

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: P294077

Luminaire Tested: **24GR-LD5-64-A19/156-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294077  
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-L93050-W2A1-U-5000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5817.0 lumens  
Efficiency: N/A  
Efficacy: 121.5 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

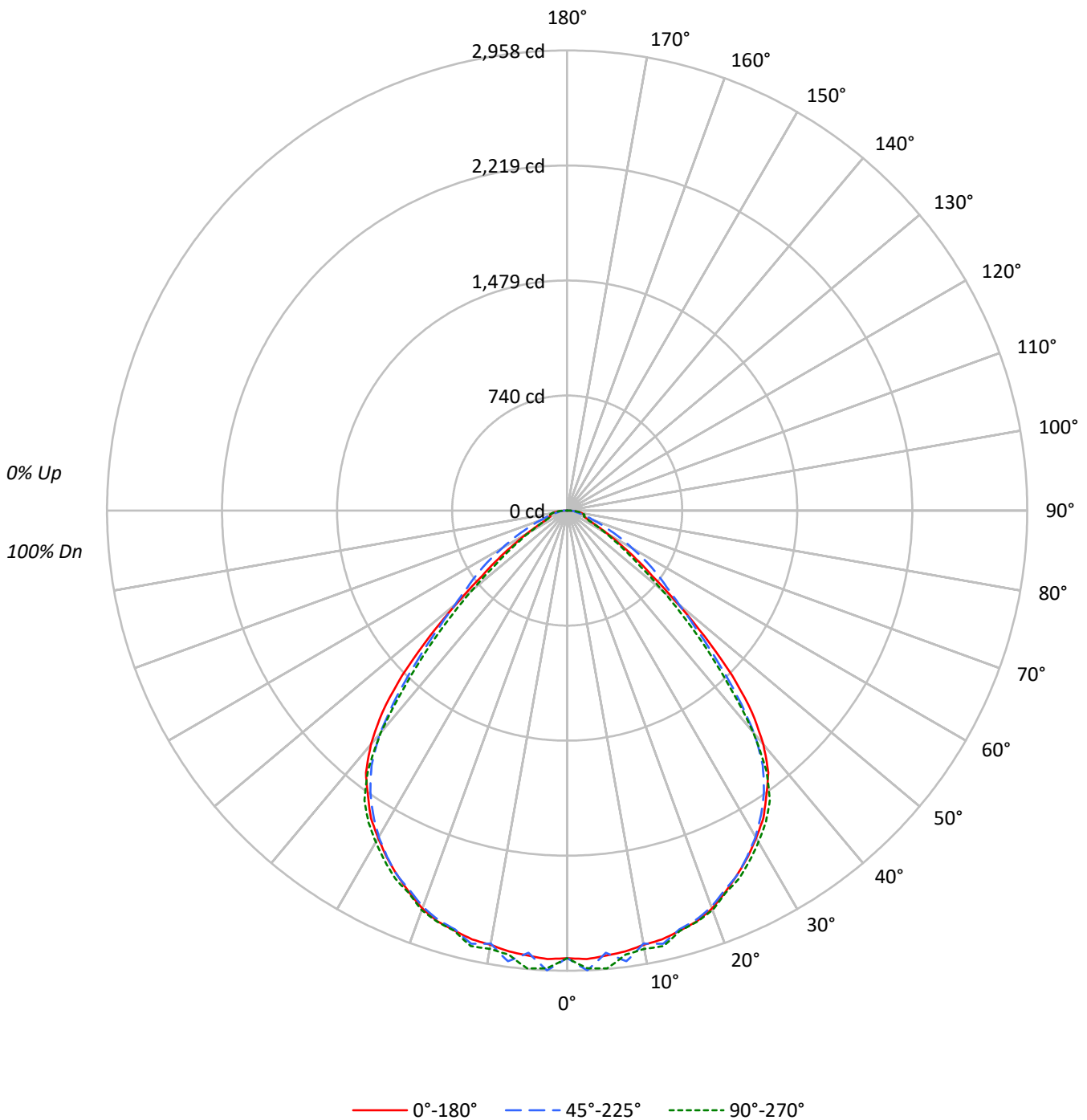
Input Watts (W): 47.871564  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P294077

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L93050-W2A1-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P294077

