

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: P293955

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293955  
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-LD5-72-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: 7459.0 lumens  
Efficiency: N/A  
Efficacy: 135.3 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

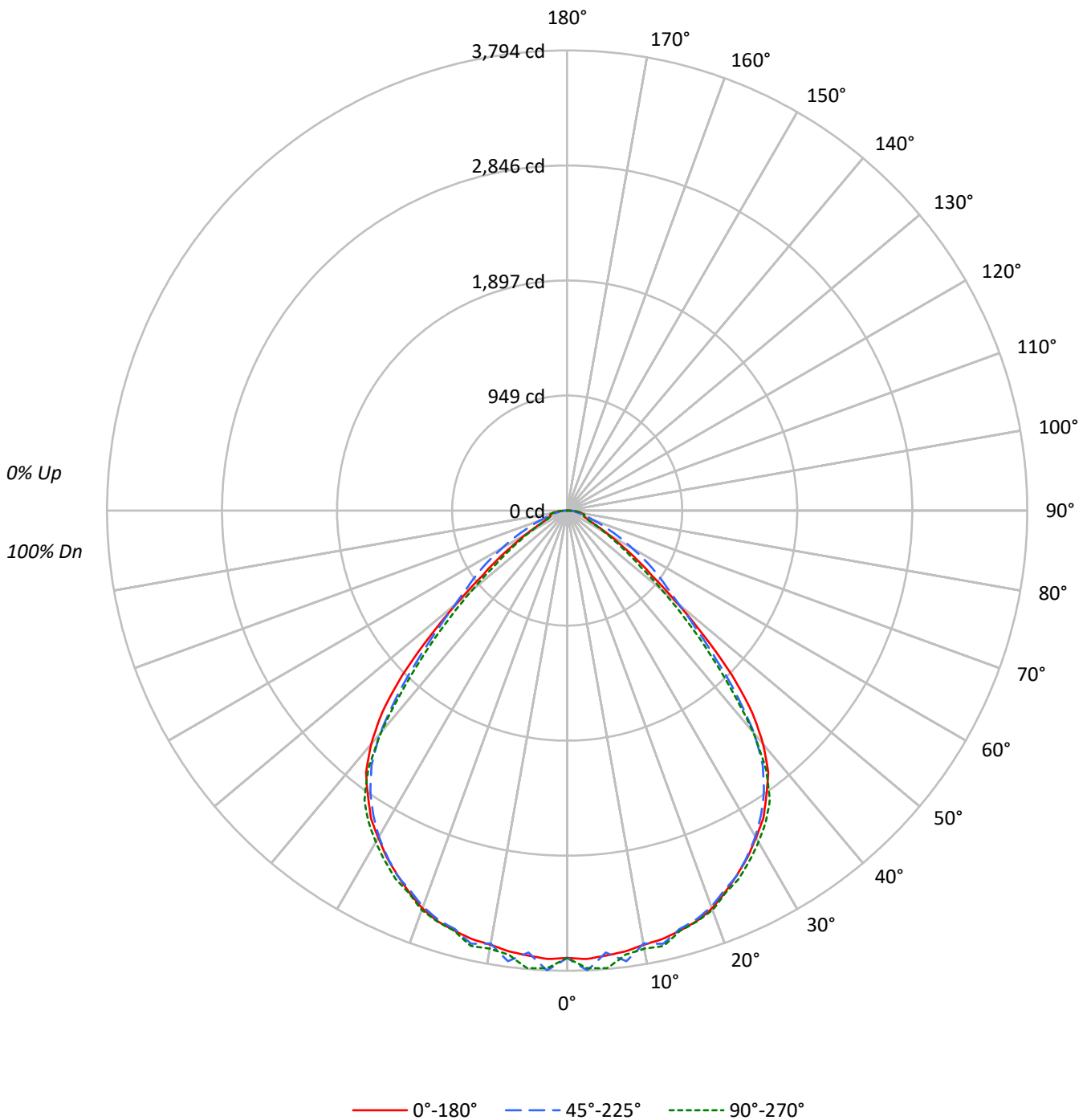
Input Watts (W): 55.149  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4963	4963	4963
5°	4973	4941	5116
10°	4965	4951	5011
15°	4994	4977	4997
20°	4998	4977	5019
25°	4921	4924	4972
30°	4839	4824	4902
35°	4702	4645	4785
40°	4416	4218	4195
45°	3661	3312	3141
50°	2462	2512	2146
55°	1624	2107	1408
60°	1041	1663	964
65°	671	1270	652
70°	594	910	594
75°	766	723	772
80°	938	622	984
85°	1091	925	1147



