

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: P293996

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293996  
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-LD5-42-A19/156-UNV-L82765-W2A1-U-5700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4254.0 lumens  
Efficiency: N/A  
Efficacy: 148.0 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

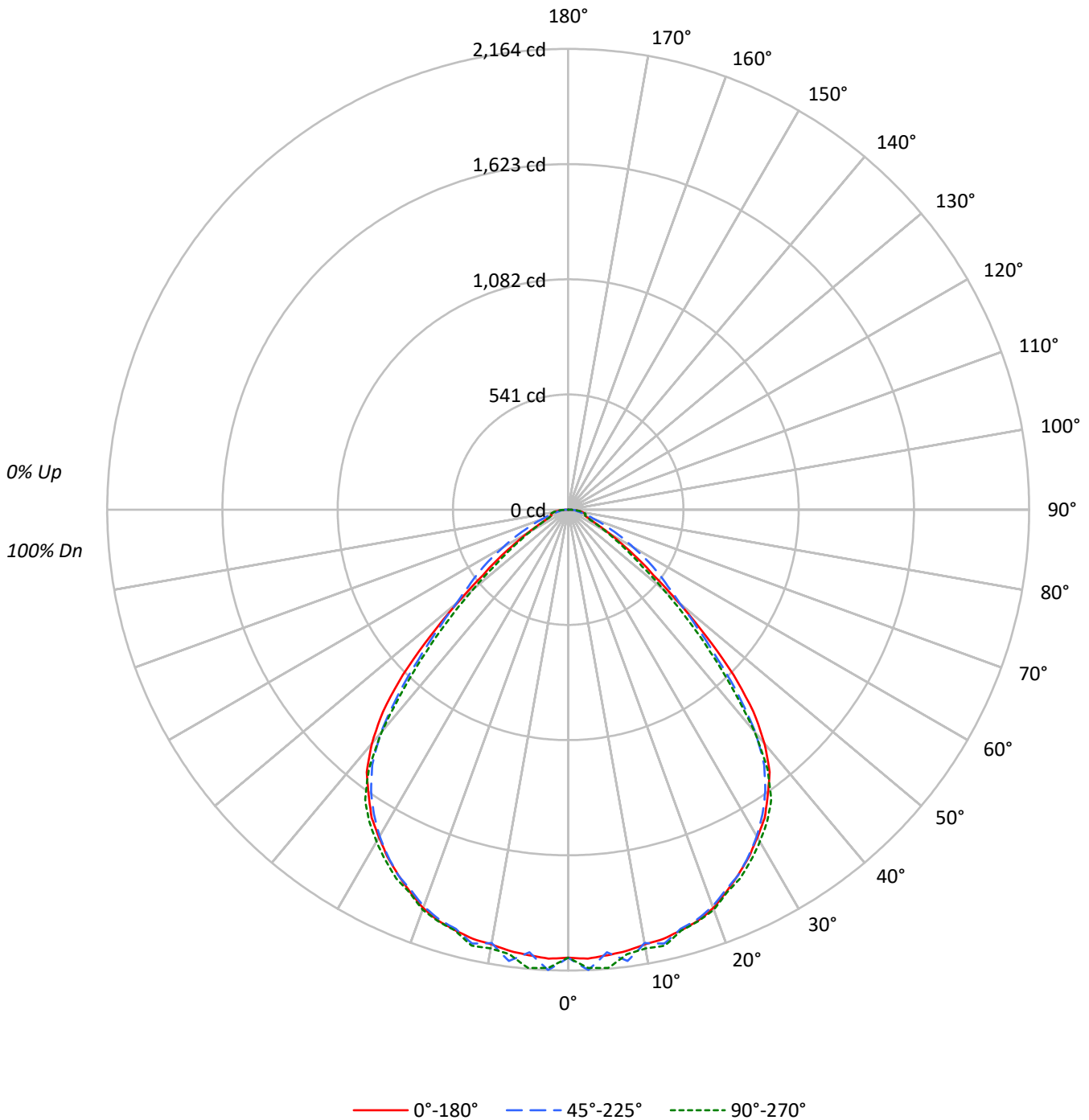
Input Watts (W): 28.737  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2830	2830	2830
5°	2836	2818	2918
10°	2832	2823	2858
15°	2848	2839	2850
20°	2851	2839	2862
25°	2806	2808	2836
30°	2760	2751	2796
35°	2682	2649	2729
40°	2519	2406	2393
45°	2088	1889	1791
50°	1404	1433	1224
55°	926	1202	803
60°	594	949	550
65°	383	724	372
70°	339	519	339
75°	437	412	440
80°	535	355	561
85°	622	528	655



