

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: P294063

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294063
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-L93050-W2A1-U-3000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3672.0 lumens
Efficiency: N/A
Efficacy: 109.3 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

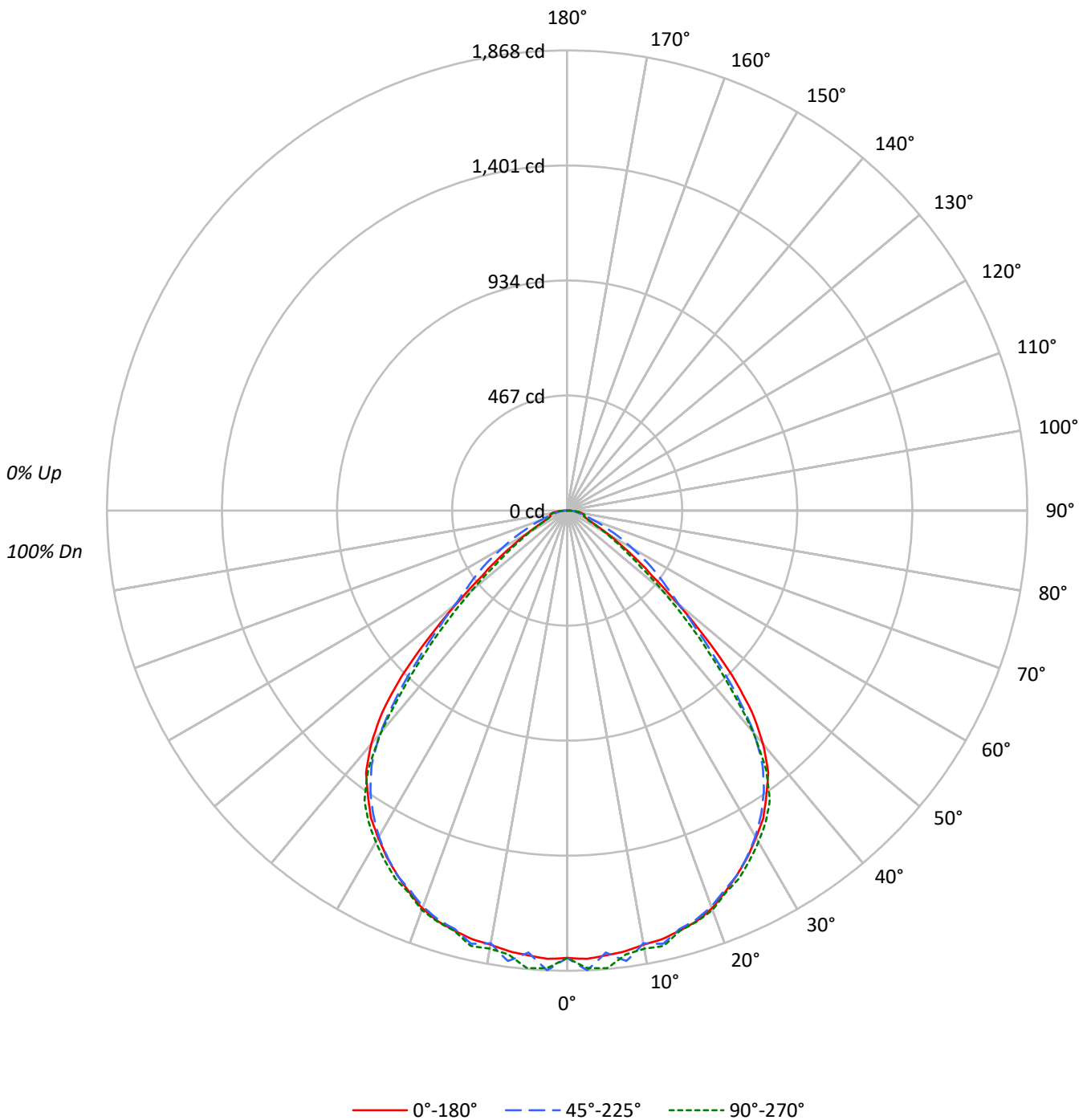
Input Watts (W): 33.584067
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2443	2443	2443
5°	2448	2432	2518
10°	2444	2437	2467
15°	2459	2450	2460
20°	2460	2450	2471
25°	2422	2424	2448
30°	2382	2375	2413
35°	2315	2287	2356
40°	2174	2077	2065
45°	1802	1630	1546
50°	1212	1237	1057
55°	799	1038	693
60°	513	819	474
65°	330	625	321
70°	292	448	292
75°	377	356	380
80°	462	306	484
85°	537	455	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.8	4.7
10°-20°	499.2	13.6
20°-30°	751.5	20.5
30°-40°	871.0	23.7
40°-50°	680.4	18.5
50°-60°	363.3	9.9
60°-70°	186.8	5.1
70°-80°	105.7	2.9
80°-90°	40.1	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°	1424.5	38.8
0°-40°	2295.6	62.5
0°-60°	3339.3	90.9
0°-90°	3672.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3672.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1816	1816	1816	1816	1816	
5°	1813	1864	1801	1850	1865	172
15°	1765	1776	1759	1770	1766	499
25°	1632	1626	1633	1630	1649	752
35°	1409	1403	1392	1420	1434	879
45°	947	948	857	849	813	714
55°	341	431	442	399	295	315
65°	104	216	196	216	101	114
