

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: P475665

Luminaire Tested: **24GR-LD5-90-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475665
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-90-A19/156-UNV-L835-CD1-U
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8559.2 lumens
Efficiency: N/A
Efficacy: 139.9 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

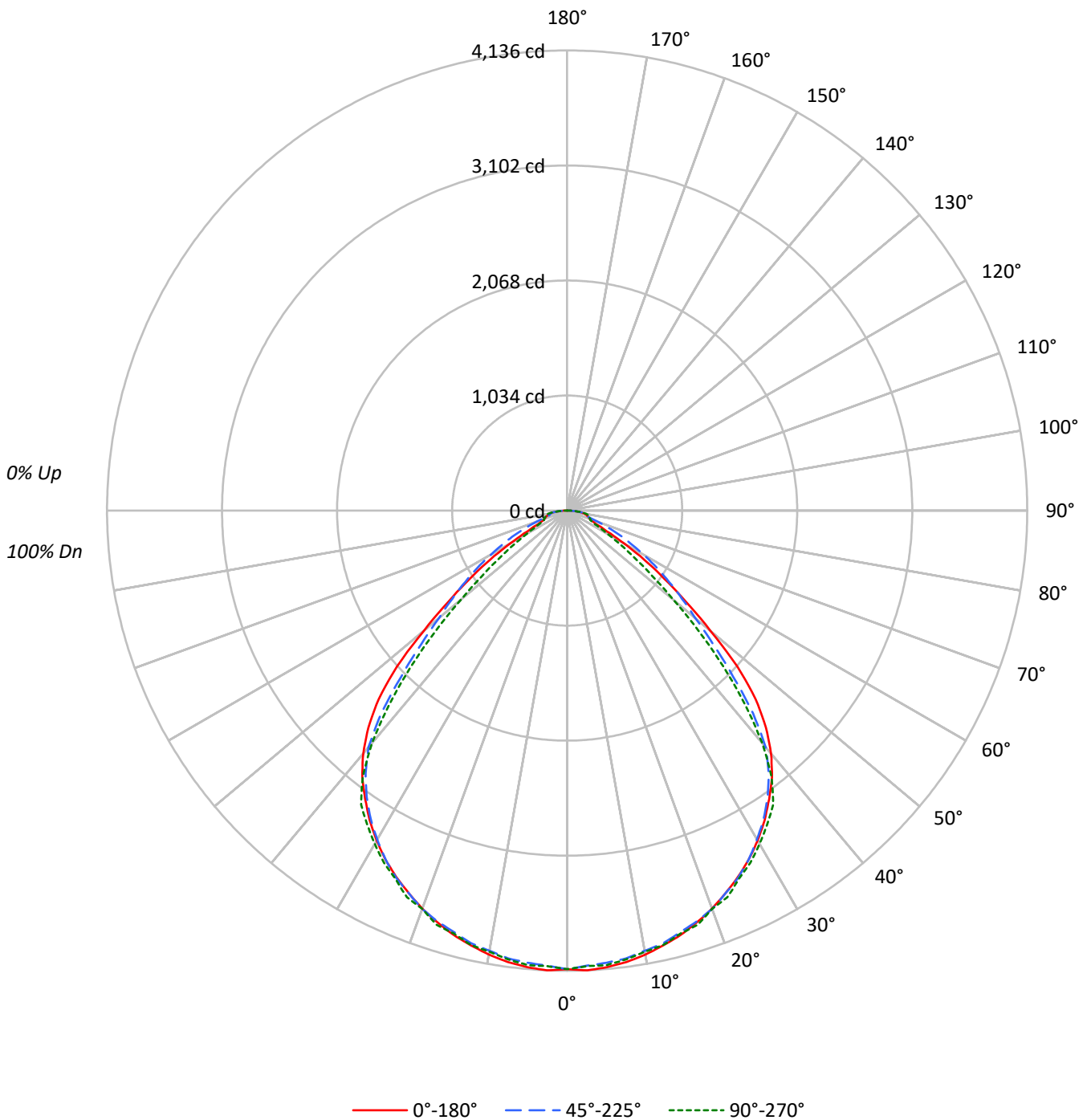
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5546	5546	5546
5°	5563	5509	5537
10°	5536	5488	5501
15°	5500	5464	5483
20°	5452	5456	5454
25°	5394	5403	5422
30°	5319	5303	5373
35°	5198	5160	5303
40°	5009	4878	4790
45°	4560	4012	3785
50°	3518	3146	2601
55°	2500	2624	1721
60°	1583	2120	1123
65°	918	1667	821
70°	850	1148	871
75°	978	874	1037
80°	1222	1209	1371
85°	1332	1413	1467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.4	4.5
10°-20°	1111.0	13.0
20°-30°	1676.3	19.6
30°-40°	1967.6	23.0
40°-50°	1656.4	19.4
50°-60°	940.9	11.0
60°-70°	469.6	5.5
70°-80°	246.2	2.9
80°-90°	102.7	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°	3175.7	37.1
0°-40°	5143.3	60.1
0°-60°	7740.7	90.4
0°-90°	8559.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8559.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4122	4122	4122	4122	4122	
5°	4119	4089	4079	4086	4100	391
15°	3948	3939	3923	3933	3936	1113
25°	3634	3635	3640	3649	3652	1674
35°	3165	3147	3141	3194	3228	1976
45°	2396	2300	2109	2072	1989	1804
55°	1066	1140	1119	965	734	970
65°	288	598	524	444	258	328
