

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: P475672

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475672  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-34-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: 3341.6 lumens  
Efficiency: N/A  
Efficacy: 139.2 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

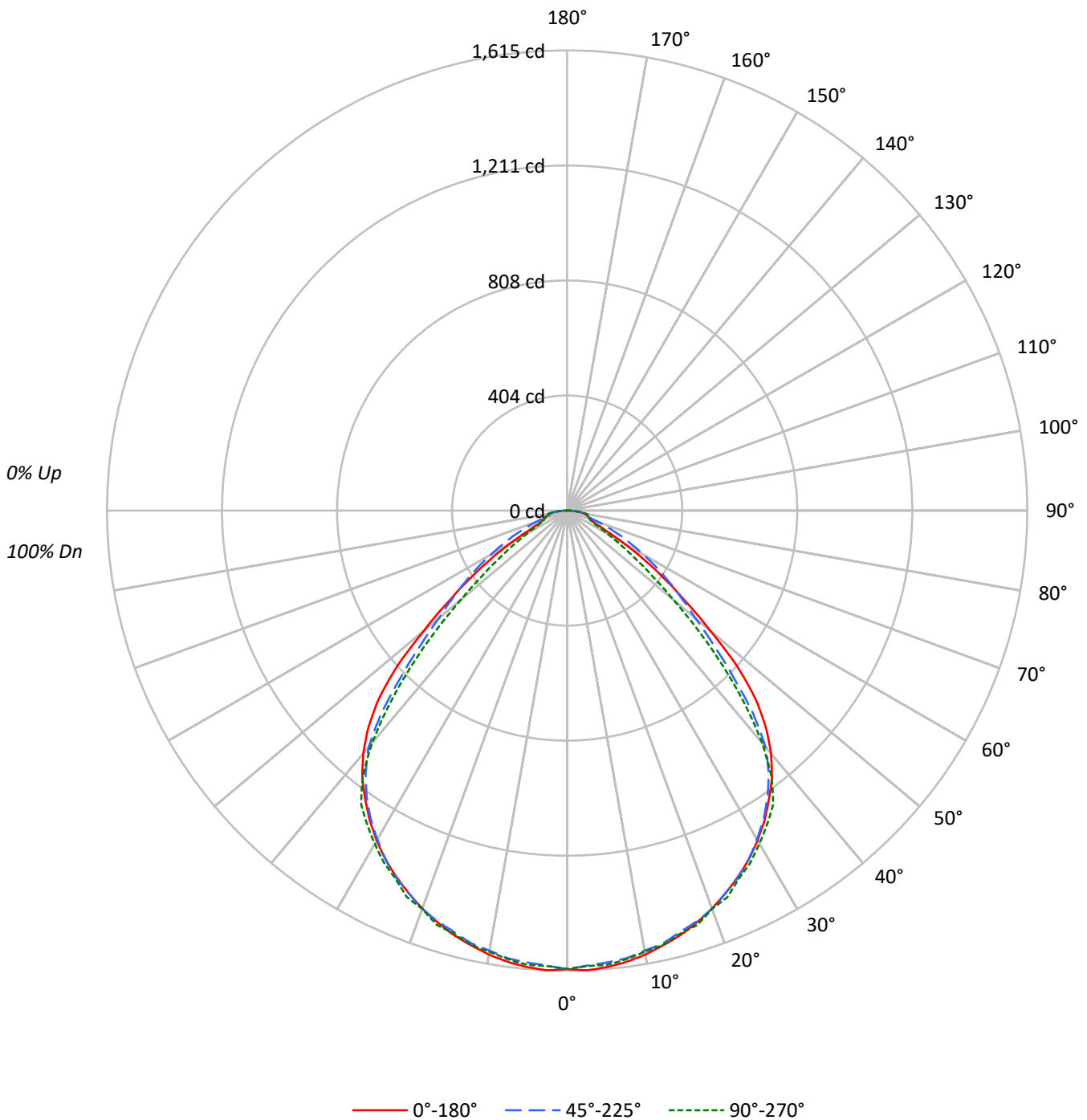
Input Watts (W): 24  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2165	2165	2165
5°	2172	2151	2162
10°	2161	2143	2148
15°	2147	2133	2140
20°	2129	2130	2129
25°	2106	2110	2117
30°	2077	2070	2098
35°	2030	2014	2070
40°	1956	1904	1870
45°	1780	1567	1478
50°	1374	1228	1015
55°	976	1025	672
60°	618	827	439
65°	358	651	321
70°	332	448	340
75°	382	342	405
80°	477	472	535
85°	520	551	573



