

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: P294055

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294055  
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-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3438.0 lumens  
Efficiency: N/A  
Efficacy: 132.0 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

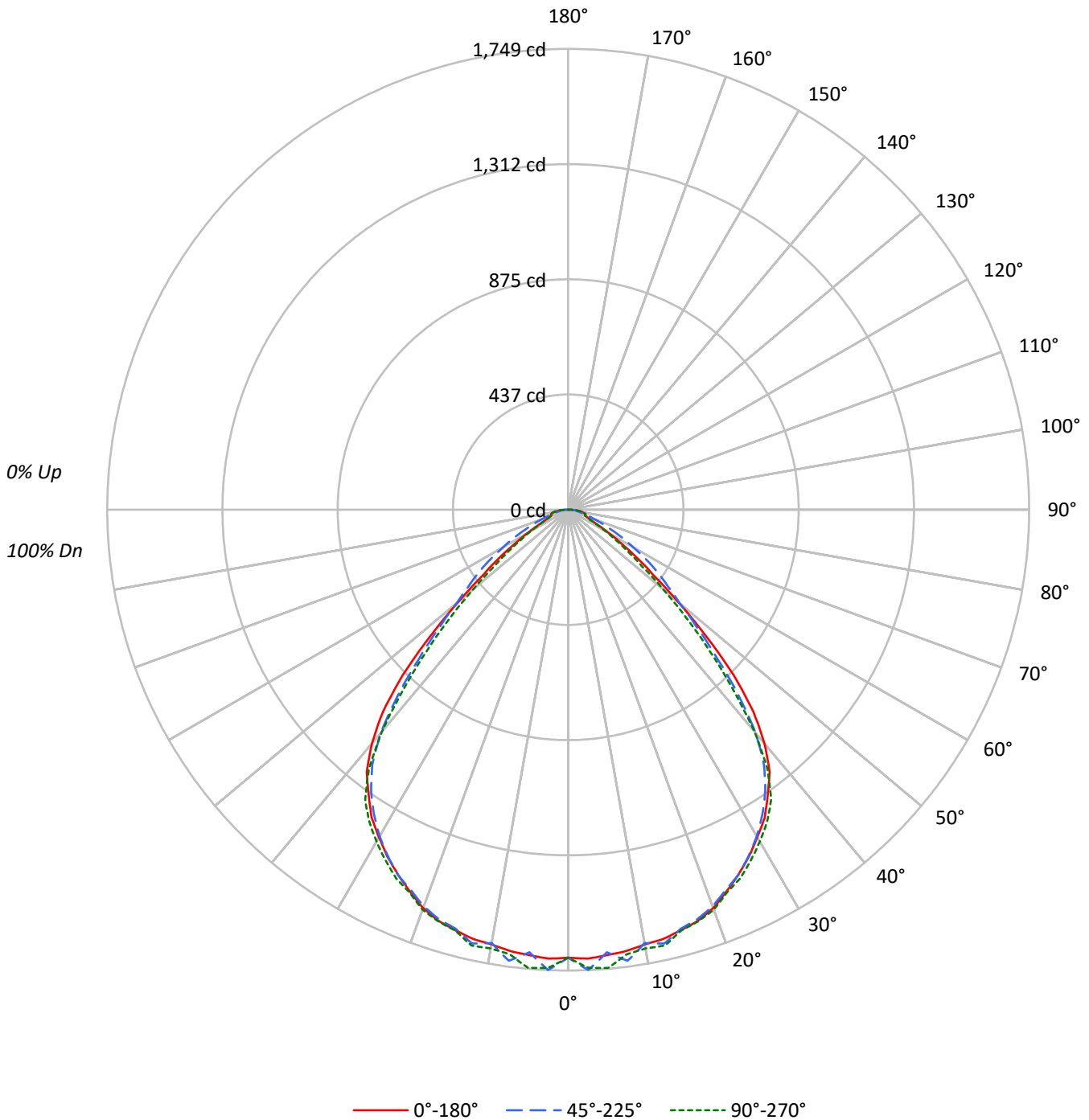
Input Watts (W): 26.049114  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2287	2287	2287
5°	2292	2277	2358
10°	2289	2282	2310
15°	2302	2294	2303
20°	2304	2294	2313
25°	2268	2270	2292
30°	2230	2223	2259
35°	2167	2141	2206
40°	2036	1944	1934
45°	1687	1526	1448
50°	1135	1158	989
55°	749	971	649
60°	480	767	444
65°	309	585	301
70°	274	419	274
75°	353	333	356
80°	432	287	453
85°	503	426	528



