

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: P294319

Luminaire Tested: **24GR-LD5-48-FGW080-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294319  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-48-FGW080-UNV-L93050-W2A1-U-5000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3949.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

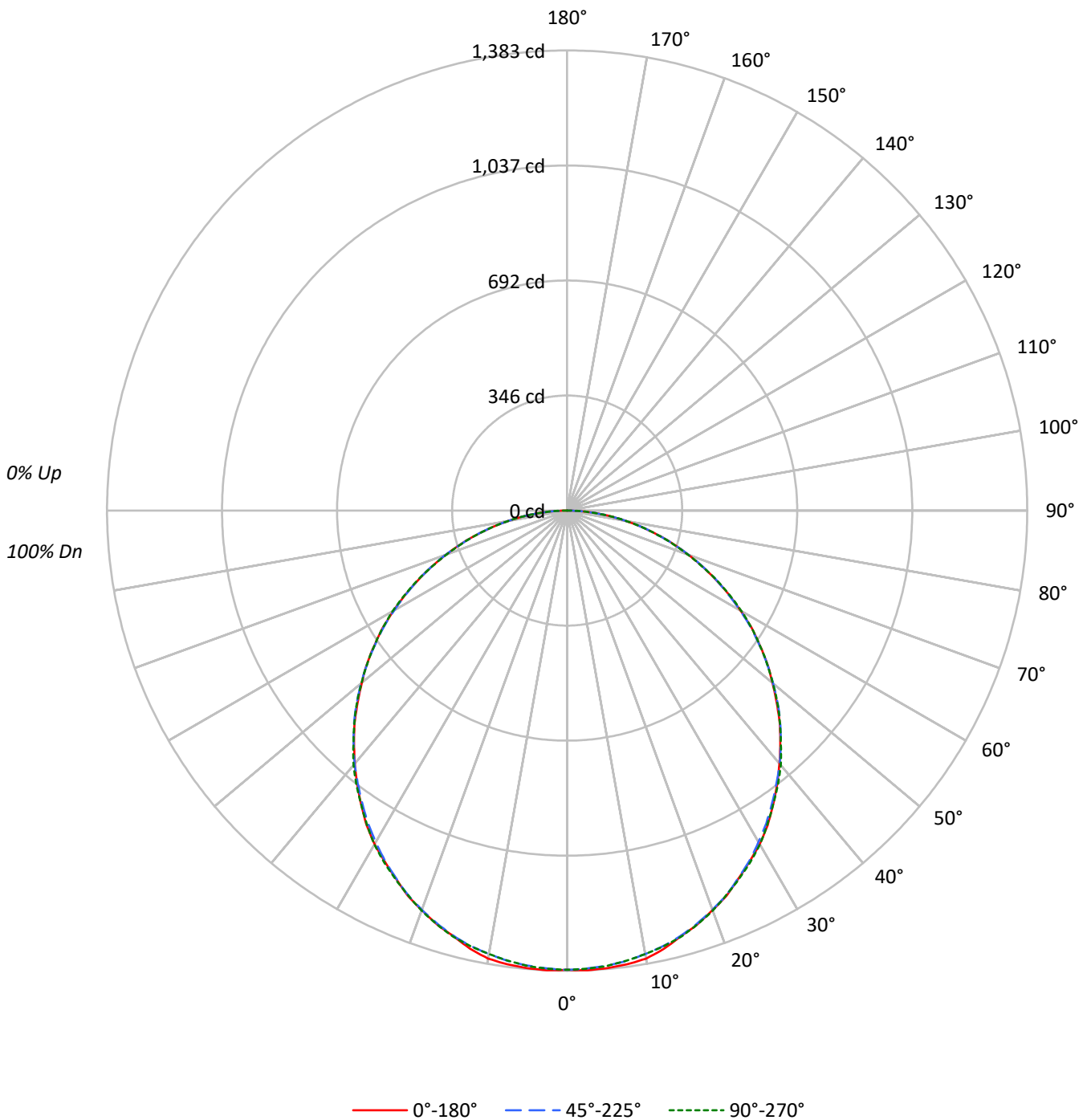
Input Watts (W): 34.207818  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1857	1857	1857
5°	1864	1854	1855
10°	1868	1849	1849
15°	1843	1842	1846
20°	1830	1828	1832
25°	1810	1809	1814
30°	1798	1787	1800
35°	1773	1764	1773
40°	1744	1745	1755
45°	1719	1724	1721
50°	1686	1692	1688
55°	1660	1656	1660
60°	1622	1616	1632
65°	1571	1578	1583
70°	1520	1528	1517
75°	1467	1467	1467
80°	1385	1385	1400
85°	1280	1294	1250



