

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: P293561

Luminaire Tested: **24GR-LD5-48-A-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293561  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-48-A-UNV-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4503.0 lumens  
Efficiency: N/A  
Efficacy: 133.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

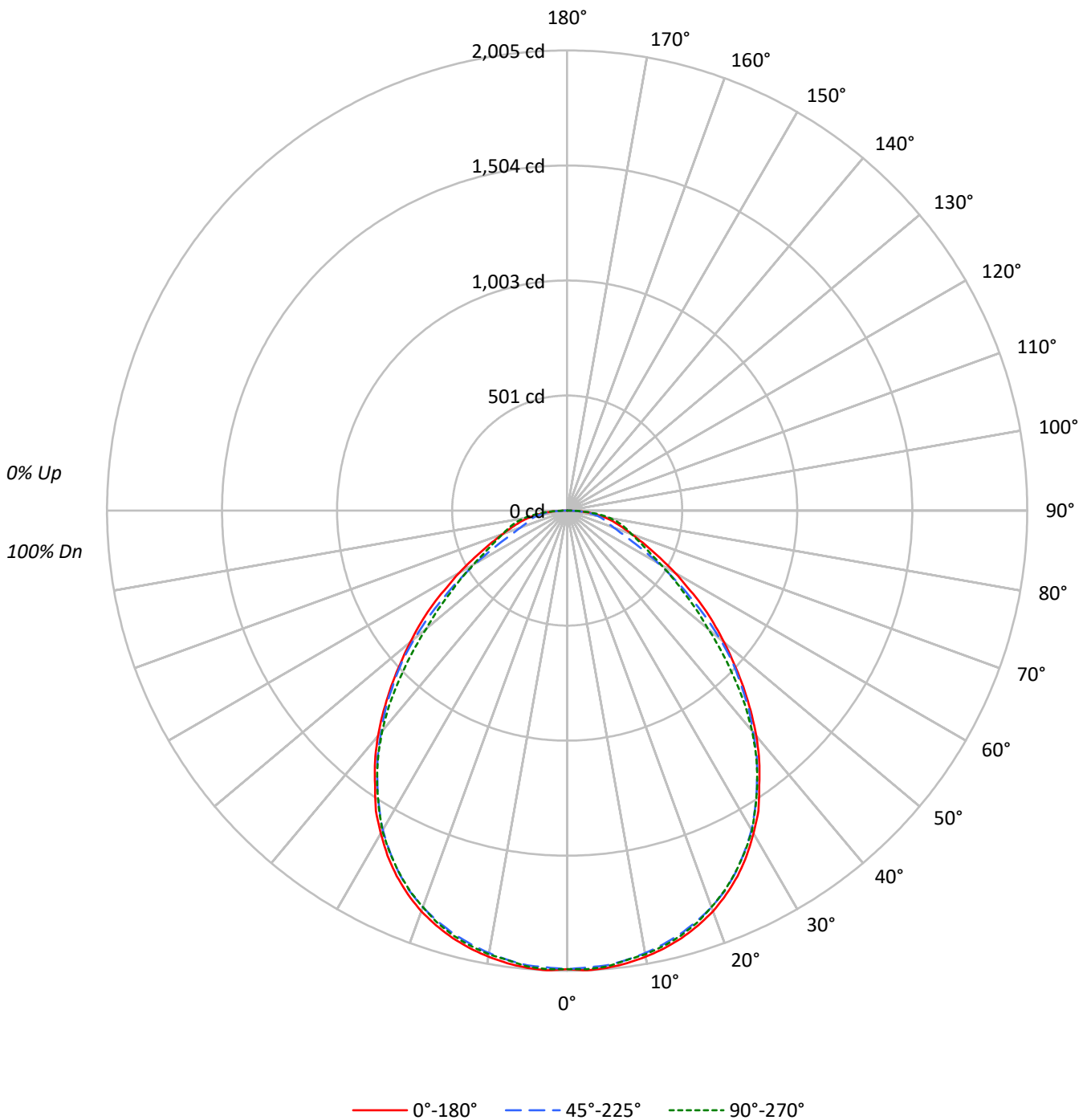
Input Watts (W): 33.682554  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293561

