

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: P476006

Luminaire Tested: **22GR-LD5-40-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476006  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-A19/156-UNV-L840-CD1-U  
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3980.5 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

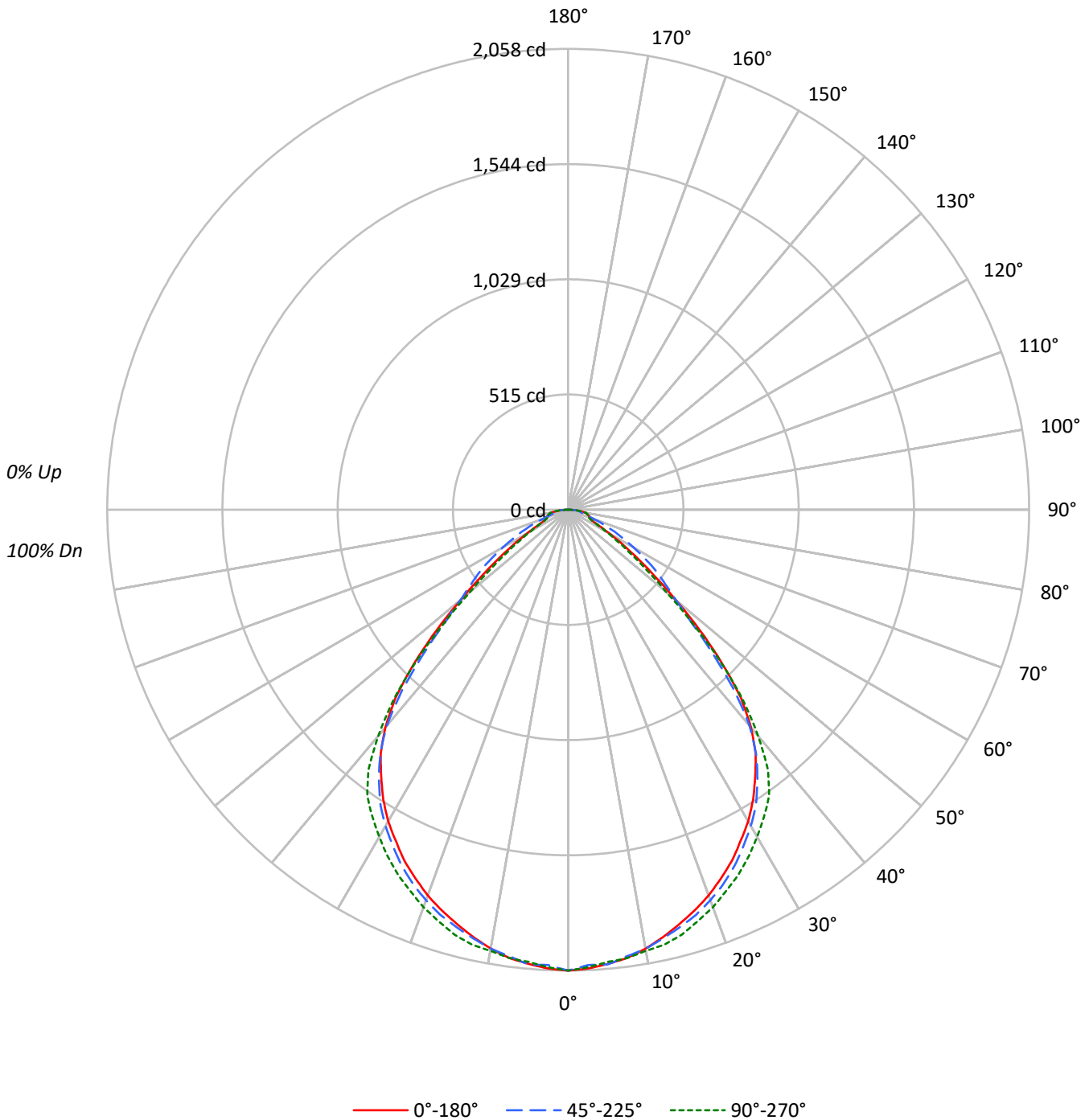
Input Watts (W): 32.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	99	100	98	95	97	95	93	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5539	5539	5539
5°	5500	5506	5475
10°	5438	5441	5466
15°	5338	5375	5470
20°	5249	5314	5409
25°	5136	5215	5338
30°	4993	5069	5242
35°	4779	4839	5135
40°	4461	4426	4632
45°	3704	3495	3672
50°	2610	2623	2393
55°	1753	2255	1577
60°	1131	1809	1048
65°	783	1401	754
70°	788	956	781
75°	969	747	961
80°	1184	865	1255
85°	1155	1179	1275



