

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: P231793

Luminaire Tested: **24GR-LD5-180-F1-UNV-L935-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231793  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33304)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-180-F1-UNV-L935-CD2-U  
Description: METALUX 2X4 GRLED TROFFER  
WITH F1 LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15342.5 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.27  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

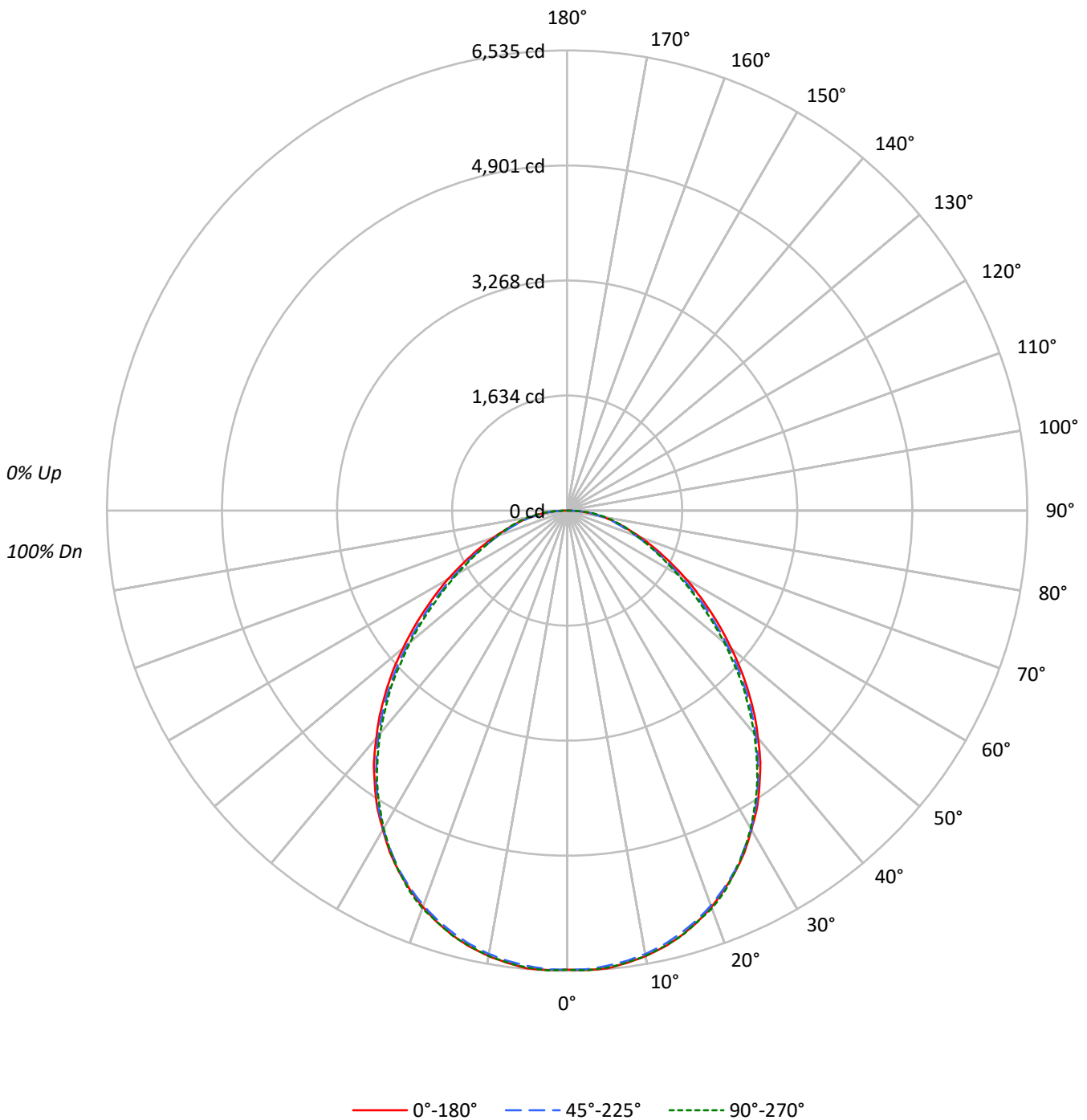
Input Watts (W): 144.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	90	80	73	68	78	71	66	75	70	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	33
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9987	9987	9987
5°	10033	9977	10018
10°	9992	9943	9988
15°	9914	9860	9921
20°	9768	9729	9799
25°	9556	9532	9552
30°	9255	9238	9216
35°	8905	8838	8802
40°	8429	8333	8266
45°	7885	7740	7646
50°	7246	7051	6932
55°	6609	6365	6180
60°	6002	5679	5532
65°	5406	5102	5015
70°	4951	4629	4758
75°	4626	4413	4740
80°	4590	4505	4950
85°	4678	4720	5393



