

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: P231781

Luminaire Tested: **24GR-LD5-120-F1-UNV-L935-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231781  
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-LD5-120-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: 10421.0 lumens  
Efficiency: N/A  
Efficacy: 115.7 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

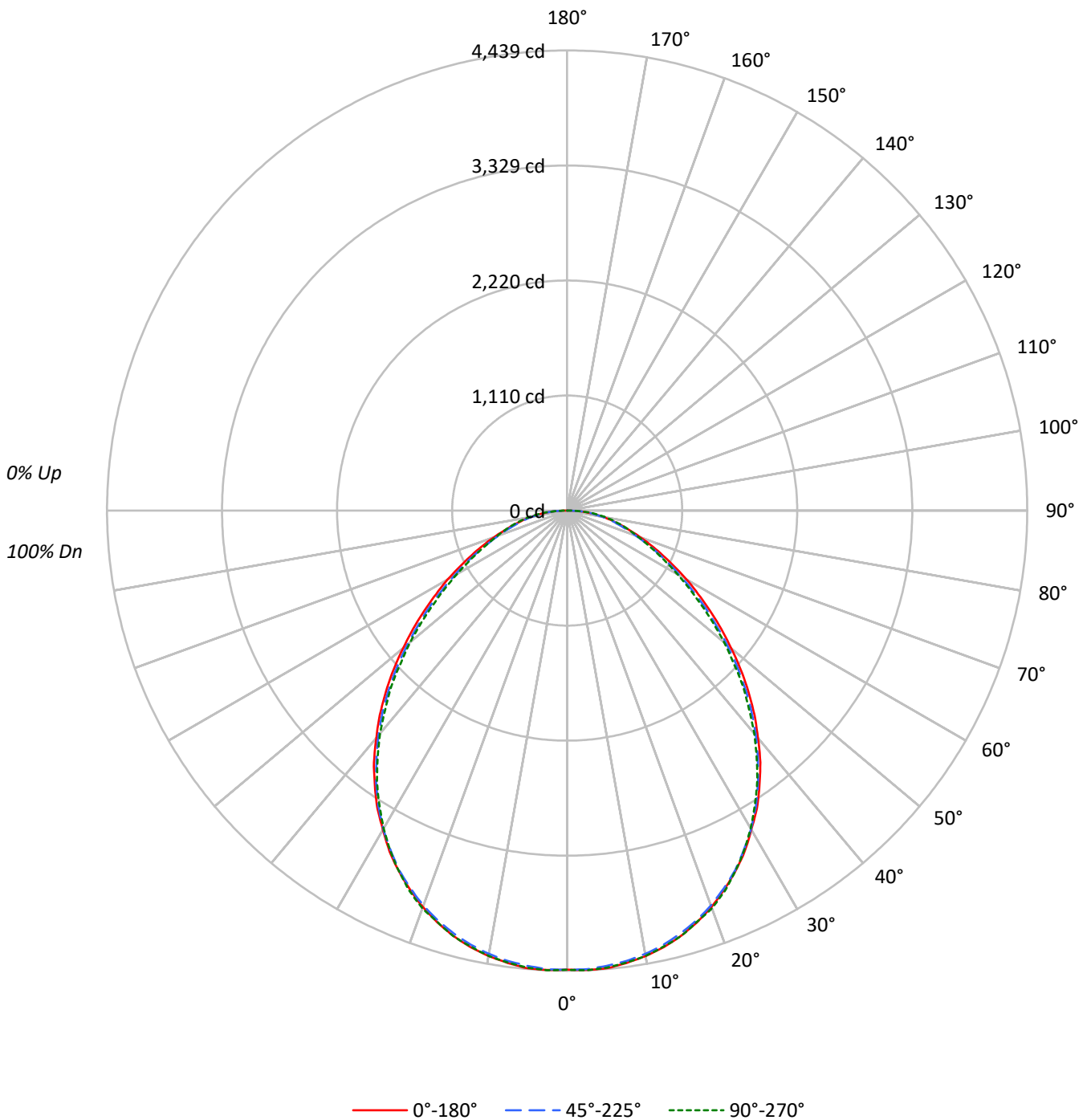
Input Watts (W): 90.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	6783	6783	6783
5°	6814	6777	6804
10°	6787	6754	6784
15°	6733	6697	6739
20°	6635	6608	6656
25°	6491	6474	6488
30°	6286	6274	6260
35°	6049	6003	5979
40°	5725	5660	5615
45°	5356	5257	5194
50°	4921	4789	4708
55°	4489	4323	4197
60°	4077	3857	3757
65°	3672	3465	3406
70°	3363	3144	3231
75°	3142	2998	3220
80°	3117	3061	3361
85°	3177	3205	3664



