

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: P293998

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293998  
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-LD5-48-A19/156-UNV-L82765-W2A1-U-2700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4331.0 lumens  
Efficiency: N/A  
Efficacy: 131.9 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

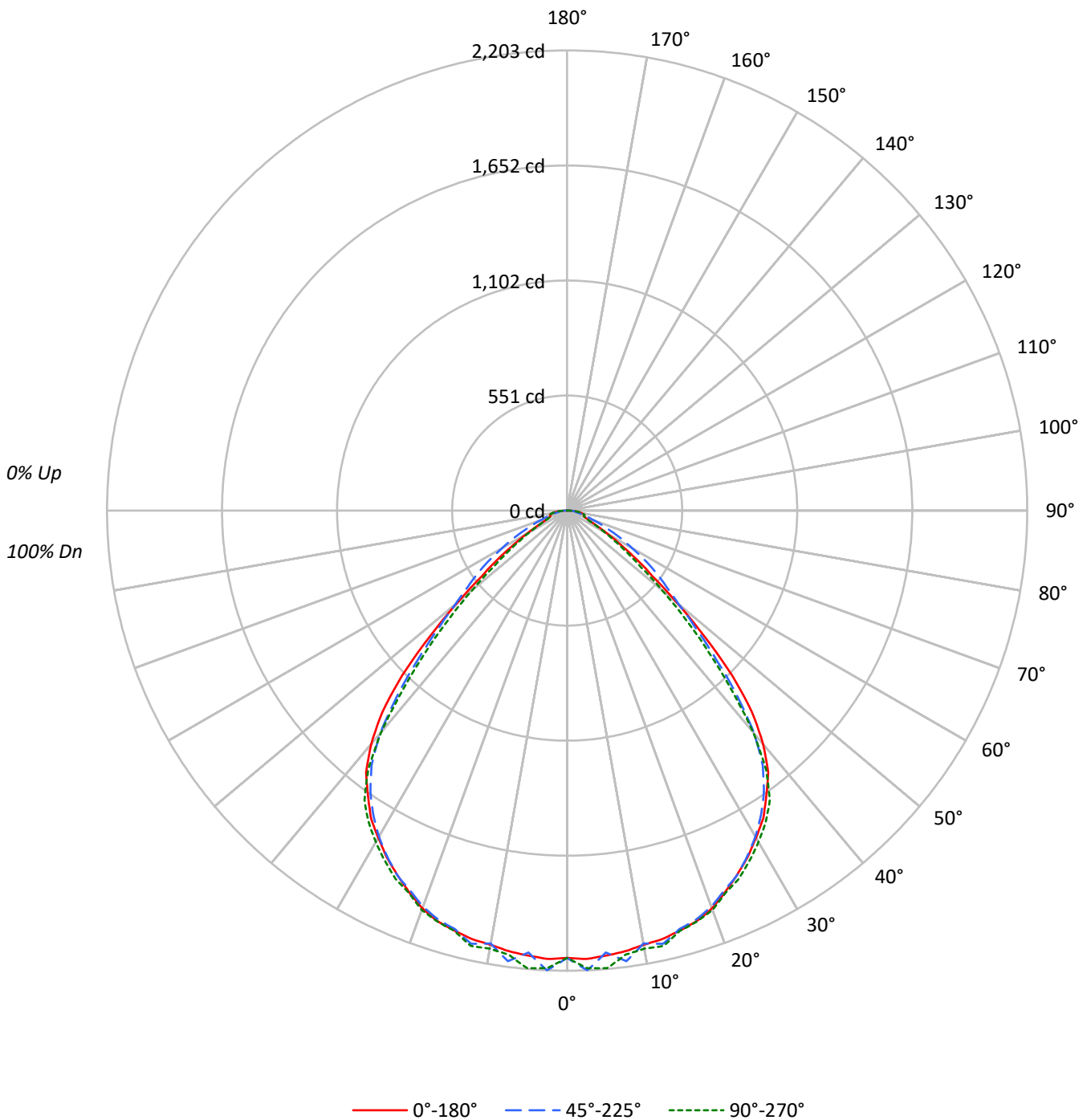
Input Watts (W): 32.829  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2882	2882	2882
5°	2888	2869	2970
10°	2883	2875	2910
15°	2900	2890	2902
20°	2902	2890	2914
25°	2857	2859	2887
30°	2810	2801	2846
35°	2730	2697	2778
40°	2564	2449	2436
45°	2125	1923	1824
50°	1430	1459	1246
55°	943	1224	818
60°	605	966	560
65°	390	737	379
70°	345	528	345
75°	445	420	448
80°	544	361	571
85°	633	537	665



