

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: P293928

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293928  
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-L83050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3745.0 lumens  
Efficiency: N/A  
Efficacy: 147.5 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

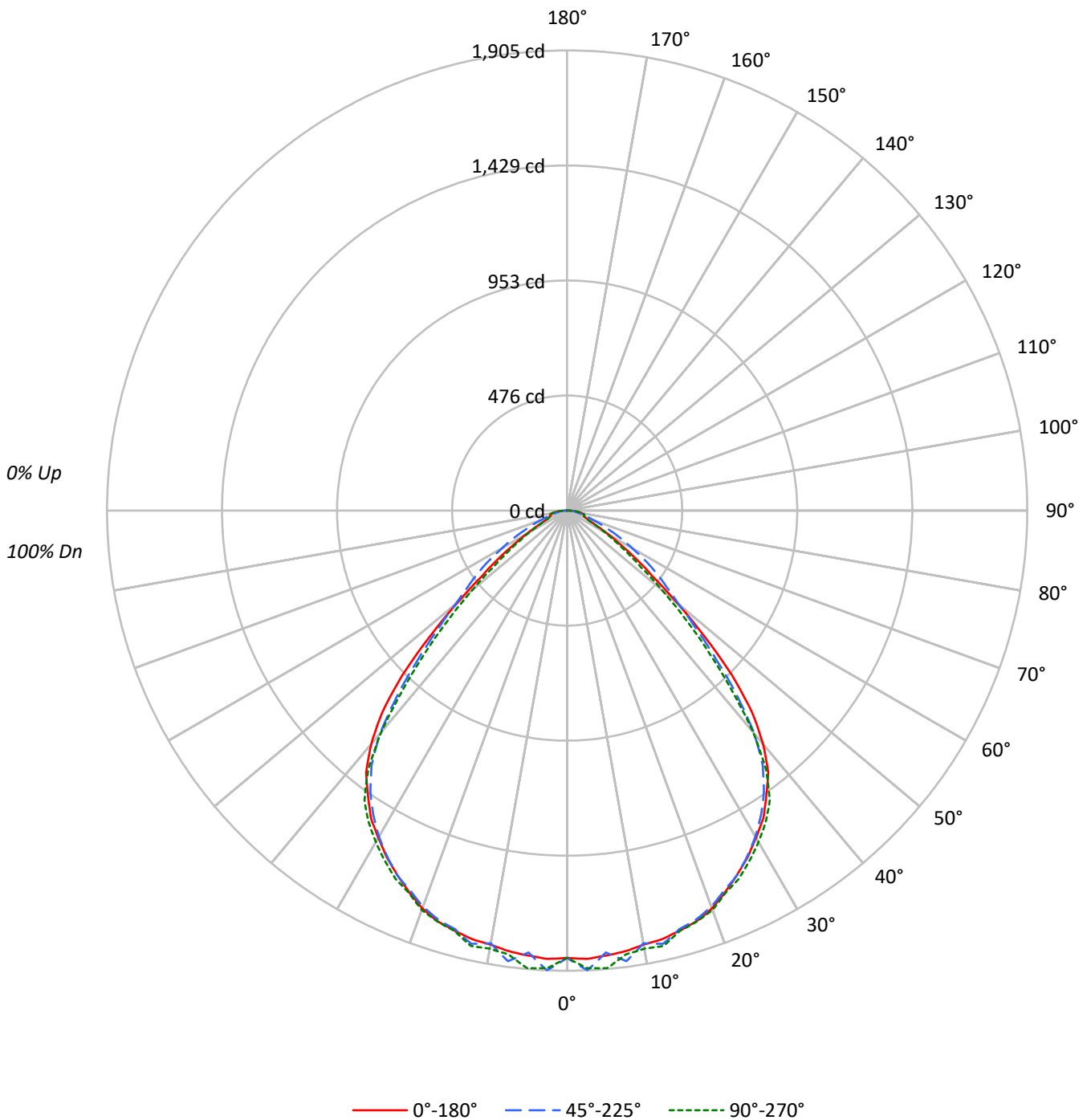
Input Watts (W): 25.389  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2492	2492	2492
5°	2497	2481	2568
10°	2493	2486	2516
15°	2507	2499	2509
20°	2509	2499	2520
25°	2470	2472	2496
30°	2429	2422	2461
35°	2361	2332	2403
40°	2217	2118	2106
45°	1838	1663	1577
50°	1236	1261	1078
55°	815	1058	707
60°	523	835	484
65°	337	638	327
70°	298	457	298
75°	385	363	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°	509.1	13.6
20°-30°	766.4	20.5
30°-40°	888.4	23.7
40°-50°	694.0	18.5
50°-60°	370.5	9.9
60°-70°	190.6	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°	1452.9	38.8
0°-40°	2341.2	62.5
0°-60°	3405.7	90.9
0°-90°	3745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3745.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1852	1852	1852	1852	1852	
5°	1849	1900	1837	1887	1902	176
15°	1800	1812	1794	1806	1801	508
25°	1664	1659	1665	1663	1682	767
35°	1437	1431	1420	1448	1463	896
45°	966	966	874	866	829	728
55°	348	440	451	407	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°	1851.8	1851.8	1851.8	1851.8	1851.8
2.5°	1857.8	1891.5	1904.7	1888.5	1895.7
5°	1848.8	1900.5	1836.8	1887.3	1901.7
7.5°	1840.4	1835.0	1881.3	1833.2	1853.6
10°	1824.7	1828.3	1819.3	1853.6	1841.6
12.5°	1817.5	1838.6	1836.8	1819.3	1845.8
15°	1800.1	1811.5	1794.1	1805.5	1801.3
17.5°	1782.6	1777.2	1775.4	1780.2	1784.4
20°	1752.6	1734.5	1745.3	1746.5	1759.8
22.5°	1709.3	1698.4	1700.8	1711.7	1712.9
25°	1664.1	1658.7	1665.4	1662.9	1681.6
27.5°	1617.2	1610.0	1614.2	1623.3	1634.7
30°	1563.7	1561.9	1558.9	1566.7	1584.2
32.5°	1510.8	1496.4	1493.9	1510.2	1530.0
35°	1437.4	1430.8	1420.0	1448.2	1462.7
37.5°	1367.6	1347.2	1329.8	1346.6	1352.6
40°	1262.4	1246.8	1205.9	1207.7	1199.2
42.5°	1133.1	1121.7	1043.5	1029.6	1006.2
45°	965.9	966.5	873.9	866.1	828.8
47.5°	771.6	805.9	725.3	716.3	661.0
50°	590.6	652.5	602.6	588.2	514.8
52.5°	443.3	534.1	518.4	487.2	386.1
55°	347.6	439.6	451.1	406.6	301.3
57.5°	261.6	362.1	380.7	344.0	232.8
60°	194.3	304.9	310.3	295.9	179.8
62.5°	144.3	259.2	252.0	253.8	133.5
65°	105.9	220.7	200.3	220.1	102.8
67.5°	86.6	191.3	155.8	190.7	83.6
70°	75.8	169.6	116.1	167.8	75.8
72.5°	73.4	155.8	92.0	149.2	74.0
75°	74.0	138.9	69.8	129.9	74.6
77.5°	68.0	114.3	52.9	110.7	71.0
80°	60.7	86.6	40.3	87.8	63.8
82.5°	51.7	63.1	32.5	65.0	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)