

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: P293989

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293989  
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-L82765-W2A1-U-2700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3744.0 lumens  
Efficiency: N/A  
Efficacy: 133.7 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

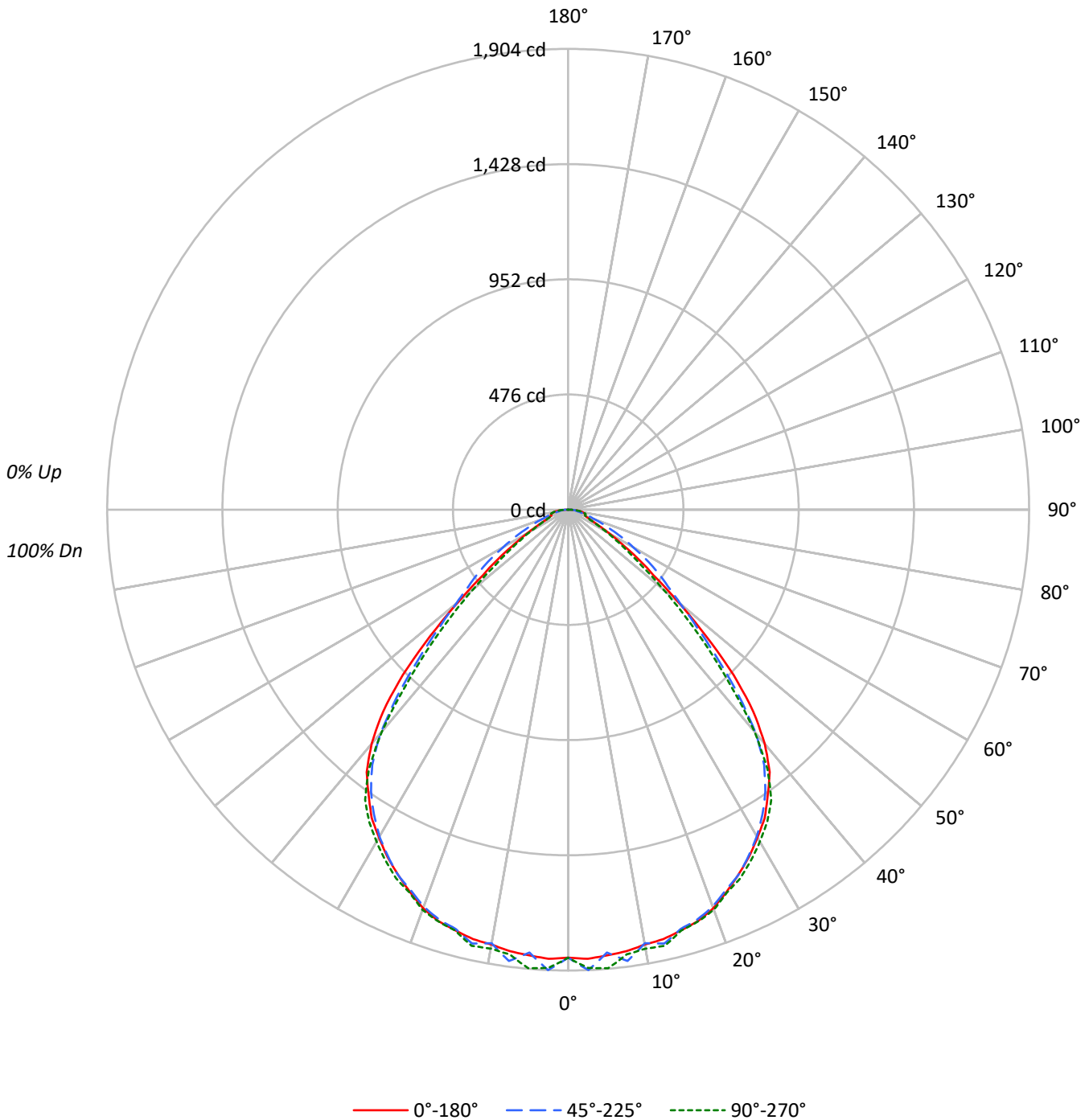
Input Watts (W): 27.993  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2491	2491	2491
5°	2496	2480	2568
10°	2492	2485	2515
15°	2507	2498	2508
20°	2509	2498	2519
25°	2470	2472	2496
30°	2429	2421	2460
35°	2360	2332	2402
40°	2217	2117	2106
45°	1837	1662	1576
50°	1236	1261	1077
55°	815	1058	707
60°	523	835	484
65°	337	637	327
70°	298	456	298
75°	385	362	388
80°	470	312	494
85°	548	465	576



