

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: P292711

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292711  
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-LD5-43-A19/156-UNV-L92765-W2A1-U-5700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4042.0 lumens  
Efficiency: N/A  
Efficacy: 111.4 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

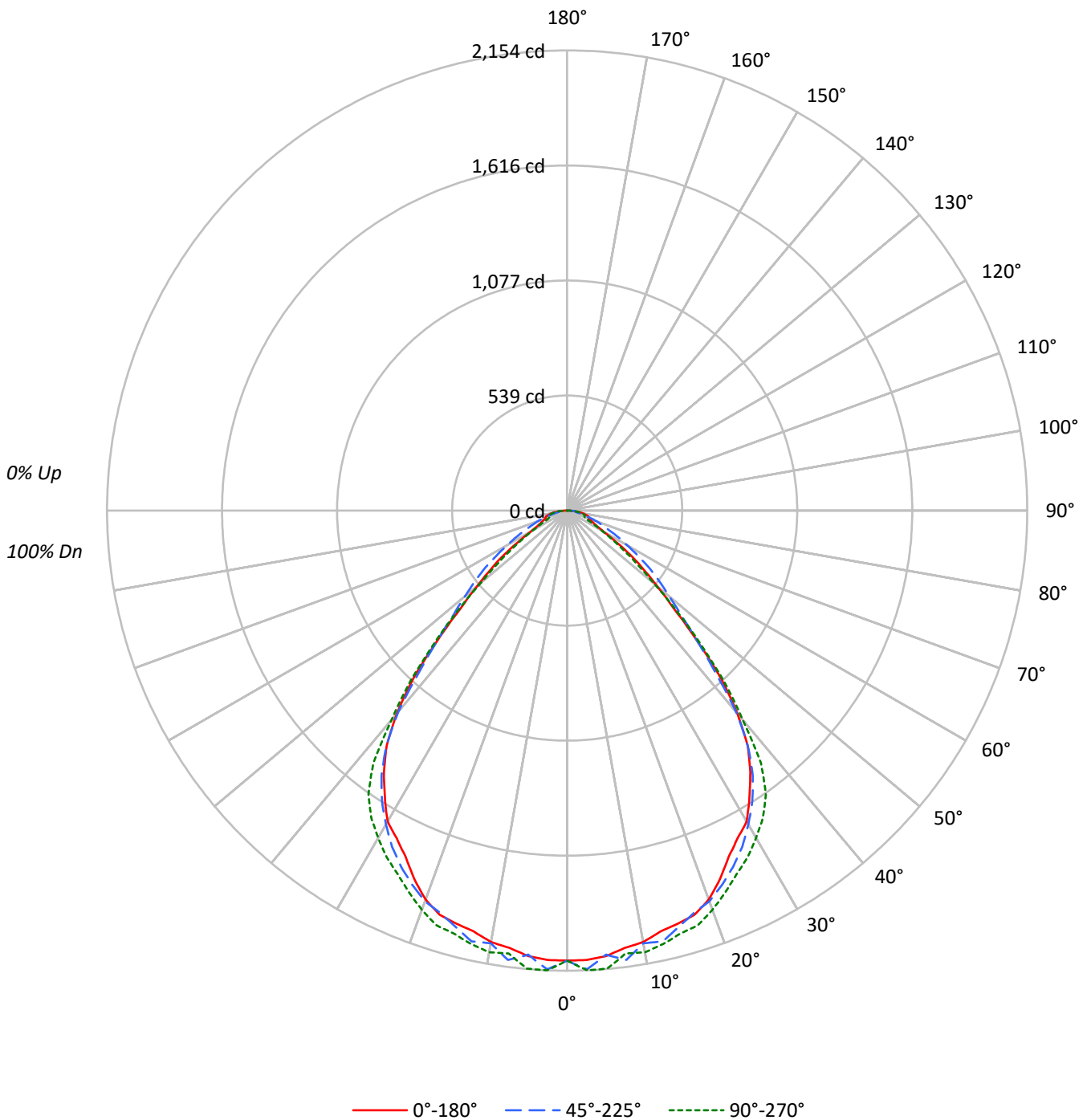
Input Watts (W): 36.27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5669	5669	5669
5°	5654	5636	5814
10°	5603	5618	5735
15°	5577	5619	5709
20°	5547	5574	5694
25°	5310	5460	5573
30°	5223	5270	5495
35°	4912	4974	5328
40°	4352	4322	4493
45°	3251	3258	3349
50°	2288	2604	2217
55°	1689	2198	1514
60°	1056	1737	989
65°	861	1377	691
70°	854	1146	682
75°	1059	841	882
80°	1181	665	1077
85°	1176	1235	1204



