

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: P294028

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294028  
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-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: 7024.0 lumens  
Efficiency: N/A  
Efficacy: 132.0 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

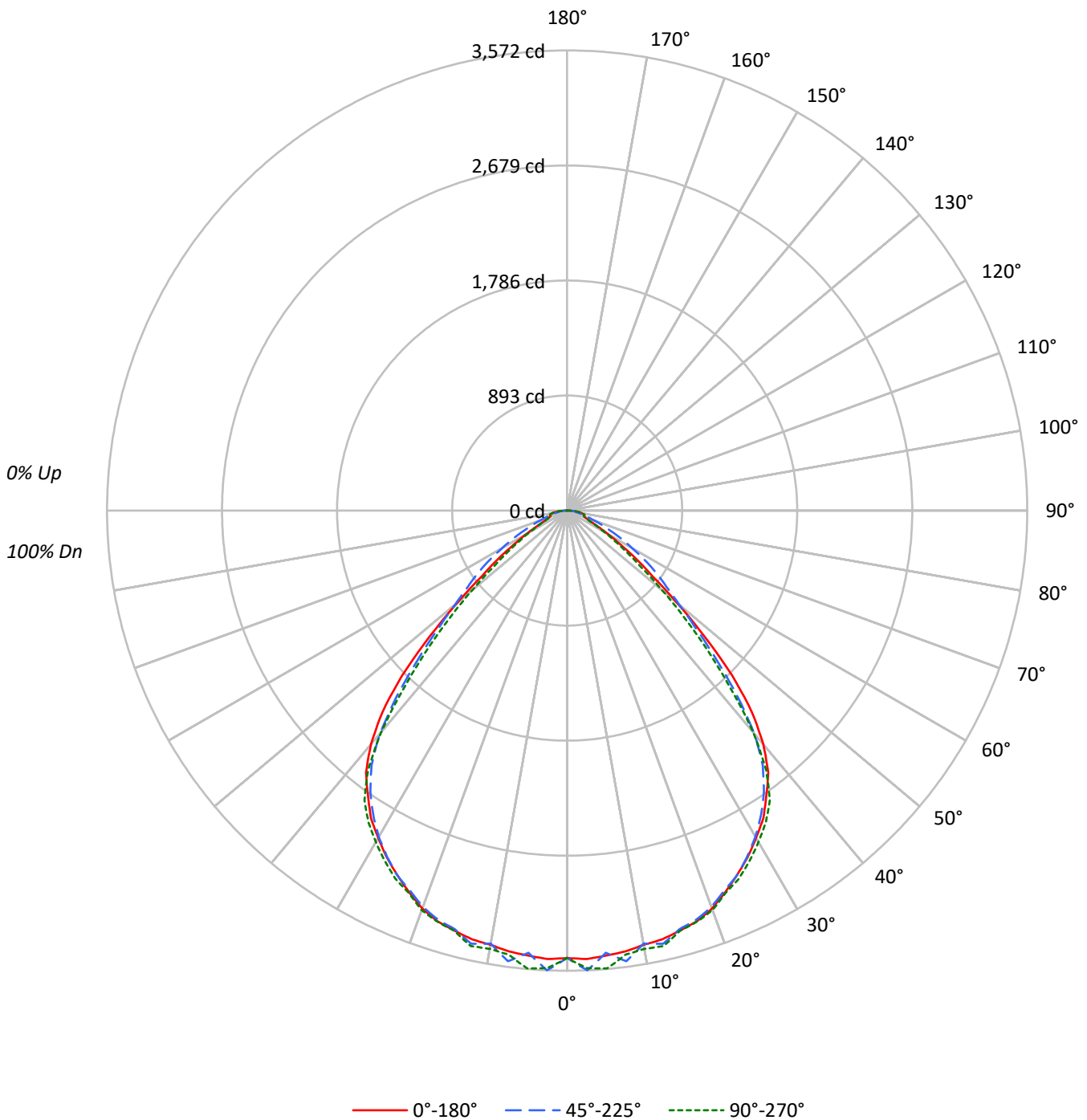
Input Watts (W): 53.196  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4673	4673	4673
5°	4683	4653	4817
10°	4676	4662	4719
15°	4703	4687	4706
20°	4706	4687	4726
25°	4634	4637	4682
30°	4557	4543	4616
35°	4428	4374	4506
40°	4159	3972	3951
45°	3447	3119	2958
50°	2319	2366	2021
55°	1529	1985	1326
60°	980	1566	908
65°	632	1196	614
70°	559	856	559
75°	721	680	727
80°	883	586	927
85°	1028	871	1079



