

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: P293117

Luminaire Tested: **24GR-LD5-48-F1-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293117  
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-LD5-48-F1-UNV-L92765-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: 3951.0 lumens  
Efficiency: N/A  
Efficacy: 121.4 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

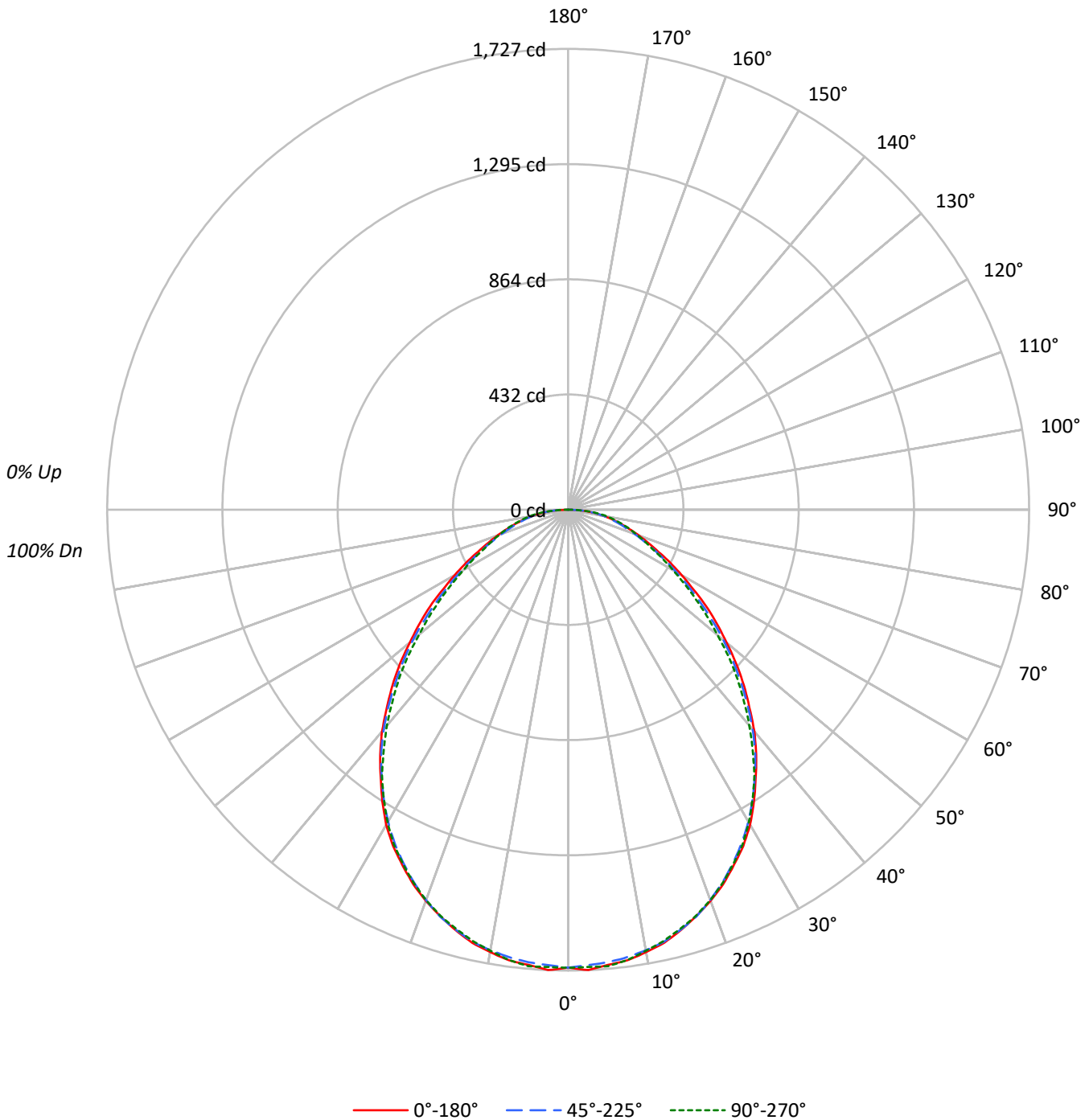
Input Watts (W): 32.55  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2309	2309	2309
5°	2312	2299	2319
10°	2300	2290	2292
15°	2271	2269	2263
20°	2233	2229	2229
25°	2181	2169	2174
30°	2118	2097	2103
35°	2012	2002	1997
40°	1905	1888	1855
45°	1771	1740	1706
50°	1622	1586	1527
55°	1482	1415	1367
60°	1320	1256	1224
65°	1188	1126	1110
70°	1103	1035	1077
75°	1055	1009	1093
80°	1055	1055	1168
85°	1095	1107	1233



