

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: P294080

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294080  
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-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6460.0 lumens  
Efficiency: N/A  
Efficacy: 119.8 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

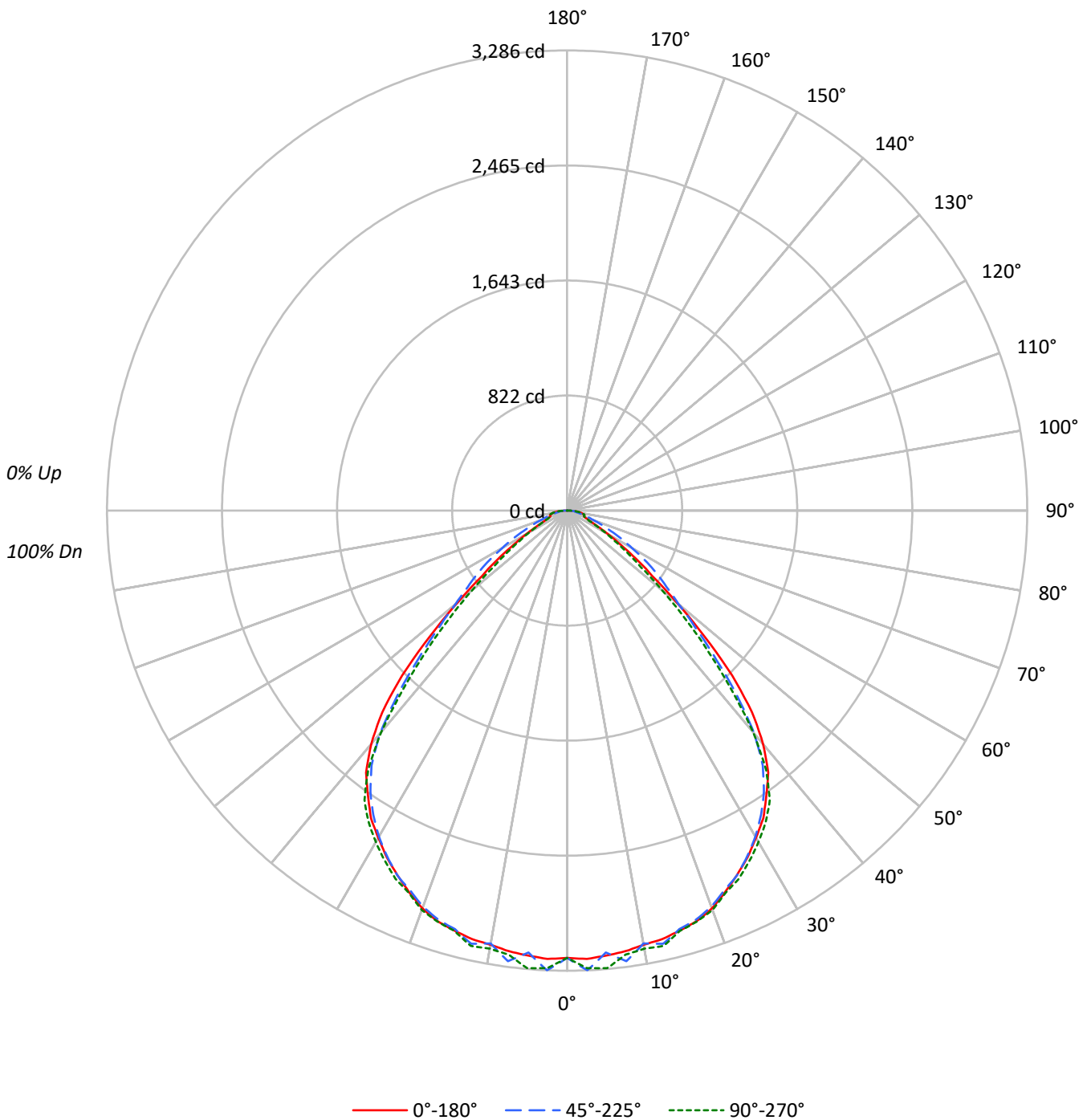
Input Watts (W): 53.91117  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4298	4298	4298
5°	4307	4279	4431
10°	4300	4288	4340
15°	4325	4311	4328
20°	4329	4311	4346
25°	4262	4265	4306
30°	4191	4178	4245
35°	4073	4023	4144
40°	3825	3654	3633
45°	3170	2868	2720
50°	2133	2176	1859
55°	1407	1825	1219
60°	902	1440	835
65°	581	1100	565
70°	514	788	514
75°	663	625	669
80°	812	539	852
85°	945	801	993



