

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: P475651

Luminaire Tested: **24GR-LD5-100-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475651
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-100-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: 9207.5 lumens
Efficiency: N/A
Efficacy: 137.2 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

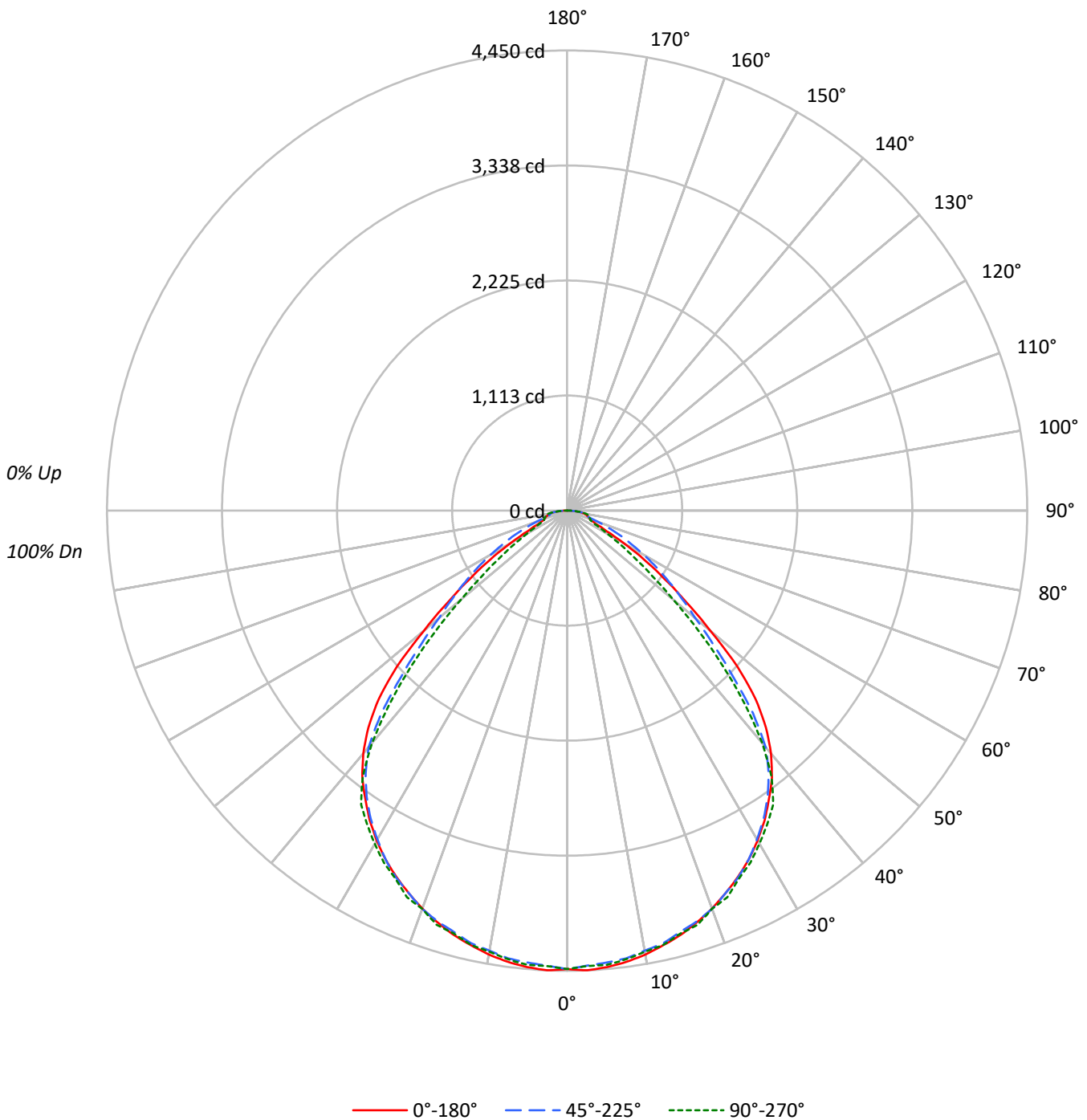
Input Watts (W): 67.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					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°	5966	5966	5966
5°	5985	5926	5957
10°	5955	5904	5918
15°	5916	5878	5898
20°	5865	5869	5867
25°	5803	5813	5832
30°	5722	5704	5780
35°	5592	5550	5705
40°	5389	5247	5153
45°	4905	4316	4072
50°	3785	3385	2798
55°	2689	2823	1852
60°	1703	2280	1208
65°	988	1794	883
70°	915	1235	937
75°	1053	940	1116
80°	1315	1300	1475
85°	1433	1519	1578



