

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: P292676

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292676  
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-L92765-W2A1-U-6500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2727.0 lumens  
Efficiency: N/A  
Efficacy: 118.2 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

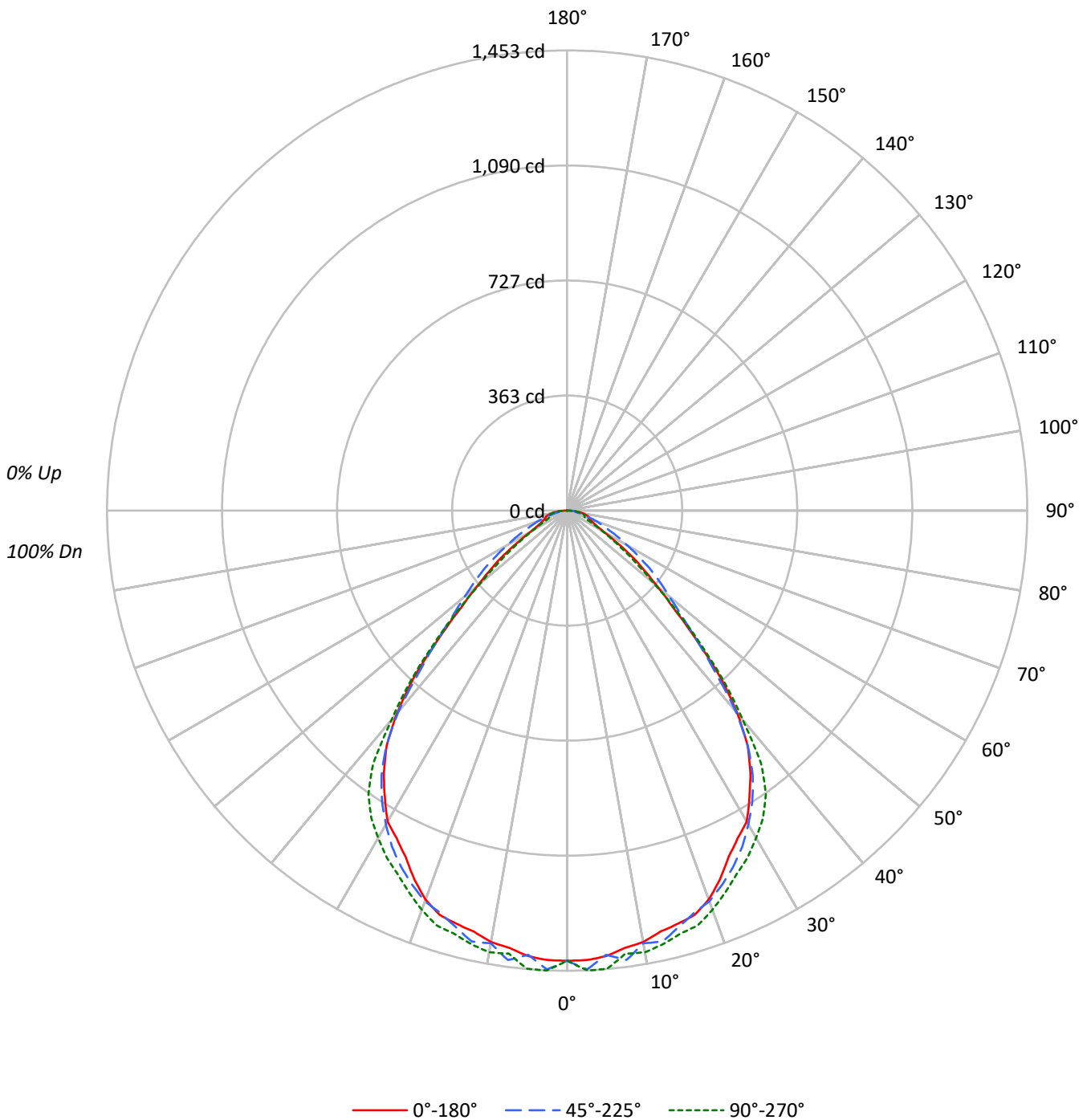
Input Watts (W): 23.064  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P292676

