

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: P475673

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475673
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-38-A19/156-UNV-L840-CD1-U
Description: GR 2'X4' 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: 3691.0 lumens
Efficiency: N/A
Efficacy: 138.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

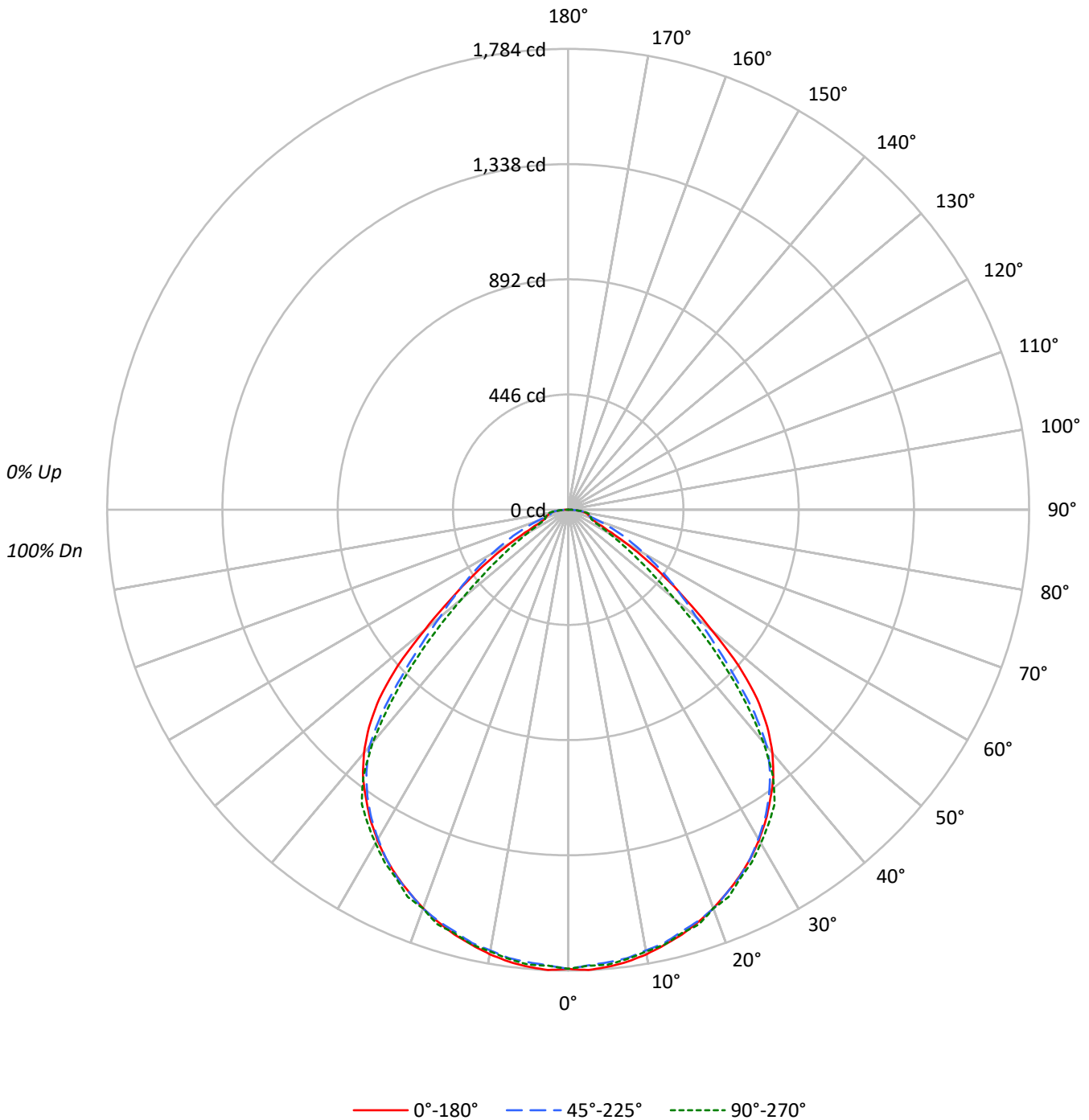
Input Watts (W): 26.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475673

