

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: P293497

Luminaire Tested: **24GR-LD5-48-A-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293497  
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-L82765-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4897.0 lumens  
Efficiency: N/A  
Efficacy: 147.5 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

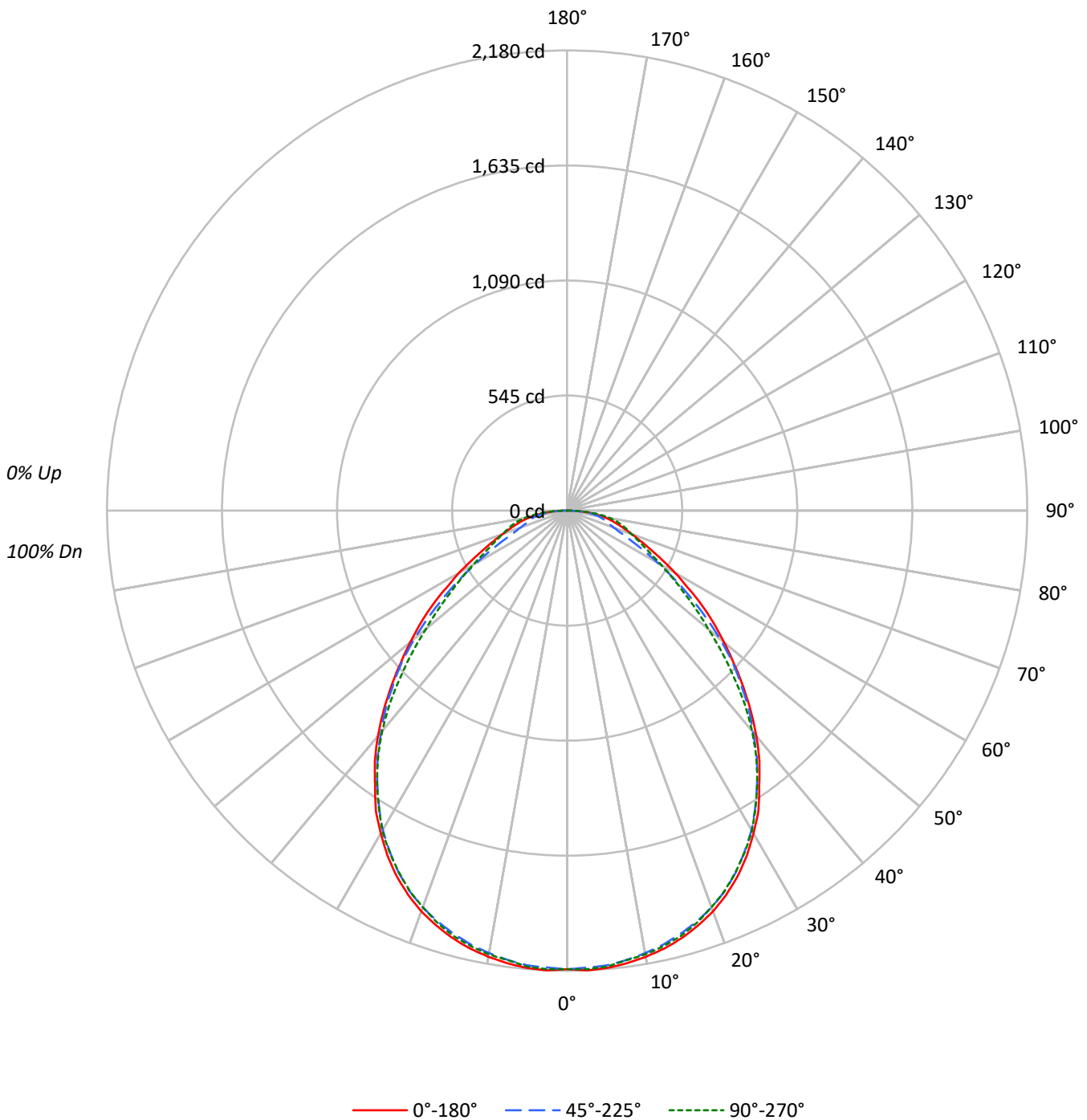
Input Watts (W): 33.201  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293497

