

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: P293929

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293929  
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-LD5-38-A19/156-UNV-L83050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3932.0 lumens  
Efficiency: N/A  
Efficacy: 151.5 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

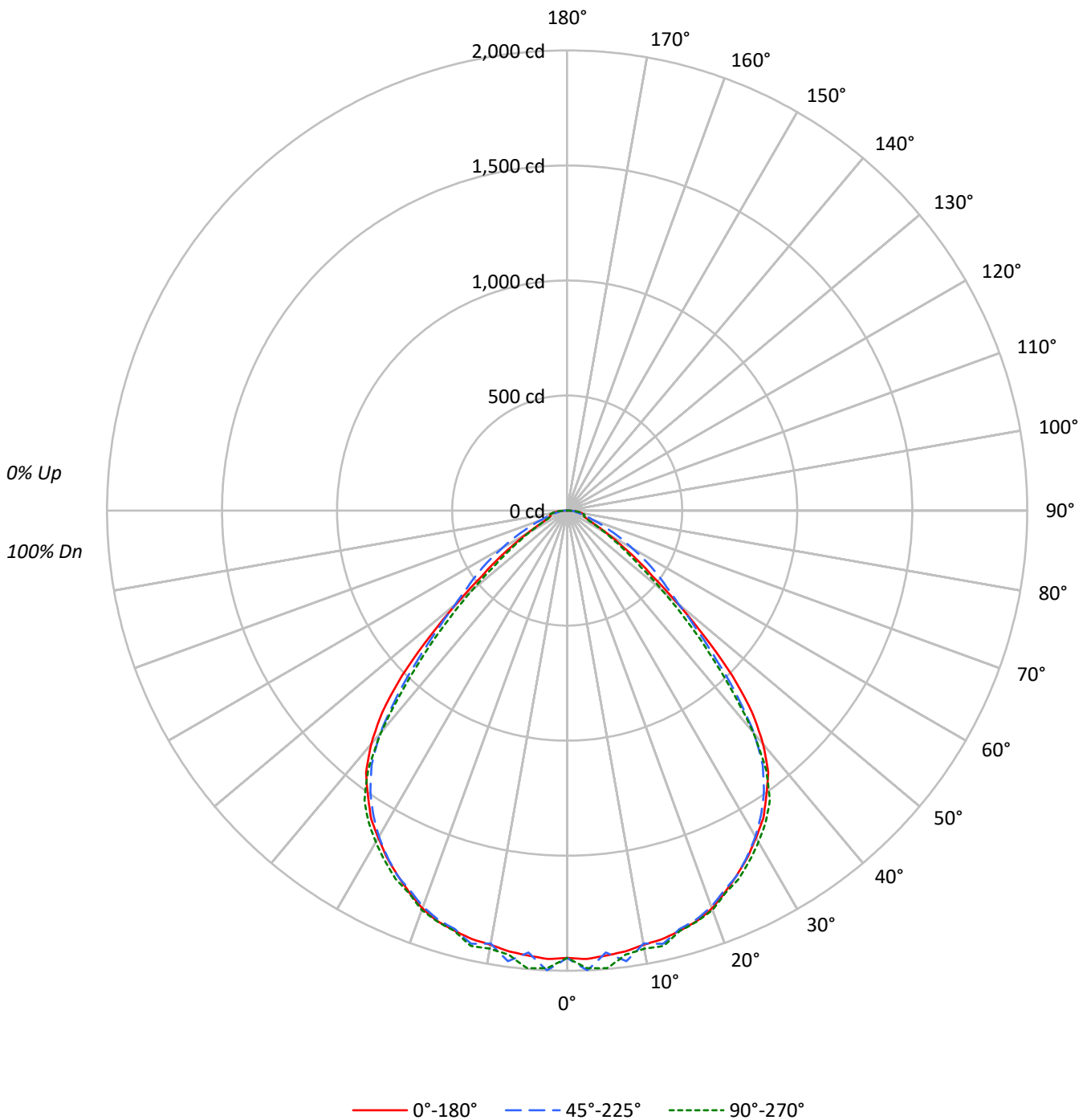
Input Watts (W): 25.947  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2616	2616	2616
5°	2622	2605	2697
10°	2617	2610	2642
15°	2633	2624	2634
20°	2635	2624	2645
25°	2594	2596	2621
30°	2551	2543	2584
35°	2479	2449	2522
40°	2328	2224	2211
45°	1930	1746	1656
50°	1298	1324	1131
55°	856	1111	742
60°	549	877	508
65°	354	670	344
70°	313	480	313
75°	404	381	407
80°	494	328	518
85°	576	488	605



