

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: P294129

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294129  
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-LD5-48-A19/156-UNV-L92765-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: 4363.0 lumens  
Efficiency: N/A  
Efficacy: 130.0 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

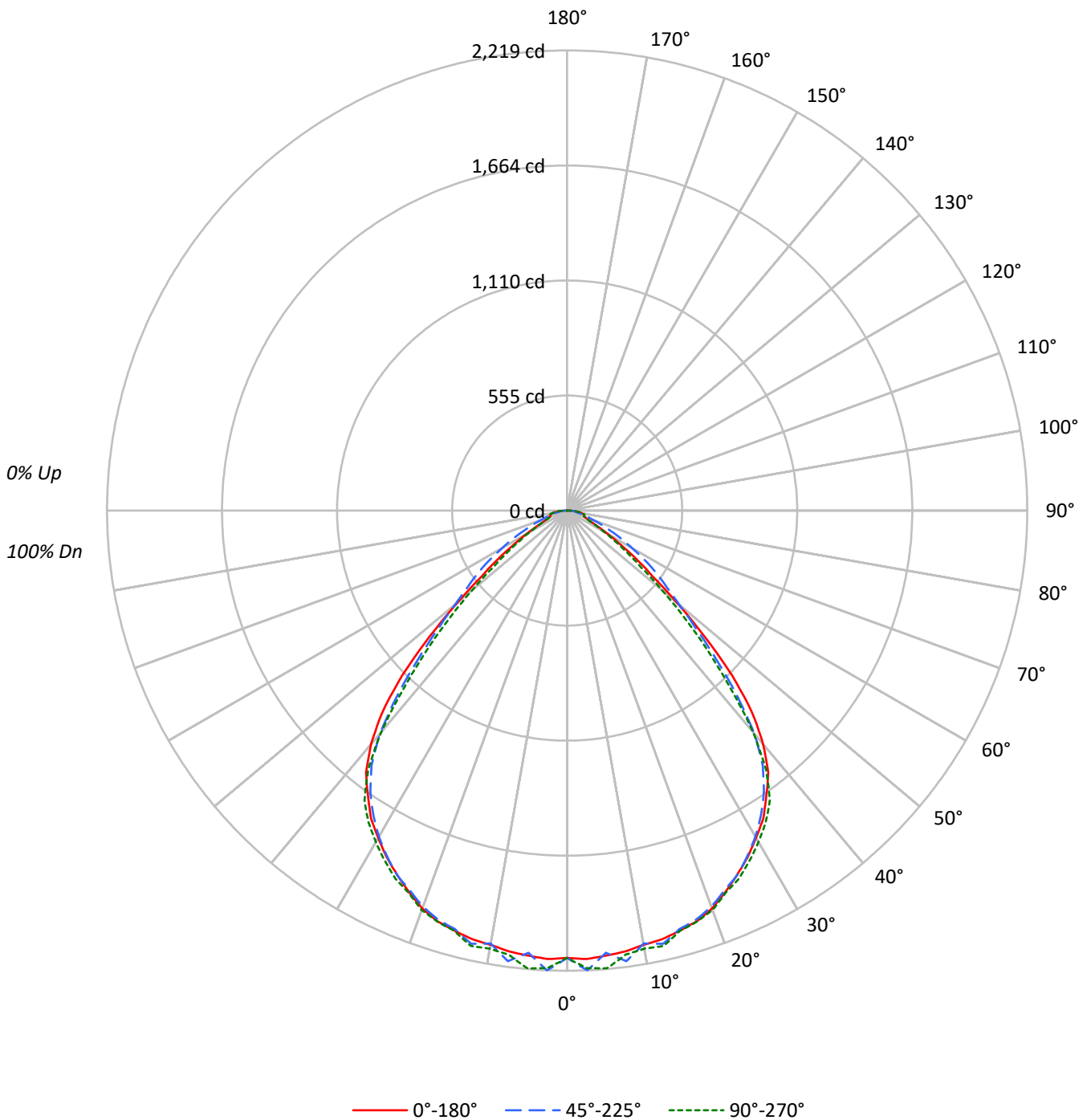
Input Watts (W): 33.573  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P294129

CATALOG NUMBER: 24GR-LD5-48-A19/156-UNV-L92765-W2A1-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P294129