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.3	4.7
10°-20°	509.0	13.6
20°-30°	766.2	20.5
30°-40°	888.1	23.7
40°-50°	693.8	18.5
50°-60°	370.4	9.9
60°-70°	190.5	5.1
70°-80°	107.8	2.9
80°-90°	40.9	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°	1452.5	38.8
0°-40°	2340.6	62.5
0°-60°	3404.8	90.9
0°-90°	3744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3744.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1851	1851	1851	1851	1851	
5°	1848	1900	1836	1887	1901	176
15°	1800	1811	1794	1805	1801	508
25°	1664	1658	1665	1662	1681	767
35°	1437	1430	1420	1448	1462	896
45°	966	966	874	866	828	728
55°	348	440	451	406	301	321
65°	106	221	200	220	103	116
75°	74	139	70	130	75	75
85°	36	46	30	46	37	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1851.3	1851.3	1851.3	1851.3	1851.3
2.5°	1857.3	1891.0	1904.2	1888.0	1895.2
5°	1848.3	1900.0	1836.3	1886.8	1901.2
7.5°	1839.9	1834.5	1880.8	1832.7	1853.1
10°	1824.2	1827.9	1818.8	1853.1	1841.1
12.5°	1817.0	1838.1	1836.3	1818.8	1845.3
15°	1799.6	1811.0	1793.6	1805.0	1800.8
17.5°	1782.2	1776.7	1774.9	1779.7	1784.0
20°	1752.1	1734.1	1744.9	1746.1	1759.3
22.5°	1708.8	1698.0	1700.4	1711.2	1712.4
25°	1663.7	1658.3	1664.9	1662.5	1681.1
27.5°	1616.8	1609.6	1613.8	1622.8	1634.2
30°	1563.3	1561.5	1558.5	1566.3	1583.7
32.5°	1510.4	1496.0	1493.5	1509.8	1529.6
35°	1437.0	1430.4	1419.6	1447.9	1462.3
37.5°	1367.3	1346.8	1329.4	1346.2	1352.2
40°	1262.1	1246.4	1205.5	1207.3	1198.9
42.5°	1132.8	1121.4	1043.2	1029.4	1005.9
45°	965.6	966.2	873.6	865.8	828.5
47.5°	771.4	805.7	725.1	716.1	660.8
50°	590.4	652.4	602.5	588.0	514.7
52.5°	443.1	533.9	518.3	487.0	386.0
55°	347.5	439.5	451.0	406.5	301.2
57.5°	261.6	362.0	380.6	343.9	232.7
60°	194.2	304.8	310.3	295.8	179.8
62.5°	144.3	259.1	251.9	253.7	133.5
65°	105.8	220.7	200.2	220.1	102.8
67.5°	86.6	191.2	155.7	190.6	83.6
70°	75.8	169.6	116.0	167.8	75.8
72.5°	73.4	155.7	92.0	149.1	74.0
75°	74.0	138.9	69.7	129.9	74.6
77.5°	67.9	114.2	52.9	110.6	70.9
80°	60.7	86.6	40.3	87.8	63.7
82.5°	51.7	63.1	32.5	64.9	53.5
85°	35.5	46.3	30.1	46.3	37.3
87.5°	16.8	27.7	18.6	26.5	19.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)