

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: P475680

Luminaire Tested: **24GR-LD5-90-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475680
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-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: 8721.7 lumens
Efficiency: N/A
Efficacy: 142.5 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

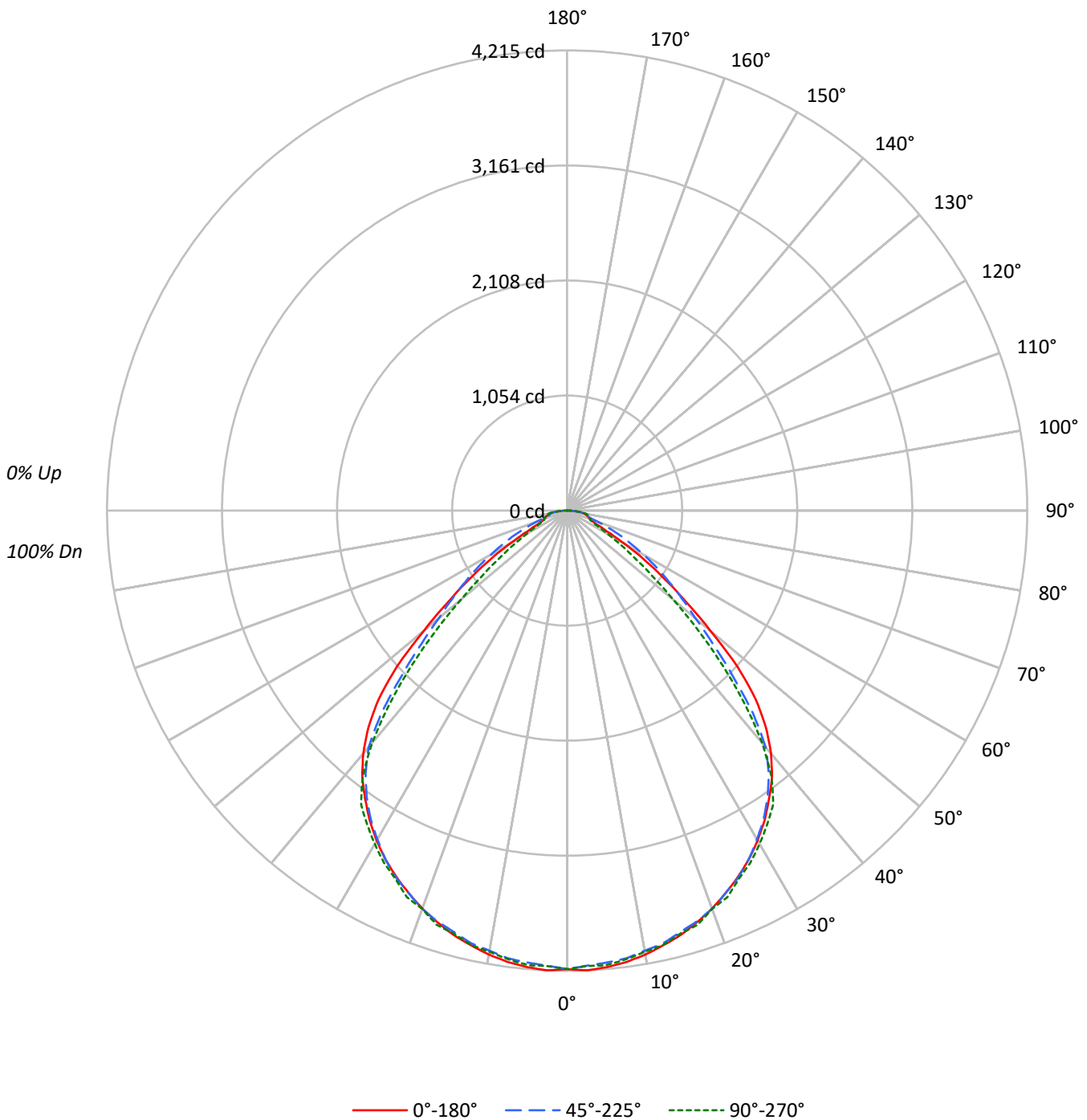
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5651	5651	5651
5°	5669	5614	5643
10°	5641	5593	5606
15°	5604	5568	5587
20°	5556	5560	5557
25°	5497	5506	5525
30°	5420	5404	5475
35°	5297	5258	5404
40°	5104	4970	4881
45°	4646	4089	3857
50°	3585	3206	2650
55°	2547	2674	1754
60°	1613	2160	1144
65°	936	1699	837
70°	866	1170	887
75°	997	891	1057
80°	1245	1231	1396
85°	1357	1439	1494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.8	4.5
10°-20°	1132.1	13.0
20°-30°	1708.2	19.6
30°-40°	2005.0	23.0
40°-50°	1687.9	19.4
50°-60°	958.8	11.0
60°-70°	478.5	5.5
70°-80°	250.9	2.9
80°-90°	104.6	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°	3236.0	37.1
0°-40°	5241.0	60.1
0°-60°	7887.7	90.4
0°-90°	8721.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8721.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4200	4200	4200	4200	4200	
5°	4197	4167	4156	4164	4178	398
15°	4023	4013	3998	4008	4011	1134
25°	3703	3704	3709	3719	3721	1705
35°	3225	3207	3201	3255	3290	2014
45°	2442	2344	2149	2112	2027	1839
55°	1086	1161	1140	983	748	988
65°	294	609	534	453	263	334
