

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: P293925

Luminaire Tested: **24GR-LD5-34-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293925  
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-LD5-34-A19/156-UNV-L83050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3601.0 lumens  
Efficiency: N/A  
Efficacy: 149.5 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

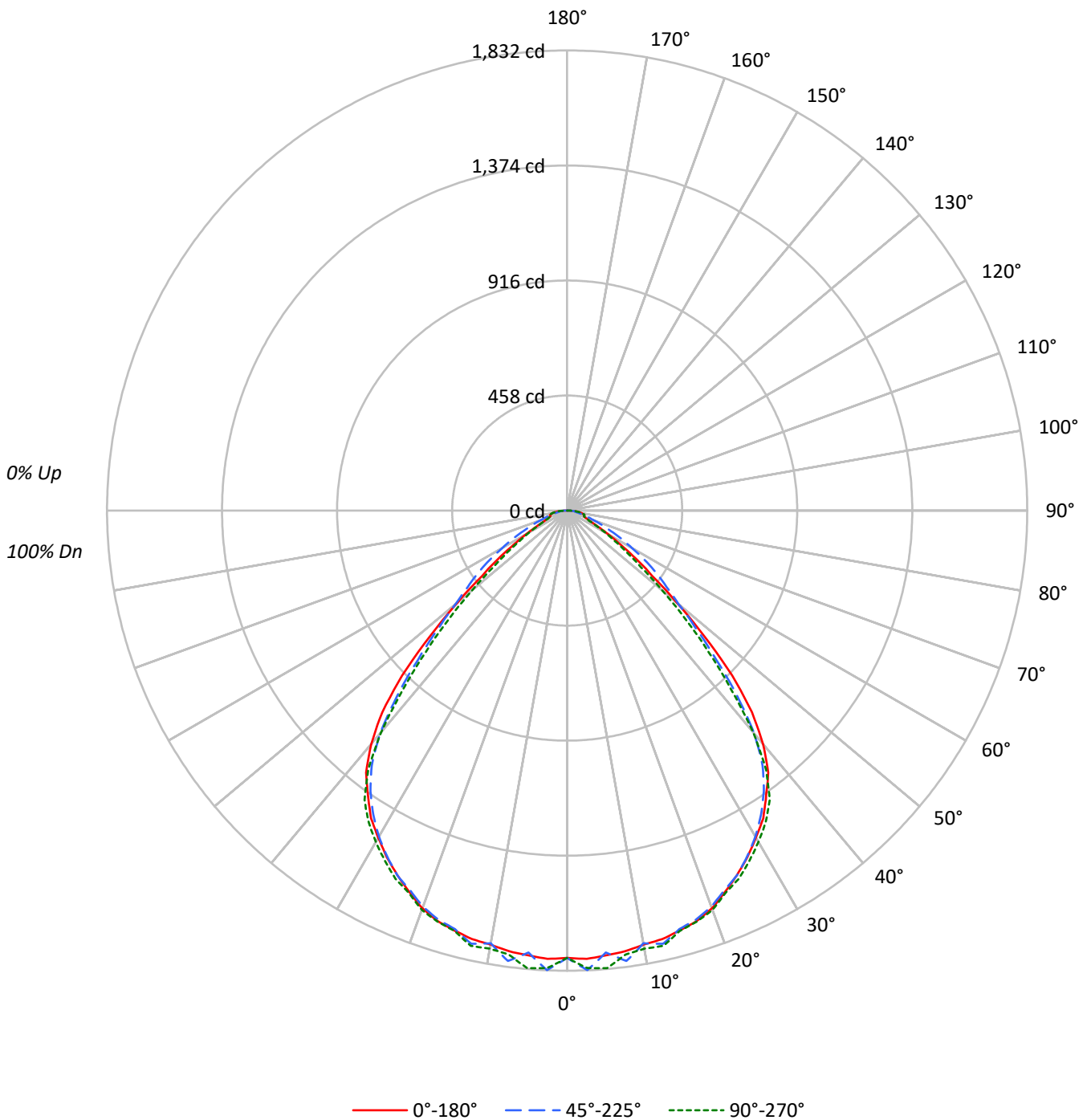
Input Watts (W): 24.087  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2396	2396	2396
5°	2401	2385	2470
10°	2397	2390	2419
15°	2411	2403	2413
20°	2413	2403	2423
25°	2376	2377	2400
30°	2336	2329	2367
35°	2270	2243	2310
40°	2132	2037	2025
45°	1767	1599	1516
50°	1189	1213	1036
55°	784	1017	680
60°	503	803	465
65°	324	613	315
70°	287	439	287
75°	370	349	373
80°	453	300	475
85°	526	446	554



