

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: P293939

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293939  
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-L83050-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: 4955.0 lumens  
Efficiency: N/A  
Efficacy: 147.6 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

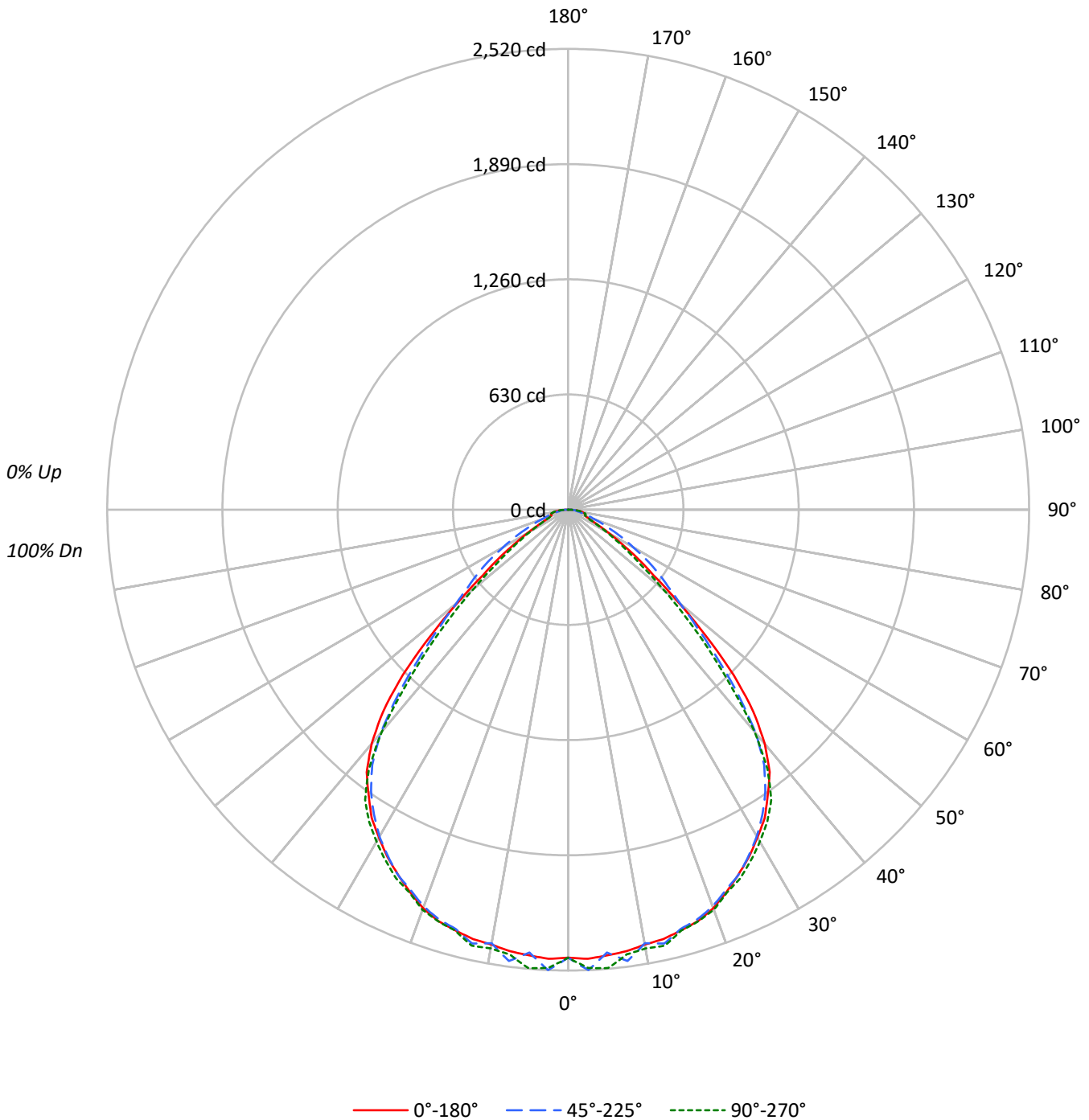
Input Watts (W): 33.573  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3297	3297	3297
5°	3304	3282	3398
10°	3299	3289	3329
15°	3318	3306	3320
20°	3320	3307	3334
25°	3269	3271	3303
30°	3214	3205	3256
35°	3124	3086	3179
40°	2934	2802	2787
45°	2432	2200	2086
50°	1636	1669	1426
55°	1079	1400	935
60°	692	1105	640
65°	446	844	433
70°	395	604	395
75°	509	480	513
80°	623	413	653
85°	724	614	761