CATALOG NUMBER: 24GR-LD5-48-A19/156-UNV-L92765-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	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°	2903	2903	2903
5°	2909	2890	2992
10°	2904	2896	2931
15°	2921	2911	2923
20°	2924	2912	2936
25°	2878	2880	2908
30°	2830	2822	2867
35°	2751	2717	2799
40°	2583	2468	2454
45°	2141	1937	1837
50°	1440	1470	1256
55°	950	1233	823
60°	609	973	564
65°	393	743	381
70°	347	532	347
75°	448	423	452
80°	549	363	576
85°	638	540	670



TEST NUMBER: P294129

CATALOG NUMBER: 24GR-LD5-48-A19/156-UNV-L92765-W2A1-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.6	4.7
10°-20°	593.1	13.6
20°-30°	892.9	20.5
30°-40°	1035.0	23.7
40°-50°	808.5	18.5
50°-60°	431.7	9.9
60°-70°	222.0	5.1
70°-80°	125.6	2.9
80°-90°	47.7	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°	1692.6	38.8
0°-40°	2727.6	62.5
0°-60°	3967.7	90.9
0°-90°	4363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4363.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2157	2157	2157	2157	2157	
5°	2154	2214	2140	2199	2216	205
15°	2097	2110	2090	2103	2098	592
25°	1939	1932	1940	1937	1959	893
35°	1675	1667	1654	1687	1704	1044
45°	1125	1126	1018	1009	966	848
55°	405	512	526	474	351	374
65°	123	257	233	256	120	136
75°	86	162	81	151	87	87
85°	41	54	35	54	43	43
90°	0	0	0	0	0	



TEST NUMBER: P294129

CATALOG NUMBER: 24GR-LD5-48-A19/156-UNV-L92765-W2A1-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2157.4	2157.4	2157.4	2157.4	2157.4
2.5°	2164.4	2203.6	2219.0	2200.1	2208.5
5°	2153.9	2214.1	2139.9	2198.7	2215.5
7.5°	2144.1	2137.8	2191.7	2135.7	2159.5
10°	2125.8	2130.1	2119.5	2159.5	2145.5
12.5°	2117.4	2142.0	2139.9	2119.5	2150.4
15°	2097.1	2110.4	2090.1	2103.4	2098.5
17.5°	2076.8	2070.5	2068.4	2074.0	2078.9
20°	2041.8	2020.7	2033.4	2034.8	2050.2
22.5°	1991.3	1978.7	1981.5	1994.1	1995.5
25°	1938.8	1932.5	1940.2	1937.4	1959.1
27.5°	1884.1	1875.7	1880.6	1891.1	1904.4
30°	1821.8	1819.7	1816.1	1825.3	1845.6
32.5°	1760.1	1743.3	1740.5	1759.4	1782.5
35°	1674.6	1666.9	1654.3	1687.2	1704.0
37.5°	1593.3	1569.5	1549.2	1568.8	1575.8
40°	1470.7	1452.5	1404.9	1407.0	1397.1
42.5°	1320.1	1306.8	1215.7	1199.6	1172.2
45°	1125.3	1126.0	1018.1	1009.0	965.5
47.5°	899.0	938.9	845.0	834.5	770.0
50°	688.1	760.2	702.1	685.3	599.8
52.5°	516.4	622.2	604.0	567.5	449.8
55°	405.0	512.2	525.5	473.7	351.0
57.5°	304.8	421.8	443.5	400.8	271.2
60°	226.3	355.2	361.5	344.7	209.5
62.5°	168.2	302.0	293.6	295.7	155.5
65°	123.3	257.1	233.3	256.4	119.8
67.5°	100.9	222.8	181.5	222.1	97.4
70°	88.3	197.6	135.2	195.5	88.3
72.5°	85.5	181.5	107.2	173.8	86.2
75°	86.2	161.9	81.3	151.3	86.9
77.5°	79.2	133.1	61.7	128.9	82.7
80°	70.8	100.9	46.9	102.3	74.3
82.5°	60.3	73.6	37.8	75.7	62.4
85°	41.3	54.0	35.0	54.0	43.4
87.5°	19.6	32.2	21.7	30.8	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)