

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: P476018

Luminaire Tested: **22GR-LD5-40-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476018
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-L850-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3984.4 lumens
Efficiency: N/A
Efficacy: 123.0 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

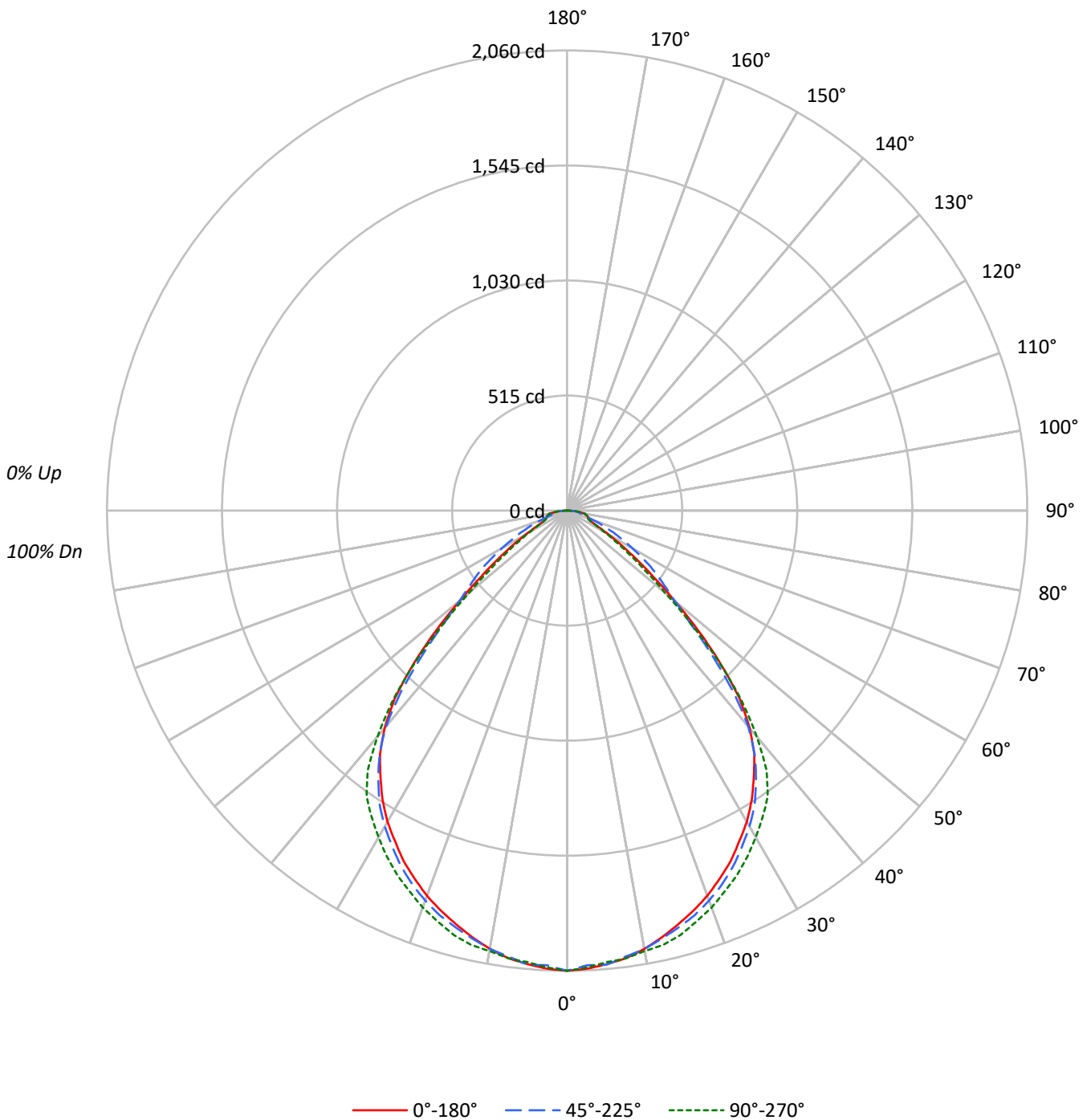
Input Watts (W): 32.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5544	5544	5544
5°	5506	5512	5481
10°	5444	5446	5471
15°	5344	5380	5476
20°	5254	5320	5414
25°	5141	5220	5343
30°	4997	5074	5247
35°	4783	4844	5140
40°	4465	4430	4637
45°	3708	3499	3676
50°	2613	2625	2395
55°	1755	2257	1579
60°	1132	1811	1049
65°	784	1403	755
70°	788	957	782
75°	970	748	962
80°	1185	865	1257
85°	1158	1179	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.9	4.8
10°-20°	546.0	13.7
20°-30°	809.8	20.3
30°-40°	926.3	23.2
40°-50°	733.3	18.4
50°-60°	400.1	10.0
60°-70°	209.3	5.3
70°-80°	120.9	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°	1548.7	38.9
0°-40°	2475.1	62.1
0°-60°	3608.5	90.6
0°-90°	3984.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3984.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2060	2060	2060	2060	2060	
5°	2038	2024	2040	2034	2029	193
15°	1918	1928	1931	1946	1966	541
25°	1732	1734	1758	1780	1800	796
35°	1456	1456	1474	1528	1565	908
45°	974	969	919	964	966	741
55°	374	467	481	448	336	347
65°	123	248	220	236	118	133
