

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: P475850

Luminaire Tested: **24GR-LD5-180-FGW080-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475850  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-180-FGW080-UNV-L835-CD1-U  
Description: GR 2'X4' LED TROFFER w/ FGW080 LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15355.1 lumens  
Efficiency: N/A  
Efficacy: 121.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

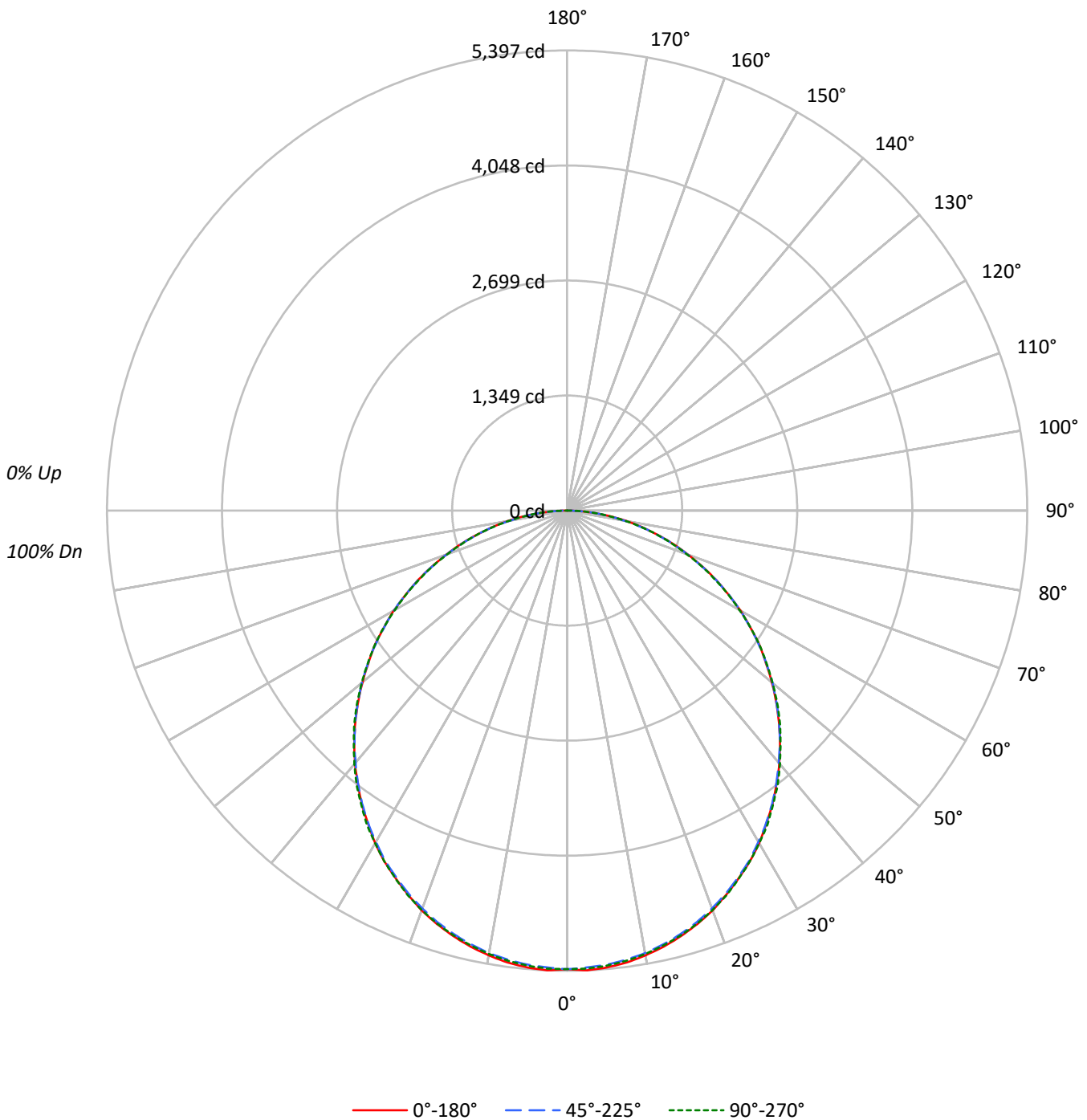
Input Watts (W): 126.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	7236	7236	7236
5°	7264	7219	7236
10°	7236	7201	7215
15°	7196	7162	7182
20°	7143	7111	7138
25°	7066	7045	7071
30°	6998	6971	6998
35°	6899	6887	6913
40°	6800	6782	6818
45°	6689	6689	6719
50°	6562	6580	6580
55°	6469	6445	6465
60°	6322	6317	6275
65°	6141	6135	6097
70°	5927	5913	5879
75°	5700	5682	5691
80°	5439	5332	5359
85°	4829	4829	4883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	508.6	3.3
10°-20°	1452.8	9.5
20°-30°	2190.3	14.3
30°-40°	2624.9	17.1
40°-50°	2711.9	17.7
50°-60°	2455.9	16.0
60°-70°	1902.5	12.4
70°-80°	1153.8	7.5
80°-90°	354.3	2.3
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°	4151.8	27.0
0°-40°	6776.7	44.1
0°-60°	11944.5	77.8
0°-90°	15355.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15355.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5378	5378	5378	5378	5378	
5°	5378	5357	5345	5345	5357	511
15°	5166	5151	5142	5145	5156	1457
25°	4760	4749	4746	4756	4763	2195
35°	4200	4184	4193	4200	4209	2626
45°	3515	3508	3515	3521	3531	2710
55°	2758	2742	2747	2751	2756	2457