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.5	4.7
10°-20°	489.5	13.6
20°-30°	737.0	20.5
30°-40°	854.2	23.7
40°-50°	667.3	18.5
50°-60°	356.3	9.9
60°-70°	183.2	5.1
70°-80°	103.6	2.9
80°-90°	39.4	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°	1397.0	38.8
0°-40°	2251.2	62.5
0°-60°	3274.8	90.9
0°-90°	3601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3601.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1781	1781	1781	1781	1781	
5°	1778	1827	1766	1815	1829	169
15°	1731	1742	1725	1736	1732	489
25°	1600	1595	1601	1599	1617	737
35°	1382	1376	1365	1393	1406	862
45°	929	929	840	833	797	700
55°	334	423	434	391	290	308
65°	102	212	193	212	99	112
75°	71	134	67	125	72	72
85°	34	44	29	44	36	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1780.6	1780.6	1780.6	1780.6	1780.6
2.5°	1786.4	1818.8	1831.5	1815.9	1822.8
5°	1777.7	1827.4	1766.1	1814.7	1828.6
7.5°	1769.6	1764.4	1808.9	1762.7	1782.3
10°	1754.6	1758.0	1749.4	1782.3	1770.8
12.5°	1747.6	1767.9	1766.1	1749.4	1774.8
15°	1730.9	1741.8	1725.1	1736.1	1732.0
17.5°	1714.1	1708.9	1707.1	1711.8	1715.8
20°	1685.2	1667.8	1678.2	1679.4	1692.1
22.5°	1643.5	1633.1	1635.4	1645.8	1647.0
25°	1600.2	1595.0	1601.3	1599.0	1616.9
27.5°	1555.1	1548.1	1552.2	1560.8	1571.8
30°	1503.6	1501.8	1499.0	1506.5	1523.2
32.5°	1452.7	1438.8	1436.5	1452.1	1471.2
35°	1382.1	1375.8	1365.4	1392.6	1406.4
37.5°	1315.1	1295.4	1278.6	1294.8	1300.6
40°	1213.9	1198.8	1159.5	1161.2	1153.1
42.5°	1089.5	1078.5	1003.4	990.1	967.5
45°	928.8	929.3	840.3	832.8	796.9
47.5°	742.0	774.9	697.4	688.8	635.6
50°	567.9	627.5	579.5	565.6	495.0
52.5°	426.2	513.5	498.5	468.4	371.3
55°	334.3	422.7	433.7	390.9	289.7
57.5°	251.6	348.1	366.1	330.8	223.8
60°	186.8	293.2	298.4	284.5	172.9
62.5°	138.8	249.2	242.3	244.0	128.4
65°	101.8	212.2	192.6	211.7	98.9
67.5°	83.3	183.9	149.8	183.3	80.4
70°	72.9	163.1	111.6	161.3	72.9
72.5°	70.6	149.8	88.5	143.4	71.1
75°	71.1	133.6	67.1	124.9	71.7
77.5°	65.3	109.9	50.9	106.4	68.2
80°	58.4	83.3	38.7	84.4	61.3
82.5°	49.7	60.7	31.2	62.5	51.5
85°	34.1	44.5	28.9	44.5	35.9
87.5°	16.2	26.6	17.9	25.4	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)