75°	93	149	72	147	92	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°	2060.3	2060.3	2060.3	2060.3	2060.3
2.5°	2052.7	2040.4	2037.4	2043.5	2047.3
5°	2038.2	2023.6	2040.4	2033.6	2029.0
7.5°	2021.3	2016.0	2012.9	2023.6	2021.3
10°	1992.3	1984.6	1993.0	1999.1	2002.2
12.5°	1957.1	1960.9	1962.4	1981.6	1990.7
15°	1918.1	1928.0	1931.1	1946.4	1965.5
17.5°	1878.3	1880.6	1899.0	1918.8	1928.0
20°	1834.7	1838.5	1857.7	1876.0	1890.5
22.5°	1783.5	1788.1	1811.8	1832.4	1844.7
25°	1731.5	1733.8	1758.2	1780.4	1799.5
27.5°	1668.8	1681.0	1695.5	1726.1	1746.8
30°	1608.3	1616.0	1632.8	1666.5	1688.6
32.5°	1537.2	1540.3	1561.7	1598.4	1628.2
35°	1456.1	1456.1	1474.5	1528.0	1564.7
37.5°	1375.8	1365.1	1379.7	1440.9	1466.9
40°	1271.1	1263.4	1261.1	1303.2	1320.0
42.5°	1142.6	1128.1	1102.1	1144.9	1158.6
45°	974.3	969.0	919.3	964.4	965.9
47.5°	798.4	802.3	746.4	791.6	757.9
50°	624.1	663.8	627.1	646.2	572.1
52.5°	485.6	559.8	546.1	538.4	437.5
55°	374.0	467.3	481.0	448.2	336.5
57.5°	285.3	398.5	406.9	383.9	256.2
60°	210.3	336.5	336.5	325.8	195.0
62.5°	156.8	289.1	273.8	276.9	149.1
65°	123.1	247.8	220.3	235.6	118.5
67.5°	103.2	206.5	166.7	203.4	103.2
70°	100.2	179.7	121.6	183.5	99.4
72.5°	99.4	165.2	91.0	166.7	100.2
75°	93.3	149.1	71.9	146.8	92.5
77.5°	85.7	123.9	59.7	123.9	86.4
80°	76.5	94.1	55.8	96.4	81.1
82.5°	58.9	67.3	49.7	68.1	62.7
85°	37.5	48.9	38.2	49.7	41.3
87.5°	16.8	26.0	16.8	26.8	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)