

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: P475989

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475989  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-20-A19/156-UNV-L835-CD1-U  
Description: GR 2'X2' 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: 1942.7 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

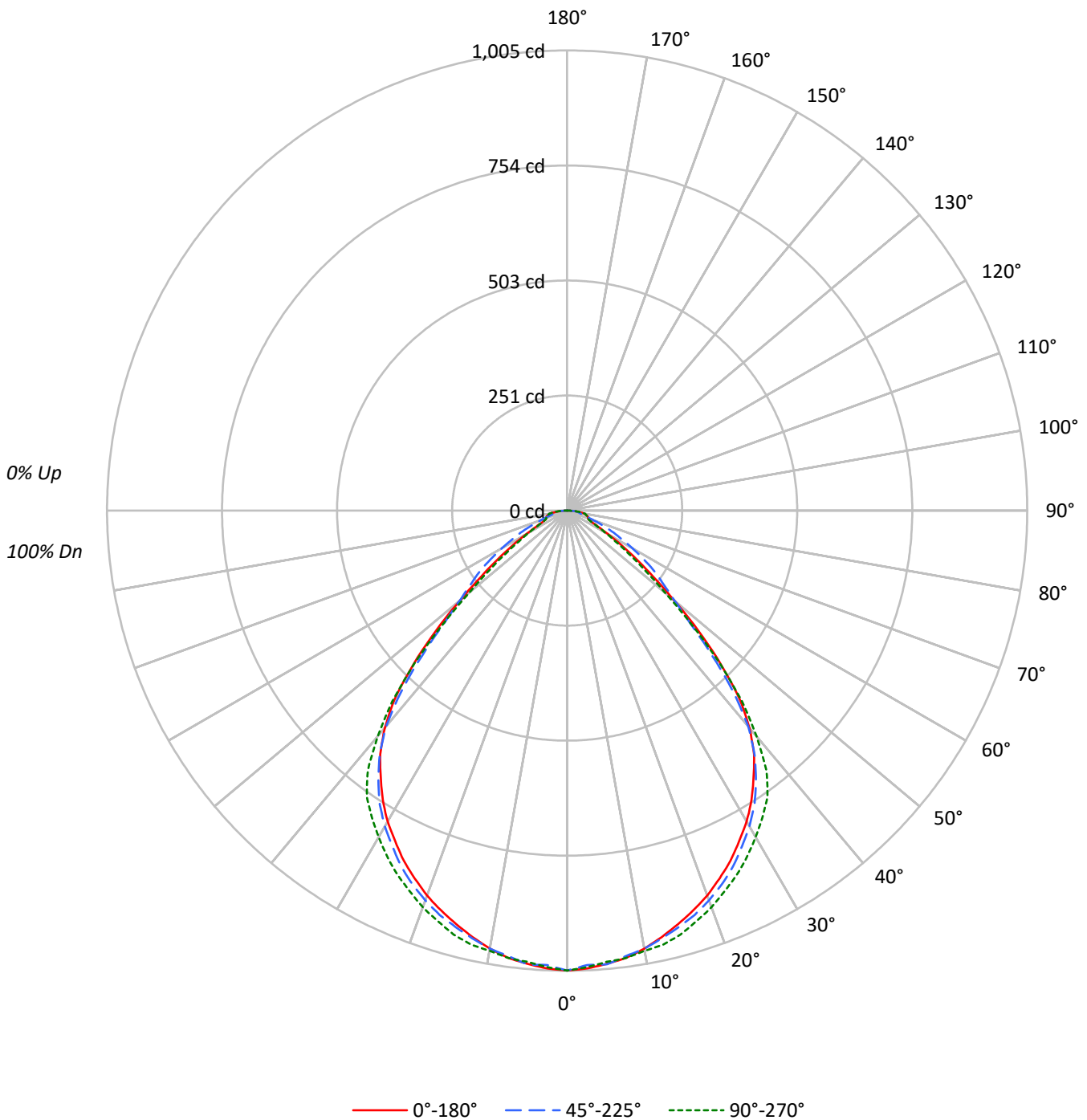
Input Watts (W): 15.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	99	100	98	95	97	95	93	93	91	90					88				
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79					77				
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70					68				
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62					60				
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55					53				
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50					48				
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45					43				
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34					33				