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.2	4.0
10°-20°	1191.7	11.4
20°-30°	1760.5	16.9
30°-40°	2001.5	19.2
40°-50°	1869.1	17.9
50°-60°	1453.6	13.9
60°-70°	964.5	9.3
70°-80°	558.1	5.4
80°-90°	202.9	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°	3371.3	32.4
0°-40°	5372.8	51.6
0°-60°	8695.4	83.4
0°-90°	10421.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10421.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4429	4429	4429	4429	4429	
5°	4432	4409	4408	4416	4426	421
15°	4246	4225	4224	4222	4250	1196
25°	3841	3825	3831	3823	3839	1766
35°	3235	3219	3210	3188	3198	2020
45°	2473	2453	2427	2396	2398	1905
55°	1681	1657	1619	1577	1572	1507
65°	1013	982	956	938	940	1013
75°	531	518	507	529	544	568
85°	181	178	182	207	208	197
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4428.9	4428.9	4428.9	4428.9	4428.9
2.5°	4435.5	4422.4	4428.9	4424.0	4438.7
5°	4432.2	4409.4	4407.8	4415.9	4425.7
7.5°	4401.2	4376.8	4381.7	4381.7	4398.0
10°	4363.7	4339.3	4342.6	4344.2	4362.1
12.5°	4313.2	4288.8	4290.5	4288.8	4306.8
15°	4246.5	4225.3	4223.6	4222.0	4249.7
17.5°	4165.1	4135.8	4145.5	4147.2	4161.8
20°	4070.6	4047.8	4054.2	4052.6	4083.6
22.5°	3958.2	3941.9	3946.8	3943.5	3972.8
25°	3840.9	3824.6	3831.1	3823.0	3839.3
27.5°	3709.0	3697.6	3691.0	3686.2	3697.6
30°	3554.2	3547.7	3547.7	3526.6	3539.6
32.5°	3407.6	3386.4	3386.4	3378.3	3370.2
35°	3234.9	3218.7	3210.5	3187.8	3197.5
37.5°	3062.3	3024.8	3021.6	3003.6	3003.6
40°	2863.6	2842.4	2831.0	2811.5	2808.2
42.5°	2674.6	2653.4	2633.9	2601.3	2594.8
45°	2472.6	2453.1	2427.0	2396.1	2397.7
47.5°	2272.3	2244.6	2220.2	2182.7	2177.8
50°	2065.4	2045.9	2010.0	1977.4	1975.8
52.5°	1871.6	1840.7	1808.0	1768.9	1768.9
55°	1681.0	1656.6	1619.1	1576.8	1571.9
57.5°	1498.6	1475.8	1433.4	1402.5	1394.3
60°	1330.8	1298.2	1259.1	1233.1	1226.6
62.5°	1163.1	1133.7	1104.4	1078.3	1076.7
65°	1013.2	982.2	956.2	938.2	939.8
67.5°	878.0	851.9	822.5	817.7	819.3
70°	750.9	723.3	702.0	713.5	721.6
72.5°	630.4	615.7	601.0	617.4	628.7
75°	531.0	518.0	506.6	529.4	544.1
77.5°	439.8	430.0	428.4	448.0	461.0
80°	353.4	342.0	347.0	369.8	381.1
82.5°	268.8	260.6	262.2	289.9	298.1
85°	180.8	177.6	182.4	206.9	208.5
87.5°	96.1	96.1	99.4	114.0	109.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)