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.5	3.3
10°-20°	373.1	9.4
20°-30°	562.2	14.2
30°-40°	673.4	17.1
40°-50°	697.1	17.7
50°-60°	632.0	16.0
60°-70°	490.0	12.4
70°-80°	298.0	7.5
80°-90°	92.7	2.3
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°	1065.8	27.0
0°-40°	1739.2	44.0
0°-60°	3068.3	77.7
0°-90°	3949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3949.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1380	1372	1373	1371	1374	131
15°	1323	1324	1322	1318	1325	374
25°	1219	1219	1218	1222	1222	563
35°	1079	1072	1074	1078	1079	675
45°	903	905	906	902	904	696
55°	708	704	706	709	708	633
65°	494	496	496	494	497	490
75°	282	281	282	281	282	298
85°	83	82	84	83	81	93
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1380.2	1380.2	1380.2	1380.2	1380.2
2.5°	1383.0	1377.4	1377.4	1375.6	1378.4
5°	1380.2	1371.8	1372.8	1370.9	1373.7
7.5°	1375.6	1364.4	1365.3	1363.5	1364.4
10°	1367.2	1354.1	1353.2	1352.3	1353.2
12.5°	1348.6	1341.1	1340.2	1338.3	1341.1
15°	1323.4	1324.3	1322.5	1317.8	1325.3
17.5°	1303.9	1302.9	1301.1	1296.4	1303.9
20°	1277.8	1278.7	1276.8	1275.0	1279.6
22.5°	1252.6	1249.8	1250.8	1249.8	1250.8
25°	1219.1	1219.1	1218.2	1221.9	1221.9
27.5°	1188.4	1184.6	1186.5	1190.2	1192.1
30°	1157.6	1148.3	1150.2	1153.9	1158.6
32.5°	1121.3	1112.0	1113.9	1117.6	1119.5
35°	1079.4	1072.0	1073.8	1078.5	1079.4
37.5°	1036.6	1031.9	1033.8	1037.5	1040.3
40°	992.8	990.9	993.7	992.8	999.3
42.5°	948.1	947.2	949.9	949.9	950.9
45°	903.4	905.2	906.2	902.5	904.3
47.5°	854.0	855.0	858.7	856.8	857.7
50°	805.6	804.7	808.4	809.3	806.5
52.5°	759.0	754.4	758.1	760.0	758.1
55°	707.8	704.1	705.9	708.7	707.8
57.5°	657.5	653.8	654.7	659.4	657.5
60°	602.6	601.6	600.7	604.4	606.3
62.5°	548.5	547.6	545.8	549.5	551.3
65°	493.6	496.4	495.5	493.6	497.3
67.5°	441.4	444.2	441.4	439.6	439.6
70°	386.5	389.3	388.4	386.5	385.6
72.5°	335.3	335.3	333.4	332.5	333.4
75°	282.2	281.3	282.2	281.3	282.2
77.5°	230.0	231.0	231.0	231.0	230.0
80°	178.8	178.8	178.8	179.7	180.7
82.5°	131.3	128.5	131.3	129.5	130.4
85°	82.9	82.0	83.8	82.9	81.0
87.5°	37.3	38.2	38.2	39.1	39.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)