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.6	4.5
10°-20°	433.7	13.0
20°-30°	654.4	19.6
30°-40°	768.2	23.0
40°-50°	646.7	19.4
50°-60°	367.3	11.0
60°-70°	183.3	5.5
70°-80°	96.1	2.9
80°-90°	40.1	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°	1239.8	37.1
0°-40°	2008.0	60.1
0°-60°	3022.0	90.4
0°-90°	3341.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3341.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1609	1609	1609	1609	1609	
5°	1608	1596	1592	1595	1601	153
15°	1541	1538	1532	1536	1537	435
25°	1419	1419	1421	1425	1426	653
35°	1236	1229	1226	1247	1260	772
45°	936	898	823	809	777	704
55°	416	445	437	377	286	379
65°	113	233	204	174	101	128
75°	74	113	66	99	78	78
85°	34	40	36	45	37	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1609.1	1609.1	1609.1	1609.1	1609.1
2.5°	1614.9	1607.1	1598.2	1595.8	1599.9
5°	1608.1	1596.5	1592.4	1595.2	1600.6
7.5°	1597.5	1585.6	1585.0	1580.2	1588.4
10°	1581.9	1574.1	1568.3	1571.0	1572.0
12.5°	1562.2	1559.8	1555.4	1551.6	1560.8
15°	1541.4	1537.7	1531.5	1535.6	1536.6
17.5°	1514.9	1512.8	1511.8	1514.9	1523.7
20°	1486.6	1486.6	1487.7	1488.3	1487.0
22.5°	1453.0	1451.9	1453.3	1456.0	1469.0
25°	1418.6	1419.3	1421.0	1424.7	1425.7
27.5°	1380.5	1380.8	1380.2	1383.9	1392.7
30°	1336.6	1335.3	1332.5	1340.7	1350.2
32.5°	1289.0	1286.3	1283.2	1295.8	1306.0
35°	1235.6	1228.8	1226.4	1247.1	1260.4
37.5°	1180.8	1166.9	1161.8	1177.1	1178.8
40°	1113.4	1092.7	1084.2	1069.2	1064.8
42.5°	1032.5	1011.1	965.1	942.0	925.7
45°	935.5	898.1	823.3	809.0	776.7
47.5°	810.3	770.5	695.7	665.1	628.3
50°	656.2	633.1	586.8	548.7	485.1
52.5°	524.6	529.3	507.6	454.8	375.9
55°	416.1	445.0	436.8	376.6	286.4
57.5°	320.1	382.4	372.5	309.9	218.7
60°	229.6	327.6	307.5	255.1	163.0
62.5°	157.5	279.6	252.1	210.6	124.9
65°	112.6	233.4	204.5	173.5	100.7
67.5°	92.5	190.8	156.8	147.3	87.8
70°	84.4	153.8	114.0	128.6	86.4
72.5°	80.3	128.9	83.7	112.6	82.3
75°	73.5	113.3	65.7	98.7	77.9
77.5°	68.0	98.0	61.2	86.4	75.9
80°	61.6	77.6	60.9	73.1	69.1
82.5°	49.7	56.5	51.4	59.9	55.8
85°	33.7	40.1	35.7	45.2	37.1
87.5°	16.7	19.7	16.0	21.4	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)