

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: P294124

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294124  
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-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: 3698.0 lumens  
Efficiency: N/A  
Efficacy: 113.0 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

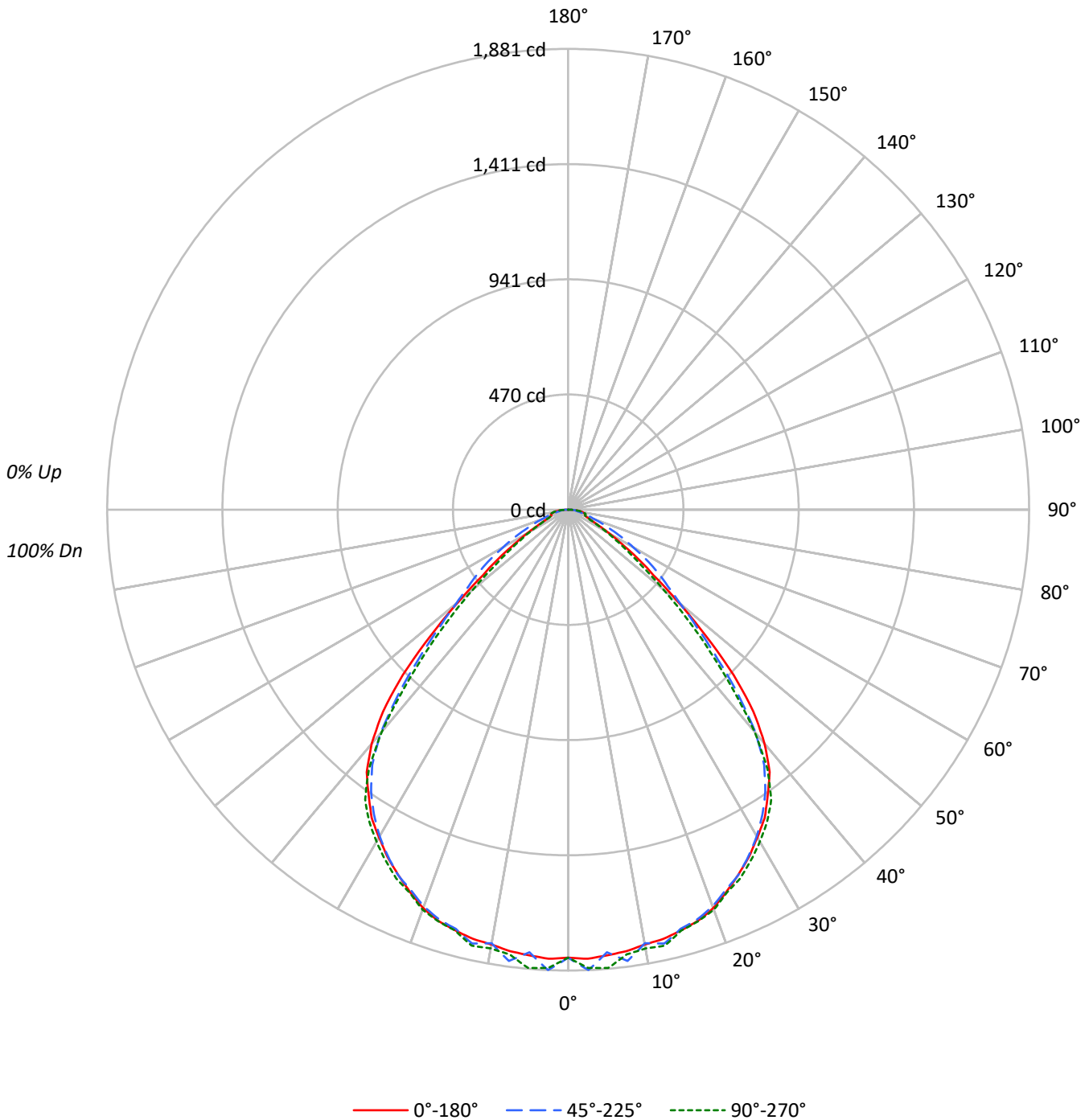
Input Watts (W): 32.736  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2460	2460	2460
5°	2466	2450	2536
10°	2462	2454	2485
15°	2476	2468	2478
20°	2478	2468	2488
25°	2440	2441	2465
30°	2399	2392	2430
35°	2331	2303	2372
40°	2190	2091	2080
45°	1815	1642	1557
50°	1221	1246	1064
55°	805	1045	698
60°	516	825	478
65°	333	630	323
70°	294	451	294
75°	379	358	383
80°	465	308	488
85°	540	459	568