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.5	5.0
10°-20°	571.2	14.1
20°-30°	846.0	20.9
30°-40°	947.6	23.4
40°-50°	696.3	17.2
50°-60°	389.2	9.6
60°-70°	216.9	5.4
70°-80°	127.4	3.2
80°-90°	46.8	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°	1617.7	40.0
0°-40°	2565.3	63.5
0°-60°	3650.8	90.3
0°-90°	4042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4042.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2107	2107	2107	2107	2107	
5°	2093	2132	2087	2129	2152	198
15°	2002	2014	2017	2048	2049	565
25°	1788	1803	1839	1865	1877	829
35°	1495	1496	1514	1583	1622	926
45°	854	924	856	917	880	667
55°	360	438	469	468	323	321
65°	135	240	216	277	109	140
75°	102	144	81	163	85	102
85°	38	56	40	51	39	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2106.6	2106.6	2106.6	2106.6	2106.6
2.5°	2105.6	2124.7	2149.4	2152.3	2154.2
5°	2093.2	2132.3	2086.6	2129.4	2152.3
7.5°	2064.7	2088.5	2121.8	2079.0	2091.3
10°	2050.4	2056.1	2056.1	2109.4	2099.0
12.5°	2018.0	2056.1	2065.6	2055.2	2078.0
15°	2001.8	2014.2	2017.1	2047.5	2049.4
17.5°	1983.7	1980.9	1974.2	1996.1	2035.2
20°	1937.1	1926.6	1946.6	1973.3	1988.5
22.5°	1868.5	1871.3	1895.2	1917.1	1934.2
25°	1788.5	1802.8	1839.0	1864.7	1877.1
27.5°	1728.5	1749.5	1774.2	1804.7	1829.4
30°	1680.9	1679.0	1696.1	1739.9	1768.5
32.5°	1588.5	1595.2	1613.3	1665.6	1705.6
35°	1495.2	1496.1	1514.2	1582.8	1621.8
37.5°	1387.6	1379.9	1390.4	1464.7	1490.4
40°	1239.0	1240.9	1230.4	1282.8	1279.0
42.5°	1065.7	1080.9	1026.6	1095.2	1090.4
45°	854.2	923.8	856.2	917.1	880.0
47.5°	674.3	777.1	720.9	765.7	696.2
50°	546.6	652.4	621.9	641.9	529.5
52.5°	448.6	534.3	543.8	548.5	413.3
55°	360.0	438.1	468.6	467.6	322.8
57.5°	265.7	356.2	391.4	405.7	244.8
60°	196.2	296.2	322.8	354.3	183.8
62.5°	158.1	260.0	266.7	310.5	140.0
65°	135.2	240.0	216.2	277.1	108.6
67.5°	120.0	223.8	176.2	247.6	92.4
70°	108.6	199.0	145.7	221.9	86.7
72.5°	105.7	169.5	112.4	198.1	85.7
75°	101.9	143.8	80.9	162.9	84.8
77.5°	87.6	122.9	58.1	125.7	79.0
80°	76.2	98.1	42.9	94.3	69.5
82.5°	59.0	74.3	38.1	71.4	56.2
85°	38.1	56.2	40.0	51.4	39.0
87.5°	18.1	31.4	28.6	27.6	20.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)