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L93050-W2A1-U-5000K

**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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	78	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64		72	67	63		70	66	62	60
5	82	71	63	57	80	70	62	57	68	61	56		66	60	56		64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50		60	55	50		59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45		56	50	45		54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41		51	45	41		50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38		48	42	37		47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34		44	38	34		44	38	34	33

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

	0°	45°	90°
0°	3870	3870	3870
5°	3879	3853	3990
10°	3872	3861	3908
15°	3895	3882	3897
20°	3898	3882	3914
25°	3837	3840	3878
30°	3774	3762	3823
35°	3667	3623	3732
40°	3444	3290	3272
45°	2855	2583	2449
50°	1920	1959	1674
55°	1267	1643	1098
60°	812	1297	752
65°	523	990	508
70°	463	709	463
75°	597	564	602
80°	731	485	767
85°	851	721	894



TEST NUMBER: P294077

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L93050-W2A1-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.4	4.7
10°-20°	790.8	13.6
20°-30°	1190.5	20.5
30°-40°	1379.9	23.7
40°-50°	1077.9	18.5
50°-60°	575.6	9.9
60°-70°	296.0	5.1
70°-80°	167.4	2.9
80°-90°	63.6	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°	2256.7	38.8
0°-40°	3636.5	62.5
0°-60°	5290.0	90.9
0°-90°	5817.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5817.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2876	2876	2876	2876	2876	
5°	2872	2952	2853	2932	2954	273
15°	2796	2814	2787	2804	2798	790
25°	2585	2576	2587	2583	2612	1191
35°	2233	2222	2206	2250	2272	1392
45°	1500	1501	1357	1345	1287	1131
55°	540	683	701	632	468	498
65°	164	343	311	342	160	181
75°	115	216	108	202	116	116
85°	55	72	47	72	58	57
90°	0	0	0	0	0	



TEST NUMBER: P294077

CATALOG NUMBER: 24GR-LD5-64-A19/156-UNV-L93050-W2A1-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2876.3	2876.3	2876.3	2876.3	2876.3
2.5°	2885.7	2938.0	2958.5	2933.3	2944.5
5°	2871.7	2952.0	2853.0	2931.5	2953.9
7.5°	2858.6	2850.2	2922.1	2847.4	2879.1
10°	2834.3	2839.9	2825.9	2879.1	2860.5
12.5°	2823.1	2855.8	2853.0	2825.9	2867.0
15°	2796.0	2813.7	2786.7	2804.4	2797.9
17.5°	2768.9	2760.5	2757.7	2765.2	2771.7
20°	2722.2	2694.2	2711.0	2712.9	2733.4
22.5°	2654.9	2638.1	2641.9	2658.7	2660.5
25°	2584.9	2576.5	2586.7	2583.0	2612.0
27.5°	2512.0	2500.8	2507.3	2521.4	2539.1
30°	2428.9	2426.1	2421.4	2433.5	2460.6
32.5°	2346.7	2324.2	2320.5	2345.7	2376.6
35°	2232.7	2222.4	2205.6	2249.5	2271.9
37.5°	2124.3	2092.6	2065.5	2091.6	2101.0
40°	1960.8	1936.6	1873.0	1875.8	1862.8
42.5°	1760.0	1742.2	1620.8	1599.3	1562.9
45°	1500.3	1501.2	1357.4	1345.2	1287.3
47.5°	1198.6	1251.8	1126.6	1112.6	1026.7
50°	917.4	1013.6	936.0	913.6	799.7
52.5°	688.5	829.6	805.3	756.7	599.7
55°	540.0	682.9	700.6	631.5	468.0
57.5°	406.4	562.4	591.3	534.4	361.5
60°	301.7	473.6	482.0	459.6	279.3
62.5°	224.2	402.6	391.4	394.2	207.4
65°	164.4	342.8	311.1	341.9	159.7
67.5°	134.5	297.1	242.0	296.1	129.9
70°	117.7	263.4	180.3	260.6	117.7
72.5°	114.0	242.0	142.9	231.7	114.9
75°	114.9	215.8	108.4	201.8	115.8
77.5°	105.6	177.5	82.2	171.9	110.2
80°	94.4	134.5	62.6	136.4	99.0
82.5°	80.3	98.1	50.4	100.9	83.1
85°	55.1	71.9	46.7	71.9	57.9
87.5°	26.2	43.0	29.0	41.1	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)