

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: P231845

Luminaire Tested: **24GR-LD5-100-A19/156-UNV-L935-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231845  
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-LD5-100-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: 8297.7 lumens  
Efficiency: N/A  
Efficacy: 115.7 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

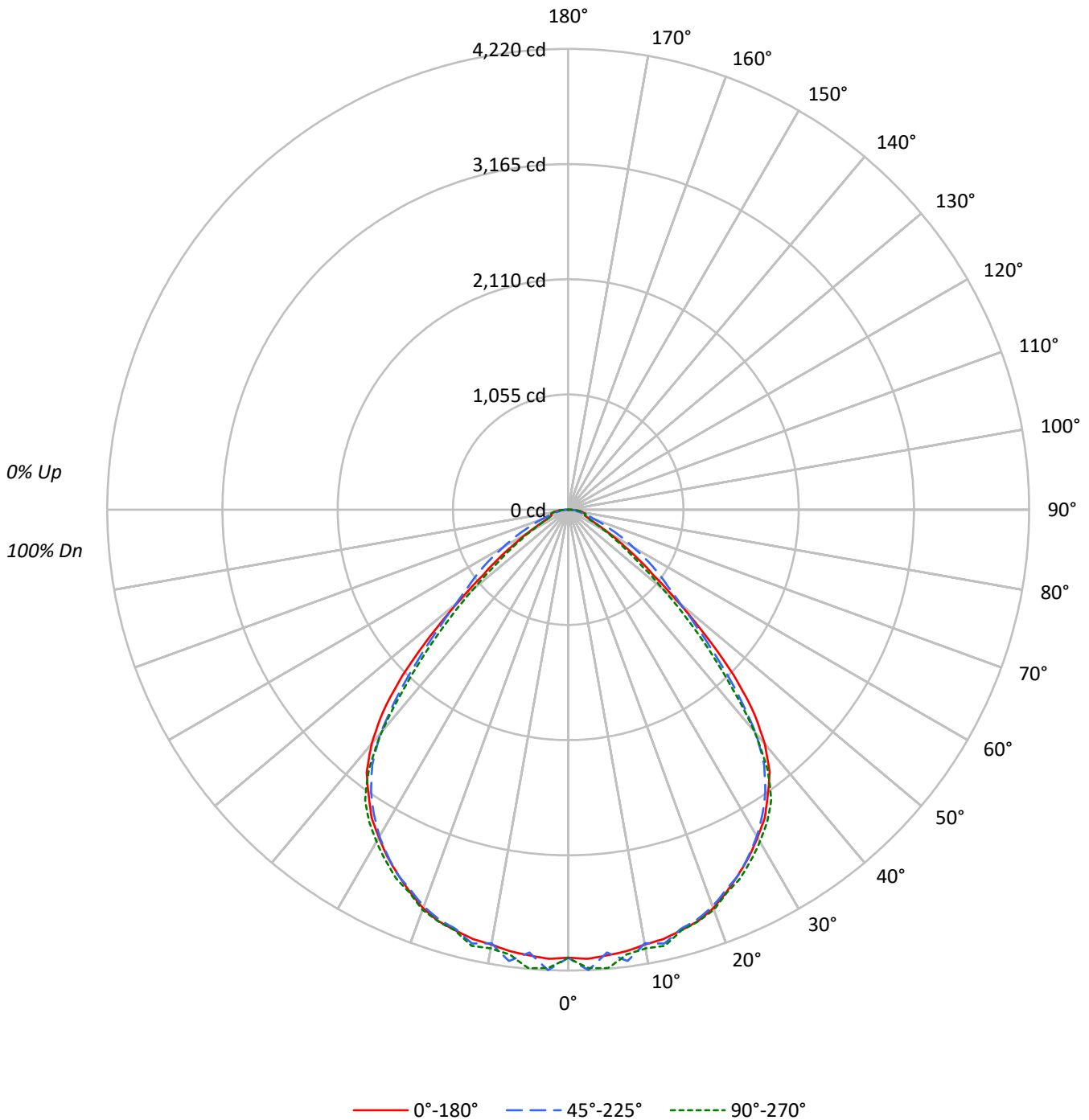
Input Watts (W): 71.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6284	6284	6284
5°	6298	6257	6478
10°	6288	6269	6346
15°	6324	6303	6328
20°	6329	6303	6355
25°	6231	6236	6297
30°	6128	6109	6208
35°	5955	5883	6060
40°	5593	5342	5313
45°	4636	4194	3978
50°	3118	3182	2718
55°	2057	2669	1783
60°	1318	2106	1221
65°	850	1608	826
70°	752	1152	752
75°	970	915	978
80°	1187	787	1246
85°	1381	1170	1452