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.6	4.7
10°-20°	673.6	13.6
20°-30°	1014.1	20.5
30°-40°	1175.4	23.7
40°-50°	918.2	18.5
50°-60°	490.3	9.9
60°-70°	252.1	5.1
70°-80°	142.6	2.9
80°-90°	54.2	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°	1922.3	38.8
0°-40°	3097.7	62.5
0°-60°	4506.1	90.9
0°-90°	4955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4955.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2450	2450	2450	2450	2450	
5°	2446	2515	2430	2497	2516	233
15°	2382	2397	2374	2389	2383	673
25°	2202	2195	2203	2200	2225	1015
35°	1902	1893	1879	1916	1935	1186
45°	1278	1279	1156	1146	1096	963
55°	460	582	597	538	399	424
65°	140	292	265	291	136	154
75°	98	184	92	172	99	99
85°	47	61	40	61	49	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2450.1	2450.1	2450.1	2450.1	2450.1
2.5°	2458.1	2502.6	2520.1	2498.6	2508.2
5°	2446.1	2514.6	2430.2	2497.1	2516.2
7.5°	2435.0	2427.8	2489.1	2425.4	2452.5
10°	2414.3	2419.1	2407.1	2452.5	2436.6
12.5°	2404.7	2432.6	2430.2	2407.1	2442.1
15°	2381.7	2396.8	2373.7	2388.8	2383.3
17.5°	2358.6	2351.4	2349.0	2355.4	2361.0
20°	2318.8	2294.9	2309.3	2310.8	2328.4
22.5°	2261.5	2247.2	2250.4	2264.7	2266.3
25°	2201.8	2194.7	2203.4	2200.2	2224.9
27.5°	2139.8	2130.2	2135.8	2147.7	2162.8
30°	2068.9	2066.6	2062.6	2072.9	2096.0
32.5°	1998.9	1979.8	1976.6	1998.1	2024.4
35°	1901.8	1893.1	1878.8	1916.2	1935.3
37.5°	1809.5	1782.5	1759.4	1781.7	1789.6
40°	1670.3	1649.6	1595.5	1597.9	1586.7
42.5°	1499.2	1484.1	1380.6	1362.3	1331.3
45°	1278.0	1278.8	1156.2	1145.9	1096.5
47.5°	1020.9	1066.3	959.7	947.7	874.5
50°	781.4	863.4	797.3	778.2	681.2
52.5°	586.5	706.6	685.9	644.6	510.9
55°	459.9	581.7	596.8	537.9	398.7
57.5°	346.2	479.0	503.7	455.2	308.0
60°	257.0	403.4	410.6	391.5	237.9
62.5°	191.0	343.0	333.4	335.8	176.7
65°	140.1	292.0	265.0	291.2	136.1
67.5°	114.6	253.0	206.1	252.3	110.6
70°	100.3	224.4	153.6	222.0	100.3
72.5°	97.1	206.1	121.7	197.3	97.9
75°	97.9	183.8	92.3	171.9	98.7
77.5°	89.9	151.2	70.0	146.4	93.9
80°	80.4	114.6	53.3	116.2	84.3
82.5°	68.4	83.6	43.0	85.9	70.8
85°	46.9	61.3	39.8	61.3	49.3
87.5°	22.3	36.6	24.7	35.0	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)