

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: P292648

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292648  
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-L93050-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4005.0 lumens  
Efficiency: N/A  
Efficacy: 109.3 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

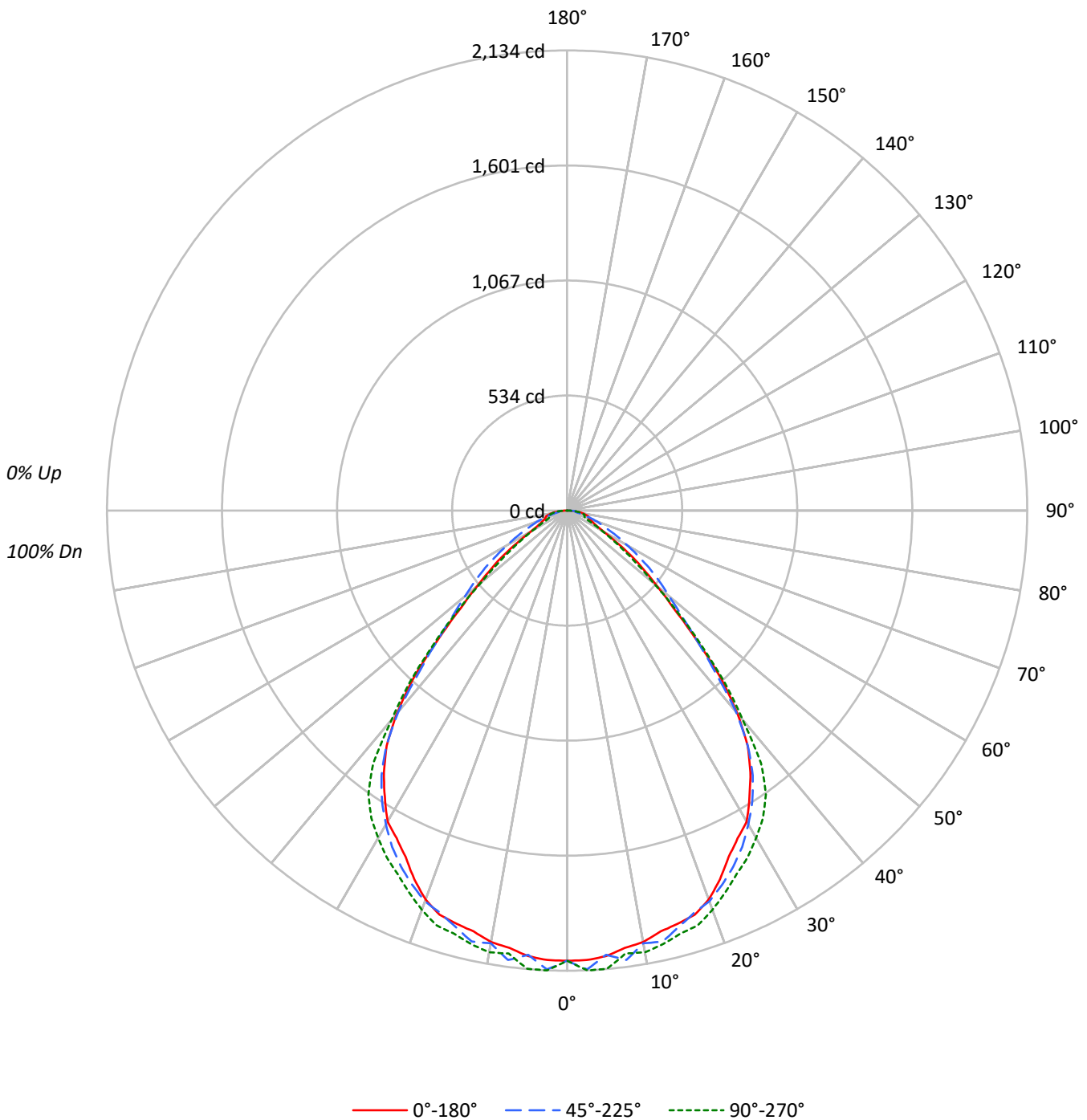
Input Watts (W): 36.642  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	5617	5617	5617
5°	5603	5585	5761
10°	5551	5567	5683
15°	5526	5568	5657
20°	5496	5523	5642
25°	5262	5410	5522
30°	5175	5222	5445
35°	4867	4929	5279
40°	4313	4283	4452
45°	3221	3228	3318
50°	2267	2580	2197
55°	1673	2178	1501
60°	1046	1722	980
65°	853	1364	685
70°	847	1136	676
75°	1050	834	873
80°	1170	659	1068
85°	1164	1223	1195



