

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: P475671

Luminaire Tested: **24GR-LD5-30-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475671  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-30-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: 2970.8 lumens  
Efficiency: N/A  
Efficacy: 139.5 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

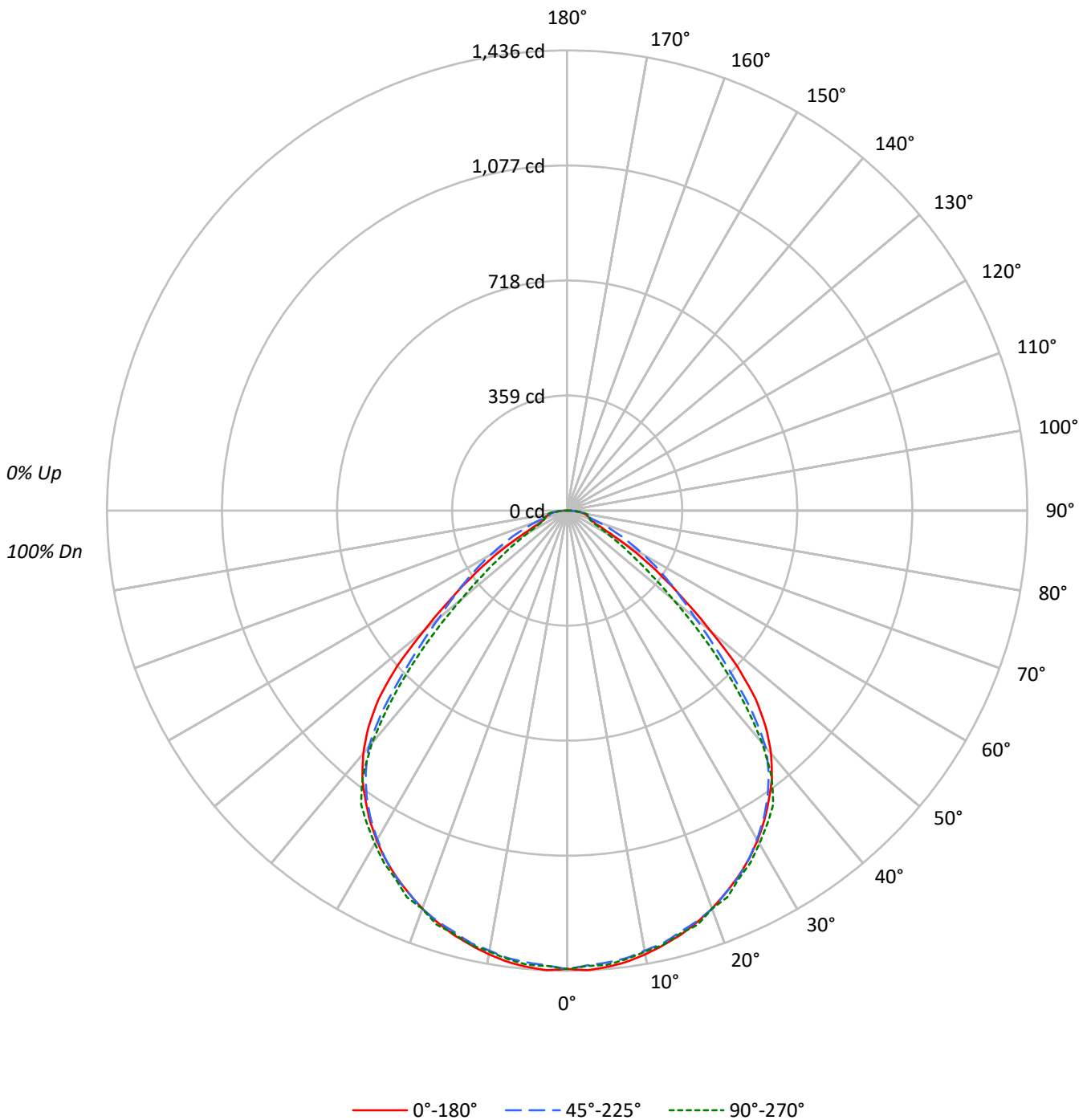
Input Watts (W): 21.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1925	1925	1925
5°	1931	1912	1922
10°	1921	1905	1909
15°	1909	1897	1903
20°	1892	1894	1893
25°	1872	1875	1882
30°	1846	1841	1865
35°	1804	1791	1841
40°	1739	1693	1663
45°	1583	1393	1314
50°	1221	1092	903
55°	868	911	597
60°	549	736	390
65°	319	579	285
70°	295	399	302
75°	339	304	360
80°	424	419	476
85°	462	491	509



