

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: P293570

Luminaire Tested: **24GR-LD5-64-A-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293570  
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-LD5-64-A-UNV-L93050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5503.0 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

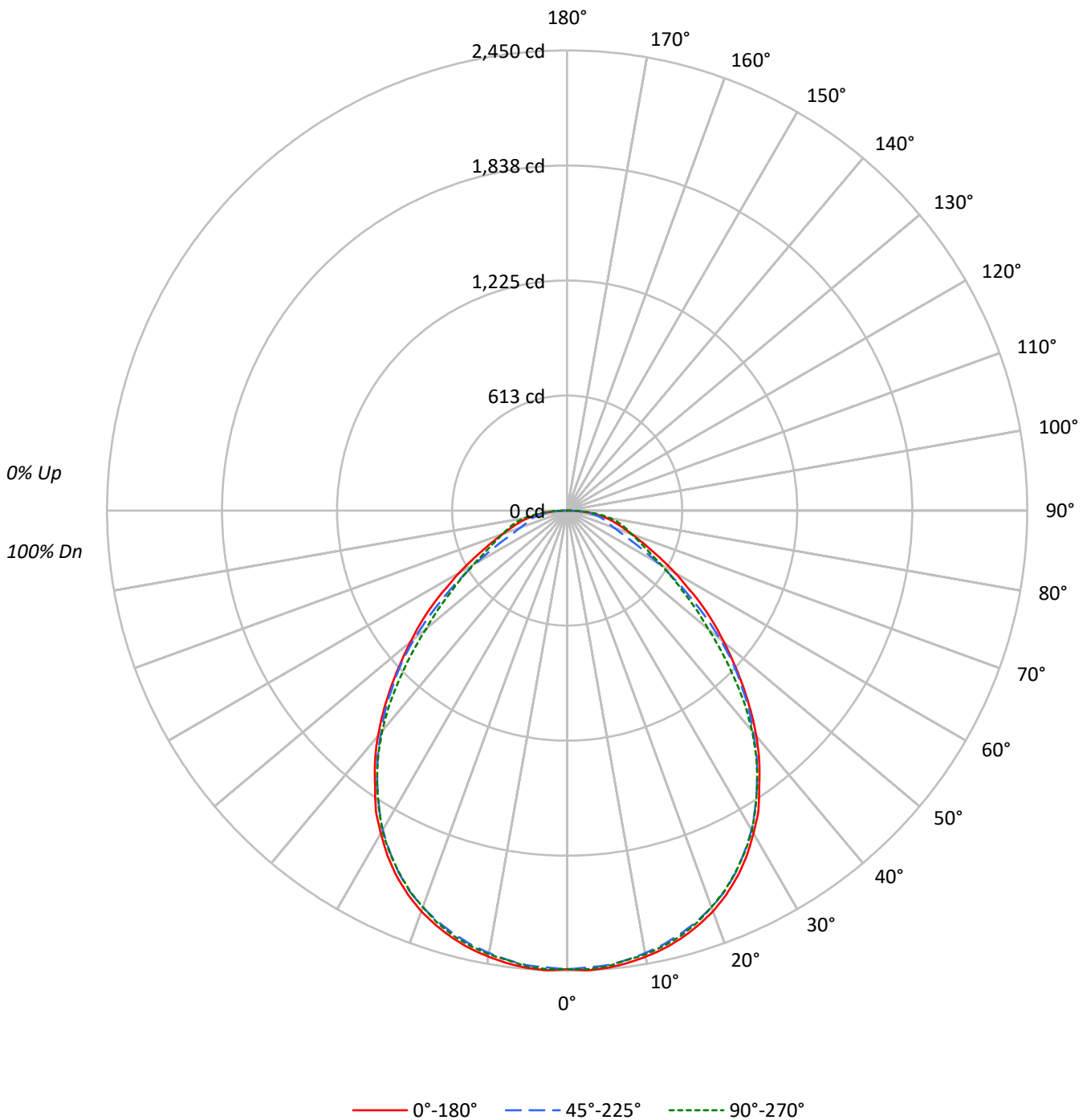
Input Watts (W): 46.814898  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293570

CATALOG NUMBER: 24GR-LD5-64-A-UNV-L93050-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P293570

