

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: P294022

Luminaire Tested: **24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294022  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-5500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6476.0 lumens  
Efficiency: N/A  
Efficacy: 137.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

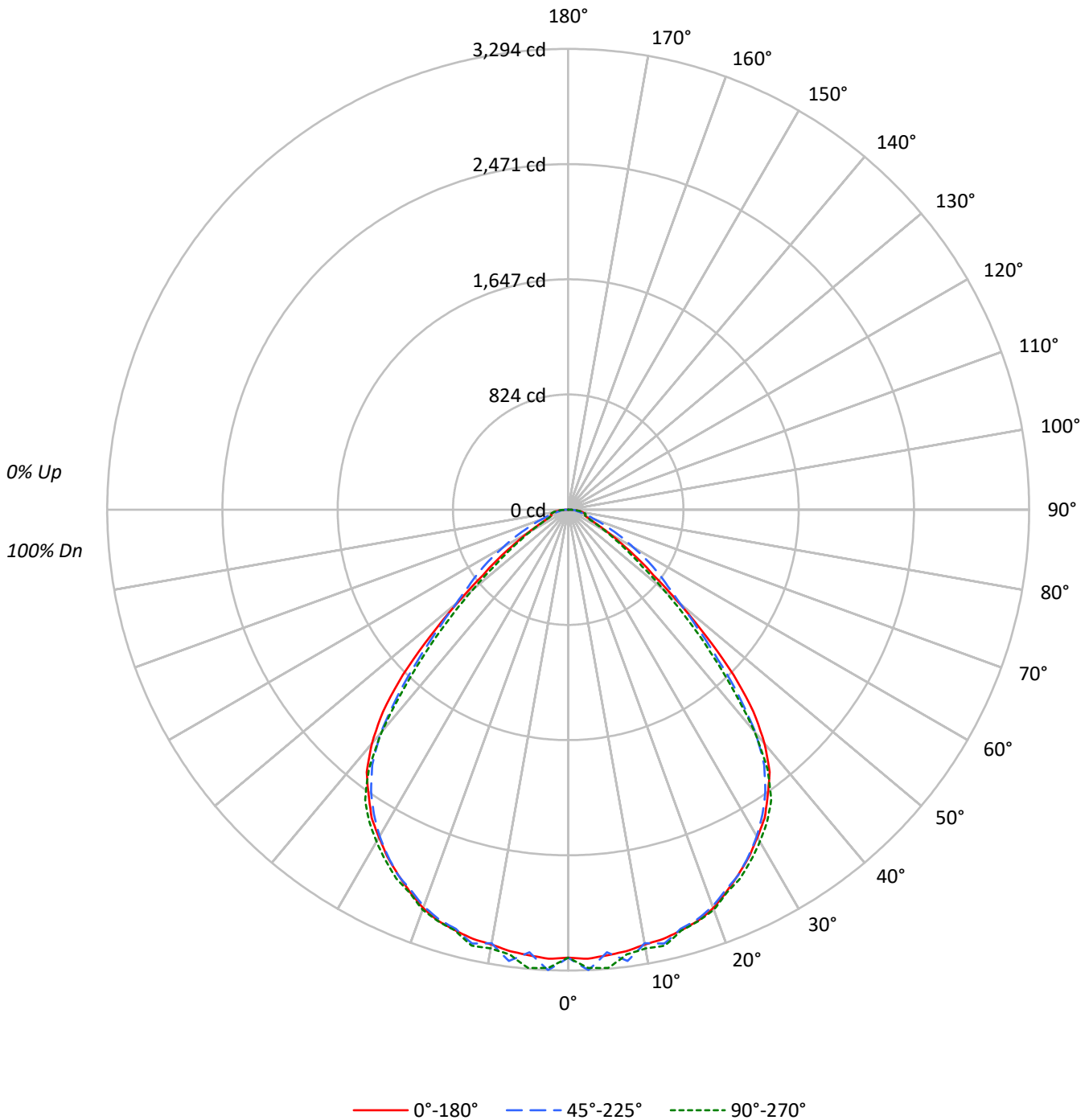
Input Watts (W): 47.244  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P294022