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.8	4.5
10°-20°	385.6	13.0
20°-30°	581.8	19.6
30°-40°	682.9	23.0
40°-50°	574.9	19.4
50°-60°	326.6	11.0
60°-70°	163.0	5.5
70°-80°	85.5	2.9
80°-90°	35.6	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°	1102.3	37.1
0°-40°	1785.2	60.1
0°-60°	2686.7	90.4
0°-90°	2970.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2970.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1431	1431	1431	1431	1431	
5°	1430	1419	1416	1418	1423	136
15°	1370	1367	1362	1365	1366	386
25°	1261	1262	1263	1267	1268	581
35°	1098	1092	1090	1109	1121	686
45°	832	798	732	719	690	626
55°	370	396	388	335	255	337
65°	100	208	182	154	90	114
75°	65	101	58	88	69	69
85°	30	36	32	40	33	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1430.6	1430.6	1430.6	1430.6	1430.6
2.5°	1435.7	1428.8	1420.9	1418.8	1422.4
5°	1429.7	1419.4	1415.8	1418.2	1423.0
7.5°	1420.3	1409.7	1409.1	1404.9	1412.1
10°	1406.4	1399.4	1394.3	1396.7	1397.6
12.5°	1388.8	1386.7	1382.8	1379.5	1387.6
15°	1370.4	1367.1	1361.6	1365.2	1366.2
17.5°	1346.8	1345.0	1344.1	1346.8	1354.7
20°	1321.7	1321.7	1322.6	1323.2	1322.0
22.5°	1291.8	1290.8	1292.1	1294.5	1306.0
25°	1261.2	1261.8	1263.3	1266.7	1267.6
27.5°	1227.3	1227.6	1227.0	1230.4	1238.2
30°	1188.3	1187.1	1184.7	1191.9	1200.4
32.5°	1146.0	1143.6	1140.8	1152.0	1161.1
35°	1098.5	1092.4	1090.3	1108.8	1120.6
37.5°	1049.8	1037.4	1032.9	1046.5	1048.0
40°	989.9	971.5	963.9	950.6	946.7
42.5°	917.9	898.9	858.0	837.5	823.0
45°	831.7	798.5	731.9	719.2	690.5
47.5°	720.4	685.0	618.5	591.3	558.6
50°	583.4	562.9	521.7	487.8	431.3
52.5°	466.4	470.6	451.3	404.4	334.2
55°	369.9	395.6	388.3	334.8	254.7
57.5°	284.6	340.0	331.2	275.5	194.5
60°	204.2	291.3	273.4	226.8	144.9
62.5°	140.0	248.6	224.1	187.2	111.0
65°	100.1	207.5	181.8	154.2	89.5
67.5°	82.3	169.7	139.4	131.0	78.0
70°	75.0	136.7	101.3	114.3	76.8
72.5°	71.4	114.6	74.4	100.1	73.2
75°	65.3	100.7	58.4	87.7	69.3
77.5°	60.5	87.1	54.4	76.8	67.4
80°	54.7	69.0	54.1	65.0	61.4
82.5°	44.2	50.2	45.7	53.2	49.6
85°	29.9	35.7	31.8	40.2	33.0
87.5°	14.8	17.5	14.2	19.1	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)