

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: P294117

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294117  
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-LD5-42-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: 3491.0 lumens  
Efficiency: N/A  
Efficacy: 124.3 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

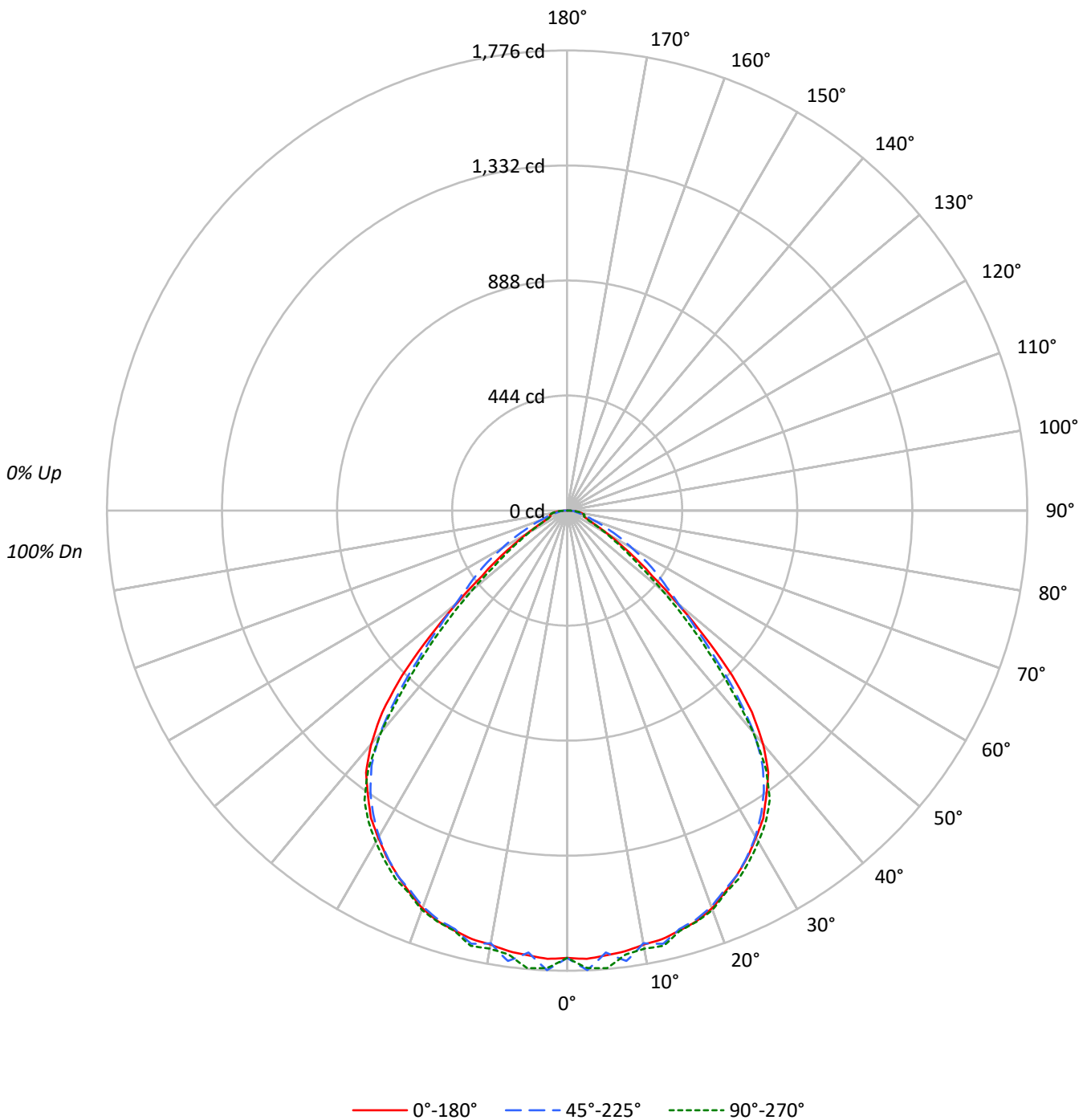
Input Watts (W): 28.086  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2323	2323	2323
5°	2328	2313	2394
10°	2324	2317	2345
15°	2337	2330	2339
20°	2339	2330	2349
25°	2303	2305	2327
30°	2265	2258	2294
35°	2201	2174	2240
40°	2067	1974	1963
45°	1713	1550	1470
50°	1152	1176	1005
55°	760	986	659
60°	487	779	451
65°	314	594	305
70°	278	426	278
75°	359	338	361
80°	439	291	460
85°	511	432	537



