

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: P292530

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292530  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-28-A19/156-UNV-L83050-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3046.0 lumens  
Efficiency: N/A  
Efficacy: 131.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

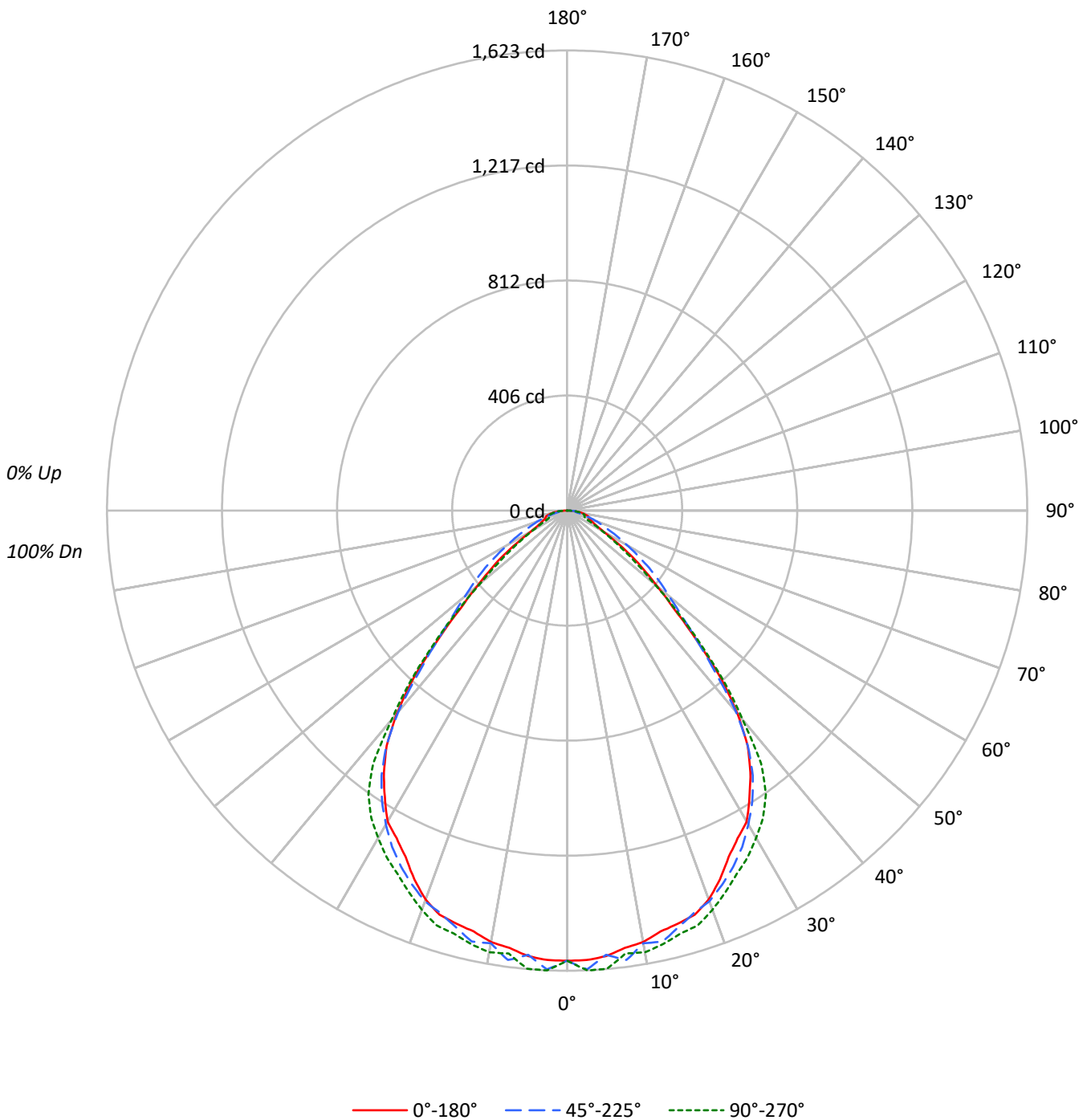
Input Watts (W): 23.157  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33

