

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: P294019

Luminaire Tested: **24GR-LD5-64-A19/156-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294019  
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-LD5-64-A19/156-UNV-L82765-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6217.0 lumens  
Efficiency: N/A  
Efficacy: 133.7 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

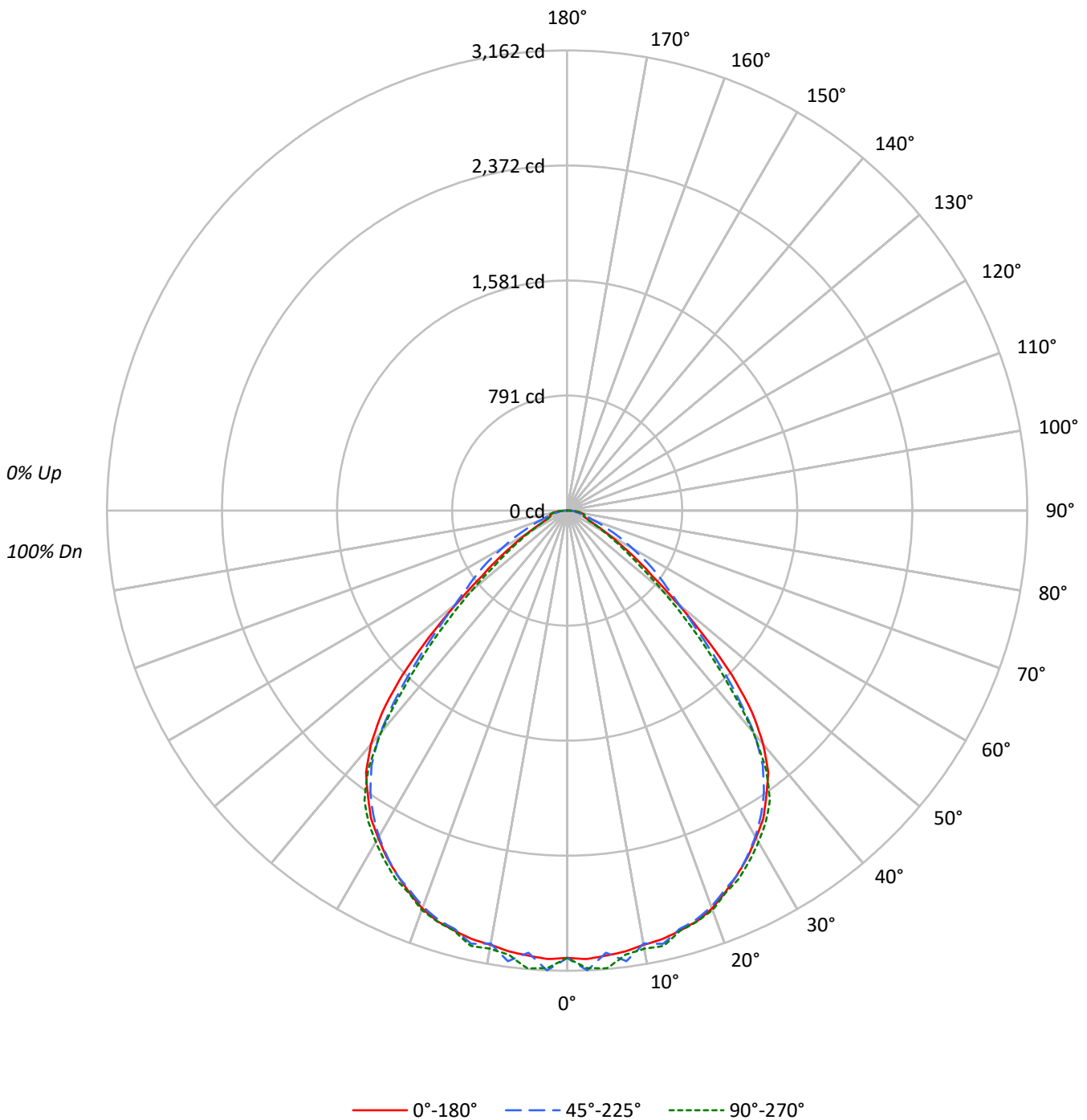
Input Watts (W): 46.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4136	4136	4136
5°	4145	4118	4264
10°	4139	4126	4177
15°	4163	4149	4165
20°	4166	4149	4183
25°	4101	4104	4144
30°	4033	4021	4086
35°	3919	3872	3988
40°	3681	3516	3497
45°	3051	2760	2618
50°	2052	2094	1789
55°	1354	1757	1173
60°	868	1386	803
65°	559	1059	543
70°	495	758	495
75°	638	602	644
80°	781	518	820
85°	909	770	956



