

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: P294111

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294111  
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-L92765-W2A1-U-5000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3462.0 lumens  
Efficiency: N/A  
Efficacy: 133.4 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

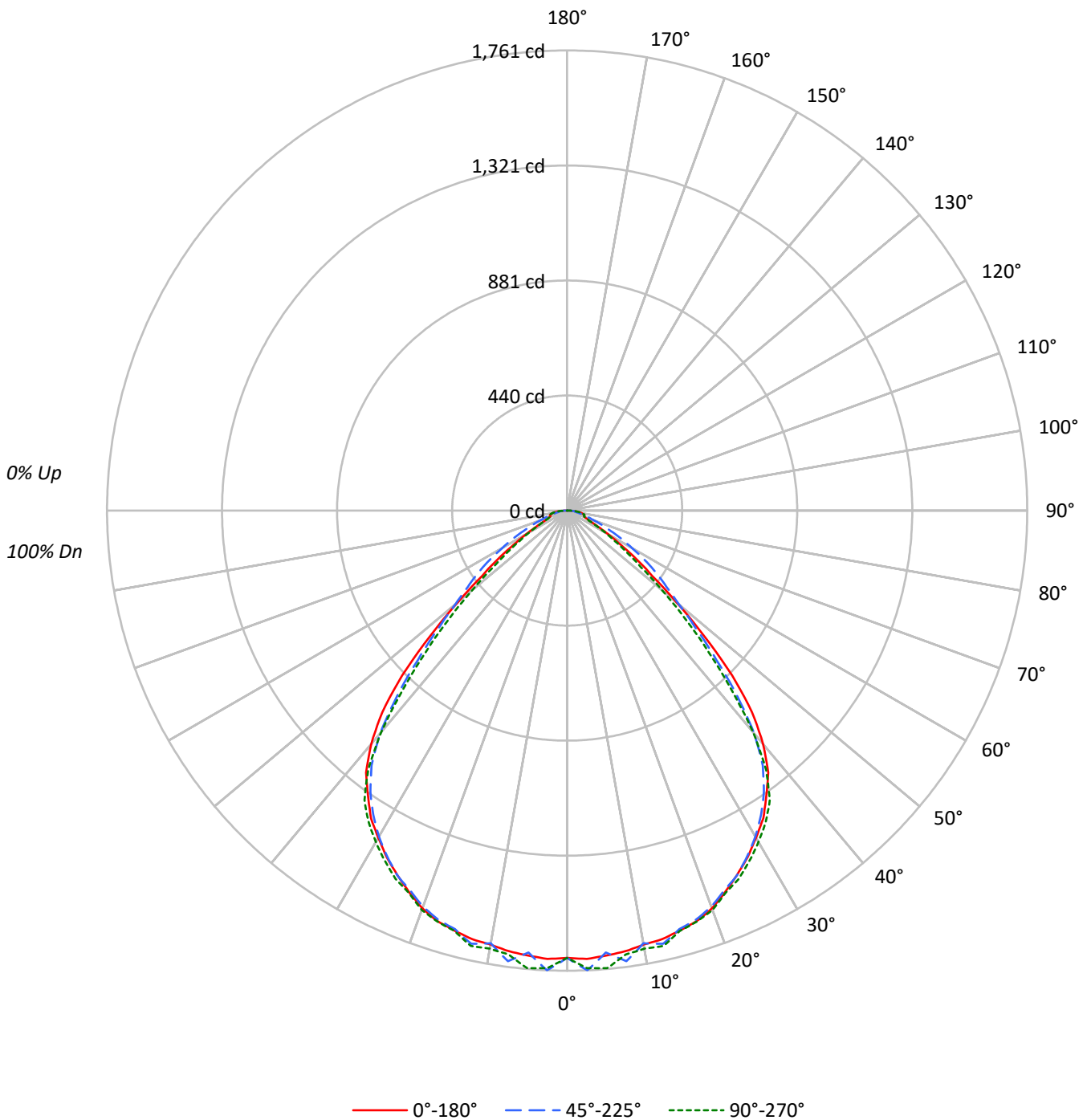
Input Watts (W): 25.947  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2303	2303	2303
5°	2308	2293	2374
10°	2305	2298	2326
15°	2318	2310	2320
20°	2320	2310	2329
25°	2284	2286	2308
30°	2246	2239	2275
35°	2183	2156	2221
40°	2050	1958	1947
45°	1699	1537	1458
50°	1143	1166	996
55°	754	978	653
60°	483	772	447
65°	312	589	303
70°	276	422	276
75°	356	335	358
80°	435	289	456
85°	506	429	533