75°	192	296	171	258	203	203
85°	88	105	93	118	97	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4199.9	4199.9	4199.9	4199.9	4199.9
2.5°	4215.0	4194.6	4171.5	4165.3	4175.9
5°	4197.2	4167.1	4156.4	4163.5	4177.7
7.5°	4169.7	4138.6	4136.9	4124.4	4145.7
10°	4128.9	4108.4	4093.4	4100.5	4103.1
12.5°	4077.4	4071.2	4059.6	4049.8	4073.8
15°	4023.2	4013.4	3997.5	4008.1	4010.8
17.5°	3953.9	3948.6	3946.0	3953.9	3977.0
20°	3880.3	3880.3	3882.9	3884.7	3881.1
22.5°	3792.3	3789.7	3793.2	3800.3	3834.1
25°	3702.7	3704.4	3708.9	3718.6	3721.3
27.5°	3603.2	3604.1	3602.3	3612.1	3635.2
30°	3488.7	3485.1	3478.0	3499.3	3524.2
32.5°	3364.4	3357.3	3349.3	3382.1	3408.8
35°	3225.0	3207.2	3201.0	3255.1	3289.8
37.5°	3082.0	3045.6	3032.3	3072.2	3076.7
40°	2906.2	2852.0	2829.8	2790.8	2779.2
42.5°	2694.9	2638.9	2519.1	2458.7	2416.1
45°	2441.8	2344.1	2148.8	2111.5	2027.1
47.5°	2115.0	2011.2	1815.8	1735.9	1640.0
50°	1712.8	1652.4	1531.7	1432.2	1266.2
52.5°	1369.2	1381.6	1324.8	1187.2	981.2
55°	1085.9	1161.4	1140.1	982.9	747.6
57.5°	835.5	998.0	972.3	808.9	570.9
60°	599.4	855.1	802.7	665.9	425.3
62.5°	411.1	729.9	658.0	549.6	325.9
65°	293.9	609.1	533.6	452.8	262.8
67.5°	241.5	498.1	409.3	384.5	229.1
70°	220.2	401.3	297.5	335.6	225.5
72.5°	209.6	336.5	218.4	293.9	214.9
75°	191.8	295.7	171.4	257.5	203.3
77.5°	177.6	255.7	159.8	225.5	198.0
80°	160.7	202.4	158.9	190.9	180.2
82.5°	129.6	147.4	134.1	156.3	145.6
85°	87.9	104.8	93.2	118.1	96.8
87.5°	43.5	51.5	41.7	55.9	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)