

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: P294151

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294151  
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-LD5-72-A19/156-UNV-L92765-W2A1-U-2700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5514.0 lumens  
Efficiency: N/A  
Efficacy: 105.1 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

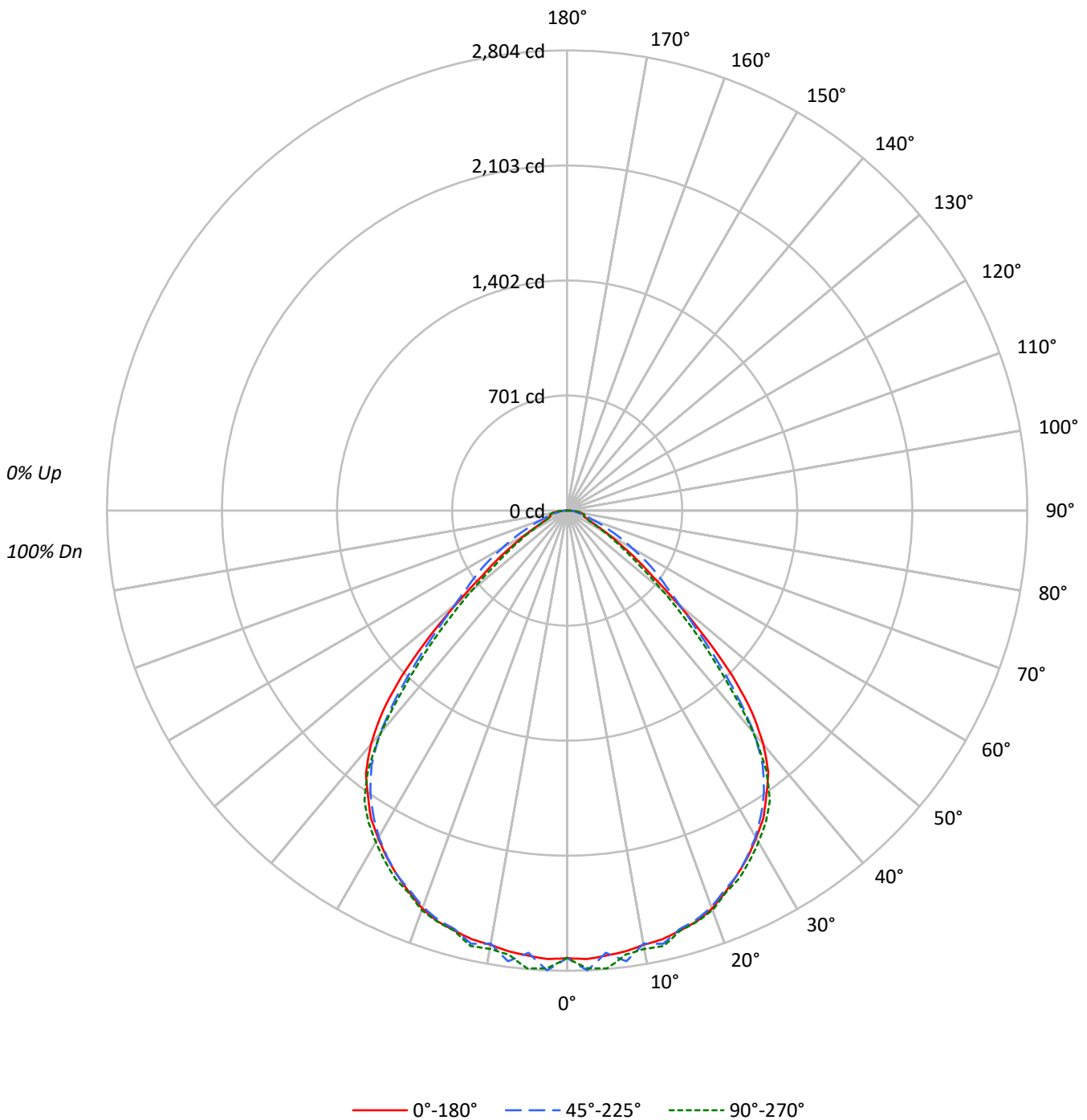
Input Watts (W): 52.452  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	3668	3668	3668
5°	3677	3653	3782
10°	3671	3660	3705
15°	3692	3679	3694
20°	3695	3680	3710
25°	3638	3640	3676
30°	3577	3566	3624
35°	3476	3434	3537
40°	3265	3119	3101
45°	2706	2448	2322
50°	1820	1857	1587
55°	1201	1558	1041
60°	770	1230	713
65°	496	939	482
70°	439	672	439
75°	566	534	571
80°	693	459	728
85°	806	684	848



