

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: P294126

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294126  
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-L92765-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4038.0 lumens  
Efficiency: N/A  
Efficacy: 122.7 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

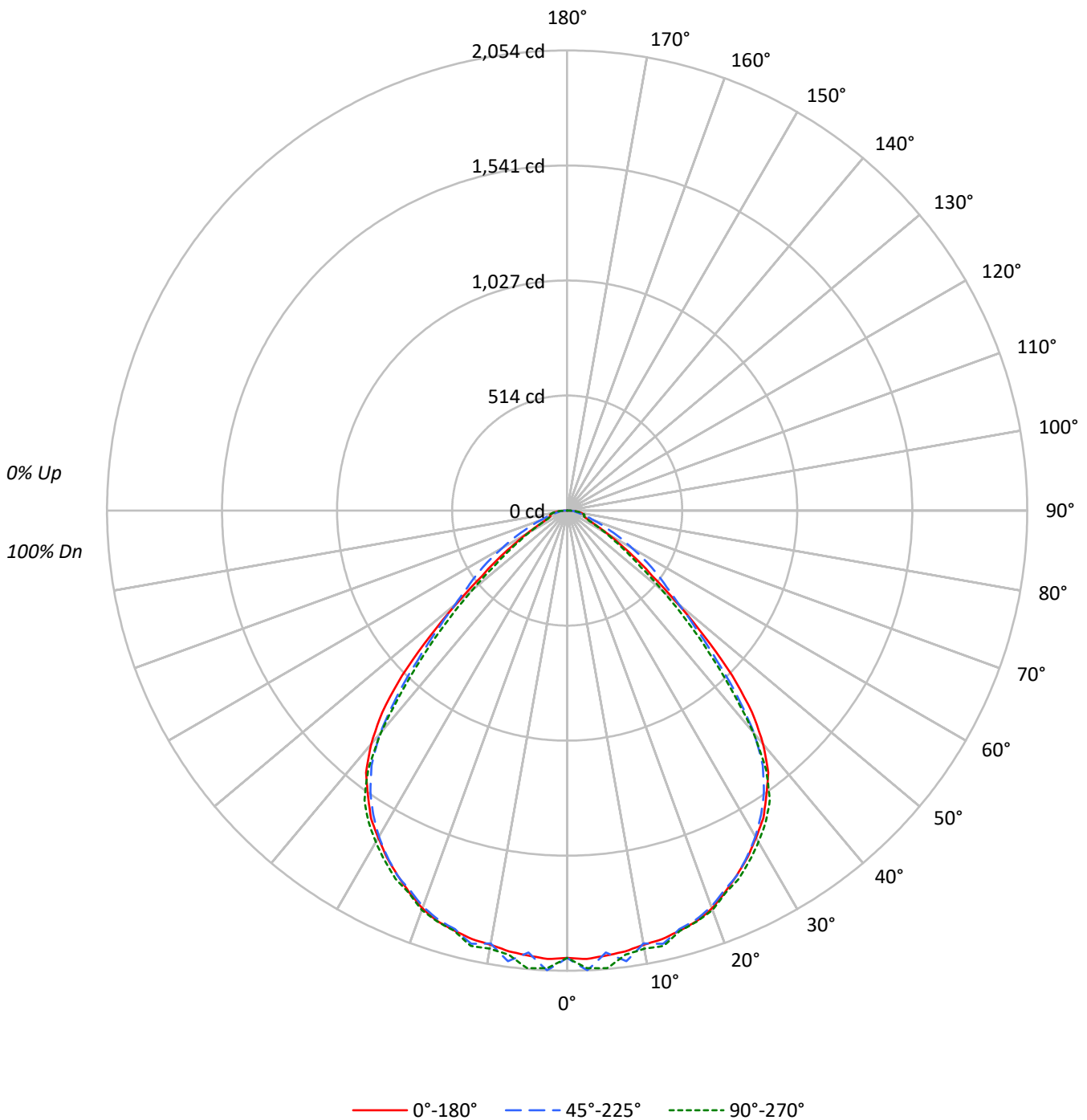
Input Watts (W): 32.922  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2687	2687	2687
5°	2692	2675	2769
10°	2688	2680	2713
15°	2704	2695	2705
20°	2706	2695	2717
25°	2664	2666	2692
30°	2620	2612	2654
35°	2546	2515	2590
40°	2391	2284	2271
45°	1982	1793	1700
50°	1333	1360	1162
55°	879	1141	762
60°	564	900	522
65°	363	687	353
70°	321	493	321
75°	415	391	418
80°	508	336	532
85°	591	500	621