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

	0°	45°	90°
0°	4272	4272	4272
5°	4261	4247	4381
10°	4222	4234	4322
15°	4203	4235	4303
20°	4180	4201	4291
25°	4002	4115	4200
30°	3936	3972	4141
35°	3701	3749	4015
40°	3280	3257	3386
45°	2450	2455	2524
50°	1724	1962	1670
55°	1273	1657	1141
60°	795	1309	745
65°	649	1037	521
70°	644	864	514
75°	799	634	664
80°	890	501	812
85°	886	929	908



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.1	5.0
10°-20°	430.4	14.1
20°-30°	637.5	20.9
30°-40°	714.1	23.4
40°-50°	524.7	17.2
50°-60°	293.3	9.6
60°-70°	163.5	5.4
70°-80°	96.0	3.2
80°-90°	35.3	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°	1219.1	40.0
0°-40°	1933.2	63.5
0°-60°	2751.2	90.3
0°-90°	3046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3046.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1577	1607	1572	1605	1622	149
15°	1508	1518	1520	1543	1544	426
25°	1348	1359	1386	1405	1414	625
35°	1127	1128	1141	1193	1222	698
45°	644	696	645	691	663	503
55°	271	330	353	352	243	242
65°	102	181	163	209	82	105
75°	77	108	61	123	64	77
85°	29	42	30	39	29	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1587.5	1587.5	1587.5	1587.5	1587.5
2.5°	1586.8	1601.1	1619.8	1621.9	1623.4
5°	1577.4	1606.9	1572.4	1604.7	1621.9
7.5°	1555.9	1573.9	1599.0	1566.7	1576.0
10°	1545.1	1549.5	1549.5	1589.6	1581.7
12.5°	1520.7	1549.5	1556.6	1548.7	1566.0
15°	1508.5	1517.9	1520.0	1543.0	1544.4
17.5°	1494.9	1492.8	1487.7	1504.2	1533.7
20°	1459.7	1451.9	1466.9	1487.0	1498.5
22.5°	1408.1	1410.2	1428.2	1444.7	1457.6
25°	1347.8	1358.6	1385.8	1405.2	1414.5
27.5°	1302.6	1318.4	1337.0	1360.0	1378.6
30°	1266.7	1265.3	1278.2	1311.2	1332.7
32.5°	1197.1	1202.1	1215.7	1255.2	1285.4
35°	1126.7	1127.5	1141.1	1192.8	1222.2
37.5°	1045.6	1039.9	1047.8	1103.8	1123.2
40°	933.7	935.1	927.2	966.7	963.8
42.5°	803.1	814.6	773.7	825.3	821.7
45°	643.8	696.1	645.2	691.1	663.1
47.5°	508.1	585.6	543.3	577.0	524.6
50°	411.9	491.6	468.6	483.7	399.0
52.5°	338.0	402.6	409.8	413.4	311.5
55°	271.3	330.1	353.1	352.4	243.3
57.5°	200.2	268.4	295.0	305.7	184.4
60°	147.8	223.2	243.3	267.0	138.5
62.5°	119.1	195.9	200.9	234.0	105.5
65°	101.9	180.9	162.9	208.8	81.8
67.5°	90.4	168.7	132.8	186.6	69.6
70°	81.8	150.0	109.8	167.2	65.3
72.5°	79.7	127.7	84.7	149.3	64.6
75°	76.8	108.4	61.0	122.7	63.9
77.5°	66.0	92.6	43.8	94.7	59.6
80°	57.4	73.9	32.3	71.0	52.4
82.5°	44.5	56.0	28.7	53.8	42.3
85°	28.7	42.3	30.1	38.8	29.4
87.5°	13.6	23.7	21.5	20.8	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)