

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: P292930

Luminaire Tested: **24GR-LD5-48-F1-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292930  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-48-F1-UNV-L83050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4849.0 lumens  
Efficiency: N/A  
Efficacy: 147.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

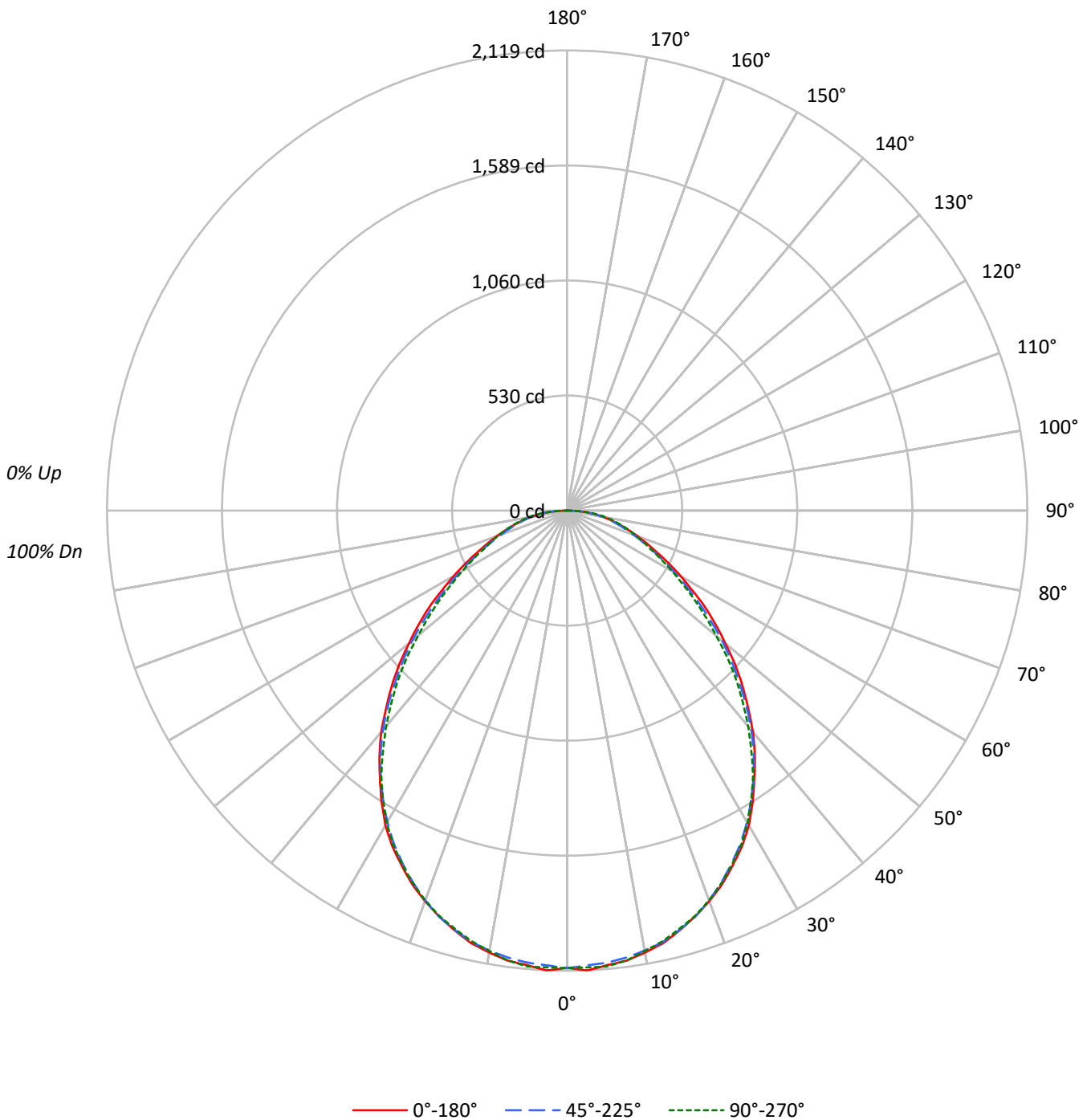
Input Watts (W): 32.829  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P292930

CATALOG NUMBER: 24GR-LD5-48-F1-UNV-L83050-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P292930