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L93050-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P293561

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L93050-W2A1-U-4000K

**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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63					63			
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55					55			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49			
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43					43			
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35					35			
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32					32			
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29					29			

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

	0°	45°	90°
0°	2688	2688	2688
5°	2701	2686	2693
10°	2696	2675	2682
15°	2686	2659	2671
20°	2661	2634	2633
25°	2609	2581	2579
30°	2523	2497	2502
35°	2396	2369	2372
40°	2253	2214	2201
45°	2065	2037	1956
50°	1867	1816	1679
55°	1676	1526	1447
60°	1468	1228	1273
65°	1280	966	1172
70°	1171	843	1171
75°	1172	897	1291
80°	1272	1056	1471
85°	1396	1192	1579



TEST NUMBER: P293561

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L93050-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.2	4.2
10°-20°	539.9	12.0
20°-30°	800.6	17.8
30°-40°	903.2	20.1
40°-50°	818.0	18.2
50°-60°	590.2	13.1
60°-70°	352.4	7.8
70°-80°	217.8	4.8
80°-90°	91.7	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°	1529.7	34.0
0°-40°	2432.9	54.0
0°-60°	3841.1	85.3
0°-90°	4503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4503.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1998	1998	1998	1998	1998	
5°	2000	1997	1989	1987	1994	190
15°	1928	1916	1909	1910	1917	544
25°	1757	1748	1738	1732	1737	807
35°	1459	1457	1442	1443	1444	913
45°	1085	1078	1071	1044	1028	836
55°	714	692	650	618	617	638
65°	402	354	303	344	368	404
75°	225	196	172	215	248	241
85°	90	79	77	101	102	94
90°	0	0	0	0	0	



TEST NUMBER: P293561

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L93050-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	2004.9	1999.3	1992.4	1996.5	2000.0
5°	2000.0	1997.2	1988.9	1986.8	1993.8
7.5°	1989.6	1982.6	1975.0	1978.5	1975.7
10°	1973.6	1967.3	1957.6	1958.3	1963.1
12.5°	1954.1	1946.5	1936.0	1938.8	1943.0
15°	1928.4	1916.5	1908.9	1909.6	1917.2
17.5°	1895.7	1886.6	1876.9	1879.0	1882.4
20°	1858.1	1853.2	1839.3	1835.1	1838.6
22.5°	1810.8	1801.8	1794.1	1792.0	1792.7
25°	1757.2	1747.5	1738.4	1732.2	1737.1
27.5°	1694.6	1686.3	1674.4	1672.4	1676.5
30°	1623.7	1617.4	1607.0	1604.2	1610.4
32.5°	1551.3	1540.9	1526.3	1526.3	1527.7
35°	1458.8	1456.7	1442.1	1442.8	1444.2
37.5°	1375.3	1365.6	1357.2	1348.9	1353.1
40°	1282.8	1271.7	1260.5	1255.0	1252.9
42.5°	1183.3	1175.0	1170.1	1149.9	1145.1
45°	1085.2	1078.3	1070.6	1044.2	1028.2
47.5°	985.1	983.7	977.4	930.8	914.8
50°	891.8	889.7	867.5	818.1	802.1
52.5°	803.5	789.6	760.4	711.7	708.9
55°	714.4	692.2	650.4	618.4	617.0
57.5°	620.5	594.1	551.7	534.3	543.3
60°	545.4	505.0	456.4	458.4	473.0
62.5°	467.5	422.3	374.3	395.1	412.5
65°	402.1	354.1	303.3	344.4	368.0
67.5°	345.0	300.5	251.8	306.8	329.7
70°	297.7	261.6	214.3	272.0	297.7
72.5°	260.2	226.8	189.9	244.2	274.1
75°	225.4	195.5	172.5	215.0	248.3
77.5°	195.5	166.3	155.8	189.9	222.6
80°	164.2	137.7	136.3	165.6	189.9
82.5°	128.0	109.9	109.9	138.4	153.0
85°	90.4	79.3	77.2	100.9	102.3
87.5°	46.6	44.5	40.3	52.9	52.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)