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.1	4.1
10°-20°	458.7	11.6
20°-30°	673.2	17.0
30°-40°	761.1	19.3
40°-50°	703.4	17.8
50°-60°	541.9	13.7
60°-70°	358.9	9.1
70°-80°	213.6	5.4
80°-90°	78.2	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°	1293.9	32.7
0°-40°	2055.0	52.0
0°-60°	3300.3	83.5
0°-90°	3951.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3951.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1712	1712	1702	1703	1717	163
15°	1631	1627	1629	1628	1625	460
25°	1469	1465	1461	1460	1464	677
35°	1225	1223	1219	1213	1216	766
45°	931	924	914	898	896	717
55°	632	618	603	587	583	563
65°	373	368	354	350	349	374
75°	203	198	194	203	210	216
85°	71	67	72	79	80	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1716.2	1716.2	1716.2	1716.2	1716.2
2.5°	1726.8	1717.9	1708.1	1708.1	1715.4
5°	1712.1	1712.1	1702.4	1703.2	1717.0
7.5°	1703.2	1698.3	1691.8	1691.8	1702.4
10°	1683.6	1679.5	1676.3	1674.7	1677.9
12.5°	1662.4	1655.9	1658.4	1655.9	1655.1
15°	1630.7	1627.4	1629.0	1628.2	1624.9
17.5°	1596.4	1594.8	1598.1	1592.4	1594.8
20°	1559.8	1554.9	1556.5	1553.2	1556.5
22.5°	1518.2	1514.9	1510.9	1506.8	1513.3
25°	1469.3	1465.2	1461.2	1459.5	1464.4
27.5°	1420.4	1413.9	1408.2	1406.6	1413.9
30°	1363.4	1356.0	1349.5	1347.9	1353.6
32.5°	1295.7	1294.1	1285.9	1282.7	1285.1
35°	1224.8	1223.2	1219.1	1213.4	1215.9
37.5°	1157.2	1156.4	1150.7	1140.9	1134.4
40°	1084.7	1079.0	1074.9	1061.0	1056.1
42.5°	1004.8	1003.2	995.8	980.3	974.6
45°	930.6	924.1	914.3	898.0	896.4
47.5°	854.0	845.1	836.1	815.7	814.9
50°	775.0	768.5	757.9	737.5	729.4
52.5°	701.6	692.7	678.0	658.5	654.4
55°	631.6	618.5	603.0	586.7	582.7
57.5°	556.6	550.9	532.1	519.1	514.2
60°	490.6	485.7	466.9	454.7	454.7
62.5°	431.1	423.8	407.5	399.3	399.3
65°	373.2	367.5	353.7	350.4	348.8
67.5°	323.5	316.2	306.4	305.6	309.7
70°	280.3	271.4	263.2	271.4	273.8
72.5°	239.6	233.9	226.5	237.1	242.0
75°	202.9	198.0	194.0	202.9	210.2
77.5°	169.5	164.6	164.6	174.4	180.9
80°	136.1	132.8	136.1	144.2	150.8
82.5°	104.3	101.9	105.9	114.1	118.2
85°	70.9	66.8	71.7	79.0	79.9
87.5°	33.4	32.6	35.9	40.7	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)