CATALOG NUMBER: 24GR-LD5-48-F1-UNV-L83050-W2A1-U-3500K

**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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

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

	0°	45°	90°
0°	2834	2834	2834
5°	2838	2822	2846
10°	2823	2811	2814
15°	2788	2785	2778
20°	2741	2735	2735
25°	2677	2662	2668
30°	2600	2573	2581
35°	2469	2458	2451
40°	2338	2317	2277
45°	2173	2135	2093
50°	1991	1947	1874
55°	1818	1736	1677
60°	1620	1542	1502
65°	1458	1382	1363
70°	1353	1271	1322
75°	1294	1237	1341
80°	1294	1294	1433
85°	1343	1359	1513



TEST NUMBER: P292930

CATALOG NUMBER: 24GR-LD5-48-F1-UNV-L83050-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.9	4.1
10°-20°	562.9	11.6
20°-30°	826.2	17.0
30°-40°	934.0	19.3
40°-50°	863.2	17.8
50°-60°	665.1	13.7
60°-70°	440.4	9.1
70°-80°	262.1	5.4
80°-90°	96.0	2.0
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°	1588.0	32.7
0°-40°	2522.0	52.0
0°-60°	4050.4	83.5
0°-90°	4849.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4849.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2106	2106	2106	2106	2106	
5°	2101	2101	2089	2090	2107	200
15°	2001	1997	1999	1998	1994	564
25°	1803	1798	1793	1791	1797	830
35°	1503	1501	1496	1489	1492	941
45°	1142	1134	1122	1102	1100	880
55°	775	759	740	720	715	691
65°	458	451	434	430	428	459
75°	249	243	238	249	258	266
85°	87	82	88	97	98	92
90°	0	0	0	0	0	



TEST NUMBER: P292930

CATALOG NUMBER: 24GR-LD5-48-F1-UNV-L83050-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2106.3	2106.3	2106.3	2106.3	2106.3
2.5°	2119.3	2108.3	2096.3	2096.3	2105.3
5°	2101.3	2101.3	2089.3	2090.3	2107.3
7.5°	2090.3	2084.3	2076.3	2076.3	2089.3
10°	2066.3	2061.3	2057.3	2055.3	2059.3
12.5°	2040.3	2032.3	2035.3	2032.3	2031.3
15°	2001.3	1997.3	1999.3	1998.3	1994.3
17.5°	1959.3	1957.3	1961.3	1954.3	1957.3
20°	1914.3	1908.3	1910.3	1906.3	1910.3
22.5°	1863.3	1859.3	1854.3	1849.3	1857.3
25°	1803.2	1798.2	1793.2	1791.2	1797.2
27.5°	1743.2	1735.2	1728.2	1726.2	1735.2
30°	1673.2	1664.2	1656.2	1654.2	1661.2
32.5°	1590.2	1588.2	1578.2	1574.2	1577.2
35°	1503.2	1501.2	1496.2	1489.2	1492.2
37.5°	1420.2	1419.2	1412.2	1400.2	1392.2
40°	1331.2	1324.2	1319.2	1302.2	1296.2
42.5°	1233.2	1231.2	1222.2	1203.2	1196.2
45°	1142.2	1134.2	1122.2	1102.2	1100.2
47.5°	1048.1	1037.1	1026.1	1001.1	1000.1
50°	951.1	943.1	930.1	905.1	895.1
52.5°	861.1	850.1	832.1	808.1	803.1
55°	775.1	759.1	740.1	720.1	715.1
57.5°	683.1	676.1	653.1	637.1	631.1
60°	602.1	596.1	573.1	558.1	558.1
62.5°	529.1	520.1	500.1	490.1	490.1
65°	458.1	451.1	434.1	430.1	428.1
67.5°	397.1	388.1	376.1	375.1	380.1
70°	344.0	333.0	323.0	333.0	336.0
72.5°	294.0	287.0	278.0	291.0	297.0
75°	249.0	243.0	238.0	249.0	258.0
77.5°	208.0	202.0	202.0	214.0	222.0
80°	167.0	163.0	167.0	177.0	185.0
82.5°	128.0	125.0	130.0	140.0	145.0
85°	87.0	82.0	88.0	97.0	98.0
87.5°	41.0	40.0	44.0	50.0	49.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)