

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: P475646

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475646
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-56-A19/156-UNV-L830-CD1-U
Description: GR 2'X4' 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: 5219.8 lumens
Efficiency: N/A
Efficacy: 132.5 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

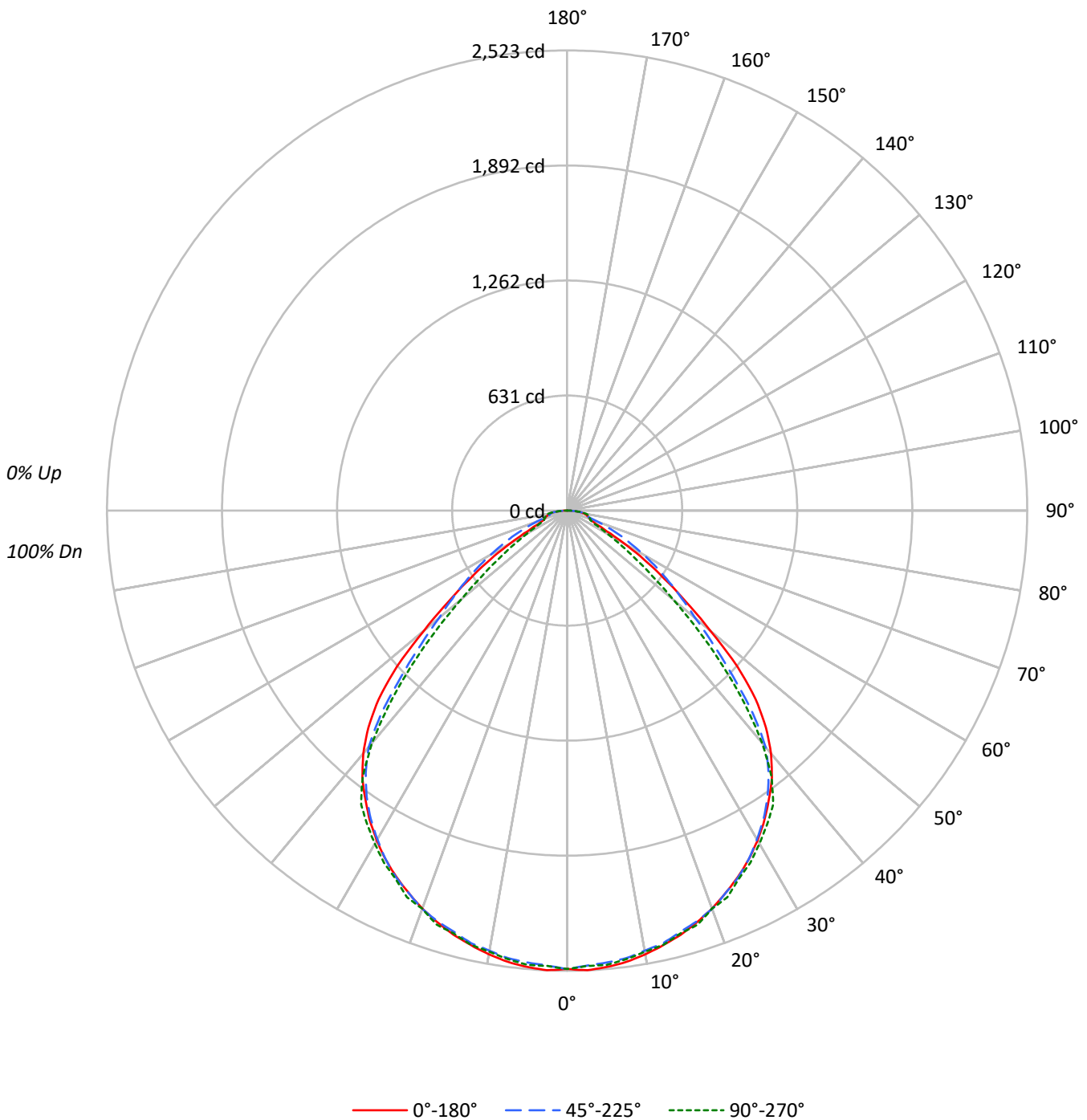
Input Watts (W): 39.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475646