CATALOG NUMBER: 22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P292676

CATALOG NUMBER: 22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-6500K

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

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

	0°	45°	90°
0°	3824	3824	3824
5°	3815	3803	3922
10°	3780	3791	3869
15°	3763	3791	3852
20°	3743	3761	3842
25°	3583	3684	3760
30°	3524	3556	3707
35°	3314	3356	3595
40°	2936	2916	3031
45°	2193	2198	2259
50°	1544	1757	1495
55°	1140	1483	1022
60°	713	1172	667
65°	581	929	466
70°	576	773	460
75°	714	568	595
80°	797	448	727
85°	794	834	812



TEST NUMBER: P292676

CATALOG NUMBER: 22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.3	5.0
10°-20°	385.4	14.1
20°-30°	570.8	20.9
30°-40°	639.3	23.4
40°-50°	469.8	17.2
50°-60°	262.6	9.6
60°-70°	146.4	5.4
70°-80°	86.0	3.2
80°-90°	31.6	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°	1091.4	40.0
0°-40°	1730.7	63.5
0°-60°	2463.1	90.3
0°-90°	2727.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2727.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1421	1421	1421	1421	1421	
5°	1412	1439	1408	1437	1452	134
15°	1351	1359	1361	1381	1383	381
25°	1207	1216	1241	1258	1266	559
35°	1009	1009	1022	1068	1094	625
45°	576	623	578	619	594	450
55°	243	296	316	316	218	217
65°	91	162	146	187	73	94
75°	69	97	55	110	57	69
85°	26	38	27	35	26	28
90°	0	0	0	0	0	



TEST NUMBER: P292676

CATALOG NUMBER: 22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1421.2	1421.2	1421.2	1421.2	1421.2
2.5°	1420.6	1433.4	1450.1	1452.1	1453.4
5°	1412.2	1438.6	1407.7	1436.7	1452.1
7.5°	1393.0	1409.0	1431.5	1402.6	1411.0
10°	1383.3	1387.2	1387.2	1423.2	1416.1
12.5°	1361.5	1387.2	1393.6	1386.5	1402.0
15°	1350.6	1358.9	1360.8	1381.4	1382.7
17.5°	1338.4	1336.4	1331.9	1346.7	1373.0
20°	1306.9	1299.8	1313.3	1331.3	1341.6
22.5°	1260.6	1262.5	1278.6	1293.4	1304.9
25°	1206.6	1216.3	1240.7	1258.0	1266.4
27.5°	1166.2	1180.3	1197.0	1217.6	1234.3
30°	1134.0	1132.7	1144.3	1173.9	1193.1
32.5°	1071.7	1076.2	1088.4	1123.8	1150.7
35°	1008.7	1009.4	1021.6	1067.9	1094.2
37.5°	936.1	931.0	938.1	988.2	1005.5
40°	835.9	837.2	830.1	865.5	862.9
42.5°	719.0	729.3	692.6	738.9	735.7
45°	576.3	623.2	577.6	618.7	593.7
47.5°	454.9	524.3	486.4	516.6	469.7
50°	368.8	440.1	419.6	433.1	357.2
52.5°	302.6	360.4	366.9	370.1	278.9
55°	242.9	295.6	316.1	315.5	217.8
57.5°	179.3	240.3	264.1	273.7	165.1
60°	132.4	199.8	217.8	239.0	124.0
62.5°	106.7	175.4	179.9	209.5	94.4
65°	91.2	161.9	145.9	187.0	73.2
67.5°	81.0	151.0	118.9	167.1	62.3
70°	73.2	134.3	98.3	149.7	58.5
72.5°	71.3	114.4	75.8	133.6	57.8
75°	68.7	97.0	54.6	109.9	57.2
77.5°	59.1	82.9	39.2	84.8	53.3
80°	51.4	66.2	28.9	63.6	46.9
82.5°	39.8	50.1	25.7	48.2	37.9
85°	25.7	37.9	27.0	34.7	26.3
87.5°	12.2	21.2	19.3	18.6	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)