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	186.2	4.7
10°-20°	534.5	13.6
20°-30°	804.7	20.5
30°-40°	932.7	23.7
40°-50°	728.6	18.5
50°-60°	389.0	9.9
60°-70°	200.1	5.1
70°-80°	113.2	2.9
80°-90°	43.0	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°	1525.4	38.8
0°-40°	2458.1	62.5
0°-60°	3575.8	90.9
0°-90°	3932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3932.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1944	1944	1944	1944	1944	
5°	1941	1995	1928	1982	1997	185
15°	1890	1902	1884	1896	1891	534
25°	1747	1742	1748	1746	1766	805
35°	1509	1502	1491	1521	1536	941
45°	1014	1015	918	909	870	764
55°	365	462	474	427	316	337
65°	111	232	210	231	108	122
75°	78	146	73	136	78	79
85°	37	49	32	49	39	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1944.3	1944.3	1944.3	1944.3	1944.3
2.5°	1950.6	1985.9	1999.8	1982.8	1990.4
5°	1941.1	1995.4	1928.5	1981.5	1996.7
7.5°	1932.3	1926.6	1975.2	1924.7	1946.2
10°	1915.8	1919.6	1910.2	1946.2	1933.5
12.5°	1908.3	1930.4	1928.5	1910.2	1937.9
15°	1890.0	1902.0	1883.6	1895.6	1891.2
17.5°	1871.6	1866.0	1864.1	1869.1	1873.5
20°	1840.1	1821.1	1832.5	1833.8	1847.6
22.5°	1794.6	1783.2	1785.8	1797.1	1798.4
25°	1747.2	1741.6	1748.5	1746.0	1765.6
27.5°	1698.0	1690.4	1694.8	1704.3	1716.3
30°	1641.8	1639.9	1636.7	1644.9	1663.3
32.5°	1586.2	1571.1	1568.5	1585.6	1606.4
35°	1509.2	1502.2	1490.9	1520.6	1535.7
37.5°	1435.9	1414.5	1396.2	1413.8	1420.2
40°	1325.4	1309.0	1266.1	1268.0	1259.1
42.5°	1189.7	1177.7	1095.6	1081.1	1056.4
45°	1014.1	1014.8	917.5	909.3	870.2
47.5°	810.2	846.2	761.5	752.1	694.0
50°	620.1	685.1	632.7	617.6	540.5
52.5°	465.4	560.7	544.3	511.5	405.4
55°	365.0	461.6	473.6	426.9	316.4
57.5°	274.7	380.1	399.7	361.2	244.4
60°	204.0	320.1	325.8	310.7	188.8
62.5°	151.6	272.2	264.6	266.5	140.2
65°	111.1	231.7	210.3	231.1	108.0
67.5°	90.9	200.8	163.5	200.2	87.8
70°	79.6	178.1	121.9	176.2	79.6
72.5°	77.0	163.5	96.6	156.6	77.7
75°	77.7	145.9	73.2	136.4	78.3
77.5°	71.4	120.0	55.6	116.2	74.5
80°	63.8	90.9	42.3	92.2	66.9
82.5°	54.3	66.3	34.1	68.2	56.2
85°	37.3	48.6	31.6	48.6	39.2
87.5°	17.7	29.0	19.6	27.8	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)