

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: P292691

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292691  
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-LD5-36-A19/156-UNV-L92765-W2A1-U-5000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3293.0 lumens  
Efficiency: N/A  
Efficacy: 114.6 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

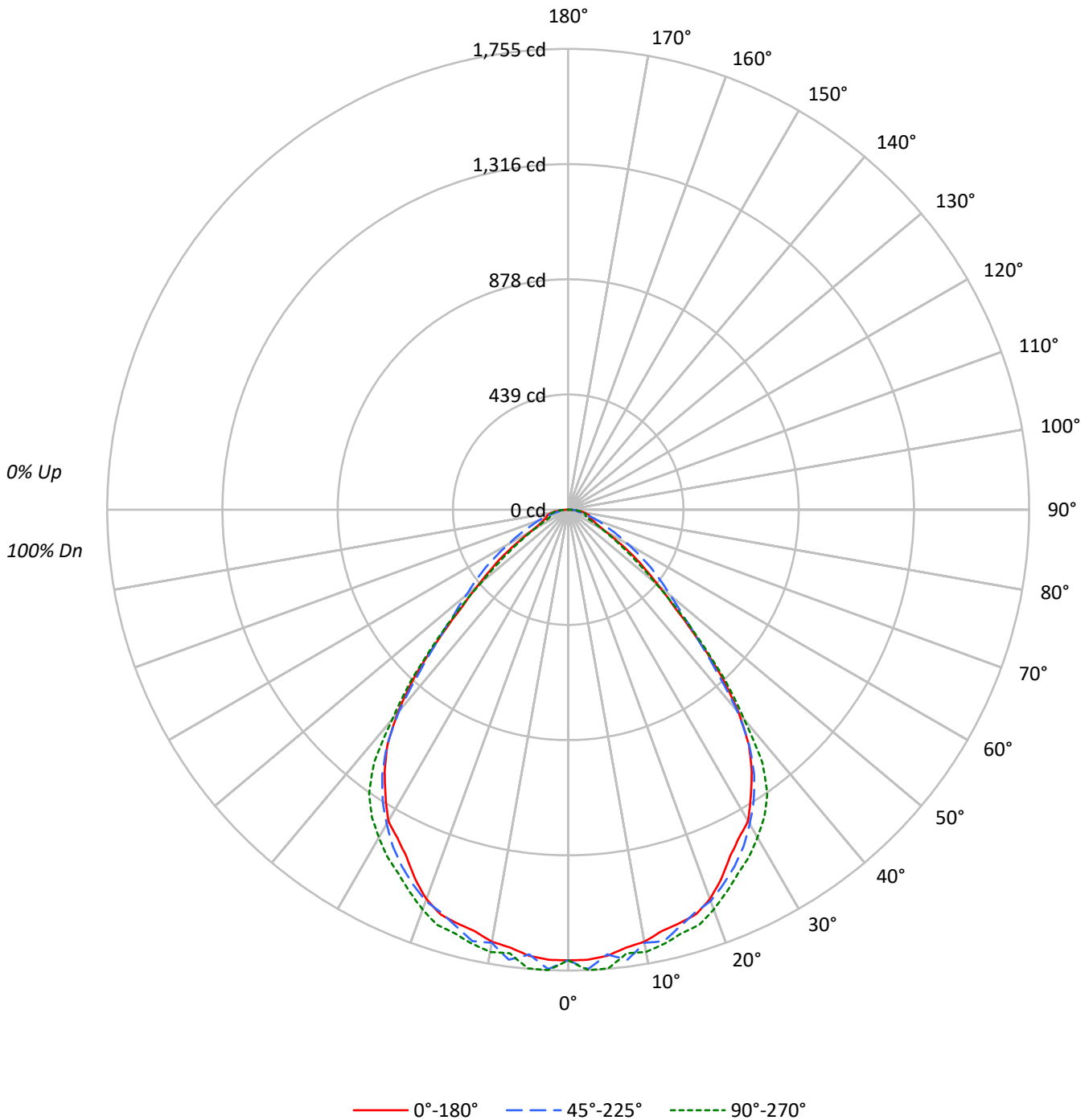
Input Watts (W): 28.737  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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					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°	4618	4618	4618
5°	4607	4592	4737
10°	4564	4577	4673
15°	4544	4578	4652
20°	4519	4542	4639
25°	4326	4448	4540
30°	4255	4294	4477
35°	4002	4052	4341
40°	3546	3521	3660
45°	2649	2654	2728
50°	1864	2121	1806
55°	1376	1791	1234
60°	860	1415	806
65°	702	1121	563
70°	696	934	555
75°	863	685	718
80°	962	541	877
85°	957	1007	982



