

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: P293943

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293943  
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-L83050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5484.0 lumens  
Efficiency: N/A  
Efficacy: 140.7 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

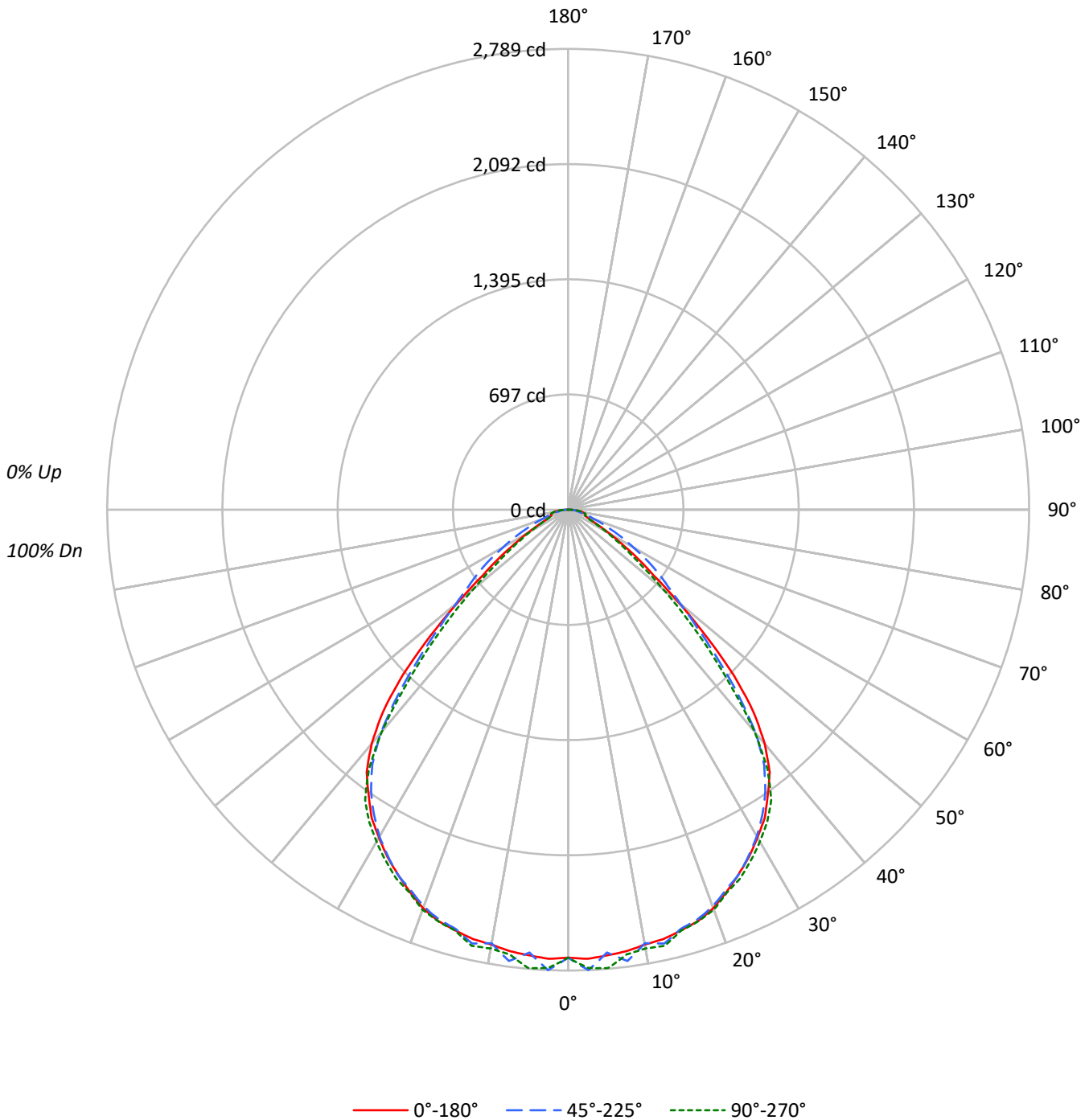
Input Watts (W): 38.967  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	90	86	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	78	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	74	68	64		72	67	63		70	66	62	60
5	82	71	63	57	80	70	62	57	68	61	56		66	60	56		64	59	55	53
6	76	65	57	51	75	64	56	51	62	55	50		60	55	50		59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45		56	50	45		54	49	45	43
8	67	55	47	42	65	54	47	41	53	46	41		51	45	41		50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38		48	42	37		47	41	37	36
10	59	47	39	35	58	46	39	35	45	39	34		44	38	34		44	38	34	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3649	3649	3649
5°	3657	3633	3761
10°	3651	3640	3684
15°	3672	3659	3674
20°	3675	3659	3690
25°	3618	3620	3656
30°	3558	3547	3604
35°	3457	3415	3518
40°	3247	3101	3084
45°	2691	2435	2309
50°	1810	1847	1578
55°	1194	1549	1035
60°	766	1223	709
65°	493	934	479
70°	437	669	437
75°	563	531	568
80°	690	457	724
85°	803	679	843