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.0	4.7
10°-20°	588.8	13.6
20°-30°	886.4	20.5
30°-40°	1027.4	23.7
40°-50°	802.5	18.5
50°-60°	428.5	9.9
60°-70°	220.4	5.1
70°-80°	124.7	2.9
80°-90°	47.4	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°	1680.2	38.8
0°-40°	2707.6	62.5
0°-60°	3938.6	90.9
0°-90°	4331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4331.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2142	2142	2142	2142	2142	
5°	2138	2198	2124	2183	2199	203
15°	2082	2095	2075	2088	2083	588
25°	1924	1918	1926	1923	1945	887
35°	1662	1655	1642	1675	1692	1036
45°	1117	1118	1011	1002	958	842
55°	402	508	522	470	348	371
65°	122	255	232	255	119	135
75°	86	161	81	150	86	87
85°	41	54	35	54	43	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2141.6	2141.6	2141.6	2141.6	2141.6
2.5°	2148.5	2187.5	2202.8	2184.0	2192.3
5°	2138.1	2197.9	2124.2	2182.6	2199.3
7.5°	2128.3	2122.1	2175.6	2120.0	2143.6
10°	2110.3	2114.4	2104.0	2143.6	2129.7
12.5°	2101.9	2126.3	2124.2	2104.0	2134.6
15°	2081.7	2095.0	2074.8	2088.0	2083.1
17.5°	2061.6	2055.3	2053.2	2058.8	2063.7
20°	2026.8	2005.9	2018.4	2019.8	2035.1
22.5°	1976.7	1964.2	1967.0	1979.5	1980.9
25°	1924.5	1918.3	1925.9	1923.2	1944.7
27.5°	1870.3	1861.9	1866.8	1877.3	1890.5
30°	1808.4	1806.3	1802.8	1811.9	1832.0
32.5°	1747.2	1730.5	1727.7	1746.5	1769.4
35°	1662.3	1654.7	1642.2	1674.9	1691.5
37.5°	1581.6	1558.0	1537.8	1557.3	1564.3
40°	1459.9	1441.8	1394.5	1396.6	1386.9
42.5°	1310.4	1297.2	1206.8	1190.8	1163.6
45°	1117.0	1117.7	1010.6	1001.6	958.4
47.5°	892.4	932.0	838.8	828.4	764.4
50°	683.0	754.7	696.9	680.2	595.4
52.5°	512.6	617.6	599.6	563.4	446.5
55°	402.0	508.4	521.7	470.2	348.5
57.5°	302.6	418.7	440.3	397.8	269.2
60°	224.7	352.6	358.9	342.2	208.0
62.5°	166.9	299.8	291.4	293.5	154.4
65°	122.4	255.3	231.6	254.6	118.9
67.5°	100.2	221.2	180.1	220.5	96.7
70°	87.6	196.1	134.2	194.1	87.6
72.5°	84.9	180.1	106.4	172.5	85.6
75°	85.6	160.7	80.7	150.2	86.2
77.5°	78.6	132.2	61.2	128.0	82.1
80°	70.2	100.2	46.6	101.5	73.7
82.5°	59.8	73.0	37.6	75.1	61.9
85°	41.0	53.6	34.8	53.6	43.1
87.5°	19.5	32.0	21.6	30.6	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)