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.1	4.7
10°-20°	502.7	13.6
20°-30°	756.8	20.5
30°-40°	877.2	23.7
40°-50°	685.3	18.5
50°-60°	365.9	9.9
60°-70°	188.2	5.1
70°-80°	106.4	2.9
80°-90°	40.4	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°	1434.6	38.8
0°-40°	2311.8	62.5
0°-60°	3363.0	90.9
0°-90°	3698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3698.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1829	1829	1829	1829	1829	
5°	1826	1877	1814	1864	1878	174
15°	1778	1789	1772	1783	1779	502
25°	1643	1638	1644	1642	1660	757
35°	1419	1413	1402	1430	1444	885
45°	954	954	863	855	818	719
55°	343	434	445	402	298	317
65°	104	218	198	217	102	115
75°	73	137	69	128	74	74
85°	35	46	30	46	37	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1828.6	1828.6	1828.6	1828.6	1828.6
2.5°	1834.5	1867.8	1880.8	1864.8	1871.9
5°	1825.6	1876.7	1813.7	1863.6	1877.8
7.5°	1817.3	1811.9	1857.7	1810.1	1830.3
10°	1801.8	1805.4	1796.5	1830.3	1818.5
12.5°	1794.7	1815.5	1813.7	1796.5	1822.6
15°	1777.5	1788.8	1771.5	1782.8	1778.7
17.5°	1760.3	1754.9	1753.1	1757.9	1762.0
20°	1730.6	1712.7	1723.4	1724.6	1737.7
22.5°	1687.8	1677.1	1679.5	1690.2	1691.4
25°	1643.3	1637.9	1644.5	1642.1	1660.5
27.5°	1596.9	1589.8	1594.0	1602.9	1614.2
30°	1544.1	1542.3	1539.3	1547.1	1564.3
32.5°	1491.8	1477.6	1475.2	1491.2	1510.8
35°	1419.4	1412.8	1402.1	1430.1	1444.3
37.5°	1350.5	1330.3	1313.1	1329.7	1335.6
40°	1246.6	1231.1	1190.7	1192.5	1184.2
42.5°	1118.9	1107.6	1030.4	1016.7	993.6
45°	953.8	954.4	862.9	855.2	818.4
47.5°	761.9	795.8	716.2	707.3	652.7
50°	583.2	644.4	595.1	580.8	508.4
52.5°	437.7	527.4	511.9	481.0	381.3
55°	343.3	434.1	445.4	401.5	297.5
57.5°	258.3	357.5	375.9	339.7	229.8
60°	191.8	301.1	306.4	292.2	177.6
62.5°	142.5	256.0	248.8	250.6	131.8
65°	104.5	218.0	197.8	217.4	101.6
67.5°	85.5	188.9	153.8	188.3	82.5
70°	74.8	167.5	114.6	165.7	74.8
72.5°	72.5	153.8	90.9	147.3	73.0
75°	73.0	137.2	68.9	128.3	73.6
77.5°	67.1	112.8	52.3	109.3	70.1
80°	60.0	85.5	39.8	86.7	63.0
82.5°	51.1	62.4	32.1	64.1	52.9
85°	35.0	45.7	29.7	45.7	36.8
87.5°	16.6	27.3	18.4	26.1	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)