

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: P294155

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294155  
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-L92765-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6376.0 lumens  
Efficiency: N/A  
Efficacy: 119.0 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

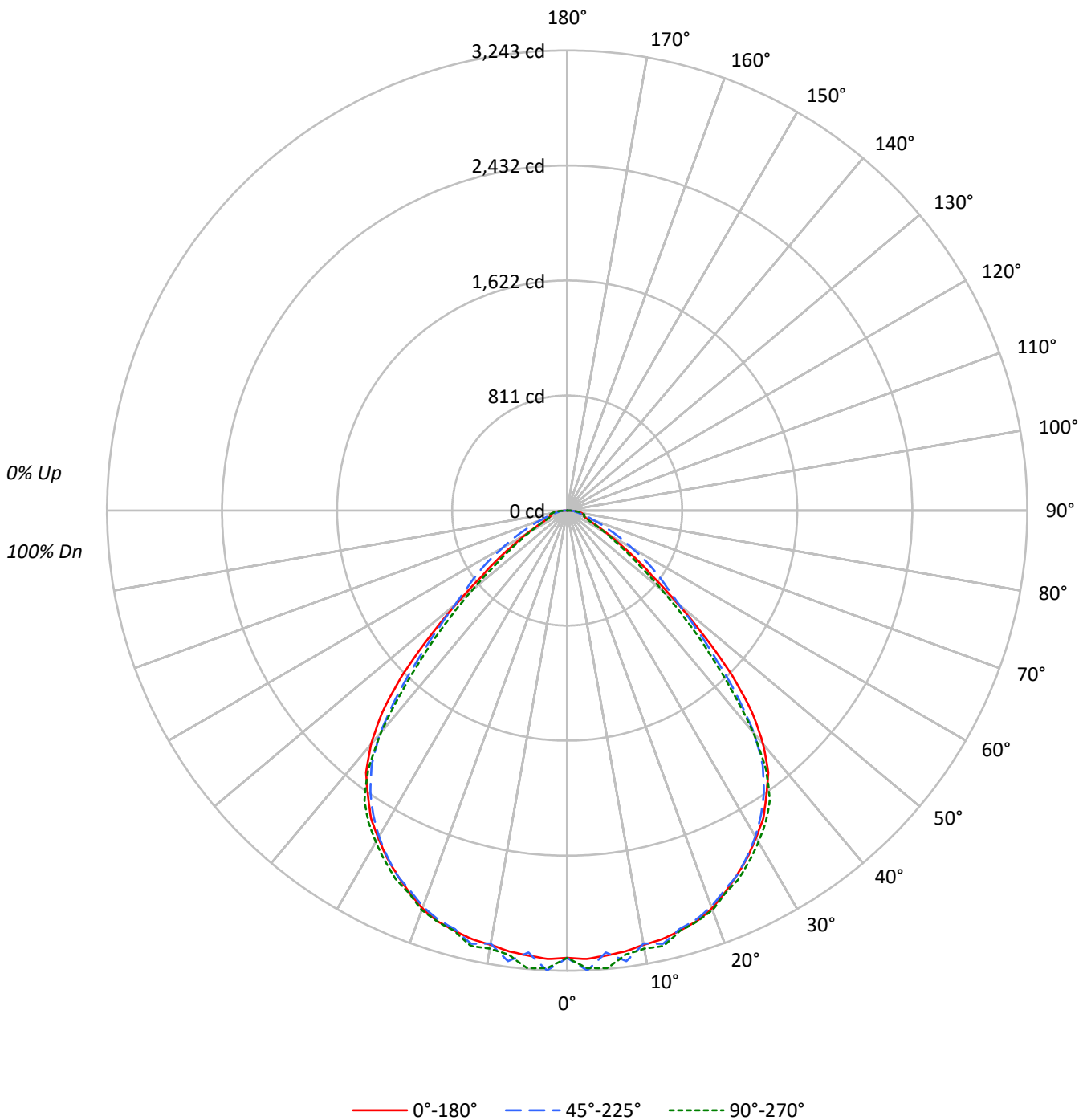
Input Watts (W): 53.568  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4242	4242	4242
5°	4251	4224	4373
10°	4245	4232	4284
15°	4269	4255	4272
20°	4272	4255	4290
25°	4206	4209	4250
30°	4136	4124	4190
35°	4020	3971	4090
40°	3775	3606	3586
45°	3129	2831	2685
50°	2105	2148	1835
55°	1388	1802	1203
60°	890	1422	824
65°	574	1086	557
70°	507	777	507
75°	655	618	660
80°	801	532	841
85°	932	790	980