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.2	4.7
10°-20°	548.9	13.6
20°-30°	826.4	20.5
30°-40°	957.9	23.7
40°-50°	748.2	18.5
50°-60°	399.5	9.9
60°-70°	205.5	5.1
70°-80°	116.2	2.9
80°-90°	44.1	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°	1566.5	38.8
0°-40°	2524.4	62.5
0°-60°	3672.2	90.9
0°-90°	4038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1997	1997	1997	1997	1997	
5°	1993	2049	1980	2035	2050	190
15°	1941	1953	1934	1947	1942	548
25°	1794	1788	1796	1793	1813	827
35°	1550	1543	1531	1562	1577	966
45°	1042	1042	942	934	894	785
55°	375	474	486	438	325	346
65°	114	238	216	237	111	125
75°	80	150	75	140	80	81
85°	38	50	32	50	40	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1996.7	1996.7	1996.7	1996.7	1996.7
2.5°	2003.2	2039.5	2053.7	2036.2	2044.0
5°	1993.4	2049.2	1980.5	2034.9	2050.5
7.5°	1984.4	1978.5	2028.5	1976.6	1998.6
10°	1967.5	1971.4	1961.7	1998.6	1985.7
12.5°	1959.7	1982.4	1980.5	1961.7	1990.2
15°	1940.9	1953.2	1934.4	1946.7	1942.2
17.5°	1922.1	1916.3	1914.3	1919.5	1924.0
20°	1889.7	1870.2	1881.9	1883.2	1897.5
22.5°	1843.0	1831.3	1833.9	1845.6	1846.9
25°	1794.3	1788.5	1795.6	1793.1	1813.2
27.5°	1743.8	1736.0	1740.5	1750.3	1762.6
30°	1686.1	1684.1	1680.9	1689.3	1708.1
32.5°	1629.0	1613.4	1610.8	1628.3	1649.7
35°	1549.9	1542.7	1531.1	1561.5	1577.1
37.5°	1474.6	1452.6	1433.8	1452.0	1458.4
40°	1361.2	1344.3	1300.2	1302.2	1293.1
42.5°	1221.7	1209.4	1125.1	1110.2	1084.9
45°	1041.5	1042.1	942.2	933.8	893.6
47.5°	832.0	869.0	782.1	772.3	712.7
50°	636.8	703.6	649.8	634.2	555.1
52.5°	477.9	575.9	559.0	525.3	416.3
55°	374.8	474.0	486.4	438.4	324.9
57.5°	282.1	390.4	410.5	370.9	251.0
60°	209.5	328.8	334.6	319.1	193.9
62.5°	155.6	279.5	271.7	273.7	144.0
65°	114.1	238.0	215.9	237.3	110.9
67.5°	93.4	206.2	168.0	205.6	90.1
70°	81.7	182.9	125.2	180.9	81.7
72.5°	79.1	168.0	99.2	160.8	79.8
75°	79.8	149.8	75.2	140.1	80.4
77.5°	73.3	123.2	57.1	119.3	76.5
80°	65.5	93.4	43.4	94.7	68.7
82.5°	55.8	68.1	35.0	70.0	57.7
85°	38.3	49.9	32.4	49.9	40.2
87.5°	18.2	29.8	20.1	28.5	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)