65°	1929	1918	1927	1922	1915	1907
75°	1096	1096	1093	1083	1095	1163
85°	313	318	313	308	316	359
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5378.2	5378.2	5378.2	5378.2	5378.2
2.5°	5397.3	5378.2	5364.3	5364.3	5376.5
5°	5378.2	5357.3	5345.2	5345.2	5357.3
7.5°	5346.9	5324.3	5313.9	5313.9	5324.3
10°	5296.5	5279.1	5270.5	5270.5	5280.9
12.5°	5237.4	5221.8	5211.4	5213.1	5223.5
15°	5166.2	5150.6	5141.9	5145.3	5155.8
17.5°	5082.8	5067.1	5060.2	5065.4	5077.6
20°	4989.0	4969.8	4966.4	4971.6	4985.5
22.5°	4876.0	4863.8	4862.1	4870.8	4883.0
25°	4759.6	4749.1	4745.7	4756.1	4763.0
27.5°	4639.7	4620.6	4627.5	4629.2	4639.7
30°	4504.1	4486.8	4486.8	4493.7	4504.1
32.5°	4347.7	4337.3	4346.0	4354.7	4370.3
35°	4200.0	4184.4	4193.1	4200.0	4208.7
37.5°	4033.2	4029.7	4031.5	4041.9	4055.8
40°	3871.6	3861.2	3861.2	3875.1	3882.0
42.5°	3694.4	3685.7	3692.6	3699.6	3703.0
45°	3515.4	3508.4	3515.4	3520.6	3531.0
47.5°	3324.2	3326.0	3327.7	3331.2	3341.6
50°	3134.8	3141.8	3143.5	3150.5	3143.5
52.5°	2938.5	2940.2	2947.1	2948.9	2950.6
55°	2757.7	2742.1	2747.3	2750.8	2756.0
57.5°	2545.7	2540.5	2540.5	2545.7	2549.2
60°	2349.4	2339.0	2347.6	2337.2	2332.0
62.5°	2130.4	2133.9	2137.4	2135.6	2127.0
65°	1928.9	1918.4	1927.1	1921.9	1915.0
67.5°	1716.9	1708.2	1711.6	1709.9	1708.2
70°	1506.6	1506.6	1503.1	1494.4	1494.4
72.5°	1308.5	1298.1	1301.5	1291.1	1291.1
75°	1096.5	1096.5	1093.0	1082.6	1094.8
77.5°	898.4	893.2	889.7	882.8	882.8
80°	702.0	689.9	688.1	688.1	691.6
82.5°	509.1	500.5	497.0	497.0	498.7
85°	312.8	318.0	312.8	307.6	316.3
87.5°	147.7	140.8	140.8	146.0	149.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)