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-5500K

### Luminous Intensity Polar Plot





TEST NUMBER: P294022

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-5500K

**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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

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

	0°	45°	90°
0°	4309	4309	4309
5°	4318	4290	4442
10°	4311	4298	4351
15°	4336	4321	4339
20°	4339	4321	4357
25°	4272	4275	4317
30°	4201	4188	4256
35°	4083	4033	4154
40°	3834	3662	3642
45°	3178	2875	2727
50°	2138	2181	1864
55°	1410	1830	1222
60°	904	1444	837
65°	583	1103	566
70°	515	790	515
75°	665	627	671
80°	814	540	854
85°	948	803	996



TEST NUMBER: P294022

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-5500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	306.6	4.7
10°-20°	880.4	13.6
20°-30°	1325.4	20.5
30°-40°	1536.2	23.7
40°-50°	1200.0	18.5
50°-60°	640.8	9.9
60°-70°	329.5	5.1
70°-80°	186.4	2.9
80°-90°	70.8	1.1
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°	2512.3	38.8
0°-40°	4048.5	62.5
0°-60°	5889.3	90.9
0°-90°	6476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6476.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3202	3202	3202	3202	3202	
5°	3197	3286	3176	3264	3288	304
15°	3113	3132	3102	3122	3115	879
25°	2878	2868	2880	2876	2908	1326
35°	2486	2474	2456	2504	2529	1550
45°	1670	1671	1511	1498	1433	1259
55°	601	760	780	703	521	555
65°	183	382	346	381	178	201
75°	128	240	121	225	129	130
85°	61	80	52	80	64	63
90°	0	0	0	0	0	



TEST NUMBER: P294022

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-5500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3202.2	3202.2	3202.2	3202.2	3202.2
2.5°	3212.6	3270.8	3293.7	3265.6	3278.1
5°	3197.0	3286.4	3176.2	3263.6	3288.5
7.5°	3182.4	3173.1	3253.2	3170.0	3205.3
10°	3155.4	3161.6	3146.0	3205.3	3184.5
12.5°	3142.9	3179.3	3176.2	3146.0	3191.8
15°	3112.8	3132.5	3102.4	3122.1	3114.8
17.5°	3082.6	3073.2	3070.1	3078.4	3085.7
20°	3030.6	2999.4	3018.1	3020.2	3043.1
22.5°	2955.7	2937.0	2941.2	2959.9	2962.0
25°	2877.7	2868.4	2879.8	2875.6	2907.9
27.5°	2796.6	2784.1	2791.4	2807.0	2826.8
30°	2704.0	2700.9	2695.7	2709.2	2739.4
32.5°	2612.5	2587.5	2583.4	2611.5	2645.8
35°	2485.6	2474.2	2455.5	2504.3	2529.3
37.5°	2365.0	2329.6	2299.5	2328.6	2339.0
40°	2183.0	2155.9	2085.2	2088.3	2073.8
42.5°	1959.4	1939.6	1804.4	1780.5	1739.9
45°	1670.3	1671.3	1511.1	1497.6	1433.1
47.5°	1334.3	1393.6	1254.3	1238.7	1143.0
50°	1021.3	1128.4	1042.1	1017.1	890.3
52.5°	766.5	923.5	896.5	842.4	667.7
55°	601.1	760.2	780.0	703.0	521.0
57.5°	452.4	626.1	658.3	594.9	402.5
60°	335.9	527.3	536.6	511.7	311.0
62.5°	249.6	448.2	435.8	438.9	230.9
65°	183.0	381.7	346.3	380.6	177.8
67.5°	149.8	330.7	269.4	329.7	144.6
70°	131.0	293.3	200.7	290.2	131.0
72.5°	126.9	269.4	159.1	257.9	127.9
75°	127.9	240.2	120.6	224.6	129.0
77.5°	117.5	197.6	91.5	191.4	122.7
80°	105.0	149.8	69.7	151.8	110.2
82.5°	89.4	109.2	56.2	112.3	92.6
85°	61.4	80.1	52.0	80.1	64.5
87.5°	29.1	47.8	32.2	45.8	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)