

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: P475978

Luminaire Tested: **22GR-LD5-24-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475978  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-24-A19/156-UNV-L830-CD1-U  
Description: GR 2'X2' 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: 2230.4 lumens  
Efficiency: N/A  
Efficacy: 124.6 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

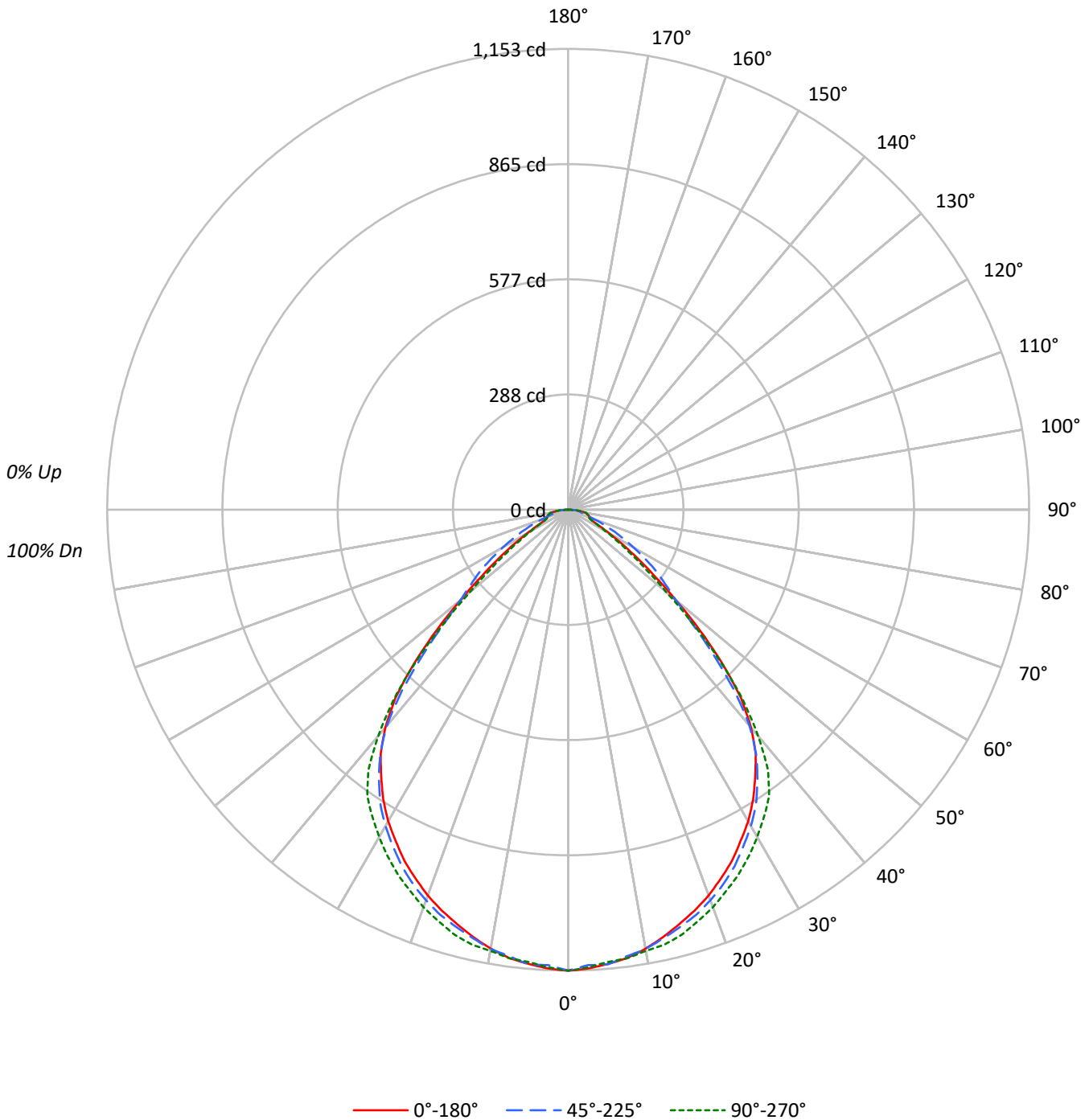
Input Watts (W): 17.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	3104	3104	3104
5°	3082	3085	3068
10°	3047	3049	3063
15°	2991	3012	3065
20°	2941	2978	3031
25°	2878	2922	2991
30°	2797	2840	2937
35°	2678	2712	2877
40°	2499	2480	2596
45°	2076	1958	2058
50°	1462	1470	1340
55°	982	1263	884
60°	633	1014	588
65°	439	785	423
70°	441	536	438
75°	543	418	539
80°	663	485	704
85°	648	661	713