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L82765-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P293497

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L82765-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°	2923	2923	2923
5°	2938	2921	2928
10°	2932	2909	2917
15°	2921	2892	2904
20°	2893	2864	2863
25°	2837	2807	2804
30°	2743	2715	2721
35°	2606	2576	2580
40°	2450	2408	2393
45°	2246	2215	2128
50°	2030	1975	1826
55°	1823	1659	1574
60°	1596	1336	1384
65°	1392	1050	1274
70°	1274	917	1274
75°	1274	975	1404
80°	1383	1149	1600
85°	1518	1297	1717



TEST NUMBER: P293497

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L82765-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.8	4.2
10°-20°	587.2	12.0
20°-30°	870.7	17.8
30°-40°	982.2	20.1
40°-50°	889.6	18.2
50°-60°	641.8	13.1
60°-70°	383.2	7.8
70°-80°	236.8	4.8
80°-90°	99.8	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°	1663.6	34.0
0°-40°	2645.8	54.0
0°-60°	4177.2	85.3
0°-90°	4897.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4897.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2173	2173	2173	2173	2173	
5°	2175	2172	2163	2161	2168	207
15°	2097	2084	2076	2077	2085	591
25°	1911	1900	1891	1884	1889	878
35°	1586	1584	1568	1569	1570	993
45°	1180	1173	1164	1136	1118	909
55°	777	753	707	673	671	694
65°	437	385	330	374	400	440
75°	245	213	188	234	270	262
85°	98	86	84	110	111	103
90°	0	0	0	0	0	



TEST NUMBER: P293497

CATALOG NUMBER: 24GR-LD5-48-A-UNV-L82765-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2172.7	2172.7	2172.7	2172.7	2172.7
2.5°	2180.3	2174.3	2166.7	2171.2	2175.0
5°	2175.0	2172.0	2162.9	2160.6	2168.2
7.5°	2163.7	2156.1	2147.8	2151.6	2148.5
10°	2146.3	2139.5	2128.9	2129.6	2134.9
12.5°	2125.1	2116.8	2105.4	2108.4	2113.0
15°	2097.1	2084.2	2075.9	2076.7	2085.0
17.5°	2061.5	2051.7	2041.1	2043.4	2047.2
20°	2020.7	2015.4	2000.3	1995.7	1999.5
22.5°	1969.2	1959.4	1951.1	1948.8	1949.6
25°	1911.0	1900.4	1890.6	1883.7	1889.0
27.5°	1842.9	1833.8	1821.0	1818.7	1823.2
30°	1765.7	1758.9	1747.6	1744.5	1751.4
32.5°	1687.1	1675.7	1659.8	1659.8	1661.3
35°	1586.4	1584.2	1568.3	1569.0	1570.5
37.5°	1495.7	1485.1	1476.0	1466.9	1471.4
40°	1395.0	1382.9	1370.8	1364.8	1362.5
42.5°	1286.9	1277.8	1272.5	1250.5	1245.2
45°	1180.2	1172.6	1164.3	1135.5	1118.1
47.5°	1071.2	1069.7	1062.9	1012.2	994.8
50°	969.9	967.6	943.4	889.7	872.3
52.5°	873.8	858.7	826.9	773.9	770.9
55°	777.0	752.7	707.4	672.6	671.0
57.5°	674.8	646.1	599.9	581.0	590.8
60°	593.1	549.2	496.3	498.6	514.4
62.5°	508.4	459.2	407.0	429.7	448.6
65°	437.3	385.1	329.8	374.5	400.2
67.5°	375.2	326.8	273.9	333.6	358.6
70°	323.8	284.5	233.0	295.8	323.8
72.5°	282.9	246.6	206.5	265.5	298.1
75°	245.1	212.6	187.6	233.8	270.1
77.5°	212.6	180.8	169.5	206.5	242.1
80°	178.5	149.8	148.3	180.1	206.5
82.5°	139.2	119.5	119.5	150.5	166.4
85°	98.3	86.2	84.0	109.7	111.2
87.5°	50.7	48.4	43.9	57.5	57.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)