

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: P293984

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293984  
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-LD5-38-A19/156-UNV-L82765-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3804.0 lumens  
Efficiency: N/A  
Efficacy: 147.1 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

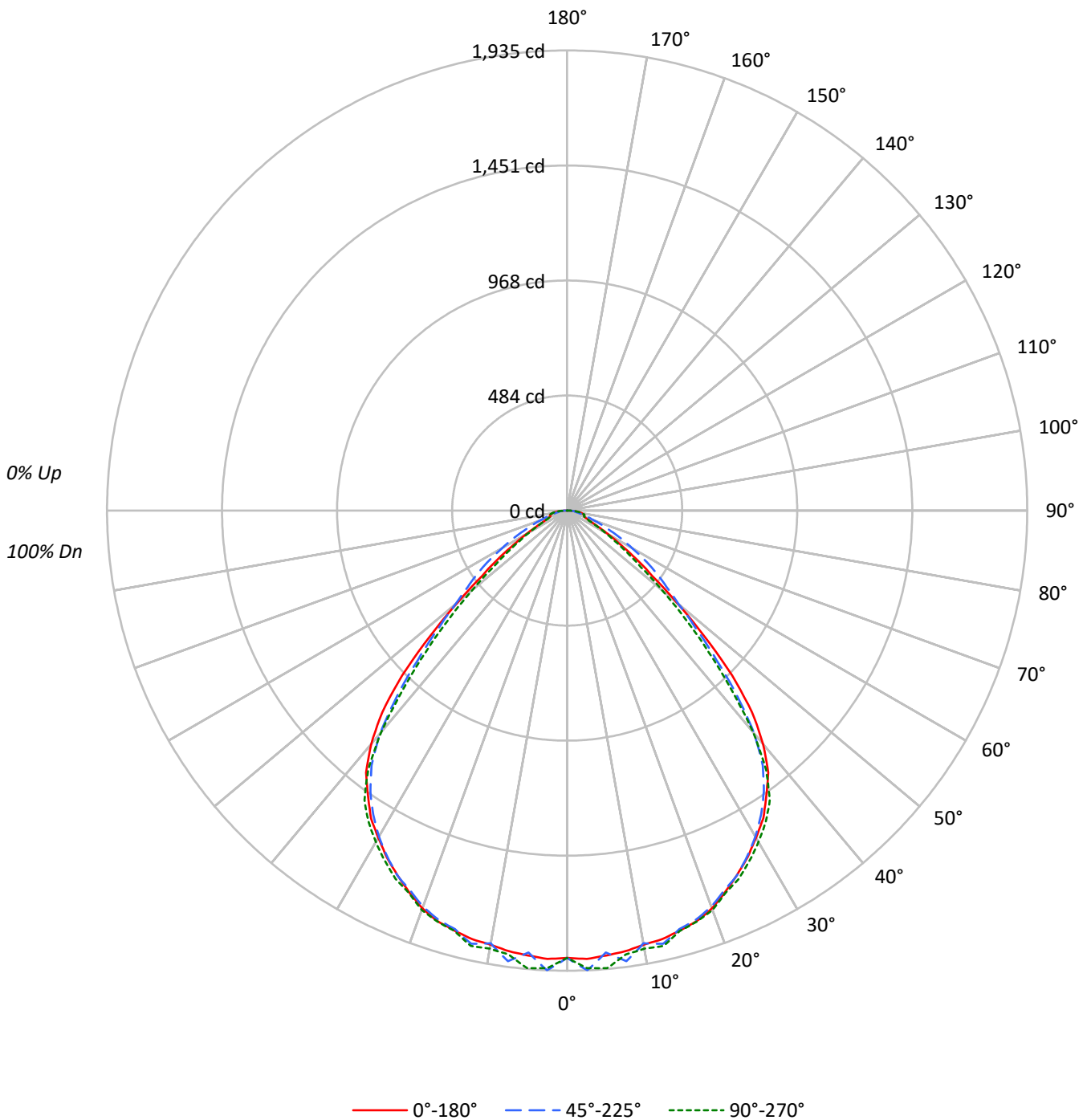
Input Watts (W): 25.854  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2531	2531	2531
5°	2536	2520	2609
10°	2532	2525	2556
15°	2547	2538	2549
20°	2549	2538	2559
25°	2510	2511	2536
30°	2468	2460	2500
35°	2398	2369	2440
40°	2252	2151	2139
45°	1867	1689	1602
50°	1256	1281	1095
55°	828	1075	718
60°	531	848	492
65°	342	648	333
70°	303	464	303
75°	390	369	394
80°	478	317	502
85°	556	471	585



