

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: P292646

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292646  
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-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3644.0 lumens  
Efficiency: N/A  
Efficacy: 101.8 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

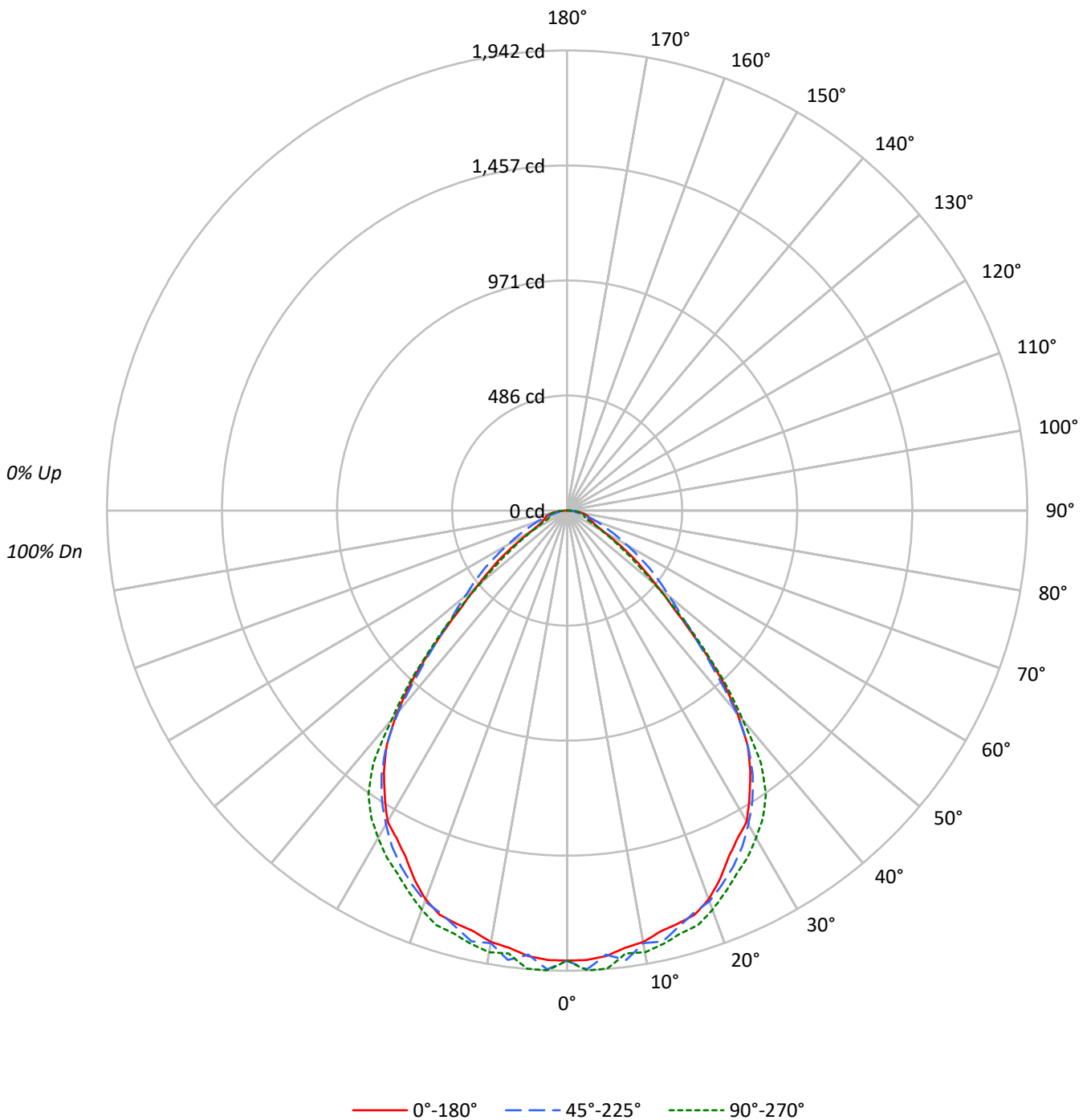
Input Watts (W): 35.805  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5111	5111	5111
5°	5098	5081	5242
10°	5051	5065	5171
15°	5028	5066	5147
20°	5001	5025	5134
25°	4787	4923	5024
30°	4709	4751	4954
35°	4428	4484	4803
40°	3924	3897	4051
45°	2931	2938	3019
50°	2063	2347	1999
55°	1522	1982	1366
60°	952	1567	892
65°	776	1241	623
70°	770	1034	614
75°	955	759	794
80°	1065	598	972
85°	1059	1115	1087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.8	5.0
10°-20°	514.9	14.1
20°-30°	762.7	20.9
30°-40°	854.3	23.4
40°-50°	627.7	17.2
50°-60°	350.9	9.6
60°-70°	195.6	5.4
70°-80°	114.9	3.2
80°-90°	42.2	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°	1458.4	40.0
0°-40°	2312.7	63.5
0°-60°	3291.3	90.3
0°-90°	3644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1899	1899	1899	1899	1899	
5°	1887	1922	1881	1920	1940	179
15°	1805	1816	1818	1846	1848	510
25°	1612	1625	1658	1681	1692	747
35°	1348	1349	1365	1427	1462	835
45°	770	833	772	827	793	602
55°	324	395	422	422	291	290
65°	122	216	195	250	98	126
75°	92	130	73	147	76	92