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

	0°	45°	90°
0°	2703	2703	2703
5°	2684	2687	2672
10°	2654	2655	2667
15°	2605	2623	2670
20°	2562	2594	2640
25°	2507	2545	2605
30°	2437	2474	2558
35°	2332	2362	2506
40°	2177	2160	2261
45°	1808	1706	1792
50°	1274	1280	1168
55°	855	1100	770
60°	552	883	512
65°	382	684	368
70°	384	467	382
75°	473	365	469
80°	578	422	612
85°	565	574	621



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.1	4.8
10°-20°	266.2	13.7
20°-30°	394.8	20.3
30°-40°	451.6	23.2
40°-50°	357.5	18.4
50°-60°	195.1	10.0
60°-70°	102.1	5.3
70°-80°	58.9	3.0
80°-90°	22.3	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°	755.1	38.9
0°-40°	1206.8	62.1
0°-60°	1759.4	90.6
0°-90°	1942.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1942.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	994	987	995	992	989	94
15°	935	940	942	949	958	264
25°	844	845	857	868	877	388
35°	710	710	719	745	763	443
45°	475	472	448	470	471	361
55°	182	228	234	218	164	169
65°	60	121	107	115	58	65
75°	46	73	35	72	45	47
85°	18	24	19	24	20	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1004.6	1004.6	1004.6	1004.6	1004.6
2.5°	1000.8	994.9	993.4	996.4	998.2
5°	993.7	986.7	994.9	991.5	989.3
7.5°	985.5	982.9	981.4	986.7	985.5
10°	971.4	967.6	971.7	974.7	976.2
12.5°	954.2	956.1	956.8	966.2	970.6
15°	935.2	940.1	941.5	949.0	958.3
17.5°	915.8	916.9	925.9	935.6	940.1
20°	894.6	896.4	905.7	914.7	921.8
22.5°	869.6	871.8	883.4	893.4	899.4
25°	844.2	845.3	857.3	868.1	877.4
27.5°	813.6	819.6	826.7	841.6	851.7
30°	784.2	787.9	796.1	812.5	823.3
32.5°	749.5	751.0	761.4	779.3	793.9
35°	710.0	710.0	718.9	745.0	762.9
37.5°	670.8	665.6	672.7	702.5	715.2
40°	619.7	616.0	614.9	635.4	643.6
42.5°	557.1	550.0	537.3	558.2	564.9
45°	475.1	472.4	448.2	470.2	471.0
47.5°	389.3	391.2	363.9	385.9	369.5
50°	304.3	323.7	305.8	315.1	278.9
52.5°	236.8	273.0	266.2	262.5	213.3
55°	182.3	227.8	234.5	218.5	164.1
57.5°	139.1	194.3	198.4	187.2	124.9
60°	102.5	164.1	164.1	158.9	95.1
62.5°	76.4	141.0	133.5	135.0	72.7
65°	60.0	120.8	107.4	114.8	57.8
67.5°	50.3	100.7	81.3	99.2	50.3
70°	48.8	87.6	59.3	89.5	48.5
72.5°	48.5	80.5	44.4	81.3	48.8
75°	45.5	72.7	35.1	71.6	45.1
77.5°	41.8	60.4	29.1	60.4	42.1
80°	37.3	45.9	27.2	47.0	39.5
82.5°	28.7	32.8	24.2	33.2	30.6
85°	18.3	23.9	18.6	24.2	20.1
87.5°	8.2	12.7	8.2	13.1	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)