

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: P293045

Luminaire Tested: **24GR-LD5-38-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293045  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-38-F1-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2994.0 lumens  
Efficiency: N/A  
Efficacy: 115.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

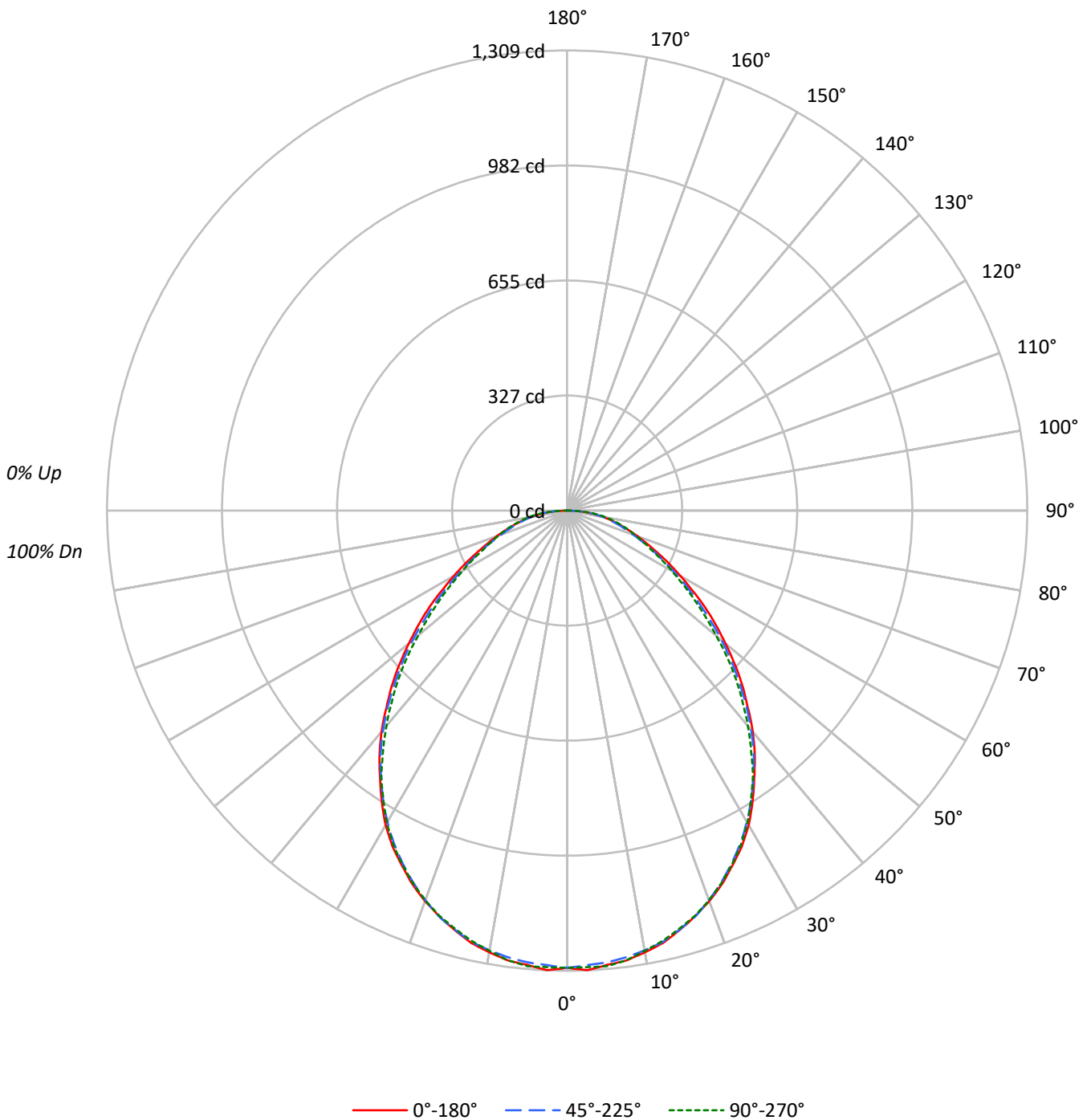
Input Watts (W): 25.972947  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28