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.9	4.7
10°-20°	470.6	13.6
20°-30°	708.5	20.5
30°-40°	821.2	23.7
40°-50°	641.5	18.5
50°-60°	342.5	9.9
60°-70°	176.1	5.1
70°-80°	99.6	2.9
80°-90°	37.8	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°	1343.1	38.8
0°-40°	2164.3	62.5
0°-60°	3148.3	90.9
0°-90°	3462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1712	1712	1712	1712	1712	
5°	1709	1757	1698	1745	1758	163
15°	1664	1675	1658	1669	1665	470
25°	1538	1533	1540	1537	1554	709
35°	1329	1323	1313	1339	1352	828
45°	893	894	808	801	766	673
55°	321	406	417	376	278	297
65°	98	204	185	204	95	108
75°	68	128	64	120	69	69
85°	33	43	28	43	34	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1711.9	1711.9	1711.9	1711.9	1711.9
2.5°	1717.4	1748.6	1760.8	1745.8	1752.4
5°	1709.1	1756.9	1698.0	1744.7	1758.0
7.5°	1701.3	1696.3	1739.1	1694.6	1713.5
10°	1686.8	1690.2	1681.8	1713.5	1702.4
12.5°	1680.2	1699.6	1698.0	1681.8	1706.3
15°	1664.0	1674.6	1658.5	1669.0	1665.2
17.5°	1647.9	1642.9	1641.3	1645.7	1649.6
20°	1620.1	1603.4	1613.5	1614.6	1626.8
22.5°	1580.1	1570.1	1572.3	1582.3	1583.4
25°	1538.4	1533.4	1539.5	1537.3	1554.5
27.5°	1495.0	1488.4	1492.2	1500.6	1511.2
30°	1445.5	1443.9	1441.1	1448.3	1464.4
32.5°	1396.6	1383.3	1381.1	1396.1	1414.4
35°	1328.8	1322.7	1312.7	1338.8	1352.1
37.5°	1264.3	1245.4	1229.3	1244.8	1250.4
40°	1167.0	1152.5	1114.7	1116.4	1108.6
42.5°	1047.5	1036.9	964.6	951.8	930.2
45°	892.9	893.5	807.8	800.6	766.1
47.5°	713.3	745.0	670.5	662.2	611.0
50°	546.0	603.2	557.1	543.7	475.9
52.5°	409.8	493.7	479.3	450.3	356.9
55°	321.4	406.4	417.0	375.8	278.5
57.5°	241.9	334.7	351.9	318.0	215.2
60°	179.6	281.9	286.9	273.5	166.2
62.5°	133.4	239.6	233.0	234.6	123.4
65°	97.9	204.0	185.1	203.5	95.1
67.5°	80.1	176.8	144.0	176.2	77.3
70°	70.1	156.8	107.3	155.1	70.1
72.5°	67.8	144.0	85.1	137.9	68.4
75°	68.4	128.4	64.5	120.1	68.9
77.5°	62.8	105.6	48.9	102.3	65.6
80°	56.2	80.1	37.3	81.2	58.9
82.5°	47.8	58.4	30.0	60.0	49.5
85°	32.8	42.8	27.8	42.8	34.5
87.5°	15.6	25.6	17.2	24.5	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)