CATALOG NUMBER: 24GR-LD5-38-A19/156-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475673

CATALOG NUMBER: 24GR-LD5-38-A19/156-UNV-L840-CD1-U

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	104	101	98	100	98	95	96	94	92	93	91	90	88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	40	38
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2391	2391	2391
5°	2399	2376	2388
10°	2387	2367	2372
15°	2372	2356	2364
20°	2351	2353	2352
25°	2326	2330	2338
30°	2294	2287	2317
35°	2242	2225	2287
40°	2160	2103	2066
45°	1966	1730	1632
50°	1517	1357	1122
55°	1078	1132	742
60°	682	914	484
65°	396	719	354
70°	367	495	375
75°	422	377	448
80°	527	521	591
85°	574	610	633



TEST NUMBER: P475673

CATALOG NUMBER: 24GR-LD5-38-A19/156-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.5	4.5
10°-20°	479.1	13.0
20°-30°	722.9	19.6
30°-40°	848.5	23.0
40°-50°	714.3	19.4
50°-60°	405.8	11.0
60°-70°	202.5	5.5
70°-80°	106.2	2.9
80°-90°	44.3	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°	1369.5	37.1
0°-40°	2218.0	60.1
0°-60°	3338.1	90.4
0°-90°	3691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1777	1777	1777	1777	1777	
5°	1776	1764	1759	1762	1768	169
15°	1703	1698	1692	1696	1697	480
25°	1567	1568	1570	1574	1575	722
35°	1365	1357	1355	1378	1392	852
45°	1033	992	909	894	858	778
55°	460	492	482	416	316	418
65°	124	258	226	192	111	141
75°	81	125	72	109	86	86
85°	37	44	40	50	41	39
90°	0	0	0	0	0	



TEST NUMBER: P475673

CATALOG NUMBER: 24GR-LD5-38-A19/156-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1777.4	1777.4	1777.4	1777.4	1777.4
2.5°	1783.8	1775.1	1765.4	1762.7	1767.2
5°	1776.3	1763.5	1759.0	1762.0	1768.0
7.5°	1764.6	1751.5	1750.7	1745.4	1754.5
10°	1747.3	1738.7	1732.3	1735.3	1736.4
12.5°	1725.5	1722.9	1718.0	1713.9	1724.0
15°	1702.6	1698.5	1691.7	1696.2	1697.3
17.5°	1673.3	1671.0	1669.9	1673.3	1683.1
20°	1642.1	1642.1	1643.2	1644.0	1642.5
22.5°	1604.9	1603.8	1605.3	1608.3	1622.6
25°	1567.0	1567.7	1569.6	1573.7	1574.8
27.5°	1524.9	1525.2	1524.5	1528.6	1538.4
30°	1476.4	1474.9	1471.9	1480.9	1491.4
32.5°	1423.8	1420.8	1417.4	1431.3	1442.6
35°	1364.8	1357.3	1354.6	1377.6	1392.2
37.5°	1304.3	1288.9	1283.2	1300.2	1302.0
40°	1229.9	1207.0	1197.6	1181.0	1176.2
42.5°	1140.5	1116.8	1066.1	1040.5	1022.5
45°	1033.4	992.0	909.4	893.6	857.9
47.5°	895.1	851.1	768.4	734.6	694.0
50°	724.9	699.3	648.2	606.1	535.8
52.5°	579.4	584.7	560.6	502.4	415.2
55°	459.6	491.5	482.5	416.0	316.4
57.5°	353.6	422.4	411.5	342.3	241.6
60°	253.6	361.9	339.7	281.8	180.0
62.5°	174.0	308.9	278.4	232.6	137.9
65°	124.4	257.8	225.8	191.6	111.2
67.5°	102.2	210.8	173.2	162.7	96.9
70°	93.2	169.8	125.9	142.0	95.4
72.5°	88.7	142.4	92.4	124.4	90.9
75°	81.2	125.1	72.5	109.0	86.1
77.5°	75.2	108.2	67.6	95.4	83.8
80°	68.0	85.7	67.3	80.8	76.3
82.5°	54.9	62.4	56.7	66.1	61.6
85°	37.2	44.3	39.5	50.0	41.0
87.5°	18.4	21.8	17.7	23.7	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)