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.1	4.7
10°-20°	517.1	13.6
20°-30°	778.5	20.5
30°-40°	902.4	23.7
40°-50°	704.9	18.5
50°-60°	376.4	9.9
60°-70°	193.6	5.1
70°-80°	109.5	2.9
80°-90°	41.6	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°	1475.7	38.8
0°-40°	2378.1	62.5
0°-60°	3459.4	90.9
0°-90°	3804.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3804.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1881	1881	1881	1881	1881	
5°	1878	1930	1866	1917	1932	179
15°	1828	1840	1822	1834	1830	516
25°	1690	1685	1692	1689	1708	779
35°	1460	1453	1442	1471	1486	910
45°	981	982	888	880	842	739
55°	353	447	458	413	306	326
65°	108	224	203	224	104	118
75°	75	141	71	132	76	76
85°	36	47	30	47	38	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1881.0	1881.0	1881.0	1881.0	1881.0
2.5°	1887.1	1921.3	1934.7	1918.2	1925.6
5°	1877.9	1930.5	1865.7	1917.0	1931.7
7.5°	1869.4	1863.9	1910.9	1862.0	1882.8
10°	1853.5	1857.1	1848.0	1882.8	1870.6
12.5°	1846.1	1867.5	1865.7	1848.0	1874.9
15°	1828.4	1840.0	1822.3	1833.9	1829.7
17.5°	1810.7	1805.2	1803.4	1808.3	1812.5
20°	1780.2	1761.8	1772.8	1774.1	1787.5
22.5°	1736.2	1725.2	1727.6	1738.6	1739.9
25°	1690.4	1684.9	1691.6	1689.1	1708.1
27.5°	1642.7	1635.4	1639.7	1648.8	1660.4
30°	1588.3	1586.5	1583.5	1591.4	1609.1
32.5°	1534.6	1519.9	1517.5	1534.0	1554.1
35°	1460.1	1453.3	1442.3	1471.1	1485.7
37.5°	1389.2	1368.4	1350.7	1367.8	1373.9
40°	1282.3	1266.4	1224.9	1226.7	1218.1
42.5°	1150.9	1139.3	1059.9	1045.9	1022.0
45°	981.1	981.7	887.6	879.7	841.8
47.5°	783.8	818.6	736.7	727.6	671.4
50°	599.9	662.8	612.1	597.5	522.9
52.5°	450.2	542.5	526.6	494.8	392.2
55°	353.1	446.6	458.2	413.0	306.1
57.5°	265.7	367.8	386.7	349.4	236.4
60°	197.3	309.7	315.2	300.6	182.7
62.5°	146.6	263.3	256.0	257.8	135.6
65°	107.5	224.2	203.4	223.6	104.5
67.5°	88.0	194.3	158.2	193.7	84.9
70°	77.0	172.3	117.9	170.4	77.0
72.5°	74.5	158.2	93.5	151.5	75.1
75°	75.1	141.1	70.9	132.0	75.8
77.5°	69.0	116.1	53.8	112.4	72.1
80°	61.7	88.0	40.9	89.2	64.8
82.5°	52.5	64.1	33.0	66.0	54.4
85°	36.0	47.0	30.5	47.0	37.9
87.5°	17.1	28.1	18.9	26.9	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)