

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: P475981

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475981  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-36-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: 3376.3 lumens  
Efficiency: N/A  
Efficacy: 118.5 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

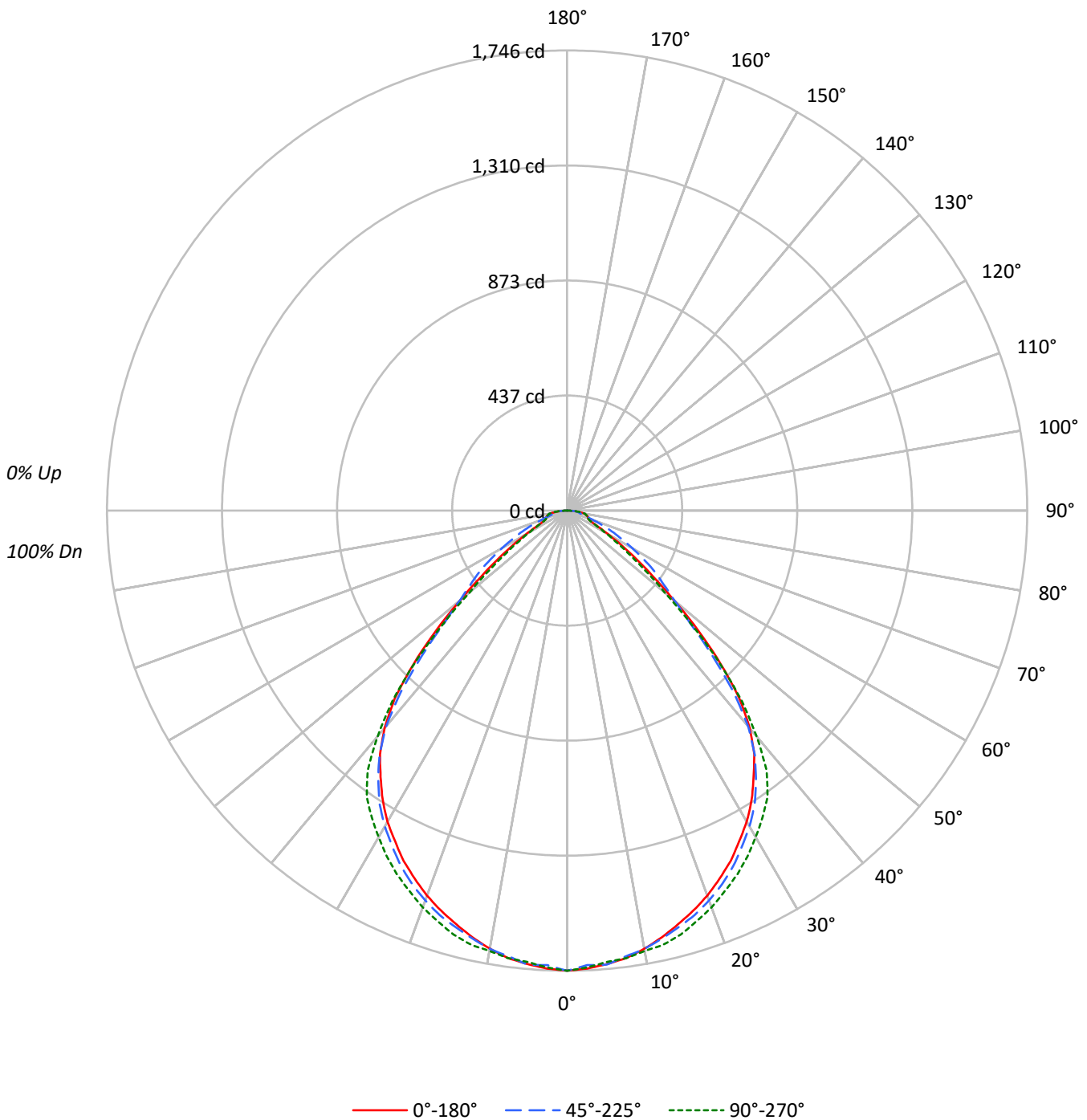
Input Watts (W): 28.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475981