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	305.8	4.7
10°-20°	878.2	13.6
20°-30°	1322.1	20.5
30°-40°	1532.4	23.7
40°-50°	1197.1	18.5
50°-60°	639.2	9.9
60°-70°	328.7	5.1
70°-80°	185.9	2.9
80°-90°	70.6	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°	2506.1	38.8
0°-40°	4038.5	62.5
0°-60°	5874.8	90.9
0°-90°	6460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6460.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3194	3194	3194	3194	3194	
5°	3189	3278	3168	3256	3280	303
15°	3105	3125	3095	3114	3107	877
25°	2871	2861	2873	2868	2901	1323
35°	2480	2468	2449	2498	2523	1546
45°	1666	1667	1507	1494	1430	1256
55°	600	758	778	701	520	553
65°	183	381	346	380	177	201
75°	128	240	120	224	129	129
85°	61	80	52	80	64	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3194.3	3194.3	3194.3	3194.3	3194.3
2.5°	3204.7	3262.8	3285.6	3257.6	3270.0
5°	3189.1	3278.3	3168.3	3255.5	3280.4
7.5°	3174.6	3165.2	3245.1	3162.1	3197.4
10°	3147.6	3153.8	3138.3	3197.4	3176.6
12.5°	3135.2	3171.5	3168.3	3138.3	3183.9
15°	3105.1	3124.8	3094.7	3114.4	3107.1
17.5°	3075.0	3065.6	3062.5	3070.8	3078.1
20°	3023.1	2992.0	3010.7	3012.7	3035.6
22.5°	2948.4	2929.7	2933.9	2952.6	2954.6
25°	2870.6	2861.3	2872.7	2868.5	2900.7
27.5°	2789.7	2777.2	2784.5	2800.1	2819.8
30°	2697.3	2694.2	2689.1	2702.5	2732.6
32.5°	2606.1	2581.2	2577.0	2605.0	2639.3
35°	2479.5	2468.1	2449.4	2498.2	2523.1
37.5°	2359.1	2323.9	2293.8	2322.8	2333.2
40°	2177.6	2150.6	2080.1	2083.2	2068.7
42.5°	1954.5	1934.8	1800.0	1776.1	1735.6
45°	1666.1	1667.2	1507.4	1493.9	1429.6
47.5°	1331.0	1390.2	1251.2	1235.6	1140.1
50°	1018.8	1125.6	1039.5	1014.6	888.1
52.5°	764.6	921.2	894.3	840.3	666.0
55°	599.6	758.4	778.1	701.3	519.8
57.5°	451.3	624.5	656.7	593.4	401.5
60°	335.1	526.0	535.3	510.4	310.2
62.5°	249.0	447.1	434.7	437.8	230.3
65°	182.6	380.7	345.5	379.7	177.4
67.5°	149.4	329.9	268.7	328.9	144.2
70°	130.7	292.6	200.2	289.4	130.7
72.5°	126.6	268.7	158.7	257.3	127.6
75°	127.6	239.6	120.3	224.1	128.6
77.5°	117.2	197.1	91.3	190.9	122.4
80°	104.8	149.4	69.5	151.5	110.0
82.5°	89.2	108.9	56.0	112.0	92.3
85°	61.2	79.9	51.9	79.9	64.3
87.5°	29.0	47.7	32.2	45.6	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)