

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: P293047

Luminaire Tested: **24GR-LD5-38-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293047  
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-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3532.0 lumens  
Efficiency: N/A  
Efficacy: 135.6 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

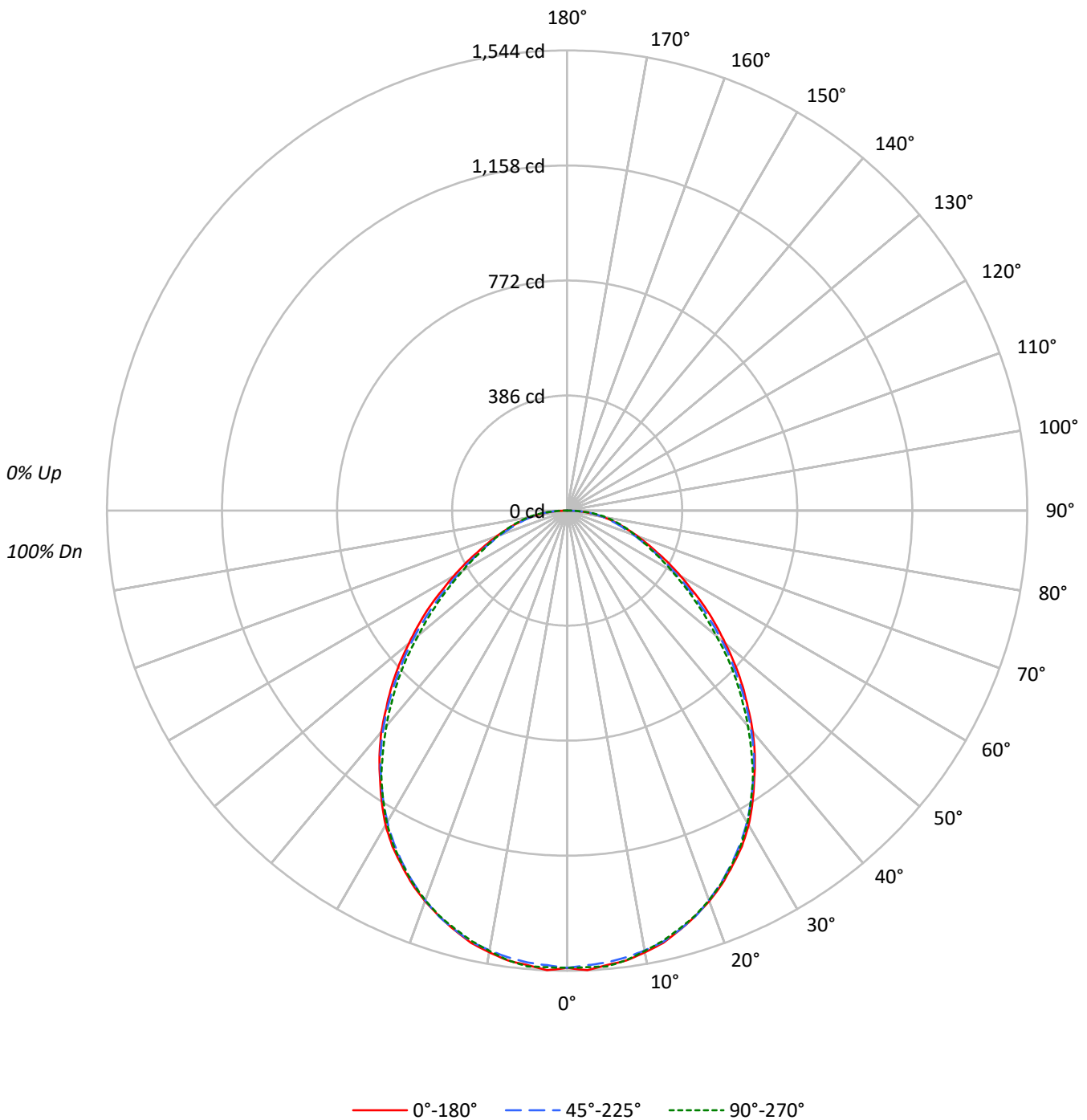
Input Watts (W): 26.049114  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2064	2064	2064
5°	2067	2055	2073
10°	2056	2047	2049
15°	2031	2029	2023
20°	1996	1992	1992
25°	1950	1939	1943
30°	1894	1874	1880
35°	1798	1790	1785
40°	1703	1688	1658
45°	1583	1555	1525
50°	1450	1418	1365
55°	1324	1265	1222
60°	1180	1123	1094
65°	1062	1007	993
70°	986	926	963
75°	943	901	977
80°	943	943	1044
85°	979	990	1102



