

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: P294138

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294138  
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-LD5-56-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: 5070.0 lumens  
Efficiency: N/A  
Efficacy: 127.1 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

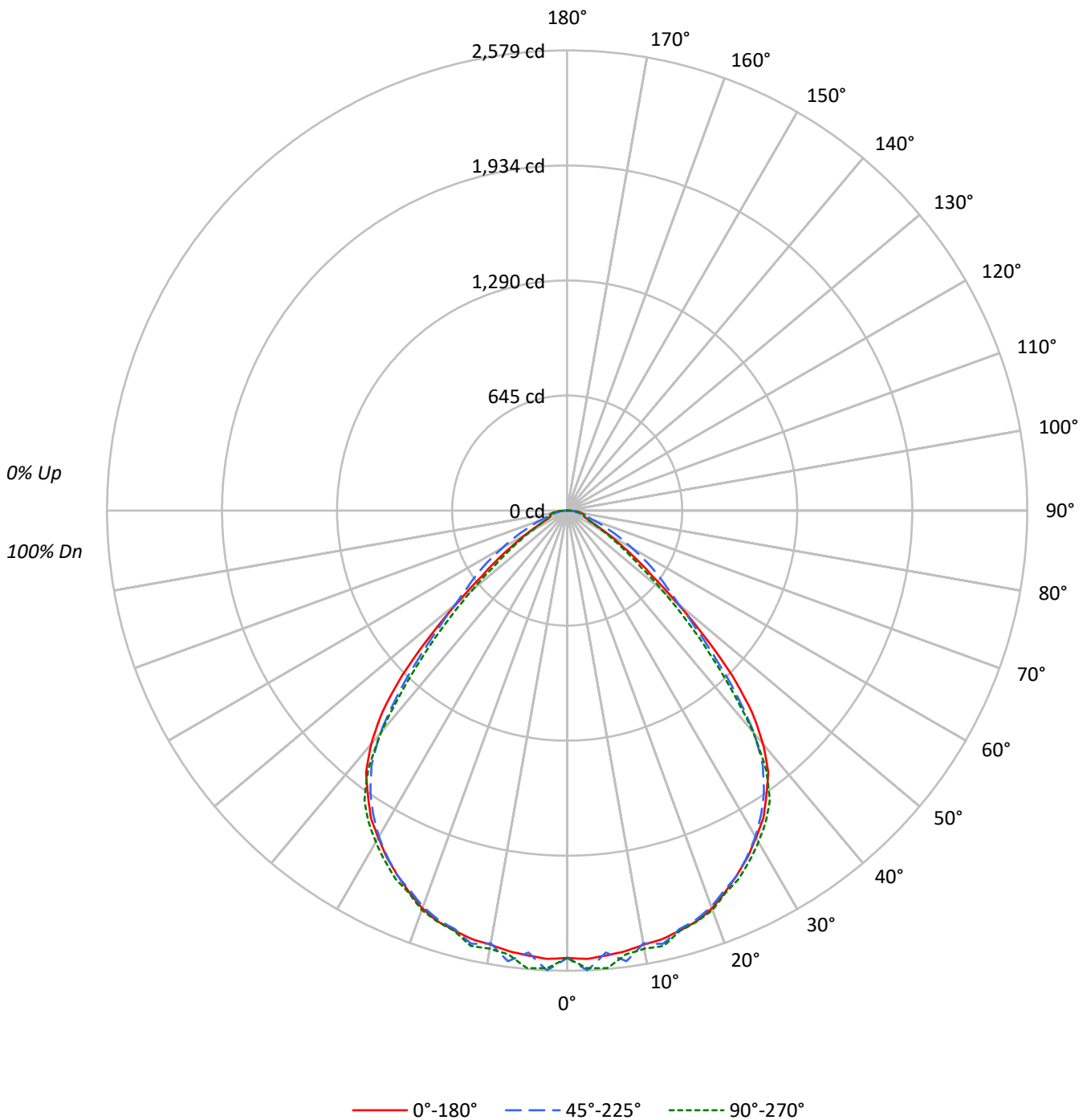
Input Watts (W): 39.897  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P294138