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.4	5.0
10°-20°	465.3	14.1
20°-30°	689.2	20.9
30°-40°	772.0	23.4
40°-50°	567.3	17.2
50°-60°	317.1	9.6
60°-70°	176.7	5.4
70°-80°	103.8	3.2
80°-90°	38.2	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°	1317.9	40.0
0°-40°	2089.9	63.5
0°-60°	2974.3	90.3
0°-90°	3293.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1705	1737	1700	1735	1754	161
15°	1631	1641	1643	1668	1670	461
25°	1457	1469	1498	1519	1529	675
35°	1218	1219	1234	1290	1321	755
45°	696	753	698	747	717	544
55°	293	357	382	381	263	262
65°	110	196	176	226	88	114
75°	83	117	66	133	69	83
85°	31	46	33	42	32	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1716.2	1716.2	1716.2	1716.2	1716.2
2.5°	1715.4	1731.0	1751.1	1753.5	1755.0
5°	1705.4	1737.2	1699.9	1734.8	1753.5
7.5°	1682.1	1701.5	1728.6	1693.7	1703.8
10°	1670.4	1675.1	1675.1	1718.5	1710.0
12.5°	1644.1	1675.1	1682.9	1674.3	1692.9
15°	1630.9	1641.0	1643.3	1668.1	1669.7
17.5°	1616.1	1613.8	1608.4	1626.2	1658.0
20°	1578.1	1569.6	1585.9	1607.6	1620.0
22.5°	1522.3	1524.6	1544.0	1561.8	1575.8
25°	1457.1	1468.7	1498.2	1519.1	1529.2
27.5°	1408.2	1425.3	1445.4	1470.3	1490.4
30°	1369.4	1367.9	1381.8	1417.5	1440.8
32.5°	1294.1	1299.6	1314.3	1357.0	1389.6
35°	1218.1	1218.9	1233.6	1289.5	1321.3
37.5°	1130.4	1124.2	1132.8	1193.3	1214.2
40°	1009.4	1011.0	1002.4	1045.1	1042.0
42.5°	868.2	880.6	836.4	892.2	888.4
45°	696.0	752.6	697.5	747.2	716.9
47.5°	549.3	633.1	587.3	623.8	567.2
50°	445.3	531.5	506.6	522.9	431.4
52.5°	365.4	435.3	443.0	446.9	336.7
55°	293.3	356.9	381.7	381.0	263.0
57.5°	216.5	290.2	318.9	330.5	199.4
60°	159.8	241.3	263.0	288.6	149.7
62.5°	128.8	211.8	217.2	252.9	114.1
65°	110.2	195.5	176.1	225.8	88.4
67.5°	97.8	182.3	143.5	201.7	75.3
70°	88.4	162.2	118.7	180.8	70.6
72.5°	86.1	138.1	91.6	161.4	69.8
75°	83.0	117.2	65.9	132.7	69.1
77.5°	71.4	100.1	47.3	102.4	64.4
80°	62.1	79.9	34.9	76.8	56.6
82.5°	48.1	60.5	31.0	58.2	45.8
85°	31.0	45.8	32.6	41.9	31.8
87.5°	14.7	25.6	23.3	22.5	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)