CATALOG NUMBER: 22GR-LD5-36-A19/156-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475981

CATALOG NUMBER: 22GR-LD5-36-A19/156-UNV-L830-CD1-U

**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°	4698	4698	4698
5°	4665	4670	4644
10°	4613	4615	4636
15°	4528	4559	4640
20°	4452	4508	4588
25°	4356	4424	4528
30°	4235	4299	4446
35°	4053	4105	4356
40°	3784	3754	3929
45°	3142	2965	3115
50°	2214	2225	2029
55°	1487	1912	1338
60°	959	1534	890
65°	664	1188	639
70°	668	810	662
75°	822	633	815
80°	1004	733	1065
85°	982	1000	1081



TEST NUMBER: P475981

CATALOG NUMBER: 22GR-LD5-36-A19/156-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.5	4.8
10°-20°	462.7	13.7
20°-30°	686.2	20.3
30°-40°	784.9	23.2
40°-50°	621.4	18.4
50°-60°	339.0	10.0
60°-70°	177.4	5.3
70°-80°	102.4	3.0
80°-90°	38.7	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°	1312.4	38.9
0°-40°	2097.3	62.1
0°-60°	3057.7	90.6
0°-90°	3376.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3376.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1746	1746	1746	1746	1746	
5°	1727	1715	1729	1723	1719	164
15°	1625	1634	1636	1649	1666	458
25°	1467	1469	1490	1509	1525	674
35°	1234	1234	1250	1295	1326	770
45°	826	821	779	817	818	628
55°	317	396	408	380	285	294
65°	104	210	187	200	100	113
75°	79	126	61	124	78	82
85°	32	42	32	42	35	35
90°	0	0	0	0	0	



TEST NUMBER: P475981

CATALOG NUMBER: 22GR-LD5-36-A19/156-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1745.9	1745.9	1745.9	1745.9	1745.9
2.5°	1739.4	1729.0	1726.4	1731.6	1734.9
5°	1727.1	1714.8	1729.0	1723.2	1719.3
7.5°	1712.8	1708.3	1705.7	1714.8	1712.8
10°	1688.2	1681.7	1688.8	1694.0	1696.6
12.5°	1658.4	1661.6	1662.9	1679.1	1686.9
15°	1625.3	1633.8	1636.4	1649.3	1665.5
17.5°	1591.6	1593.6	1609.1	1626.0	1633.8
20°	1554.7	1557.9	1574.1	1589.7	1602.0
22.5°	1511.3	1515.2	1535.3	1552.8	1563.1
25°	1467.2	1469.2	1489.9	1508.7	1524.9
27.5°	1414.1	1424.4	1436.7	1462.7	1480.2
30°	1362.9	1369.3	1383.6	1412.1	1430.9
32.5°	1302.6	1305.2	1323.3	1354.4	1379.7
35°	1233.9	1233.9	1249.5	1294.8	1325.9
37.5°	1165.9	1156.8	1169.1	1220.9	1243.0
40°	1077.1	1070.6	1068.7	1104.3	1118.6
42.5°	968.2	955.9	933.9	970.1	981.8
45°	825.6	821.1	779.0	817.2	818.5
47.5°	676.6	679.8	632.5	670.7	642.2
50°	528.8	562.5	531.4	547.6	484.7
52.5°	411.5	474.4	462.7	456.2	370.7
55°	316.9	396.0	407.6	379.8	285.1
57.5°	241.7	337.6	344.8	325.3	217.1
60°	178.2	285.1	285.1	276.1	165.3
62.5°	132.9	245.0	232.0	234.6	126.4
65°	104.3	210.0	186.6	199.6	100.4
67.5°	87.5	175.0	141.3	172.4	87.5
70°	84.9	152.3	103.0	155.5	84.2
72.5°	84.2	140.0	77.1	141.3	84.9
75°	79.1	126.4	60.9	124.4	78.4
77.5°	72.6	105.0	50.5	105.0	73.2
80°	64.8	79.7	47.3	81.7	68.7
82.5°	49.9	57.0	42.1	57.7	53.1
85°	31.8	41.5	32.4	42.1	35.0
87.5°	14.3	22.0	14.3	22.7	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)