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.8	4.5
10°-20°	1195.1	13.0
20°-30°	1803.3	19.6
30°-40°	2116.6	23.0
40°-50°	1781.9	19.4
50°-60°	1012.2	11.0
60°-70°	505.2	5.5
70°-80°	264.9	2.9
80°-90°	110.4	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°	3416.2	37.1
0°-40°	5532.8	60.1
0°-60°	8327.0	90.4
0°-90°	9207.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9207.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4434	4434	4434	4434	4434	
5°	4431	4399	4388	4395	4410	421
15°	4247	4237	4220	4231	4234	1198
25°	3909	3911	3915	3926	3928	1800
35°	3404	3386	3379	3436	3473	2126
45°	2578	2475	2268	2229	2140	1941
55°	1146	1226	1204	1038	789	1043
65°	310	643	563	478	278	353
75°	202	312	181	272	215	215
85°	93	111	98	125	102	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4433.8	4433.8	4433.8	4433.8	4433.8
2.5°	4449.7	4428.2	4403.8	4397.2	4408.5
5°	4431.0	4399.1	4387.9	4395.4	4410.4
7.5°	4401.9	4369.1	4367.2	4354.1	4376.6
10°	4358.8	4337.2	4321.3	4328.8	4331.6
12.5°	4304.4	4297.9	4285.7	4275.4	4300.7
15°	4247.2	4236.9	4220.1	4231.3	4234.1
17.5°	4174.1	4168.5	4165.7	4174.1	4198.5
20°	4096.3	4096.3	4099.1	4101.0	4097.3
22.5°	4003.5	4000.7	4004.5	4012.0	4047.6
25°	3908.9	3910.7	3915.4	3925.7	3928.5
27.5°	3803.9	3804.8	3802.9	3813.2	3837.6
30°	3682.9	3679.2	3671.7	3694.2	3720.4
32.5°	3551.7	3544.2	3535.8	3570.5	3598.6
35°	3404.5	3385.8	3379.2	3436.4	3473.0
37.5°	3253.6	3215.2	3201.1	3243.3	3248.0
40°	3068.0	3010.8	2987.4	2946.2	2934.0
42.5°	2844.9	2785.9	2659.3	2595.6	2550.6
45°	2577.8	2474.7	2268.4	2229.1	2140.0
47.5°	2232.8	2123.2	1916.9	1832.6	1731.3
50°	1808.2	1744.5	1617.0	1512.0	1336.7
52.5°	1445.4	1458.6	1398.6	1253.3	1035.8
55°	1146.4	1226.1	1203.6	1037.7	789.3
57.5°	882.1	1053.6	1026.4	853.9	602.7
60°	632.7	902.7	847.4	703.0	449.0
62.5°	434.0	770.5	694.6	580.2	344.0
65°	310.3	643.0	563.4	478.1	277.5
67.5°	255.0	525.9	432.1	405.9	241.8
70°	232.5	423.7	314.0	354.3	238.1
72.5°	221.2	355.3	230.6	310.3	226.8
75°	202.5	312.1	180.9	271.8	214.7
77.5°	187.5	270.0	168.7	238.1	209.0
80°	169.7	213.7	167.8	201.5	190.3
82.5°	136.9	155.6	141.5	165.0	153.7
85°	92.8	110.6	98.4	124.7	102.2
87.5°	45.9	54.4	44.1	59.1	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)