

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: P292574

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292574  
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-L82765-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: 2919.0 lumens  
Efficiency: N/A  
Efficacy: 130.2 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

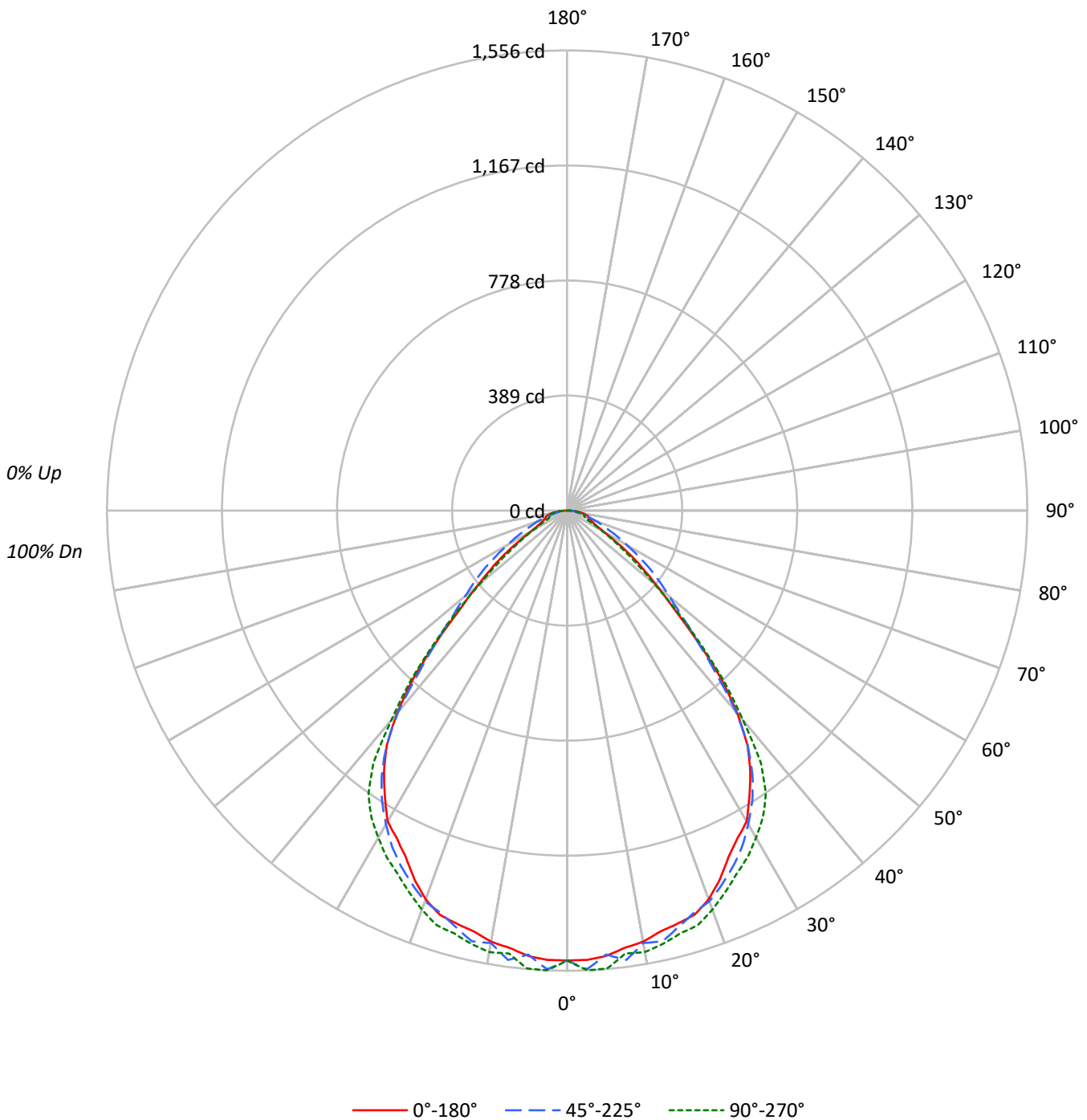
Input Watts (W): 22.413  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4094	4094	4094
5°	4083	4071	4199
10°	4046	4057	4142
15°	4027	4058	4123
20°	4006	4026	4112
25°	3835	3943	4025
30°	3772	3806	3969
35°	3547	3592	3847
40°	3143	3121	3244
45°	2348	2353	2418
50°	1653	1880	1601
55°	1220	1588	1094
60°	763	1255	714
65°	622	994	499
70°	617	828	493
75°	765	608	636
80°	852	479	778
85°	849	892	871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.8	5.0
10°-20°	412.5	14.1
20°-30°	610.9	20.9
30°-40°	684.3	23.4
40°-50°	502.8	17.2
50°-60°	281.1	9.6
60°-70°	156.6	5.4
70°-80°	92.0	3.2
80°-90°	33.8	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°	1168.3	40.0
0°-40°	1852.6	63.5
0°-60°	2636.5	90.3
0°-90°	2919.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2919.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1521	1521	1521	1521	1521	
5°	1512	1540	1507	1538	1554	143
15°	1446	1455	1457	1479	1480	408
25°	1292	1302	1328	1347	1356	599
35°	1080	1080	1094	1143	1171	669
45°	617	667	618	662	636	482
55°	260	316	338	338	233	232
65°	98	173	156	200	78	101