85°	34	51	36	46	35	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1899.2	1899.2	1899.2	1899.2	1899.2
2.5°	1898.3	1915.5	1937.8	1940.4	1942.1
5°	1887.1	1922.3	1881.1	1919.8	1940.4
7.5°	1861.4	1882.8	1912.9	1874.3	1885.4
10°	1848.5	1853.6	1853.6	1901.7	1892.3
12.5°	1819.3	1853.6	1862.2	1852.8	1873.4
15°	1804.7	1815.9	1818.4	1845.9	1847.6
17.5°	1788.4	1785.8	1779.8	1799.6	1834.8
20°	1746.3	1736.9	1754.9	1779.0	1792.7
22.5°	1684.5	1687.1	1708.5	1728.3	1743.8
25°	1612.4	1625.3	1657.9	1681.1	1692.2
27.5°	1558.3	1577.2	1599.5	1627.0	1649.3
30°	1515.4	1513.7	1529.1	1568.6	1594.4
32.5°	1432.1	1438.1	1454.4	1501.6	1537.7
35°	1348.0	1348.8	1365.1	1426.9	1462.1
37.5°	1250.9	1244.1	1253.5	1320.5	1343.7
40°	1117.0	1118.7	1109.3	1156.5	1153.1
42.5°	960.7	974.5	925.5	987.4	983.1
45°	770.1	832.8	771.9	826.8	793.3
47.5°	607.9	700.6	649.9	690.3	627.6
50°	492.8	588.1	560.6	578.7	477.4
52.5°	404.4	481.7	490.2	494.5	372.6
55°	324.5	394.9	422.4	421.6	291.1
57.5°	239.5	321.1	352.9	365.7	220.7
60°	176.9	267.0	291.1	319.4	165.7
62.5°	142.5	234.4	240.4	279.9	126.2
65°	121.9	216.4	194.9	249.8	97.9
67.5°	108.2	201.8	158.8	223.2	83.3
70°	97.9	179.4	131.4	200.0	78.1
72.5°	95.3	152.8	101.3	178.6	77.3
75°	91.9	129.6	73.0	146.8	76.4
77.5°	79.0	110.8	52.4	113.3	71.3
80°	68.7	88.4	38.6	85.0	62.7
82.5°	53.2	67.0	34.3	64.4	50.7
85°	34.3	50.7	36.1	46.4	35.2
87.5°	16.3	28.3	25.8	24.9	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)