

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: P291857

Luminaire Tested: **22GR-LD5-40-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291857  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-F1-UNV-L93050-W2A1-U-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3466.0 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

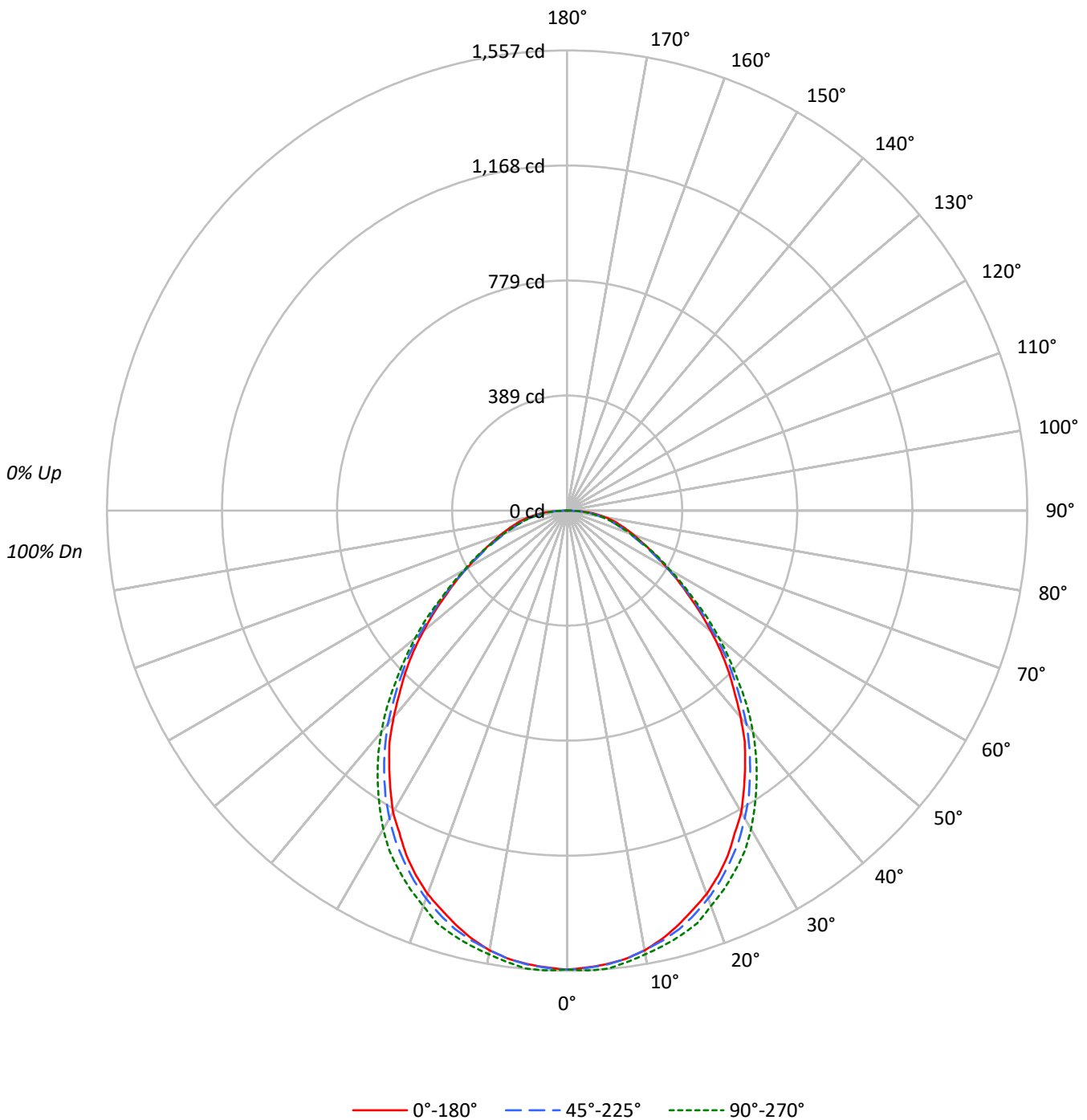
Input Watts (W): 33.015  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P291857

CATALOG NUMBER: 22GR-LD5-40-F1-UNV-L93050-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P291857