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L92765-W2A1-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P294138

CATALOG NUMBER: 24GR-LD5-56-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°	3373	3373	3373
5°	3380	3358	3477
10°	3375	3365	3406
15°	3394	3383	3397
20°	3397	3383	3411
25°	3345	3347	3380
30°	3289	3279	3332
35°	3196	3158	3253
40°	3002	2867	2852
45°	2488	2251	2135
50°	1674	1708	1459
55°	1104	1433	957
60°	708	1130	655
65°	456	863	443
70°	404	618	404
75°	520	491	525
80°	637	423	669
85°	741	628	780



TEST NUMBER: P294138

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L92765-W2A1-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.0	4.7
10°-20°	689.2	13.6
20°-30°	1037.6	20.5
30°-40°	1202.7	23.7
40°-50°	939.5	18.5
50°-60°	501.7	9.9
60°-70°	258.0	5.1
70°-80°	145.9	2.9
80°-90°	55.4	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°	1966.9	38.8
0°-40°	3169.5	62.5
0°-60°	4610.7	90.9
0°-90°	5070.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5070.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2507	2507	2507	2507	2507	
5°	2503	2573	2487	2555	2574	238
15°	2437	2452	2429	2444	2439	688
25°	2253	2246	2255	2251	2276	1038
35°	1946	1937	1922	1961	1980	1213
45°	1308	1308	1183	1172	1122	985
55°	471	595	611	550	408	434
65°	143	299	271	298	139	157
75°	100	188	94	176	101	101
85°	48	63	41	63	50	50
90°	0	0	0	0	0	



TEST NUMBER: P294138

CATALOG NUMBER: 24GR-LD5-56-A19/156-UNV-L92765-W2A1-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2507.0	2507.0	2507.0	2507.0	2507.0
2.5°	2515.1	2560.7	2578.6	2556.6	2566.4
5°	2502.9	2572.9	2486.6	2555.0	2574.5
7.5°	2491.5	2484.2	2546.9	2481.7	2509.4
10°	2470.3	2475.2	2463.0	2509.4	2493.1
12.5°	2460.6	2489.1	2486.6	2463.0	2498.8
15°	2436.9	2452.4	2428.8	2444.3	2438.6
17.5°	2413.3	2406.0	2403.6	2410.1	2415.8
20°	2372.6	2348.2	2362.9	2364.5	2382.4
22.5°	2314.0	2299.3	2302.6	2317.3	2318.9
25°	2252.9	2245.6	2254.6	2251.3	2276.5
27.5°	2189.4	2179.7	2185.4	2197.6	2213.0
30°	2117.0	2114.5	2110.4	2121.0	2144.6
32.5°	2045.3	2025.8	2022.5	2044.5	2071.4
35°	1946.0	1937.0	1922.4	1960.6	1980.2
37.5°	1851.5	1823.8	1800.2	1823.0	1831.2
40°	1709.0	1687.9	1632.5	1634.9	1623.5
42.5°	1534.0	1518.5	1412.7	1393.9	1362.2
45°	1307.6	1308.4	1183.1	1172.5	1122.0
47.5°	1044.6	1091.0	981.9	969.7	894.8
50°	799.6	883.4	815.8	796.3	697.0
52.5°	600.1	723.0	701.9	659.5	522.7
55°	470.6	595.2	610.7	550.4	407.9
57.5°	354.2	490.2	515.4	465.7	315.1
60°	263.0	412.8	420.1	400.6	243.5
62.5°	195.4	350.9	341.2	343.6	180.8
65°	143.3	298.8	271.1	298.0	139.2
67.5°	117.2	258.9	210.9	258.1	113.2
70°	102.6	229.6	157.1	227.2	102.6
72.5°	99.3	210.9	124.6	201.9	100.1
75°	100.1	188.1	94.4	175.9	101.0
77.5°	92.0	154.7	71.7	149.8	96.1
80°	82.2	117.2	54.6	118.9	86.3
82.5°	70.0	85.5	44.0	87.9	72.5
85°	48.0	62.7	40.7	62.7	50.5
87.5°	22.8	37.5	25.2	35.8	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)