

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: P292608

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292608  
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-L82765-W2A1-U-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4187.0 lumens  
Efficiency: N/A  
Efficacy: 118.5 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

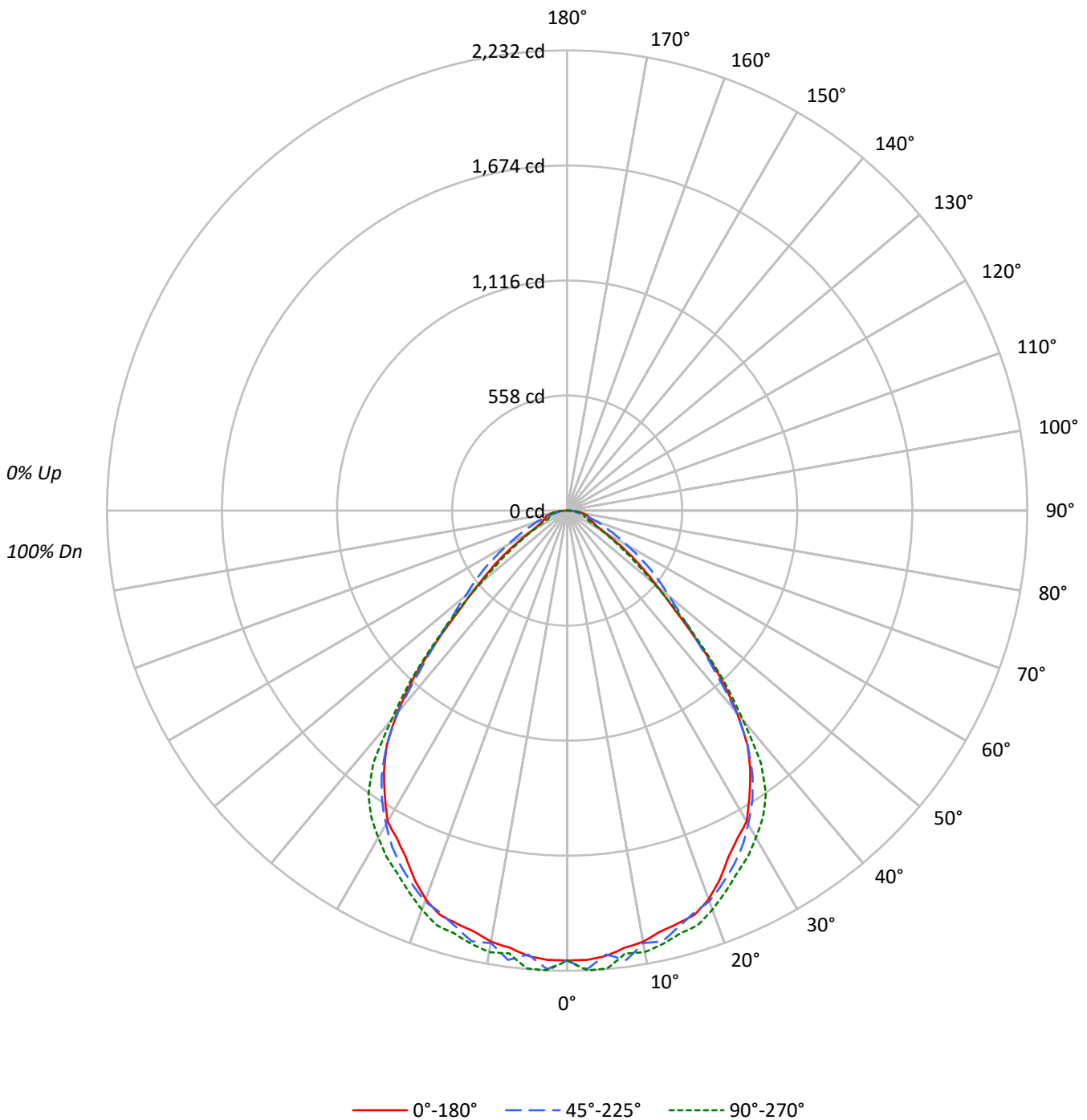
Input Watts (W): 35.34  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5872	5872	5872
5°	5857	5838	6022
10°	5804	5820	5941
15°	5777	5821	5914
20°	5746	5774	5899
25°	5501	5656	5773
30°	5410	5459	5692
35°	5088	5153	5519
40°	4508	4477	4654
45°	3368	3375	3469
50°	2371	2697	2296
55°	1749	2277	1569
60°	1094	1800	1025
65°	892	1426	716
70°	885	1187	707
75°	1098	872	913
80°	1223	688	1116
85°	1220	1278	1247



