

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: P294068

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294068  
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-LD5-56-A19/156-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4267.0 lumens  
Efficiency: N/A  
Efficacy: 107.0 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

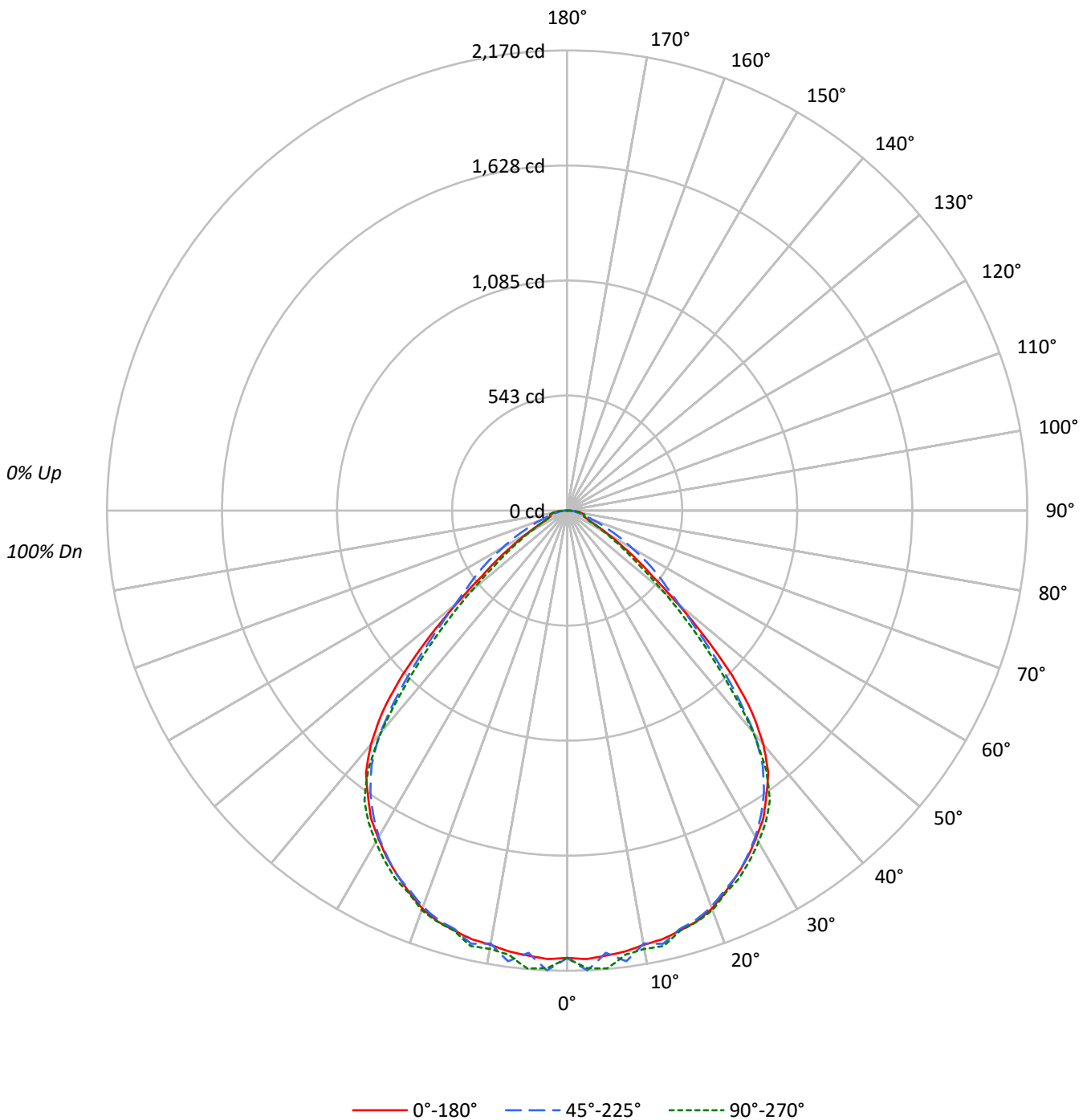
Input Watts (W): 39.863241  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2839	2839	2839
5°	2845	2827	2927
10°	2841	2832	2867
15°	2857	2847	2859
20°	2859	2847	2871
25°	2815	2817	2844
30°	2768	2760	2804
35°	2690	2657	2737
40°	2526	2413	2400
45°	2094	1895	1797
50°	1409	1437	1228
55°	929	1206	805
60°	596	952	551
65°	384	727	373
70°	339	520	339
75°	438	413	442
80°	536	356	563
85°	624	530	656