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.0	4.8
10°-20°	305.7	13.7
20°-30°	453.3	20.3
30°-40°	518.5	23.2
40°-50°	410.5	18.4
50°-60°	224.0	10.0
60°-70°	117.2	5.3
70°-80°	67.7	3.0
80°-90°	25.6	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°	866.9	38.9
0°-40°	1385.5	62.1
0°-60°	2020.0	90.6
0°-90°	2230.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2230.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1141	1133	1142	1138	1136	108
15°	1074	1079	1081	1090	1100	303
25°	969	970	984	997	1007	446
35°	815	815	825	855	876	508
45°	545	542	515	540	541	415
55°	209	262	269	251	188	194
65°	69	139	123	132	66	74
75°	52	84	40	82	52	54
85°	21	27	21	28	23	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1153.3	1153.3	1153.3	1153.3	1153.3
2.5°	1149.0	1142.2	1140.5	1143.9	1146.1
5°	1140.9	1132.8	1142.2	1138.3	1135.8
7.5°	1131.5	1128.5	1126.8	1132.8	1131.5
10°	1115.2	1110.9	1115.7	1119.1	1120.8
12.5°	1095.5	1097.7	1098.5	1109.2	1114.4
15°	1073.7	1079.3	1081.0	1089.5	1100.2
17.5°	1051.4	1052.7	1063.0	1074.1	1079.3
20°	1027.0	1029.2	1039.9	1050.2	1058.3
22.5°	998.4	1000.9	1014.2	1025.8	1032.6
25°	969.2	970.5	984.2	996.6	1007.3
27.5°	934.1	941.0	949.1	966.2	977.8
30°	900.3	904.6	914.0	932.9	945.3
32.5°	860.5	862.2	874.2	894.7	911.4
35°	815.1	815.1	825.4	855.4	875.9
37.5°	770.2	764.2	772.3	806.6	821.1
40°	711.5	707.2	706.0	729.5	738.9
42.5°	639.6	631.5	616.9	640.9	648.6
45°	545.4	542.4	514.6	539.8	540.7
47.5°	446.9	449.1	417.8	443.1	424.3
50°	349.3	371.6	351.1	361.8	320.2
52.5°	271.8	313.4	305.7	301.4	244.9
55°	209.3	261.6	269.3	250.9	188.4
57.5°	159.7	223.0	227.8	214.9	143.4
60°	117.7	188.4	188.4	182.4	109.2
62.5°	87.8	161.8	153.3	155.0	83.5
65°	68.9	138.7	123.3	131.9	66.4
67.5°	57.8	115.6	93.3	113.9	57.8
70°	56.1	100.6	68.1	102.7	55.7
72.5°	55.7	92.5	50.9	93.3	56.1
75°	52.2	83.5	40.2	82.2	51.8
77.5°	47.9	69.4	33.4	69.4	48.4
80°	42.8	52.7	31.3	53.9	45.4
82.5°	33.0	37.7	27.8	38.1	35.1
85°	21.0	27.4	21.4	27.8	23.1
87.5°	9.4	14.6	9.4	15.0	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)