

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: P293990

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293990  
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-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3852.0 lumens  
Efficiency: N/A  
Efficacy: 138.5 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

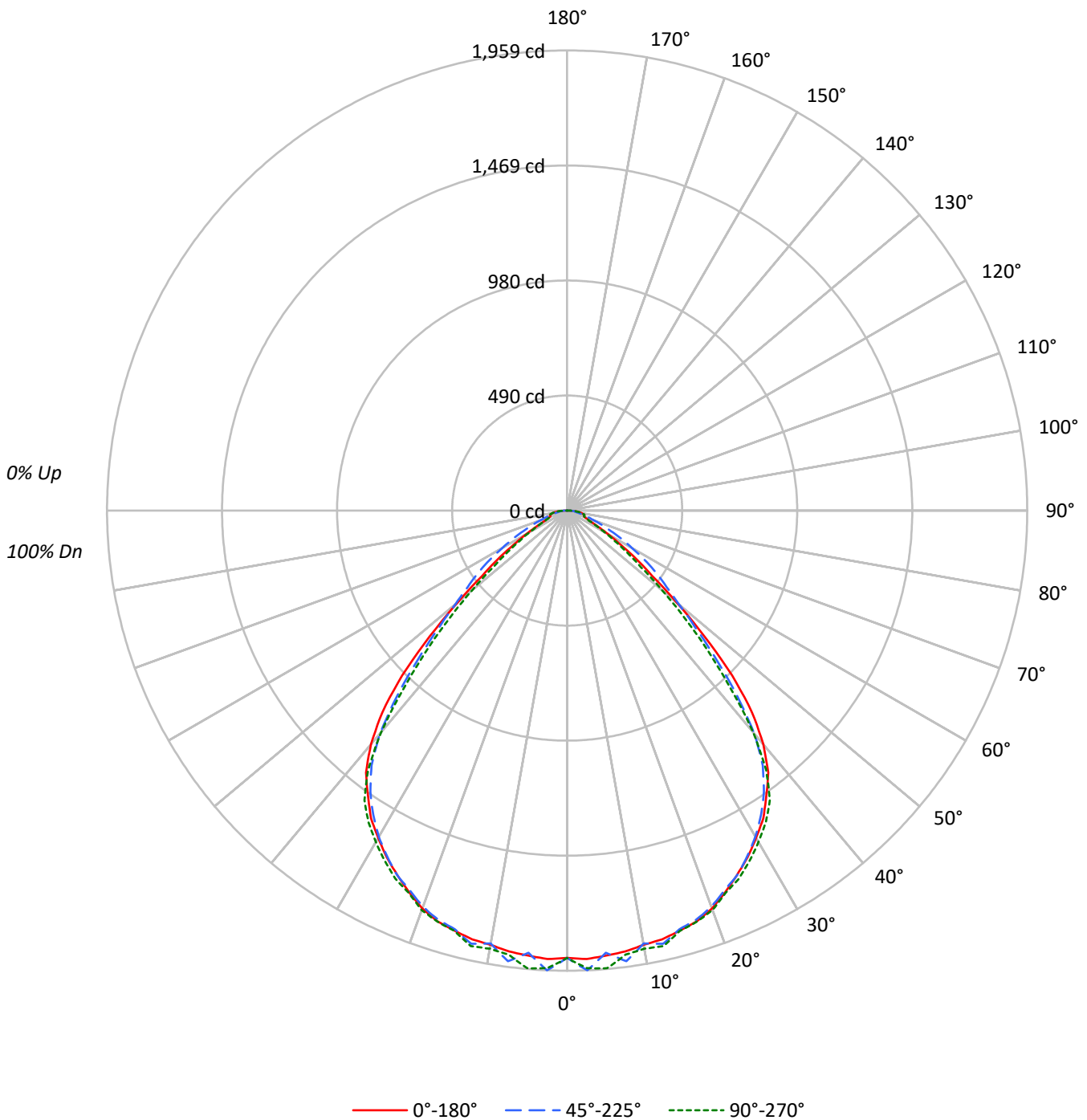
Input Watts (W): 27.807  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	78	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64		72	67	63		70	66	62	60
5	82	71	63	57	80	70	62	57	68	61	56		66	60	56		64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50		60	55	50		59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45		56	50	45		54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41		51	45	41		50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38		48	42	37		47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34		44	38	34		44	38	34	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2563	2563	2563
5°	2568	2552	2642
10°	2564	2557	2588
15°	2579	2570	2581
20°	2581	2570	2592
25°	2541	2543	2568
30°	2499	2491	2531
35°	2428	2399	2471
40°	2281	2178	2167
45°	1890	1710	1622
50°	1272	1297	1108
55°	839	1088	727
60°	538	859	498
65°	347	656	337
70°	306	470	306
75°	396	373	399
80°	484	321	508
85°	563	477	593