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.7	5.0
10°-20°	591.7	14.1
20°-30°	876.3	20.9
30°-40°	981.6	23.4
40°-50°	721.3	17.2
50°-60°	403.2	9.6
60°-70°	224.7	5.4
70°-80°	132.0	3.2
80°-90°	48.5	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°	1675.7	40.0
0°-40°	2657.3	63.5
0°-60°	3781.8	90.3
0°-90°	4187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4187.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2182	2182	2182	2182	2182	
5°	2168	2209	2161	2206	2230	205
15°	2074	2086	2089	2121	2123	586
25°	1853	1868	1905	1932	1944	859
35°	1549	1550	1568	1640	1680	960
45°	885	957	887	950	912	691
55°	373	454	485	484	334	333
65°	140	249	224	287	112	145
75°	106	149	84	169	88	106
85°	40	58	41	53	40	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2182.1	2182.1	2182.1	2182.1	2182.1
2.5°	2181.2	2200.9	2226.5	2229.5	2231.5
5°	2168.3	2208.8	2161.4	2205.8	2229.5
7.5°	2138.7	2163.4	2197.9	2153.5	2166.4
10°	2123.9	2129.9	2129.9	2185.1	2174.3
12.5°	2090.4	2129.9	2139.7	2128.9	2152.6
15°	2073.6	2086.5	2089.4	2121.0	2123.0
17.5°	2054.9	2051.9	2045.0	2067.7	2108.2
20°	2006.6	1995.7	2016.4	2044.0	2059.8
22.5°	1935.5	1938.5	1963.1	1985.8	2003.6
25°	1852.7	1867.5	1904.9	1931.6	1944.4
27.5°	1790.5	1812.2	1837.9	1869.4	1895.1
30°	1741.2	1739.2	1757.0	1802.3	1831.9
32.5°	1645.5	1652.4	1671.1	1725.4	1766.8
35°	1548.8	1549.8	1568.5	1639.6	1680.0
37.5°	1437.3	1429.4	1440.3	1517.2	1543.9
40°	1283.4	1285.4	1274.6	1328.8	1324.9
42.5°	1103.9	1119.7	1063.5	1134.5	1129.5
45°	884.9	956.9	886.9	950.0	911.5
47.5°	698.4	805.0	746.8	793.1	721.1
50°	566.3	675.8	644.2	664.9	548.5
52.5°	464.6	553.4	563.3	568.2	428.1
55°	372.9	453.8	485.4	484.4	334.4
57.5°	275.2	369.0	405.5	420.3	253.5
60°	203.2	306.8	334.4	367.0	190.4
62.5°	163.8	269.3	276.2	321.6	145.0
65°	140.1	248.6	223.9	287.1	112.5
67.5°	124.3	231.8	182.5	256.5	95.7
70°	112.5	206.2	150.9	229.9	89.8
72.5°	109.5	175.6	116.4	205.2	88.8
75°	105.6	149.0	83.9	168.7	87.8
77.5°	90.8	127.3	60.2	130.2	81.9
80°	78.9	101.6	44.4	97.7	72.0
82.5°	61.2	76.9	39.5	74.0	58.2
85°	39.5	58.2	41.4	53.3	40.4
87.5°	18.7	32.6	29.6	28.6	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)