

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: P231849

Luminaire Tested: **24GR-LD5-120-A19/156-UNV-L935-CD2-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P231849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-120-A19/156-UNV-L935-CD2-U
Description: METALUX 2X4 GRLED TROFFER
WITH A19/156 LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10142.2 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

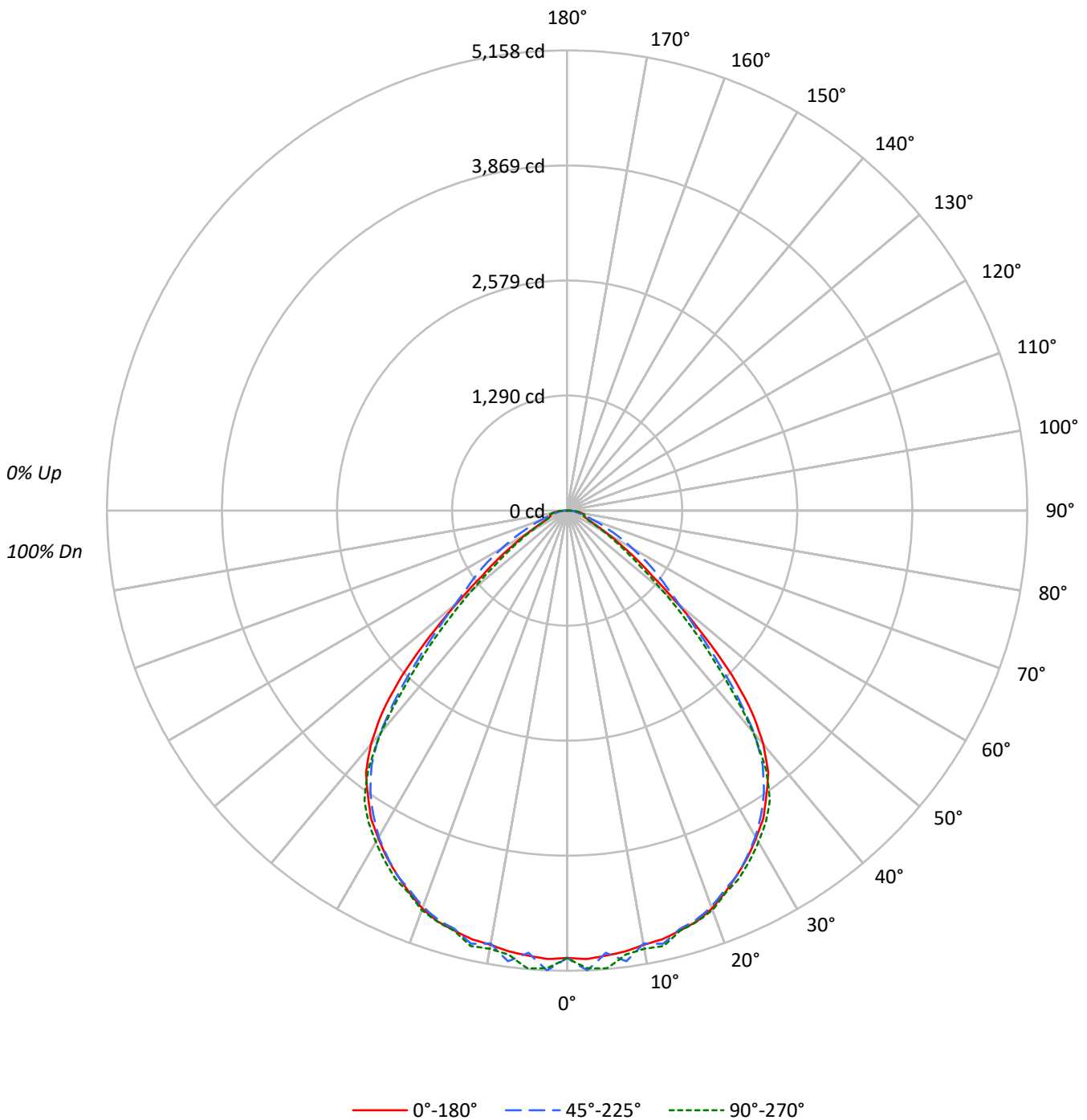
Input Watts (W): 90.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7681	7681	7681
5°	7698	7648	7918
10°	7686	7663	7757
15°	7730	7704	7735
20°	7736	7704	7768
25°	7616	7622	7696
30°	7490	7467	7588
35°	7279	7190	7407
40°	6836	6529	6494
45°	5666	5126	4861
50°	3811	3889	3322
55°	2514	3262	2179
60°	1612	2575	1492
65°	1039	1966	1009
70°	919	1407	919
75°	1185	1118	1195
80°	1451	962	1522
85°	1689	1430	1775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.2	4.7
10°-20°	1378.7	13.6
20°-30°	2075.7	20.5
30°-40°	2405.9	23.7
40°-50°	1879.4	18.5
50°-60°	1003.5	9.9
60°-70°	516.0	5.1
70°-80°	291.9	2.9
80°-90°	110.9	1.1
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°	3934.6	38.8
0°-40°	6340.5	62.5
0°-60°	9223.4	90.9
0°-90°	10142.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10142.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5015	5015	5015	5015	5015	
5°	5007	5147	4974	5111	5150	476
15°	4875	4906	4859	4890	4878	1377
25°	4507	4492	4510	4504	4554	2077
35°	3893	3875	3846	3922	3961	2427
45°	2616	2618	2367	2346	2244	1971
55°	942	1191	1222	1101	816	869