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	617.1	4.0
10°-20°	1754.5	11.4
20°-30°	2591.9	16.9
30°-40°	2946.7	19.2
40°-50°	2751.8	17.9
50°-60°	2140.0	13.9
60°-70°	1420.0	9.3
70°-80°	821.7	5.4
80°-90°	298.8	1.9
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°	4963.4	32.4
0°-40°	7910.2	51.6
0°-60°	12802.0	83.4
0°-90°	15342.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15342.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6520	6520	6520	6520	6520	
5°	6525	6492	6489	6501	6516	619
15°	6252	6221	6218	6216	6257	1761
25°	5655	5631	5640	5628	5652	2600
35°	4763	4739	4727	4693	4708	2973
45°	3640	3612	3573	3528	3530	2805
55°	2475	2439	2384	2321	2314	2219
65°	1492	1446	1408	1381	1384	1491
75°	782	763	746	779	801	836
85°	266	261	269	305	307	289
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6520.5	6520.5	6520.5	6520.5	6520.5
2.5°	6530.1	6511.0	6520.5	6513.4	6535.0
5°	6525.4	6491.8	6489.4	6501.4	6515.8
7.5°	6479.8	6443.8	6451.0	6451.0	6475.0
10°	6424.6	6388.7	6393.4	6395.8	6422.3
12.5°	6350.3	6314.3	6316.7	6314.3	6340.7
15°	6252.0	6220.8	6218.4	6216.0	6256.8
17.5°	6132.1	6088.9	6103.3	6105.7	6127.2
20°	5993.0	5959.4	5969.0	5966.6	6012.1
22.5°	5827.5	5803.5	5810.7	5805.9	5849.1
25°	5654.8	5630.8	5640.4	5628.4	5652.4
27.5°	5460.6	5443.8	5434.2	5427.0	5443.8
30°	5232.8	5223.2	5223.2	5192.0	5211.2
32.5°	5017.0	4985.8	4985.8	4973.8	4961.8
35°	4762.7	4738.8	4726.8	4693.2	4707.6
37.5°	4508.5	4453.3	4448.6	4422.2	4422.2
40°	4215.9	4184.8	4168.0	4139.2	4134.4
42.5°	3937.8	3906.6	3877.8	3829.8	3820.2
45°	3640.4	3611.6	3573.2	3527.7	3530.0
47.5°	3345.4	3304.6	3268.7	3213.5	3206.3
50°	3040.9	3012.1	2959.3	2911.3	2909.0
52.5°	2755.4	2709.9	2661.9	2604.4	2604.4
55°	2474.9	2438.9	2383.7	2321.4	2314.2
57.5°	2206.3	2172.7	2110.4	2064.8	2052.8
60°	1959.2	1911.3	1853.8	1815.4	1805.8
62.5°	1712.2	1669.1	1626.0	1587.5	1585.2
65°	1491.7	1446.1	1407.7	1381.3	1383.7
67.5°	1292.6	1254.3	1211.1	1203.9	1206.2
70°	1105.5	1064.8	1033.6	1050.4	1062.4
72.5°	928.1	906.5	884.9	908.9	925.6
75°	781.8	762.6	745.8	779.4	801.0
77.5°	647.5	633.1	630.7	659.5	678.6
80°	520.4	503.6	510.8	544.3	561.2
82.5°	395.7	383.7	386.1	426.9	438.9
85°	266.2	261.4	268.6	304.6	306.9
87.5°	141.5	141.5	146.3	167.9	160.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)