

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: P294181

Luminaire Tested: **24GR-LD5-38-FGW080-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294181  
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-LD5-38-FGW080-UNV-L83050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3523.0 lumens  
Efficiency: N/A  
Efficacy: 135.8 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

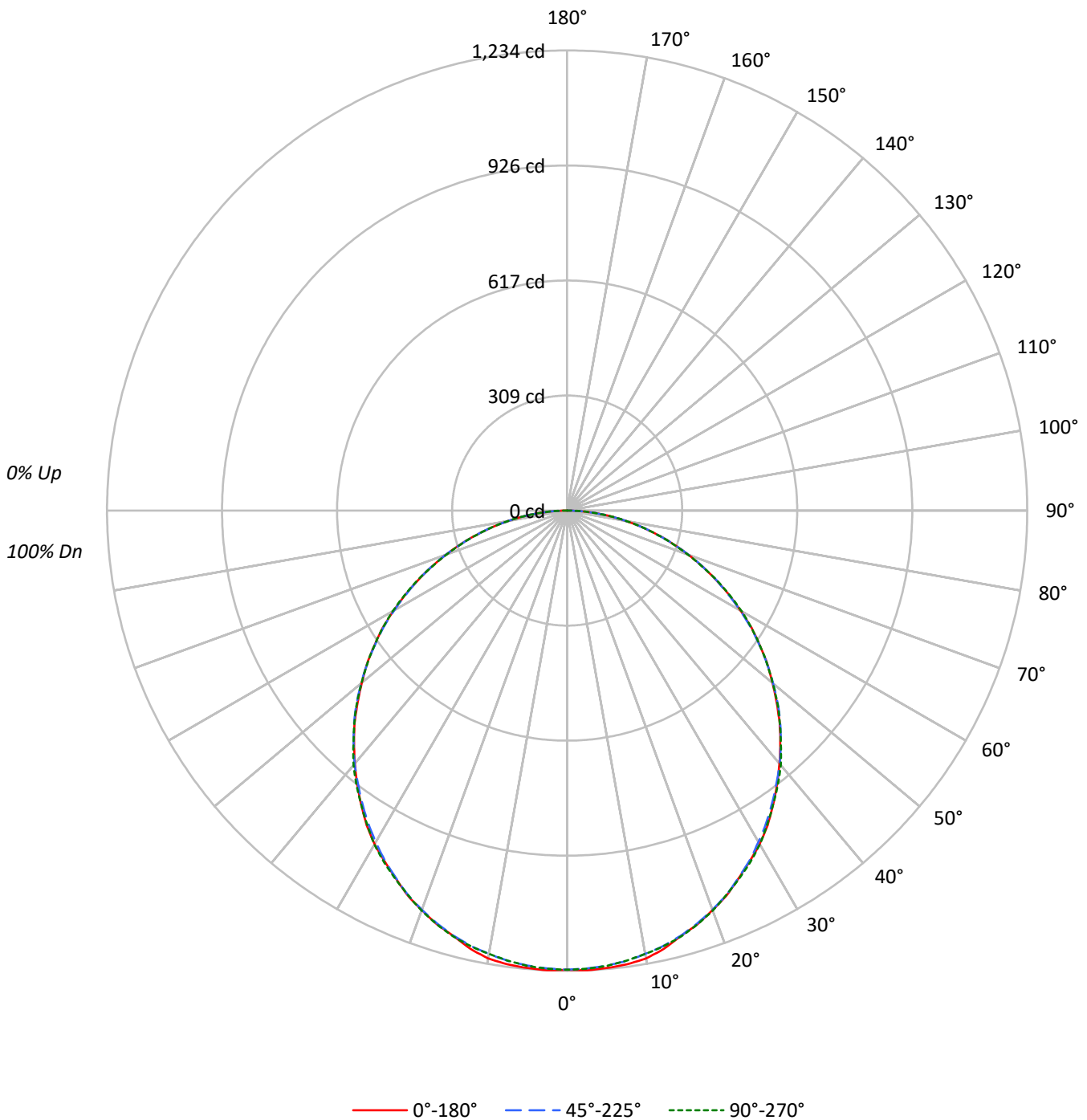
Input Watts (W): 25.947  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	1657	1657	1657
5°	1663	1654	1655
10°	1666	1649	1649
15°	1645	1643	1647
20°	1632	1631	1635
25°	1615	1613	1618
30°	1605	1594	1606
35°	1582	1574	1582
40°	1556	1557	1566
45°	1533	1538	1535
50°	1504	1510	1506
55°	1481	1477	1481
60°	1447	1442	1456
65°	1402	1407	1413
70°	1356	1363	1353
75°	1308	1308	1308
80°	1236	1236	1249
85°	1141	1155	1116