CATALOG NUMBER: 24GR-LD5-64-A-UNV-L93050-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	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°	3285	3285	3285
5°	3301	3283	3291
10°	3295	3268	3278
15°	3283	3249	3264
20°	3251	3218	3217
25°	3188	3154	3151
30°	3083	3051	3058
35°	2928	2895	2899
40°	2754	2706	2689
45°	2524	2490	2391
50°	2281	2219	2052
55°	2048	1865	1769
60°	1794	1501	1556
65°	1564	1180	1432
70°	1432	1030	1432
75°	1432	1096	1578
80°	1554	1291	1798
85°	1706	1457	1930



TEST NUMBER: P293570

CATALOG NUMBER: 24GR-LD5-64-A-UNV-L93050-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	231.2	4.2
10°-20°	659.8	12.0
20°-30°	978.4	17.8
30°-40°	1103.8	20.1
40°-50°	999.7	18.2
50°-60°	721.2	13.1
60°-70°	430.6	7.8
70°-80°	266.1	4.8
80°-90°	112.1	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°	1869.5	34.0
0°-40°	2973.2	54.0
0°-60°	4694.1	85.3
0°-90°	5503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5503.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2442	2442	2442	2442	2442	
5°	2444	2441	2431	2428	2436	232
15°	2357	2342	2333	2334	2343	664
25°	2148	2136	2124	2117	2123	987
35°	1783	1780	1762	1763	1765	1115
45°	1326	1318	1308	1276	1256	1022
55°	873	846	795	756	754	779
65°	491	433	371	421	450	494
75°	275	239	211	263	304	294
85°	110	97	94	123	125	115
90°	0	0	0	0	0	



TEST NUMBER: P293570

CATALOG NUMBER: 24GR-LD5-64-A-UNV-L93050-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2441.6	2441.6	2441.6	2441.6	2441.6
2.5°	2450.1	2443.3	2434.8	2439.9	2444.2
5°	2444.2	2440.8	2430.6	2428.0	2436.5
7.5°	2431.4	2422.9	2413.6	2417.8	2414.4
10°	2411.9	2404.2	2392.3	2393.2	2399.1
12.5°	2388.1	2378.7	2366.0	2369.4	2374.5
15°	2356.6	2342.2	2332.8	2333.6	2343.0
17.5°	2316.6	2305.6	2293.7	2296.2	2300.5
20°	2270.7	2264.8	2247.8	2242.7	2246.9
22.5°	2212.9	2201.9	2192.5	2190.0	2190.8
25°	2147.5	2135.6	2124.5	2116.9	2122.8
27.5°	2071.0	2060.8	2046.3	2043.7	2048.9
30°	1984.2	1976.6	1963.8	1960.4	1968.1
32.5°	1895.8	1883.1	1865.2	1865.2	1866.9
35°	1782.8	1780.2	1762.4	1763.2	1764.9
37.5°	1680.7	1668.8	1658.6	1648.4	1653.5
40°	1567.7	1554.1	1540.5	1533.7	1531.1
42.5°	1446.1	1435.9	1429.9	1405.3	1399.3
45°	1326.2	1317.7	1308.4	1276.1	1256.5
47.5°	1203.8	1202.1	1194.5	1137.5	1117.9
50°	1089.9	1087.3	1060.1	999.8	980.2
52.5°	981.9	964.9	929.2	869.7	866.3
55°	873.1	845.9	794.9	755.8	754.1
57.5°	758.3	726.0	674.2	652.9	664.0
60°	666.5	617.2	557.7	560.2	578.1
62.5°	571.3	516.0	457.4	482.9	504.1
65°	491.4	432.7	370.7	420.8	449.7
67.5°	421.7	367.3	307.8	374.9	403.0
70°	363.9	319.7	261.8	332.4	363.9
72.5°	318.0	277.1	232.1	298.4	335.0
75°	275.4	238.9	210.8	262.7	303.5
77.5°	238.9	203.2	190.4	232.1	272.0
80°	200.6	168.3	166.6	202.3	232.1
82.5°	156.4	134.3	134.3	169.2	187.0
85°	110.5	96.9	94.4	123.3	125.0
87.5°	57.0	54.4	49.3	64.6	64.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)