

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: P475983

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475983  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-43-A19/156-UNV-L830-CD1-U  
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3994.1 lumens  
Efficiency: N/A  
Efficacy: 114.8 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

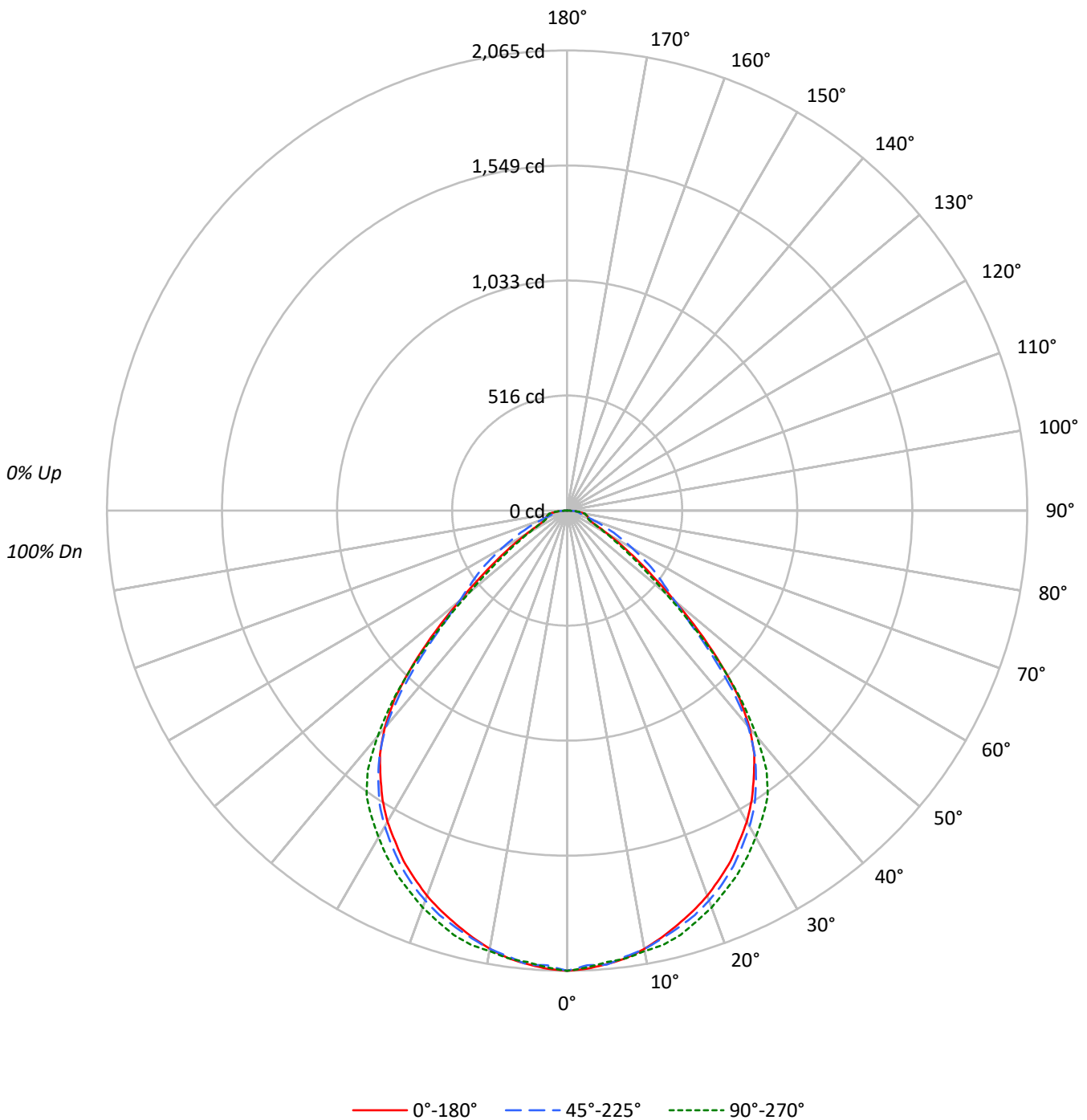
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	5558	5558	5558
5°	5519	5525	5494
10°	5457	5459	5484
15°	5357	5393	5489
20°	5267	5333	5427
25°	5154	5233	5356
30°	5010	5086	5260
35°	4795	4856	5153
40°	4476	4441	4648
45°	3717	3507	3685
50°	2619	2632	2401
55°	1759	2262	1582
60°	1135	1815	1052
65°	786	1406	756
70°	790	959	784
75°	972	750	965
80°	1189	868	1260
85°	1161	1183	1278