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.1	4.7
10°-20°	749.6	13.6
20°-30°	1128.5	20.5
30°-40°	1308.0	23.7
40°-50°	1021.8	18.5
50°-60°	545.6	9.9
60°-70°	280.6	5.1
70°-80°	158.7	2.9
80°-90°	60.3	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°	2139.1	38.8
0°-40°	3447.1	62.5
0°-60°	5014.4	90.9
0°-90°	5514.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5514.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2726	2726	2726	2726	2726	
5°	2722	2798	2704	2779	2800	259
15°	2650	2667	2642	2658	2652	749
25°	2450	2442	2452	2448	2476	1129
35°	2116	2107	2091	2132	2154	1319
45°	1422	1423	1287	1275	1220	1072
55°	512	647	664	599	444	472
65°	156	325	295	324	151	171
75°	109	205	103	191	110	110
85°	52	68	44	68	55	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2726.5	2726.5	2726.5	2726.5	2726.5
2.5°	2735.4	2785.0	2804.4	2780.5	2791.2
5°	2722.1	2798.2	2704.4	2778.8	2800.0
7.5°	2709.7	2701.7	2769.9	2699.1	2729.2
10°	2686.7	2692.0	2678.7	2729.2	2711.5
12.5°	2676.0	2707.0	2704.4	2678.7	2717.7
15°	2650.4	2667.2	2641.5	2658.3	2652.1
17.5°	2624.7	2616.7	2614.1	2621.1	2627.3
20°	2580.4	2553.8	2569.8	2571.5	2591.0
22.5°	2516.6	2500.7	2504.2	2520.2	2522.0
25°	2450.2	2442.3	2452.0	2448.5	2475.9
27.5°	2381.2	2370.5	2376.7	2390.0	2406.8
30°	2302.4	2299.7	2295.3	2306.8	2332.5
32.5°	2224.4	2203.2	2199.6	2223.5	2252.8
35°	2116.4	2106.7	2090.7	2132.3	2153.6
37.5°	2013.7	1983.6	1957.9	1982.7	1991.5
40°	1858.7	1835.7	1775.5	1778.1	1765.7
42.5°	1668.3	1651.5	1536.4	1516.0	1481.5
45°	1422.1	1423.0	1286.7	1275.1	1220.2
47.5°	1136.1	1186.6	1067.9	1054.7	973.2
50°	869.6	960.8	887.3	866.0	758.0
52.5°	652.6	786.3	763.3	717.3	568.5
55°	511.8	647.3	664.1	598.6	443.6
57.5°	385.2	533.1	560.5	506.5	342.7
60°	286.0	449.0	456.9	435.7	264.8
62.5°	212.5	381.7	371.0	373.7	196.6
65°	155.9	325.0	294.9	324.1	151.4
67.5°	127.5	281.6	229.3	280.7	123.1
70°	111.6	249.7	170.9	247.1	111.6
72.5°	108.0	229.3	135.5	219.6	108.9
75°	108.9	204.6	102.7	191.3	109.8
77.5°	100.1	168.2	77.9	162.9	104.5
80°	89.4	127.5	59.3	129.3	93.9
82.5°	76.2	93.0	47.8	95.6	78.8
85°	52.2	68.2	44.3	68.2	54.9
87.5°	24.8	40.7	27.5	39.0	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)