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475646

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L830-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°	3382	3382	3382
5°	3393	3360	3377
10°	3376	3347	3355
15°	3354	3333	3344
20°	3325	3327	3326
25°	3290	3295	3306
30°	3244	3234	3277
35°	3170	3147	3234
40°	3055	2975	2921
45°	2781	2447	2308
50°	2146	1919	1586
55°	1525	1601	1050
60°	965	1293	685
65°	560	1017	501
70°	518	700	531
75°	597	533	633
80°	745	737	836
85°	812	861	894



TEST NUMBER: P475646

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.9	4.5
10°-20°	677.5	13.0
20°-30°	1022.3	19.6
30°-40°	1199.9	23.0
40°-50°	1010.2	19.4
50°-60°	573.8	11.0
60°-70°	286.4	5.5
70°-80°	150.2	2.9
80°-90°	62.6	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°	1936.7	37.1
0°-40°	3136.6	60.1
0°-60°	4720.6	90.4
0°-90°	5219.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5219.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2514	2514	2514	2514	2514	
5°	2512	2494	2488	2492	2500	238
15°	2408	2402	2392	2399	2400	679
25°	2216	2217	2220	2226	2227	1021
35°	1930	1919	1916	1948	1969	1205
45°	1461	1403	1286	1264	1213	1100
55°	650	695	682	588	447	591
65°	176	364	319	271	157	200
75°	115	177	103	154	122	122
85°	53	63	56	71	58	56
90°	0	0	0	0	0	



TEST NUMBER: P475646

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2513.5	2513.5	2513.5	2513.5	2513.5
2.5°	2522.6	2510.3	2496.5	2492.8	2499.2
5°	2511.9	2493.9	2487.5	2491.8	2500.3
7.5°	2495.5	2476.9	2475.8	2468.4	2481.1
10°	2471.0	2458.8	2449.8	2454.0	2455.6
12.5°	2440.2	2436.5	2429.6	2423.7	2438.1
15°	2407.8	2401.9	2392.4	2398.8	2400.3
17.5°	2366.3	2363.2	2361.6	2366.3	2380.2
20°	2322.2	2322.2	2323.8	2324.9	2322.8
22.5°	2269.6	2268.0	2270.2	2274.4	2294.6
25°	2216.0	2217.0	2219.7	2225.5	2227.1
27.5°	2156.4	2157.0	2155.9	2161.7	2175.6
30°	2087.9	2085.8	2081.5	2094.3	2109.1
32.5°	2013.5	2009.2	2004.5	2024.1	2040.1
35°	1930.1	1919.4	1915.7	1948.1	1968.8
37.5°	1844.5	1822.7	1814.7	1838.7	1841.3
40°	1739.3	1706.9	1693.6	1670.2	1663.3
42.5°	1612.8	1579.3	1507.6	1471.5	1445.9
45°	1461.4	1402.9	1286.0	1263.7	1213.2
47.5°	1265.8	1203.6	1086.7	1038.9	981.5
50°	1025.1	988.9	916.7	857.2	757.8
52.5°	819.4	826.9	792.9	710.5	587.2
55°	649.9	695.1	682.3	588.3	447.4
57.5°	500.1	597.3	581.9	484.1	341.7
60°	358.7	511.7	480.4	398.6	254.5
62.5°	246.0	436.8	393.8	328.9	195.0
65°	175.9	364.5	319.4	271.0	157.3
67.5°	144.5	298.1	245.0	230.1	137.1
70°	131.8	240.2	178.0	200.9	135.0
72.5°	125.4	201.4	130.7	175.9	128.6
75°	114.8	177.0	102.6	154.1	121.7
77.5°	106.3	153.0	95.7	135.0	118.5
80°	96.2	121.2	95.1	114.3	107.9
82.5°	77.6	88.2	80.2	93.5	87.2
85°	52.6	62.7	55.8	70.7	57.9
87.5°	26.0	30.8	25.0	33.5	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)