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.7	5.0
10°-20°	566.0	14.1
20°-30°	838.2	20.9
30°-40°	938.9	23.4
40°-50°	689.9	17.2
50°-60°	385.6	9.6
60°-70°	214.9	5.4
70°-80°	126.3	3.2
80°-90°	46.4	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°	1602.9	40.0
0°-40°	2541.8	63.5
0°-60°	3617.4	90.3
0°-90°	4005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4005.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2087	2087	2087	2087	2087	
5°	2074	2113	2068	2110	2133	196
15°	1984	1996	1999	2029	2031	560
25°	1772	1786	1822	1848	1860	821
35°	1482	1482	1500	1568	1607	918
45°	846	915	848	909	872	661
55°	357	434	464	463	320	318
65°	134	238	214	275	108	139
75°	101	142	80	161	84	101
85°	38	56	40	51	39	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2087.3	2087.3	2087.3	2087.3	2087.3
2.5°	2086.4	2105.2	2129.8	2132.6	2134.5
5°	2074.1	2112.8	2067.5	2109.9	2132.6
7.5°	2045.8	2069.4	2102.4	2059.9	2072.2
10°	2031.6	2037.3	2037.3	2090.1	2079.7
12.5°	1999.5	2037.3	2046.7	2036.3	2059.0
15°	1983.5	1995.8	1998.6	2028.8	2030.7
17.5°	1965.6	1962.7	1956.1	1977.8	2016.5
20°	1919.3	1908.9	1928.8	1955.2	1970.3
22.5°	1851.4	1854.2	1877.8	1899.5	1916.5
25°	1772.1	1786.3	1822.1	1847.6	1859.9
27.5°	1712.7	1733.4	1758.0	1788.2	1812.7
30°	1665.5	1663.6	1680.6	1724.0	1752.3
32.5°	1574.0	1580.6	1598.5	1650.4	1690.0
35°	1481.5	1482.4	1500.4	1568.3	1607.0
37.5°	1374.9	1367.3	1377.7	1451.3	1476.8
40°	1227.7	1229.5	1219.2	1271.1	1267.3
42.5°	1055.9	1071.0	1017.2	1085.2	1080.4
45°	846.4	915.3	848.3	908.7	871.9
47.5°	668.1	770.0	714.3	758.7	689.8
50°	541.6	646.4	616.2	636.0	524.7
52.5°	444.4	529.4	538.8	543.5	409.5
55°	356.7	434.1	464.3	463.3	319.9
57.5°	263.3	352.9	387.8	402.0	242.5
60°	194.4	293.5	319.9	351.0	182.1
62.5°	156.6	257.6	264.2	307.6	138.7
65°	134.0	237.8	214.2	274.6	107.6
67.5°	118.9	221.8	174.6	245.3	91.5
70°	107.6	197.2	144.4	219.9	85.9
72.5°	104.7	168.0	111.3	196.3	84.9
75°	101.0	142.5	80.2	161.4	84.0
77.5°	86.8	121.7	57.6	124.6	78.3
80°	75.5	97.2	42.5	93.4	68.9
82.5°	58.5	73.6	37.7	70.8	55.7
85°	37.7	55.7	39.6	51.0	38.7
87.5°	17.9	31.1	28.3	27.4	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)