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

	0°	45°	90°
0°	1750	1750	1750
5°	1752	1742	1757
10°	1743	1736	1737
15°	1721	1719	1715
20°	1692	1689	1689
25°	1653	1644	1647
30°	1605	1589	1594
35°	1525	1517	1513
40°	1444	1431	1406
45°	1342	1318	1293
50°	1229	1202	1157
55°	1123	1072	1036
60°	1001	952	927
65°	900	853	841
70°	836	785	816
75°	800	764	828
80°	799	799	885
85°	829	838	934



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.8	4.1
10°-20°	347.6	11.6
20°-30°	510.1	17.0
30°-40°	576.7	19.3
40°-50°	533.0	17.8
50°-60°	410.7	13.7
60°-70°	271.9	9.1
70°-80°	161.9	5.4
80°-90°	59.3	2.0
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°	980.5	32.7
0°-40°	1557.2	52.0
0°-60°	2500.9	83.5
0°-90°	2994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2994.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1300	1300	1300	1300	1300	
5°	1297	1297	1290	1291	1301	123
15°	1236	1233	1234	1234	1231	348
25°	1113	1110	1107	1106	1110	513
35°	928	927	924	920	921	581
45°	705	700	693	680	679	543
55°	479	469	457	445	442	427
65°	283	278	268	266	264	284
75°	154	150	147	154	159	164
85°	54	51	54	60	60	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1300.5	1300.5	1300.5	1300.5	1300.5
2.5°	1308.6	1301.8	1294.3	1294.3	1299.9
5°	1297.4	1297.4	1290.0	1290.6	1301.1
7.5°	1290.6	1286.9	1282.0	1282.0	1290.0
10°	1275.8	1272.7	1270.3	1269.0	1271.5
12.5°	1259.8	1254.8	1256.7	1254.8	1254.2
15°	1235.7	1233.2	1234.4	1233.8	1231.4
17.5°	1209.7	1208.5	1211.0	1206.7	1208.5
20°	1182.0	1178.3	1179.5	1177.0	1179.5
22.5°	1150.5	1148.0	1144.9	1141.8	1146.8
25°	1113.4	1110.3	1107.2	1106.0	1109.7
27.5°	1076.4	1071.4	1067.1	1065.9	1071.4
30°	1033.1	1027.6	1022.6	1021.4	1025.7
32.5°	981.9	980.6	974.5	972.0	973.8
35°	928.2	926.9	923.8	919.5	921.4
37.5°	876.9	876.3	872.0	864.5	859.6
40°	821.9	817.6	814.5	804.0	800.3
42.5°	761.4	760.2	754.6	742.9	738.6
45°	705.2	700.3	692.9	680.5	679.3
47.5°	647.2	640.4	633.6	618.1	617.5
50°	587.3	582.3	574.3	558.9	552.7
52.5°	531.7	524.9	513.8	499.0	495.9
55°	478.6	468.7	457.0	444.6	441.5
57.5°	421.8	417.5	403.2	393.4	389.7
60°	371.8	368.0	353.8	344.6	344.6
62.5°	326.7	321.1	308.8	302.6	302.6
65°	282.8	278.5	268.0	265.5	264.3
67.5°	245.2	239.6	232.2	231.6	234.7
70°	212.4	205.6	199.5	205.6	207.5
72.5°	181.6	177.2	171.7	179.7	183.4
75°	153.8	150.1	147.0	153.8	159.3
77.5°	128.4	124.7	124.7	132.2	137.1
80°	103.1	100.7	103.1	109.3	114.2
82.5°	79.0	77.2	80.3	86.5	89.5
85°	53.7	50.6	54.3	59.9	60.5
87.5°	25.3	24.7	27.2	30.9	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)