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	301.9	4.7
10°-20°	866.8	13.6
20°-30°	1304.9	20.5
30°-40°	1512.5	23.7
40°-50°	1181.5	18.5
50°-60°	630.9	9.9
60°-70°	324.4	5.1
70°-80°	183.5	2.9
80°-90°	69.7	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°	2473.5	38.8
0°-40°	3986.0	62.5
0°-60°	5798.4	90.9
0°-90°	6376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6376.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3153	3153	3153	3153	3153	
5°	3148	3236	3127	3213	3238	299
15°	3065	3084	3054	3074	3067	866
25°	2833	2824	2835	2831	2863	1306
35°	2447	2436	2418	2466	2490	1526
45°	1644	1646	1488	1474	1411	1239
55°	592	748	768	692	513	546
65°	180	376	341	375	175	198
75°	126	236	119	221	127	128
85°	60	79	51	79	64	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3152.7	3152.7	3152.7	3152.7	3152.7
2.5°	3163.0	3220.3	3242.9	3215.2	3227.5
5°	3147.6	3235.7	3127.2	3213.2	3237.7
7.5°	3133.3	3124.1	3202.9	3121.0	3155.8
10°	3106.7	3112.8	3097.5	3155.8	3135.3
12.5°	3094.4	3130.2	3127.2	3097.5	3142.5
15°	3064.7	3084.1	3054.4	3073.9	3066.7
17.5°	3035.0	3025.8	3022.7	3030.9	3038.1
20°	2983.8	2953.1	2971.5	2973.6	2996.1
22.5°	2910.1	2891.6	2895.7	2914.2	2916.2
25°	2833.3	2824.1	2835.3	2831.2	2863.0
27.5°	2753.4	2741.1	2748.3	2763.6	2783.1
30°	2662.3	2659.2	2654.1	2667.4	2697.1
32.5°	2572.2	2547.6	2543.5	2571.1	2604.9
35°	2447.2	2436.0	2417.6	2465.7	2490.3
37.5°	2328.5	2293.7	2264.0	2292.6	2302.9
40°	2149.3	2122.7	2053.0	2056.1	2041.8
42.5°	1929.1	1909.7	1776.6	1753.0	1713.1
45°	1644.5	1645.5	1487.8	1474.5	1411.0
47.5°	1313.7	1372.1	1234.9	1219.5	1125.3
50°	1005.5	1111.0	1026.0	1001.4	876.5
52.5°	754.7	909.3	882.6	829.4	657.4
55°	591.8	748.5	768.0	692.2	513.0
57.5°	445.4	616.4	648.2	585.7	396.3
60°	330.7	519.1	528.4	503.8	306.2
62.5°	245.7	441.3	429.0	432.1	227.3
65°	180.2	375.8	341.0	374.8	175.1
67.5°	147.4	325.6	265.2	324.6	142.3
70°	129.0	288.8	197.6	285.7	129.0
72.5°	124.9	265.2	156.7	253.9	125.9
75°	125.9	236.5	118.8	221.2	127.0
77.5°	115.7	194.6	90.1	188.4	120.8
80°	103.4	147.4	68.6	149.5	108.5
82.5°	88.1	107.5	55.3	110.6	91.1
85°	60.4	78.8	51.2	78.8	63.5
87.5°	28.7	47.1	31.7	45.1	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)