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.4	3.3
10°-20°	332.8	9.4
20°-30°	501.6	14.2
30°-40°	600.8	17.1
40°-50°	621.9	17.7
50°-60°	563.9	16.0
60°-70°	437.1	12.4
70°-80°	265.8	7.5
80°-90°	82.7	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°	950.8	27.0
0°-40°	1551.6	44.0
0°-60°	2737.3	77.7
0°-90°	3523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3523.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1231	1224	1225	1223	1226	117
15°	1181	1182	1180	1176	1182	334
25°	1088	1088	1087	1090	1090	502
35°	963	956	958	962	963	602
45°	806	808	808	805	807	621
55°	632	628	630	632	632	564
65°	440	443	442	440	444	437
75°	252	251	252	251	252	266
85°	74	73	75	74	72	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1231.3	1231.3	1231.3	1231.3	1231.3
2.5°	1233.8	1228.8	1228.8	1227.2	1229.7
5°	1231.3	1223.9	1224.7	1223.0	1225.5
7.5°	1227.2	1217.2	1218.0	1216.4	1217.2
10°	1219.7	1208.1	1207.2	1206.4	1207.2
12.5°	1203.1	1196.4	1195.6	1193.9	1196.4
15°	1180.6	1181.5	1179.8	1175.7	1182.3
17.5°	1163.2	1162.4	1160.7	1156.6	1163.2
20°	1139.9	1140.8	1139.1	1137.4	1141.6
22.5°	1117.5	1115.0	1115.8	1115.0	1115.8
25°	1087.6	1087.6	1086.8	1090.1	1090.1
27.5°	1060.2	1056.8	1058.5	1061.8	1063.5
30°	1032.8	1024.4	1026.1	1029.4	1033.6
32.5°	1000.4	992.0	993.7	997.0	998.7
35°	963.0	956.3	958.0	962.1	963.0
37.5°	924.7	920.6	922.3	925.6	928.1
40°	885.7	884.0	886.5	885.7	891.5
42.5°	845.8	845.0	847.5	847.5	848.3
45°	805.9	807.6	808.4	805.1	806.8
47.5°	761.9	762.7	766.0	764.4	765.2
50°	718.7	717.9	721.2	722.0	719.5
52.5°	677.1	673.0	676.3	678.0	676.3
55°	631.5	628.1	629.8	632.3	631.5
57.5°	586.6	583.3	584.1	588.2	586.6
60°	537.6	536.7	535.9	539.2	540.9
62.5°	489.4	488.5	486.9	490.2	491.9
65°	440.4	442.8	442.0	440.4	443.7
67.5°	393.8	396.3	393.8	392.2	392.2
70°	344.8	347.3	346.5	344.8	344.0
72.5°	299.1	299.1	297.4	296.6	297.4
75°	251.7	250.9	251.7	250.9	251.7
77.5°	205.2	206.1	206.1	206.1	205.2
80°	159.5	159.5	159.5	160.4	161.2
82.5°	117.2	114.7	117.2	115.5	116.3
85°	73.9	73.1	74.8	73.9	72.3
87.5°	33.2	34.1	34.1	34.9	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)