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	392.8	4.7
10°-20°	1128.0	13.6
20°-30°	1698.2	20.5
30°-40°	1968.3	23.7
40°-50°	1537.6	18.5
50°-60°	821.0	9.9
60°-70°	422.2	5.1
70°-80°	238.8	2.9
80°-90°	90.7	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°	3219.0	38.8
0°-40°	5187.4	62.5
0°-60°	7545.9	90.9
0°-90°	8297.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8297.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4103	4103	4103	4103	4103	
5°	4096	4211	4070	4182	4214	389
15°	3988	4014	3975	4000	3991	1126
25°	3687	3675	3690	3685	3726	1699
35°	3185	3170	3146	3209	3241	1985
45°	2140	2141	1936	1919	1836	1613
55°	770	974	999	901	668	711
65°	234	489	444	488	228	258
75°	164	308	155	288	165	166
85°	79	103	67	103	83	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4103.0	4103.0	4103.0	4103.0	4103.0
2.5°	4116.3	4190.9	4220.2	4184.3	4200.3
5°	4096.3	4210.9	4069.6	4181.6	4213.6
7.5°	4077.6	4065.6	4168.2	4061.6	4106.9
10°	4043.0	4051.0	4031.0	4106.9	4080.3
12.5°	4027.0	4073.6	4069.6	4031.0	4089.7
15°	3988.4	4013.7	3975.0	4000.4	3991.0
17.5°	3949.7	3937.7	3933.7	3944.4	3953.7
20°	3883.1	3843.1	3867.1	3869.8	3899.1
22.5°	3787.2	3763.2	3768.5	3792.4	3795.2
25°	3687.2	3675.2	3689.8	3684.6	3725.9
27.5°	3583.3	3567.3	3576.6	3596.6	3621.9
30°	3464.7	3460.7	3454.0	3471.3	3510.0
32.5°	3347.4	3315.4	3310.1	3346.1	3390.1
35°	3184.9	3170.2	3146.2	3208.8	3240.8
37.5°	3030.2	2984.9	2946.3	2983.6	2996.9
40°	2797.1	2762.4	2671.8	2675.8	2657.1
42.5°	2510.6	2485.2	2312.0	2281.3	2229.4
45°	2140.1	2141.4	1936.2	1918.9	1836.3
47.5°	1709.7	1785.7	1607.1	1587.1	1464.5
50°	1308.6	1445.8	1335.3	1303.2	1140.7
52.5°	982.1	1183.3	1148.7	1079.4	855.5
55°	770.2	974.1	999.4	900.8	667.6
57.5°	579.7	802.2	843.5	762.2	515.7
60°	430.4	675.6	687.6	655.6	398.5
62.5°	319.9	574.3	558.4	562.4	295.8
65°	234.5	489.1	443.8	487.7	227.9
67.5°	191.9	423.7	345.1	422.4	185.2
70°	167.9	375.8	257.2	371.8	167.9
72.5°	162.6	345.1	203.9	330.5	163.9
75°	163.9	307.8	154.6	287.8	165.2
77.5°	150.6	253.2	117.3	245.2	157.2
80°	134.6	191.9	89.2	194.6	141.3
82.5°	114.6	139.9	72.0	143.9	118.6
85°	78.6	102.6	66.6	102.6	82.6
87.5°	37.3	61.3	41.3	58.6	42.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)