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	294.3	4.7
10°-20°	845.1	13.6
20°-30°	1272.4	20.5
30°-40°	1474.8	23.7
40°-50°	1152.0	18.5
50°-60°	615.1	9.9
60°-70°	316.3	5.1
70°-80°	179.0	2.9
80°-90°	68.0	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°	2411.9	38.8
0°-40°	3886.6	62.5
0°-60°	5653.8	90.9
0°-90°	6217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6217.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3074	3074	3074	3074	3074	
5°	3069	3155	3049	3133	3157	292
15°	2988	3007	2978	2997	2990	844
25°	2763	2754	2765	2761	2792	1273
35°	2386	2375	2357	2404	2428	1488
45°	1604	1604	1451	1438	1376	1208
55°	577	730	749	675	500	533
65°	176	366	332	365	171	193
75°	123	231	116	216	124	124
85°	59	77	50	77	62	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3074.1	3074.1	3074.1	3074.1	3074.1
2.5°	3084.1	3140.0	3162.0	3135.0	3147.0
5°	3069.1	3155.0	3049.2	3133.0	3157.0
7.5°	3055.2	3046.2	3123.1	3043.2	3077.1
10°	3029.2	3035.2	3020.2	3077.1	3057.2
12.5°	3017.2	3052.2	3049.2	3020.2	3064.1
15°	2988.3	3007.2	2978.3	2997.3	2990.3
17.5°	2959.3	2950.3	2947.3	2955.3	2962.3
20°	2909.4	2879.4	2897.4	2899.4	2921.4
22.5°	2837.5	2819.5	2823.5	2841.5	2843.5
25°	2762.6	2753.6	2764.6	2760.6	2791.6
27.5°	2684.7	2672.8	2679.8	2694.7	2713.7
30°	2595.9	2592.9	2587.9	2600.9	2629.8
32.5°	2508.0	2484.1	2480.1	2507.0	2540.0
35°	2386.2	2375.2	2357.3	2404.2	2428.2
37.5°	2270.4	2236.5	2207.5	2235.5	2245.4
40°	2095.7	2069.7	2001.8	2004.8	1990.8
42.5°	1881.0	1862.0	1732.3	1709.3	1670.4
45°	1603.5	1604.5	1450.7	1437.7	1375.8
47.5°	1281.0	1337.9	1204.1	1189.1	1097.3
50°	980.4	1083.3	1000.4	976.5	854.6
52.5°	735.8	886.6	860.6	808.7	641.0
55°	577.1	729.8	748.8	674.9	500.2
57.5°	434.3	601.0	632.0	571.1	386.4
60°	322.5	506.2	515.2	491.2	298.5
62.5°	239.6	430.3	418.3	421.3	221.6
65°	175.7	366.4	332.5	365.4	170.7
67.5°	143.8	317.5	258.6	316.5	138.8
70°	125.8	281.6	192.7	278.6	125.8
72.5°	121.8	258.6	152.8	247.6	122.8
75°	122.8	230.6	115.8	215.7	123.8
77.5°	112.8	189.7	87.9	183.7	117.8
80°	100.8	143.8	66.9	145.8	105.8
82.5°	85.9	104.8	53.9	107.8	88.9
85°	58.9	76.9	49.9	76.9	61.9
87.5°	28.0	45.9	31.0	43.9	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)