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.4	4.8
10°-20°	547.4	13.7
20°-30°	811.8	20.3
30°-40°	928.6	23.2
40°-50°	735.1	18.4
50°-60°	401.1	10.0
60°-70°	209.8	5.3
70°-80°	121.2	3.0
80°-90°	45.8	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°	1552.5	38.9
0°-40°	2481.1	62.1
0°-60°	3617.3	90.6
0°-90°	3994.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3994.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2065	2065	2065	2065	2065	
5°	2043	2029	2045	2038	2034	194
15°	1923	1933	1936	1951	1970	542
25°	1736	1738	1762	1785	1804	798
35°	1460	1460	1478	1532	1569	910
45°	977	971	922	967	968	743
55°	375	468	482	449	337	348
65°	123	248	221	236	119	133
75°	94	150	72	147	93	97
85°	38	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°	2065.4	2065.4	2065.4	2065.4	2065.4
2.5°	2057.7	2045.4	2042.4	2048.5	2052.3
5°	2043.1	2028.6	2045.4	2038.5	2033.9
7.5°	2026.3	2020.9	2017.8	2028.6	2026.3
10°	1997.1	1989.5	1997.9	2004.0	2007.1
12.5°	1961.9	1965.7	1967.2	1986.4	1995.6
15°	1922.8	1932.7	1935.8	1951.1	1970.3
17.5°	1882.9	1885.2	1903.6	1923.5	1932.7
20°	1839.2	1843.0	1862.2	1880.6	1895.2
22.5°	1787.8	1792.4	1816.2	1836.9	1849.2
25°	1735.7	1738.0	1762.5	1784.8	1803.9
27.5°	1672.8	1685.1	1699.7	1730.3	1751.0
30°	1612.3	1619.9	1636.8	1670.5	1692.8
32.5°	1541.0	1544.0	1565.5	1602.3	1632.2
35°	1459.7	1459.7	1478.1	1531.8	1568.6
37.5°	1379.2	1368.5	1383.0	1444.4	1470.4
40°	1274.2	1266.5	1264.2	1306.4	1323.2
42.5°	1145.4	1130.8	1104.8	1147.7	1161.5
45°	976.7	971.4	921.5	966.8	968.3
47.5°	800.4	804.2	748.3	793.5	759.8
50°	625.6	665.5	628.7	647.8	573.5
52.5°	486.8	561.2	547.4	539.7	438.5
55°	374.9	468.4	482.2	449.3	337.3
57.5°	286.0	399.4	407.9	384.9	256.8
60°	210.8	337.3	337.3	326.6	195.5
62.5°	157.2	289.8	274.5	277.5	149.5
65°	123.4	248.4	220.8	236.1	118.8
67.5°	103.5	207.0	167.1	203.9	103.5
70°	100.4	180.2	121.9	184.0	99.7
72.5°	99.7	165.6	91.2	167.1	100.4
75°	93.5	149.5	72.1	147.2	92.8
77.5°	85.9	124.2	59.8	124.2	86.6
80°	76.7	94.3	56.0	96.6	81.3
82.5°	59.0	67.5	49.8	68.2	62.9
85°	37.6	49.1	38.3	49.8	41.4
87.5°	16.9	26.1	16.9	26.8	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)