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	353.1	4.7
10°-20°	1014.0	13.6
20°-30°	1526.6	20.5
30°-40°	1769.4	23.7
40°-50°	1382.2	18.5
50°-60°	738.0	9.9
60°-70°	379.5	5.1
70°-80°	214.7	2.9
80°-90°	81.5	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°	2893.7	38.8
0°-40°	4663.0	62.5
0°-60°	6783.2	90.9
0°-90°	7459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7459.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3688	3688	3688	3688	3688	
5°	3682	3785	3658	3759	3788	350
15°	3585	3608	3573	3596	3588	1013
25°	3314	3304	3317	3312	3349	1527
35°	2863	2850	2828	2884	2913	1785
45°	1924	1925	1740	1725	1651	1450
55°	692	876	898	810	600	639
65°	211	440	399	438	205	232
75°	147	277	139	259	148	149
85°	71	92	60	92	74	73
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3688.3	3688.3	3688.3	3688.3	3688.3
2.5°	3700.2	3767.3	3793.7	3761.3	3775.7
5°	3682.3	3785.3	3658.3	3758.9	3787.7
7.5°	3665.5	3654.7	3747.0	3651.1	3691.9
10°	3634.4	3641.5	3623.6	3691.9	3667.9
12.5°	3620.0	3661.9	3658.3	3623.6	3676.3
15°	3585.2	3608.0	3573.3	3596.0	3587.6
17.5°	3550.5	3539.7	3536.1	3545.7	3554.1
20°	3490.6	3454.7	3476.2	3478.6	3505.0
22.5°	3404.4	3382.8	3387.6	3409.2	3411.6
25°	3314.5	3303.7	3316.9	3312.1	3349.3
27.5°	3221.1	3206.7	3215.1	3233.1	3255.8
30°	3114.5	3110.9	3104.9	3120.5	3155.2
32.5°	3009.1	2980.3	2975.5	3007.9	3047.4
35°	2862.9	2849.7	2828.2	2884.5	2913.2
37.5°	2724.0	2683.2	2648.5	2682.0	2694.0
40°	2514.3	2483.2	2401.7	2405.3	2388.6
42.5°	2256.8	2234.0	2078.3	2050.8	2004.0
45°	1923.8	1925.0	1740.5	1724.9	1650.7
47.5°	1536.9	1605.2	1444.6	1426.7	1316.5
50°	1176.3	1299.7	1200.3	1171.5	1025.4
52.5°	882.8	1063.7	1032.6	970.3	769.0
55°	692.4	875.6	898.4	809.8	600.1
57.5°	521.1	721.1	758.3	685.2	463.6
60°	386.9	607.3	618.1	589.4	358.2
62.5°	287.5	516.3	501.9	505.5	265.9
65°	210.8	439.6	398.9	438.4	204.8
67.5°	172.5	380.9	310.3	379.7	166.5
70°	150.9	337.8	231.2	334.2	150.9
72.5°	146.1	310.3	183.3	297.1	147.3
75°	147.3	276.7	139.0	258.7	148.5
77.5°	135.4	227.6	105.4	220.4	141.3
80°	121.0	172.5	80.3	174.9	127.0
82.5°	103.0	125.8	64.7	129.4	106.6
85°	70.7	92.2	59.9	92.2	74.3
87.5°	33.5	55.1	37.1	52.7	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)