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.4	4.7
10°-20°	523.6	13.6
20°-30°	788.3	20.5
30°-40°	913.7	23.7
40°-50°	713.8	18.5
50°-60°	381.1	9.9
60°-70°	196.0	5.1
70°-80°	110.9	2.9
80°-90°	42.1	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°	1494.4	38.8
0°-40°	2408.1	62.5
0°-60°	3503.0	90.9
0°-90°	3852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3852.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1905	1905	1905	1905	1905	
5°	1902	1955	1889	1941	1956	181
15°	1852	1863	1845	1857	1853	523
25°	1712	1706	1713	1710	1730	789
35°	1478	1472	1460	1490	1504	922
45°	994	994	899	891	852	749
55°	358	452	464	418	310	330
65°	109	227	206	226	106	120
75°	76	143	72	134	77	77
85°	36	48	31	48	38	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1904.7	1904.7	1904.7	1904.7	1904.7
2.5°	1910.9	1945.5	1959.1	1942.4	1949.9
5°	1901.6	1954.8	1889.2	1941.2	1956.0
7.5°	1892.9	1887.4	1935.0	1885.5	1906.6
10°	1876.9	1880.6	1871.3	1906.6	1894.2
12.5°	1869.4	1891.1	1889.2	1871.3	1898.5
15°	1851.5	1863.3	1845.3	1857.1	1852.7
17.5°	1833.6	1828.0	1826.1	1831.1	1835.4
20°	1802.6	1784.1	1795.2	1796.4	1810.1
22.5°	1758.1	1747.0	1749.4	1760.6	1761.8
25°	1711.7	1706.1	1712.9	1710.5	1729.6
27.5°	1663.4	1656.0	1660.4	1669.6	1681.4
30°	1608.4	1606.5	1603.4	1611.5	1629.4
32.5°	1554.0	1539.1	1536.6	1553.3	1573.7
35°	1478.5	1471.7	1460.5	1489.6	1504.5
37.5°	1406.7	1385.7	1367.7	1385.1	1391.3
40°	1298.5	1282.4	1240.3	1242.2	1233.5
42.5°	1165.5	1153.7	1073.3	1059.1	1034.9
45°	993.5	994.1	898.8	890.8	852.4
47.5°	793.7	828.9	746.0	736.8	679.9
50°	607.5	671.2	619.8	605.0	529.5
52.5°	455.9	549.3	533.2	501.1	397.1
55°	357.6	452.2	464.0	418.2	309.9
57.5°	269.1	372.4	391.6	353.8	239.4
60°	199.8	313.6	319.2	304.4	185.0
62.5°	148.5	266.6	259.2	261.1	137.3
65°	108.9	227.0	206.0	226.4	105.8
67.5°	89.1	196.7	160.2	196.1	86.0
70°	77.9	174.4	119.4	172.6	77.9
72.5°	75.5	160.2	94.6	153.4	76.1
75°	76.1	142.9	71.8	133.6	76.7
77.5°	69.9	117.5	54.4	113.8	73.0
80°	62.5	89.1	41.4	90.3	65.6
82.5°	53.2	65.0	33.4	66.8	55.1
85°	36.5	47.6	30.9	47.6	38.4
87.5°	17.3	28.5	19.2	27.2	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)