

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: P475556

Luminaire Tested: **24GR-LD5-56-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475556  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-F1-UNV-L840-CD1-U  
Description: GR 2'X4' LED TROFFER w/ F1 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5802.0 lumens  
Efficiency: N/A  
Efficacy: 147.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

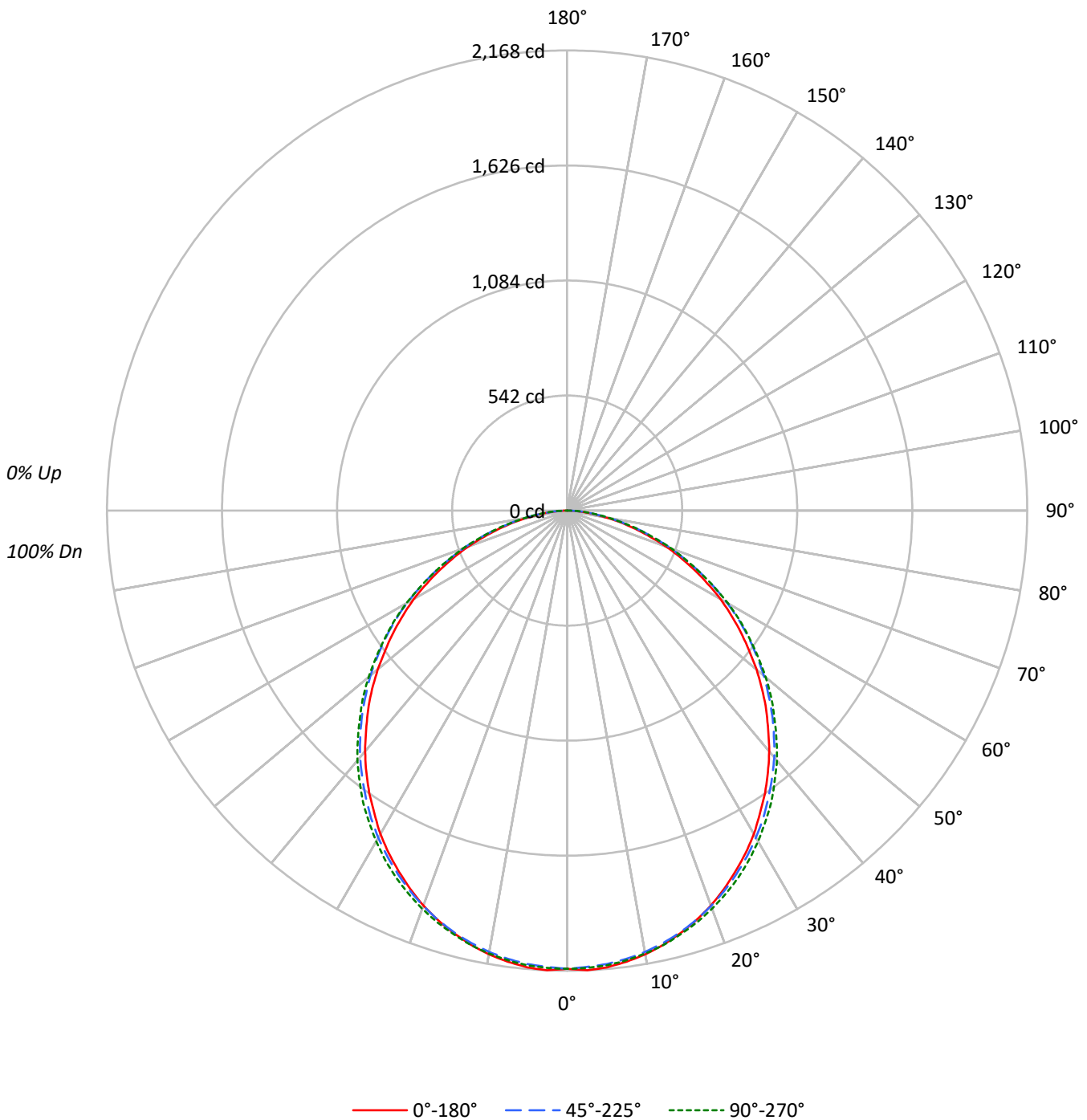
Input Watts (W): 39.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20				20			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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84	
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70	70	
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60	60	
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	51	
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44	44	
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39	39	
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31	31	
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28	28	
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	

