

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: P292708

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292708  
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-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: 3885.0 lumens  
Efficiency: N/A  
Efficacy: 108.5 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

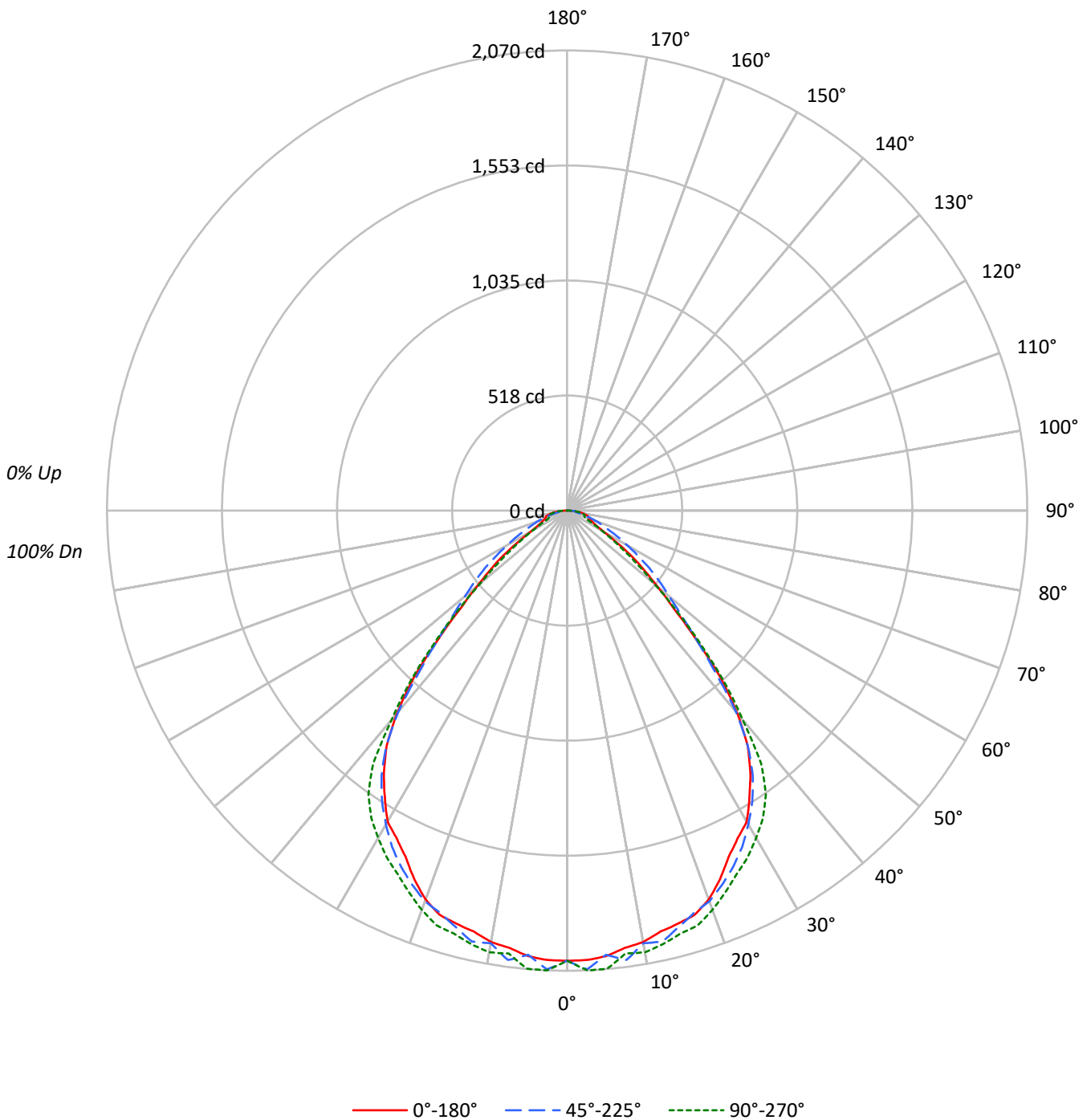
Input Watts (W): 35.805  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5449	5449	5449
5°	5435	5417	5588
10°	5385	5400	5513
15°	5360	5401	5488
20°	5332	5358	5473
25°	5104	5248	5357
30°	5020	5065	5282
35°	4721	4781	5121
40°	4183	4154	4318
45°	3125	3132	3219
50°	2200	2502	2130
55°	1623	2113	1456
60°	1015	1670	951
65°	828	1323	664
70°	821	1102	655
75°	1018	809	847
80°	1134	638	1035
85°	1130	1186	1158