65°	287	598	542	596	278	315
75°	200	376	189	352	202	203
85°	96	125	81	125	101	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5015.0	5015.0	5015.0	5015.0	5015.0
2.5°	5031.3	5122.5	5158.4	5114.4	5133.9
5°	5006.9	5146.9	4974.3	5111.1	5150.2
7.5°	4984.1	4969.4	5094.8	4964.5	5019.9
10°	4941.7	4951.5	4927.1	5019.9	4987.4
12.5°	4922.2	4979.2	4974.3	4927.1	4998.8
15°	4874.9	4905.9	4858.7	4889.6	4878.2
17.5°	4827.7	4813.0	4808.2	4821.2	4832.6
20°	4746.3	4697.4	4726.8	4730.0	4765.9
22.5°	4629.0	4599.7	4606.2	4635.6	4638.8
25°	4506.9	4492.2	4510.1	4503.6	4554.0
27.5°	4379.8	4360.2	4371.6	4396.1	4427.1
30°	4234.9	4229.9	4221.8	4242.9	4290.2
32.5°	4091.5	4052.4	4045.9	4089.9	4143.7
35°	3892.8	3874.9	3845.6	3922.2	3961.2
37.5°	3703.9	3648.5	3601.3	3646.8	3663.2
40°	3418.8	3376.5	3265.7	3270.6	3247.8
42.5°	3068.7	3037.6	2825.9	2788.5	2724.9
45°	2615.8	2617.5	2366.7	2345.5	2244.4
47.5°	2089.7	2182.5	1964.4	1939.9	1790.0
50°	1599.4	1767.2	1632.0	1593.0	1394.3
52.5°	1200.5	1446.4	1404.0	1319.3	1045.7
55°	941.5	1190.7	1221.6	1101.1	816.0
57.5°	708.6	980.6	1031.0	931.7	630.4
60°	526.1	825.8	840.5	801.4	487.0
62.5°	390.9	702.0	682.5	687.3	361.6
65°	286.7	597.8	542.4	596.1	278.5
67.5°	234.5	518.0	421.9	516.3	226.4
70°	205.2	459.3	314.3	454.4	205.2
72.5°	198.7	421.9	249.2	403.9	200.3
75°	200.3	376.2	189.0	351.8	202.0
77.5°	184.0	309.5	143.3	299.7	192.2
80°	164.5	234.5	109.1	237.8	172.6
82.5°	140.1	171.0	88.0	176.0	144.9
85°	96.1	125.4	81.4	125.4	101.0
87.5°	45.6	74.9	50.5	71.7	52.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)