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.3	4.7
10°-20°	474.6	13.6
20°-30°	714.5	20.5
30°-40°	828.1	23.7
40°-50°	646.9	18.5
50°-60°	345.4	9.9
60°-70°	177.6	5.1
70°-80°	100.5	2.9
80°-90°	38.2	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°	1354.3	38.8
0°-40°	2182.4	62.5
0°-60°	3174.7	90.9
0°-90°	3491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3491.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1726	1726	1726	1726	1726	
5°	1723	1772	1712	1759	1773	164
15°	1678	1689	1672	1683	1679	474
25°	1551	1546	1552	1550	1568	715
35°	1340	1334	1324	1350	1364	835
45°	900	901	815	807	773	678
55°	324	410	420	379	281	299
65°	99	206	187	205	96	108
75°	69	130	65	121	70	70
85°	33	43	28	43	35	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1726.2	1726.2	1726.2	1726.2	1726.2
2.5°	1731.8	1763.2	1775.5	1760.4	1767.1
5°	1723.4	1771.6	1712.2	1759.3	1772.7
7.5°	1715.5	1710.5	1753.7	1708.8	1727.9
10°	1701.0	1704.3	1695.9	1727.9	1716.7
12.5°	1694.2	1713.9	1712.2	1695.9	1720.6
15°	1678.0	1688.6	1672.4	1683.0	1679.1
17.5°	1661.7	1656.7	1655.0	1659.5	1663.4
20°	1633.7	1616.9	1627.0	1628.1	1640.4
22.5°	1593.3	1583.2	1585.5	1595.6	1596.7
25°	1551.3	1546.2	1552.4	1550.2	1567.5
27.5°	1507.6	1500.8	1504.7	1513.2	1523.8
30°	1457.7	1456.0	1453.2	1460.5	1476.7
32.5°	1408.3	1394.9	1392.6	1407.8	1426.3
35°	1339.9	1333.8	1323.7	1350.0	1363.5
37.5°	1274.9	1255.8	1239.6	1255.3	1260.9
40°	1176.8	1162.2	1124.1	1125.8	1117.9
42.5°	1056.2	1045.6	972.7	959.8	937.9
45°	900.4	900.9	814.6	807.3	772.6
47.5°	719.3	751.3	676.1	667.7	616.1
50°	550.5	608.3	561.8	548.3	479.9
52.5°	413.2	497.8	483.3	454.1	359.9
55°	324.0	409.8	420.5	379.0	280.9
57.5°	243.9	337.5	354.9	320.7	217.0
60°	181.1	284.2	289.3	275.8	167.6
62.5°	134.6	241.6	234.9	236.6	124.5
65°	98.7	205.8	186.7	205.2	95.9
67.5°	80.7	178.3	145.2	177.7	77.9
70°	70.6	158.1	108.2	156.4	70.6
72.5°	68.4	145.2	85.8	139.0	69.0
75°	69.0	129.5	65.0	121.1	69.5
77.5°	63.4	106.5	49.3	103.2	66.2
80°	56.6	80.7	37.6	81.9	59.4
82.5°	48.2	58.9	30.3	60.5	49.9
85°	33.1	43.2	28.0	43.2	34.8
87.5°	15.7	25.8	17.4	24.7	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)