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.8	4.7
10°-20°	467.4	13.6
20°-30°	703.6	20.5
30°-40°	815.5	23.7
40°-50°	637.1	18.5
50°-60°	340.2	9.9
60°-70°	174.9	5.1
70°-80°	99.0	2.9
80°-90°	37.6	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°	1333.8	38.8
0°-40°	2149.3	62.5
0°-60°	3126.5	90.9
0°-90°	3438.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3438.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1697	1745	1686	1733	1746	161
15°	1652	1663	1647	1658	1654	467
25°	1528	1523	1529	1527	1544	704
35°	1320	1314	1304	1330	1343	823
45°	887	887	802	795	761	668
55°	319	404	414	373	277	294
65°	97	203	184	202	94	107
75°	68	128	64	119	68	69
85°	33	42	28	42	34	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1700.0	1700.0	1700.0	1700.0	1700.0
2.5°	1705.5	1736.4	1748.6	1733.7	1740.3
5°	1697.2	1744.7	1686.2	1732.6	1745.8
7.5°	1689.5	1684.5	1727.0	1682.9	1701.6
10°	1675.1	1678.5	1670.2	1701.6	1690.6
12.5°	1668.5	1687.8	1686.2	1670.2	1694.5
15°	1652.5	1663.0	1647.0	1657.5	1653.6
17.5°	1636.5	1631.5	1629.9	1634.3	1638.2
20°	1608.9	1592.3	1602.3	1603.4	1615.5
22.5°	1569.1	1559.2	1561.4	1571.3	1572.5
25°	1527.7	1522.8	1528.8	1526.6	1543.7
27.5°	1484.7	1478.0	1481.9	1490.2	1500.7
30°	1435.5	1433.9	1431.1	1438.3	1454.3
32.5°	1386.9	1373.7	1371.5	1386.4	1404.6
35°	1319.6	1313.5	1303.6	1329.5	1342.8
37.5°	1255.5	1236.8	1220.7	1236.2	1241.7
40°	1158.9	1144.6	1107.0	1108.7	1100.9
42.5°	1040.2	1029.7	957.9	945.2	923.7
45°	886.7	887.3	802.2	795.1	760.8
47.5°	708.4	739.8	665.9	657.6	606.8
50°	542.2	599.1	553.2	540.0	472.6
52.5°	406.9	490.3	475.9	447.2	354.5
55°	319.1	403.6	414.1	373.2	276.6
57.5°	240.2	332.4	349.5	315.8	213.7
60°	178.3	279.9	284.9	271.6	165.1
62.5°	132.5	238.0	231.3	233.0	122.6
65°	97.2	202.6	183.9	202.1	94.4
67.5°	79.5	175.6	143.0	175.0	76.7
70°	69.6	155.7	106.6	154.0	69.6
72.5°	67.4	143.0	84.5	136.9	67.9
75°	67.9	127.5	64.0	119.3	68.5
77.5°	62.4	104.9	48.6	101.6	65.2
80°	55.8	79.5	37.0	80.6	58.5
82.5°	47.5	58.0	29.8	59.6	49.1
85°	32.6	42.5	27.6	42.5	34.2
87.5°	15.5	25.4	17.1	24.3	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)