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.4	4.7
10°-20°	578.3	13.6
20°-30°	870.6	20.5
30°-40°	1009.1	23.7
40°-50°	788.3	18.5
50°-60°	420.9	9.9
60°-70°	216.4	5.1
70°-80°	122.4	2.9
80°-90°	46.5	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°	1650.3	38.8
0°-40°	2659.4	62.5
0°-60°	3868.6	90.9
0°-90°	4254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4254.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2104	2104	2104	2104	2104	
5°	2100	2159	2086	2144	2160	200
15°	2045	2058	2038	2051	2046	578
25°	1890	1884	1892	1889	1910	871
35°	1633	1625	1613	1645	1662	1018
45°	1097	1098	993	984	941	827
55°	395	499	512	462	342	364
65°	120	251	228	250	117	132
75°	84	158	79	148	85	85
85°	40	53	34	53	42	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2103.5	2103.5	2103.5	2103.5	2103.5
2.5°	2110.3	2148.6	2163.6	2145.2	2153.4
5°	2100.1	2158.8	2086.4	2143.8	2160.2
7.5°	2090.5	2084.4	2137.0	2082.3	2105.5
10°	2072.7	2076.8	2066.6	2105.5	2091.9
12.5°	2064.5	2088.5	2086.4	2066.6	2096.6
15°	2044.7	2057.7	2037.9	2050.9	2046.1
17.5°	2024.9	2018.8	2016.7	2022.2	2027.0
20°	1990.8	1970.3	1982.6	1983.9	1999.0
22.5°	1941.6	1929.3	1932.0	1944.3	1945.7
25°	1890.3	1884.2	1891.7	1889.0	1910.1
27.5°	1837.0	1828.8	1833.6	1843.9	1856.9
30°	1776.2	1774.2	1770.8	1779.7	1799.5
32.5°	1716.1	1699.7	1697.0	1715.4	1738.0
35°	1632.8	1625.3	1613.0	1645.1	1661.5
37.5°	1553.5	1530.3	1510.5	1529.6	1536.4
40°	1434.0	1416.2	1369.8	1371.8	1362.2
42.5°	1287.1	1274.1	1185.3	1169.6	1142.9
45°	1097.2	1097.9	992.6	983.8	941.4
47.5°	876.5	915.4	823.9	813.7	750.8
50°	670.9	741.2	684.5	668.1	584.8
52.5°	503.5	606.7	588.9	553.4	438.6
55°	394.9	499.4	512.4	461.8	342.3
57.5°	297.2	411.3	432.4	390.8	264.4
60°	220.7	346.4	352.5	336.1	204.3
62.5°	164.0	294.4	286.2	288.3	151.7
65°	120.2	250.7	227.5	250.0	116.8
67.5°	98.4	217.2	176.9	216.6	95.0
70°	86.1	192.7	131.9	190.6	86.1
72.5°	83.3	176.9	104.5	169.4	84.0
75°	84.0	157.8	79.2	147.6	84.7
77.5°	77.2	129.8	60.1	125.7	80.6
80°	69.0	98.4	45.8	99.7	72.4
82.5°	58.8	71.7	36.9	73.8	60.8
85°	40.3	52.6	34.2	52.6	42.4
87.5°	19.1	31.4	21.2	30.1	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)