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	192.7	4.8
10°-20°	545.5	13.7
20°-30°	809.0	20.3
30°-40°	925.4	23.2
40°-50°	732.6	18.4
50°-60°	399.7	10.0
60°-70°	209.1	5.3
70°-80°	120.8	3.0
80°-90°	45.7	1.1
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°	1547.2	38.9
0°-40°	2472.6	62.1
0°-60°	3605.0	90.6
0°-90°	3980.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3980.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2058	2058	2058	2058	2058	
5°	2036	2022	2038	2032	2027	193
15°	1916	1926	1929	1944	1964	541
25°	1730	1732	1756	1779	1798	795
35°	1455	1455	1473	1526	1563	907
45°	973	968	918	963	965	740
55°	374	467	481	448	336	347
65°	123	248	220	235	118	133
75°	93	149	72	147	92	97
85°	37	49	38	50	41	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2058.3	2058.3	2058.3	2058.3	2058.3
2.5°	2050.7	2038.4	2035.4	2041.5	2045.3
5°	2036.2	2021.6	2038.4	2031.6	2027.0
7.5°	2019.3	2014.0	2010.9	2021.6	2019.3
10°	1990.3	1982.7	1991.1	1997.2	2000.2
12.5°	1955.2	1959.0	1960.5	1979.6	1988.8
15°	1916.2	1926.1	1929.2	1944.5	1963.6
17.5°	1876.5	1878.8	1897.1	1917.0	1926.1
20°	1832.9	1836.7	1855.8	1874.2	1888.7
22.5°	1781.7	1786.3	1810.0	1830.6	1842.9
25°	1729.8	1732.1	1756.5	1778.7	1797.8
27.5°	1667.1	1679.3	1693.9	1724.4	1745.1
30°	1606.8	1614.4	1631.2	1664.8	1687.0
32.5°	1535.7	1538.8	1560.2	1596.8	1626.6
35°	1454.7	1454.7	1473.1	1526.5	1563.2
37.5°	1374.5	1363.8	1378.3	1439.4	1465.4
40°	1269.8	1262.2	1259.9	1301.9	1318.7
42.5°	1141.5	1127.0	1101.0	1143.8	1157.5
45°	973.4	968.0	918.4	963.4	965.0
47.5°	797.7	801.5	745.7	790.8	757.2
50°	623.5	663.2	626.5	645.6	571.5
52.5°	485.2	559.3	545.5	537.9	437.0
55°	373.6	466.8	480.6	447.7	336.2
57.5°	285.0	398.1	406.5	383.5	256.0
60°	210.1	336.2	336.2	325.5	194.8
62.5°	156.6	288.8	273.5	276.6	149.0
65°	123.0	247.5	220.0	235.3	118.4
67.5°	103.1	206.3	166.6	203.2	103.1
70°	100.1	179.5	121.5	183.4	99.3
72.5°	99.3	165.0	90.9	166.6	100.1
75°	93.2	149.0	71.8	146.7	92.4
77.5°	85.6	123.8	59.6	123.8	86.3
80°	76.4	94.0	55.8	96.3	81.0
82.5°	58.8	67.2	49.7	68.0	62.7
85°	37.4	48.9	38.2	49.7	41.3
87.5°	16.8	26.0	16.8	26.7	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)