°	326.5	328.5	271.2	262.4	227.8
52.5°	249.5	273.2	238.7	221.9	176.6
55°	183.5	226.9	212.1	189.4	135.1
57.5°	136.1	188.4	179.5	162.7	103.6
60°	96.7	156.8	148.0	140.1	75.9
62.5°	70.0	131.2	121.3	118.4	58.2
65°	51.3	109.5	96.7	99.6	49.3
67.5°	41.4	91.7	73.0	86.8	42.4
70°	41.4	81.9	52.3	76.9	42.4
72.5°	41.4	76.9	41.4	70.0	44.4
75°	39.5	70.0	31.6	63.1	41.4
77.5°	36.5	57.2	26.6	54.2	39.5
80°	34.5	42.4	25.6	42.4	36.5
82.5°	26.6	29.6	23.7	31.6	28.6
85°	16.8	21.7	17.8	22.7	17.8
87.5°	7.9	11.8	7.9	11.8	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)