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.9	4.1
10°-20°	410.0	11.6
20°-30°	601.8	17.0
30°-40°	680.3	19.3
40°-50°	628.8	17.8
50°-60°	484.5	13.7
60°-70°	320.8	9.1
70°-80°	191.0	5.4
80°-90°	70.0	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°	1156.7	32.7
0°-40°	1837.0	52.0
0°-60°	2950.3	83.5
0°-90°	3532.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3532.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1531	1531	1522	1523	1535	145
15°	1458	1455	1456	1456	1453	411
25°	1314	1310	1306	1305	1309	605
35°	1095	1094	1090	1085	1087	685
45°	832	826	817	803	801	641
55°	565	553	539	524	521	504
65°	334	329	316	313	312	335
75°	181	177	173	181	188	193
85°	63	60	64	71	71	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1534.2	1534.2	1534.2	1534.2	1534.2
2.5°	1543.7	1535.7	1526.9	1526.9	1533.5
5°	1530.6	1530.6	1521.8	1522.6	1534.9
7.5°	1522.6	1518.2	1512.4	1512.4	1521.8
10°	1505.1	1501.4	1498.5	1497.1	1500.0
12.5°	1486.1	1480.3	1482.5	1480.3	1479.6
15°	1457.7	1454.8	1456.3	1455.5	1452.6
17.5°	1427.1	1425.7	1428.6	1423.5	1425.7
20°	1394.3	1390.0	1391.4	1388.5	1391.4
22.5°	1357.2	1354.3	1350.6	1347.0	1352.8
25°	1313.5	1309.8	1306.2	1304.7	1309.1
27.5°	1269.8	1263.9	1258.8	1257.4	1263.9
30°	1218.8	1212.2	1206.4	1204.9	1210.0
32.5°	1158.3	1156.9	1149.6	1146.7	1148.8
35°	1094.9	1093.5	1089.8	1084.7	1086.9
37.5°	1034.5	1033.7	1028.6	1019.9	1014.1
40°	969.6	964.5	960.9	948.5	944.1
42.5°	898.2	896.8	890.2	876.4	871.3
45°	831.9	826.1	817.4	802.8	801.3
47.5°	763.5	755.5	747.4	729.2	728.5
50°	692.8	687.0	677.5	659.3	652.0
52.5°	627.2	619.2	606.1	588.6	585.0
55°	564.6	552.9	539.1	524.5	520.9
57.5°	497.6	492.5	475.7	464.1	459.7
60°	438.6	434.2	417.4	406.5	406.5
62.5°	385.4	378.8	364.2	357.0	357.0
65°	333.7	328.6	316.2	313.3	311.8
67.5°	289.2	282.7	273.9	273.2	276.8
70°	250.6	242.6	235.3	242.6	244.8
72.5°	214.2	209.1	202.5	212.0	216.4
75°	181.4	177.0	173.4	181.4	188.0
77.5°	151.5	147.2	147.2	155.9	161.7
80°	121.7	118.7	121.7	128.9	134.8
82.5°	93.2	91.1	94.7	102.0	105.6
85°	63.4	59.7	64.1	70.7	71.4
87.5°	29.9	29.1	32.1	36.4	35.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)