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	332.5	4.7
10°-20°	954.9	13.6
20°-30°	1437.5	20.5
30°-40°	1666.2	23.7
40°-50°	1301.6	18.5
50°-60°	695.0	9.9
60°-70°	357.4	5.1
70°-80°	202.2	2.9
80°-90°	76.8	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°	2724.9	38.8
0°-40°	4391.1	62.5
0°-60°	6387.7	90.9
0°-90°	7024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7024.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3473	3473	3473	3473	3473	
5°	3468	3564	3445	3540	3567	330
15°	3376	3398	3365	3386	3378	954
25°	3121	3111	3124	3119	3154	1438
35°	2696	2684	2663	2716	2743	1681
45°	1812	1813	1639	1624	1554	1365
55°	652	825	846	762	565	602
65°	198	414	376	413	193	218
75°	139	261	131	244	140	141
85°	67	87	56	87	70	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3473.2	3473.2	3473.2	3473.2	3473.2
2.5°	3484.4	3547.6	3572.4	3542.0	3555.5
5°	3467.5	3564.5	3445.0	3539.7	3566.8
7.5°	3451.7	3441.6	3528.4	3438.2	3476.6
10°	3422.4	3429.2	3412.3	3476.6	3454.0
12.5°	3408.9	3448.4	3445.0	3412.3	3461.9
15°	3376.2	3397.6	3364.9	3386.3	3378.4
17.5°	3343.4	3333.3	3329.9	3338.9	3346.8
20°	3287.0	3253.2	3273.5	3275.8	3300.6
22.5°	3205.8	3185.5	3190.0	3210.3	3212.6
25°	3121.2	3111.1	3123.5	3119.0	3153.9
27.5°	3033.2	3019.7	3027.6	3044.5	3066.0
30°	2932.8	2929.5	2923.8	2938.5	2971.2
32.5°	2833.6	2806.5	2802.0	2832.5	2869.7
35°	2696.0	2683.6	2663.2	2716.3	2743.3
37.5°	2565.1	2526.8	2494.0	2525.6	2536.9
40°	2367.7	2338.4	2261.7	2265.1	2249.3
42.5°	2125.2	2103.8	1957.1	1931.2	1887.2
45°	1811.6	1812.7	1639.0	1624.3	1554.4
47.5°	1447.2	1511.5	1360.4	1343.5	1239.7
50°	1107.7	1223.9	1130.3	1103.2	965.6
52.5°	831.3	1001.7	972.4	913.7	724.2
55°	652.0	824.6	846.0	762.5	565.1
57.5°	490.7	679.1	714.0	645.2	436.5
60°	364.3	571.9	582.1	555.0	337.3
62.5°	270.7	486.2	472.6	476.0	250.4
65°	198.5	414.0	375.6	412.9	192.9
67.5°	162.4	358.7	292.2	357.6	156.8
70°	142.1	318.1	217.7	314.7	142.1
72.5°	137.6	292.2	172.6	279.7	138.7
75°	138.7	260.6	130.9	243.7	139.9
77.5°	127.5	214.3	99.3	207.6	133.1
80°	113.9	162.4	75.6	164.7	119.6
82.5°	97.0	118.4	60.9	121.8	100.4
85°	66.6	86.9	56.4	86.9	69.9
87.5°	31.6	51.9	35.0	49.6	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)