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

	0°	45°	90°
0°	2905	2905	2905
5°	2917	2897	2904
10°	2901	2885	2895
15°	2872	2866	2879
20°	2835	2838	2858
25°	2785	2804	2832
30°	2734	2764	2795
35°	2669	2714	2755
40°	2601	2666	2700
45°	2524	2601	2628
50°	2438	2532	2555
55°	2343	2447	2460
60°	2246	2346	2355
65°	2105	2205	2199
70°	1950	2039	2059
75°	1727	1828	1840
80°	1437	1543	1578
85°	1090	1195	1345



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.0	3.5
10°-20°	580.9	10.0
20°-30°	870.4	15.0
30°-40°	1032.6	17.8
40°-50°	1048.7	18.1
50°-60°	923.6	15.9
60°-70°	678.6	11.7
70°-80°	369.1	6.4
80°-90°	94.0	1.6
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°	1655.3	28.5
0°-40°	2687.9	46.3
0°-60°	4660.2	80.3
0°-90°	5802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5802.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2159	2159	2159	2159	2159	
5°	2160	2151	2145	2145	2150	205
15°	2062	2058	2058	2060	2067	581
25°	1876	1878	1888	1899	1908	864
35°	1625	1634	1652	1669	1677	1016
45°	1326	1337	1367	1383	1381	1022
55°	999	1013	1043	1053	1049	893
65°	661	672	692	698	691	655
75°	332	339	352	353	354	353
85°	71	72	77	84	87	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2158.8	2158.8	2158.8	2158.8	2158.8
2.5°	2167.9	2159.4	2152.0	2152.0	2157.1
5°	2160.0	2150.9	2144.6	2144.6	2150.3
7.5°	2143.5	2136.1	2130.9	2130.9	2137.2
10°	2123.0	2115.6	2111.6	2112.2	2119.0
12.5°	2095.7	2088.8	2087.1	2088.3	2096.8
15°	2061.5	2057.5	2057.5	2060.4	2066.6
17.5°	2023.4	2019.4	2022.3	2026.2	2034.2
20°	1980.2	1977.3	1982.4	1988.7	1996.1
22.5°	1930.6	1929.5	1938.0	1946.6	1954.0
25°	1876.0	1878.3	1888.5	1899.4	1907.9
27.5°	1819.7	1822.0	1836.2	1847.6	1856.1
30°	1759.9	1761.1	1779.3	1792.9	1799.2
32.5°	1690.5	1699.6	1719.0	1732.1	1737.8
35°	1625.1	1634.2	1652.4	1668.9	1677.4
37.5°	1554.0	1561.9	1585.8	1603.5	1606.3
40°	1481.1	1488.5	1518.1	1532.9	1537.5
42.5°	1401.5	1415.7	1442.4	1457.2	1460.1
45°	1326.4	1337.2	1366.8	1382.7	1381.0
47.5°	1246.1	1258.1	1287.1	1302.5	1305.3
50°	1164.8	1178.4	1209.7	1220.0	1220.5
52.5°	1079.4	1097.0	1125.5	1139.2	1134.6
55°	998.6	1012.8	1043.0	1052.7	1048.7
57.5°	915.5	931.5	959.3	964.5	965.0
60°	834.7	847.8	871.7	876.8	875.1
62.5°	746.0	759.1	780.7	785.8	781.8
65°	661.2	672.0	692.5	697.6	690.8
67.5°	577.0	587.8	603.7	611.7	604.3
70°	495.6	504.1	518.4	522.9	523.5
72.5°	409.1	424.5	434.7	434.2	432.4
75°	332.3	339.1	351.6	352.8	353.9
77.5°	258.9	260.6	273.7	277.1	274.8
80°	185.5	191.8	199.2	203.1	203.7
82.5°	122.3	126.9	133.1	140.0	140.0
85°	70.6	72.3	77.4	84.2	87.1
87.5°	28.5	31.3	36.4	41.5	42.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)