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.6	4.7
10°-20°	745.5	13.6
20°-30°	1122.4	20.5
30°-40°	1300.9	23.7
40°-50°	1016.2	18.5
50°-60°	542.6	9.9
60°-70°	279.0	5.1
70°-80°	157.8	2.9
80°-90°	60.0	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°	2127.5	38.8
0°-40°	3428.4	62.5
0°-60°	4987.2	90.9
0°-90°	5484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5484.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2712	2712	2712	2712	2712	
5°	2707	2783	2690	2764	2785	257
15°	2636	2653	2627	2644	2638	745
25°	2437	2429	2439	2435	2462	1123
35°	2105	2095	2079	2121	2142	1312
45°	1414	1415	1280	1268	1214	1066
55°	509	644	660	595	441	470
65°	155	323	293	322	151	170
75°	108	203	102	190	109	110
85°	52	68	44	68	55	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2711.7	2711.7	2711.7	2711.7	2711.7
2.5°	2720.5	2769.8	2789.2	2765.4	2776.0
5°	2707.3	2783.0	2689.7	2763.6	2784.8
7.5°	2694.9	2687.0	2754.8	2684.4	2714.3
10°	2672.0	2677.3	2664.1	2714.3	2696.7
12.5°	2661.5	2692.3	2689.7	2664.1	2702.9
15°	2635.9	2652.7	2627.1	2643.9	2637.7
17.5°	2610.4	2602.5	2599.8	2606.9	2613.0
20°	2566.4	2539.9	2555.8	2557.6	2576.9
22.5°	2503.0	2487.1	2490.6	2506.5	2508.2
25°	2436.9	2429.0	2438.7	2435.1	2462.4
27.5°	2368.2	2357.6	2363.8	2377.0	2393.7
30°	2289.8	2287.2	2282.8	2294.2	2319.8
32.5°	2212.3	2191.2	2187.7	2211.4	2240.5
35°	2104.9	2095.2	2079.3	2120.7	2141.9
37.5°	2002.7	1972.8	1947.2	1971.9	1980.7
40°	1848.6	1825.7	1765.8	1768.4	1756.1
42.5°	1659.2	1642.5	1528.0	1507.8	1473.4
45°	1414.4	1415.3	1279.7	1268.2	1213.6
47.5°	1129.9	1180.1	1062.1	1048.9	967.9
50°	864.8	955.6	882.5	861.3	753.9
52.5°	649.1	782.1	759.2	713.4	565.4
55°	509.0	643.8	660.5	595.4	441.2
57.5°	383.1	530.2	557.5	503.8	340.8
60°	284.5	446.5	454.4	433.3	263.3
62.5°	211.4	379.6	369.0	371.7	195.5
65°	155.0	323.2	293.3	322.3	150.6
67.5°	126.8	280.1	228.1	279.2	122.4
70°	111.0	248.4	170.0	245.7	111.0
72.5°	107.4	228.1	134.7	218.4	108.3
75°	108.3	203.4	102.2	190.2	109.2
77.5°	99.5	167.3	77.5	162.0	103.9
80°	89.0	126.8	59.0	128.6	93.4
82.5°	75.7	92.5	47.6	95.1	78.4
85°	52.0	67.8	44.0	67.8	54.6
87.5°	24.7	40.5	27.3	38.8	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)