75°	74	104	58	118	61	74
85°	28	41	29	37	28	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1521.3	1521.3	1521.3	1521.3	1521.3
2.5°	1520.6	1534.4	1552.3	1554.3	1555.7
5°	1511.7	1539.9	1506.9	1537.8	1554.3
7.5°	1491.0	1508.2	1532.3	1501.4	1510.3
10°	1480.7	1484.9	1484.9	1523.4	1515.8
12.5°	1457.3	1484.9	1491.7	1484.2	1500.7
15°	1445.6	1454.6	1456.7	1478.7	1480.0
17.5°	1432.6	1430.5	1425.7	1441.5	1469.7
20°	1398.9	1391.3	1405.8	1425.0	1436.0
22.5°	1349.4	1351.4	1368.6	1384.4	1396.8
25°	1291.6	1301.9	1328.0	1346.6	1355.6
27.5°	1248.3	1263.4	1281.3	1303.3	1321.2
30°	1213.9	1212.5	1224.9	1256.5	1277.2
32.5°	1147.2	1152.0	1165.0	1202.9	1231.8
35°	1079.8	1080.5	1093.5	1143.0	1171.2
37.5°	1002.1	996.5	1004.1	1057.8	1076.3
40°	894.8	896.1	888.6	926.4	923.6
42.5°	769.6	780.6	741.4	790.9	787.5
45°	616.9	667.1	618.3	662.3	635.5
47.5°	486.9	561.2	520.6	553.0	502.7
50°	394.8	471.1	449.1	463.5	382.4
52.5°	323.9	385.8	392.7	396.1	298.5
55°	260.0	316.4	338.4	337.7	233.1
57.5°	191.9	257.2	282.7	293.0	176.8
60°	141.7	213.9	233.1	255.8	132.7
62.5°	114.2	187.8	192.6	224.2	101.1
65°	97.7	173.3	156.1	200.1	78.4
67.5°	86.7	161.6	127.2	178.8	66.7
70°	78.4	143.7	105.2	160.2	62.6
72.5°	76.3	122.4	81.2	143.1	61.9
75°	73.6	103.9	58.5	117.6	61.2
77.5°	63.3	88.7	42.0	90.8	57.1
80°	55.0	70.8	30.9	68.1	50.2
82.5°	42.6	53.6	27.5	51.6	40.6
85°	27.5	40.6	28.9	37.1	28.2
87.5°	13.1	22.7	20.6	19.9	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)