75°	72	136	68	127	73	73
85°	35	45	30	45	37	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1815.7	1815.7	1815.7	1815.7	1815.7
2.5°	1821.6	1854.6	1867.6	1851.7	1858.7
5°	1812.8	1863.5	1801.0	1850.5	1864.6
7.5°	1804.5	1799.2	1844.6	1797.4	1817.5
10°	1789.2	1792.7	1783.9	1817.5	1805.7
12.5°	1782.1	1802.7	1801.0	1783.9	1809.8
15°	1765.0	1776.2	1759.1	1770.3	1766.2
17.5°	1747.9	1742.6	1740.8	1745.5	1749.7
20°	1718.4	1700.7	1711.3	1712.5	1725.5
22.5°	1675.9	1665.3	1667.7	1678.3	1679.5
25°	1631.7	1626.4	1632.9	1630.5	1648.8
27.5°	1585.7	1578.6	1582.8	1591.6	1602.8
30°	1533.2	1531.5	1528.5	1536.2	1553.3
32.5°	1481.3	1467.2	1464.8	1480.7	1500.2
35°	1409.4	1402.9	1392.3	1420.0	1434.2
37.5°	1341.0	1320.9	1303.8	1320.3	1326.2
40°	1237.8	1222.5	1182.4	1184.1	1175.9
42.5°	1111.0	1099.8	1023.1	1009.6	986.6
45°	947.1	947.7	856.8	849.2	812.6
47.5°	756.6	790.2	711.2	702.3	648.1
50°	579.1	639.8	590.9	576.7	504.8
52.5°	434.6	523.7	508.3	477.7	378.6
55°	340.8	431.1	442.3	398.6	295.4
57.5°	256.5	355.0	373.3	337.3	228.2
60°	190.5	299.0	304.3	290.1	176.3
62.5°	141.5	254.2	247.1	248.9	130.9
65°	103.8	216.4	196.4	215.8	100.8
67.5°	84.9	187.5	152.7	186.9	82.0
70°	74.3	166.3	113.8	164.5	74.3
72.5°	71.9	152.7	90.2	146.2	72.5
75°	72.5	136.2	68.4	127.4	73.1
77.5°	66.6	112.0	51.9	108.5	69.6
80°	59.6	84.9	39.5	86.1	62.5
82.5°	50.7	61.9	31.8	63.7	52.5
85°	34.8	45.4	29.5	45.4	36.6
87.5°	16.5	27.1	18.3	25.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)