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	192.7	5.0
10°-20°	549.0	14.1
20°-30°	813.1	20.9
30°-40°	910.8	23.4
40°-50°	669.2	17.2
50°-60°	374.1	9.6
60°-70°	208.5	5.4
70°-80°	122.5	3.2
80°-90°	45.0	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°	1554.9	40.0
0°-40°	2465.7	63.5
0°-60°	3509.0	90.3
0°-90°	3885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3885.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2025	2025	2025	2025	2025	
5°	2012	2050	2006	2047	2069	190
15°	1924	1936	1939	1968	1970	543
25°	1719	1733	1768	1792	1804	797
35°	1437	1438	1455	1521	1559	890
45°	821	888	823	882	846	642
55°	346	421	450	449	310	309
65°	130	231	208	266	104	134
75°	98	138	78	156	82	98
85°	37	54	38	49	38	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2024.8	2024.8	2024.8	2024.8	2024.8
2.5°	2023.8	2042.1	2065.9	2068.7	2070.5
5°	2011.9	2049.5	2005.5	2046.7	2068.7
7.5°	1984.5	2007.4	2039.4	1998.2	2010.1
10°	1970.7	1976.2	1976.2	2027.5	2017.4
12.5°	1939.6	1976.2	1985.4	1975.3	1997.3
15°	1924.1	1936.0	1938.7	1968.0	1969.8
17.5°	1906.7	1903.9	1897.5	1918.6	1956.1
20°	1861.8	1851.8	1871.0	1896.6	1911.3
22.5°	1795.9	1798.7	1821.5	1842.6	1859.1
25°	1719.0	1732.8	1767.5	1792.3	1804.2
27.5°	1661.4	1681.5	1705.3	1734.6	1758.4
30°	1615.6	1613.8	1630.2	1672.3	1699.8
32.5°	1526.8	1533.2	1550.6	1600.9	1639.4
35°	1437.1	1438.0	1455.4	1521.3	1558.8
37.5°	1333.7	1326.3	1336.4	1407.8	1432.5
40°	1190.9	1192.7	1182.6	1233.0	1229.3
42.5°	1024.3	1038.9	986.7	1052.7	1048.1
45°	821.1	887.9	822.9	881.5	845.8
47.5°	648.1	746.9	692.9	735.9	669.1
50°	525.4	627.0	597.7	616.9	508.9
52.5°	431.1	513.5	522.7	527.2	397.3
55°	346.0	421.1	450.4	449.4	310.3
57.5°	255.4	342.3	376.2	389.9	235.2
60°	188.6	284.7	310.3	340.5	176.7
62.5°	151.9	249.9	256.3	298.4	134.6
65°	130.0	230.7	207.8	266.4	104.3
67.5°	115.3	215.1	169.3	238.0	88.8
70°	104.3	191.3	140.0	213.3	83.3
72.5°	101.6	162.9	108.0	190.4	82.4
75°	97.9	138.2	77.8	156.5	81.5
77.5°	84.2	118.1	55.8	120.8	76.0
80°	73.2	94.3	41.2	90.6	66.8
82.5°	56.8	71.4	36.6	68.7	54.0
85°	36.6	54.0	38.4	49.4	37.5
87.5°	17.4	30.2	27.5	26.5	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)