75°	188	290	168	253	200	199
85°	86	103	92	116	95	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4121.6	4121.6	4121.6	4121.6	4121.6
2.5°	4136.4	4116.4	4093.7	4087.6	4098.1
5°	4119.0	4089.4	4078.9	4085.9	4099.8
7.5°	4092.0	4061.5	4059.7	4047.5	4068.4
10°	4051.9	4031.8	4017.0	4024.0	4026.6
12.5°	4001.3	3995.2	3983.9	3974.3	3997.9
15°	3948.2	3938.6	3922.9	3933.4	3936.0
17.5°	3880.2	3875.0	3872.4	3880.2	3902.9
20°	3807.9	3807.9	3810.5	3812.3	3808.8
22.5°	3721.6	3719.0	3722.5	3729.5	3762.6
25°	3633.6	3635.4	3639.7	3649.3	3651.9
27.5°	3536.0	3536.9	3535.2	3544.7	3567.4
30°	3423.6	3420.1	3413.2	3434.1	3458.5
32.5°	3301.6	3294.7	3286.8	3319.1	3345.2
35°	3164.8	3147.4	3141.3	3194.5	3228.4
37.5°	3024.5	2988.8	2975.7	3015.0	3019.3
40°	2852.0	2798.9	2777.1	2738.7	2727.4
42.5°	2644.6	2589.7	2472.1	2412.8	2371.0
45°	2396.3	2300.4	2108.7	2072.1	1989.3
47.5°	2075.6	1973.7	1782.0	1703.5	1609.4
50°	1680.9	1621.6	1503.1	1405.5	1242.6
52.5°	1343.7	1355.9	1300.1	1165.0	962.9
55°	1065.7	1139.8	1118.8	964.6	733.7
57.5°	820.0	979.4	954.2	793.8	560.3
60°	588.2	839.1	787.7	653.5	417.4
62.5°	403.4	716.3	645.7	539.4	319.8
65°	288.4	597.8	523.7	444.4	257.9
67.5°	237.0	488.8	401.7	377.3	224.8
70°	216.1	393.9	291.9	329.4	221.3
72.5°	205.6	330.3	214.4	288.4	210.9
75°	188.2	290.2	168.2	252.7	199.5
77.5°	174.3	251.0	156.8	221.3	194.3
80°	157.7	198.7	156.0	187.3	176.9
82.5°	127.2	144.6	131.6	153.4	142.9
85°	86.3	102.8	91.5	115.9	95.0
87.5°	42.7	50.5	41.0	54.9	41.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)