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.0	4.7
10°-20°	580.1	13.6
20°-30°	873.3	20.5
30°-40°	1012.2	23.7
40°-50°	790.7	18.5
50°-60°	422.2	9.9
60°-70°	217.1	5.1
70°-80°	122.8	2.9
80°-90°	46.6	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°	1655.4	38.8
0°-40°	2667.5	62.5
0°-60°	3880.4	90.9
0°-90°	4267.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4267.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2110	2110	2110	2110	2110	
5°	2106	2165	2093	2150	2167	200
15°	2051	2064	2044	2057	2052	579
25°	1896	1890	1898	1895	1916	874
35°	1638	1630	1618	1650	1666	1021
45°	1100	1101	996	987	944	829
55°	396	501	514	463	343	365
65°	121	252	228	251	117	133
75°	84	158	80	148	85	85
85°	40	53	34	53	42	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2109.9	2109.9	2109.9	2109.9	2109.9
2.5°	2116.8	2155.1	2170.2	2151.7	2159.9
5°	2106.5	2165.4	2092.8	2150.3	2166.8
7.5°	2096.9	2090.7	2143.5	2088.7	2112.0
10°	2079.1	2083.2	2072.9	2112.0	2098.3
12.5°	2070.8	2094.8	2092.8	2072.9	2103.1
15°	2051.0	2064.0	2044.1	2057.1	2052.3
17.5°	2031.1	2024.9	2022.9	2028.4	2033.2
20°	1996.8	1976.3	1988.6	1990.0	2005.1
22.5°	1947.5	1935.2	1937.9	1950.2	1951.6
25°	1896.1	1889.9	1897.5	1894.7	1916.0
27.5°	1842.7	1834.4	1839.2	1849.5	1862.5
30°	1781.7	1779.6	1776.2	1785.1	1805.0
32.5°	1721.4	1704.9	1702.2	1720.7	1743.3
35°	1637.8	1630.2	1617.9	1650.1	1666.5
37.5°	1558.3	1535.0	1515.1	1534.3	1541.1
40°	1438.4	1420.5	1373.9	1376.0	1366.4
42.5°	1291.0	1278.0	1188.9	1173.2	1146.4
45°	1100.5	1101.2	995.7	986.8	944.3
47.5°	879.2	918.2	826.4	816.1	753.1
50°	672.9	743.5	686.6	670.2	586.6
52.5°	505.0	608.5	590.7	555.1	439.9
55°	396.1	500.9	513.9	463.2	343.3
57.5°	298.1	412.5	433.8	392.0	265.2
60°	221.3	347.4	353.6	337.1	204.9
62.5°	164.5	295.3	287.1	289.2	152.1
65°	120.6	251.5	228.2	250.8	117.2
67.5°	98.7	217.9	177.5	217.2	95.3
70°	86.3	193.2	132.3	191.2	86.3
72.5°	83.6	177.5	104.8	169.9	84.3
75°	84.3	158.3	79.5	148.0	85.0
77.5°	77.4	130.2	60.3	126.1	80.9
80°	69.2	98.7	45.9	100.0	72.6
82.5°	58.9	72.0	37.0	74.0	61.0
85°	40.4	52.8	34.3	52.8	42.5
87.5°	19.2	31.5	21.2	30.2	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)