CATALOG NUMBER: 22GR-LD5-40-F1-UNV-L93050-W2A1-U-3500K

**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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

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

	0°	45°	90°
0°	4180	4180	4180
5°	4161	4165	4204
10°	4129	4127	4166
15°	4045	4085	4145
20°	3953	3999	4076
25°	3822	3884	3992
30°	3661	3735	3866
35°	3447	3546	3672
40°	3208	3317	3437
45°	2945	3030	3124
50°	2656	2723	2810
55°	2357	2413	2454
60°	2112	2117	2159
65°	1947	1881	1947
70°	1879	1741	1792
75°	1912	1705	1738
80°	2060	1788	1788
85°	2285	1893	1868



TEST NUMBER: P291857

CATALOG NUMBER: 22GR-LD5-40-F1-UNV-L93050-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.5	4.2
10°-20°	413.3	11.9
20°-30°	603.1	17.4
30°-40°	675.3	19.5
40°-50°	614.5	17.7
50°-60°	462.5	13.3
60°-70°	301.8	8.7
70°-80°	181.0	5.2
80°-90°	67.9	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°	1162.9	33.6
0°-40°	1838.1	53.0
0°-60°	2915.2	84.1
0°-90°	3466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3466.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1540	1538	1542	1548	1556	146
15°	1452	1454	1466	1478	1488	409
25°	1287	1291	1308	1332	1345	591
35°	1049	1059	1080	1105	1118	656
45°	774	782	796	813	821	596
55°	502	510	514	521	523	454
65°	306	302	295	300	306	306
75°	184	178	164	165	167	195
85°	74	72	61	58	60	76
90°	0	0	0	0	0	



TEST NUMBER: P291857

CATALOG NUMBER: 22GR-LD5-40-F1-UNV-L93050-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1553.2	1553.2	1553.2	1553.2	1553.2
2.5°	1547.6	1546.8	1549.2	1553.2	1557.2
5°	1540.5	1538.1	1542.0	1547.6	1556.4
7.5°	1529.3	1529.3	1529.3	1539.7	1541.2
10°	1511.0	1512.6	1510.2	1520.5	1524.5
12.5°	1484.7	1485.5	1490.3	1500.6	1507.8
15°	1452.1	1453.7	1466.4	1478.4	1487.9
17.5°	1415.5	1421.0	1433.0	1452.1	1464.0
20°	1380.4	1386.8	1396.4	1417.1	1423.4
22.5°	1335.9	1343.0	1355.0	1373.3	1386.8
25°	1287.3	1291.3	1308.0	1331.9	1344.6
27.5°	1229.2	1237.9	1258.6	1283.3	1300.8
30°	1178.2	1183.0	1202.1	1230.8	1244.3
32.5°	1113.7	1128.1	1144.0	1169.5	1182.2
35°	1049.3	1058.8	1079.5	1105.0	1117.7
37.5°	987.2	992.7	1013.4	1034.9	1050.9
40°	913.1	923.5	944.2	967.3	978.4
42.5°	839.1	854.2	867.7	890.8	902.8
45°	773.8	781.8	796.1	812.8	820.8
47.5°	705.3	709.3	726.0	736.4	745.1
50°	634.5	639.3	650.4	660.8	671.1
52.5°	569.2	573.2	580.4	589.9	600.3
55°	502.3	509.5	514.3	521.4	523.0
57.5°	448.2	447.4	450.6	456.2	461.7
60°	392.5	394.1	393.3	398.8	401.2
62.5°	346.3	345.5	340.7	348.7	355.1
65°	305.7	302.5	295.4	300.1	305.7
67.5°	268.3	266.7	254.8	258.7	263.5
70°	238.8	233.3	221.3	223.7	227.7
72.5°	210.2	203.8	191.9	192.7	195.0
75°	183.9	177.5	164.0	164.8	167.2
77.5°	159.2	151.3	139.3	137.7	139.3
80°	132.9	125.8	115.4	110.7	115.4
82.5°	105.9	101.9	90.0	85.2	86.8
85°	74.0	71.6	61.3	58.1	60.5
87.5°	34.2	36.6	31.0	28.7	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)